

2023 AWARD OF EXCELLENCE
A4LE SOUTHERN CALIFORNIA CHAPTER

CARDIFF SCHOOL

Cardiff by the Sea, California



EXECUTIVE SUMMARY

With its picturesque setting and expansive views over the Pacific Ocean, the Cardiff School community yearned for a campus that would better harness ocean views and breezes and maximize outdoor learning space. Located on an iconic coastal site adjacent to San Elijo State Beach, the modernization of this grade K-2 campus included the renovation of two existing buildings and construction of seven new one-story buildings gently terracing down the hillside. Other improvements included new play areas, outdoor learning courtyards, new parking lot and drop-off, an outdoor assembly area, and a lunch shelter.

Using the concept of a breakwater, the perimeter buildings utilize a neutral exterior along the street, punctuated with large dormer windows that bring natural daylight into the classrooms and conceal mechanical units from view. On the interior of campus, buildings are painted in the bright blue hues of the ocean, creating a cheerfulness and energy reflective of the students.

The new campus plan sought to improve circulation flow, security and supervision. Care was taken to alleviate neighborhood traffic by elongating the parking and drop-off area, which served to pull queuing cars onto campus and off adjacent residential streets. The multi-purpose room was repositioned to the front of the school, where it has direct access to parking and the joint use open space for events. Strategically located adjacent to the hard court and playfields, an ample lunch area is shaded by a dynamic canopy with exposed structure and serves as a central gathering space for students.

The architectural design for Cardiff School aimed to create a modern and functional learning environment that fosters creativity, collaboration, and student well-being. The layout prioritizes safety and security and incorporates flexible, learning spaces that adapt to various teaching methods and future needs. Sustainability and wellness is a core focus, with energy-efficient systems, plentiful natural daylighting and inspiring outdoor learning spaces enhancing the eco-friendliness of the campus. The District and the entire design and construction team shared a commitment to providing an optimal educational experience for students, families and staff of Cardiff and we delivered.



SCOPE OF WORK

The modernization of the campus includes:

- Demolition of five 1-story buildings and removal of eight portable classrooms
- New construction of seven 1-story wood-framed classroom buildings, food service and a multipurpose building
- Complete renovation of a two classroom wing of an existing building
- Minor renovations to the existing administration, library & computer lab building and specialty classroom building
- Site improvements to passenger loading zones, parking, accessible paths of travel and stormwater treatment
- Reconstruction of existing hard courts, renovated sports fields, playgrounds and play equipment, planting, hardscape, lunch court, perimeter fencing / gates and an outdoor assembly area

PROJECT DETAILS

OWNER: Cardiff School District

LOCATION: Cardiff by the Sea, California

TYPE OF PROJECT: Renovation / Major Campus Modernization of K-2 elementary school

STUDENT CAPACITY: 260

OF CLASSROOMS: 20 general + 5 kinder + 2 extended day

EXISTING BUILDING AREA: 40,045 square feet

PROPOSED BUILDING AREA: 49,092 square feet

SITE AREA: 7.4 acres

COST: \$25.3 million

COMPLETION: 2021 (MAJORITY OF CAMPUS)
2023 (MULTIPURPOSE BUILDING)



SCHOOL & COMMUNITY ENGAGEMENT

"Cardiff School District is a wonderful place for kids to learn. Our amazing staff, actively involved parents and supportive community members work together to provide a high quality education and beautiful facilities for our children. We are very proud of our outstanding schools!"

