beautiful places
balanced world
AGENDA

- WELCOME & INTRODUCTIONS
- REVIEW OF PROCESS TO DATE
- DISTRICT UPDATE, PARALLEL EFFORTS
- HIGH TECH HIGH VIDEO & REFLECTIONS
- LEARNING EXPECTATIONS
- PROGRAM PARAMETERS
- “THINK OUTSIDE THE BLOCKS” (PART 2)
- SITE CONTEXT
PURPOSE

To co-create a clear and compelling vision of the future for St. Cloud Area High School learners and to align the educational programs and physical design of facilities with this vision.
Workshop Process

Workshop 1 November 19th: Visioning

Workshop 2 November 21st: Priorities
{Tours of Alexandria and Hopkins}

Workshop 3 December 2nd: Diverging

Workshop 4 December 3rd: Converging

Dec. 18th School Board Presentation & Approval
Pre-referendum Calendar

Workshop 5 Feb. 2nd: Development
Workshop 6 Feb. 5th: Fine-tuning
Community Presentation: TBD

Spring 2015: School Board sets referendum scope and amount based on community workshops.

FALL REFERENDUM
HIGHEST HOPES
mission

“Our mission is to create a safe and caring climate and culture in which we prepare, engage, educate, empower, and inspire learners in partnership with their surrounding community to be successful in today’s and tomorrow’s society.”
core values

WE BELIEVE everyone deserves equitable access to the highest quality of learning to maximize individual potential.

WE BELIEVE multiple and differing perspectives contribute to informed decision-making and learning.

WE BELIEVE we all benefit when communities work together toward common goals.

WE BELIEVE life-long learning is essential for individuals to shape and thrive in our global society.

WE BELIEVE the greatest level of individual success is achieved through shared ownership by the individual, families, schools and our communities.
• Aligned with District’s Strategic Plan
• This is about transformation.
• Focused on the future (21st Century Learning)
• Focused on student success
• Technology rich
• Equitable access to programs
• Full high school activities/athletic experience
• This is about 2 equitable high schools
• Plan for a design capacity of up to 1800 students for each HS.
• (1800 x 200 sf/student = 360,000 sf each)
• No loss of instructional time
FORCES OF CHANGE:

Please identify the major forces of change that you believe will impact public education over the next 10 years.
FORCES OF CHANGE
WORKSHOP ONE
PRECONCEPTIONS:
{i.e. limiting beliefs}

Identify personal and/or institutional beliefs that might prevent or limit you in facing the challenges presented by these forces.
Resistance to change

Resistance to money, we can’t afford it

There’s only one right answer

Some ideas are mutually exclusive

Compromise means loss

Your preconception is wrong – mine is right!

Decision has already been made

Newer is better

Keeping up with the Jones’s, copy our neighbor

Technology is overwhelming

Technology enhances our life

Innovation will not be supported by the community

If it was good enough for me, it’s good enough for my kids

Change is good, Change is bad.
I SEE...
WE SEE
We see inviting, student-centered designs that integrate environmental, community and technological resources to cultivate a love of learning in all students. By celebrating beauty, function and sustainability, we build on a tradition of excellence that serves as a source of pride for students, staff and the community.

- Schools foster global preparedness, holistic development and engagement through multiple modes of learning.
- Students and staff strive for success within equitable, inclusive and collaborative settings.
- Students engage in theoretical and applied learning settings that build bridges between subjects, classrooms, student groups and the community.
Teaching and Learning
What do we want for our learners?

