From Airfields to Amphitheaters:

MGRHS Outdoor Placemaking Project

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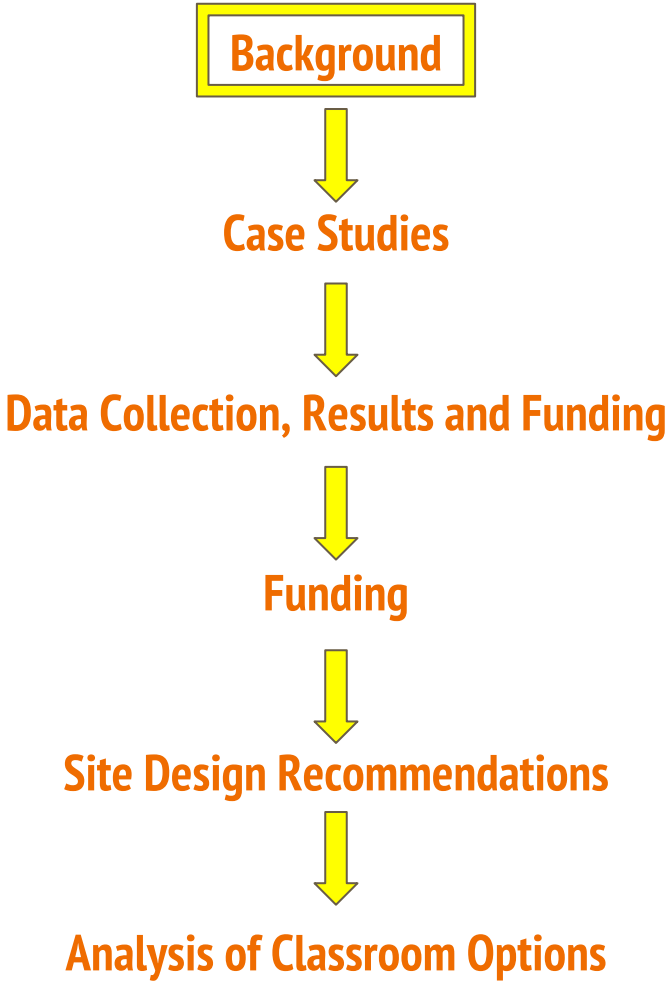
What is placemaking?

Project Goals

- **Analyze** student/faculty input
- **Design** four main spaces that prioritize environmental engagement - literally and visually
  - Outdoor cafeteria
  - Bus waiting area
  - Outdoor classroom
  - Open space behind school

The Mount Greylock Way: Responsibility, Perseverance, Integrity

Image: Kap Wrestling


Background
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Why go outside at school?

Orr 1994 → Increased ecological literacy from outdoor education

Farnham et al. 1997 → Playing and learning outside regularly improved group cohesion, reduced tension/anxiety in special needs middle school students

Tanner 2009 → 'Positive outdoor spaces' correlated with student achievement

Bratman et al. 2015 → Nature experiences reduce rumination

Adolescents need recess too!

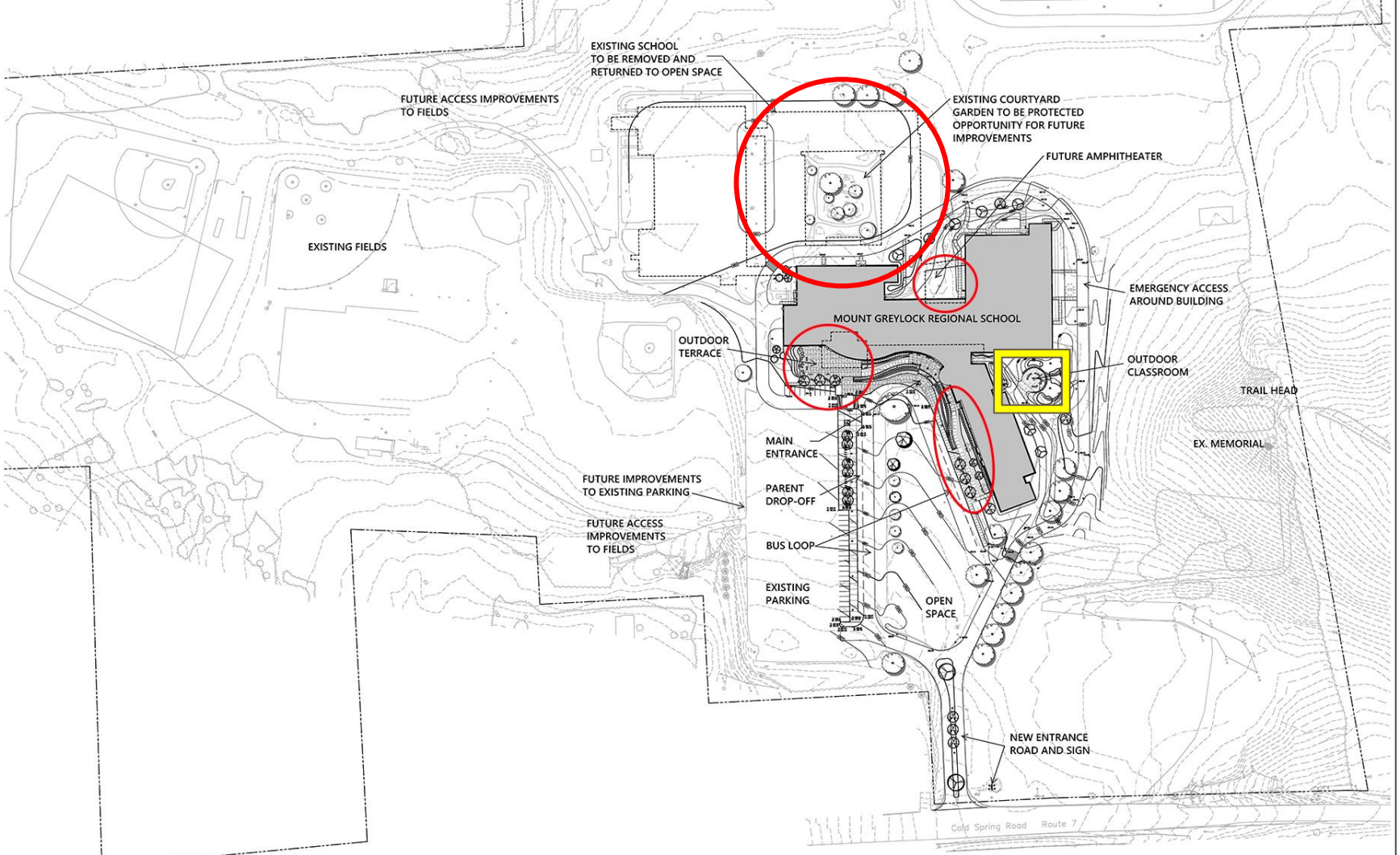
School Community Profile

- Williamstown-Lanesborough combined district; additional tuition-paying students
- 600 students now in grades 7-12 (school designed for up to 1300)
- High-achieving, highly-scheduled...very little free time to go outside

Integrative Eco Strategy

The Renovation

The Greylock Echo



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BOSTON, MA 02110
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Owner:
MT. GREYLOCK REGIONAL SCHOOL DISTRICT
1781 COLD SPRING ROAD
WILLIAMSTOWN, MA 01267

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Construction Manager:
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Civil / Site:
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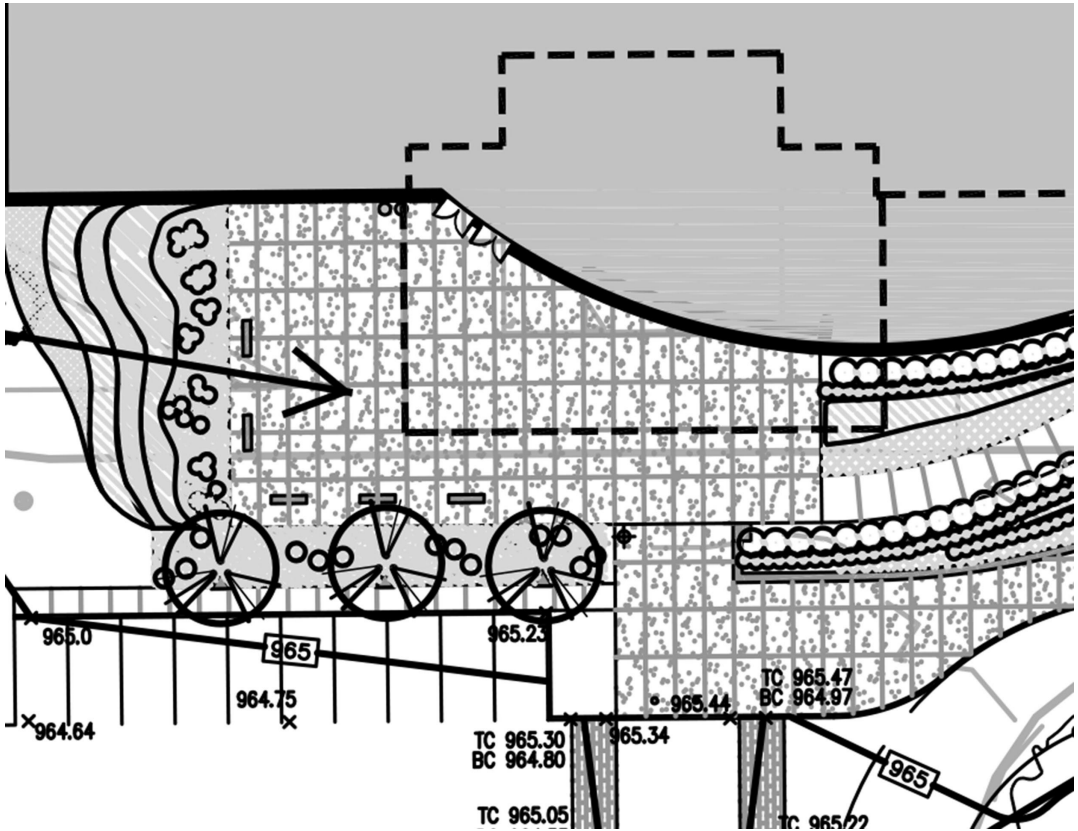
PROJECT TITLE:
MOUNT GREYLOCK REGIONAL SCHOOL