Jill Vinson, District Superintendent



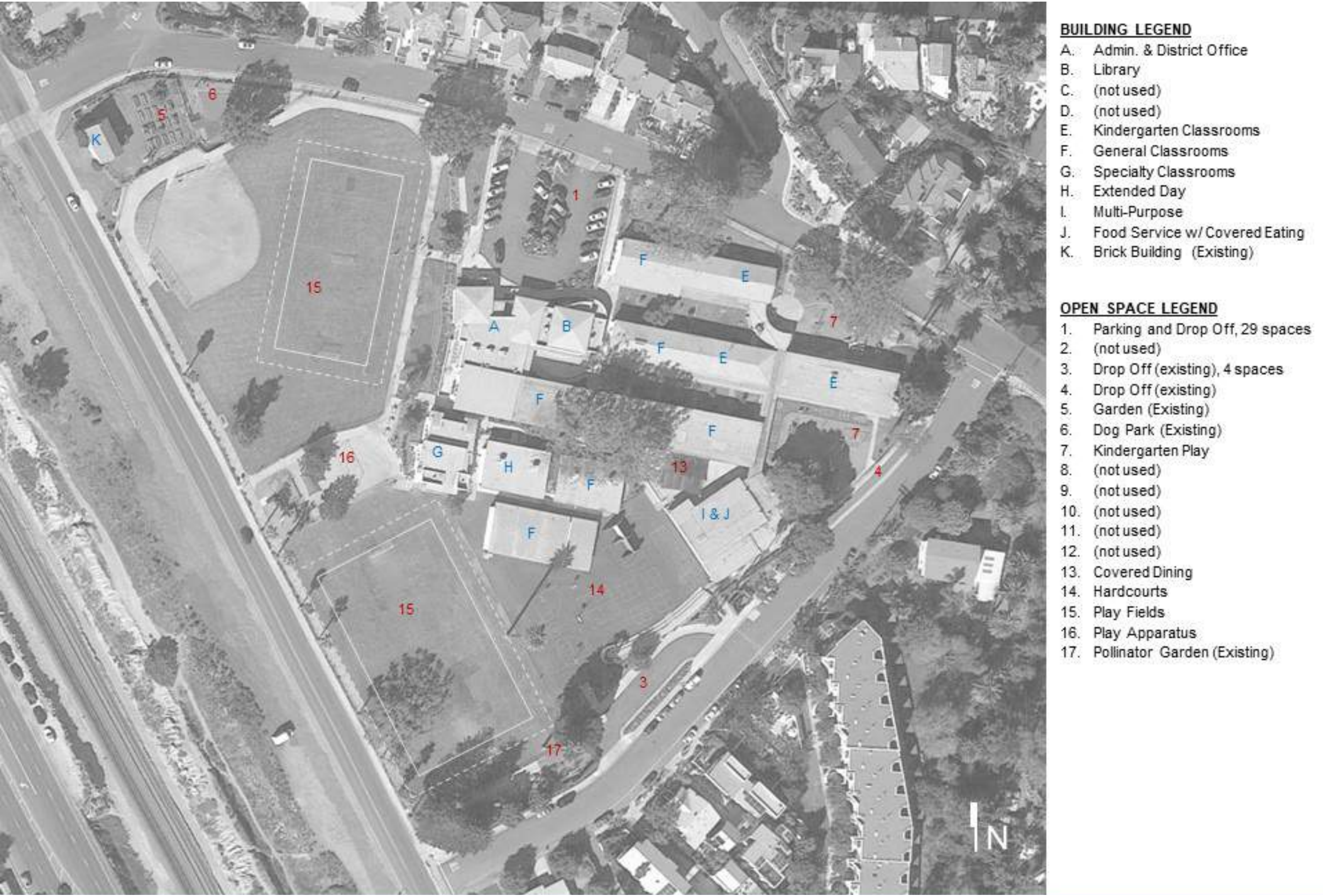
SCHOOL & COMMUNITY ENGAGEMENT

ABOUT THE SCHOOL

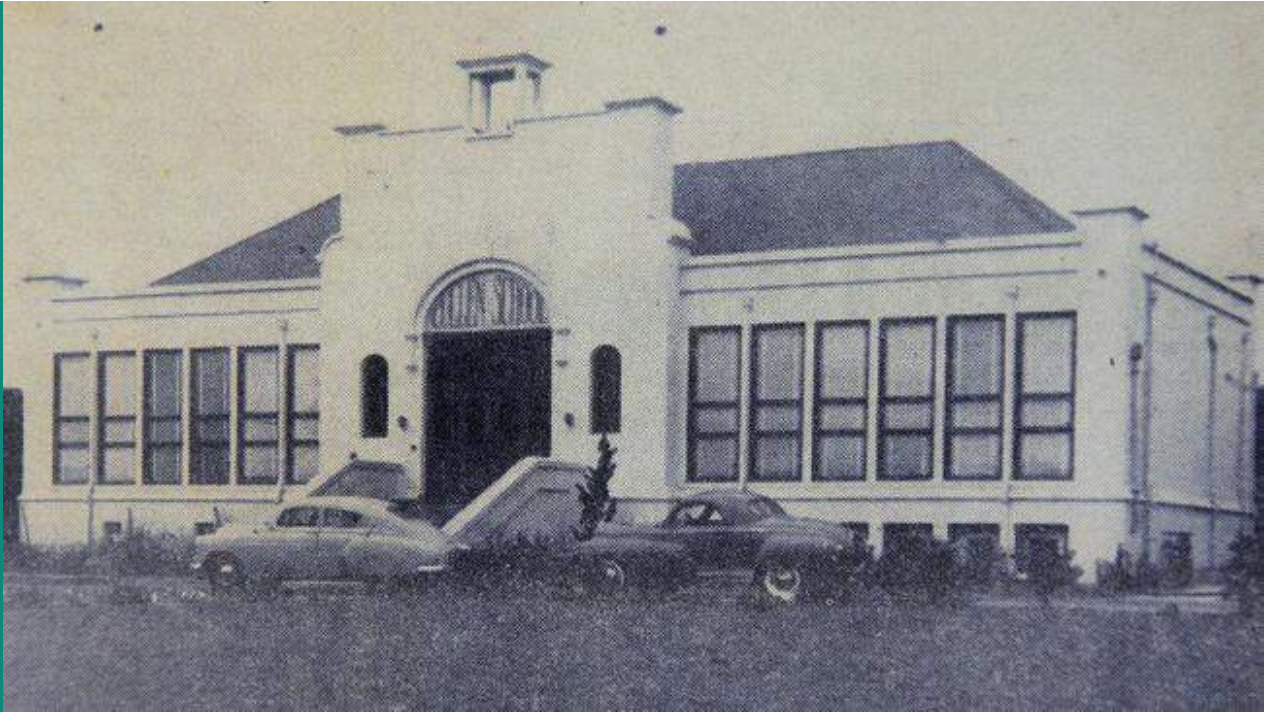
The Cardiff School District is a small coastal school district made up of approximately 700 students in kindergarten through six grade. It was established in 1913 when there was one school called the Cullen School, which served kindergarten through 8th grade. Today, Cardiff School district is split into two schools: Cardiff School for kindergarten through 2nd grade and Ada Harris School for 3rd through 6th grade.

Cardiff School is located on a 7.4 acre coastal site in the beach community of Cardiff-by-the-Sea, California. The western side of the site is open space reserved for outdoor recreational use by both the school and the community. The existing school buildings cluster on the eastern side of the site. Many of the existing classroom buildings, dating back to the 1950’s were completely outdated and connected with exterior circulation that was not direct, not fully accessible and created campus security concerns. In 2000 the first major modernization occurred to add a new building housing the library, administration and computer lab and a new art and science specialty building. Improvements to accessible paths of travel also took place at that time. The existing 1950’s classrooms were supplemented by 3 portable buildings that had been in place since the 1990s.

Measure GG, a \$22 million bond, was endorsed by the San Diego Taxpayers’ Association and approved by 65.9 percent of Cardiff voters in 2016 for the primary purpose of rebuilding Cardiff School.



- EXISTING CAMPUS ISSUES
- Overall Campus Security & Safety
 - Aging Classroom Buildings & Portables
 - Inadequate Student Pick Up & Safety Concerns
 - Kindergarten Supervision Concerns
 - Inadequate Auditorium & Poor Location
 - Extended Day Poor Location & Not Secure
 - Fields Separated by Play Apparatus
 - Field Area Supervision Concerns & Lack of Use



The original Cullen School, 1913



Ringin the Cullen Bell

The Cullen Bell, weighing 250 pounds, was cast in 1828 in steel and purchased for the school by a school board trustee in 1924 for \$20 from a wrecked train engine in Santa Ana. When the campus was rebuilt in 1950 and the named changed from the Cullen School to Cardiff School, the original design did not include a belfry for the school bell. The town of Cardiff was upset about the loss of the historic bell and eventually the school board authorized a belfry to be added at the entrance to the bungalow style school building. The bell is no longer used to signal the beginning of each school day, but when in use it was an honor and a privilege to be able to tug on the rope and clang the clapper of the auspicious bell.

SCHOOL & COMMUNITY ENGAGEMENT

THE PROCESS

The design team engaged with community members, parents, students and staff through a series of collaborative design and visioning workshops over a 6 month conceptual design period. These workshops helped to form an early consensus within the school community about the objectives for the project and how they could be fulfilled through the design. Staff provided input via an online survey and interviews. Students contributed their ideas for the outdoor and playground areas via an activity based workshop conducted by the design team and teachers. The design team held bi-weekly meetings with the Bond Implementation Team (BIT), ensuring continuous stakeholder involvement and feedback through the schematic design and design development phases. An iterative design process was established to continually refine and enhance the design through cycles of design, evaluation, testing, and re-evaluation. With each iteration and feedback received, the design team explored new possibilities, adapted the design to changing needs, and responded to emerging ideas, ultimately crafting a design that is efficient, aesthetically pleasing, and strongly aligned with the intended purpose and user input.

