

2014 Exhibition of School Planning and Architecture

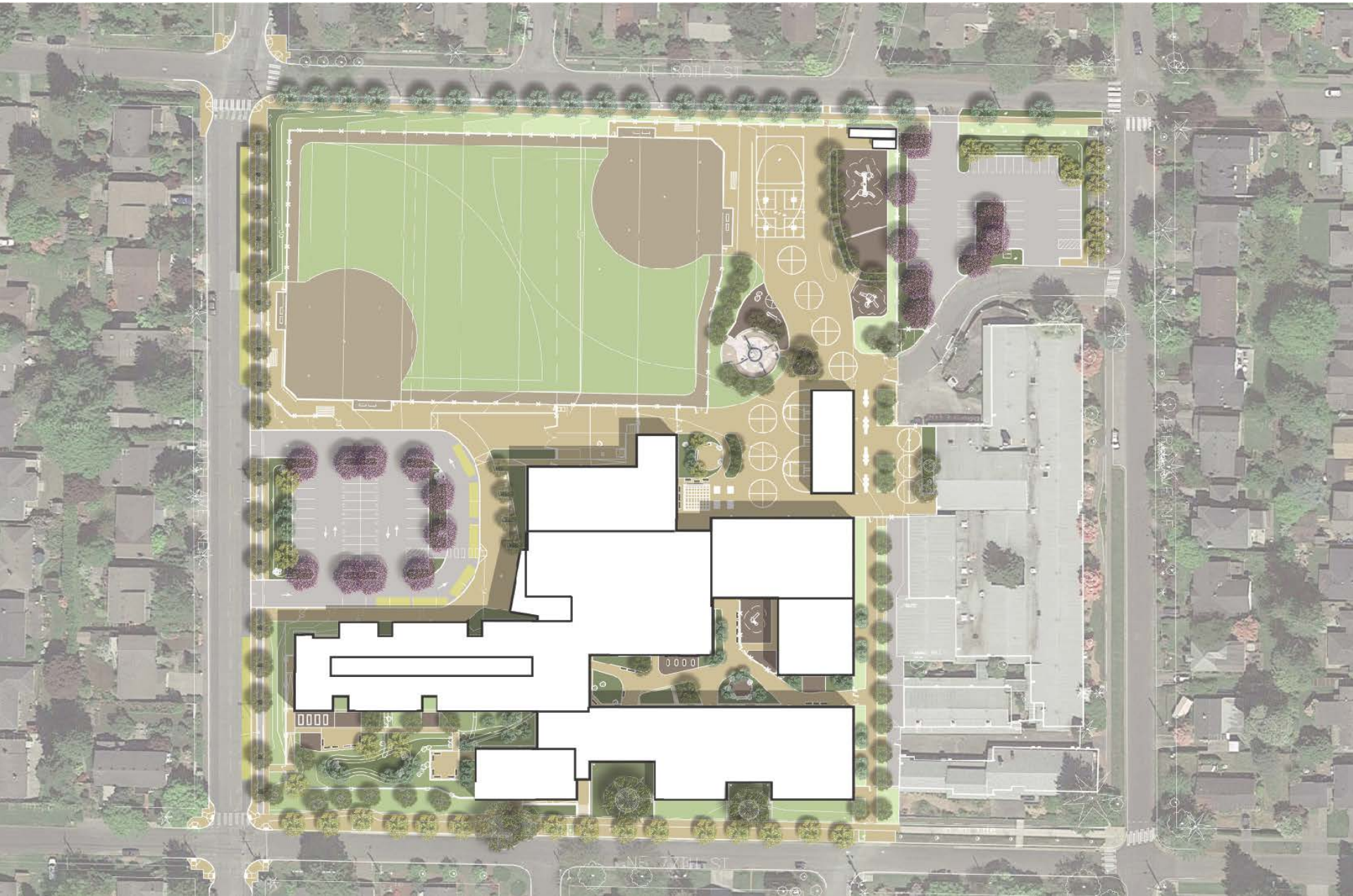
New Thornton Creek Elementary School

Seattle Public Schools, Seattle, WA

New Thornton Creek Elementary School



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Community Environment



The new Thornton Creek Elementary School Building is housed adjacent to the existing Decatur Building, both located on a 9.91 acre site in NE Seattle. The site is surrounded by a tight knit residential community that is actively engaged with the school and its activities. The design strategy is to have multiple community interfaces, both exterior and interior, to invite public participation into the educational process. The SW corner of the site was carved out to create a teaching and learning garden for the school as well as a community park that integrates student and community owned raised garden beds and an extensive rain garden along with shade trees and places to sit. The library anchors one end of the garden creating a civic presence and a space for after-hours events that can also extend into the learning garden.

