

Greening of Schoolyards

Rethinking learning, play and everyday opportunities on campus



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Designing the whole campus... with PURPOSE

- Benefits of Green Schoolyards
- Who is involved
- Collaborative planning & design
- Zones of play and learning
- How to make it all work



Designing the whole campus... with PURPOSE

- Kids are naturally curious, they love to explore and discover
- Green Schoolyard projects provide opportunities in their backyard
- By providing GSYs where they are daily, they are EMPOWERED to explore at their pace



*In Vancouver schools,
48% of students are
eligible for free /
reduced lunch*

Designing the whole campus... with PURPOSE

- Research from the University of Michigan in the early 2000's, people need to feel safe / comfortable to explore
- If kids learn to feel safe in nature close to home, they'll explore their local, regional or other parks



*Does home have access to nature?
What if they live in an apartment?
What if they are homeless?
What if they are in the downtown area?*

What is a “Green Schoolyard”




“Multi-functional school grounds, designed by and for the entire school community, that include spaces for students, teachers, parents and community members to play, learn, explore and grow.”



www.childrenandnature.org/initiatives/schoolyards/hub/

Benefits beyond ½ hour of recess....



Student
well-being

Meet basic needs of the child
Safe, secure, trusting adults, etc.

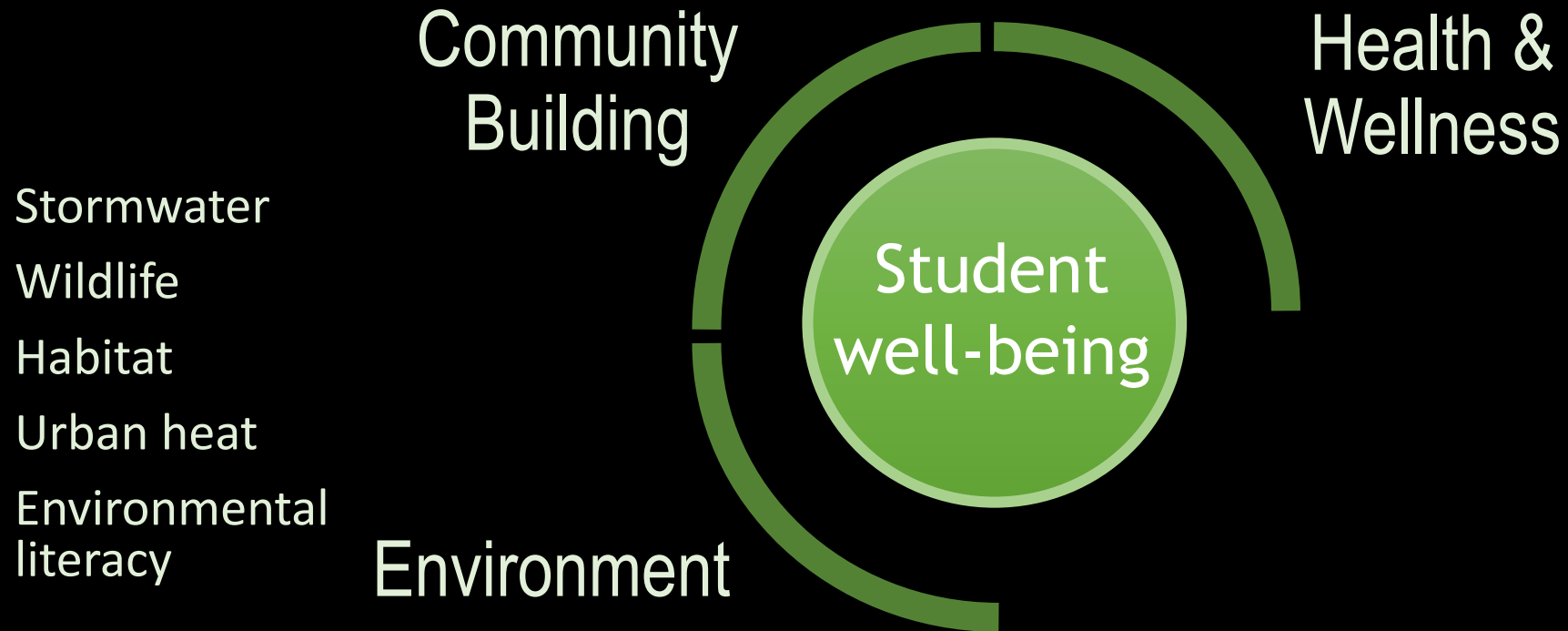
Benefits beyond ½ hour of recess....



