



Tillicum Middle School
Bellevue, Washington

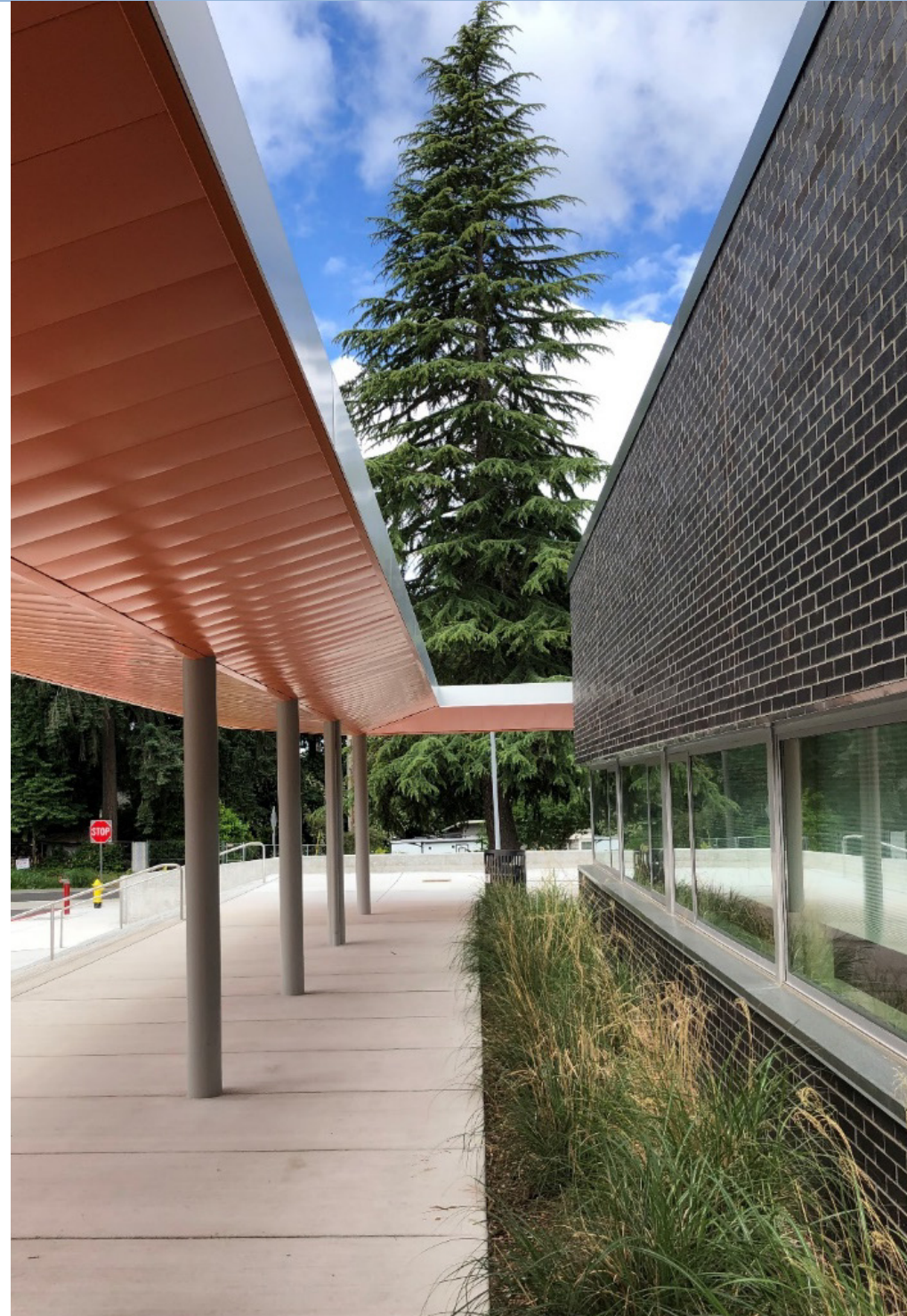
Spatial Discovery at The Forefront of Design

The design for Tillicum Middle School elevates the learning environment's experiential quality through a variety of informal spaces that serve both educational and social purposes. This approach accentuates the interaction of architecture and nature. The school consists of a series of indoor and outdoor spaces creating a seamless flow of daylight throughout the interior. Instilling a sense of belonging to the place, the architecture explores the role of experience in the construction of memories.

