



THE FUTURE IS WAITING AT
THE BEST OF THE BEST
SCHOOL



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Introduction

- School of Excellence located where Lake Oswego Junior High is currently
- Utilizes future green energy solutions
- Connected with community
- Safer traffic patterns
- Uses futuristic technologies



Lake Oswego Junior High
School -2016



Best of the Best School
-2020

Architecture Club- Planning

Our club toured the school premises for ideas for our new school.

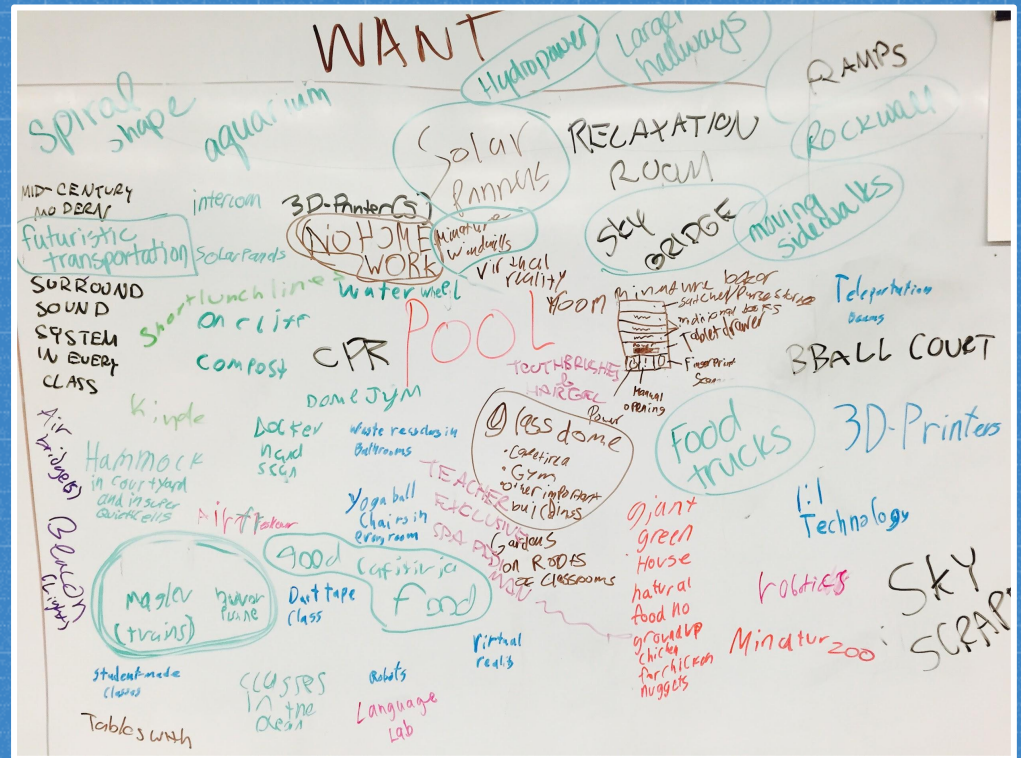
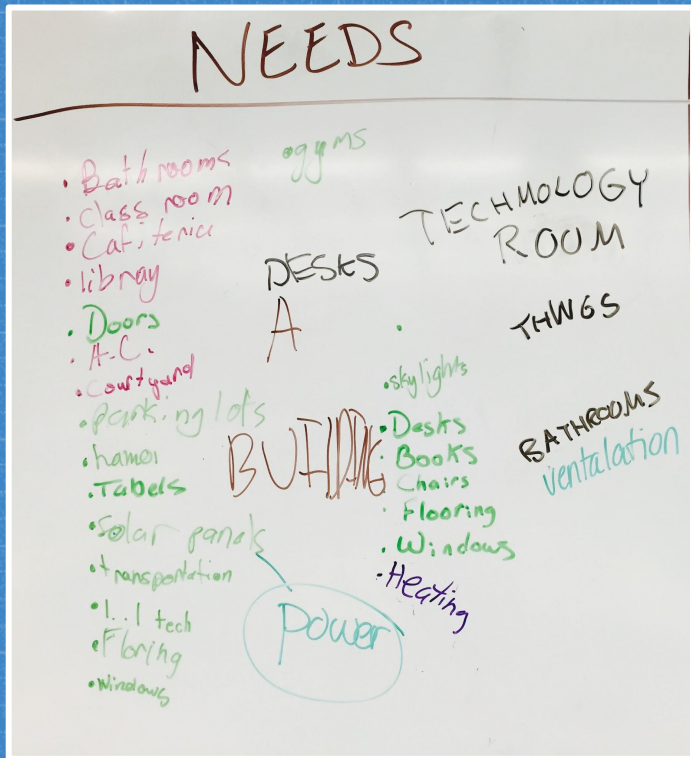
We liked the garden area and moved it to the rooftop to take advantage of more sun.