Community Environment



The heart of the school is comprised of the dining commons, gym, music classroom, stage and art classroom. The programs are co-located to create a versatile space for larger community events. The playfields and the playground to the north are re-designed as shared school and community resources providing spaces for league sports, family recreation and exploratory play. To be sensitive to the scale of the existing Decatur building and the surrounding single family homes the building is designed to have a single-story volume that fronts the street and the taller two-story volumes are pushed further back into the site with the teaching and learning garden forming the interface between the street and the higher volume.

Learning Environment



The pedagogical structure of the school is based on a looping system that creates 3 distinct communities of K-1, 2-3, 4-5. The building design builds on this structure to create a relational, collaborative teaching and learning environment that emphasizes different scaled shared learning spaces that are interspersed between classrooms to provide equitable access and break down the scale to create intimate communities of students with strong relationships to their teachers within the larger school culture. The shared learning spaces are designed to be flexible spaces for students to explore develop and exhibit project work, break-out into small groups for personalized learning or engage in art projects. A high level of transparency between the classrooms and the shared learning spaces facilitates project-based learning and blurs the line between social and educational spaces. Primed wall panels are integrated into each shared learning spaces to support the school's culture for creating wall paintings and murals.

Learning Environment



Learning Environment



The design of the school places the core classroom spaces, special education, art, and associated shared common areas in two offset wings. The two-story west wing contains 2nd-3rd and 4th-5th grades with art and special education book-ending the wing. The one-story east wing contains kindergarten and 1st grade with special education book-ending the wing. The offset classroom wings create a courtyard for a separated play space for kindergarten and daycare. This courtyard functions as a transitional sheltered play space and an outdoor exploratory lab (consisting of garden beds, dirt pits, water runnels, native planting and a sound garden wall) for the kindergarteners before they are ready to migrate to the larger playground. The shared learning spaces for the kindergarten wing are also oriented to open out onto this courtyard to provide a seamless transition between indoor and outdoor learning.