A focus on experiential quality incorporates biophilic design patterns and research about the learning needs of introverts.

Foster Creative Thinking

-Steering Committee's First Goal



SCOPE OF WORK & BUDGET



Replacement School

New Tillicum Middle School replaces the previous one at the same location. The new school is twice as big as the old one, presenting a challenge of designing a human scale experience in a much larger facility.

NEW CONSTRUCTION

181,000 square feet

SITE AREA

17 acres

FINAL CONSTRUCTION COST

\$59,699,539

STUDENT CAPACITY

1,400

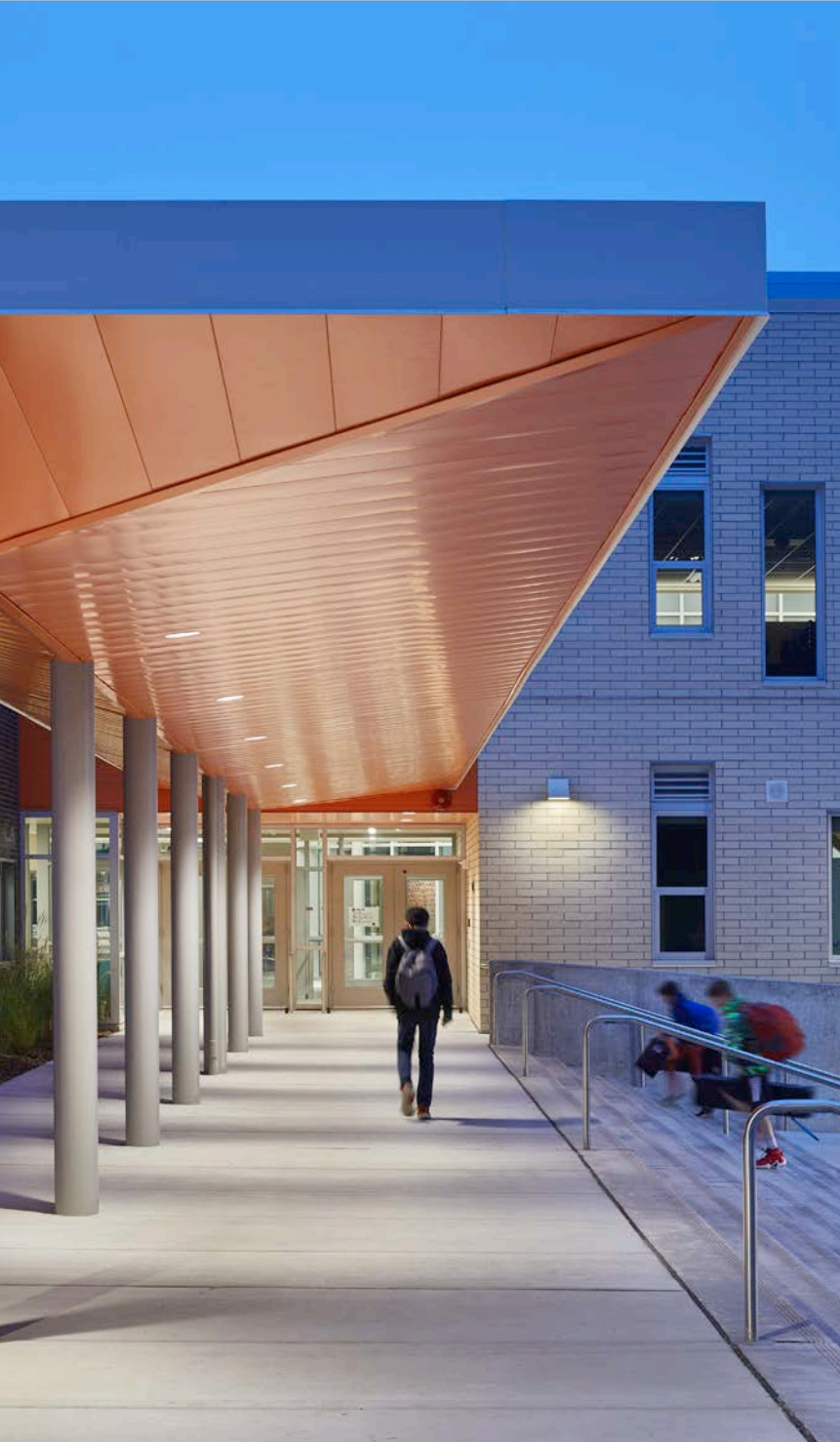
TYPE OF CONSTRUCTION

Concrete and steel, Type II-A

TYPE OF PROJECT DELIVERY

Design Bid Build

1. SCHOOL & COMMUNITY ENGAGEMENT



Community, Stakeholders, & Assets

Tillicum's socio-economically and ethnically diverse community enriched the design process. Much of the school population resides in modest multifamily housing where many languages are spoken. Consequently, the school features acclaimed Spanish immersion and Chinese language programs.