St. Cloud Area School District
Learning for a lifetime. It’s our promise to you.
EMPATHY WALKS
APOLLO AND TECH
ALIGNMENT WITH VISION
SORTING AND ORGANIZING
WHAT ARE THE BIG PRIORITIES?
ALIGNMENT WITH VISION

ALIGNED (working, keep, celebrate)

• Connection to surround community downtown and Lake George (76)
• Lots of natural light (32)
• Historical architecture (14)
• Celebrate Pride (12)
• Light and Open feeling (better here than Apollo) (4)
• Needs a bigger theater, but keep small auditorium/theater space too – there is value in the more intimate space for some productions (4)
• Cafeteria, logistics, and options (1)

MISALIGNED (not working, won’t miss)

• Land locked – parking, athletics, no room to grow (93)
• Outdated Building (65)
• Accessibility (42)
• Learning areas are not logically organized (26)
• Claustrophobic and confusing hallways, and small classrooms (26)
• Parking Master Plan (22)
• No grand entryway – no focal point for public access (17)

TECH HIGH SCHOOL
ALIGNMENT WITH VISION

ALIGNED (working, keep, celebrate)

• Alternative learning spaces - Outdoor lab student big flexible space (27)
• Outdoor grounds – Courtyard, athletics, parking (25)
• Visual evidence of school pride (11)
• Public Art - Student community on display (7)
• Good Layout, provides flexibility and accessibility (6)
• Accessible open hallways! (5)
• Multicultural Atmosphere (5)
• Performing arts space (5)

APOLLO HIGH SCHOOL

MISALIGNED (not working, won’t miss)

• Interior is unattractive (22)
• Outdated technology (21)
• In-flexible space (10)
• Flexibility of classrooms (10)
• Cafeteria flow and aesthetics (10)
• Comfort and safety: public access check points (7)
• Inadequate heating/cooling system (6)
• Technology: make more accessible (6)
• Lack of upgrades (3)
• Space deficiencies – gym, lockers, classes, cafeteria, safety (2)
TOURS OF ALEXANDRIA HIGH SCHOOL AND HOPKINS HIGH SCHOOL
THINK OUTSIDE THE BLOCKS
COMMON GROUND
COMMON GROUND NEW

- All groups accommodated site program for fields and parking on site
- All groups created outdoor learning environments
- Both groups at the 33rd St. site considered collaboration with City
- All groups entered a 2 story Commons space adjacent to activity spaces (to provide pre-function space)
- All groups had secure entries with administration adjacent
- All groups had multi-story learning communities
- All groups zoned activity and performing arts spaces
COMMON GROUND APOLLO

- All groups enlarged the Commons space
- All groups reorganized building into public and classroom areas
- All groups added gym/activity space
- All groups opened up space throughout plan
- All groups relocated lockers closer to learning spaces
- All groups relocated DAO
- All groups zoned play fields
- All groups addressed security by relocating administration
- 3 groups looked 2 story additions
- 3 groups looked expanding kitchen
COMMON GROUND TECH HIGH

- All groups relocated Media Services to use property
- All groups incorporated a major addition for flexible learning
- All groups maintained Lake George as an asset
- All groups demolished the 1965 wing to the west
- All groups built over 13th Ave. (current bus area)
- All groups reconfigured Clark Field
- All groups added parking to the north and west of site
- 3 groups kept the existing oldest building, pool and gyms
- 3 groups acquired properties along 14th Ave.
SYNTHESIS PRESENTATION

1. New Tech on New Site
2. Transformed Apollo @ Existing Site
3. Transformed Tech @ Existing Site
1. New Tech on New Site (33rd St. South)
Transformed Tech @ Existing Site
## ESTIMATE OF PROBABLE COST

**New Tech - New Site**  
*Assumes similar quality to Alex*

<table>
<thead>
<tr>
<th>Building</th>
<th>sf</th>
<th>cost/sf</th>
<th>Total</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Costs</td>
<td>360,000</td>
<td>$224</td>
<td>$80,640,000</td>
<td>$80.6 M</td>
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<tr>
<td>Site Development Costs</td>
<td></td>
<td></td>
<td></td>
<td>$9.6 M</td>
</tr>
<tr>
<td>Soft Costs (20%)</td>
<td></td>
<td></td>
<td></td>
<td>$18 M</td>
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<tr>
<td><strong>Sub Total</strong></td>
<td></td>
<td></td>
<td><strong>$108.2 M</strong></td>
<td></td>
</tr>
<tr>
<td>33rd St Property Acquisition</td>
<td></td>
<td></td>
<td></td>
<td>$0.9 M</td>
</tr>
<tr>
<td>Estimate to run utilities</td>
<td></td>
<td></td>
<td></td>
<td>$2.5 M</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>$111.6 M</strong></td>
<td></td>
</tr>
</tbody>
</table>
## ESTIMATE OF PROBABLE COST