Learning Environment

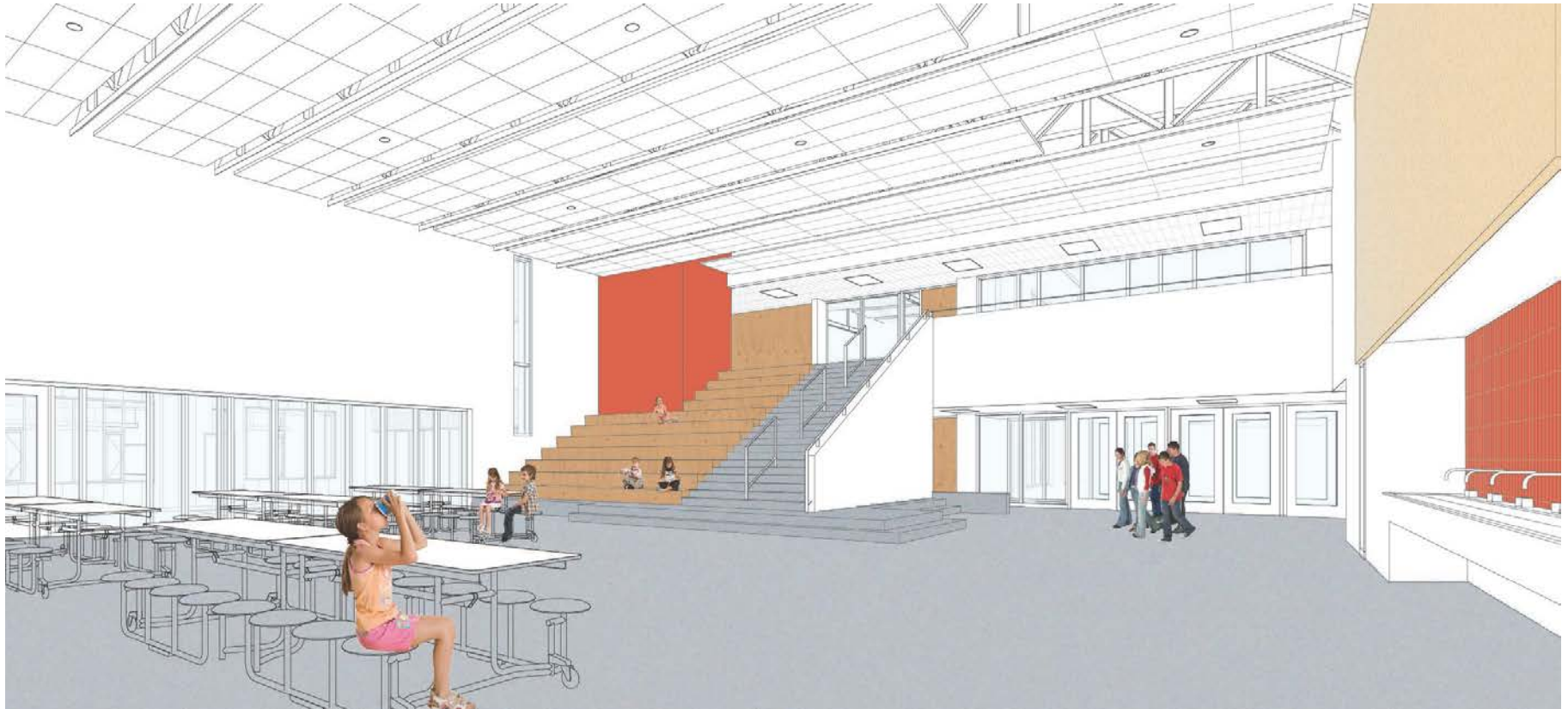


Learning Environment



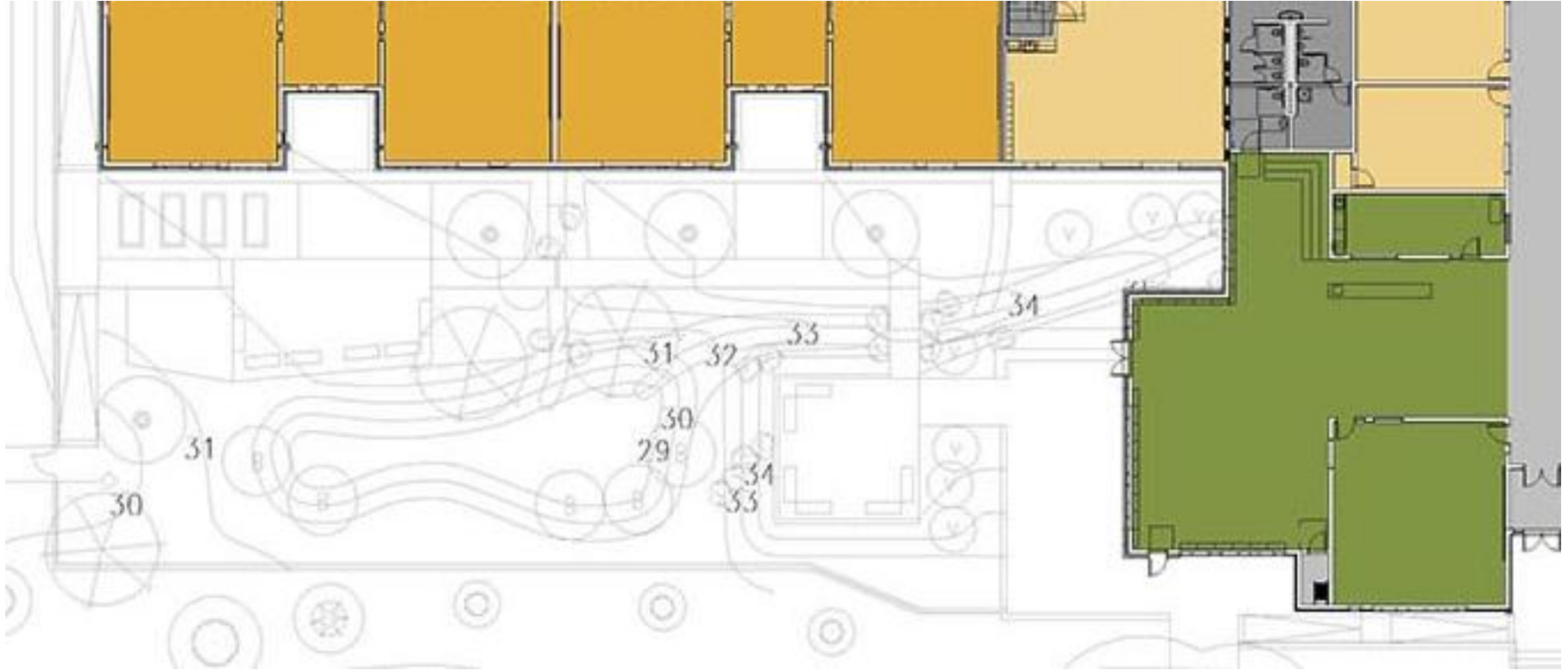
Oriented for optimal north and south solar exposure, the classroom wings along with the commons, gym and library will all have beautiful north/south day lighting. The admin, music, commons, gym and library are all aligned north of the classroom wings providing central access from each of the classroom wing communities. The school's main entry is located in-between the administration/public spaces and classroom wings at the "heart" of the school providing a central access point to most spaces in the building. The secure entry vestibule guides you into the administration reception area as a visitor, or directly into the "heart" during the start of the school day. The proposed new building location will allow for the existing school to remain occupied and the adjacent play area to be minimally disrupted during construction as well as places the new building and site amenities in prime locations for solar exposure, public view and community access. Fields and playgrounds for community and school use will be easily accessed locally from the adjacent sidewalks and via car from the central parking area.