Something that we felt needed to be changed was the traffic congestion.

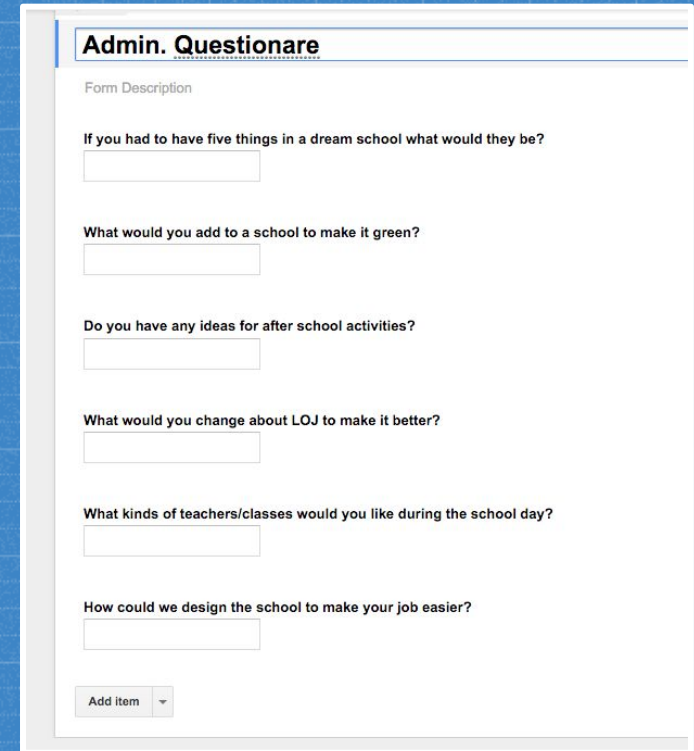
Planning

- We brainstormed and decided on what our school needed and wanted.



Google Survey for needs and wants

- Students:
 - more and better commons
 - more technology
 - bigger/better lockers.
- Teachers:
 - more natural light
 - technological innovations
 - green roof
 - green energy.
- Custodial Staff:
 - updated mechanical room
 - easier clean up (central vac)
 - easy roof access



Admin. Questionnaire

Form Description

If you had to have five things in a dream school what would they be?

What would you add to a school to make it green?

Do you have any ideas for after school activities?

What would you change about LOJ to make it better?

What kinds of teachers/classes would you like during the school day?

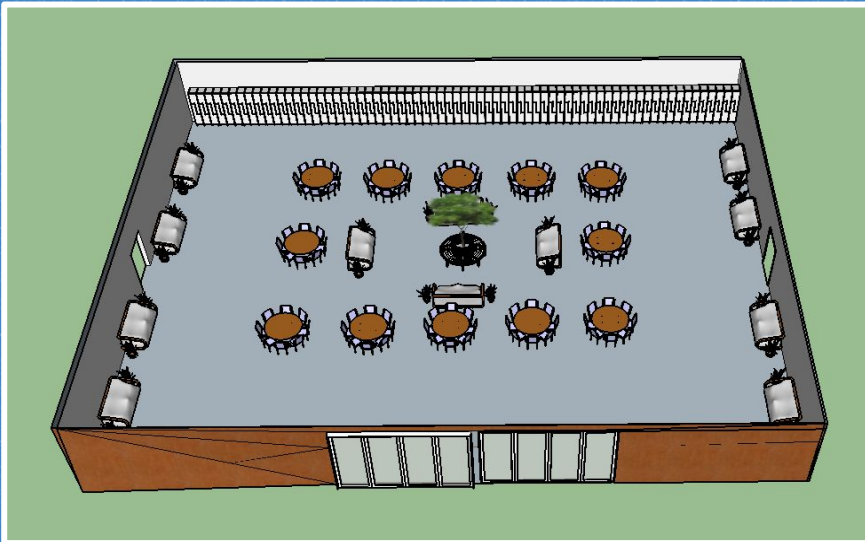
How could we design the school to make your job easier?