The engagement process asked participants to consider what was special about this specific school in this specific community. The design team's objective was to tune the design of the school specifically to the context and the community. Some of the responses are shown below.

From the community responses and the staff surveys we created word clouds showing what participants felt were the character of the existing school and what the proposed school should feel like. The incorporation of the historic Cullen Bell, “The Cardiff Way” motto and the assembly steps were important aspects of the final design that were important to the staff and the community.



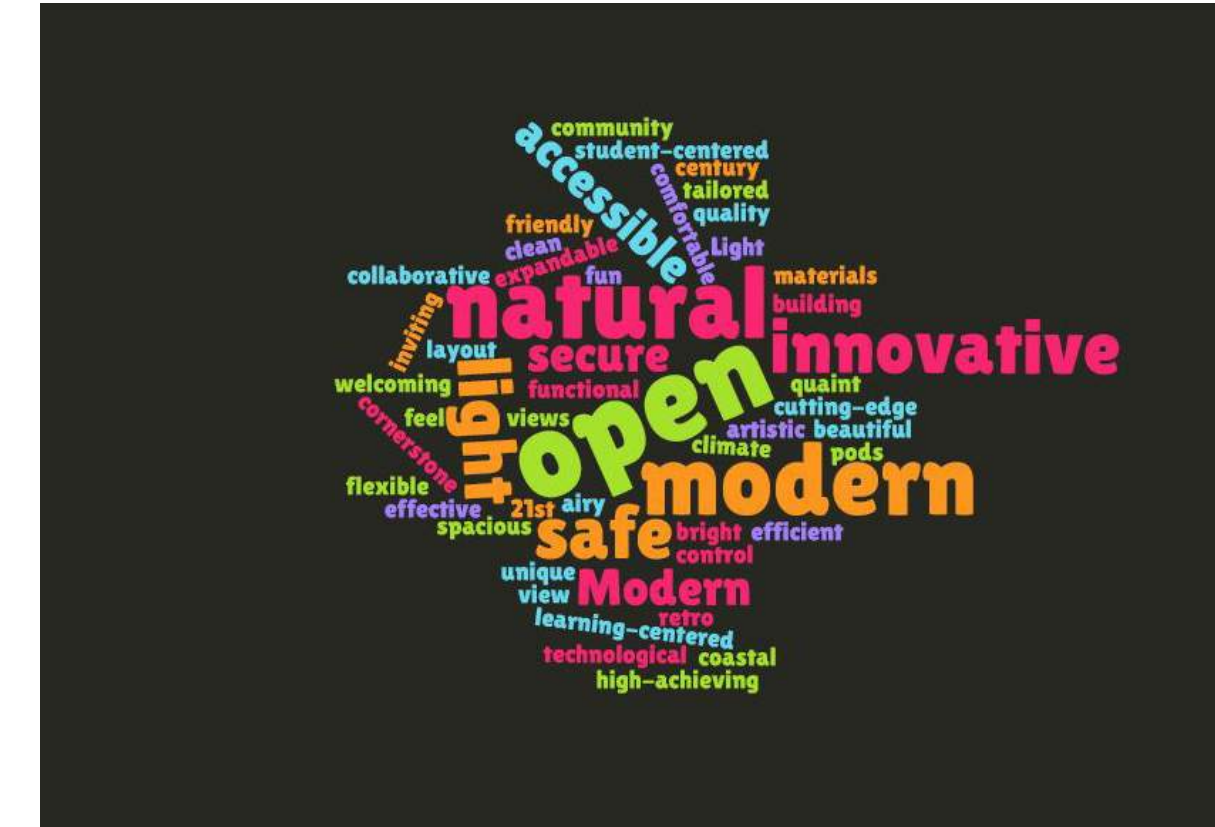
Existing assembly steps



Cardiff School teacher and former student Christa Stone, Principal Julie Parker, Superintendent Jill Vinson and Cardiff School Board President Siena Randall, also a former Cardiff student and parent

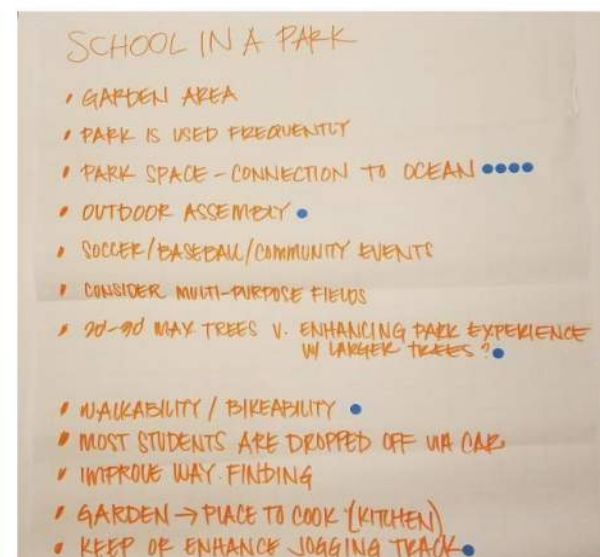


Word cloud for existing campus



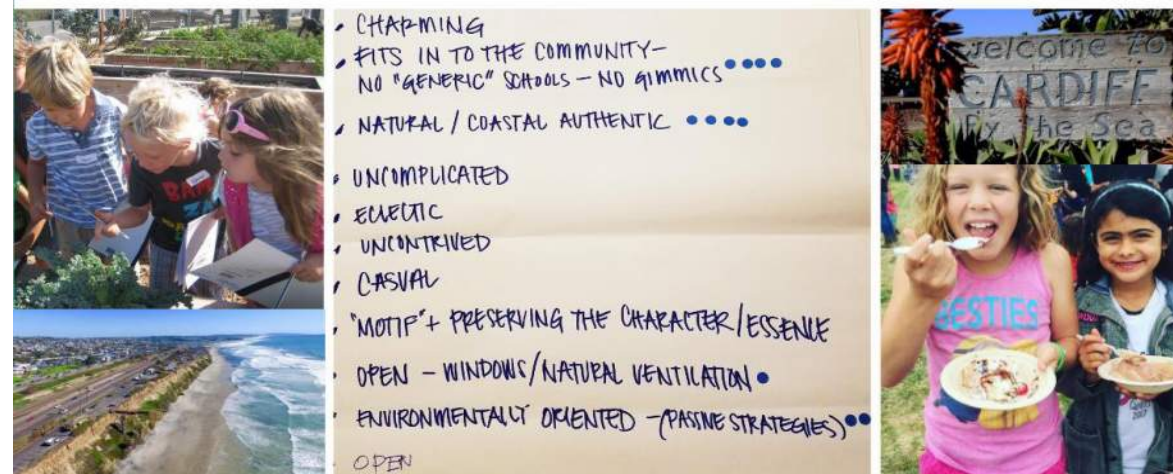
Word cloud for desired campus

What does it mean...