### Apollo High School - Renovated

Assumes phased construction

<table>
<thead>
<tr>
<th>Building</th>
<th>sf</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Construction</td>
<td>40,000</td>
<td>$9.2 M</td>
</tr>
<tr>
<td>Existing to Remain</td>
<td>330,000</td>
<td>$15.6 M</td>
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<tr>
<td>Heavy Remodel</td>
<td>120,000</td>
<td>$8.4 M</td>
</tr>
<tr>
<td>Light Remodel</td>
<td>120,000</td>
<td>$5.1 M</td>
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<tr>
<td>Maintenance Items</td>
<td></td>
<td></td>
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<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>$38.3 M</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Site</th>
<th>amount</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Field Improvements</td>
<td></td>
<td>$1.5 M</td>
</tr>
<tr>
<td>Site Circulation/Parking Improvements</td>
<td></td>
<td>$1 M</td>
</tr>
<tr>
<td>Parking lot maintenance</td>
<td></td>
<td>$1.075 M</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>$3.6 M</strong></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>$42 M</strong></td>
</tr>
<tr>
<td>Soft Costs (23%)</td>
<td></td>
<td><strong>$9.6 M</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$51.5 M</strong></td>
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</table>
## ESTIMATE OF PROBABLE COST

### Tech High School - Renovated

*Assumes phased construction*

<table>
<thead>
<tr>
<th>Building</th>
<th>sf</th>
<th>Cost</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>New Construction</td>
<td>240,000</td>
<td>$66 M</td>
<td>Includes phasing and constructability</td>
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<tr>
<td>Existing to Remain</td>
<td>200,000</td>
<td>$30 M</td>
<td>Includes maintenance items</td>
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<tr>
<td>Heavy Remodel</td>
<td>150,000</td>
<td>$6 M</td>
<td>Gym, Locker rooms, old Media Center</td>
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<tr>
<td>Light Remodel</td>
<td>50,000</td>
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</table>

| subtotal                  | $102 M     |                     |                                                            |

<table>
<thead>
<tr>
<th>Site</th>
<th>amount</th>
<th>Cost</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Acquisition</td>
<td>27 properties</td>
<td>$5.4 M</td>
<td>Includes acquisition and demo</td>
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<tr>
<td>Demolition Costs</td>
<td>2,600,000 c.f.</td>
<td>$2 M</td>
<td></td>
</tr>
<tr>
<td>Utility Relocation at 13th</td>
<td>570</td>
<td>$2.5 M</td>
<td></td>
</tr>
<tr>
<td>Parking spaces</td>
<td></td>
<td>$1.5 M</td>
<td></td>
</tr>
<tr>
<td>Clark Field Improvements</td>
<td></td>
<td>$3.4 M</td>
<td>from existing report</td>
</tr>
</tbody>
</table>

| Subtotal                  | $14.4 M     |                     |                                                            |

| Relocate Media Services   | to be determined | TBD                |                                                            |

| subtotal                  | $116.4 M     |                     |                                                            |

| Soft Costs (28%)          | $32.6 M      |                     |                                                            |

| Total                     | $149 M       |                     |                                                            |
DESIGN

criteria

• Flexibility, adaptability
• Variety of learning settings
• Accessible and welcoming to all
• Identifiable main entry
• Safe and secure
• Outside learning and amenities
• Activities/athletics
• Site circulation, service, and parking
• Community access/access to the community
• Sustainable for the future, stewardship
• Daylighting
• Cost
• Constructability and Phasing
Creating a Shared Vision
for High School Facilities

St. Cloud Area School District

Workshop 4
Synthesis

12.18.14

THANK YOU!!!
• WELCOME & INTRODUCTIONS
• REVIEW OF PROCESS TO DATE
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REFLECTIONS
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Teaching and Learning
What do we want for our learners?