1781 COLD SPRING RD.
WILLIAMSTOWN, MA 02167

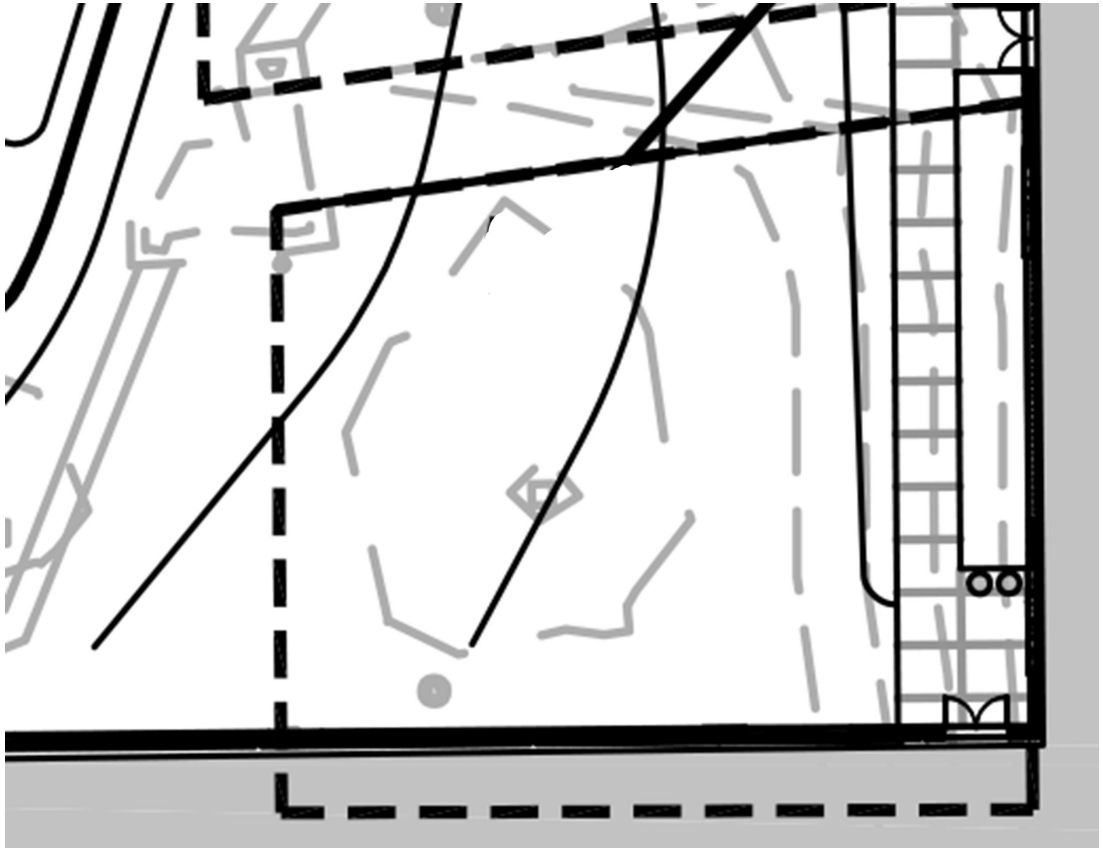
PROJECT No: 65010

DRAWING TITLE:
LA-000

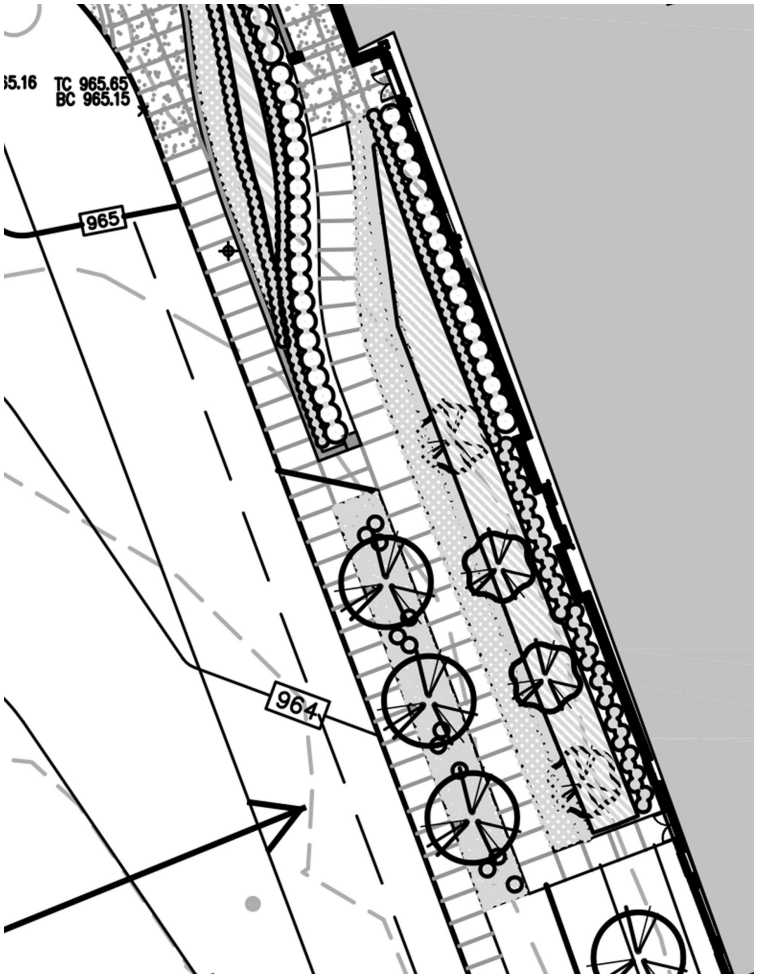
Outdoor Cafeteria



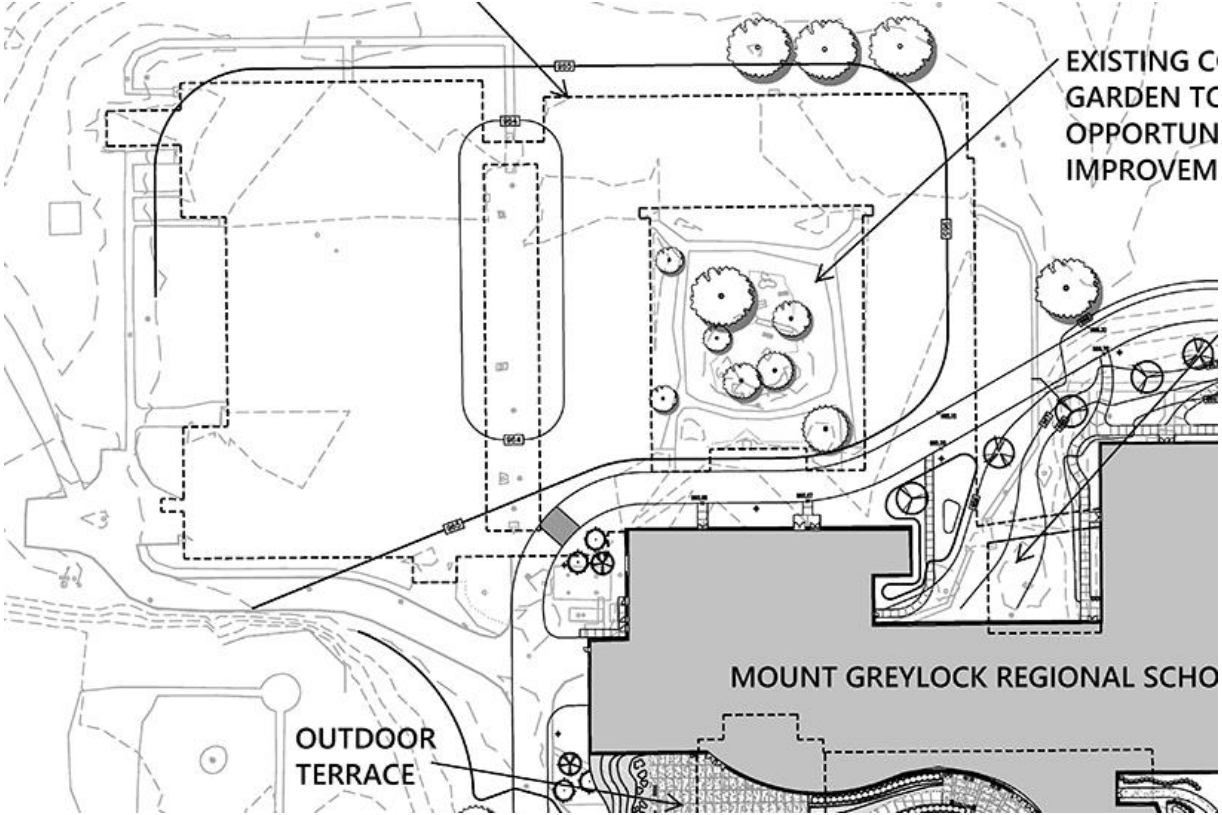
Outdoor Classroom



Bus Waiting Area



Open Space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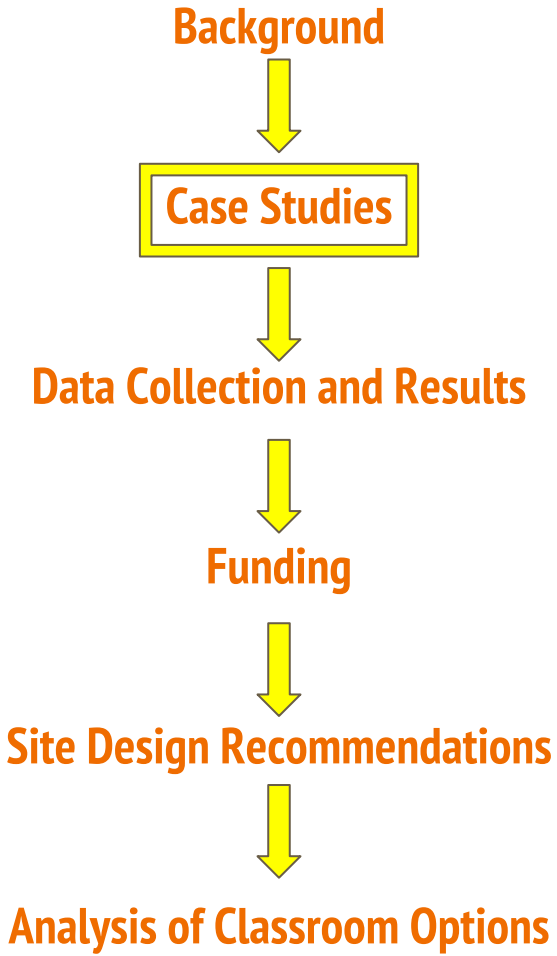
OPPORTUN
IMPROVEM
MOUNT GREYLOCK REGIONAL SCHO
OUTDOOR
TERRACE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Case Studies: Outdoor Classroom