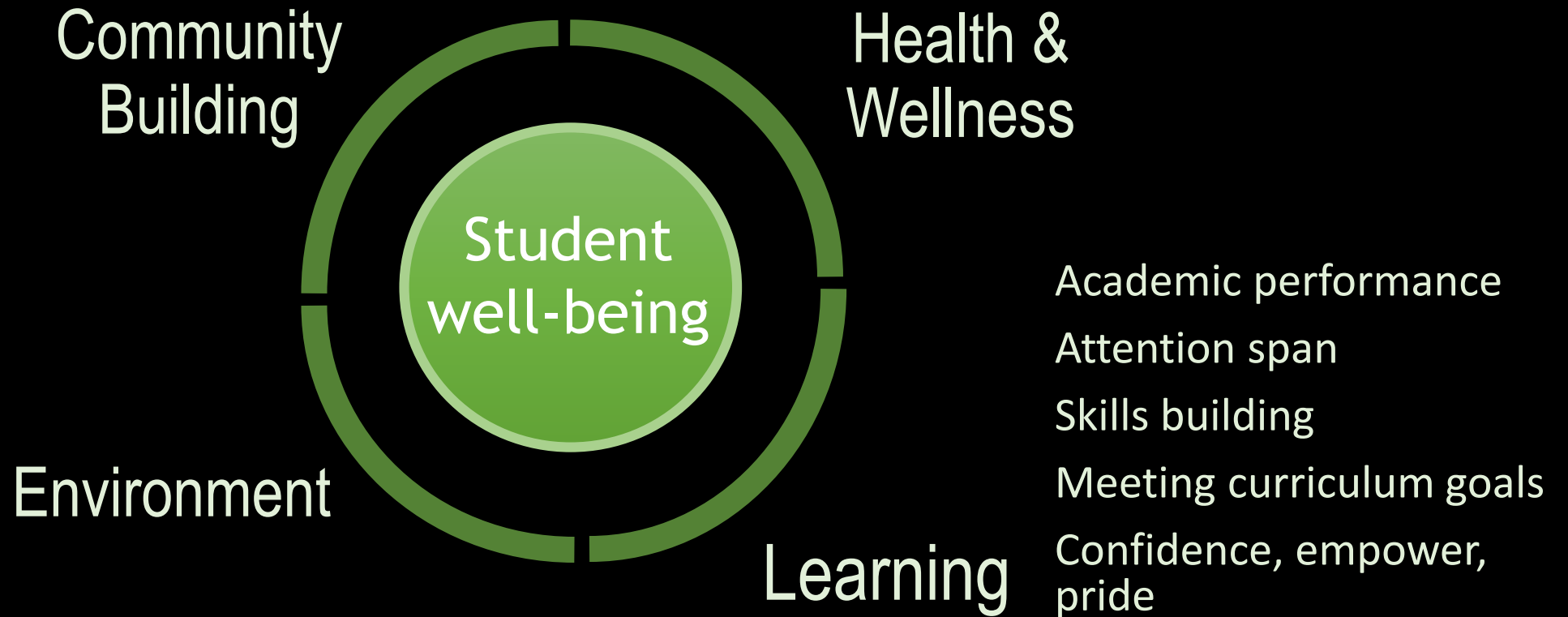
Benefits beyond ½ hour of recess....



