

An Outdoor School



for an Indoor World



"Avoid old ideas for this new space...avoid institutional approach to school design"

“Space should be inspirational yet calming, being flexible enough to handle evolution of the school into the future; don’t limit learning to confines of school schedule and classroom.”





"There are too many ugly green buildings."

Jason McLennan
CEO of the Cascadia
Green Building Council



“Integrate indoors with outdoors”

creativity

可樂



1

AN OUTDOOR SCHOOL
FOR AN INDOOR WORLD

2

WELCOME TO
IMAGINATION'S
SCHOOL

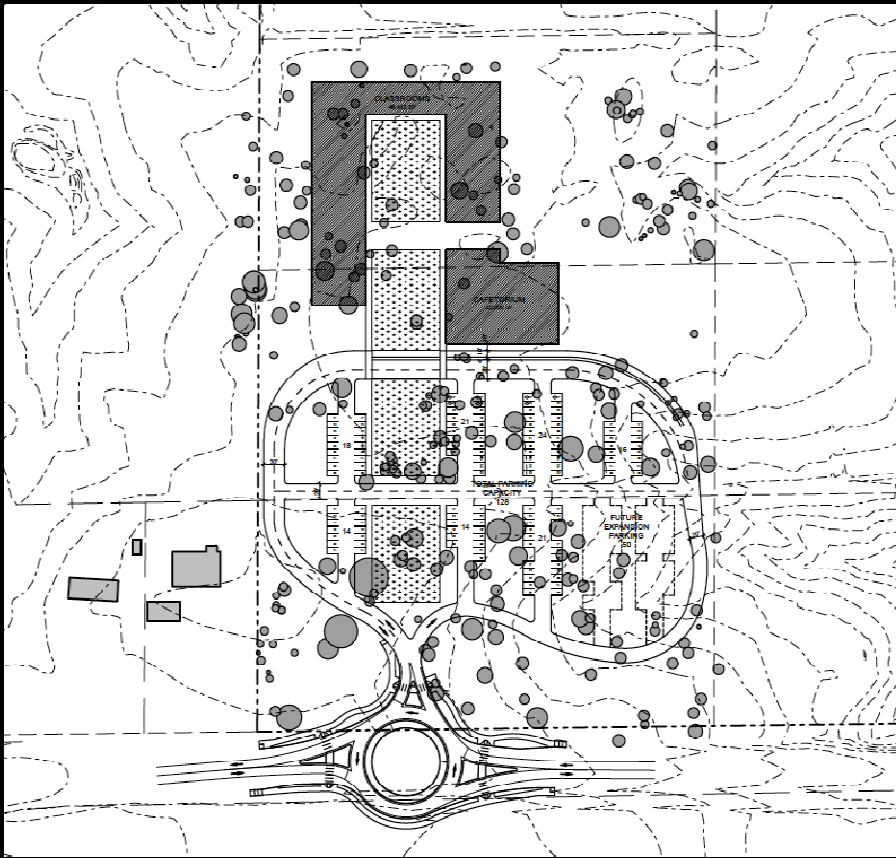


4

A TOOL
FOR TEACHING
GREEN

3

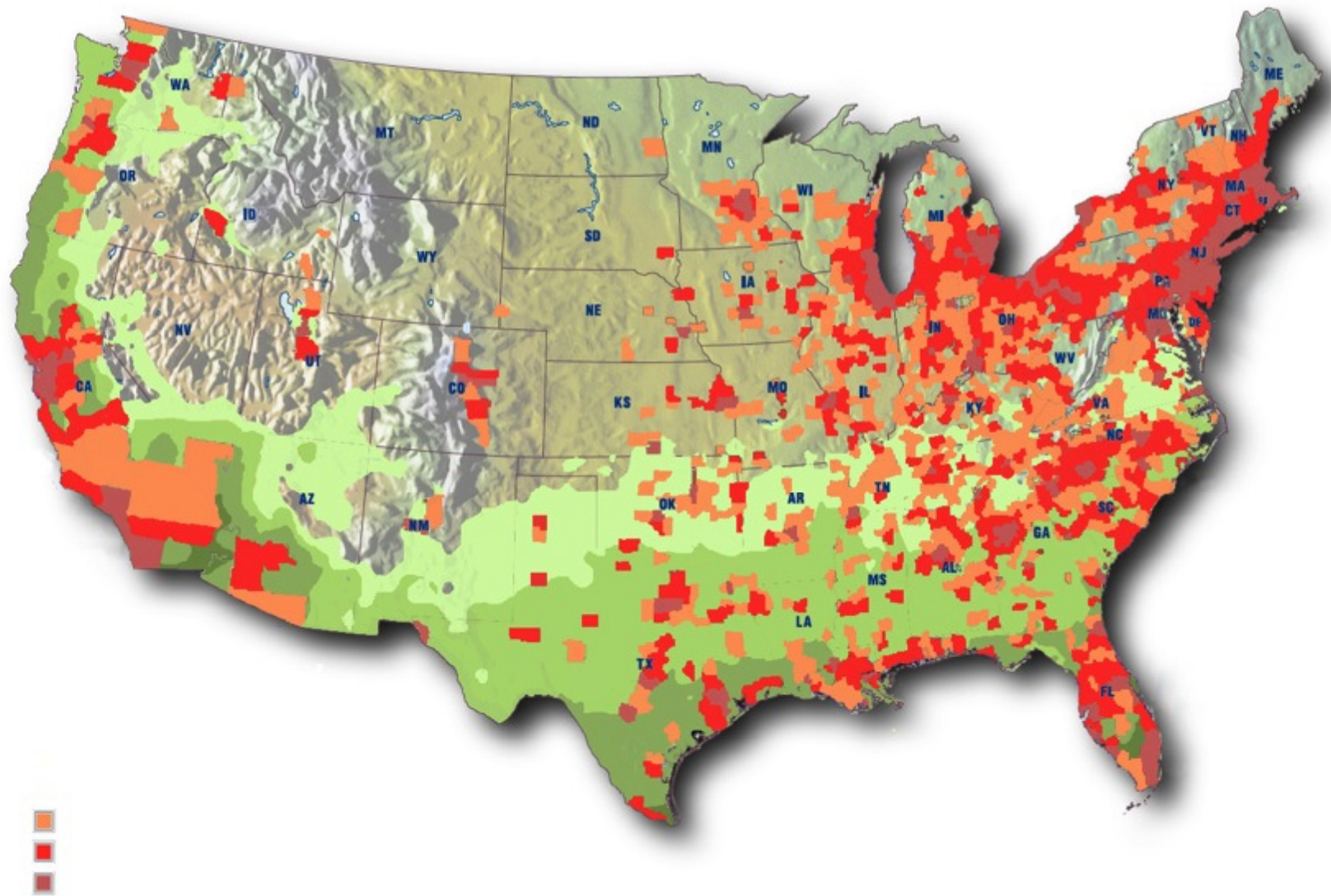
AFFORDABLE ENERGY AS A
ZERO SUM GAME



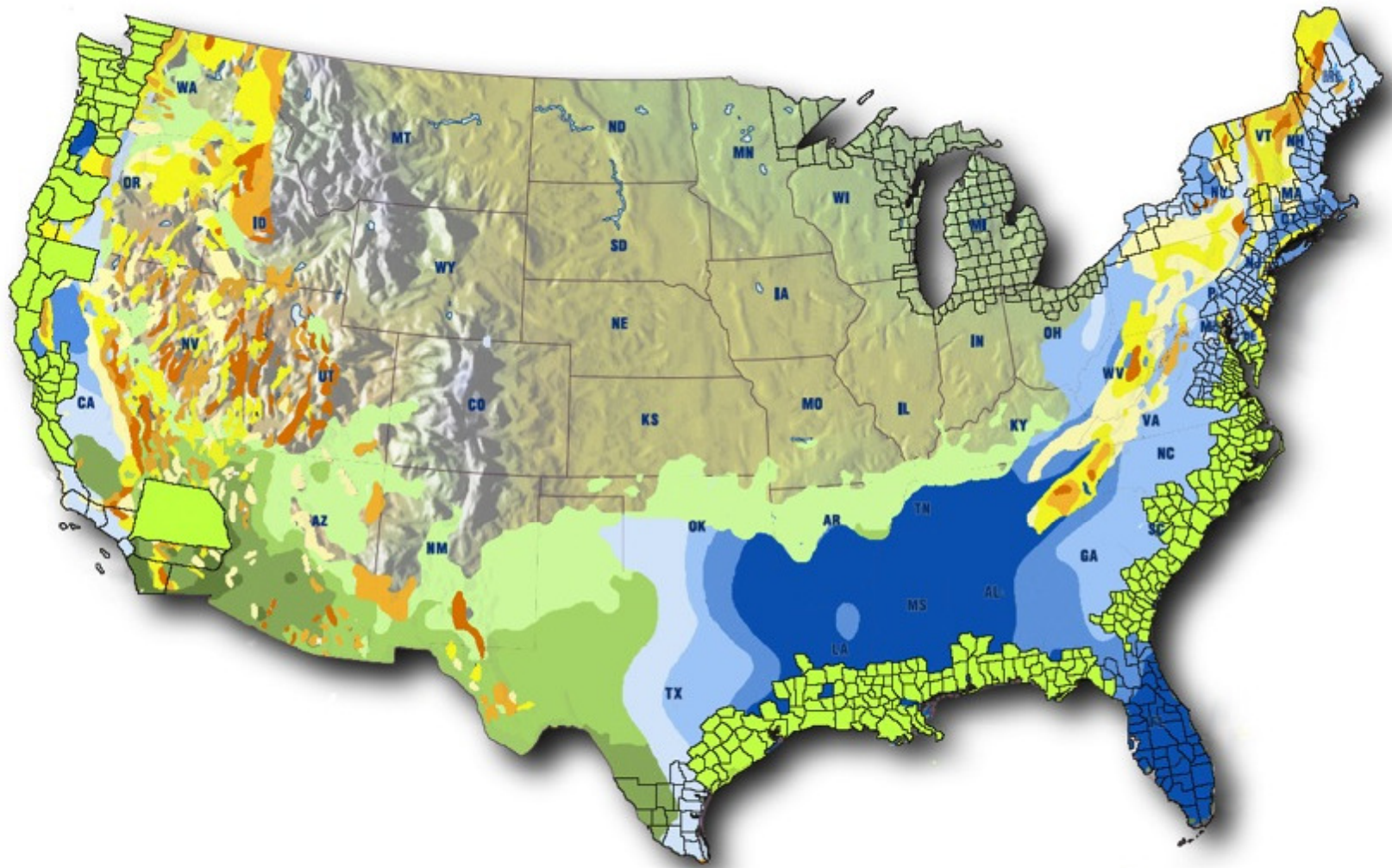
Connecting
to the Outdoors







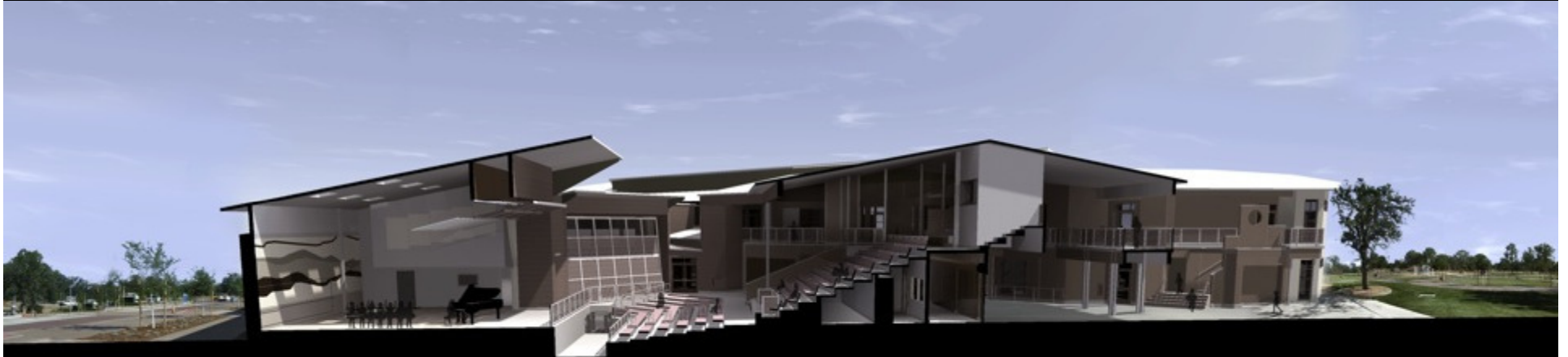