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WE BELIEVE the greatest level of individual success is achieved through shared ownership by the individual, families, schools and our communities.
What do we want for our learners?

We want all our learners to be successful...

This means: We need to **create flexible, adaptable environments** that support a variety of learning styles

- Flexible/adaptable learning spaces
  - Moveable walls
  - Tables rather than desks
- Variety of sized learning spaces
- Distance learning and on-line
- Formal and informal learning spaces
- Flexibility/agility to change delivery models
- Maximize multi-purpose nature of all spaces
What do we want for our learners?

We want our learners to feel safe and have a sense of community both in and out of the school environment...

This means: We need to create a space for community within the school and for students in the community

- Space for community partners
- Sense of belonging
- Celebrate the uniqueness of St. Cloud area
- Place-based learning
- Welcoming and accessible to parents
What do we want for our learners?

We want our learners to be competitive in the world...

This means: We need to create a world class education that supports both college and career readiness

• Access to world and local communities
• Look to best practices for future
• Support programs such as Pro-start, Project Lead the Way
• Look at local businesses such as Healthcare, manufacturing, business services
• Create business partnerships where students run and manage the business
What do we want for our learners?

We want our learners to be equitably connected to resources...

This means: We need a technology rich environment that promotes learning anytime, anyplace

• Use of virtual technology – connections to world
• Hubs with genius bars and informal learning
• Wireless everywhere
• Extended day access for those without wifi
• Ability to move with the technology
• BYOD: Bring Your Own Device
• Flexible technology, i.e. Mediascapes
• Learning Commons
What do we want for our learners?

We want our learners to have hands-on, relevant learning experiences...

This means: We need to support career technical, business, and STEAM education through appropriate partnerships and space

- Space for applied learning
- Student run businesses
- Building pads for construction of housing
- High tech bio tech (Agriculture)
- Broadcast facilities
- High tech Math/science labs
- Project Based Learning spaces
What do we want for our learners?

We want our learners to understand that learning is integrated and not discipline specific...

This means: We need to break down traditional silos between subjects and promote teacher collaboration

- Integration of learning – for example, STEAM
- Interdisciplinary learning
- Spaces that allow team teaching
- Fine arts programs integrated and visible to community
- Eliminate teacher owned learning spaces
- Integrate environment into learning
What do we want for our learners?

We want our learners to be supported by staff that work collaboratively to promote best practices...

This means: we need to support our staff through professional development and create professional work space for collaboration

• Staff collaboration spaces
• Diversity of staff
• Large and small group space for professional development
What do we want for our learners?

We want our learners to have opportunities throughout the community...

This means: we will work to **support partnerships with businesses and higher ed. institutions in the St. Cloud area**

- Identify what makes this community special
- Support partners and services in High Schools
- Create more community and business partnerships
- Develop internship opportunities for students
- Look at regional opportunities
What do we want for our learners?

We want our learners to have a complete high school experience rich with opportunities beyond traditional academics...

This means: We need to support the arts, activities and athletics

• Great athletic facilities
• Performance venues
• Equitable access to programming/assets
What do we want for our learners?

We want our learners to feel welcomed into our schools...