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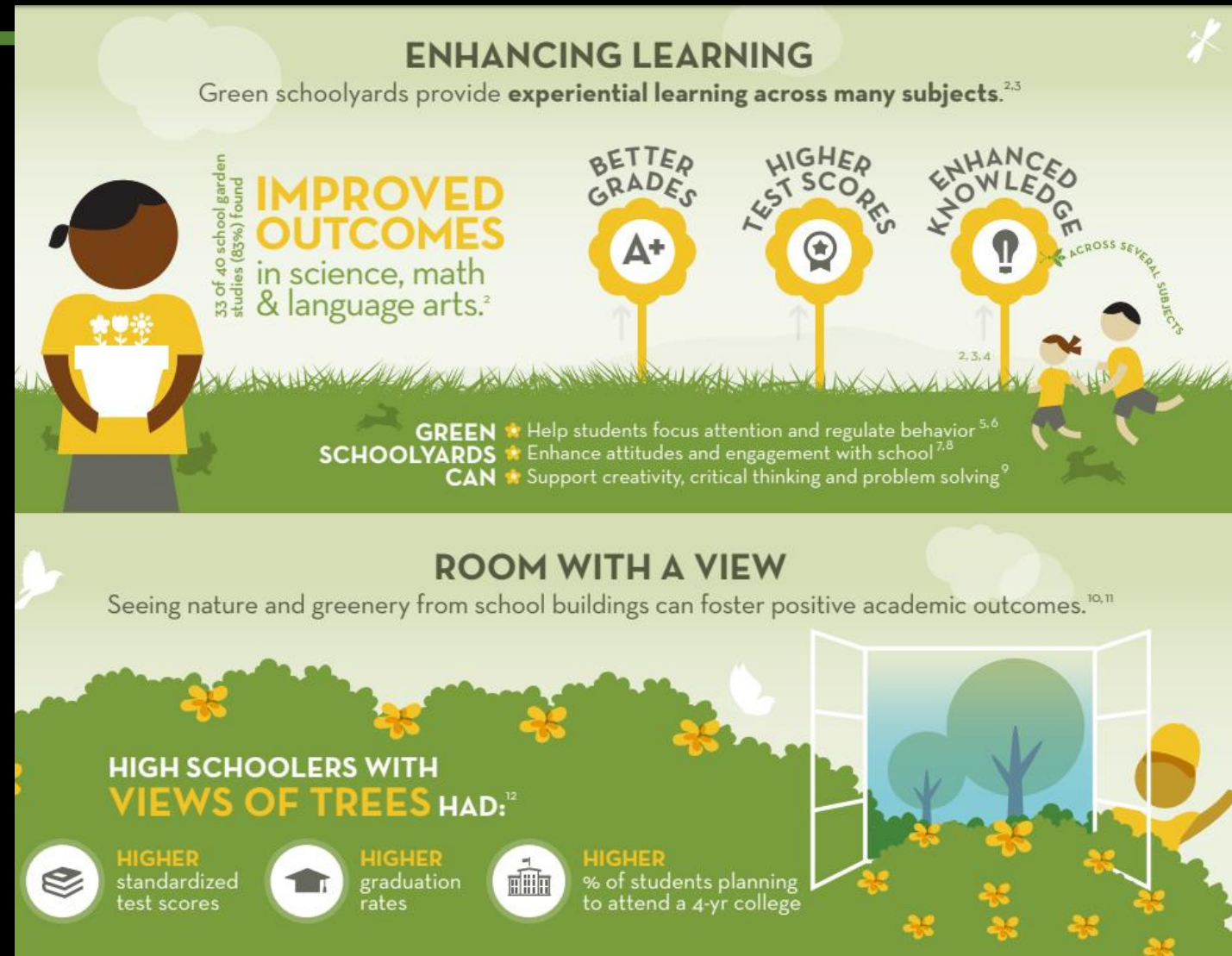
Benefits beyond ½ hour of recess....



Benefits beyond ½ hour of recess....

- Different learning styles
- Project-based learning
- Focus attention
- Critical thinking
- Problem solving
- Creativity

Adapted from C&NN



Benefits beyond ½ hour of recess....

- Views of nature calm
- Stress reduction
- Cooperative play
- Fewer incident reports
- Fewer negative emotions
- Building relationships

Adapted from C&NN



Benefits beyond ½ hour of recess....

- Diversify play options
- Develop core strength
- Gross motor skill development
- Imagination play
- Create complimentary play options



Have we sold you yet?

GSYs can meet the needs of principals and teachers...

- Meet the concerns of grounds/maintenance
- Risk managers
- Staff who supervise the playground



View from the principal's office

Who is involved?

Everyone

It is that simple

PT/OT, PE, Art, Music,
Gen Ed, Programs, Paras
who manage recess

Students, students,
students



View from the school library

Who is involved?

Think about the diversity of the students:

- Gen Ed
- Special Needs
- Mobility
- Autism Spectrum
- Emotional/behavioral
- Mental health

Every child should be able to use all features



Who is involved?

District Facilities
District Grounds/Maint.
Principal
Teachers
Para-Educators
Students
Families
Neighbors
Businesses



Who is involved?

Planning and Design with professional input

- Landscape Architect
 - Planner
 - Playground Safety experts
 - Curriculum experts
 - Garden Coordinators
 - Engineer
 - Architect
 - Horticultural Therapist
 - Occupational/Physical Therapist
 - Recreation experts
 - Ecologist/Biologist/Urban Forester
- Many professions require community service/PD
....who can help!*

Who is involved?

- The ideas and support will be amazing
- Materials will be donated
- Create ownership and pride
- Create a sustainable project
- Reduce vandalism



Volunteer work parties build ownership and pride in the school

Planning and Design process

Older schools have a common theme:

1. Grass
2. Pavement
3. Fence around the perimeter



Planning and Design process

Walk the site
with students,
teachers and
grounds crew

Where are there
under-utilized
spaces?

Where are the
opportunities?



Planning and Design process

Create a master plan for the whole campus, make sure all of the great ideas fit



1. SPORTS FIELD

Open turf field for sports. 210' x 120' (U-10 Soccer)

2. OPEN NATURE AREA

Nestled amongst a diverse selection of trees and shrubs, the nature area is a great space to study ecosystems, wildlife and ecology. The 130' x 120' area has room for additional enhancements to encourage habitat and ecosystem diversity.

3. OUTDOOR CLASSROOM

Underneath the cove of tree canopy, there is space for an outdoor classroom that is 30' x 30'. This space would allow enough room for a small stage and seating for a full class.

4. GARDEN AREA

More raised garden boxes can be added to the two existing boxes, as well as focal gardens, like rock, herb, & tea gardens.