This community values education, complementing the district's goal to highlight architectural quality in creating an inspiring learning environment. Their shared priority of sustainability led to a high-efficiency school that teaches environmental stewardship. The stakeholders' desire for varied, hands-on learning opportunities inspired the design of a multi-sensory facility that encourages students to explore indoors and outdoors.

Challenges; Value of the Community Process

While Bellevue School District sought to enhance play space, the City of Bellevue adopted requirements for larger parking facilities, influencing the available building footprint. Along with significant topographical changes, this resulted in a compact building.

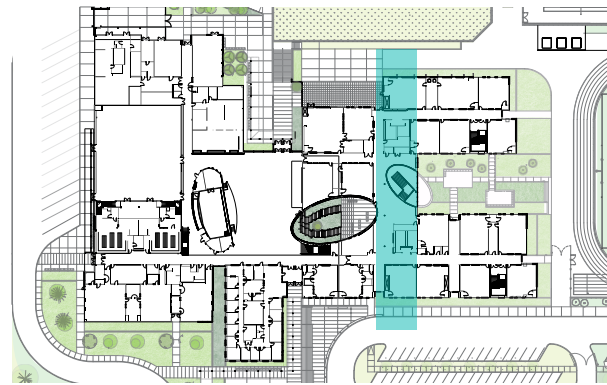
Within these parameters, another challenge was to emphasize daylight and connections to nature. A nearby lake made managing stormwater imperative. Clean water was a key priority.

Tillicum's design expresses the values, goals, and aspirations of all stakeholders. Public meetings, high level steering committee representation, and staff engagement ensured the broader school community felt heard. The new building holistically embodies their commitment to education.

2. EDUCATIONAL ENVIRONMENT



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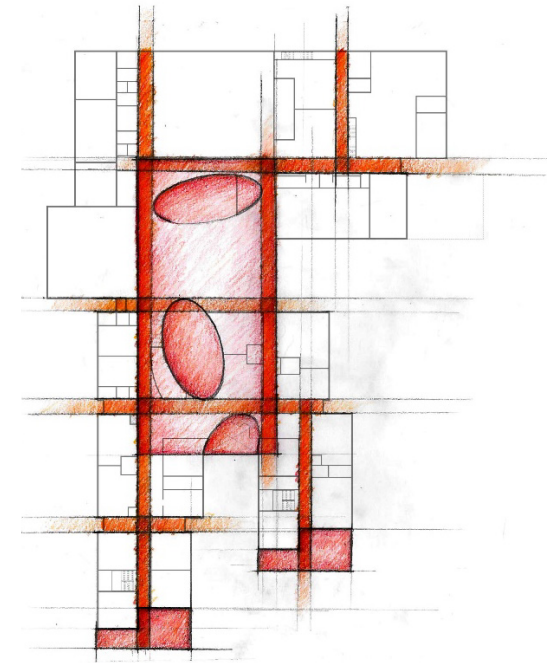


The Student Commons

The Student Commons is the main crossroads in Tillicum's interactive marketplace. The three-story connector creates a confluence of experiences for different kinds of creative learning and socializing, as well as a place for quiet reflection when needed.

