GROWING WITH THE ROOTS

Re-Connecting Youth with Nature

(Photo: Red River Joint Water District)

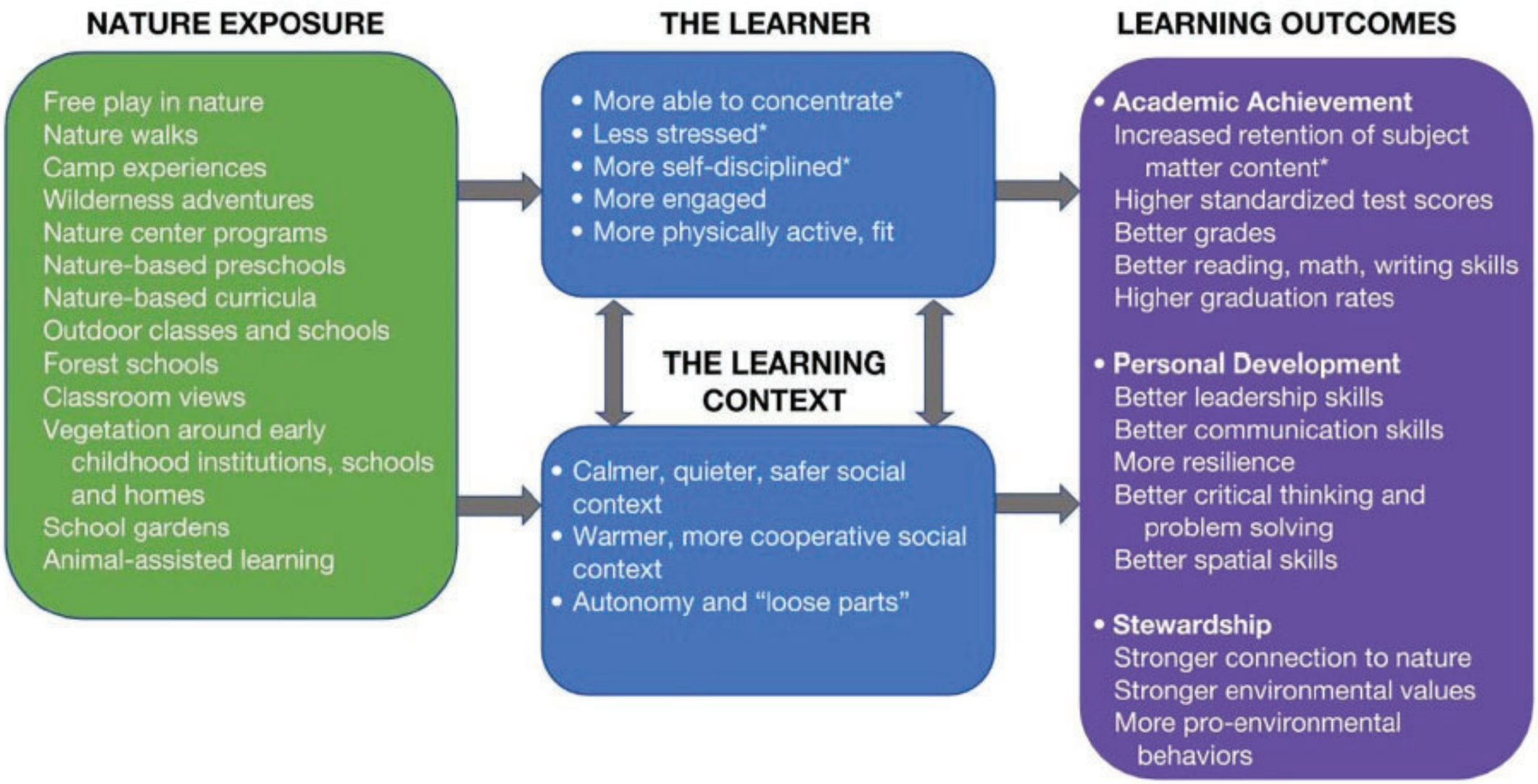
(Photo: Green Schoolyards America)

(Photo: Learning Landscapes Design)

(Photo: Unsplash)

Nature's Benefit on Youth

(Photo: Nature Based Play)