The Comfort Line



The Marginal Zone











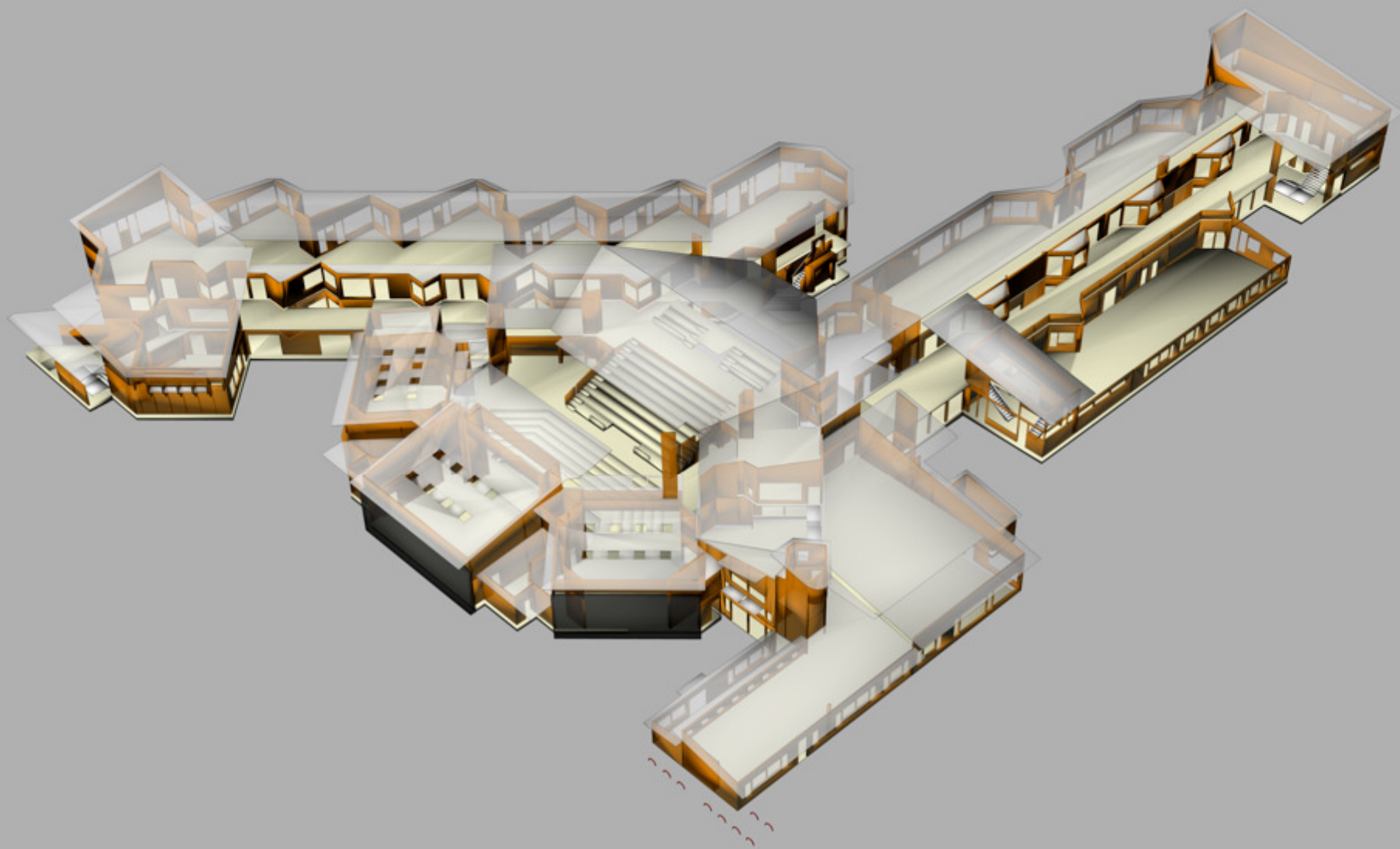




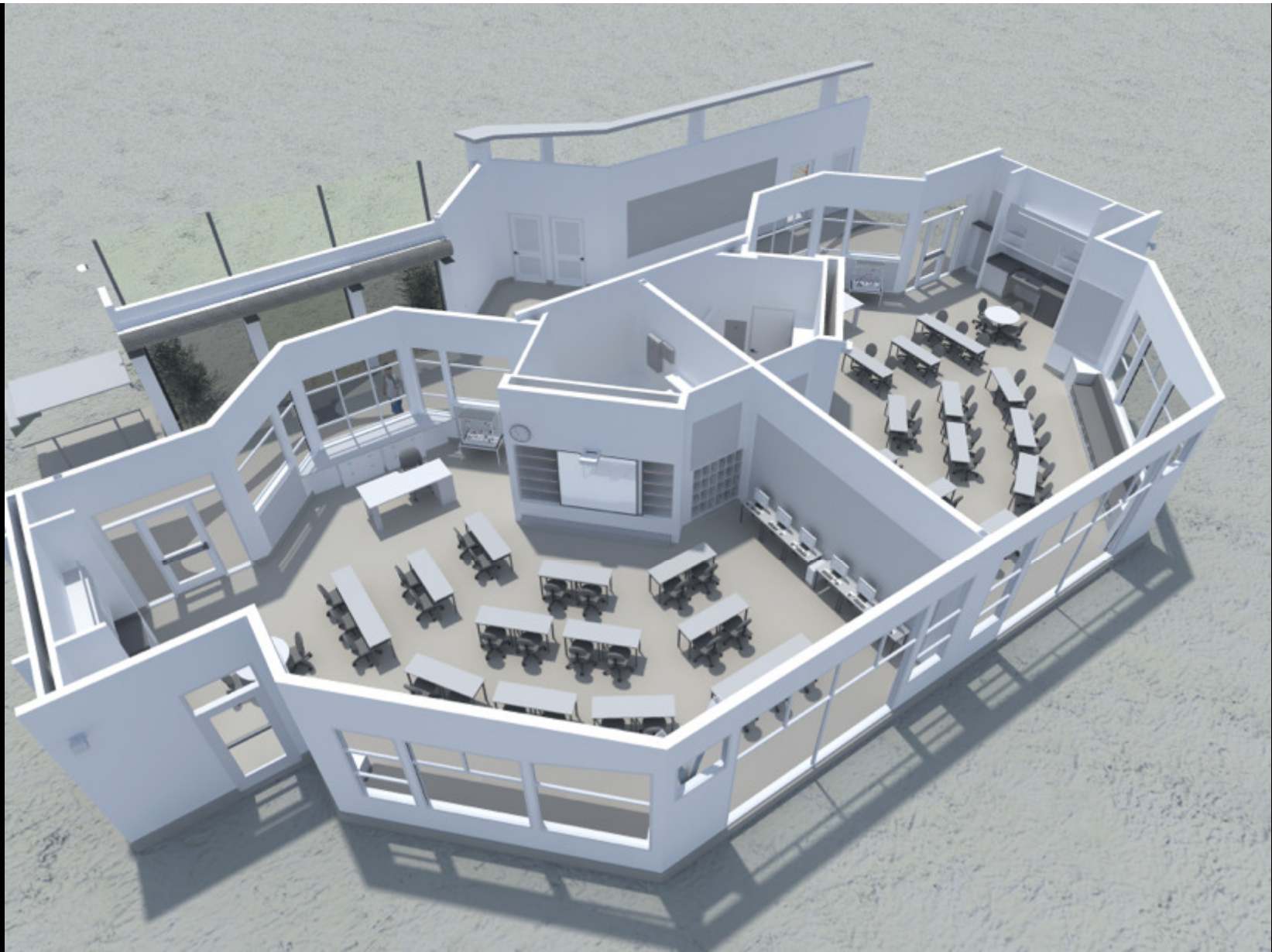
LEGEND

- 1.CANVAS DUCT FOR "SEMI-CONDITIONED" SPACE
- 2.TRANSLUCENT ROOF STRUCTURE FOR FILTERED LIGHT
- 3.METAL SCREEN OVERHANG FOR SHADE

