

# Winning the Long Game at North Park School for Innovation

2022 A4LE learningSCAPES

**Cunningham**



# Introductions



Jeff Cacek

Principal - North Park School for Innovation



Jen Garman

Architect - Cuningham



Devon Clark

Landscape Designer - Cuningham



Amanda Weiker

Designer - Cuningham

# Learning Objectives

## **Fully integrated learning environments**

How to connect the indoor to the outdoor and the world beyond through design and educational programming to positively affect the well-being of users, and provide equitable access to environmental education.

## **Radical Incrementalism**

The power of doing one thing well, repeatedly, to power a path to net-zero. How long-term planning, educational programming and design intertwine to realize the higher goals of a school that positively affects the physical environment and the welfare of students, faculty, staff, and the larger community.

## **Net-zero on a public-school budget**

Making partners, managing resources, and enabling staff to empower change directed towards your goals.

## **Empowering the most vulnerable**

Programming that engages all students with the environment to build awareness, understanding, and agency in a changing environment.

# Welcome to North Park

Fridley, MN

## Student Demographics

39% Black

27% Hispanic

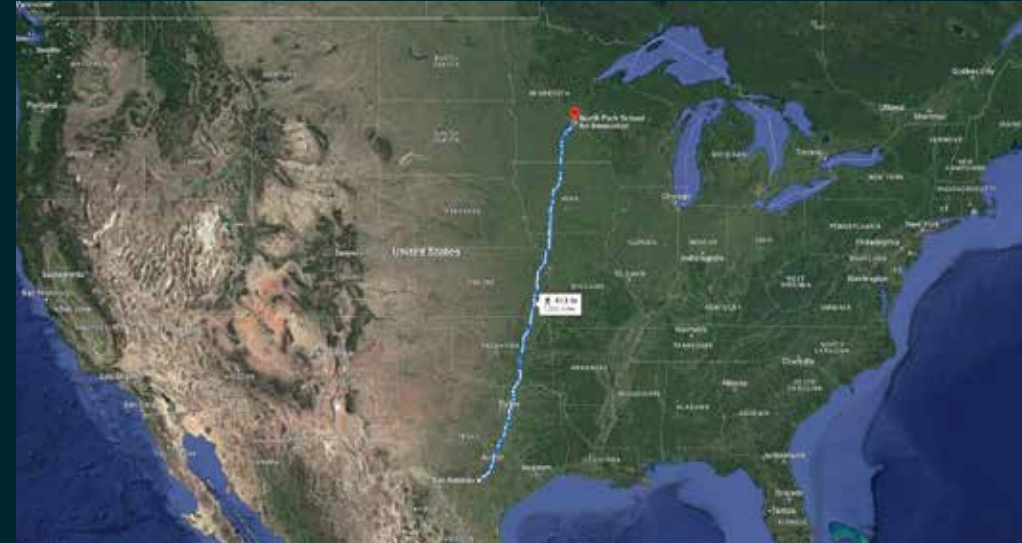
18% White

11% 2+ Races

4% Asian or Pacific Islander

1% Native American

80% Students from low-income families







**A quest for equitable  
learning opportunities**

# Radical Incrementalism

2021+  
Zero Waste

2018  
Learning  
Landscapes



2016  
School Growth  
(referendum  
& active  
learning)



2012  
Re-imagined  
studio concept  
for equitable  
learning



**EXECUTE.  
REVIEW + ADJUST.  
REPEAT.  
FOREVER!**



# Changing the educational model

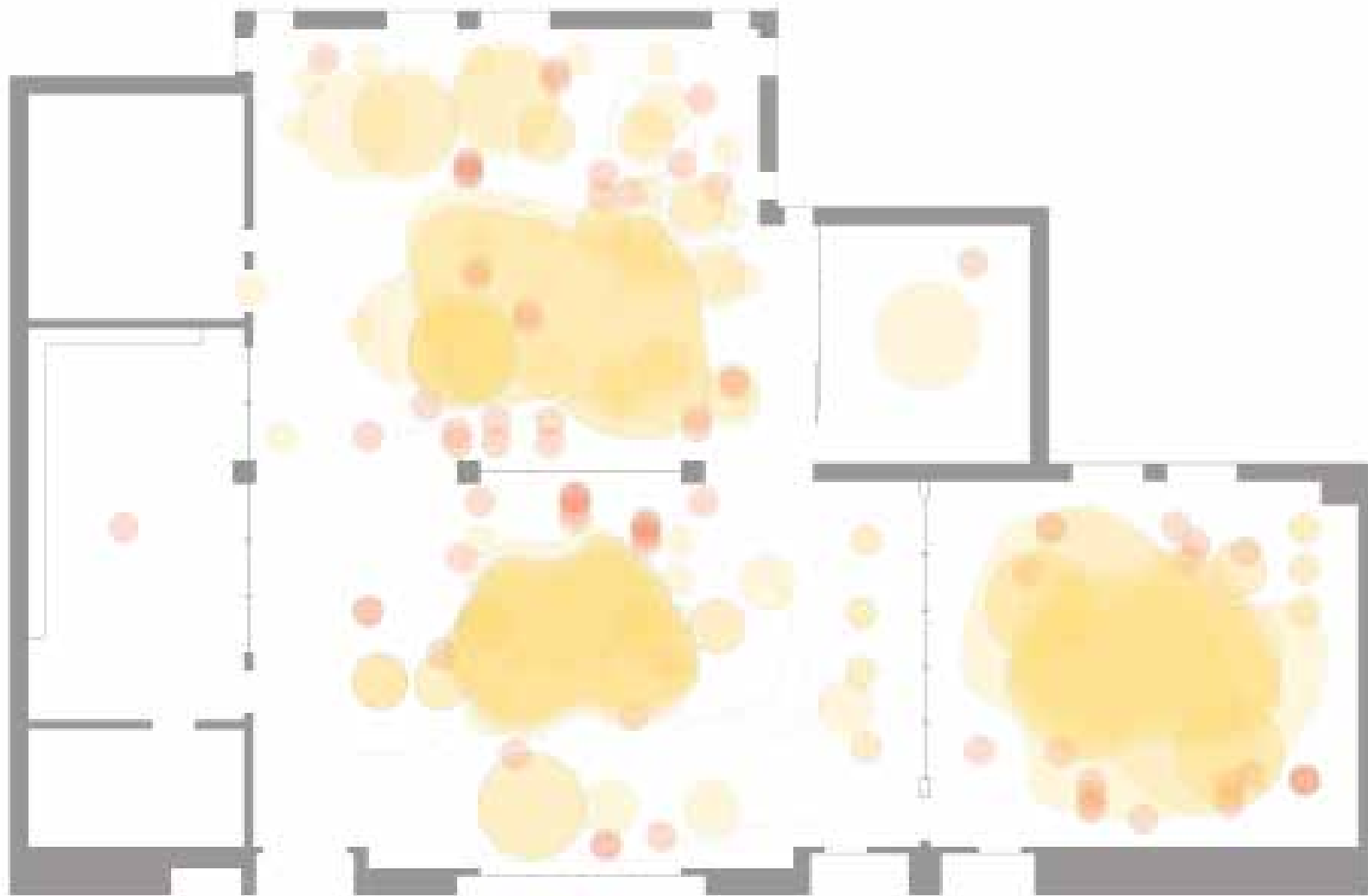


2012



*Recorded over two hours*

2nd

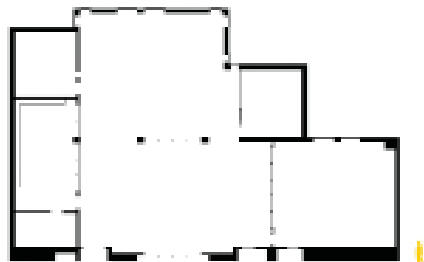
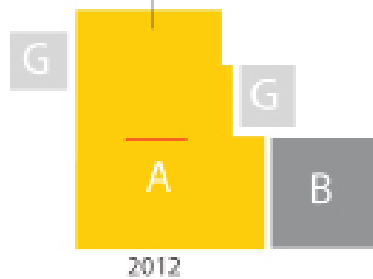






# Changing the educational model

**"ALPHA SPACE**  
Larger central rooms  
for big groups and  
collaborative learning.



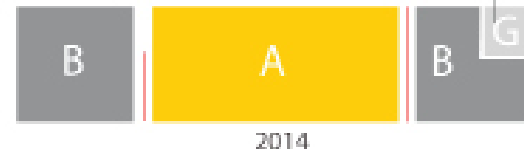
2nd