5. LEARNING LAB

The greenhouses are a great site for hands-on lessons and would benefit from enhancements, including supply storage system, entry, and featured plantings.

6. ENTRY PRIDE AREA

The grassy entry area could be updated to add a native plant garden and enhance to the focal flag pole feature.

7. ACTIVE GATHERING ADDITION

Kids of all ages love recess and break time to move around. There is space to convert the grassy area to a gathering space with age appropriate swings and spinning elements.

8. BIORETENTION ENHANCEMENTS

Update existing facilities to add native plantings to help soak up stormwater runoff and add beauty to the parking area. Add pedestrian crossing elements.

9. PAVED LOOP PATH & CONNECTOR PATHS

Add paved loop path, 1/5th mile, as well as connector paths.

Planning and Design process

- Identify use areas
- Identify programs to use the spaces
- Layout out active vs. passive spaces



Planning and Design process

- Identify what needs to be fixed
 - Are there security issues (needs gates)
 - Additional fencing
 - Relocate path ways
 - Needs irrigation system
 - Signs to educate public
- What does the school district need to address
- What needs to be engineered



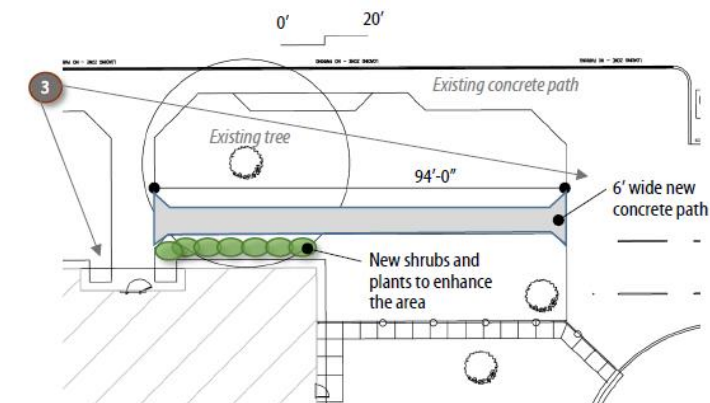
1 – Aerial Map (Google Maps)

Proposed updates:

- Connect active recess areas to designated entry on north side of school with ADA paved path.
- New path would keep students closer to the building and further away from the access lane and vehicles.
- Path would be used for all recess related movement outside of the building

Materials needed:

- Approximately 570 square feet of new concrete path connecting two existing concrete paths/plaza.
- 7 new shrubs
- 20 new perennials/groundcover