Community Input

The Cardiff School is...



Community Input

Board Workshop #3 – Community Feedback



Community Input

Board Workshop #3 – Community Feedback



Community Input

SCHOOL & COMMUNITY ENGAGEMENT

CHALLENGES

At moments during the community engagement process it was necessary to find solutions to mitigate the neighbors concerns about the location of some of the buildings that were perceived to be blocking ocean views and reducing grass field areas. We looked for ways to minimize impacts by:

- Depressing buildings into the site
- Keeping the building scale small
- Clustering the building forms
- Creating generous open space between buildings

The images to the right show the refinement of the site plan based on the community feedback.

PRINCIPLES

Based on input gathered through the school and community engagement process, a clear set of goals and priorities for the project emerged. The set of design principles to the right were developed from this process and both informed the overall design intent and served as a beacon for the design team and District staff throughout the process. Given the resulting design solution and feedback from users, it is clear that stakeholder input directly influenced and impacted the outcome, especially with regard to space maximization, prioritization of outdoor learning spaces, functionality and sustainability of the campus, and supporting the educational curriculum.



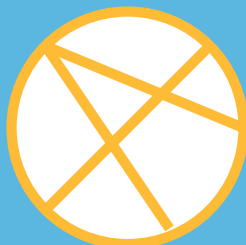
Design Principles



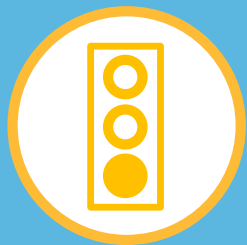
Connect the school to the community: put active uses at the edges



Prioritize green space and views



Make a memorable and friendly open space network that ties the school together



Improve safety for drop-off and traffic flow



Make a front door: create a welcoming presence and a sense of arrival



Provide ample play space



Create a safe and secure environment



Emphasize sustainability and environmentally focused design



Fit the school to Cardiff; its neighborhood, its coastal location, its vibe



Prioritize learning spaces. Create usable outdoor learning environments

EDUCATIONAL ENVIRONMENT

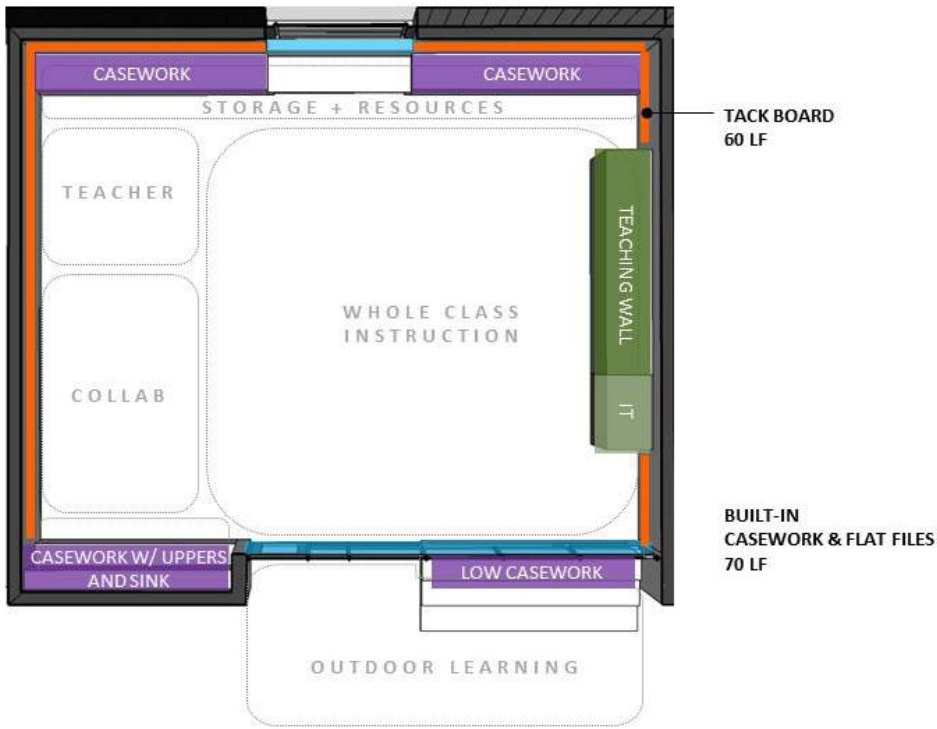


EDUCATIONAL ENVIRONMENT

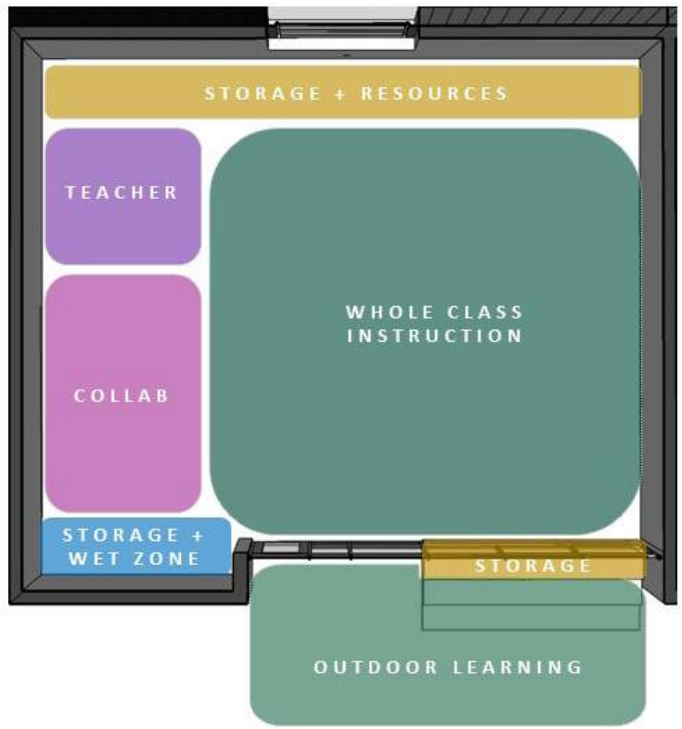
Cardiff School’s vision was to modernization and reconstruction of the site to facilitate a safe and secure campus that better aligns with the current instructional program which is focused on the youngest learners in grades K-2. The proposed project would address the most critical physical needs of the buildings and grounds at the campus but would also enhance the educational curriculum and teaching methods.