Mason Pilot Elementary School
Boston, MA

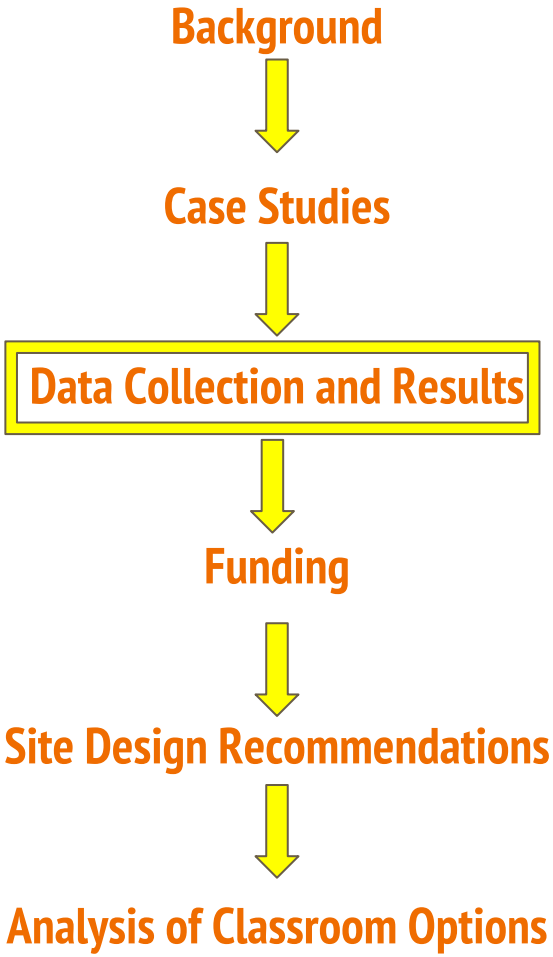
Schoolyards.org

Swarthmore College
Swarthmore, PA

Swarthmore.edu

Case Study: Outdoor Classroom

Olympia High School
Stanford, IL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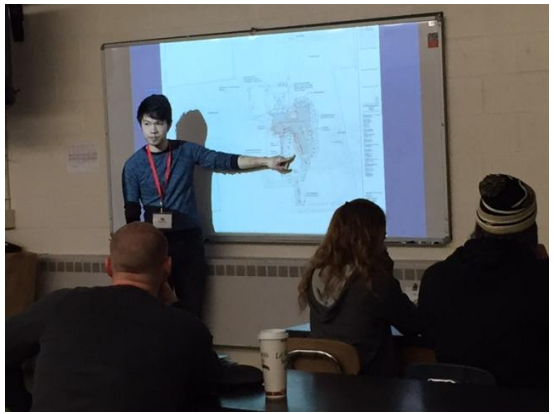
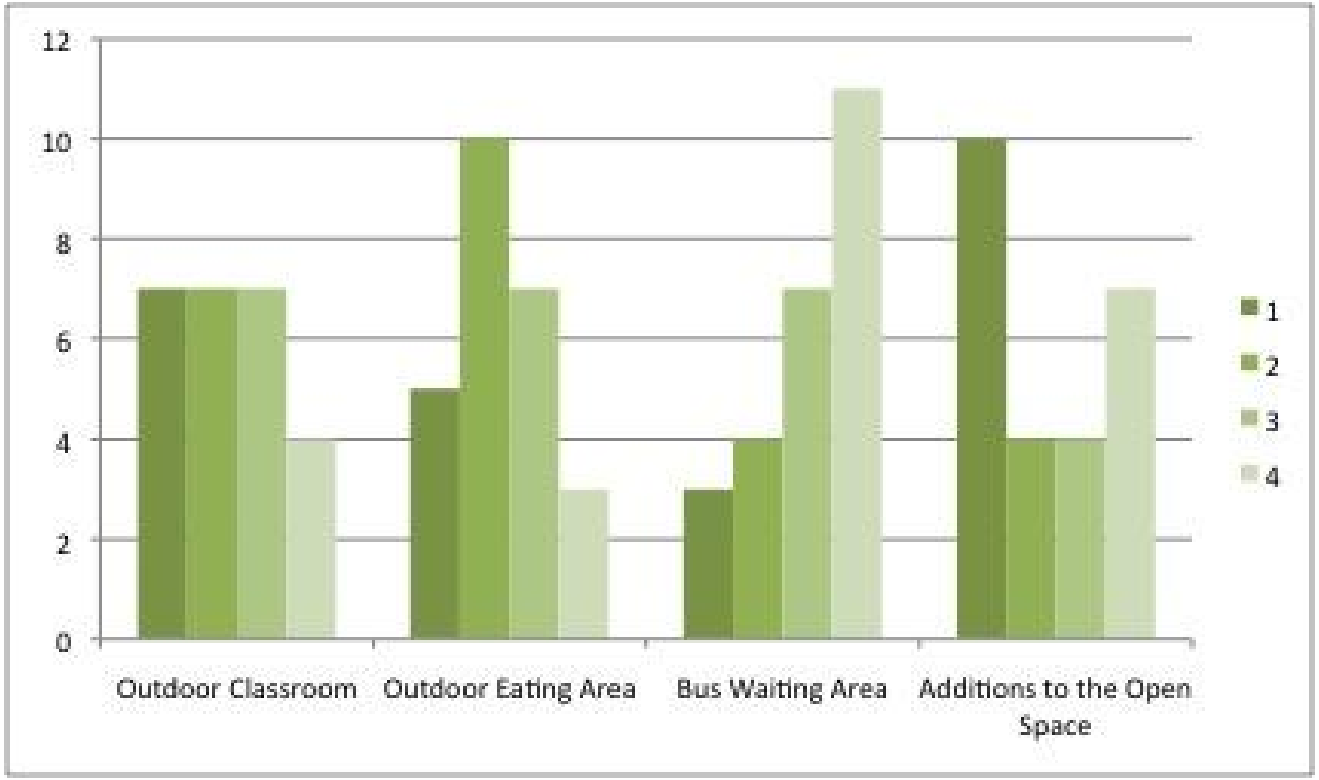
Survey Setup

- **73** in-person student responses from our focus groups
- **25** online student survey responses
- **41** faculty responses



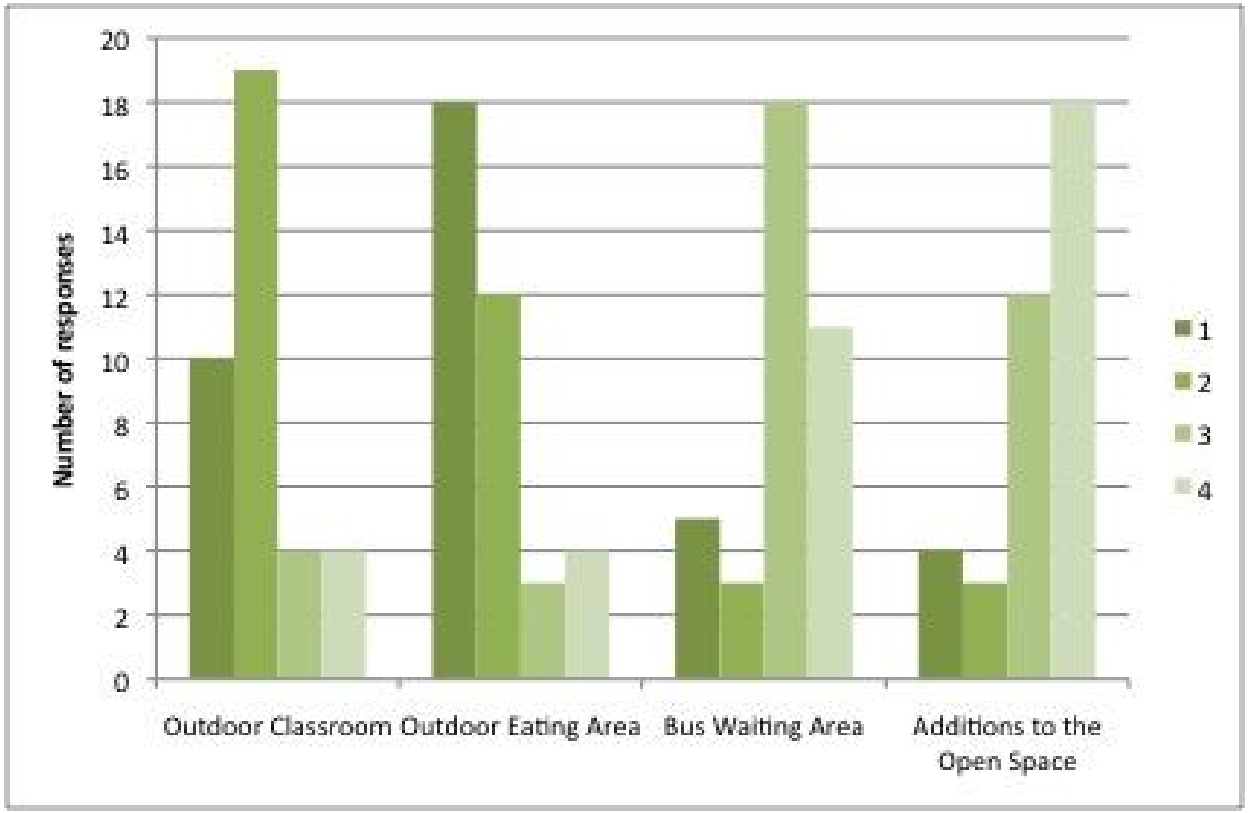
Student Online Survey Results

Please rank the following in terms of how important they are to you to have in your new school (1 is most important, 4 is least important):