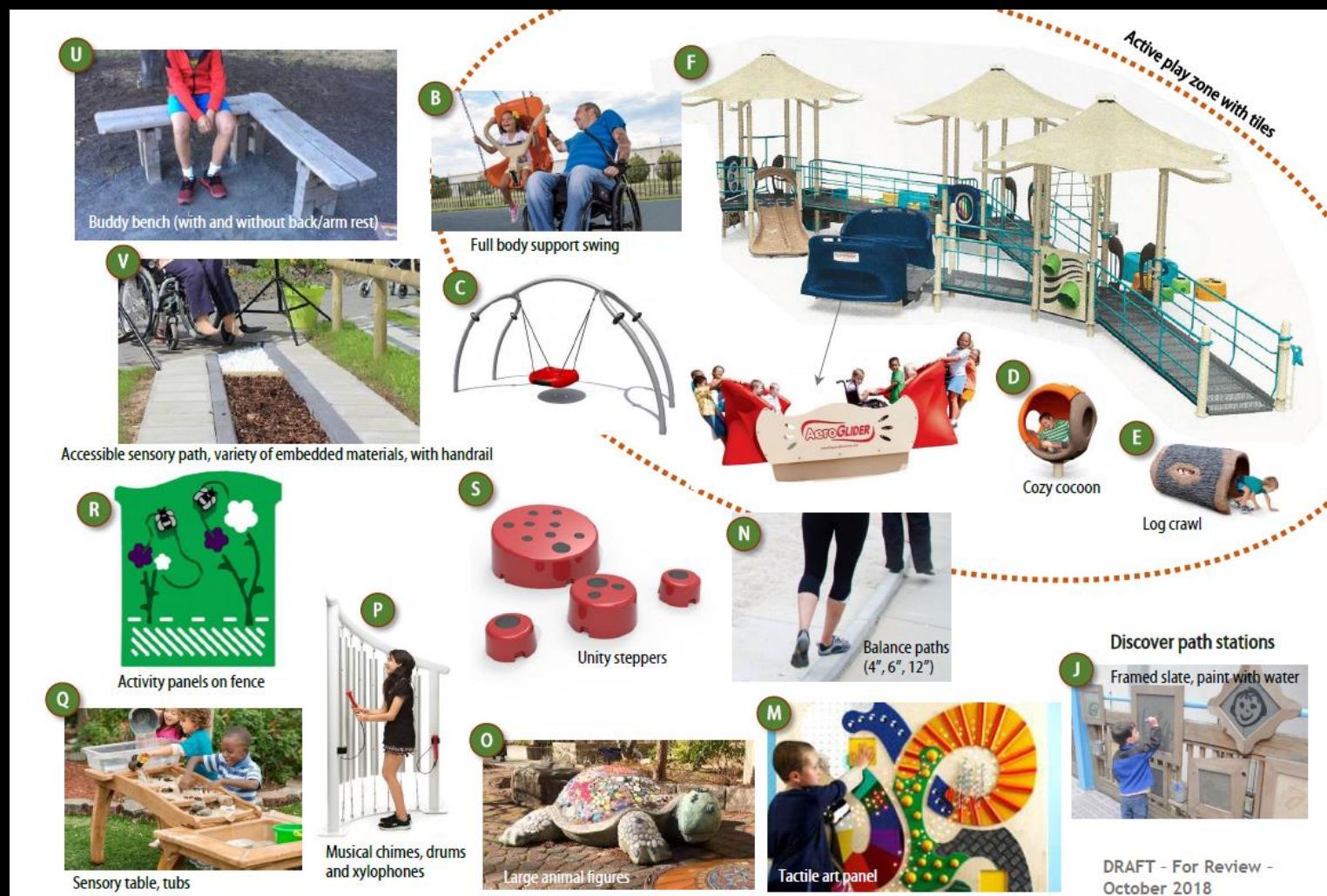
2 – Plan view of north side of building



3 – View looking east-southeast

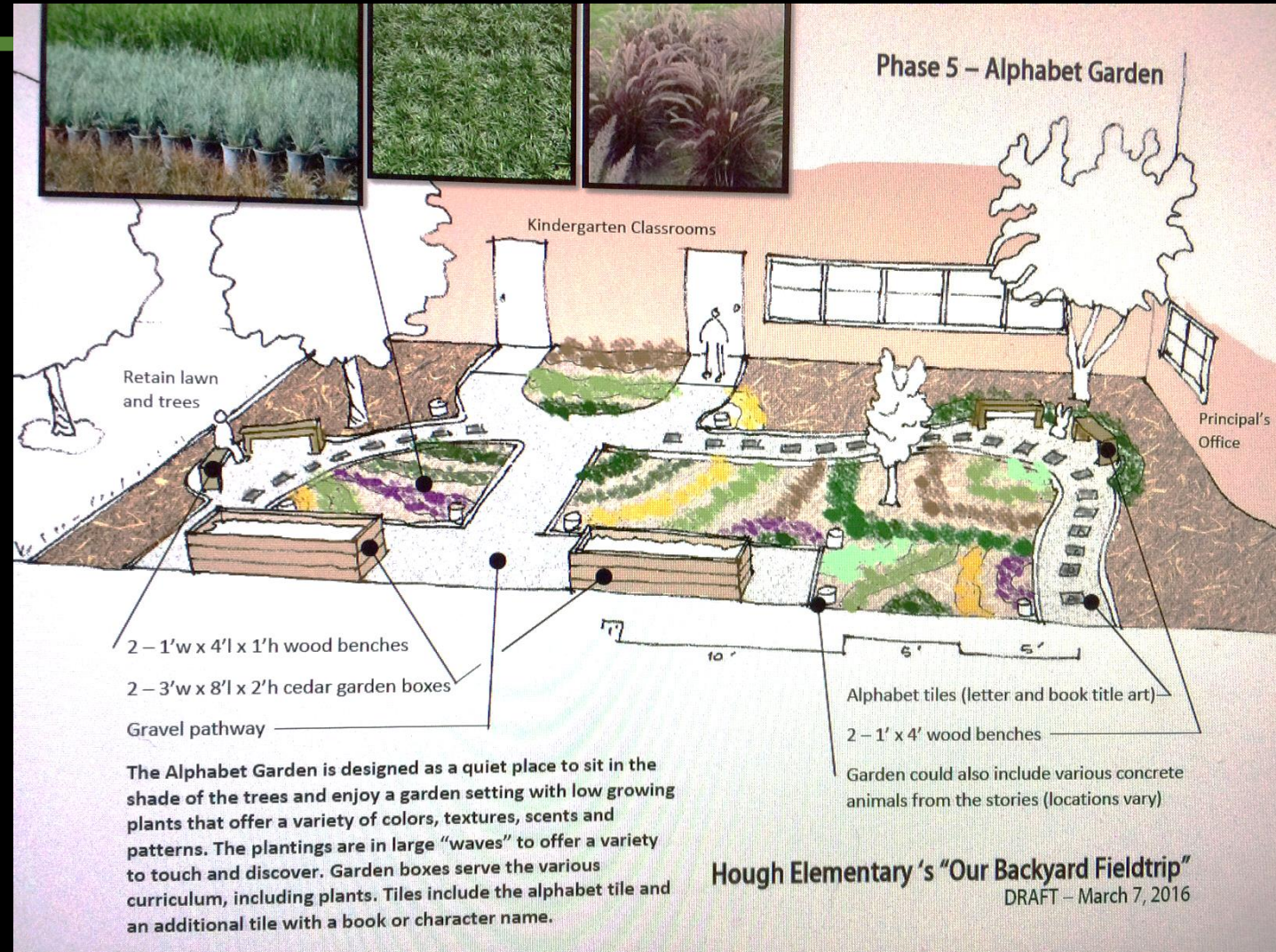
Planning and Design process

- What do people need and want on their campus?
- Dream big!
- Look to other examples