Add item ▾

Educational Programing



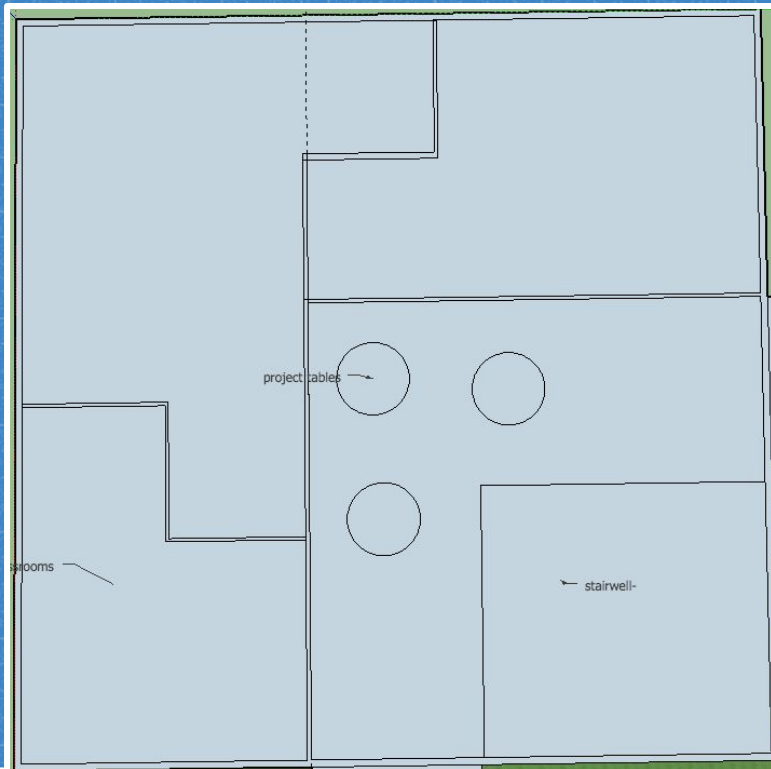
- Start time at 10a.m.and finish time at 4p.m.
- Project based school where pods are set up with common space for collaboration.
- Each pod is divided into specific core subjects.





Project based education

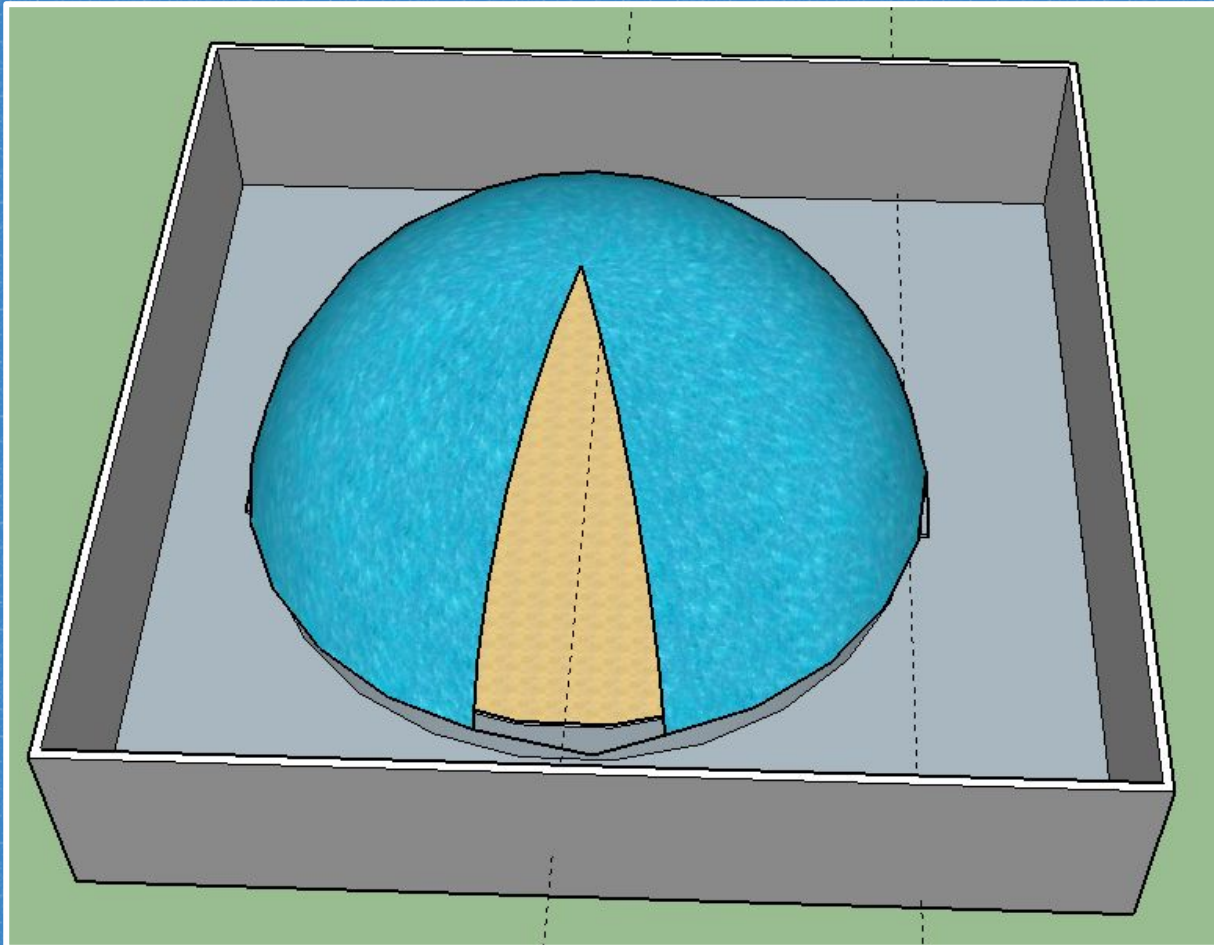
- Space available for collaborative projects with students from different classes
- Large glass windows allow for teachers to monitor and for the learning to be connected to the classroom