The proposed design maintains the school classroom buildings in the eastern portion of the campus. The kindergarten classrooms are located in the most protected area of the campus and are set at a lower elevation from the surrounding streets and screened with fencing and planting. The dedicated kindergarten play area is secured from the rest of the campus by a low fence and surrounded by the five kindergarten classrooms with their outdoor learning patios. This dedicated open space is adjacent to the drop off and parking area via a secured gate, allowing parents to easily walk their young students directly to their classroom.

Cardiff School’s educational environment was designed to support a variety of learning and teaching styles. The classrooms are flexible spaces allowing teachers to set up their teaching space in their own way. The classrooms are zoned as shown in the diagrams below. The modern classrooms include LED lighting, a highly energy efficient HVAC system, abundant daylight and natural cross ventilation due to windows located on both sides of the room. To maximize the District’s construction budget and meet sustainable goals, existing casework and teaching walls that were part of the previous modernization in 2000 were removed from the buildings to be demolished, stored and re-installed in the new classrooms. Flexible furniture, mobile AV equipment, writable magnetic surfaces and tackable surfaces on walls, allow the space to evolve throughout the day as fits the needs of the teachers and the curriculum.



CLASSROOM - WALLS



CLASSROOM - ZONING



Typical classroom before



Typical classroom after



KINDERGARTEN COURTYARD

EDUCATIONAL ENVIRONMENT

The design principles listed on page 7 were derived from the District’s primary goals for the modernized campus that they reiterated throughout the process:

- Create a safe and secure environment
- Improve traffic flow and safety for pick-up and drop-off
- Emphasize sustainability and environmentally focused design
- Prioritize learning spaces and create usable outdoor learning environments

The last goal stated above was one that was critical to achieve. The District was adamant, including during a value engineering process, that the design should maximize opportunities for students to learn beyond the classroom and take advantage of the natural environment of the school. The school already had an established school gardening program and sought to expand this part of the curriculum in a way that would inspire exploration and discovery.

Given Southern California’s mild climate, there is a tradition of schools with exterior primary circulation and the original Cardiff School fit that model. As part of the new design the circulation pathways were transformed into learning courtyards. Existing classrooms did not have a dedicated outdoor work area. Providing this “front porch” to every classroom was a critical part of the new design.

OUTDOOR LEARNING ENVIRONMENT

The new design emphasizes the relationship between the outdoor physical environment and the students, with its nature-based settings, such as the natural boulders and logs for play, pollinator garden, citrus orchard, discovery gardens, bioswales, and grass berms for students to roll down. Outdoor learning spaces of various scales are provided throughout the campus. Each classroom opens up to a dedicated patio with work tables. The courtyards between the classrooms provide intimate areas for students to gather and can function as an outdoor version of a pull-out space to work one on one with a teacher. Larger class-sized gathering spaces are distributed throughout the campus. Finally the hard courts, grass fields and assembly steps and plaza adjacent to the multipurpose building offer spaces for the entire school to gather.

Students feel connected to the physical environment and the context of the school and its micro-environment, whether observing how water drains to the bioswales, picking citrus from trees in the courtyards, observing the native wildlife and plantings or working in the raised beds in the school garden.