This means: Our schools need to address the physical needs of students by being **safe, comfortable, and aesthetically welcoming** with lots of daylight

- Natural lighting
- Outdoor learning
- Security - passive and active
- Appropriately sized/located restrooms with PA
- Safe parking, bus, parent drop-off
- Embracing social, emotional and cultural needs of all students
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### New High School

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>1,800</td>
</tr>
<tr>
<td>SF/Student</td>
<td>200</td>
</tr>
<tr>
<td>Overall Square Footage</td>
<td>360,000</td>
</tr>
</tbody>
</table>

### Conceptual Program

<table>
<thead>
<tr>
<th></th>
<th>Existing Apollo</th>
<th>Existing Tech</th>
<th>Proposed at 1,800 Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Students</td>
<td>1,393</td>
<td>1,428</td>
<td>1,800</td>
</tr>
<tr>
<td>Total Teaching Stations</td>
<td>83</td>
<td>77</td>
<td>85</td>
</tr>
<tr>
<td>Average Utilization of all TS</td>
<td>74%</td>
<td>74%</td>
<td>85%</td>
</tr>
<tr>
<td>Average number of students per teaching station per period used</td>
<td>23</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>
# St Cloud High Schools Working Program

02.02.2015

assumes 1,800 students @ 200 sf/student

<table>
<thead>
<tr>
<th>Teaching Stations</th>
<th>approx. % sf</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Communities</td>
<td>70</td>
<td>26%</td>
</tr>
<tr>
<td>Music &amp; Performance</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>Athletics &amp; Fitness</td>
<td>4</td>
<td>21%</td>
</tr>
<tr>
<td>Lab Studios</td>
<td>8</td>
<td>7%</td>
</tr>
<tr>
<td>Special Ed (Self-Contained)</td>
<td>1%</td>
<td>includes life skills and medically fragile</td>
</tr>
<tr>
<td>Student Support</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Commons/Heart/Cafeteria</td>
<td>4%</td>
<td>Eat and meet</td>
</tr>
<tr>
<td>Building Support</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Teaching Station Total</td>
<td>85</td>
<td></td>
</tr>
</tbody>
</table>

**Net to Gross factor** 30% includes toilets, walls, circulation

**Total Gross** 100%
LEARNING COMMUNITIES
Learning Communities:

*From Wikipedia*

A *learning community* is a group of people who share common academic goals and attitudes, who meet semi-regularly to collaborate...
Learning Communities…

…organize a school into smaller units that are more personal and build stronger relationships, enhancing student engagement.
Learning Communities

These smaller units of learning are flexible and adaptable for the future and create an invitation to organize learning in any number of ways.
THIS.
NOT THIS…
Learning Community Parameters

Learning Communities need to have:

- Flexible Spaces
- Staff Collaboration
- Variety of Space
- Adaptable Space
- Collegiate Atmosphere
- Integrated Specialized Spaces
Flexible Spaces
Create learning environments that are relevant and collaborative
Staff Collaboration
Provide professional/PLC space where adults can model collaboration
Variety of Spaces
Accommodate different sized groups and all learners and learning styles
Adaptable Space

How will the space accommodate changes in curriculum and delivery
Collegiate Atmosphere
Encourage peer to peer and informal learning
Specialized Spaces
Integrate hands-on project based learning
Creating a Shared Vision for High School Facilities
St. Cloud Area School District

Workshop 6: ‘Synthesis Part 2’

02.05.15
• WELCOME & REFLECTIONS
• LEARNING COMMUNITIES
• PROGRAM UPDATE
• SITE PRESENTATION
• NEW TECH SYNTHESIS OFFERING
  ➢ FEEDBACK LOOP
• APOLLO SYNTHESIS REVIEW
  ➢ FEEDBACK
• NEXT STEPS
Design Exercise:

Working as a team, please use the materials provided in your kits to design one of the learning communities discussed in the program parameters. Thank you, and…

…think outside the blocks 😊
LEARNING COMMUNITY “KIT OF PARTS”

- (4) general learning spaces
- (2) medium group
- (2) specialized learning spaces
- (2) small group
- (2) double learning spaces
- (1) staff collaboration
Hallway Glass on all sides

Windows
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“...the enjoyment of scenery employs the mind without fatigue and yet exercises it, tranquilizes it and yet enlivens it; and thus, through the influence of the mind over the body, gives the effect of refreshing rest and reinvigoration to the whole system.”