The Holodeck

A technological innovation of the BOB school-

The opening in our holodeck slides around to let people in and out.



The Holodeck can adjust to the temperature and humidity to enhance the experience.

This virtual field trip is showing kids the deep open-ocean.

- The Science pod contains the holodeck for virtual field trips for unique learning!

Tech Labs



- 3D Printers
- Makerspaces- Science Labs, Tech lab, and collaborative spaces
- 1:1 Current technologies
- Paperless site
- G.A.F.E. (Google Apps for Education)

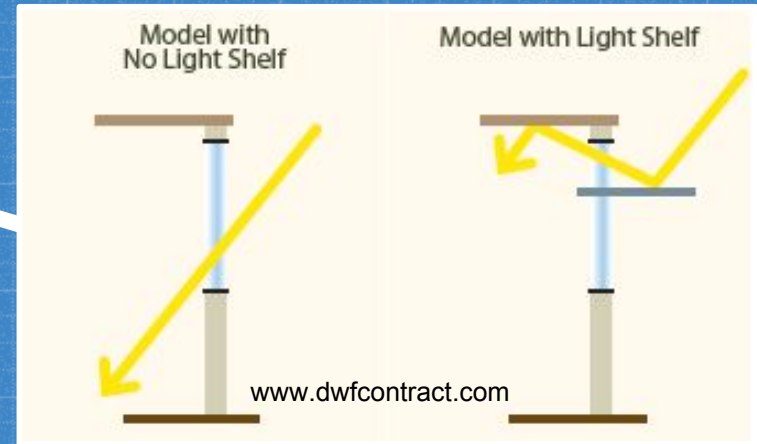
Green Thinking



We have many “green” features such as...

- solar panels supply much of the necessary power.
- Green roofs on the larger building allow for horticultural classes.

