

ASCENSION

It is no surprise that the educational institution environment is being perceived as a more dangerous and unpredictable place in today's culture than ever before. As unfortunate as this is, it is crucial for the safety of our children and dedicated faculty, to design a more secure environment for students to learn and develop into the future generation of our world. Not only do we see harm in schools, but there is also the issue of harm being done to our planet through overuse of energy and resources.

The proposal for this Palouse Prairie Charter School consists of the design for a safe and sustainable school that will better serve today's changing needs for defending educational institutes and our planet. Located in Moscow, Idaho, this school offers a safe and caring environment through collaboration, discovery, and a strong connection to the natural world. Stepping up a sloped site, the building forms two separate but secure outdoor spaces, each with their own function: recreation and agrology, catering to the scientific values of the school.

(1)



Palouse Prairie Charter School Moscow, Idaho

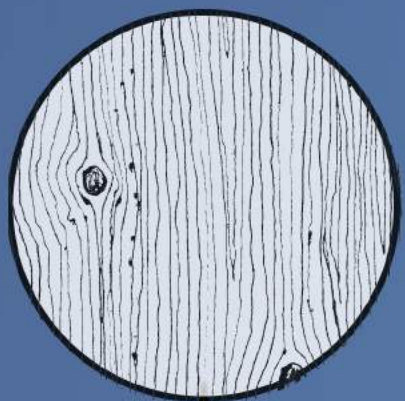




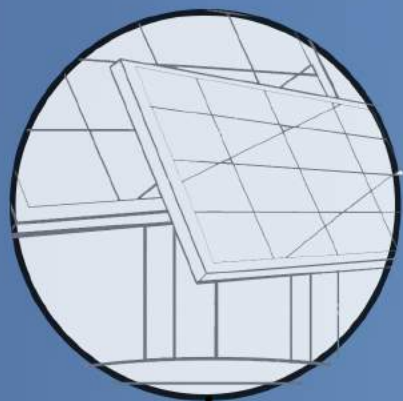
Bicycle circulation was implemented into the masterplan design in order to encourage more eco-friendly transportation options. Plenty of bicycle parking is also available around the perimeter of the building.



(3) Design for Ecology Maple Rocky Mountain, Lady Fern, Columbia Red, and Blue Mountain Juniper are all native plant. These plants have evolved to thrive in this environment therefore there is no need to change onsite soil for the landscaping.



(5) Design for Economy Utilizing cross laminated timber as the main structure and finishing material allows us to utilize local resources. CLT products are produced locally allowing us to support our local economy as well as minimizing distances towards product delivery.