Faculty Survey Results

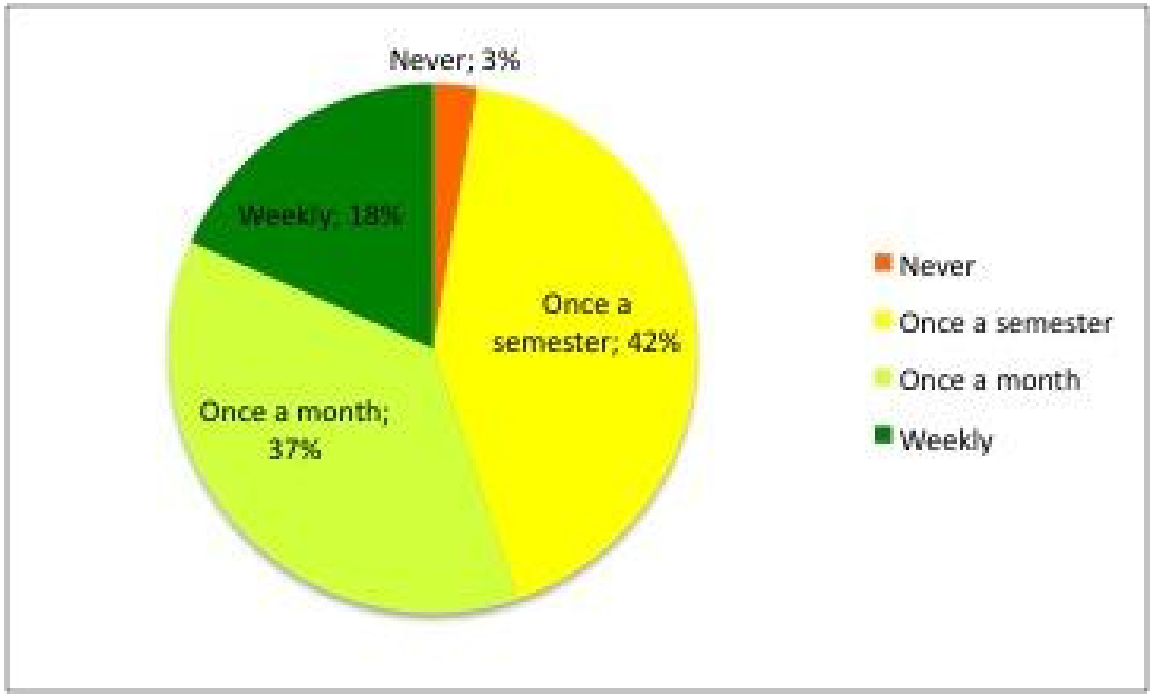
Rank the following in order of importance (1 is highest, 4 is lowest):



95% of faculty responded that they would like to eat outside.

Faculty Survey-Classroom Use

If there were an outdoor classroom, how often would you use it (assuming good weather)?



Some Responses...

- Exotic fruit stand
- Petting zoo
- Fountain for “various liquids”
- Koi pond
- Outdoor grilling station
- Smoothie stand
- Garden devoted exclusively to beets

Background

Case Studies

Data Collection and Results

Funding

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Analysis of Classroom Options

Current Funding Sources

Massachusetts School Building Authority

Funding Affordable, Sustainable and Efficient Schools for Local Communities

$64.8 Million

Williams

Potential Funding Sources

Lowe's Toolbox for Education Program
- Award size: $2,000 to $5,000

Project Learning Tree GreenWorks!
- Award Size: Up to $1,000

American Academy of Dermatology Shade Structure Grant Program
- Award Size: Up to $8,000

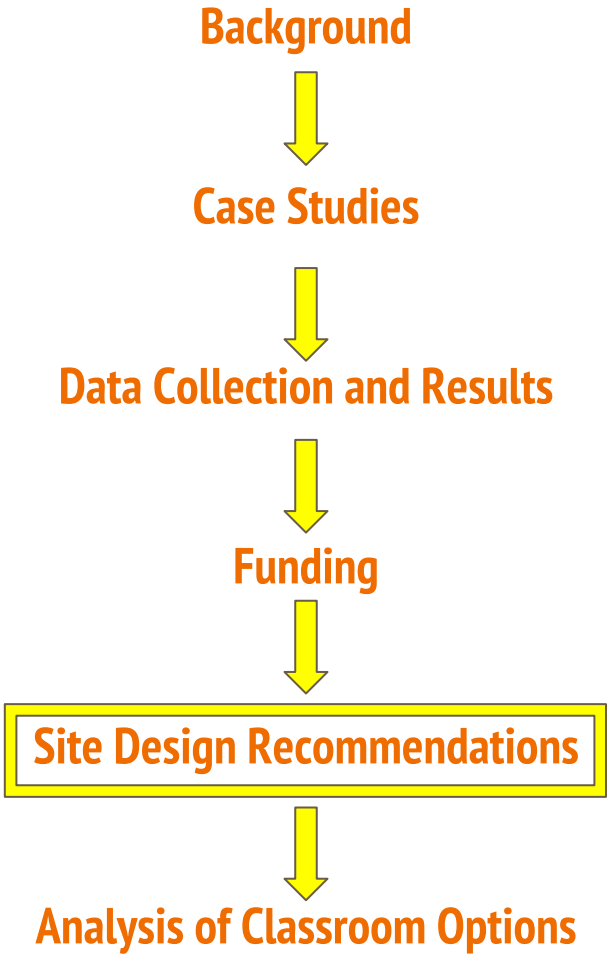
The Lorrie Otto Seeds for Education Grant Program
- Award Size: $100 to $500

Canoga Park High School, Los Angeles

Potential Funding Sources

Berkshire Taconic Community Foundation
Sustaining Educational Excellence (SEE) Fund
- Award Size: $100 to $2,500

Williams College Office of Corporate and Foundation Relations → Mary Ellen Czerniak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Laws and Regulations

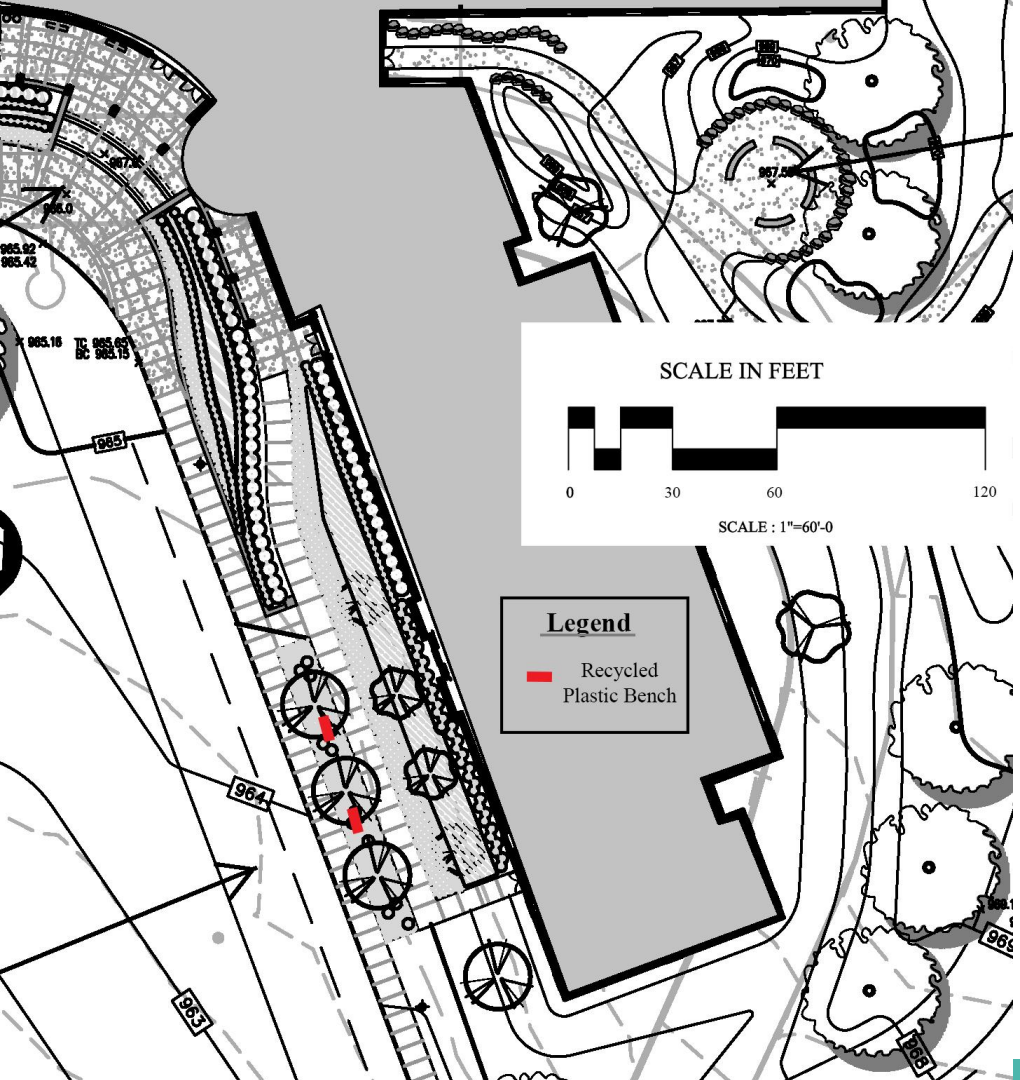
American Disabilities Act/Massachusetts Architectural Access Board