**"DIRTT" WALLS**  
(Doing it Right This Time)  
Interior, technology infused,  
demountable walls.



3rd

**"BETA SPACE**  
Standard size rooms for  
classroom sessions.



4th

**"GAMMA SPACE**  
Intimate periphery rooms designed  
for breakout sessions and smaller,  
personalized learning.

2012



# Student Outcomes

91%

## Increased Student Engagement

Parents reported that their child is excited about what he or she is learning

96%

## Increased Confidence

Students shared that they have learned things that make them feel good about themselves and are proud of the work they have done in school

98%

## Improved Peer Relationships

Students said they have learned how to get along better with others in learning studio environments

91%

## Improved Problem Solving Skills

Students reported that they learned a variety of ways to solve problems

87%

## Increased Future Orientation

Students said that what they have learned in school has helped them imagine their life as an adult





# Teacher Outcomes

## Philosophy Shift

Learning studio environment has changed teacher's approach to education

## Student-Driven

Teachers are more comfortable giving their students choices and opportunities to take ownership over their learning, including open-ended learning activities

## Flexibility

Learning studios have enhanced teacher's adaptability - classrooms are always changing, including teacher-student configurations, space, noise-levels, approaches to learning

## Teacher Learning

Many teachers felt they, too, are learning in this environment! They are learning by collaborating with other teachers, trying new approaches and following what students are pursuing in their learning

# Parent Satisfaction

My child wants me to know what she/he does in school

93%

My child is excited about what he/she is learning this year

91%

My child prefers learning in a Learning Studio

88%

I would like my child to continue to have a similar learning experience in the future

85%

I would recommend this type of learning experience to other parents

79%

*21st Century Learning Studio Evaluation - Wilder Research.*

2014

What other student outcomes  
would you measure to  
determine success?