NATURE EXPOSURE
Free play in nature
Nature walks
Camp experiences
Wilderness adventures
Nature center programs
Nature-based preschools
Nature-based curricula
Outdoor classes and schools
Forest schools
Classroom views
Vegetation around early childhood institutions, schools and homes
School gardens
Animal-assisted learning
THE LEARNER
More able to concentrate*
Less stressed*
More self-disciplined*
More engaged
More physically active, fit
THE LEARNING CONTEXT
Calmer, quieter, safer social context
Warmer, more cooperative social context
Autonomy and "loose parts"
LEARNING OUTCOMES
Academic Achievement
Increased retention of subject matter content*
Higher standardized test scores
Better grades
Better reading, math, writing skills
Higher graduation rates
Personal Development
Better leadership skills
Better communication skills
More resilience
Better critical thinking and problem solving
Better spatial skills
Stewardship
Stronger connection to nature
Stronger environmental values
More pro-environmental behaviors

Less than 25% of children and youth in the US are physically active enough for healthy development...

(Photo: Harvard Health)

Increased Time Spent Indoors

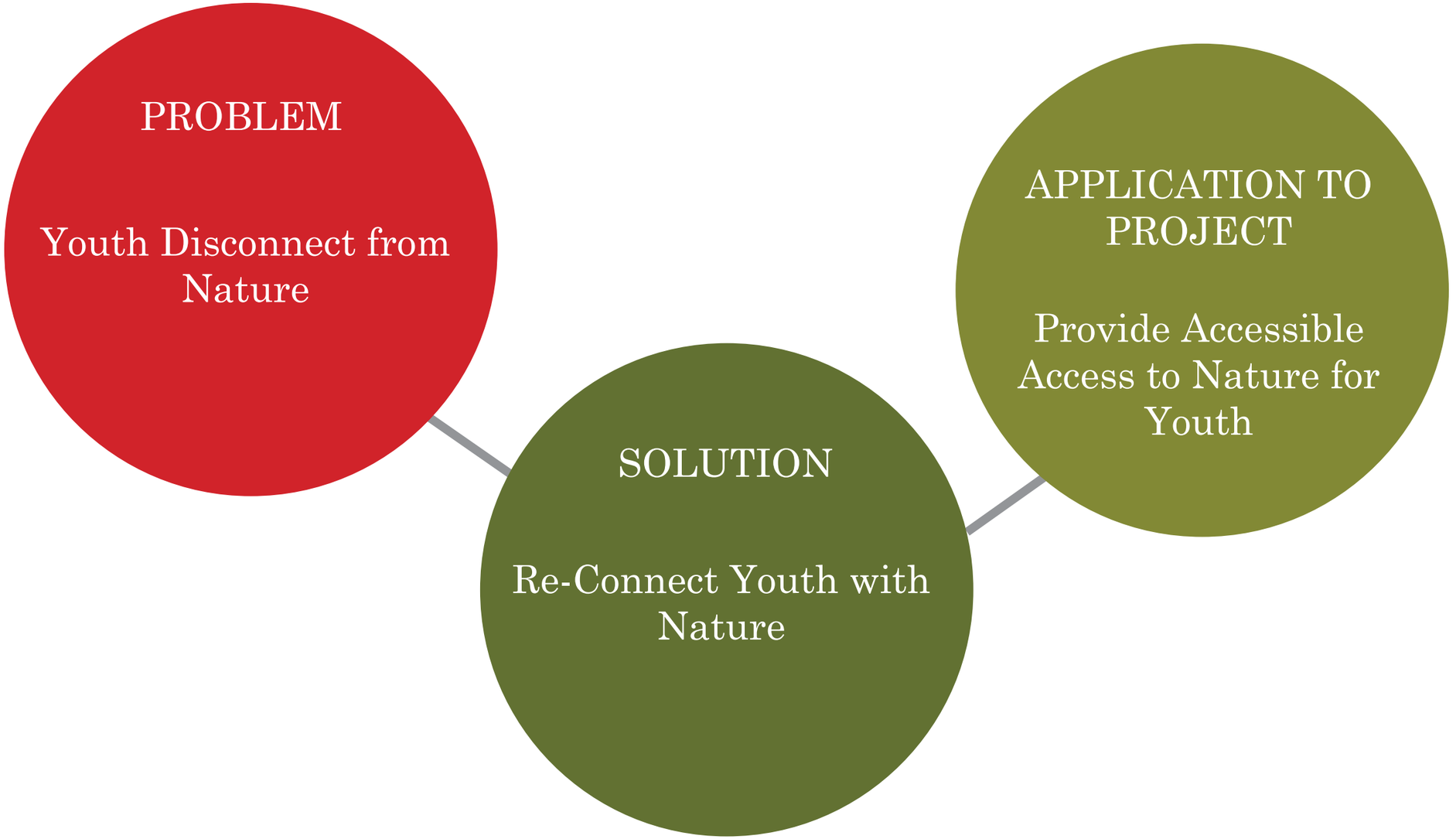
Time Spent on Screens

Limited Access to Natural Areas

Parental Safety Concerns

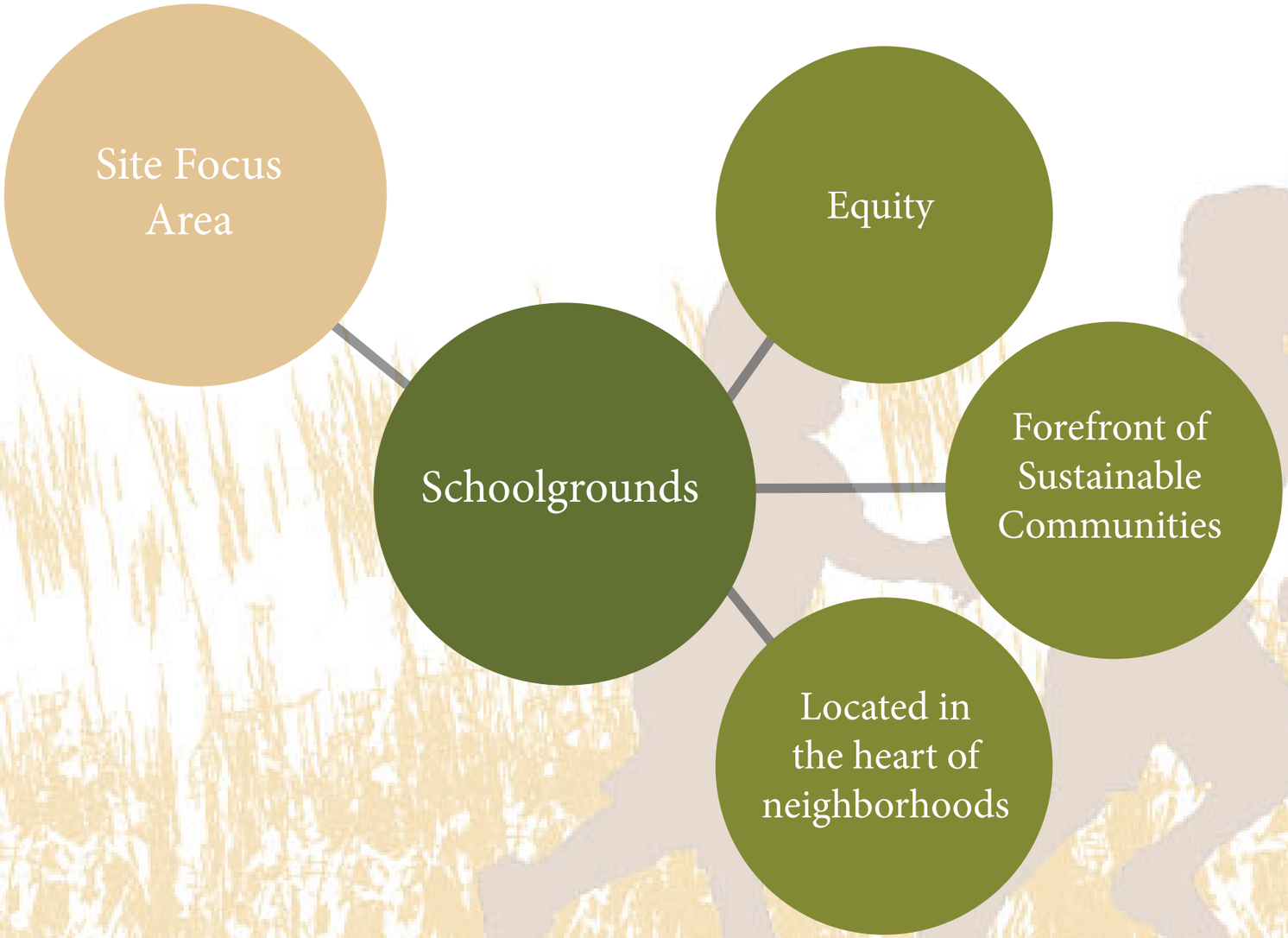
Nature-Deficit Disorder leads to...

