

2013 Exhibition of School Planning and Architecture

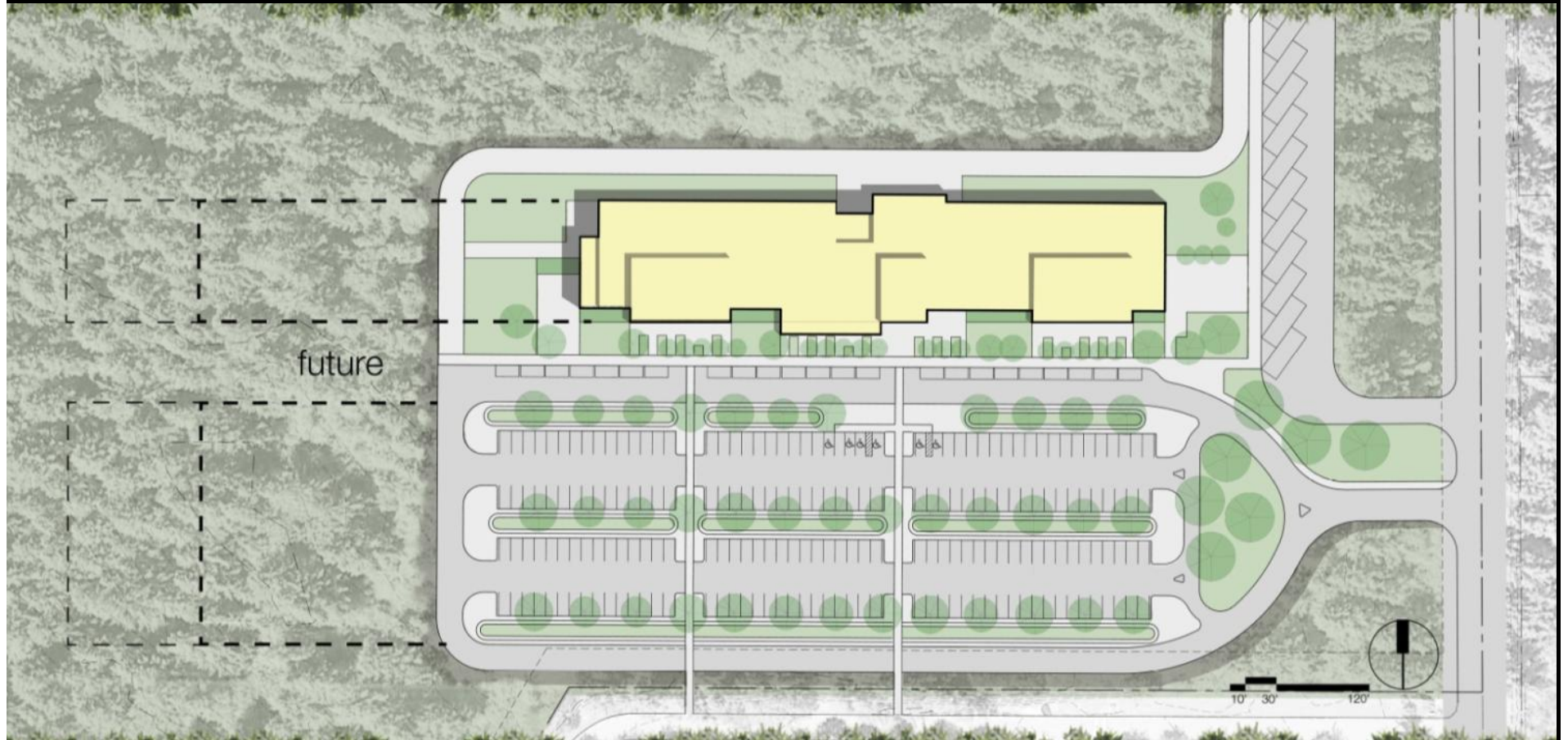
STEM Secondary School

Redmond, Washington

STEM Secondary School



STEM Secondary School





Main Entry

Community Environment:

This project is designed to support a curriculum organized around multiple academic pathways, each focusing on real-world topics that provide a

pre-professional environment for students transitioning from high school to college or the workforce.



Presentation Hall

Community Environment:

Teachers actively engage with professional mentors from the local community to support collaborative, interactive, and project-based learning. Mentor areas

exist throughout the building for mentors to prepare work as well as meet one-on-one with students. A central Presentation Hall allows students, mentors, and other community members to share their work.



Group work area

Learning Environment:

Each of eight academic clusters utilizes a large studio space and two adjoining classrooms, interconnected by operable walls to allow students to come together

daily. Each level has designated spaces for individual and group work as well.



Commons

Learning Environment:

Each pair of clusters includes a flexible common area

for fabrication, exploration, group work, and study.

This space is also large enough to accommodate two classrooms.



Main entry

Physical Environment:

The District's urgent need for additional space at the Secondary level resulted in an accelerated schedule requiring innovative construction solutions.

To meet this challenge, the team developed the design as a series of modular components. This strategy saved the district time in both permitting and construction to assure on-time delivery.