**Increased Student Engagement**

**Increased Confidence**

**Improved Peer Relationships**

**Improved Problem Solving Skills**

**Increased Future Orientation**

# Fast Forward to 2016

**School Growth – Master Plan**

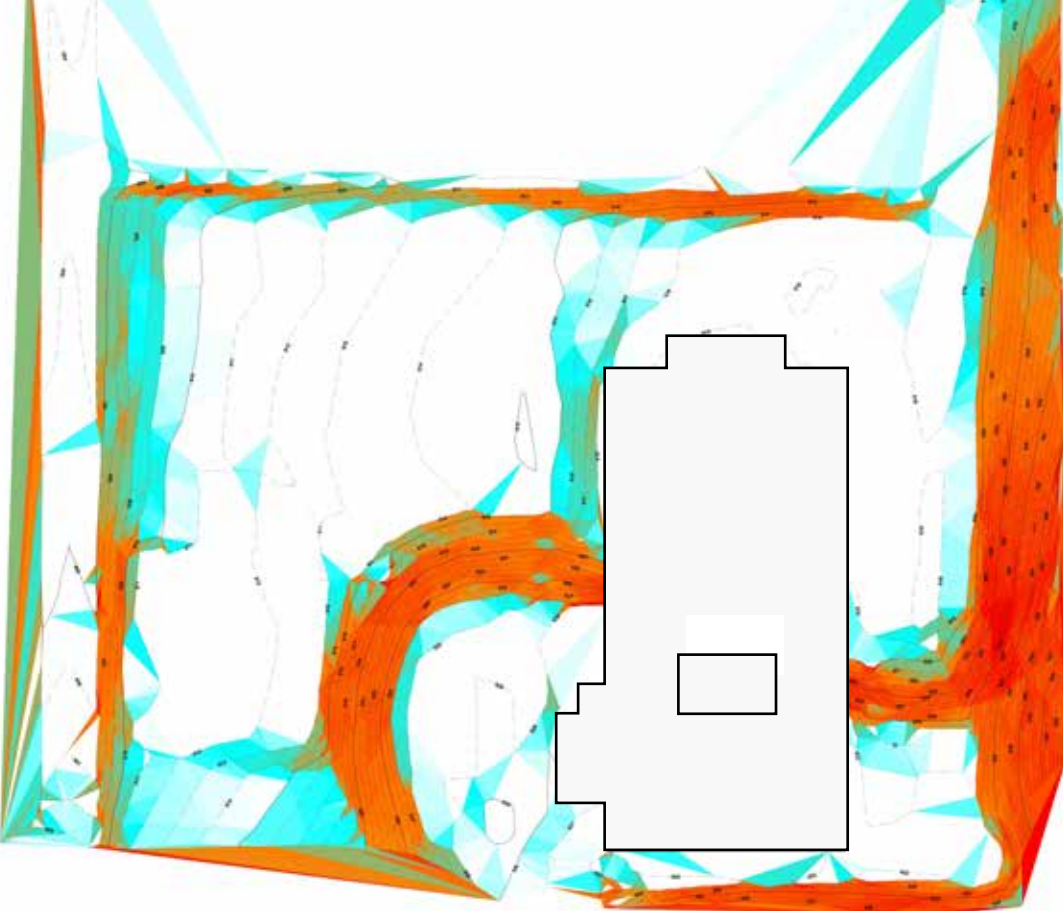
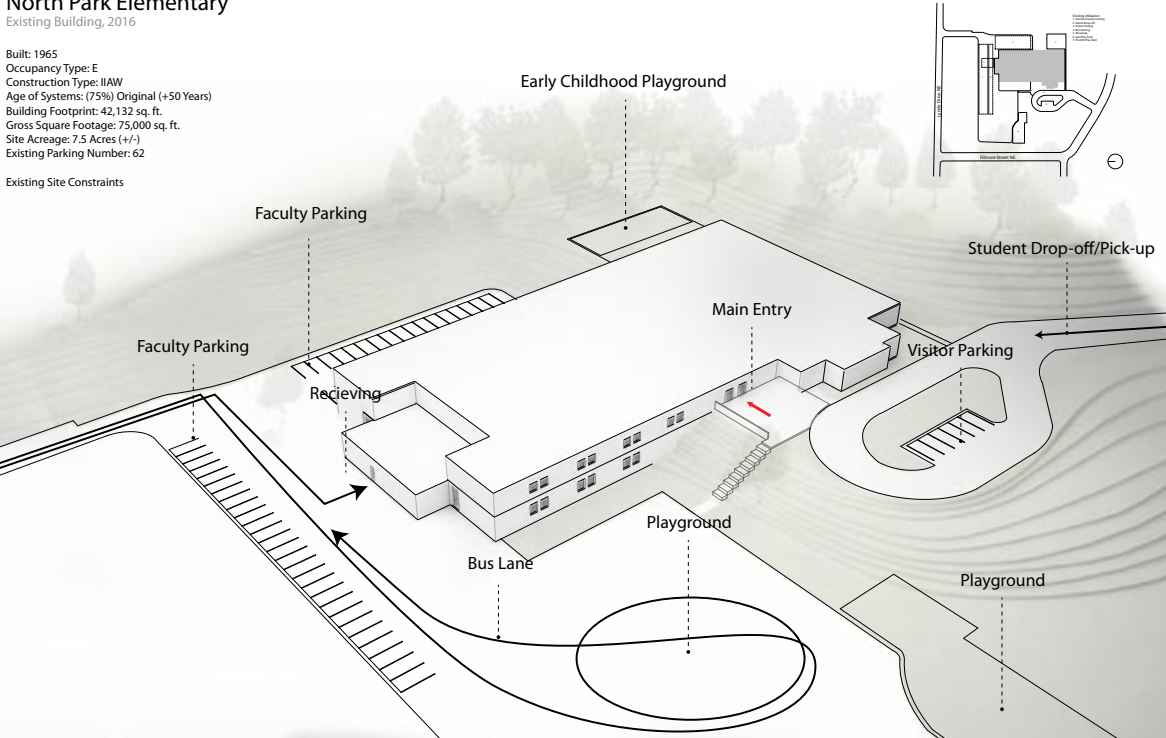