- 4.MOTORIZED EXTERIOR SHADES ON WEST-FACING FACADES.
- 5.OUTDOOR CAFE STYLE SEATING
- 6.CLASSROOM GLAZING







Thinking Outside the (Classroom) Box





LEGEND

1. ACOUSTIC WALL TREATMENT
2. NORTH FACING GLAZING
3. ACOUSTIC CEILING TREATMENT
4. AUTOMATED LIGHTING SYSTEM

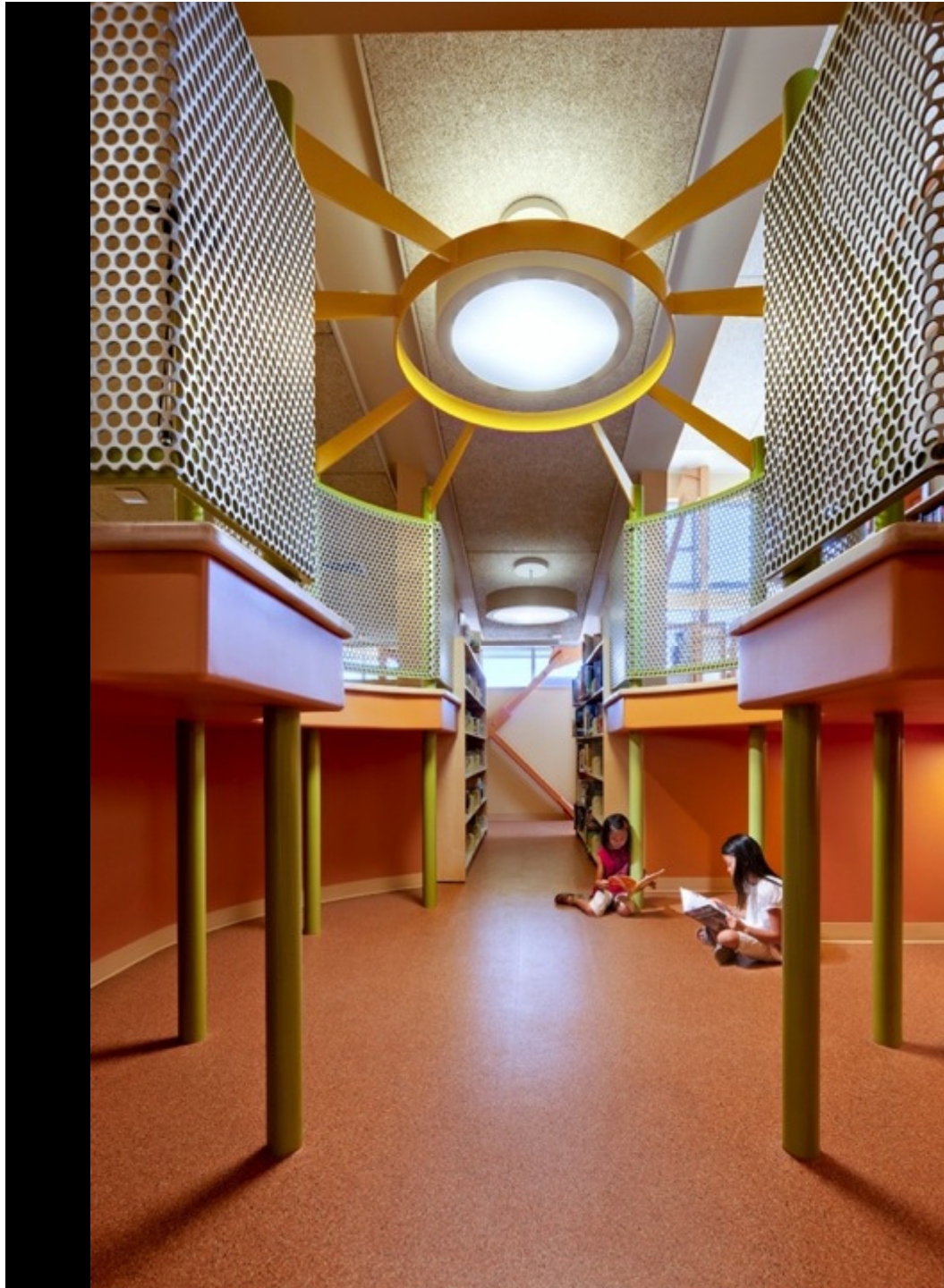
5. SHORT THROW PROJECTION SYSTEM
6. SOUND SYSTEM
7. LEARNING CENTER WITH STORAGE BEHIND
8. RETRACTABLE SPEAKING / PERFORMANCE PLATFORM

9. RUBBER FLOORING
10. LOW VOC PAINT

"It's not like moving from a car to a spaceship; it's just a little nicer car."