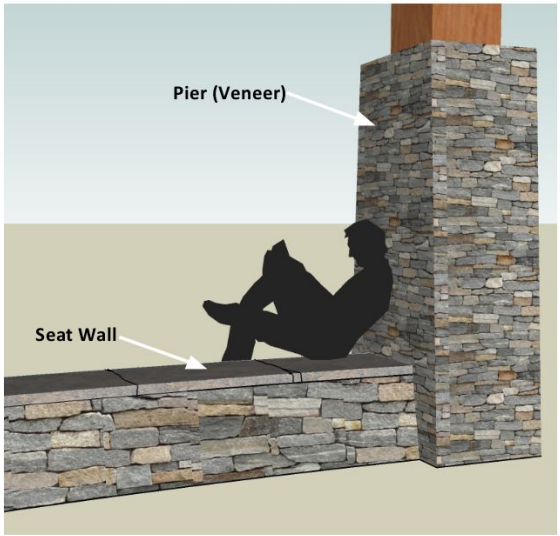
Feature	**521 CMR Standards**
Walking aisles/paths	Access aisles must be 36” in width to accommodate wheelchairs
Open space/clear floor space	30” x 38” at minimum to accommodate wheelchair movement through open floor space
Seating at tables/counters	If seating for disabled persons is provided at tables or counters, knee spaces must be at least 27” deep
Table/counter height	Tops of accessible tables must be from 28” to 34” off of the finished floor or ground
Movement between levels	Handicap accessible ramps or elevators must be provided when stairs are present to accommodate wheelchairs

Bus Loop Area Design

Cost estimate: **$751**

- 56.3% of students ranked this least important - **low priority**
- Students want: shelter, benches, more trees, vending machines

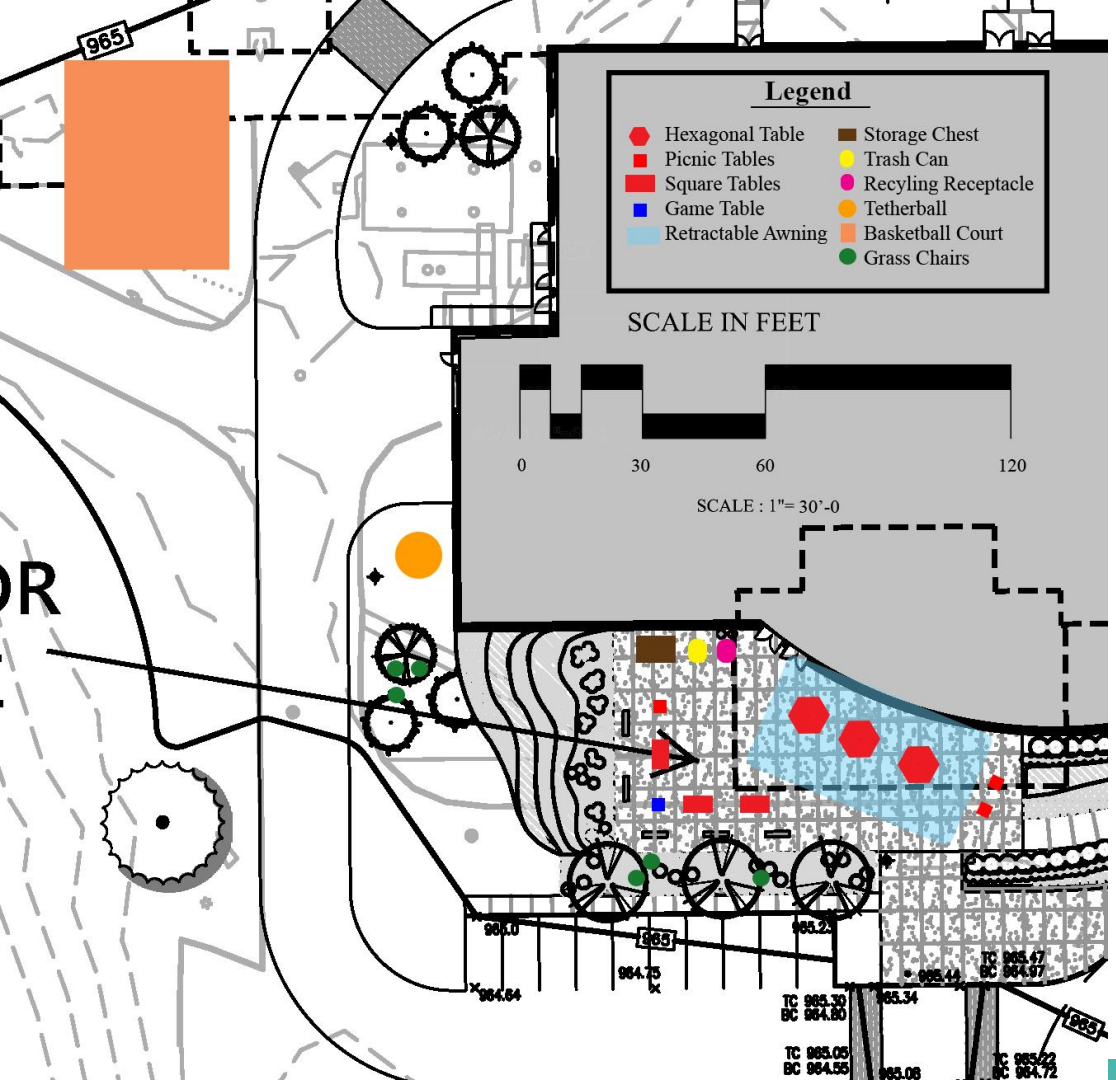




Outdoor Cafeteria Design

"I think an outdoor space for lunch would benefit every student-allowing students to get outside and give social opportunities."
- Faculty Focus Group Survey

"One of the most popular things for almost all the guys at lunch is like our single rusted basketball hoop – that's what we all do, so something like that would be great."
- Student Focus Group



Outdoor Cafeteria Design

Cost estimate: **$8,986**

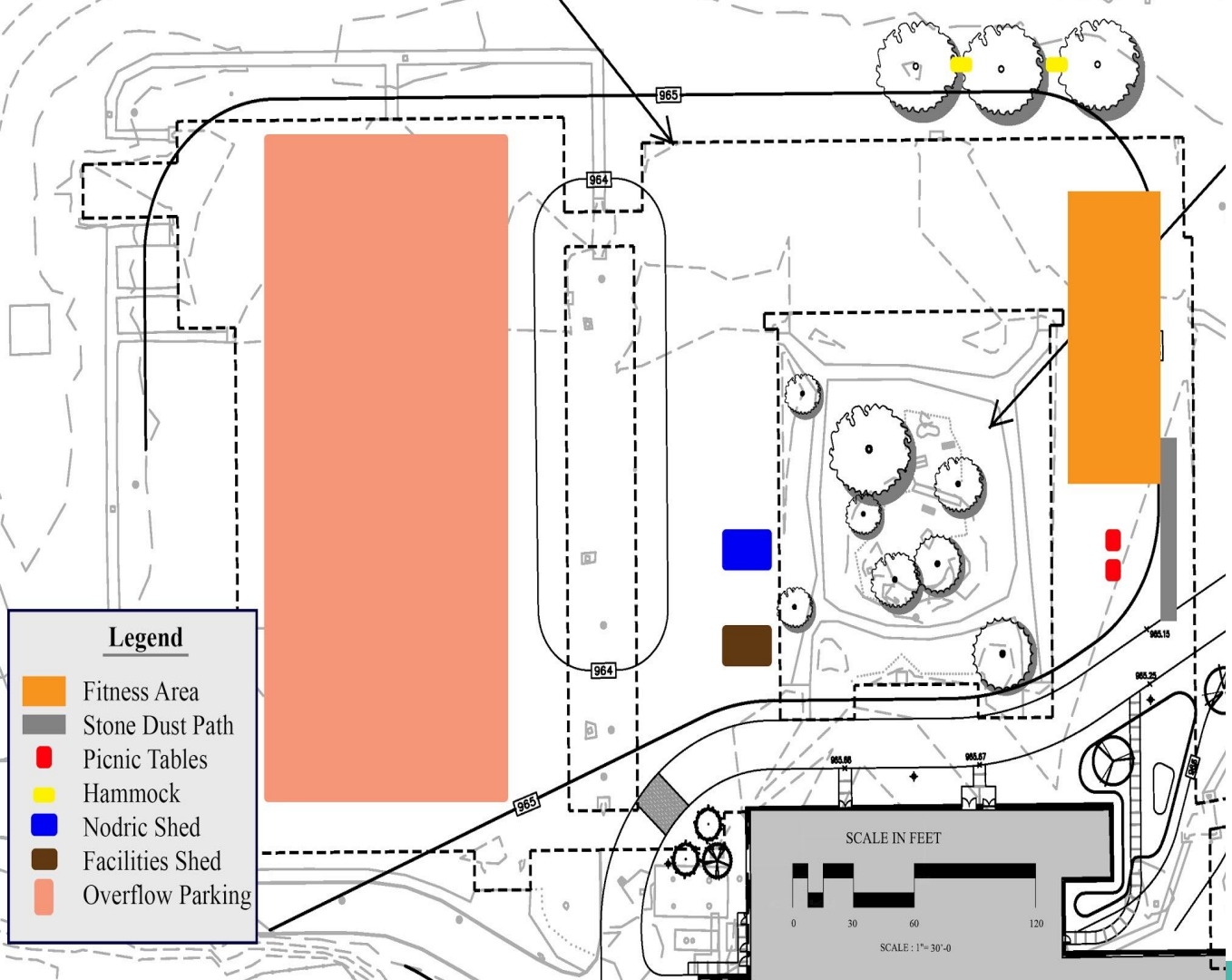
- Stationary tables of different sizes
- Shade from retractable awning
- Games → basketball hoops, tetherball, box ball, chess
- Grass chairs at edge of patio area
- Trash/recycling bins


GREEN CEDAR

“Swings would be nice but not like really far away.”
- Student Focus Group Survey

“I would like to play around on something other than a quarter of a basketball court.”