# Previous Site Conditions

## North Park Elementary Existing Building, 2016

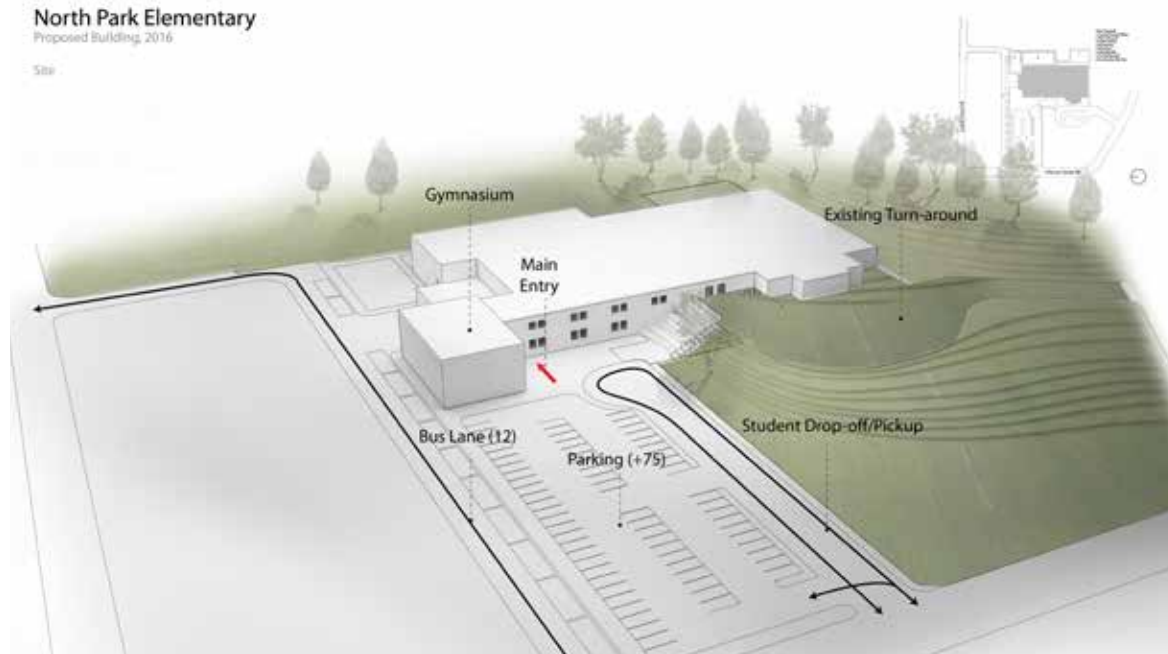
Built: 1965  
Occupancy Type: E  
Construction Type: IIAW  
Age of Systems: (75%) Original (+50 Years)  
Building Footprint: 42,132 sq. ft.  
Gross Square Footage: 75,000 sq. ft.  
Site Acreage: 7.5 Acres (+/-)  
Existing Parking Number: 62

Existing Site Constraints





# Proposed Site Conditions





# Fast Forward to 2018

**School Growth - Referendum**

# Regenerative Sustainable Goals



Enriching Equitable Learning Opportunities  
for All Students

Daylighting and Views

Weave Sustainability and Curriculum

Learn with Nature

Manage Stormwater On-Site

Restore Biodiversity

Zero Waste

Net Zero Carbon by 2025

# Sustainability Milestones

1,200 sf

Edible Courtyard Gardens

10 years

Recycling + Composting

60 kWh

Roof Top Solar

U.S. DEPARTMENT OF EDUCATION  
GreenRibbonSchools



2018 AWARD WINNER





# Referendum Passed On Second Attempt!



Learning Addition  
Cafeteria Addition  
Playground  
Safe + Secure Entry  
Circulation + Drainage