LEED Certification Scorecard Breakdown



☒ Sustainable Sites

☒ Water Efficiency

☒ Energy & Atmosphere

☒ Materials & Resources

☒ Indoor Environmental Quality

☒ Innovation in Design

☒ Regional Priority



☐ **YES**

☒ **NO**

Zero Net
Energy Design

Affordable Energy as a Zero Sum Game

Buildings constructed in the U.S. in 2008: 100,000

Number of those
registered for LEED Certification 10,000

actually LEED Certified 1,400

50% more energy-efficient than code 70



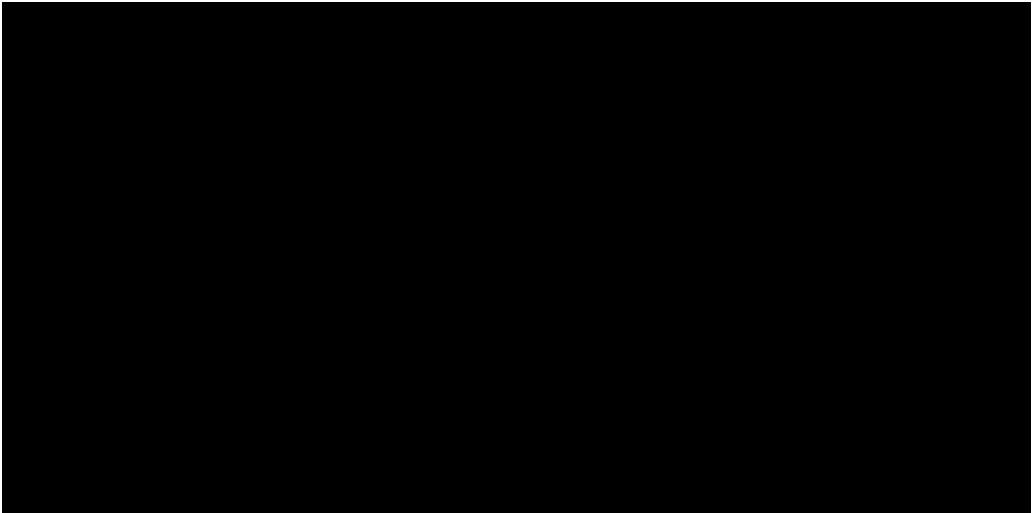
"Number of those that are net-zero7



As of August 11, 2010,

Total LEED certified projects worldwide:	5,384
Number of those reaching Platinum certification	305
that are Platinum certified K-8/12 schools	10

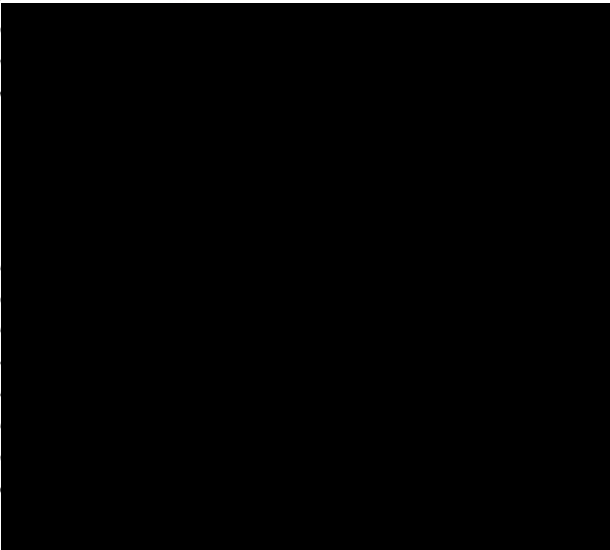
Number of those that are LEED 2009	0
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Building for Sustainability An integrated approach to the built environment,
balancing the social, economic and environmental aspects of our lives and
our communities.

Report: Six Scenarios for
The David and Lucile Packard Foundation
Los Altos Project

October 2002



Comparison Summary: Cost Impacts

Market

	First Year	30 yrs (NPV)	60 yrs (NPV)	100 yrs (NPV)
Hard Costs				
Initial Construction Costs	\$ 10 m	\$ 11.7 m	\$ 14.7 m	\$ 15.4 m
FF+E, Permits, Fees, Etc.	\$ 1.3 m	Inc. above	Inc. above	Inc. above
Soft Costs				
Design + Mgmt Fees	\$ 1.3 m	\$ 1.4 m	1.8 m	\$ 1.9 m
Operating Costs		\$ 9.2 m	\$ 46 m	\$ 333.1 m
Mech + TI Replacement Costs		\$ 420,000	\$ 420,000	\$ 530,000
Total – Net Present Values		\$22.7 m	\$62.9 m	\$348.9 m

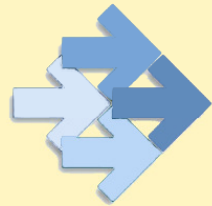
LEED™ Platinum

	First Year	30 yrs (NPV)	60 yrs (NPV)	100 yrs (NPV)
Hard Costs				
Initial Construction Costs	\$ 12.1 m	\$ 14.3 m	\$ 14.3 m	\$ 14.3 m
FF+E, Permits, Fees, Etc.	\$ 1.6 m	Inc. above	Inc. above	Inc. above
Soft Costs				
Design + Mgmt Fees	\$ 1.7 m	\$ 1.9m	\$ 1.9 m	\$ 1.9 m
Operating Costs		\$ 1.5 m	\$ 6.6 m	\$ 44.9 m
Mech + TI Replacement Costs		\$ 600,000	\$ 900,000	\$ 1.1 m
Total – Net Present Values		\$ 18.3 m	\$ 23.7 m	\$ 62.2 m