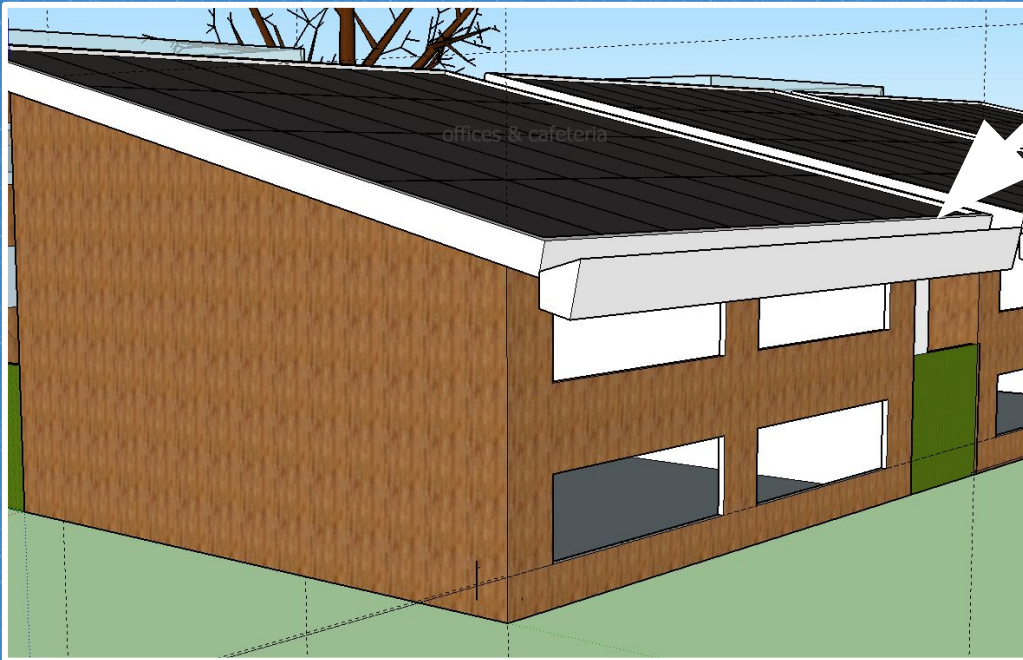
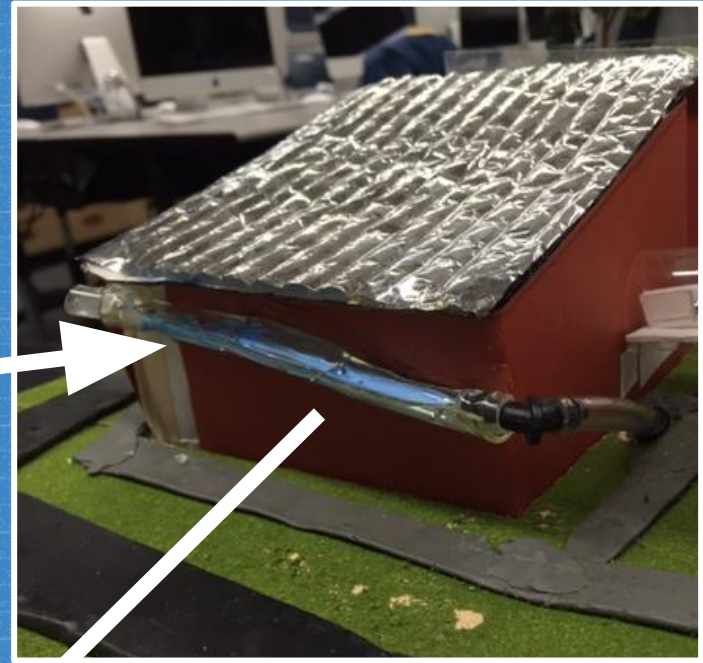
Green Thinking



- Light Shelves that help light up the building and limit energy use.
- Lighting fixtures are photosensitive and adjust to natural light.
- Bamboo floors and ceilings will help reflect light.

Green Thinking

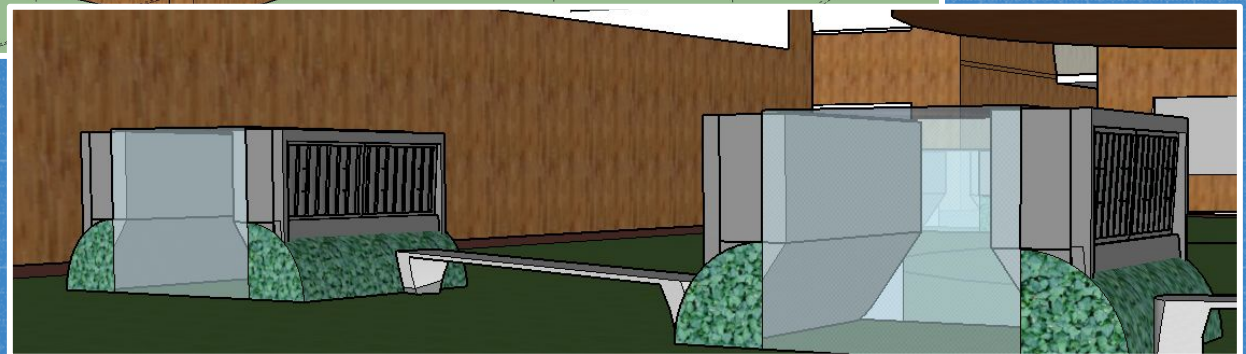
A rainwater harvesting system used for water in nonpotable areas such as the toilets and garden spaces.