2018

# Site 1 Outdoor Learning



Good drainage



Sensory/Interactive



Food Source



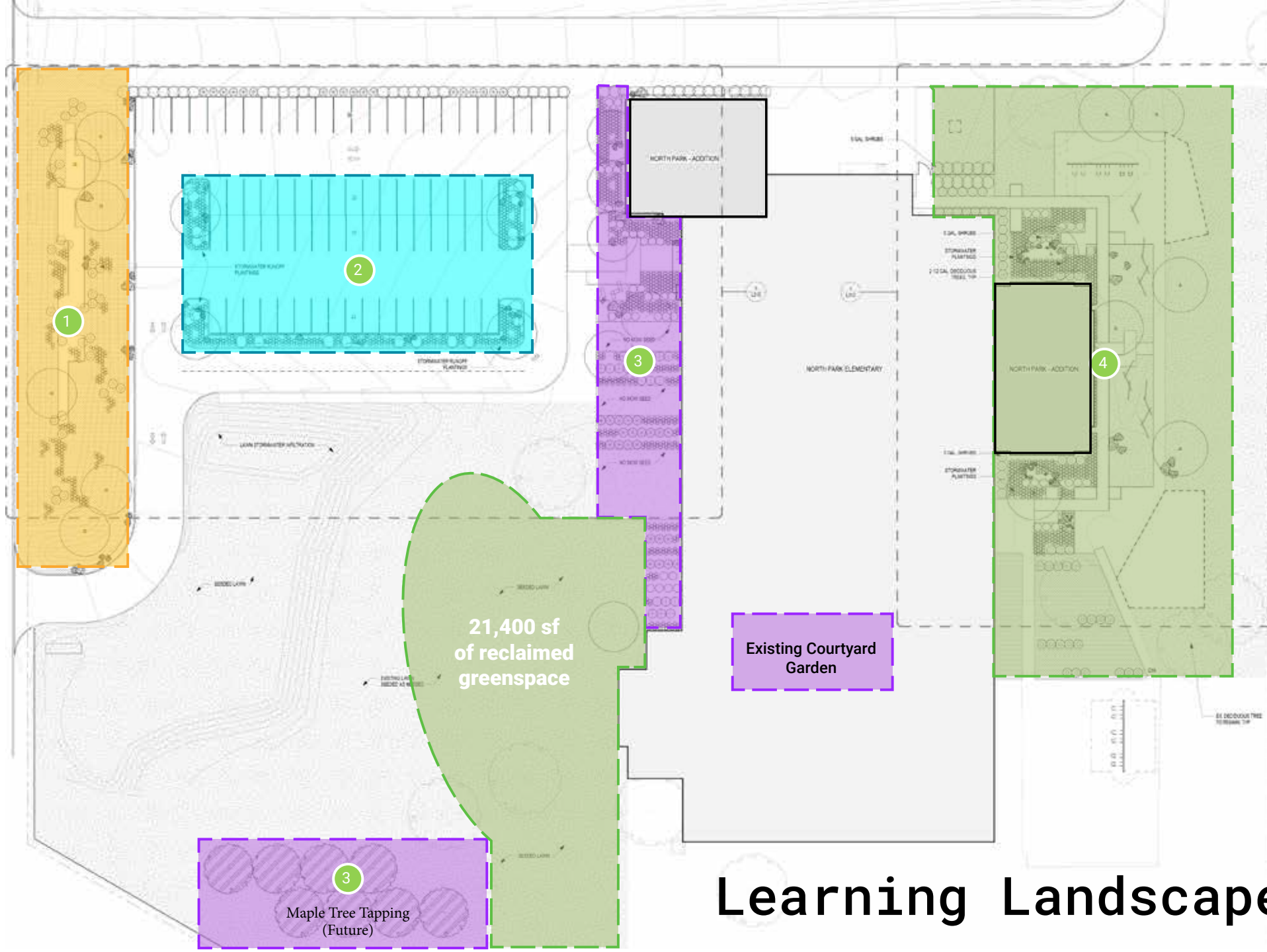
Dry/Wet



Full Sun

## LEGEND

- 1 Infiltration/Pollinator Garden
- 2 Rainwater Gardens
- 3 Edible Gardens
- 4 Learning Garden