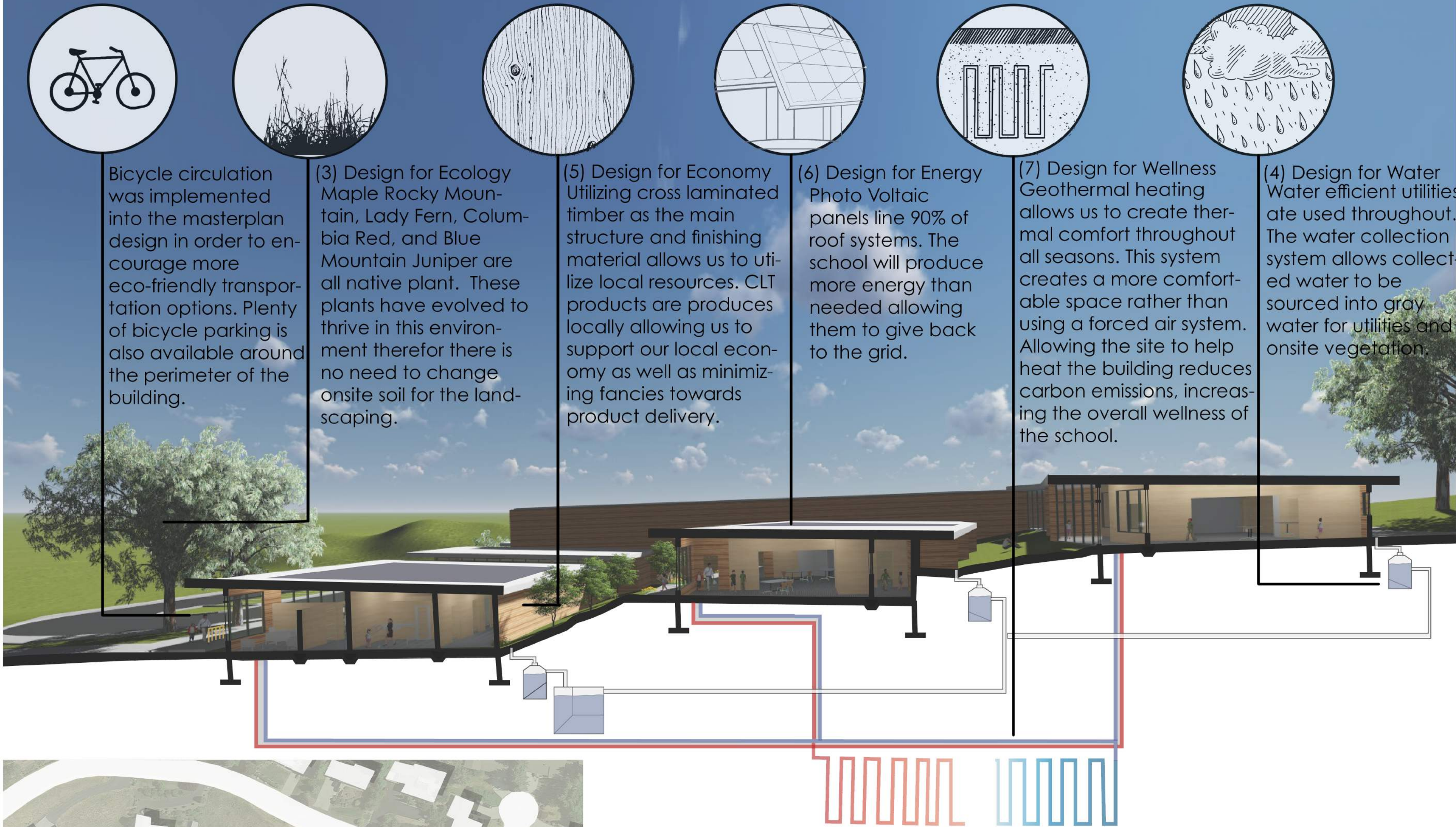
(6) Design for Energy Photo Voltaic panels line 90% of roof systems. The school will produce more energy than needed allowing them to give back to the grid.



(7) Design for Wellness Geothermal heating allows us to create thermal comfort throughout all seasons. This system creates a more comfortable space rather than using a forced air system. Allowing the site to help heat the building reduces carbon emissions, increasing the overall wellness of the school.