Learning Environment



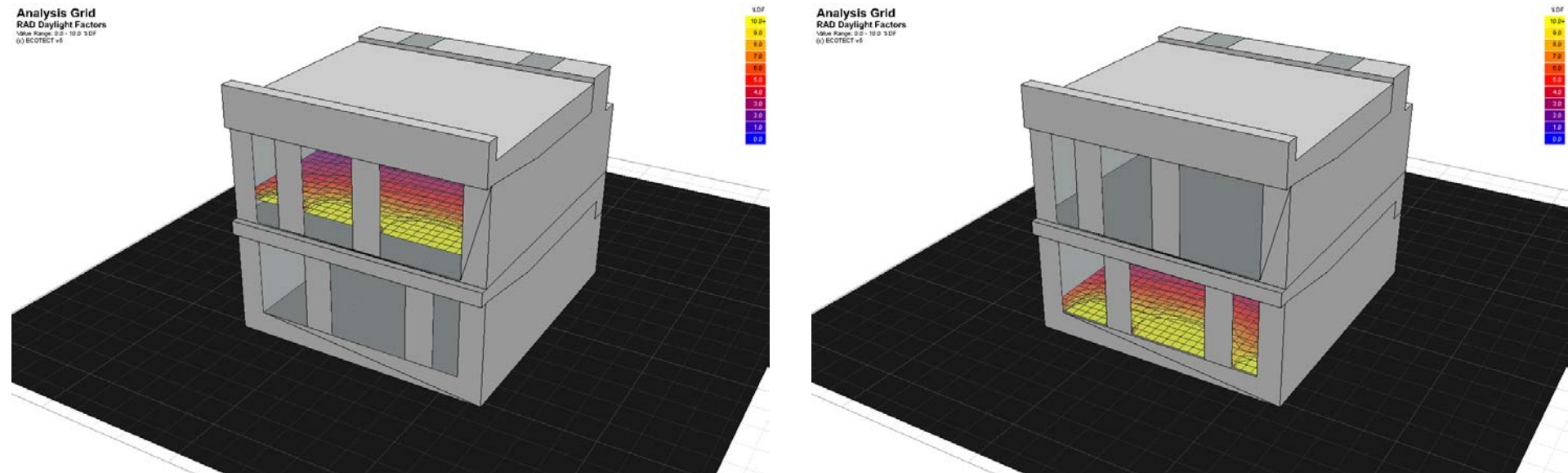
The commons spaces are split both horizontally and vertically into two spaces one smaller than the other for different scaled eating, socializing spaces for the various aged children, and expeditionary learning performances. Adjacent to the two commons spaces are two music rooms and a gym which can be opened up to one another via operable partitions into one contiguous space or two smaller spaces to provide flexibility for different sized performances and school uses. The primary circulation stair to the upper level is integrated with forum seating that allows the smaller south commons to be used for team teaching, presentations and lectures and smaller performances. The larger north commons that extends into the gym through an operable partition can house close to 900 parents and students for larger school wide events and performances.