- Natural light and air flow ventilation from large windows and light wells keep our school comfortable in the Pacific Northwest climate.

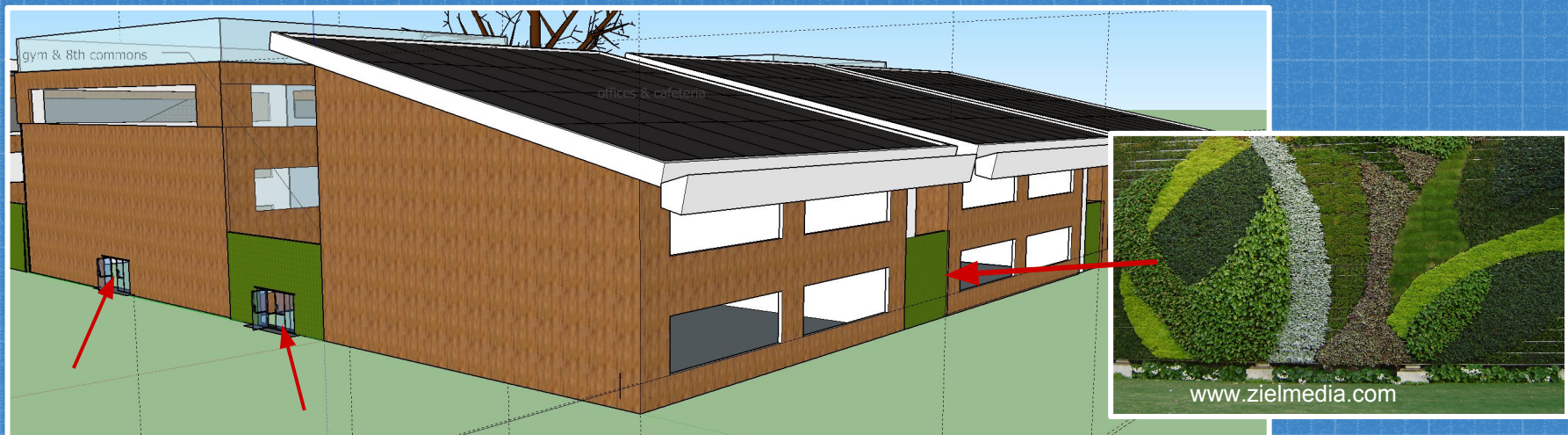


Library under the courtyard is both lighted and ventilated in part by the light wells.