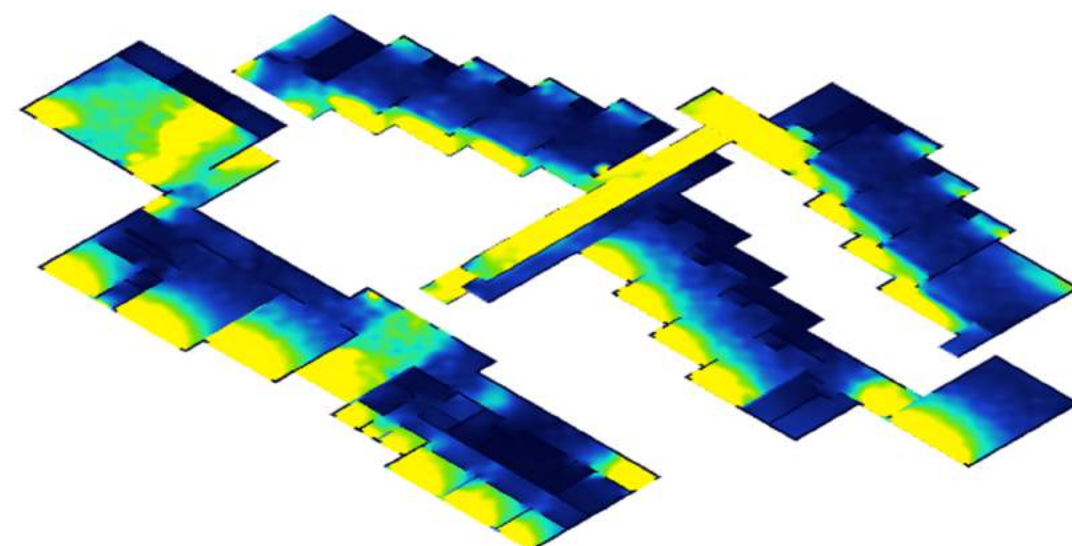
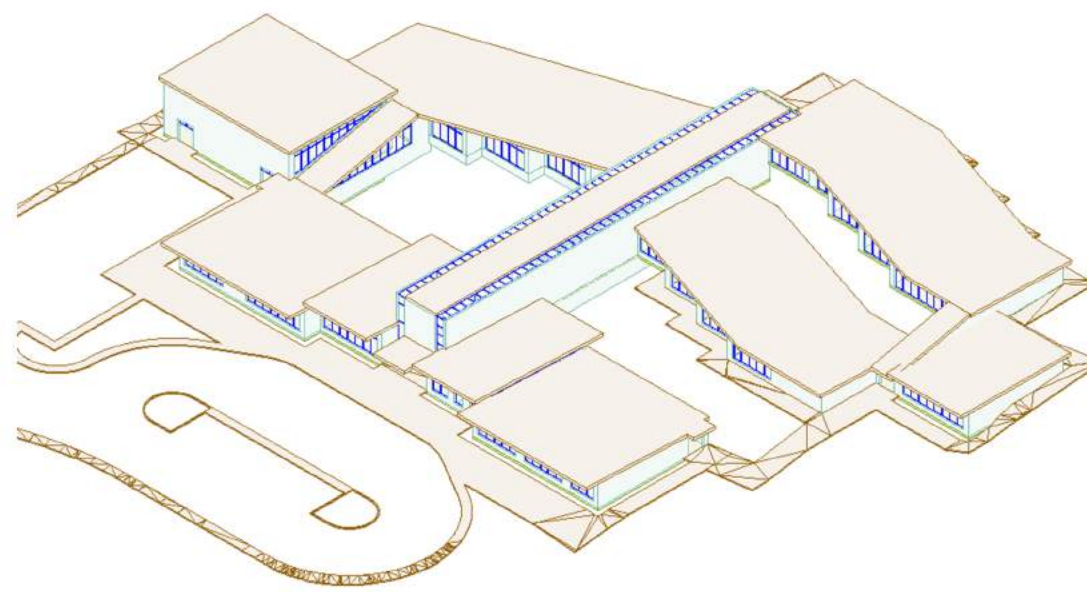


(4) Design for Water Water efficient utilities are used throughout. The water collection system allows collected water to be sourced into gray water for utilities and onsite vegetation.



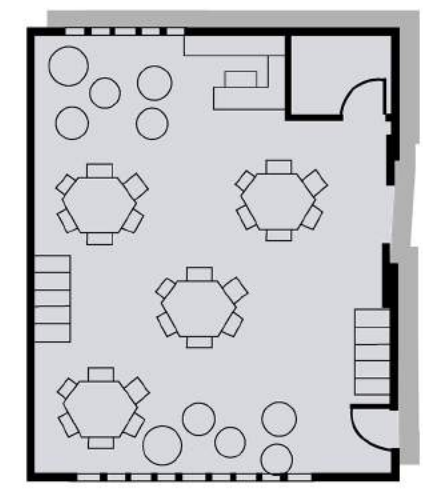
Moscow, ID

This site focuses on utilizing the natural topography, native landscaping, and creating a space that students want to spend their days at. (2) Design for Community

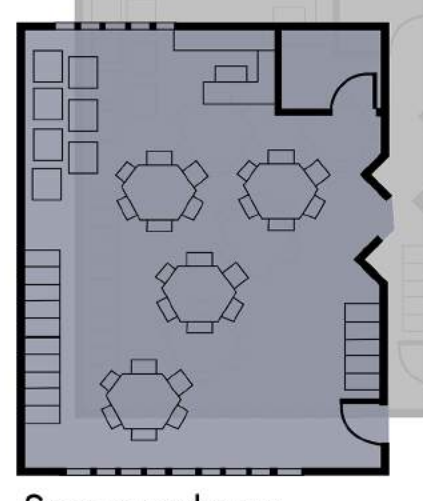


(6) Design for Energy According to Sephira, this charter school will only use 14kbtu/yr. This is well below the 2030 challenge goal of 25. This data does not include the energy gained through onsite renewables.