Planning and Design process

- Then develop the level of detail needed for each phase
- Could be concepts / images
- Construction documents

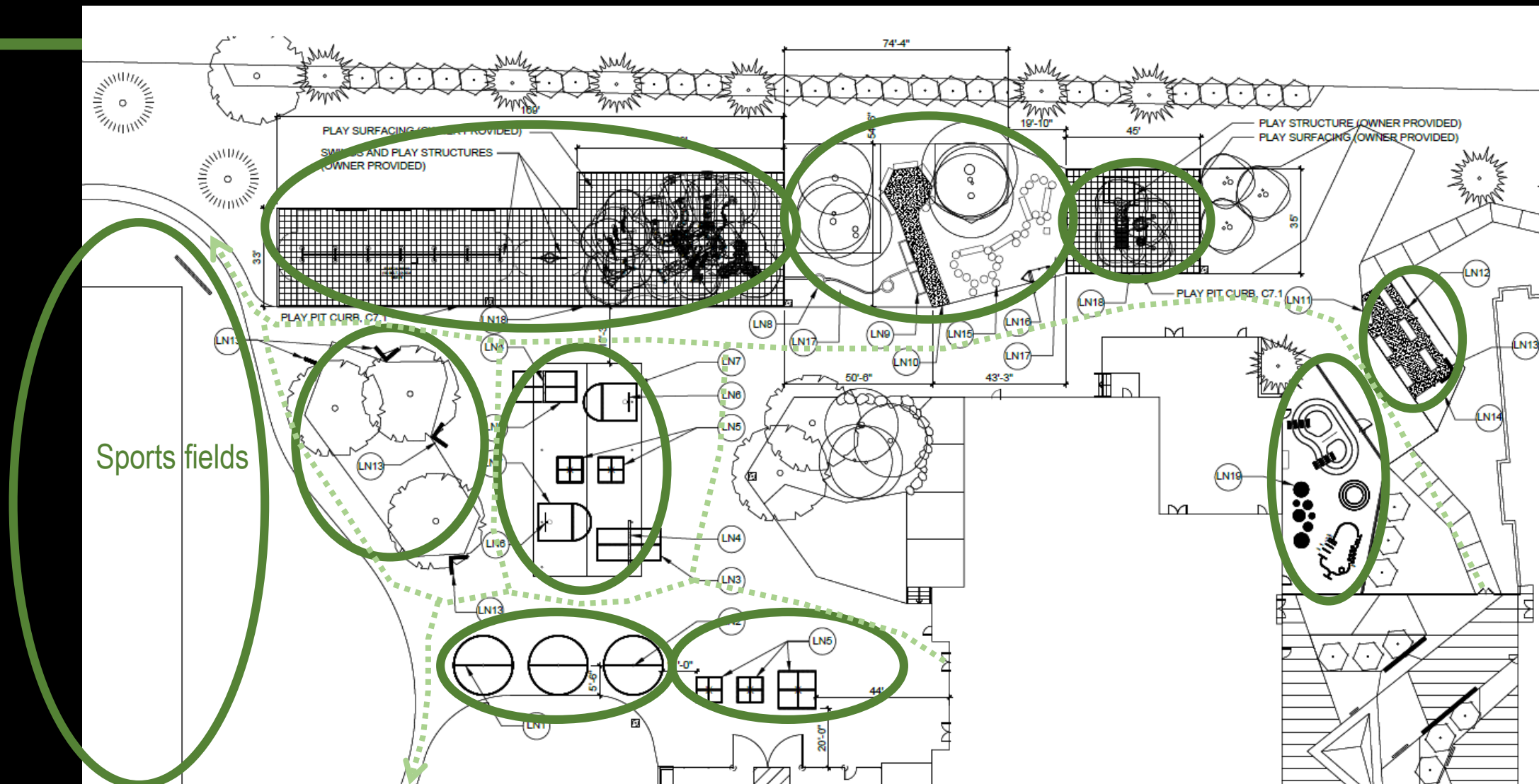


Zones of Learning and Play

1. Learning - Outdoor classrooms
2. Learning - Features
3. Pathways / Connections
4. Active Play - Structured
5. Active Play - Unstructured
6. Passive Areas & Play
7. Passive Play - Nature