- Student Focus Group Survey



Open Space Design

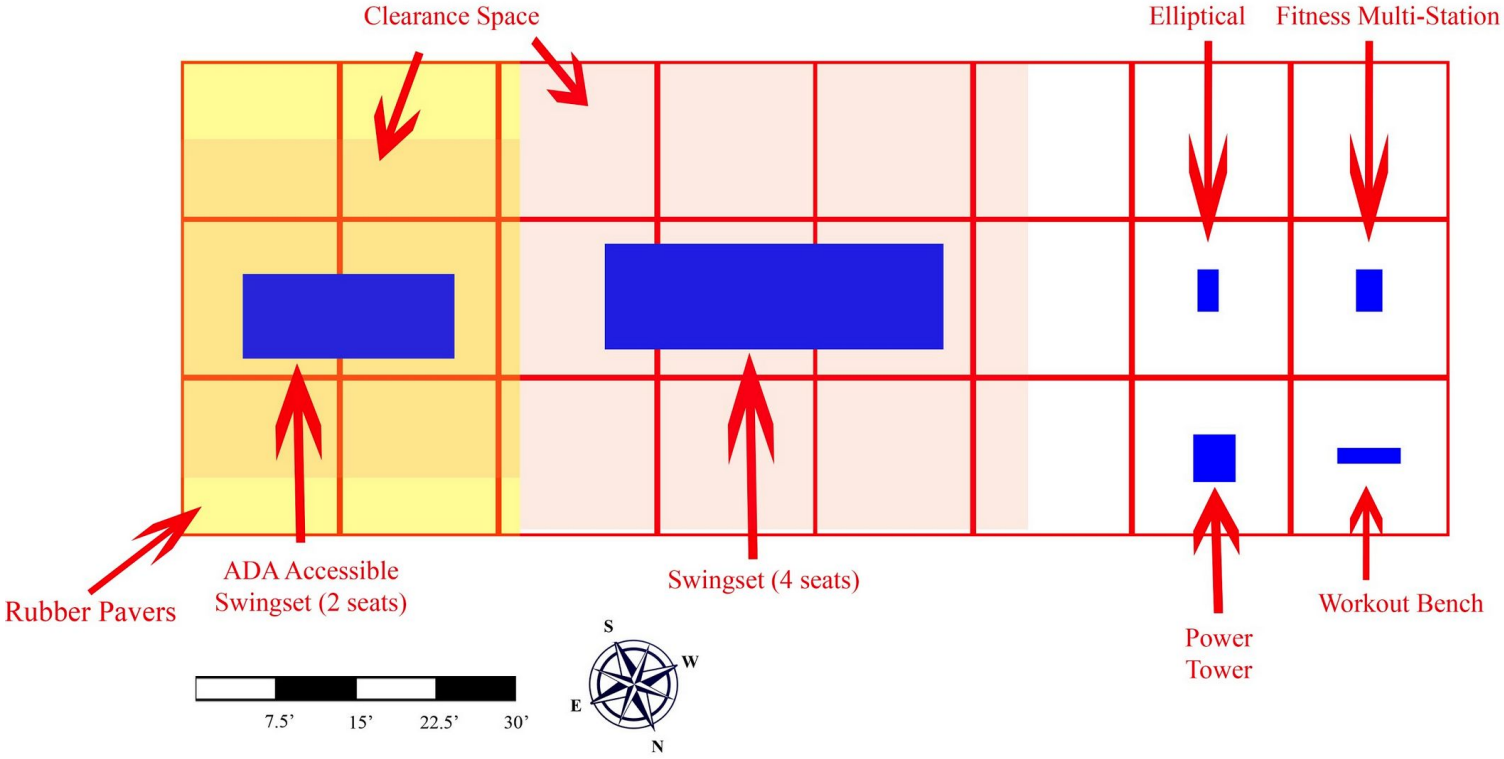
Cost estimate:
$10,910

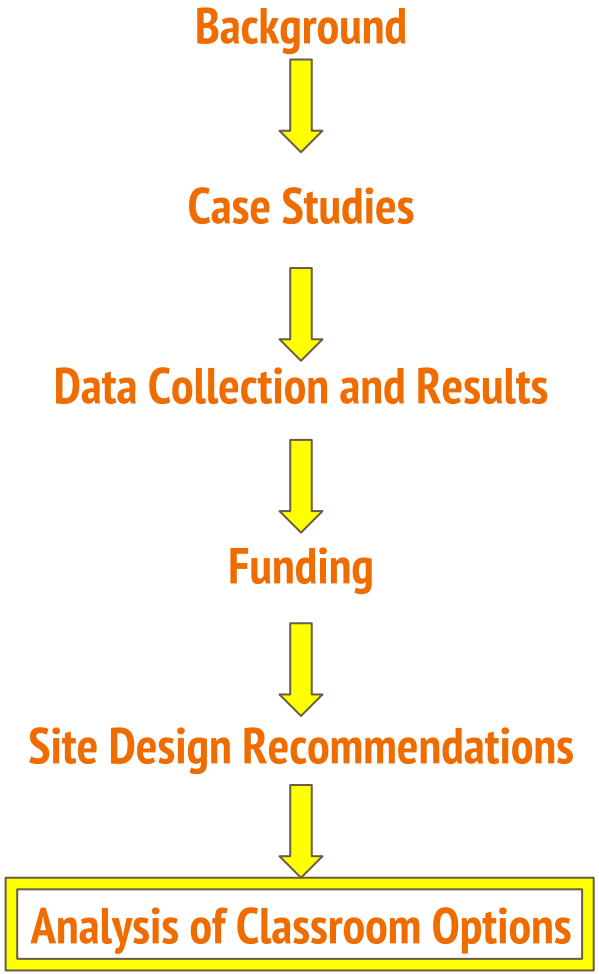
- Conscious of overflow parking, nordic storage, facilities storage
- Fitness equipment
- Picnic tables
- Hammocks