# Learning Landscapes





2

Rainwater Gardens



1

Infiltration/Pollinator Garden







3 Edible Gardens





# A New View



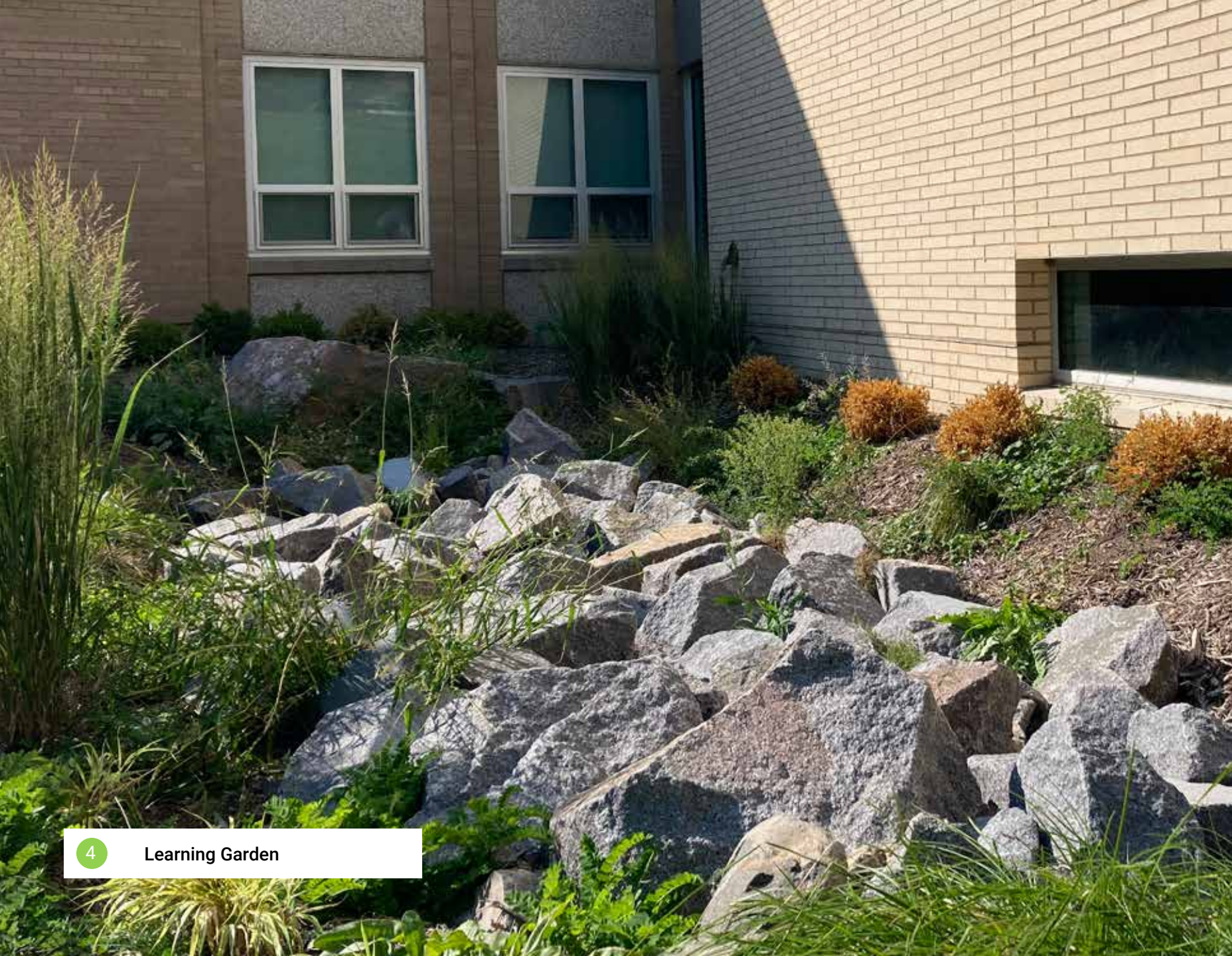




4

Learning Garden





4

Learning Garden





# Pre-K + K Studios



2018





EXIT

EMERGENCY EXIT ONLY  
DO NOT OPEN

WORK  
LEAD &  
HAVE FUN!

4-25-2022

Animals

WASH YOUR HANDS  
BEFORE YOU TOUCH ANYTHING





EXIT

EMERGENCY EXIT ONLY  
ALARM WILL SOUND

WORK  
&  
FUN!