Learning Environment



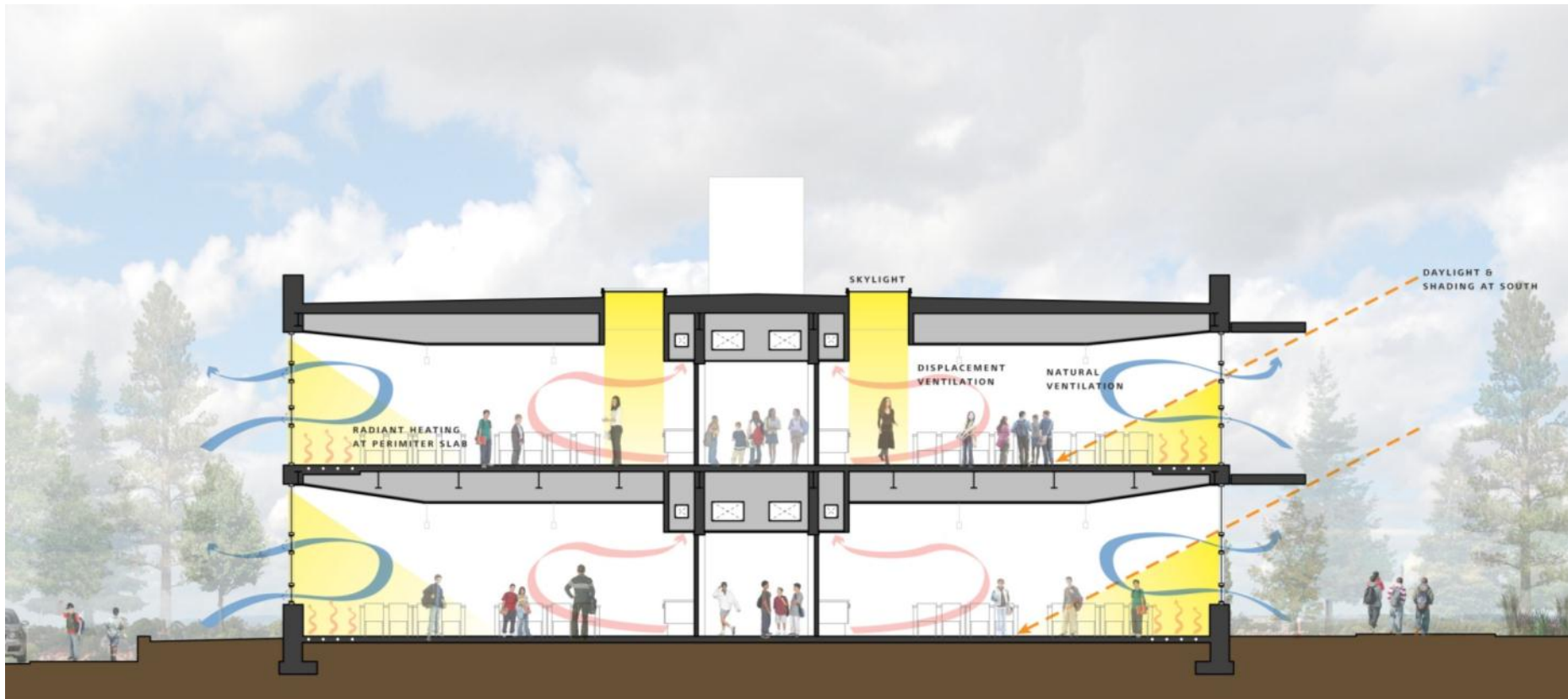
The library is designed as a seamless extension of the common spaces and integrated into the student flow as opposed to being a destination. Sliding panels that are 4' tall allow the library to be completely open and accessible to the hallway and also provide adequate security for after hours. Smaller spaces are created within the library for story time, project work and teaching to occur simultaneously with access to a south facing covered outdoor reading area that overlooks the street. The library also extends out into the teaching and learning garden for class wide outdoor activities and engagement with the rain garden and native planting. The computer lab associated with the library can be accessed directly from the hallway or through the library to provide flexibility for testing and research activities.