2. EDUCATIONAL ENVIRONMENT

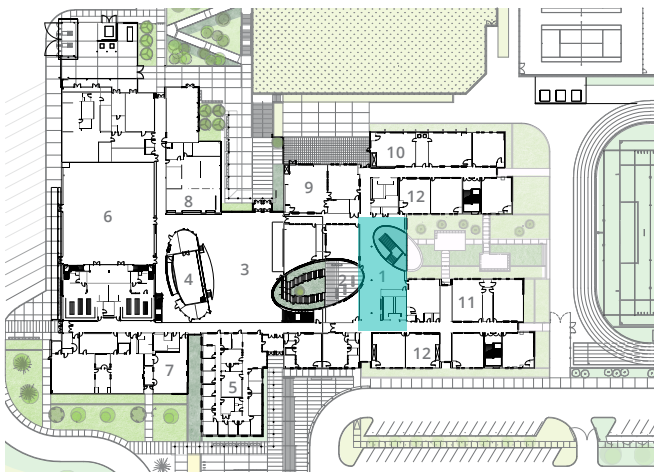
Importance of Informal Spaces



Streets, Alleys, Nodes

Program Adaptability

The organization of a city is the framework for program variations. Science is distributed throughout the academic areas, allowing spatial adjacencies to morph into different size suites and respond to curriculum changes. CTE is a hinge at a STEAM suite including media rooms and two outdoor spaces. One flexible room has already changed into a dedicated maker space.



MAIN LEVEL FLOOR PLAN

- 1 Student commons
- 2 Oval courtyard
- 3 Community commons
- 4 Stage
- 5 Administration
- 6 Gym
- 7 Music
- 8 Kitchen
- 9 Career technology
- 10 Art
- 11 Science
- 12 Classroom

2. EDUCATIONAL ENVIRONMENT

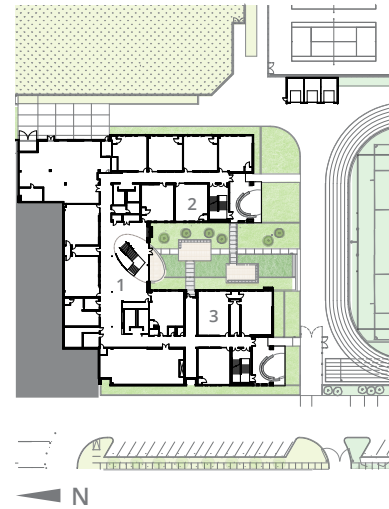
A Place For One And A Place For Many

The book, "Quiet: The Power of Introverts in a World That Can't Stop Talking," brought the needs of introverted students to the forefront. Often neglected in a culture that favors extroverts, introverts at Tillicum find ample spaces for quiet concentration and building peer relationships.