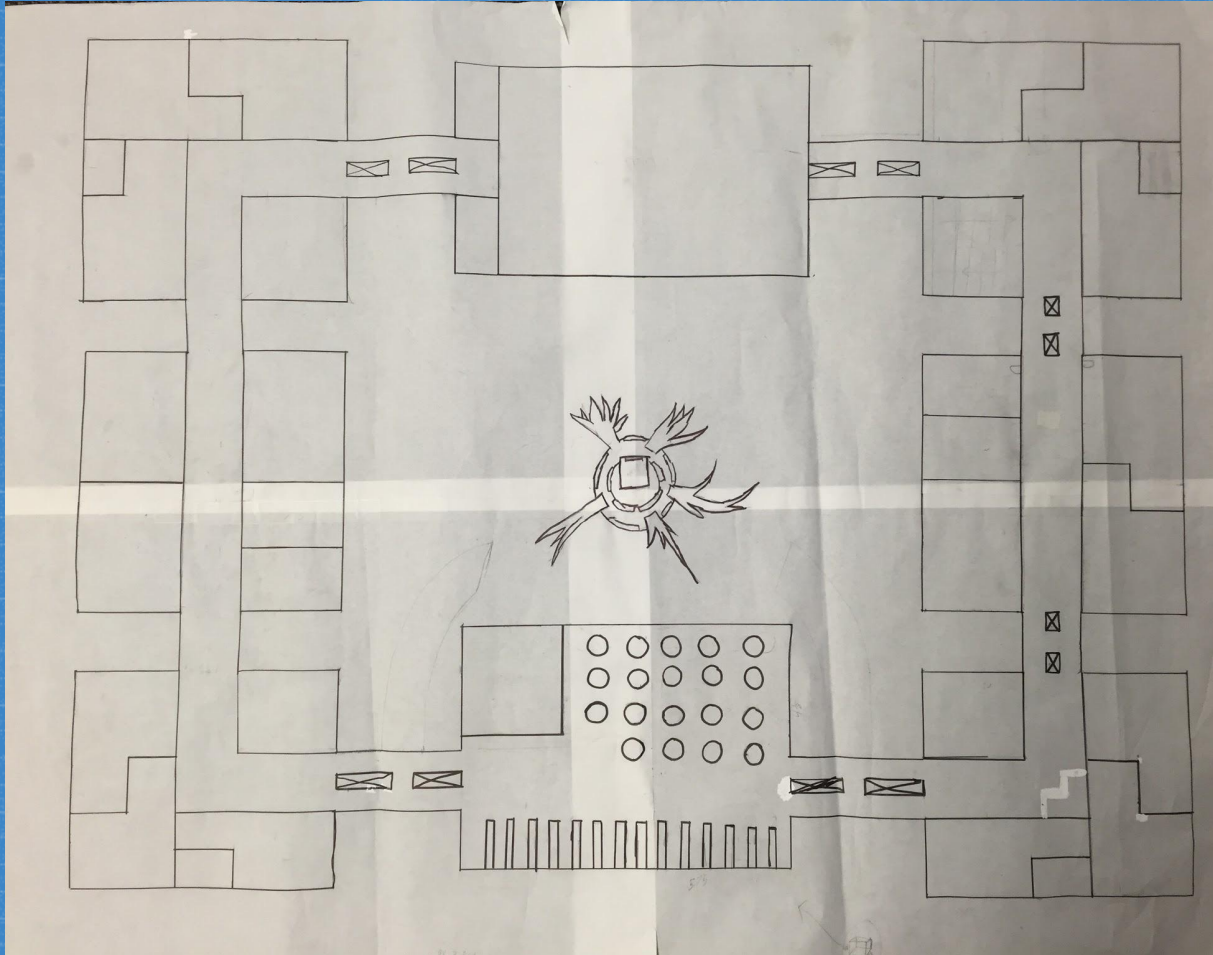


Security

- Front and back doors only open during drop off and pick up.
- Vertical green walls on the border of the buildings.
- Visitors must enter through the office.
- RFID & Biometric Scan- in main entries and entries to classrooms to take attendance and monitor visitors.



Architecture Features of School



Floor Plan of School

Architecture Features of School

Tree used for educational purposes w/ birdwatching deck.

- visible from interior of library through glass walls.



6 Light Wells- ventilation for the library to let in natural light and to let out heat.

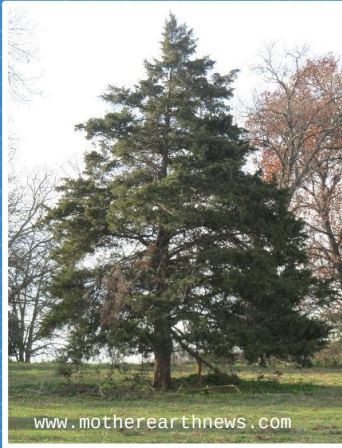


Glass wall in Library on lower floor.



Grade Level Commons- Areas for students to work on projects, eat lunch, and socialize!
Nanawall- opens to bring in fresh air and give a sense being in the outdoors.

Building Materials



- Used cedar wood for exterior walls
 - renewable
 - Reusable later
- Bamboo wood for floors and ceilings
 - Renewable- fastest growing resource
 - Reflects natural light
 - Extremely strong and durable

Building Materials



C02 Sequestering Concrete:

- Exterior walkways, building foundations, outdoor benches
- Mostly recycled materials (glass and other silica, steel dust, ferrock, limestone)
- 5 times stronger than regular concrete
- Traps C02 as it cure- great for the environment
- No cement needed- better for air quality

Community Environment

Community access to the school:

- After school hours
- Tree of Knowledge for birdwatching
- Holodeck for field trips
- Library - meeting place
- Theater- presentations
- Court yard