Each classroom is able to achieve a well lit status. Creating a successful and comfortable education environment.



Primary Classroom



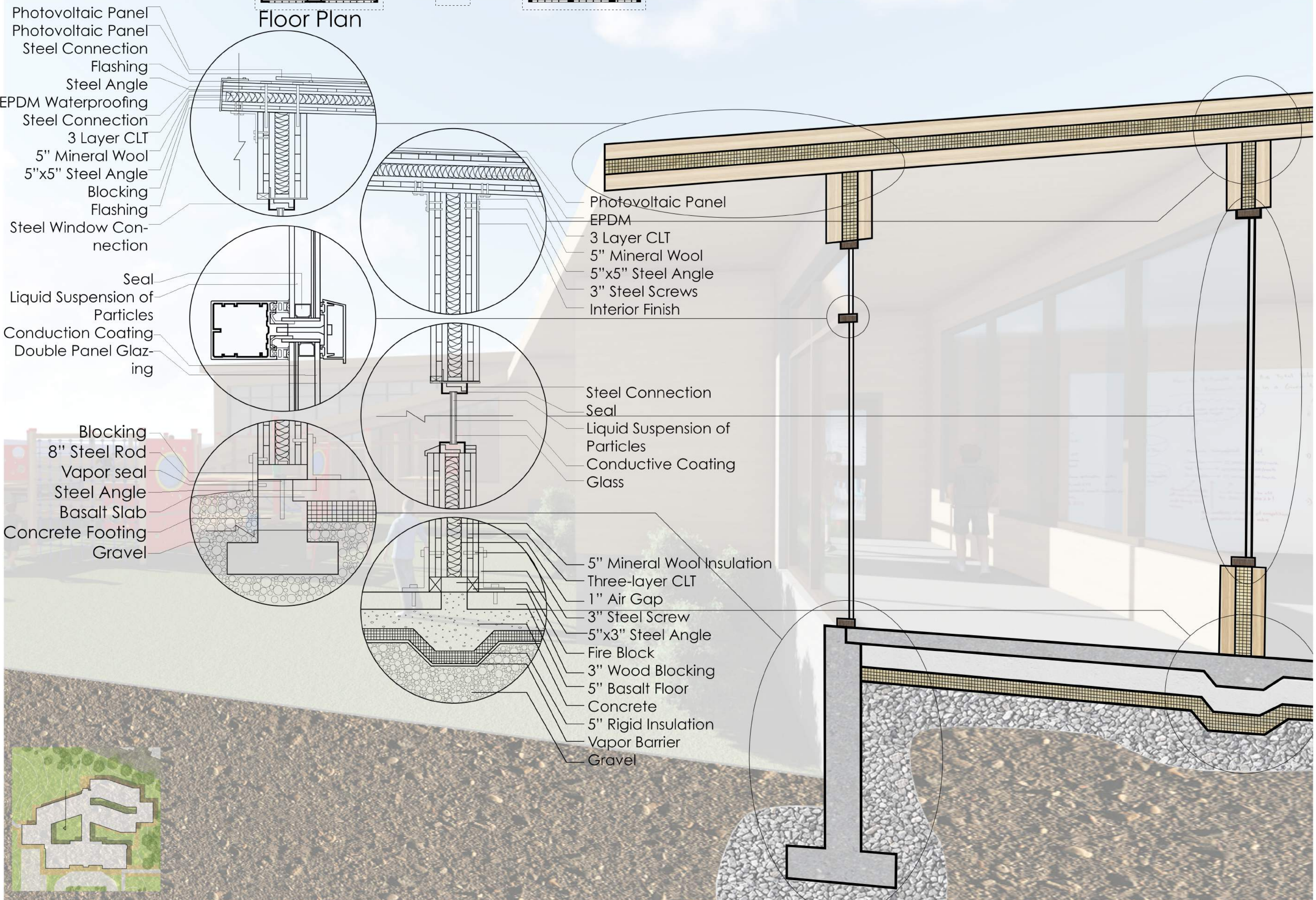
Secondary Classroom

(8) Design for Resources

All materials used in the school are locally sourced. This supports the local economy, as well as lowering the amount of emissions transmitted while the materials are being transported to the site.

(9) Design for Change

Due to materials used and a simple structural plan, this building can easily be added on to when the school chooses to expand. The materials can be relocated and reused if the building is moved.