Outdoor classroom gathering space



Outdoor work area adjacent to classroom



Lunch shelter with hard court and play area beyond



Outdoor learning space

PHYSICAL ENVIRONMENT

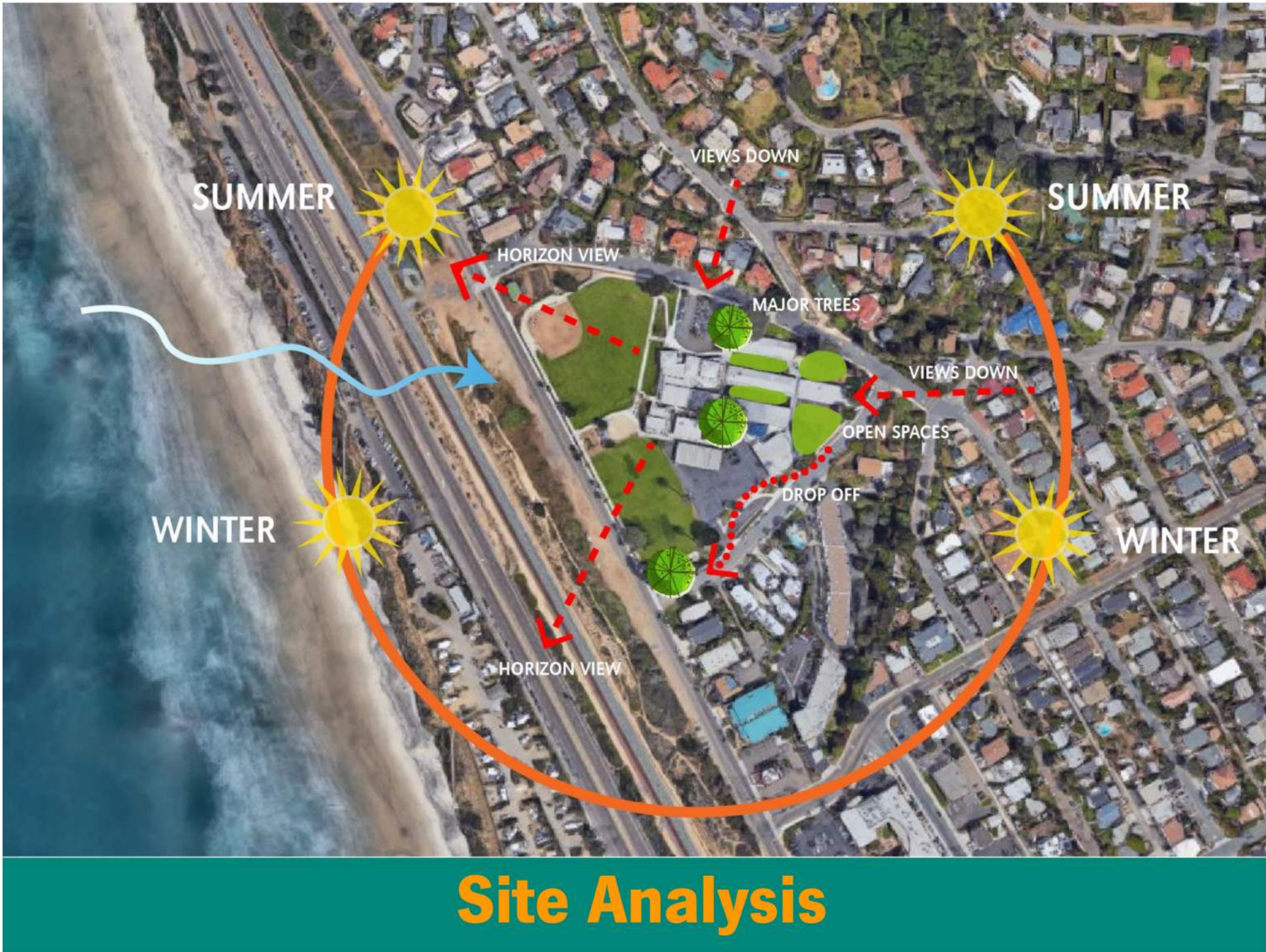


PHYSICAL ENVIRONMENT

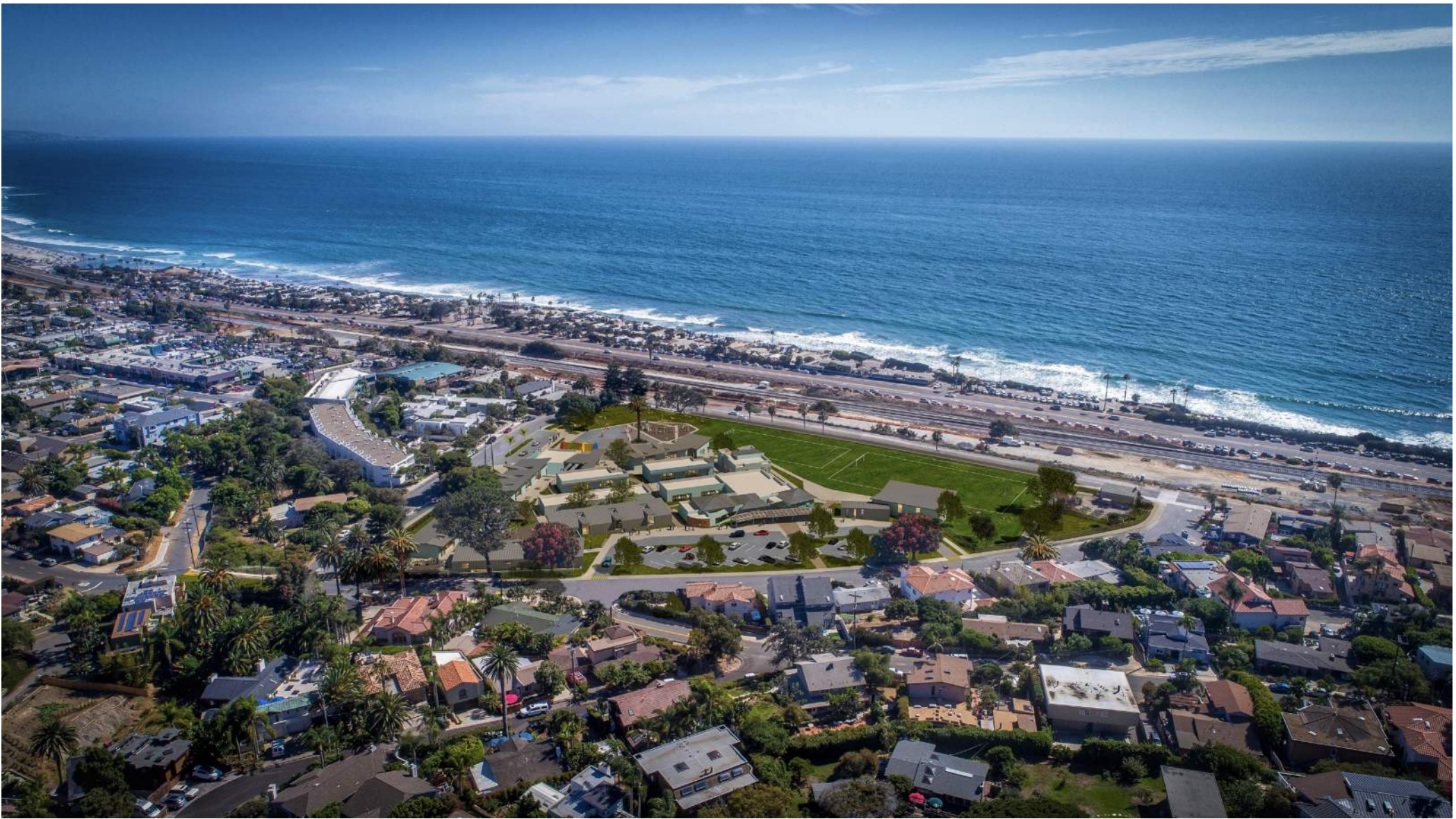
The main physical attribute of the campus is the open space with its expansive views to the horizon over the Pacific Ocean. It was critical that the new design retained the magic of this site. The campus also had a number of mature specimen trees that were evaluated by an arborist to ensure their health and viability before being incorporated into the new design where possible. Trees taken down in construction were repurposed into log benches and incorporated into the courtyards along with coastal landscaping and boulders for informal outdoor learning.

The design team’s analysis of the site suggested that the existing linear east-west orientation of the classroom buildings was advantageous for passive sustainable strategies such as shading and natural ventilation. The circulation courtyards between the buildings also had the potential to be view corridors to the ocean. It made a lot of sense to follow a similar organizational logic as the original 1950’s plan.

As the adjacent aerial views clearly show, the open space along the west perimeter of the school that is of such importance to the Cardiff community, has been maintained as a main feature in the design.