157

Vowels

A	E	I	O	U
a	e	i	o	u
A	E	I	O	U
a	e	i	o	u

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



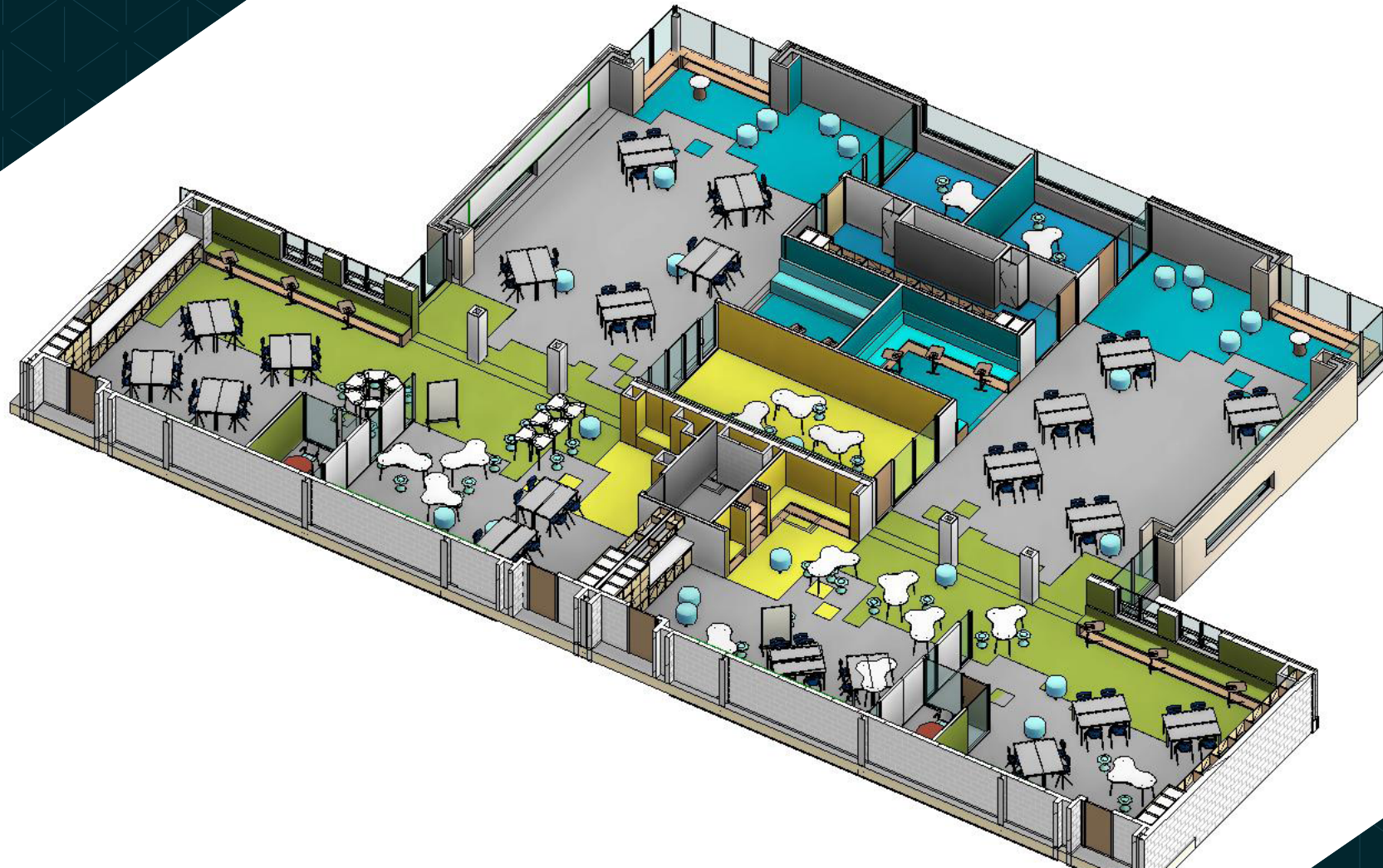








# Learning Studios



2018











MATH

	1	2	3	4	5	6	7	8	9	10	11	12
1	6	8	9	12	14	16	18					
2	9	12	15	18	21	24	27					
3	12	15	18	21	24	27	30					
4	15	18	21	24	27	30	33	35	40	45		
5	18	21	24	27	30	33	36	39	42	45	48	51
6	21	24	27	30	33	36	39	42	45	48	51	54
7	24	27	30	33	36	39	42	45	48	51	54	57
8	27	30	33	36	39	42	45	48	51	54	57	60
9	30	33	36	39	42	45	48	51	54	57	60	63
10	33	36	39	42	45	48	51	54	57	60	63	66
11	36	39	42	45	48	51	54	57	60	63	66	69
12	39	42	45	48	51	54	57	60	63	66	69	72
13	42	45	48	51	54	57	60	63	66	69	72	75
14	45	48	51	54	57	60	63	66	69	72	75	78
15	48	51	54	57	60	63	66	69	72	75	78	81
16	51	54	57	60	63	66	69	72	75	78	81	84
17	54	57	60	63	66	69	72	75	78	81	84	87
18	57	60	63	66	69	72	75	78	81	84	87	90
19	60	63	66	69	72	75	78	81	84	87	90	93
20	63	66	69	72	75	78	81	84	87	90	93	96





Math Workshop  
Expectations

- 1) Follow ALL math workshop rules
- 2) Be in your assigned seat
- 3) Be prepared to work
- 4) Do your best to do your daily work
- 5) Make it math time every day



What resonates with you about the open, collaborative learning studio concept?