2. EDUCATIONAL ENVIRONMENT

Learning With Nature



LOWER LEVEL FLOOR PLAN

- 1 Student commons
- 2 Classrooms
- 3 Science

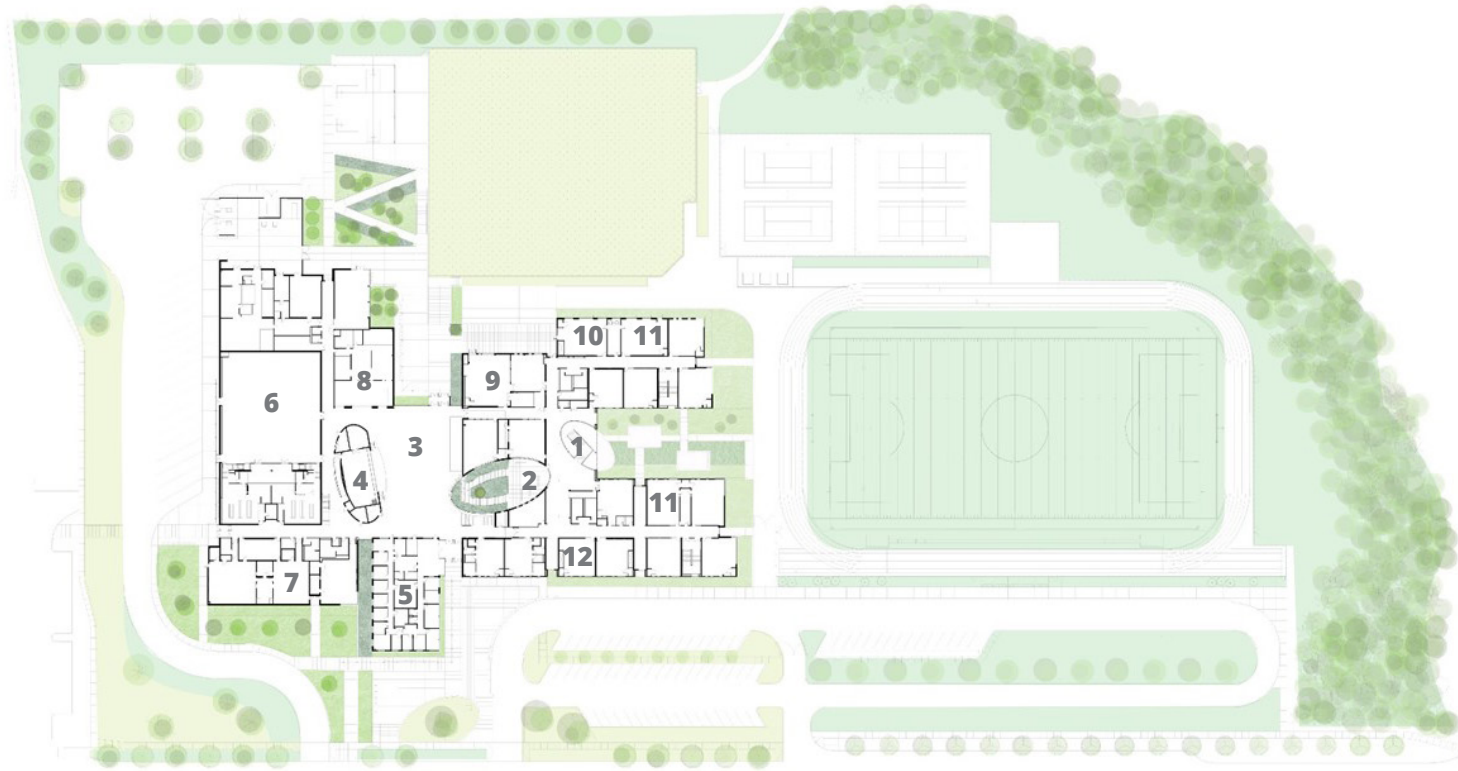
Outdoor Learning

Many places in the new school extend education outdoors. One of them, the Ecology Courtyard, prominently situated between the two classroom wings, serves the vital purpose of cleaning rainwater before it flows into nearby Phantom Lake.

3. PHYSICAL ENVIRONMENT

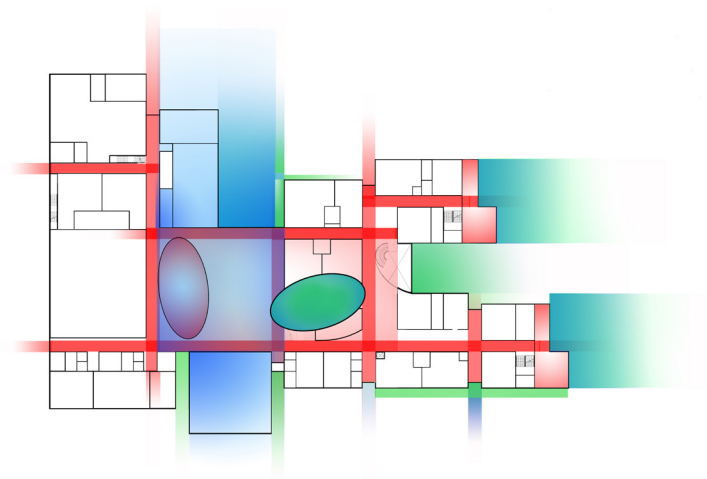


3. PHYSICAL ENVIRONMENT



SITE PLAN & MAIN LEVEL FLOOR PLAN

- 1 Student commons
- 2 Oval courtyard
- 3 Community commons
- 4 Stage
- 5 Administration
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Feeling of a Park in a Compact Building

Program Adaptability

A large, compact school connects its interior to a park-like perimeter and brings nature into the inside core of the building. A restrained, quiet envelope provides an abundance of interior connections to nature from close enough to touch to green site edges to distant vistas.

3. PHYSICAL ENVIRONMENT

Tillicum Middle School explores the concept of a large building designed as a small city with a series of spatial discoveries. Like a city, the building is embedded with elements of surprise. The school houses a variety of spaces, many of which have strong connections to the outdoors and let sunlight “travel” through the building. Enriching daily life, these natural connections happen at different magnitudes of scale: the hand (touch); the body (near visual perception); and the landscape (large distance). The experience encourages disciplines to mix—stimulating a more integrated, interactive, and creative way of learning.