WYOMING

Fitness Area Design

Cost estimate: **$9,500**

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Classroom Options

North-facing Classroom in Current Plan

Option 1: No Second Classroom

OR

Option 2: Flexible Features

OR

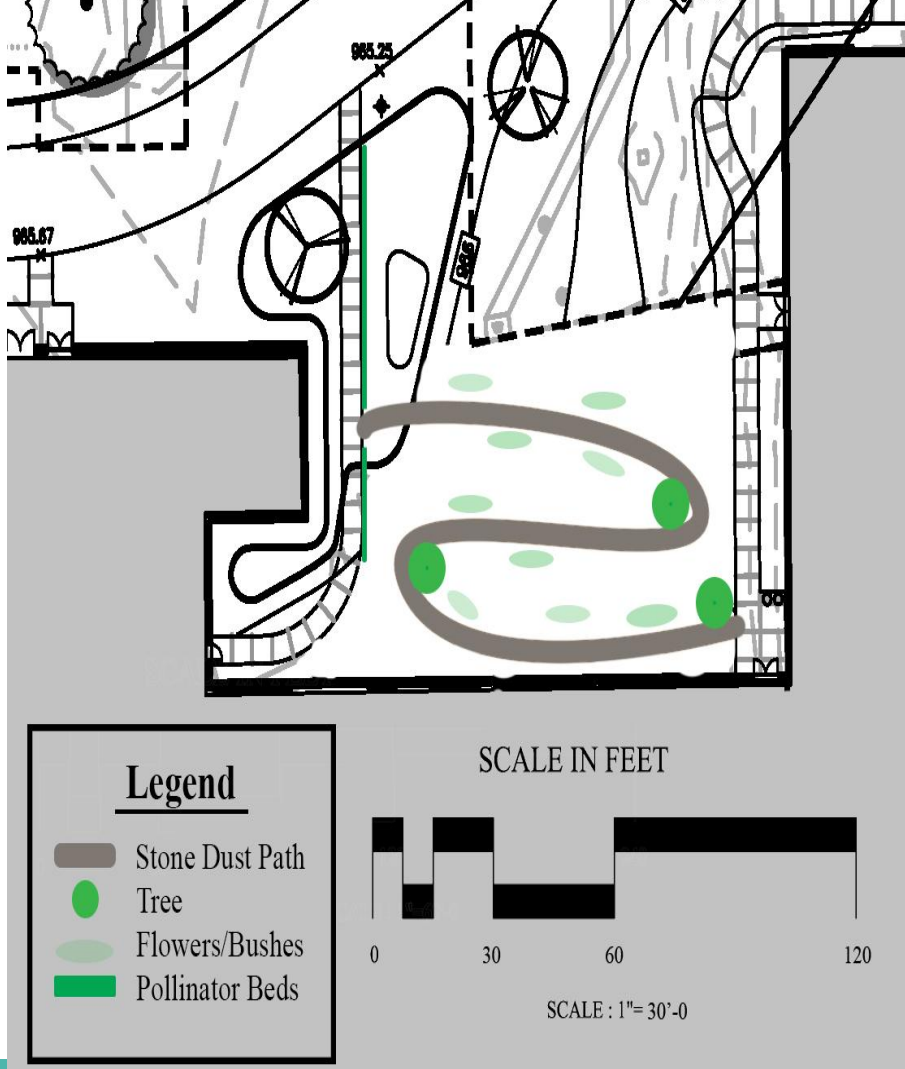
Option 3: Permanent Features

OR

Option 4: Multi-Use Amphitheater

Option 1: No Second Classroom

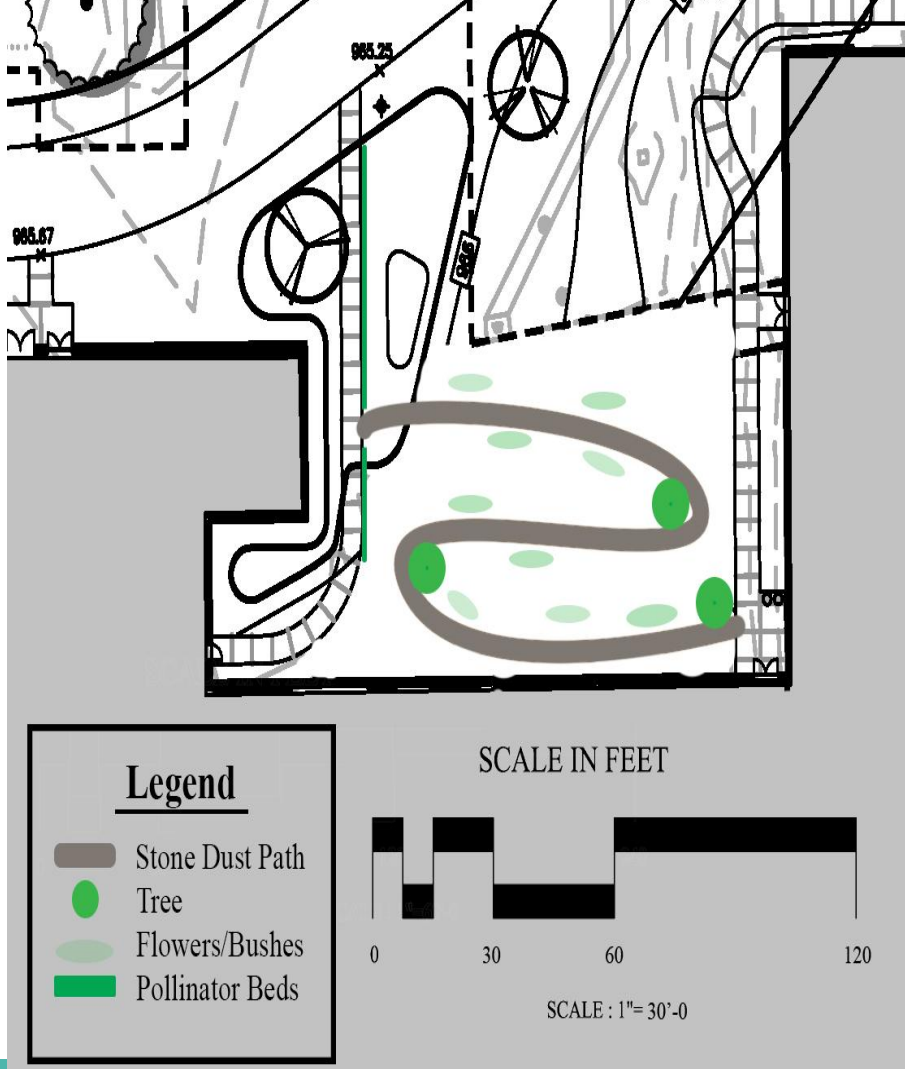
- **Simple** green space with meandering path
- Pollinator beds



“You can't walk around and get away from the stress of the school day.” - Student Focus Group Survey

Option 1: No Second Classroom

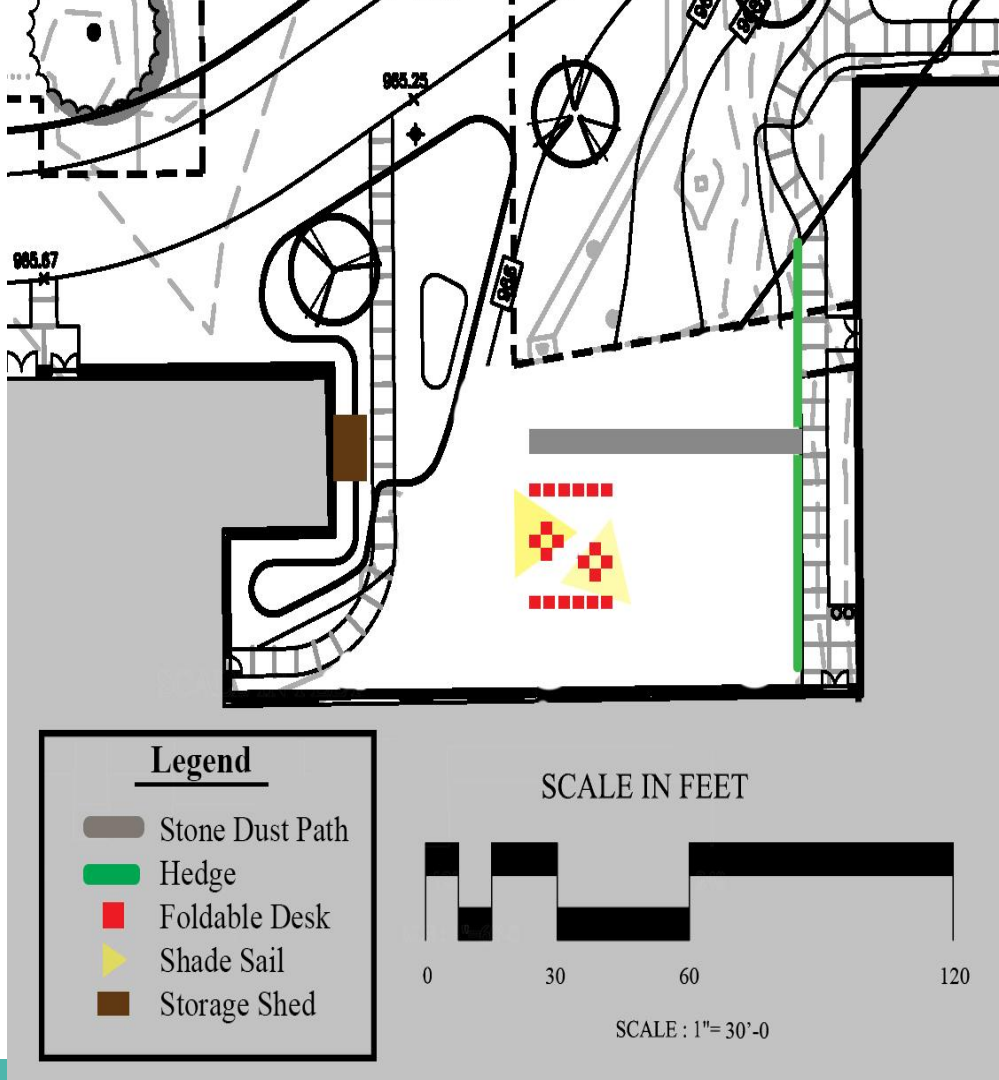
- **Simple** green space with meandering path
- Pollinator beds



“Used to [go outside] once in a while. Distracting to other classes, discouraged to do so…close to P.E. activities (distracting).” - Faculty Focus Group Survey

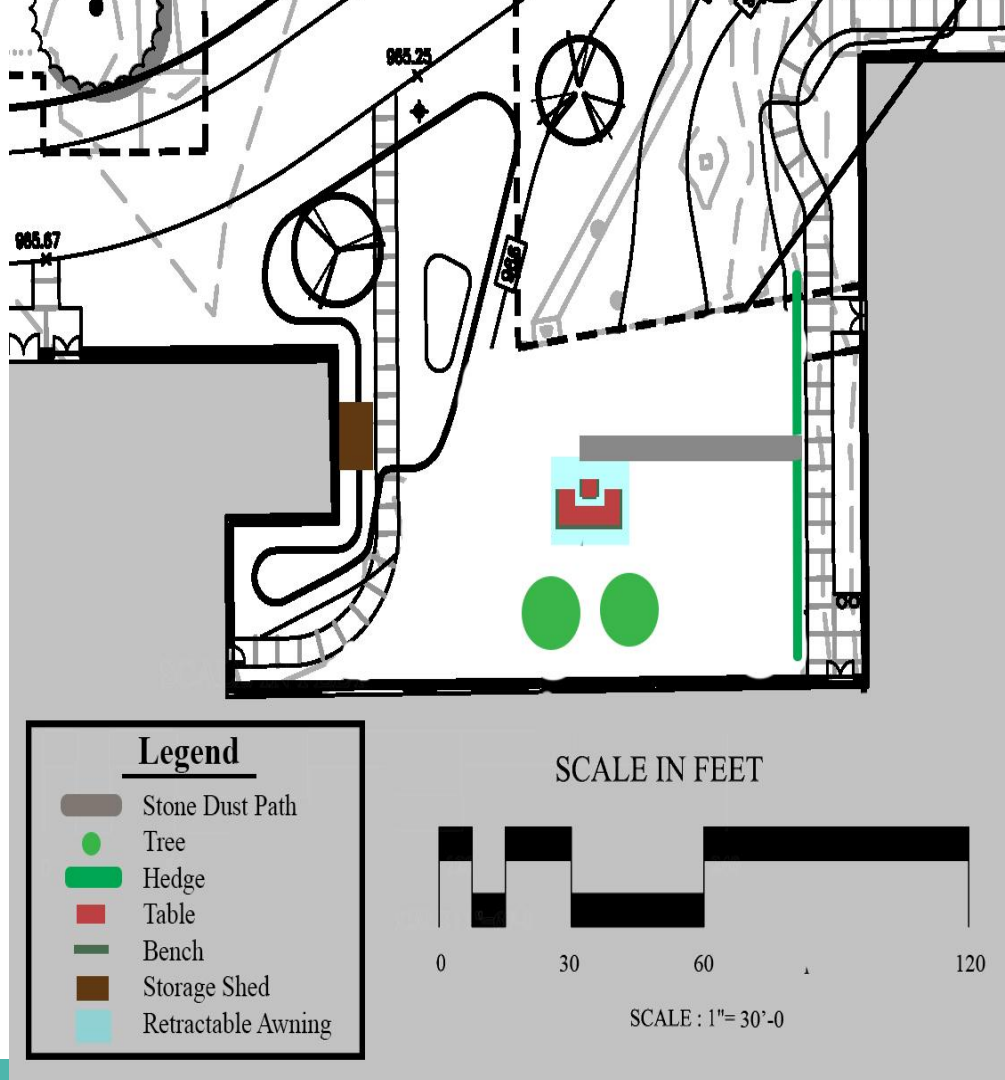
Option 2: Flexible Features

- Classroom with **movable seating**
- Folding chairs with detachable arm desks
- Shade sails over space