Photovoltaic Panel

Photovoltaic Panel

Steel Connection

Flashing

Steel Angle

EPDM Waterproofing

Steel Connection

3 Layer CLT

5" Mineral Wool

5"x5" Steel Angle

Blocking

Flashing

Steel Window Connection

Seal

Liquid Suspension of Particles

Conduction Coating

Double Panel Glazing

Blocking

8" Steel Rod

Vapor seal

Steel Angle

Basalt Slab

Concrete Footing

Gravel

Floor Plan

Photovoltaic Panel

EPDM

3 Layer CLT

5" Mineral Wool

5"x5" Steel Angle

3" Steel Screws

Interior Finish

Steel Connection

Seal

Liquid Suspension of Particles

Conductive Coating

Glass

5" Mineral Wool Insulation

Three-layer CLT

1" Air Gap

3" Steel Screw

5"x3" Steel Angle

Fire Block

3" Wood Blocking

5" Basalt Floor

Concrete

5" Rigid Insulation

Vapor Barrier

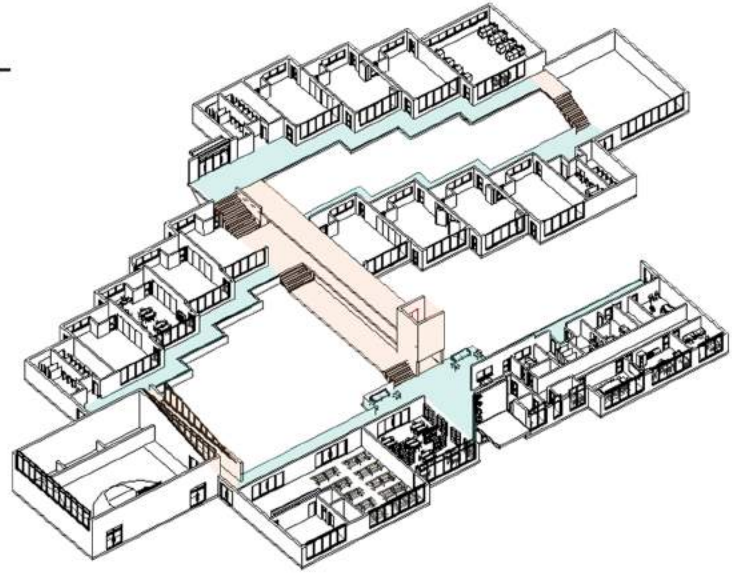
Gravel



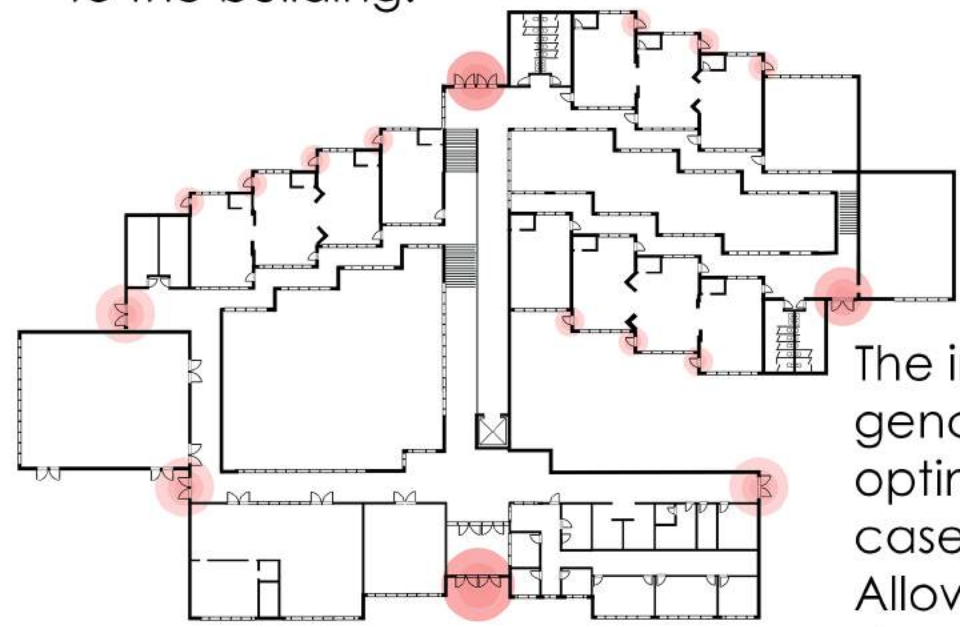
(10) Design for Discovery

From the beginning of the design process, all decisions made related back to either sustainability or safety related goal. While this is only the first step of moving forward, it is important to understand the projects evolution and ensuring it meets the initial design goals. As with most things it is important to utilize all team members expertise to create the most successful project.