Outdoor learning area

Physical Environment:

Working with manufacturers, the design team developed modules and frames with the flexibility

required to achieve program goals while requiring less material waste, with lower embodied energy.



Rear exterior

Physical Environment:

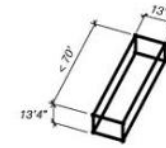
The building, a learning tool for innovation and application of sustainable technology, ties systems to an interactive central display. Sustainable features

include orientation and extensive use of skylights , rainwater capture for greywater uses, pervious paving and bioswales, and a 100kW photovoltaic system with net metering.

Spatial types

Planning Process:

An inclusive approach to problem-solving brought together a team of district personnel, administrators, teachers, and community members to work with the design team. The team met at regular intervals to establish a vision and goals, resulting in a project that supports their specific needs. Planning & design began prior to site selection, therefore a flexible organizational scheme was required. A modular approach to construction supported this idea and proved to be highly adaptable to multiple settings



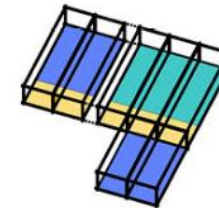
Basic Module



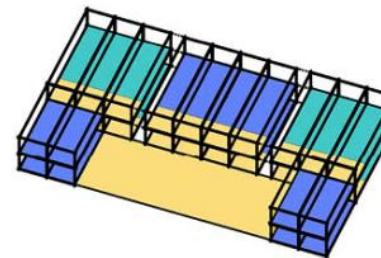
Classroom



Studio



STEM Cluster



Classroom Wing



Section

Planning Process:

To support academic pathways, the design of STEM required learning spaces that range in scale from large to small, as well as its use of formal and

informal.

“Clusters” were established: each cluster is composed of two Learning Settings and one Studio. 4 modulars = 1 Science Studio, 3 modulars = 1 General Studio and 2 modulars = 1 Learning Setting.

Right: Modular installation

Below Right: Upstairs corridor modular



Floor plan



- 1 Science studio /
General Studio
- 2 Learning setting
- 3 Presentation Hall
- 4 Commons
- 5 Administration
- 6 Main Entry
- 7 Small-Group
- 8 Mentor Space
- 9 Outdoor Learning Areas



first floor plan

Floor plan



- 1 Science studio / General Studio
- 2 Learning setting
- 3 Presentation Hall
- 4 Commons
- 5 Administration
- 6 Main Entry
- 7 Small-Group
- 8 Mentor Space
- 9 Outdoor Learning Areas



second floor plan

Exhibition of School Planning and Architecture

Project Data

Submitting Firm :	Integrus Architecture
Project Role	Architecture, Structural Engineering
Project Contact	Forrest Miller
Title	Director of Support Services
Address	LWSD Resource Center, 16250 NE 74 th St
City, State or Province, Country	Redmond, WA, United States of America
Phone	425.456.4558

Other Firm:	LPD Engineering PLLC
Project Role	Civil Engineer
Project Contact	Laurie Pfarr
Title	
Address	911 Western Ave, Suite 420
City, State or Province, Country	Seattle, WA 98104
Phone	206.725.1211

Other Firm:	Cascade Design Collaborative
Project Role	Landscape Architect
Project Contact	Kas Kinkaid
Title	
Address	911 Western Ave, Suite 210
City, State or Province, Country	Seattle, WA 98104
Phone	206.628.9133

Other Firm:	Interface Engineering
Project Role	Mechanical Engineer, Electrical Engineer, Plumbing
Project Contact	Tim Reynolds
Title	Associate
Address	1417 4 th Ave, #600
City, State or Province, Country	Seattle, WA 98101
Phone	206.382.0200

Exhibition of School Planning and Architecture

Project Data

Other Firm :	M Space
Project Role	Modular Dealer
Project Contact	Al Long
Title	Senior Project Manager
Address	4814 Outlook Drive, Suite 108
City, State or Province, Country	Wall Township, NJ 07753
Phone	425.323.8480

Other Firm:	Blazer Industries, Inc.
Project Role	Modular Manufacturer
Project Contact	Rock Shetler
Title	Engineer
Address	945 Olney St. PO Box 489
City, State or Province, Country	Aumsville, OR 97325
Phone	503.749.1900

Construction Firm:	Absher Constriction Company
Project Role	General Contractor
Project Contact	Jeff Tiegs
Title	Senior Project Manager
Address	1001 Shaw Rd
City, State or Province, Country	Puyallup, WA 98372
Phone	253.845.9544

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Project Details

Project Name	STEM Secondary School
City	Redmond
State	Washington
District Name	Lake Washington School District
Supt/President	Dr. Traci Pierce
Occupancy Date	Phase 1: Jan 2013; Phase II: Sept 2013
Grades Housed	7-12
Capacity(Students)	675
Site Size (acres)	22
Gross Area (sq. ft.)	66,000
Per Occupant(pupil)	98
gross/net please indicate	Gross
Design and Build?	No
If yes, Total Cost:	
Includes:	
If no,	
Site Development:	
Building Construction:	\$24,080,000 (site & building combined)
Fixed Equipment:	
Other:	Change Orders: \$1,215,000
Total:	\$25,295,000