Strolling Streets & Alleys

Exploring Nature & Open Areas

Sparking Curiosity



NORTH SOUTH SECTION

3. PHYSICAL ENVIRONMENT

Gradation by the Light



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- | | |
|-------------------|-----------------|
| 1 Student Commons | 4 Classroom |
| 2 Library | 5 Auxiliary Gym |
| 3 Science | 6 Roof Terrace |

UPPER LEVEL
FLOOR PLAN

Design for Intensity of Purpose
Light as an agent and space painter.

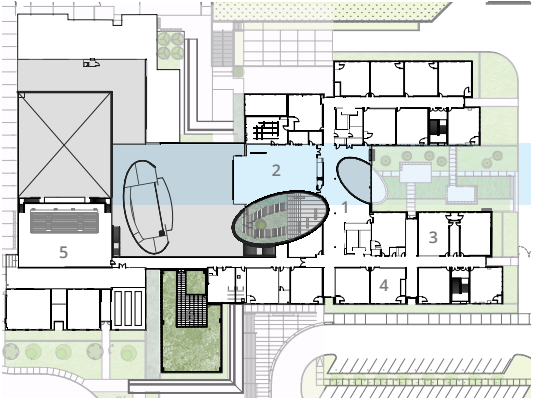
- Quiet study, reflective space - Library
- Informal collaboration, focus - Student Commons
- Large group socializing - Cafeteria
- Physically most active space - PE, Gyms

Sunlight travels through the interior to give an appropriate level of daylight and experiential intensity to each space. Spaces for reflection, quiet study, or impromptu collaboration alternate with large-scale gathering spaces throughout the interior.

3. PHYSICAL ENVIRONMENT



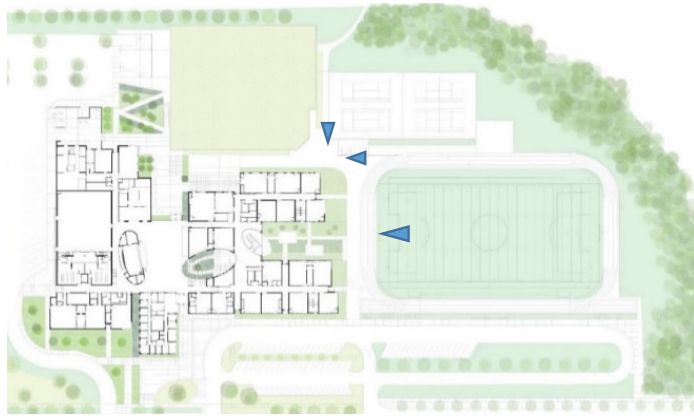
Multiple locations for interior vistas enhance spatial connectedness throughout the core.



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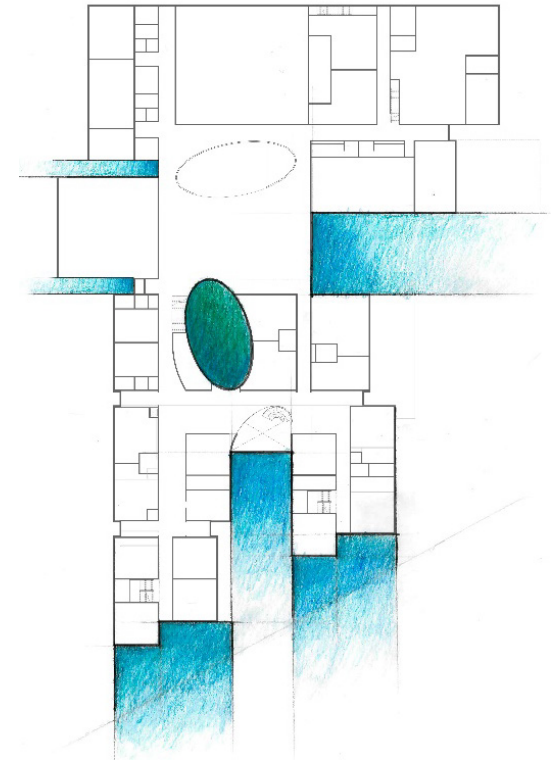


3. PHYSICAL ENVIRONMENT



Art spaces have delineated identity.