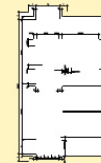


100% of the general classrooms are oriented for north lighting

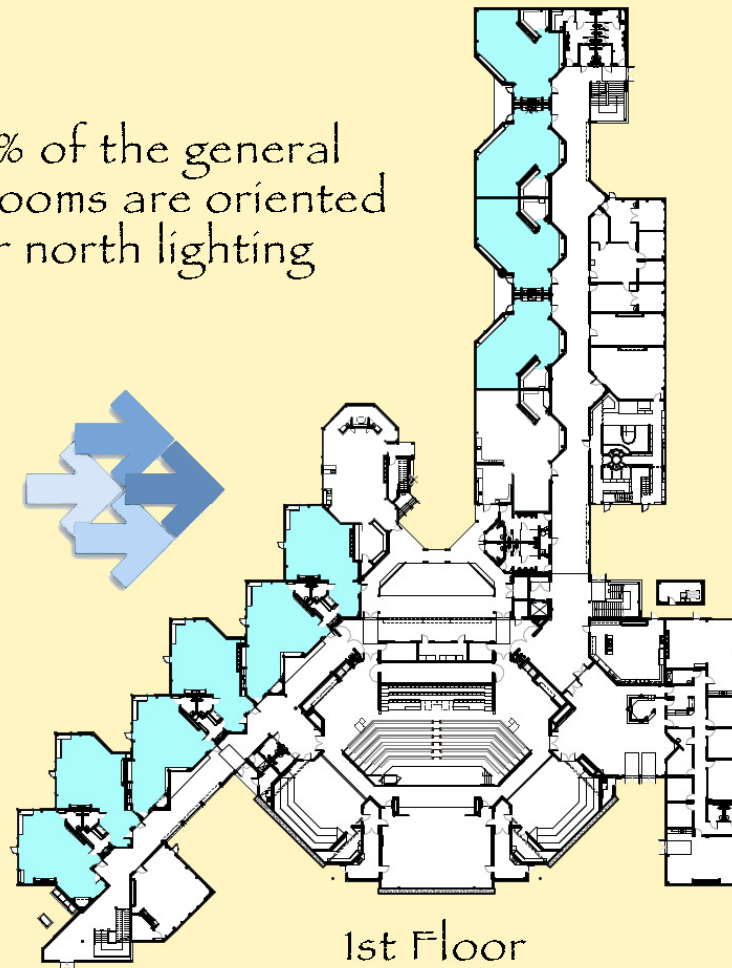
Each classroom has operable windows for cross-ventilation