Zones of Learning and Play



Zones of Learning and Play

1. Learning - Outdoor classrooms

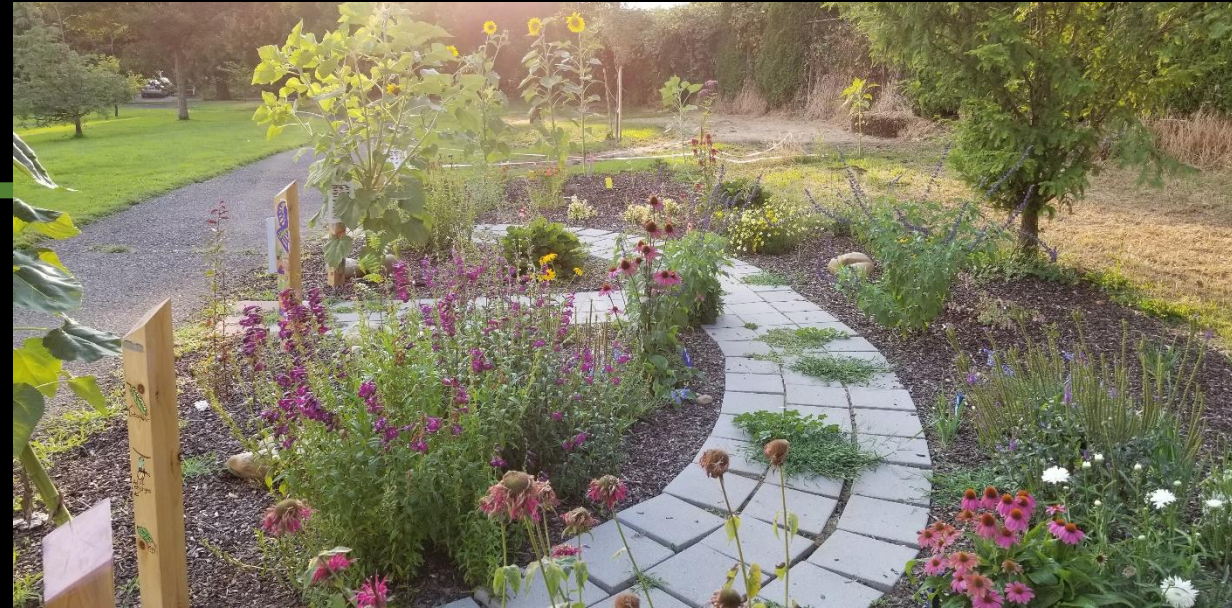
- a. Classroom (30+)
- b. Small workgroups
- c. Individual seating
- d. Stage / performance



Zones of Learning

2. Learning - Features

- a. Food gardens
- b. Habitat gardens
- c. Sensory gardens
- d. Water feature
- e. Wetlands
- f. Forests / tree grove
- g. Maker space / messy area
- h. Pollinator stations
- i. Tables/work benches
- j.