Physical Environment



Several sustainable priorities were established through an eco-charette with the SDAT and continual dialogue with the school district. These include outdoor education spaces, stormwater infiltration through bio-retention areas and integration of rain gardens, maximizing the benefits of natural daylighting by orienting classrooms to face North or South and skylights to provide adequate daylight penetration into the classroom and operable windows in each classroom to facilitate natural ventilation. Additional measures include high efficiency fiber glass windows, ultra low-flow plumbing fixtures and kitchen equipment, a hybrid mechanical system consisting of integrated heat recovery units and 300' deep geo-thermal wells that will provide 25% of the energy needs of the new building. 40% of the roof area is also designed to accommodate future photo voltaic arrays along with an energy dashboard that will function as a web based live tool creating an invaluable resource for teachers, students, staff and facility personnel in hands-on learning and an understanding of the operation of the building and its resource consumption.

Physical Environment



Playgrounds and courtyards are designed to minimize heat island effect and impervious surfaces by integrating multiple surfaces (dirt pits, wood chipped play areas, garden beds, native planting) that also break down the scale and create different opportunities for outdoor learning. The design also proposes the use of resilient flooring in all teaching spaces as opposed to the district standard of carpet to promote flexibility of uses within the classroom and improve the long term indoor environmental and health quality of the teaching and learning spaces. At an overall site level the building design is informed by specific opportunities and challenges that exist on the site. The challenges include locating the new building with an appropriate relation to the existing buildings while keeping as much of the existing play fields available for community use, addressing bus and vehicular congestion during the beginning and end of the school day, providing alternate entry points for daycare and the bus loop, and maintaining students on-site during the construction of the project.

Planning Process



While the Site Specific Education Specification defined the programmatic, functional, spatial and environmental requirements a School Design Advisory Team (SDAT) was established early on to engage in a collaborative dialogue to establish guiding principles, pedagogical direction, community integration parameters and help refine the design concept to the specific needs of the program. The SDAT team included the School principal, representative school teachers, parents and neighborhood community members. A series of visioning and design charrettes along with a tour of comparable schools was organized to help guide this process.