Operable garage doors allow access to the outside air

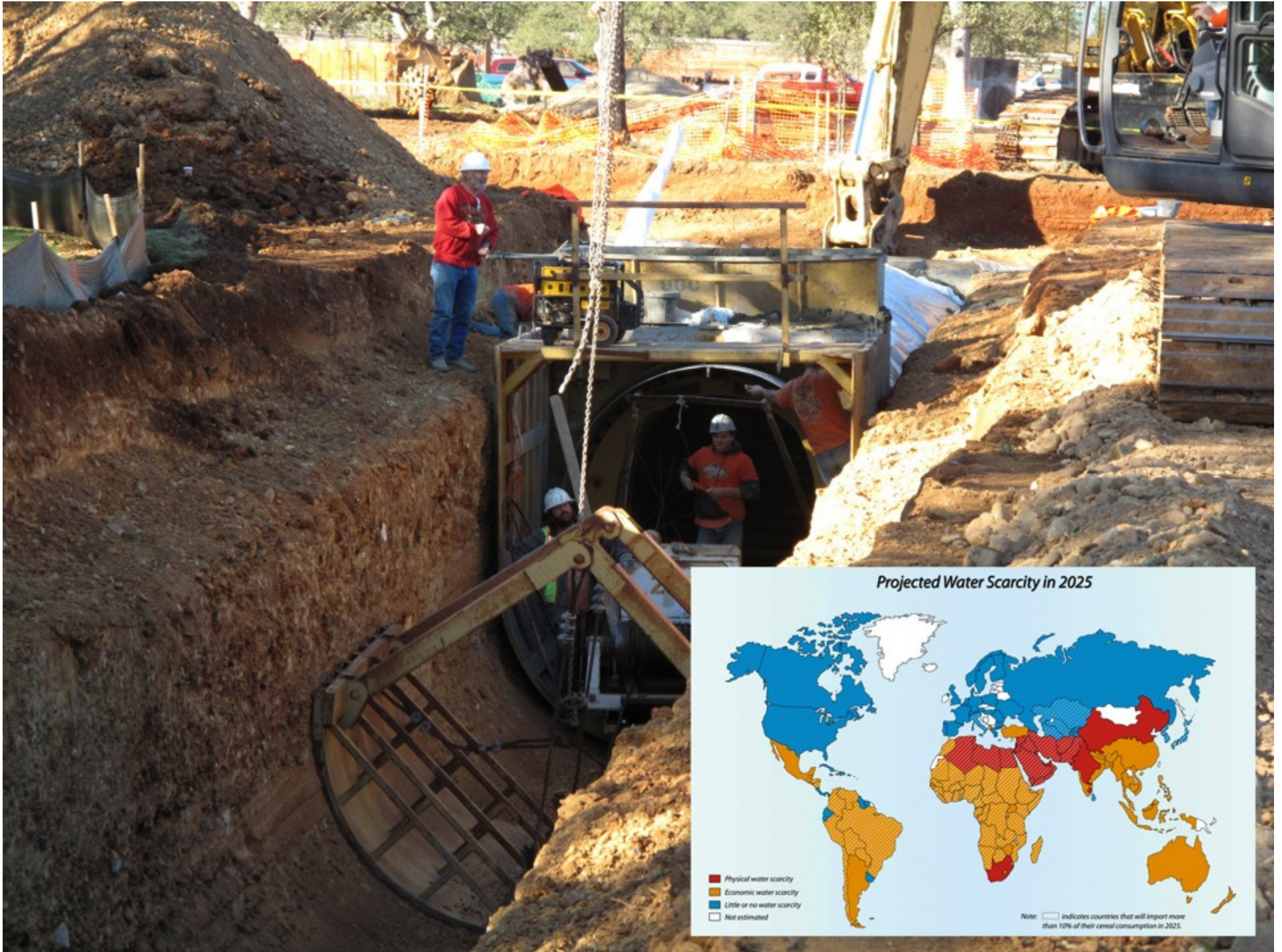


South-facing rooms have deep overhangs

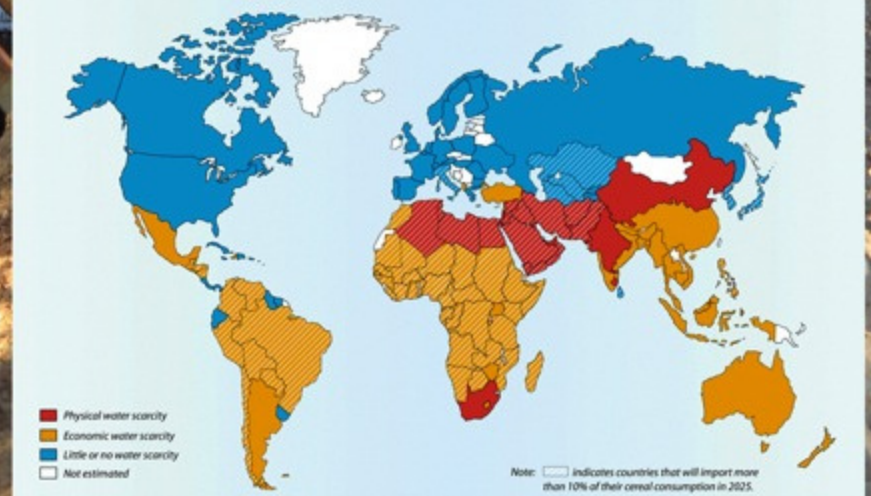


1st Floor

General Classrooms



Projected Water Scarcity in 2025



Total Electricity Consumption

Kilowatt-hours of electricity consumed this month

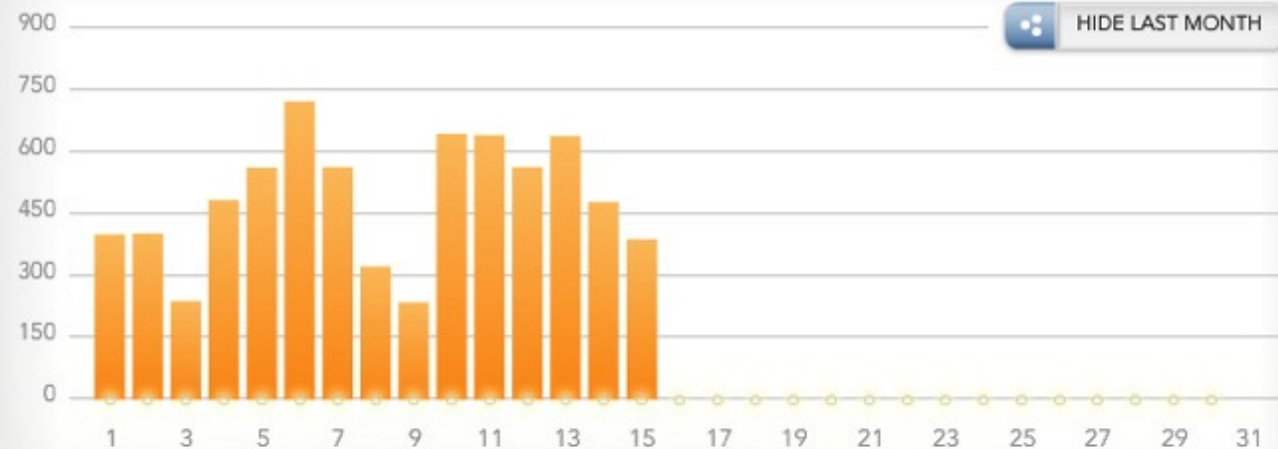


REDDING SCHOOL OF ARTS

Total Use

7,335

Kilowatt-hours



HIDE LAST MONTH

Viewpoint

Select a Timescale

Select a Unit equivalent



Introduction



Green Features



Electricity



Solar Electric



Geothermal



Water



Water Level

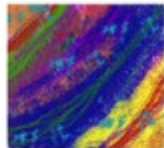


Green Tips



Weather

Building Dashboard®



Tools for Teaching Green

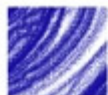
Redding School of the Arts



Food for Thought



Earth, Water and the Air We Breathe



A Healthy Discussion



Energy: Conserve & Create, Reduce & Recycle



How Buildings Work



Creativity & Learning Together