Parks, Nature

Experiential learning

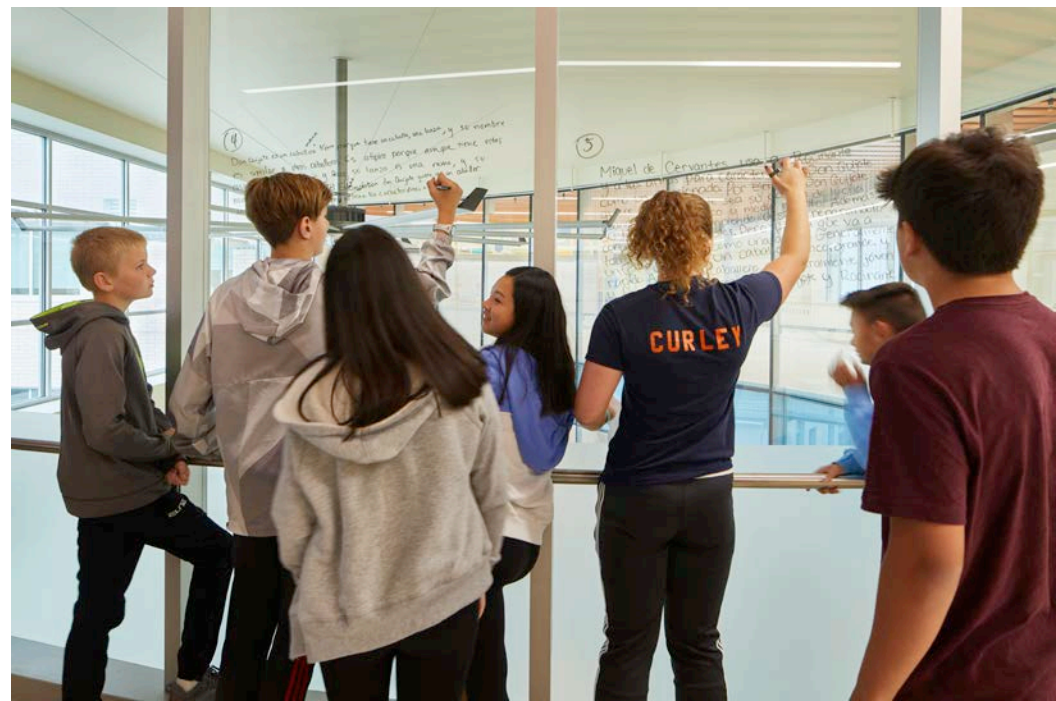
Tillicum celebrates connections to nature for quiet reflection, athletic and academic activities, and informal gatherings. The central courtyard supports a wide range of flora that students can study, explore, and maintain, as well as creative activities such as music, video making, etc.

Expected (hoped for) - Unexpected

The unconventional informal spaces throughout the school were introduced with a sense of hope and expectation for sparking students' curiosity and possibly helping their agentic engagement.

As the first year developed, teachers began using these spaces in a number of creative ways:

- > Student commons received more informal furniture, which students and teachers embraced.
- > Central courtyard provided the venue for video making (adjacent space in the core) and performances showcasing the school's significant musical program.
- > One of the original flexible rooms has already been adapted into a maker space, contributing to the school's vibrant informal core.



Self-directed / Agentic Engagement

During one school visit, I stumbled on a group of students working on a project in the Student Commons. They did not seem to mind or even notice our visit and remained fully immersed.

What stood out immediately during this visit was:

- > Students fully focused on their task.
- > Good connection to the adjacent classroom.
- > No apparent direct adult or teacher supervision—the benefit of transparency, trust, and space agency.

This could have been a scene from a high school or a college.





Connection With Nature

Several principles of biophilic design are woven into the new school's design concept. Throughout the building, direct and indirect relationships with nature are incorporated in a variety of ways, appropriate to the scale and purpose of each space.

KEY BIOPHILIC FEATURES INCLUDE:

- > Exterior courtyards that allow sunlight to "travel" through the building, as well as present visual and physical contact with the outdoors.
- > A level of daylighting appropriate to each space's vibrancy and intensity of use, from the high-energy cafeteria to the quiet central courtyard.
- > Myriad short and long vistas with indirect daylight that enhance spatial connections and create places for engagement and respite throughout the three-story building's core.
- > Enhancing a sense of spaciousness through continuous indoor outdoor connections.
- > Observation: Four biophilic design principles influence students' experience in this space: prospect and refuge; natural light; and direct as well as indirect connections to nature. Students at the edge under the library and next to the courtyard have been observed behaving in a much calmer and more relaxed way.

4. Results

A Place For One & A Place For Many