~ Frederick Law Olmsted, 1865
HIGHEST HOPES WORDLE
We see inviting, student-centered designs that integrate environmental, community and technological resources to cultivate a love of learning in all students. By celebrating beauty, function and sustainability, we build on a tradition of excellence that serves as a source of pride for students, staff and the community.

- Schools foster global preparedness, holistic development and engagement through multiple modes of learning.
- Students and staff strive for success within equitable, inclusive and collaborative settings.
- Students engage in theoretical and applied learning settings that build bridges between subjects, classrooms, student groups and the community.
SITE ANALYSIS
Looking south from 33rd Street
Looking south at wetland and creek
Looking west to HS site
Looking down on panhandle
Looking east from 74 at HS site
Looking down at 40 acre city parcel + 43rd Ave S
Looking down at entire 100 acre parcel, facing
NATURAL AREAS

Oak Woodlands and Emergent Marsh buffer northern edge

Floodplain Forest bounds north and east, with small spots of Cattail Marsh in vicinity
SOIL TYPES

7B = Hubbard loamy sand, 2 - 6% slopes

144C = Flak sandy loam, 8 - 15% slopes

144E = Flak sandy loam, 15 - 25% slopes

260 = Duelm loamy sand

327A = Dickman sandy loam, 0 - 2% slopes

327B = Dickman sandy loam, 2 - 6% slopes.
DEPTH TO GRANITE + GROUNDWATER

Granite – depth to granite was greater than 15’ in all borings, as no refusal was met.

Groundwater – depth to groundwater varied from 2’
1. Granite outcroppings, “compression/release”
2. Trout stream, granite outcrops, oak forest
3. Wetlands
4. Highest point on site – “prospect/refuge”
5. Drainage “ravine”
6. Creek + Diverse Ecological Community
7. Open meadow
“Out of intense complexities, intense simplicities emerge.”

~ Winston Churchill
Having a healthy, functioning ecosystem serves multiple functions. It is a multi-dimensional asset, going beyond “nice to have” aesthetics.

- **Bio-Diversity + Health**
- **Agriculture + Beauty**
- **Water + Geology**
- **Biophilia + Metrics**

<table>
<thead>
<tr>
<th>ECOSYSTEM SERVICE</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global climate regulation</td>
<td>Maintaining balance of atmospheric gases at historic levels, creating breathable air, and sequestering greenhouse gases</td>
</tr>
<tr>
<td>Local climate regulation</td>
<td>Regulating local temperature, precipitation, and humidity through shading, evapotranspiration, and windbreaks</td>
</tr>
<tr>
<td>Air and water cleansing</td>
<td>Removing and reducing pollutants in air and water</td>
</tr>
<tr>
<td>Water supply and regulation</td>
<td>Storing and providing water within watersheds and aquifers</td>
</tr>
<tr>
<td>Erosion and sediment control</td>
<td>Retaining soil within an ecosystem, preventing damage from erosion and siltation</td>
</tr>
<tr>
<td>Hazard mitigation</td>
<td>Reducing vulnerability to damage from flooding, storm surge, wildfire, and drought</td>
</tr>
<tr>
<td>Pollination</td>
<td>Providing pollinator species for reproduction of crops or other plants</td>
</tr>
<tr>
<td>Habitat functions</td>
<td>Providing refuge and reproduction habitat to plants and animals, thereby contributing to conservation of biological and genetic diversity and evolutionary processes</td>
</tr>
<tr>
<td>Waste decomposition and treatment</td>
<td>Breaking down waste and cycling nutrients</td>
</tr>
<tr>
<td>Human health and well-being benefits</td>
<td>Enhancing physical, mental, and social well-being as a result of interaction with nature</td>
</tr>
<tr>
<td>Food and renewable nonfood products</td>
<td>Producing food, fuel, energy, medicine, or other products for human use</td>
</tr>
<tr>
<td>Cultural benefits</td>
<td>Enhancing cultural, educational, aesthetic, and spiritual experiences as a result of interaction with nature</td>
</tr>
</tbody>
</table>

Source: SITES 2009a
FOCAL POINTS FOR A SUSTAINABLE SITE

- Water Systems
- Vegetation
- Soils
- Materials + Resources
- Energy Systems
- Cultural Systems
WATER SYSTEMS

Conserve
Use efficient irrigation, specify low-water-use plants, employ low-impact development.