Central circulation allows faculty to successfully monitor those entering the building.



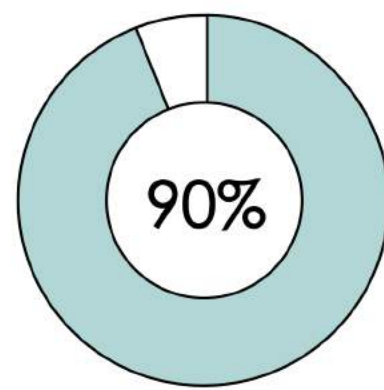
The concentric rings of protection help prevent those who are not allowed access to enter to the building.



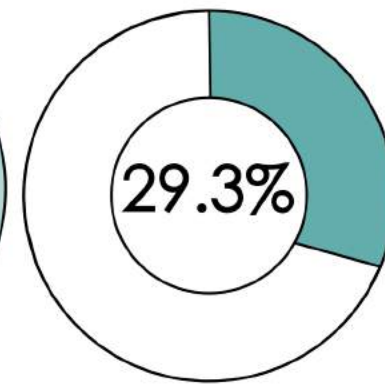
The increase of emergency exits provide optimum safety in case of emergency. Allowing all those in danger to safely exit the building.



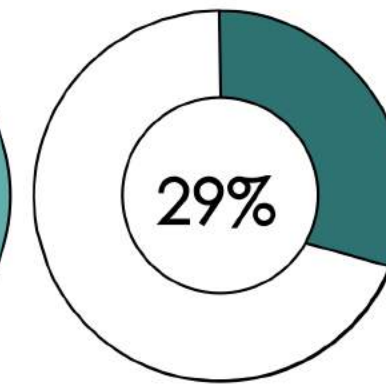
Bioswales are utilized on site to emphasize the outdoor circulation, while creating an enclosed area for the students. The main ecological function of the swale is to remove debris and pollution from water runoff. It also created an interactive learning experience for the students and teachers.



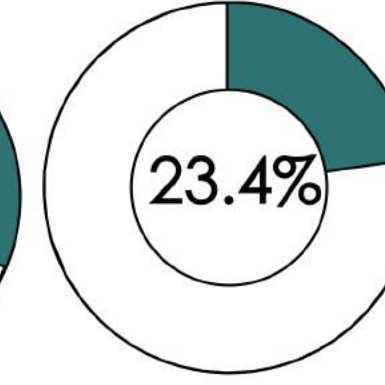
of students have been bullied or harrassed



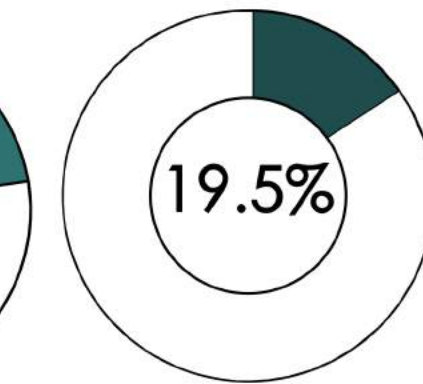
in the classroom



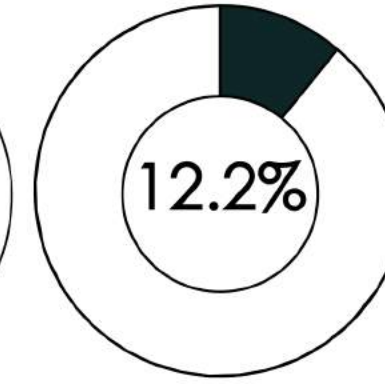
in the hallway



in the cafeteria



during gym class



in the bathroom

Emergency Exit Diagram

Teachers are able to oversee the entire classroom, while also easily monitoring the hallways. This supervision helps decrease the amount of bullying within the students.