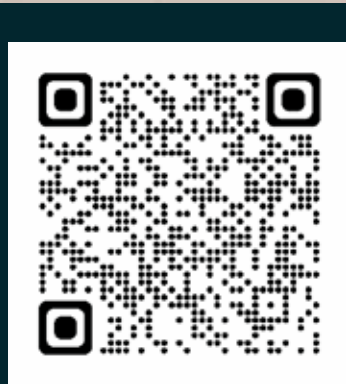
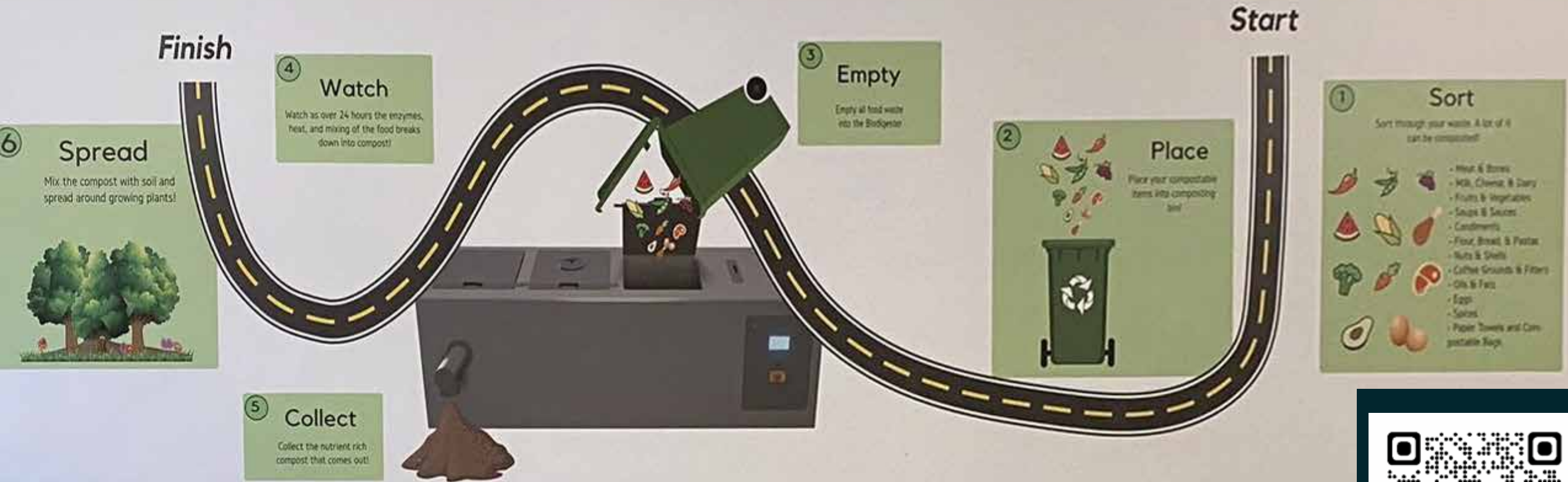
What benefits and challenges do you see? Have you designed something similar?



Bringing us to today



# Road Map to 24 Hour Composting



Scan this QR Code to learn more about biodigesters!



# Sustainability Curriculum



Scan this QR Code to watch "Helping Our Planet" North Park's Youtube Series featuring their integrated curriculum







# Sustainability Curriculum

## Creating the Pollinator Garden

Students repurposed cardboard and biodigestate in creation process. Every student in the building participated.

## Biodigestates at Home

Students repurposed milk cartons (cartoned milk instead of bulk due to supply chain issues) to use as containers for biodigestate which was given to all families at parent teacher conferences.

## Green Team

Team's charge is to maintain our sustainability measures in the building. Tasks include:

- Retrieving gray water from STEM lab to use for building's plants
- Maintain the grow tower where garden plants grow from seed
- Assist with sorting waste at breakfast and lunch
- Help with landscape maintenance





# Sustainability Curriculum

## Vermicomposting with "Worm Hotels"

## Learning about Microplastics

Students create screens to filter microplastics out of our biodigestate before sending it to its final use.

## Interacting with the Edible Gardens

Students prep, plant, nourish, maintain, harvest, and winterize our edible gardens.





# Steps to Net Zero

## LEARNING LANDSCAPES

- 44,000 sf of rain water treated on site (8,000 sf roofwater / 36,000 sf hardscape)
- 21,100 sf of native landscaping
- 21,400 sf of reclaimed greenspace
- 3,500 sf of edible gardens

## CURRICULUM

- Courtyard garden was a 3rd grade legacy project
- Waste, sorting, recycling

## WATER | ECOLOGY

- Prairie planting, trees, maple tapping
- Greywater Reclamation

## ENERGY

- 100% heat for new addition by Biomass boiler
- 84 kW Solar Array
- School has achieved Net Zero in the summer

## WASTE

- Garbage collections reduced from twice weekly to once a month
- Zero plastic and drastically reduced recycling

What questions do you  
have? What are you curious  
about?





# The Team



## Contact

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Landscape Designer, Cuningham  
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Hear more of the story



## North Park School of Innovation

Columbia Heights School District  
Cuningham - Architecture + Interior Design + Landscape Architecture  
BKBM - Civil + Structural Engineering  
Hallberg Engineering - MEP  
Kraus-Anderson Construction Company - Contractor  
Willdan The Weidt Group - Energy Design Assistance  
Questions and Solutions Engineering - Commissioning  
Flagship + Landscape Structures - Playground Equipment



Closing the Loop at North Park School for Innovation  
2022 A4LE Midwest / Great Lakes Regional Conference