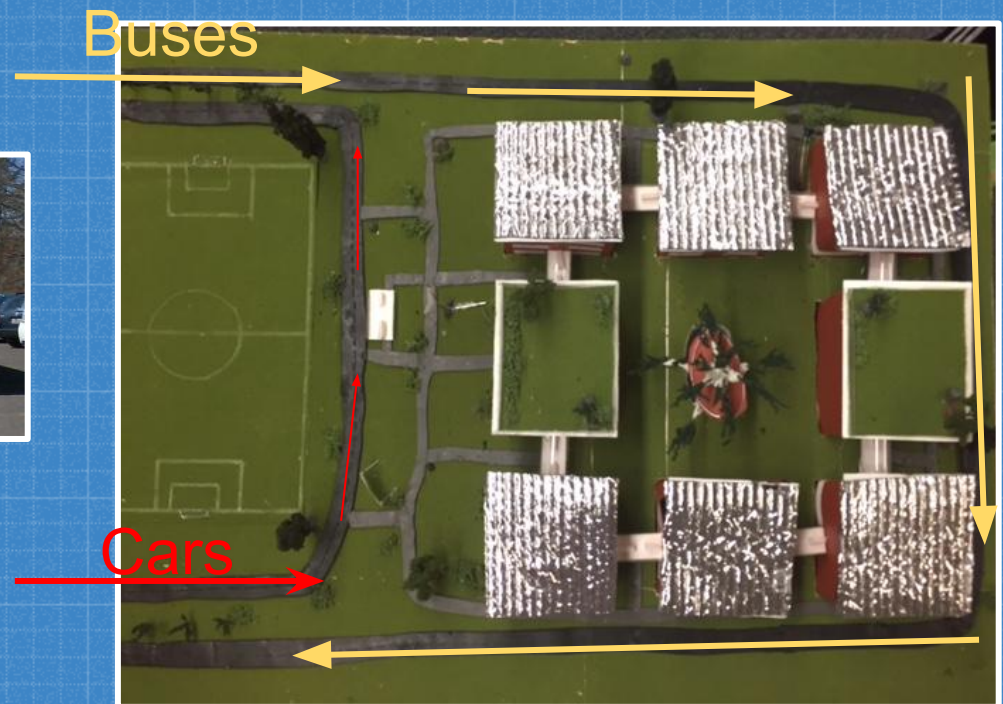
Also, during the summer, the solar power produced goes to the community

Traffic Pattern

- Buses will go around to the back of the school.
- Cars will come around the front of the school for drop off.
- They have opposite traffic patterns to alleviate congestion during drop-off and pickup.



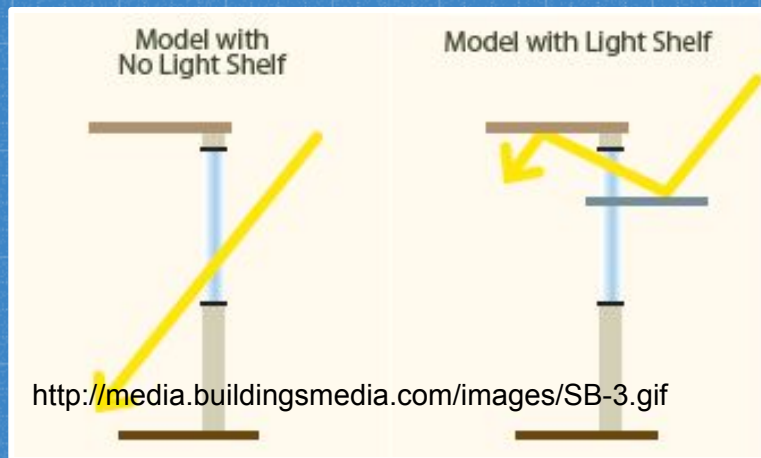
The old way.....



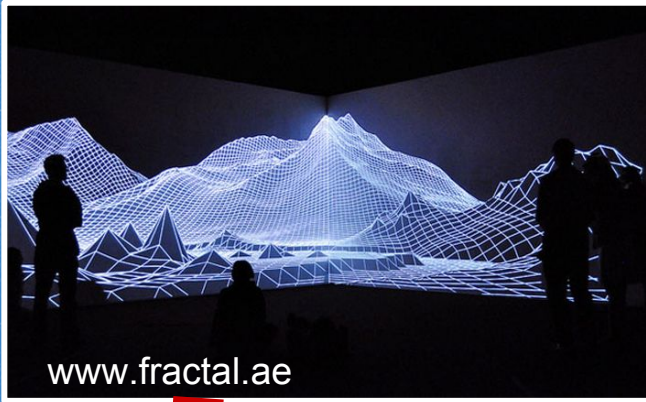
The New Way!!

Conclusion

- The greenest school with the smallest carbon footprint.
- Invites in the community
- Great learning environment
- Encourages collaboration



<http://www.processindustryforum.com/>



Technology



Collaboration



Community

❖ “BOB” is simply the BEST OF THE BEST!