AERIAL BEFORE



AERIAL RENDERING

PHYSICAL ENVIRONMENT



Scheme B



Site Plan



Connected Courts



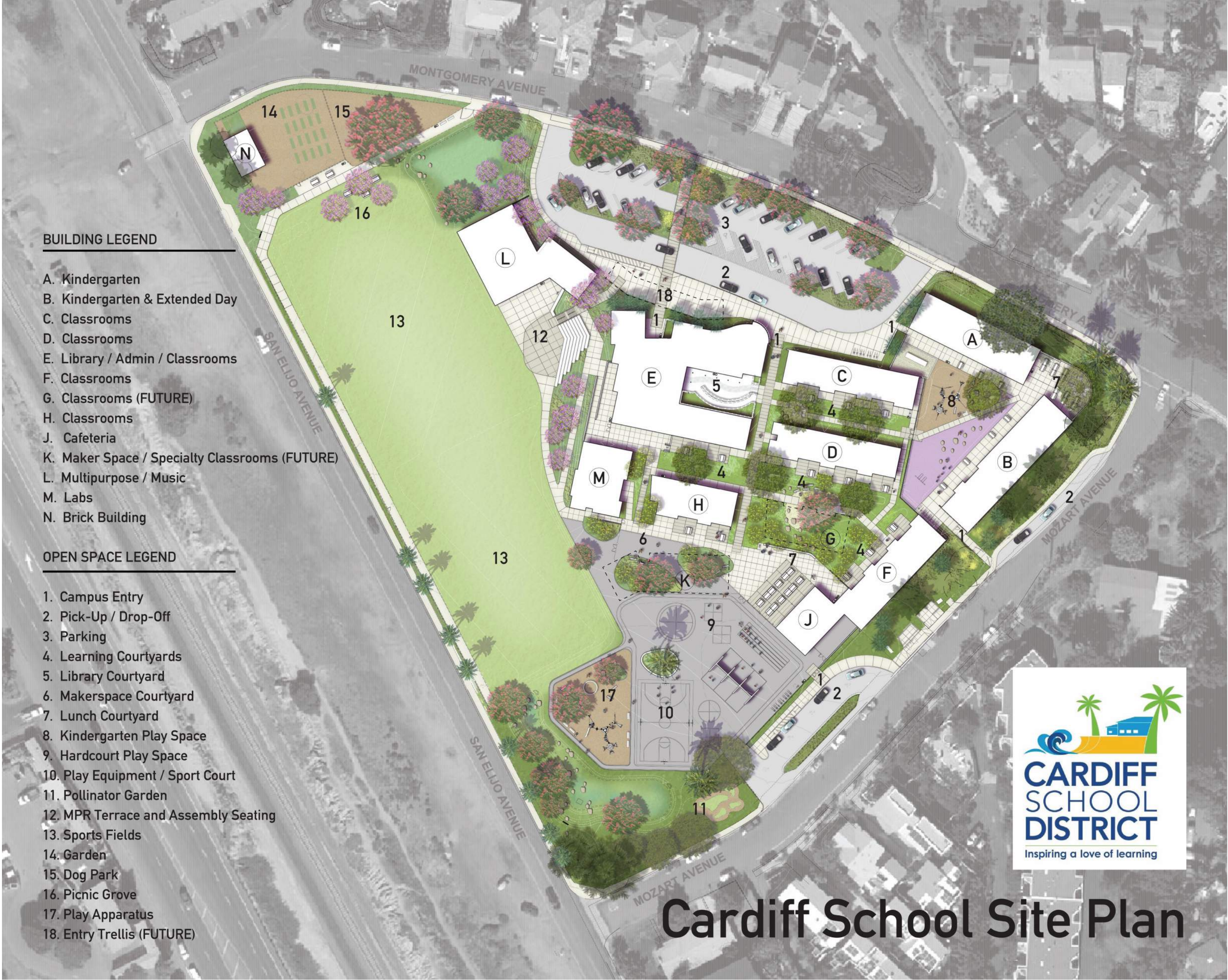
| OPEN SPACE LEGEND | |
|-------------------|-----------|
| 1. Play Fields | 91,550 SF |
| 2. Hard Courts | 20,820 SF |
| 3. Play Apparatus | 7,760 SF |
| 4. Kinder Play | 8,580 SF |
| 5. Covered Lunch | 1,960 SF |

BREAKWATER

CONCEPTUAL STUDIES

Many of the early conceptual studies and discussions with District staff centered around the location of the multipurpose building and the kindergarten classrooms. Original schemes (upper row) located the kindergarten classrooms and dedicated courtyard on the lowest portion of the site in the northwest corner. In this location they could have a separate drop off/ pick up area, be directly adjacent to the play fields and be close to the administration building for added supervision. This configuration, while desired by the District, was not favorable amongst the community and the District chose to compromise and redesign the location of the kindergarten. The multipurpose building needed to be located along the outer edge of campus, near the parking lot and the administration building, since the building would be used by the community. The previous multipurpose building was internal to the campus requiring visitors to walk through the main classroom areas. Despite community concerns about buildings taking the place of open space, the multipurpose building with its assembly steps and plaza is a welcome addition to the open space as it serves both the school and the community.

PHYSICAL ENVIRONMENT



PHYSICAL ENVIRONMENT

SUSTAINABLE DESIGN

The new campus was designed to highlight environmental sustainability, education, stewardship, and economy – meeting a number of high-performance building criteria. Passive sustainable strategies include:

- Thoughtful building orientation
- Natural daylighting from at least two sides within classrooms
- Strategic roof overhangs to minimize heat gain and provide shade at walkways
- Dormer windows to maximize natural light
- Operable windows in each classroom on opposite sides to provide natural ventilation
- Low VOC emitting materials throughout the campus interiors
- Low water use plumbing fixtures and irrigation

Reclaimed materials such as log benches from the felled trees, natural bioswales, native drought-tolerant plantings, interactive gardens, citrus groves, dry creek areas and pollinator gardens, provide the students with inspirational areas to engage with the environment and further contribute to wellness and sustainability goals.