Reuse
Harvest rainwater, capture graywater, reuse for irrigation, toilet flushing, sprinklers. Infiltrate small storms' rainwater onsite.

Balance
Net zero use. Capture rain and all wastewater (both black water and graywater); purify, store, reuse onsite for all water needs, and provide some to other sites. Infiltrate and cleanse rainwater.

Regenerate
Capture rain and all wastewater; purify, store, reuse onsite for all water needs, and provide some to other sites. Match predevelopment hydrologic conditions.

VEGETATION

Preserve
Minimize removal of existing native vegetation. Identify critical vegetation areas and protect during the development process.

Protect
Do not introduce exotic species that could naturalize in the local environment. Do not use chemical treatments that pose a threat to the ecosystem.

Restore
Remove invasive plant species. Specify plants to create a native plant community. Restore appropriate plant biomass.

Regenerate
Maximize ecosystem services of vegetation. Use vegetation to reduce heating and cooling loads on buildings, cleanse stormwater, minimize urban heat island effect, and provide habitat.
### SOILS

**Preserve**
Protect healthy soils from damage due to construction and development. Prevent access to healthy soil areas during the construction process.

**Reuse**
Reuse healthy soils that cannot be protected onsite. Take care to reduce damage during the removal and replacement process.

**Restore**
Use appropriate techniques to remediate damaged soils that will restore desired physical, chemical, or biological properties lost during the development process or due to previous site activity.

**Regenerate**
Use soil restoration and soil and vegetation management that will create opportunities for soil to regenerate over time, maintaining healthy soils and rebuilding damaged soils.

### MATERIALS AND RESOURCES

**Reduce and Recycle**
Use recycled content products and reprocessed materials. Recycle construction and demolition debris.

**Reuse**
Salvage and reuse construction and demolition materials. Design for disassembly and deconstruction.

**Balance**
Do not rebuild. Reuse structures in place. Use durable materials and detail durable structures.

**Regenerate and Renew**
Design sites and structures for adaptation and reuse. Use living materials for structures. Use renewable materials.
<table>
<thead>
<tr>
<th>CULTURAL SYSTEMS</th>
<th>Preservation</th>
<th>Rehabilitation</th>
<th>Restoration</th>
<th>Reconstruction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Identify the social and economic needs of the community and engage the community and other stakeholders in the design process.</td>
<td>Consider how the site will educate, build community, and create a sense of place. Create a program that will increase mental health, physical health, and social equity.</td>
<td>Use the project to encourage the development of job skills and create economic opportunities during and after development.</td>
<td>Design for human comfort and accessibility. Design for physical activity and mental restoration. Design for social interaction and community building.</td>
</tr>
</tbody>
</table>
SITE INSPIRED LEARNING COMMUNITIES

• Viewing layered complex site challenges together will highlight areas to best locate certain programmatic elements for the new campus.

• Wetland delineation + EAW will need to be done for the site; in addition to more soil borings for locating groundwater.

• Buffers/Setbacks from Neenah Creek will be something to consider because the creek is a valuable ecological asset.
  • It has been found to contain:
    1) high quality and rare vegetation species and plant communities;
    2) high relative water quality;
    3) locally rare undisturbed stream type;
    4) valuable habitat;
    5) potential as a trout fishery.

• Consideration of “green infrastructure” for drainage

• Take advantage of the excellence of the surrounding landscape; integrate biophilic design.
  • Daylight + Performance + Attendance
  • Nature + Stress Reduction + Attentional Restoration
  • Influence of natural world on students, building, and site
Creating a Shared Vision for High School Facilities

St. Cloud Area School District

Workshop 6
Synthesis

02.05.15

THANK YOU!
beautiful places
balanced world