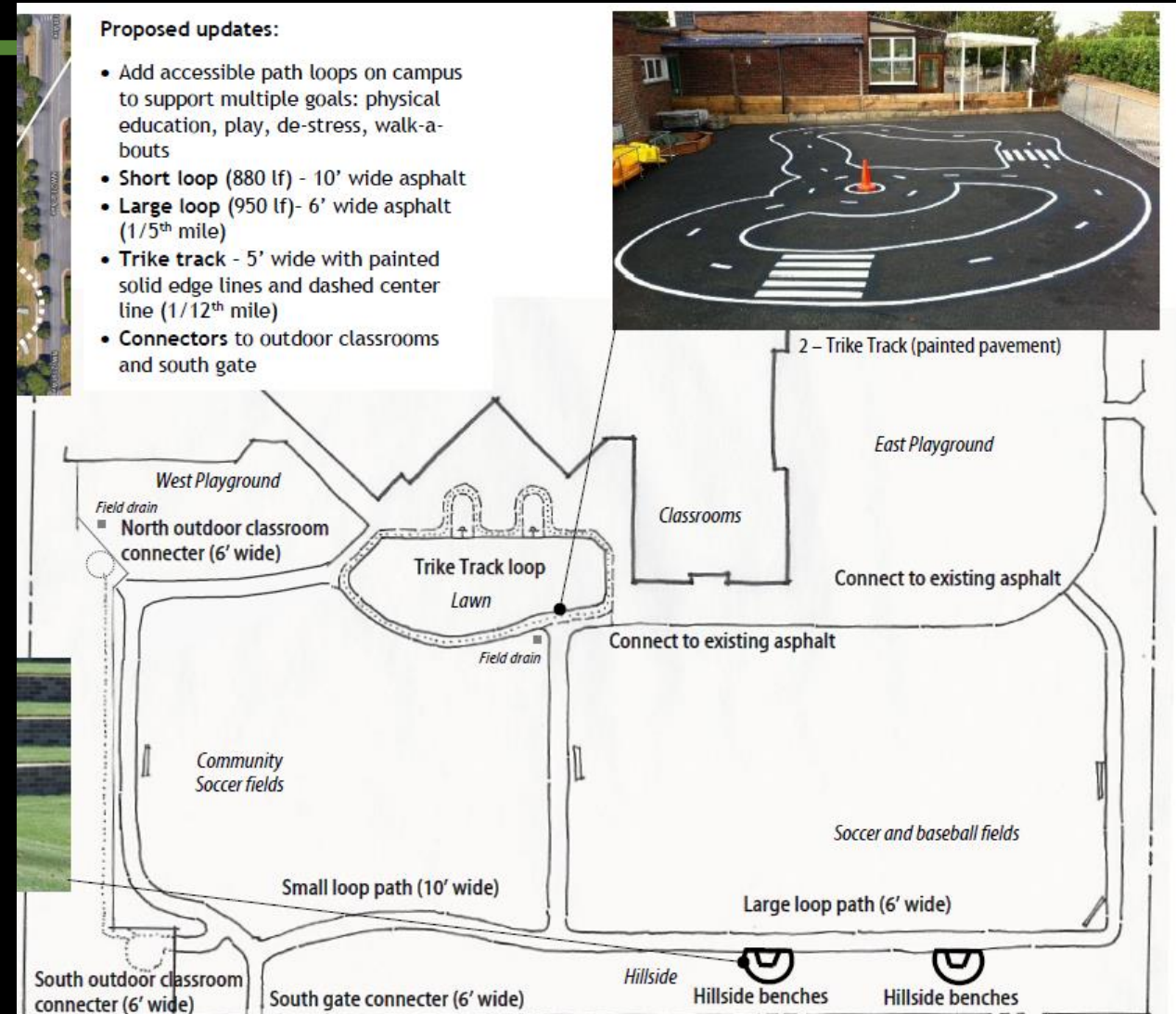
Zones of Learning



Zones of Learning and Play

3. Pathways / Connections

- ADA accessible
- Small loops “Walk-about”
- Trike loops
- Large loops (1/6-1/5th mile)
- Neighborhood connections
- Safe routes to school
- Paths to destinations



Zones of Learning and Play

4. Active Play - Structured

- a. Inclusive play
- b. Supports gross motor
- c. Whole body coordination
- d. Balance / Vestibular
- e. Upper body / arms strength

Remember that middle school kids need to play and hang out with their friends, not just sports fields



Zones of Learning and Play

5. Active Play - Unstructured

- a. Backstop
- b. Open sports fields
- c. Gaga ball
- d. Gross motor



Zones of Learning and Play



6. Passive Play

- a. Imagination play
- b. Exploration / Digging
- c. Places for art, reading
- d. Covered tables
- e. Fort building, gnome/fairy houses
- f. Gardening
- g. Caring for the spaces
- h. Calming, relaxing spaces



Zones of Learning and Play



Zones of Learning and Play

7. Passive Play - Nature Play

- a. Log hoppers / balance boards
- b. Tree house / fort
- c. Boats, canoes, ships
- d. Mazes
- e. Discovery zones



We are not trying to replicate a park



How to make it all work

Talk about programming during planning

- STEM / NGSS curriculum - teacher training
- Other curriculum activities - special projects
- Garden programming
- Play programming
- Running/mileage club
- Art / Music programs



How to make it all work

Cost effective

- PTO / PTA scale projects
- Scout / community service projects
- Volunteer work parties to install / maintain
- Students have access to tools
- Local business support
- Faith based partners
- Local grants
- Volunteers!



How to make it all work

Most importantly

- Involve the students and staff in every step
- For retrofits to existing sites, master plan 1st, build in phases, based on successful outcomes
- For new buildings, include professionals early on, including on how the building is sited
- Lots of conversations and dreaming up front, saves on design down the road
- Use simple materials that can adapt over time....these projects do not need to be expensive!



\$400 in lumber, soil and tools = play

Learn more....

Where are there Green Schoolyards?

- Denver Public Schools – Learning Landscapes
www.learninglandscapes.org
- San Francisco Public Schools – Green Schoolyards
www.sfusd.edu
- Portland-Vancouver Metro Area – Intertwine Alliance
www.theintertwine.org/projects/greening-schoolyards
- Evergreen – Canada
www.evergreen.ca/our-projects/planning-design

Learn more....

Partner with other organizations

- National Wildlife Federation – Schoolyard Habitats
www.nwf.org/schoolyard
- Boston Schoolyard Initiative
www.schoolyards.org/design.outdoor.html
- NC State Design – Natural Learning Initiative
naturalearning.org
- Nature Explore Classroom
natureexplore.org



What are your thoughts?

What questions do you have?

Thank you for your time!



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