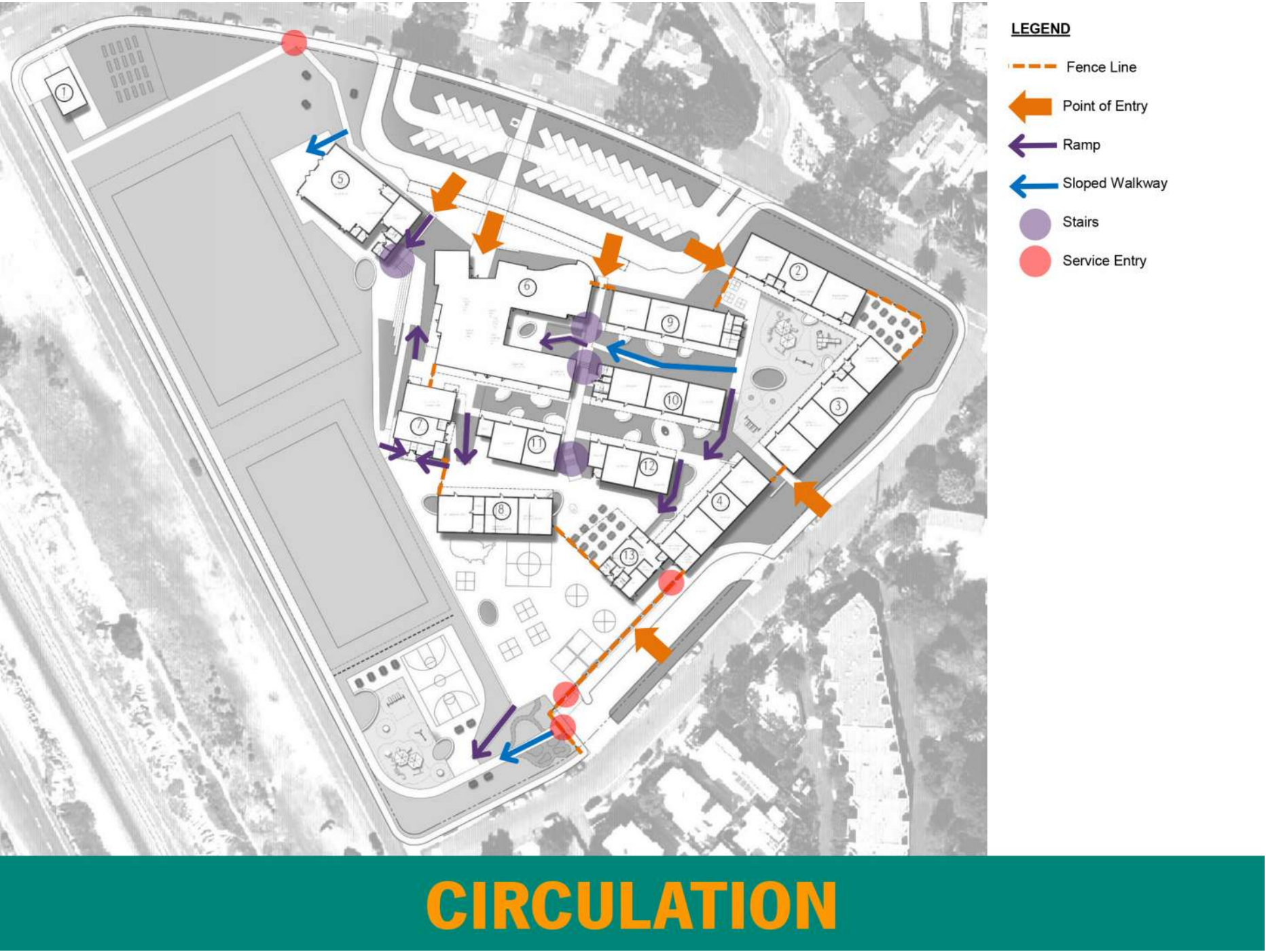
ACCESSIBLE DESIGN

An overarching goal of the campus modernization was to enhance accessibility for everyone, including those with physical disabilities. This had previously not been achieved through the various additions over the years, which resulted in a confusing and convoluted campus circulation. This project sought to simplify the circulation by creating a main boardwalk from north to south from the drop off area to the hard court area. This main spine would cross the classroom courtyards which would provide secondary circulation in the east-west direction. The site sloped approximately 24 feet across the site from east to west and careful study of the finish floor elevations of the buildings was necessary to ensure that ramps or sloped walks could connect them without the need for stairs in the main circulation paths.

DESIGNING FOR SAFETY

The existing main entry and drop off area was extremely tight and did not have enough length to accommodate the necessary number of cars on site, resulting in neighborhood impacts. The project completely redesigned the vehicle entry, parking and drop off and more than tripled the linear frontage available on site. The existing main entry was underwhelming and cramped. The modernization created a generous entry plaza with spacious sidewalks connecting to the city sidewalks, lots of bike racks and several obvious places to enter the campus depending on your purpose. From the entry plaza a visitor could enter directly into the administration building or into the lower open space area for the multipurpose room, if the school had the gate open for access. Parents and students could enter through a gate directly into the kindergarten area or through a gate to the main north-south circulation spine. Approaches to the campus from the south were also available but only during the start and end of the school day.

These measures helped to meet the District’s goal to improve safety and security on the campus.



PHYSICAL ENVIRONMENT



MULTIPURPOSE BUILDING CHALLENGES AND SOLUTIONS

The multipurpose building was the source of some controversy among neighbors who thought that the building would block their ocean views. The design team located the tallest volume space in the project on the lowest part of the site in an effort to ensure that this would not be the case. The 5,529 square foot multipurpose building with its iconic butterfly roof, anchors the grass open space. The assembly steps and plaza are carved into the landscape with its coastal bluff inspired planting. The colorful tiles on the risers of the steps depict the sunset over the ocean that occurs nightly from this amazing location. The engraved tiles were opportunities for school families and community members to leave their mark on the project. The multipurpose building has large glazed openings framing views to the ocean beyond and opens to the plaza with an expansive glazed sliding folding door. This provides opportunity for large events in the room to spill out naturally into the plaza and brings that Southern Californian indoor-outdoor connection to the space. Directly beyond the multipurpose building is one of two stormwater biobasins. The butterfly roof collects rainwater and funnels it to the rear where it spills exuberantly into the biobasin. The smaller volume adjacent to the multipurpose space houses the music classroom for the campus and expands this important part of the curriculum.



PHYSICAL ENVIRONMENT - BEFORE & AFTER

DROP OFF & PICK UP



BEFORE

COURTYARD



BEFORE

MULTIPURPOSE ROOM



BEFORE

LUNCH SHELTER



BEFORE



AFTER



AFTER



AFTER



AFTER

RESULTS OF THE PROCESS & PROJECT



RESULTS OF THE PROCESS & PROJECT

PROJECT CHALLENGES

The campus modernization process was not without challenges. Firstly, construction began in September 2019 and continued during Covid. All the careful planning to phase the construction and keep certain portions of the campus open to students, turned out to be unnecessary when students had to attend school remotely.

Despite redesigning the project during the conceptual design phase in response to community and neighbor input, a small group of neighbors remained opposed to the project and launched a lawsuit to stop the project. Ultimately this was unsuccessful but resulted in a 2 year delay to project completion and significant added costs. The multipurpose building was finally completed in January 2023 after being under protective wrap since July 2020 when construction was halted just after framing had been completed.

The District was fortunate that the original contractor and design team were ready to pick it back up and complete the work once the legal issues were resolved. Despite the delays, additional cost and legal hurdles, the District preserved and they should be commended for that. Throughout all the challenges, they always put the highest priority on student safety and the educational program and were committed to preserving areas of the site for public recreation.

LONG-TERM COMMUNITY ENGAGEMENT & IMPACT

The community engagement process that was part of the Cardiff School modernization did not stop with the school being built. The District continues to play a major role in the community and actively encourages parent involvement by providing resources and access to the new facilities. The location of the multipurpose building adjacent to the open space and on the edge of campus has provided a new and easily accessible event space for the community. The school itself plays host to community events on campus, such as their annual ice cream social, now in its 46th year and now has the ability to easily host educational events for the community such as Marine Science Night.

The cherished school assembly, known as “The Cardiff Way Assembly”, that has always taken place on the school’s assembly steps, is now given pride of place adjacent to the multipurpose building with “The Cardiff Way” motto proudly displayed below the historic Cullen Bell, which is rung by the students and teachers on special occasions.



A packed house for the Community Celebration, April 2023



The Historic Cullen Bell's new home on the multipurpose building



Kindergarten students reading on the assembly steps



First day of school, January 2021

"We have received so many compliments on the design of the Cardiff School rebuild. As a treasured community asset, it was important to us that our new school evoke a nostalgic, familiar vibe in a fresh and modern way. The new Cardiff School is all that and more, and we are so fortunate to serve our community's youngest learners in this beautiful learning environment."

Jill Vinson, District Superintendent