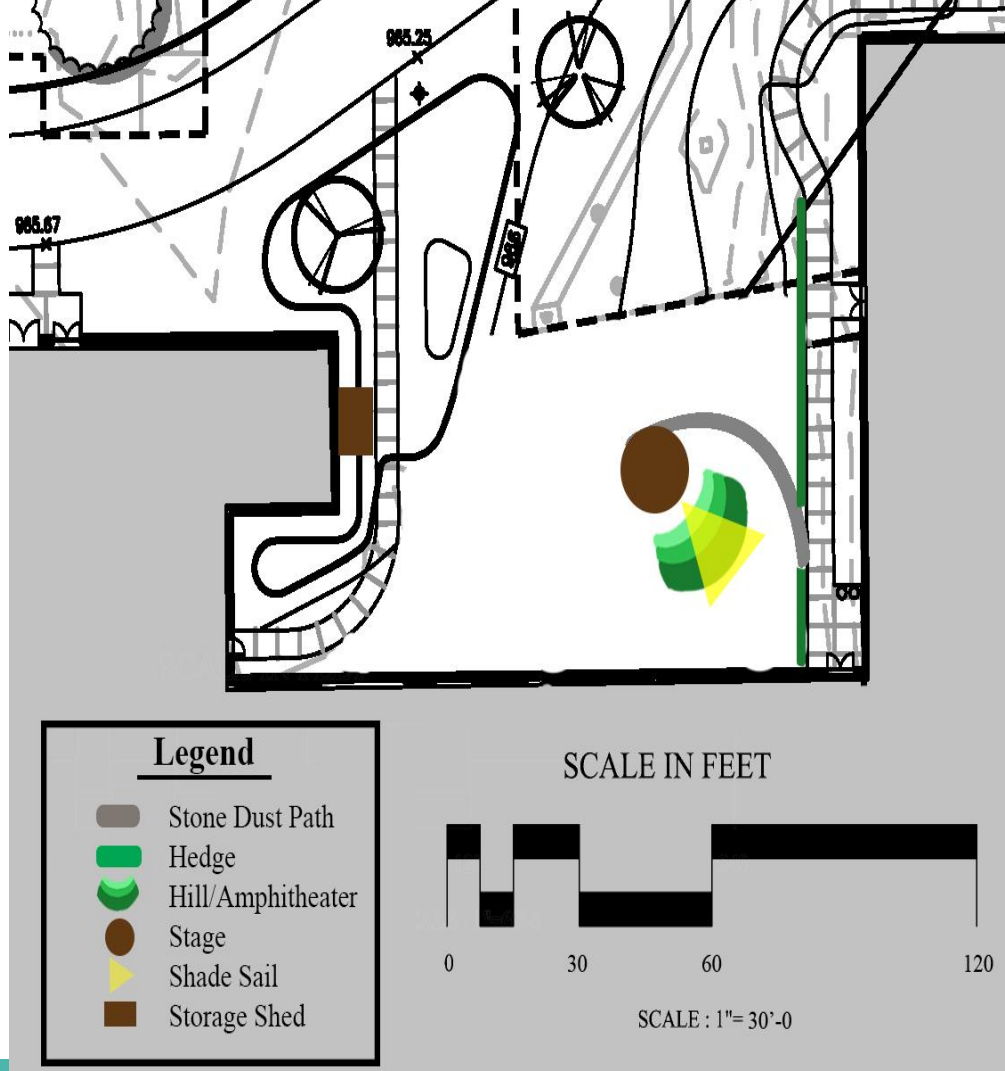
Option 3: Permanent Features

- **Non-movable** fixtures
- Benches form seminar style around **rectangular tables**
- Freestanding retractable pergola awning
- Storage shed for classroom supplies



Option 4: Multi-Use Amphitheater

- **Multi-use space** with amphitheatre set up, shade sails, storage shed
- Steps built into man-made **hill**



Cost of Options

Option 1 → No Second Classroom: **$3,055**

Option 2 → Flexible Features: **$4,345**

Option 3 → Permanent Features: **$13,200 - $15,200**

Option 4 → Multi-use Amphitheater: **≤ $15,000**

Feasibility (Evaluation Process)

Cost Estimates by Site

Space		Price
Bus Loop Area		$751
Outdoor Cafeteria		$8,986
Open Space/Fitness Zone		$10,910
Outdoor Classroom	**Option 1**	$3,055
	Option 2	$4,345
	Option 3	$13,200-$15,200
	Option 4	≤ $15,000

- Outdoor engagement
- Environmental Impact
- Fiscal Cost
- Teaching
- Learning
- Aesthetics
- Accessibility
- Multi-use Potential

Feasibility (Evaluation Process)

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Outdoor engagement • Environmental Impact • Fiscal Cost • Teaching • Learning • Aesthetics • Accessibility • Multi-use Potential

Pros	Cons
Minimal impact and lowest cost	No additional outdoor classroom
Flexible space; little installation	No local materials
Best classroom features	Not movable; expensive
Multi-use; natural materials	Costly; most physical alteration

Review

Open space → fitness area and swings

Bus loop → More seating

Outdoor cafeteria → Basketball court/other games and more tables

Outdoor Classroom → 4 options to choose from based on school needs

Priorities

1. **Outdoor cafeteria**
2. **Outdoor classroom (chosen based on demonstrated need once new school is built)**
3. **Open space/fitness zone**
4. **Bus loop**

Acknowledgements

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- **Stephanie Boyd**, client
- **Mary MacDonald**, principal of MGRHS
- **Kaatje White**, director of the Williams Center at MGRHS
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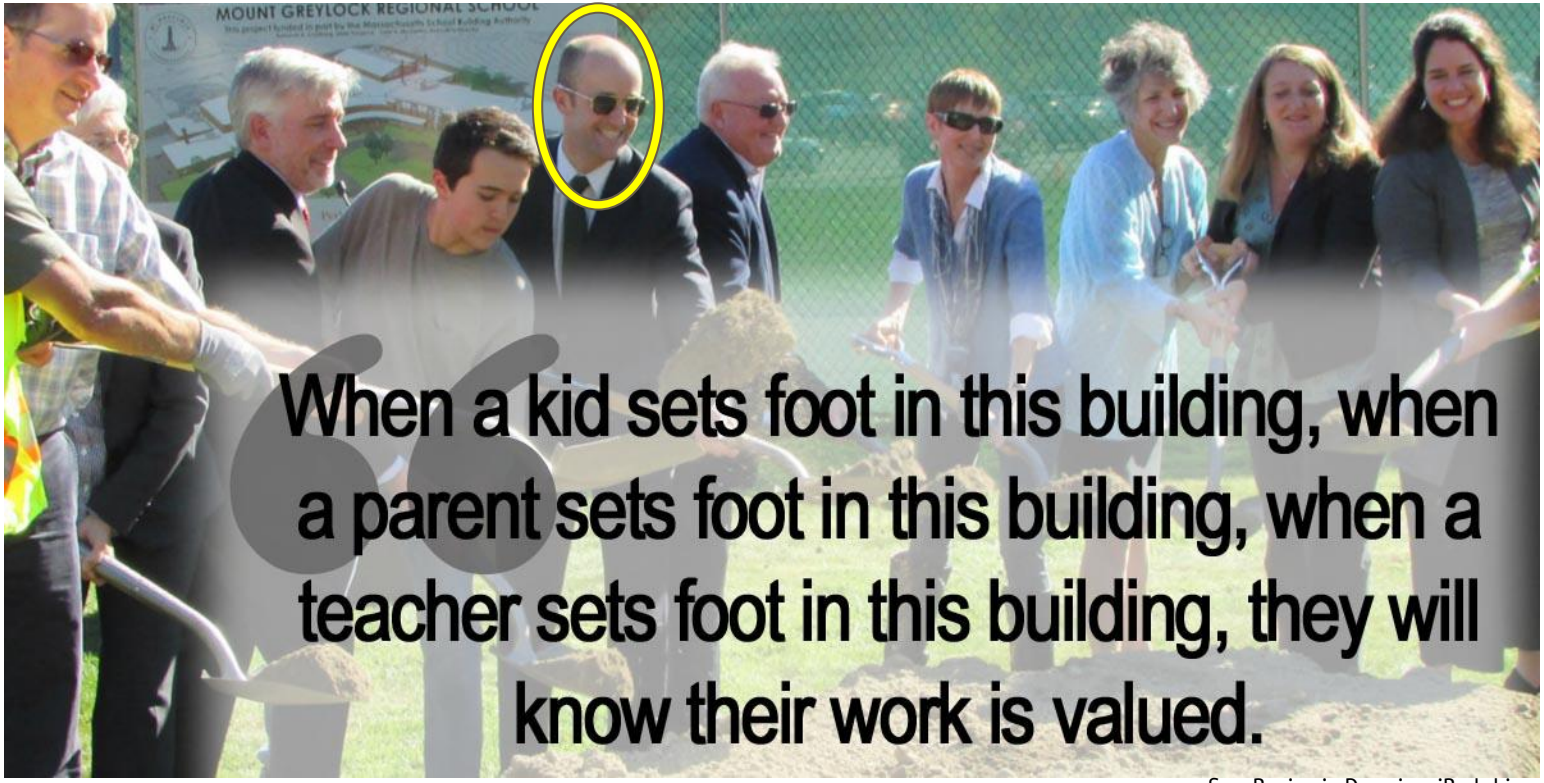
- **Paula Consolini**, Building Committee co-chair
- **Bruce Decoteau**, Senior Project Manager at Williams College Facilities
- **Mary Ellen Czerniak**, Dir. Corp. and Foundation Relations at Williams
- **Countryside Landscaping** in Williamstown
- **ENVI 302 Fall 2016** and our TA, **Sophia Schmidt**

Thank you!



Sen. Benjamin Downing, iBerkshires