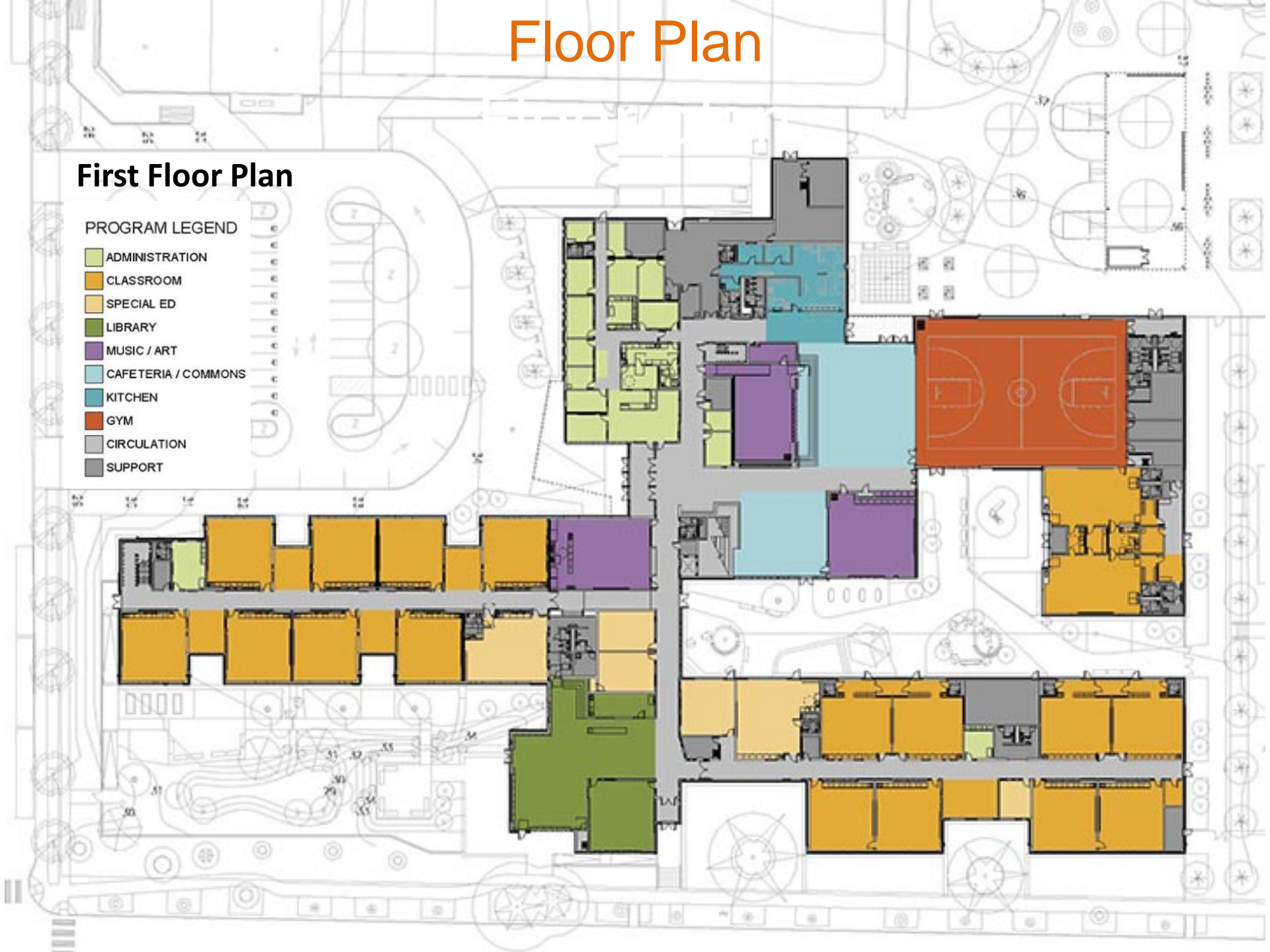
Through these discussions ideas emerged regarding the ideal learning environment, including themes around a nurturing and communal space, being of nature, functional, allow for opportunities, being relevant, in balance, and worldly.

Floor Plan

First Floor Plan

PROGRAM LEGEND

- ADMINISTRATION
- CLASSROOM
- SPECIAL ED
- LIBRARY
- MUSIC / ART
- CAFETERIA / COMMONS
- KITCHEN
- GYM
- CIRCULATION
- SUPPORT



Floor Plan

Second Floor Plan

PROGRAM LEGEND

- ADMINISTRATION
- CLASSROOM
- SPECIAL ED
- LIBRARY
- MUSIC / ART
- CAFETERIA / COMMONS
- KITCHEN
- GYM
- CIRCULATION
- SUPPORT



Exhibition of School of Planning and Architecture Project Data

Submitting Firm :	Mahlum
Project Role	Architect
Project Contact	David Mount
Title	Principal
Address	71 Columbia, Floor 4
City, State or Province, Country	Seattle, WA 98104, USA
Phone	206.441.4151

Joint Partner Firm:	Not Applicable
Project Role	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	

Other Firm:	Not Applicable
Project Role	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	

Construction Firm:	Not Applicable
Project Role	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	

Exhibition of School of Planning and Architecture

Project Details

Project Name	Thornton Creek Elementary School
City	Seattle
State	Washington
District Name	Seattle Public Schools
Supt/President	Jose Banda
Occupancy Date	September 2016
Grades Housed	Kindergarten – Fifth
Capacity(Students)	660
Site Size (acres)	9.91 acres
Gross Area (sq. ft.)	92,500 SF
Per Occupant(pupil)	140 SF
gross/net please indicate	
Design and Build?	In Design
If yes, Total Cost:	MACC \$28,710,00
Includes:	
If no,	
Site Development:	
Building Construction:	
Fixed Equipment:	
Other:	
Total:	