Concluding Research



SELECTING A SITE

Characteristics of the Site



Project Location

MAIN AVENUE

SHEYENNE RIVER

SHEYENNE STREET

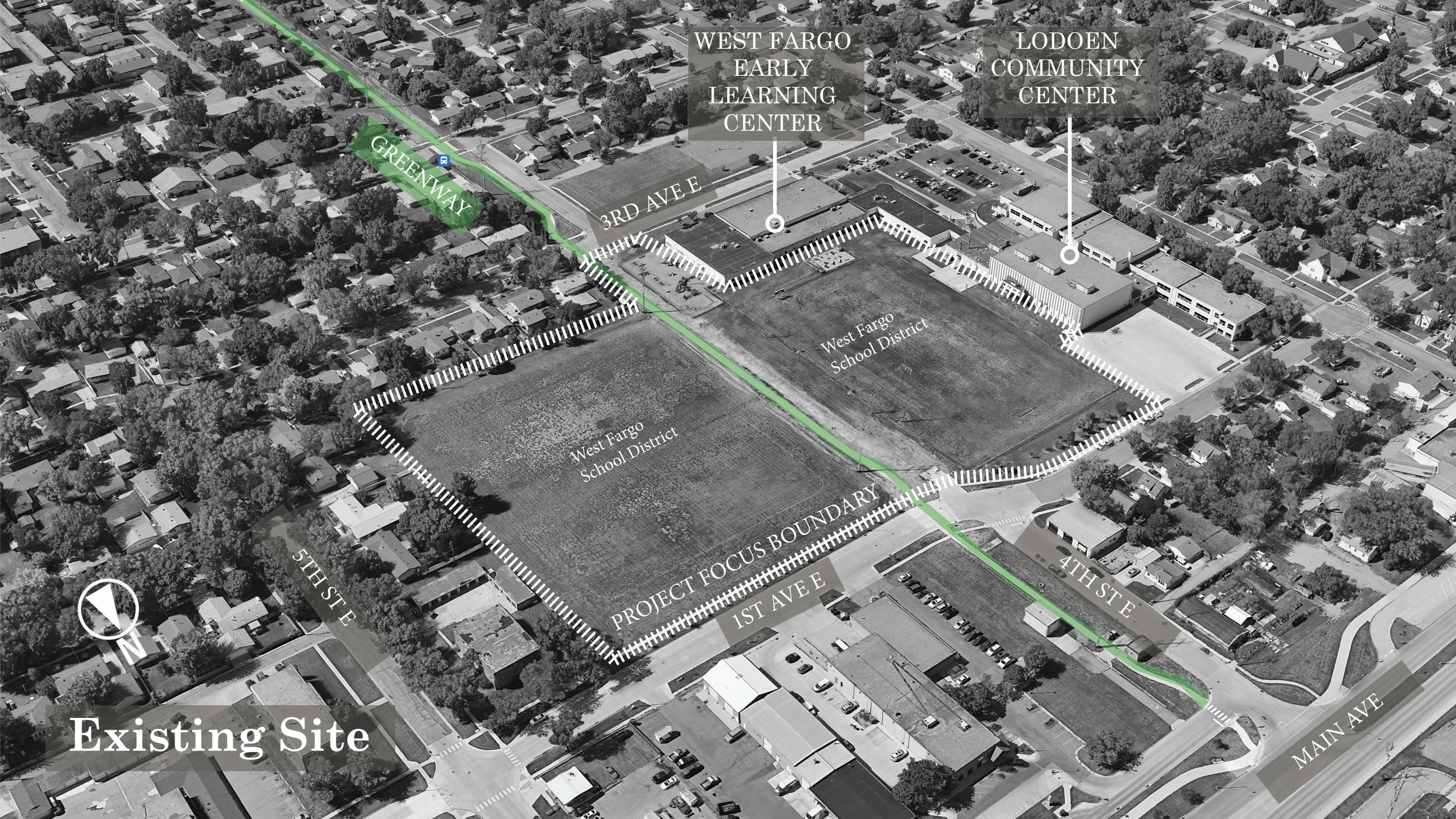
WEST FARGO,
NORTH DAKOTA

9TH STREET EAST

13TH AVE E

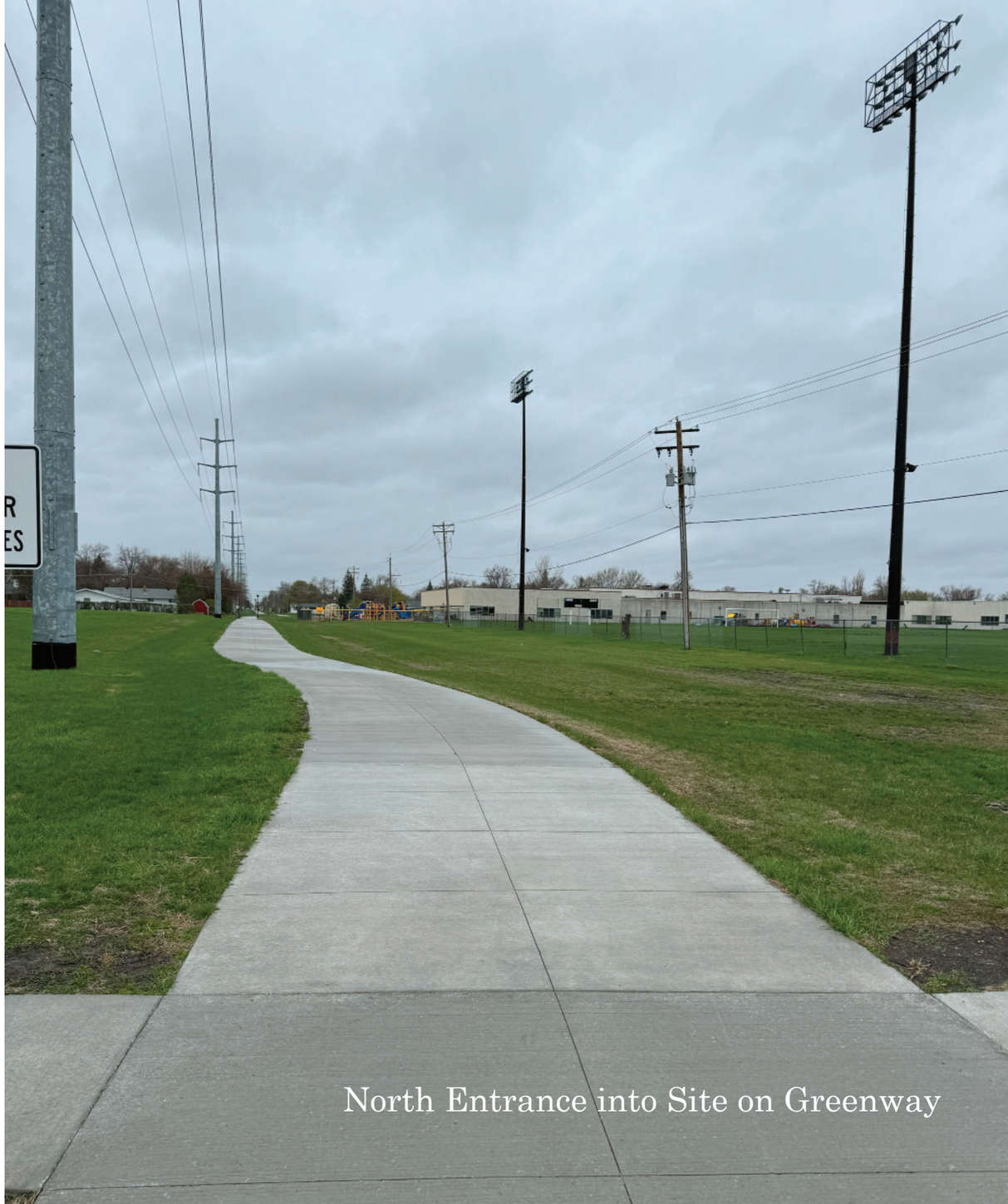
N

Located in the Heart of a Community



Existing Site

South Entrance into Site on Greenway



North Entrance into Site on Greenway

View off Greenway towards Community Center

View off Greenway towards Community Center

Reasoning for Site Selection

- Community center located adjacent to site with a variety of programs relating to different target groups for project.

- A highly accessible community greenway running directly through the site.

- Site is located in the heart of a diverse, residential community.

ANALYZING THE SITE

A Highly Programmatic Building

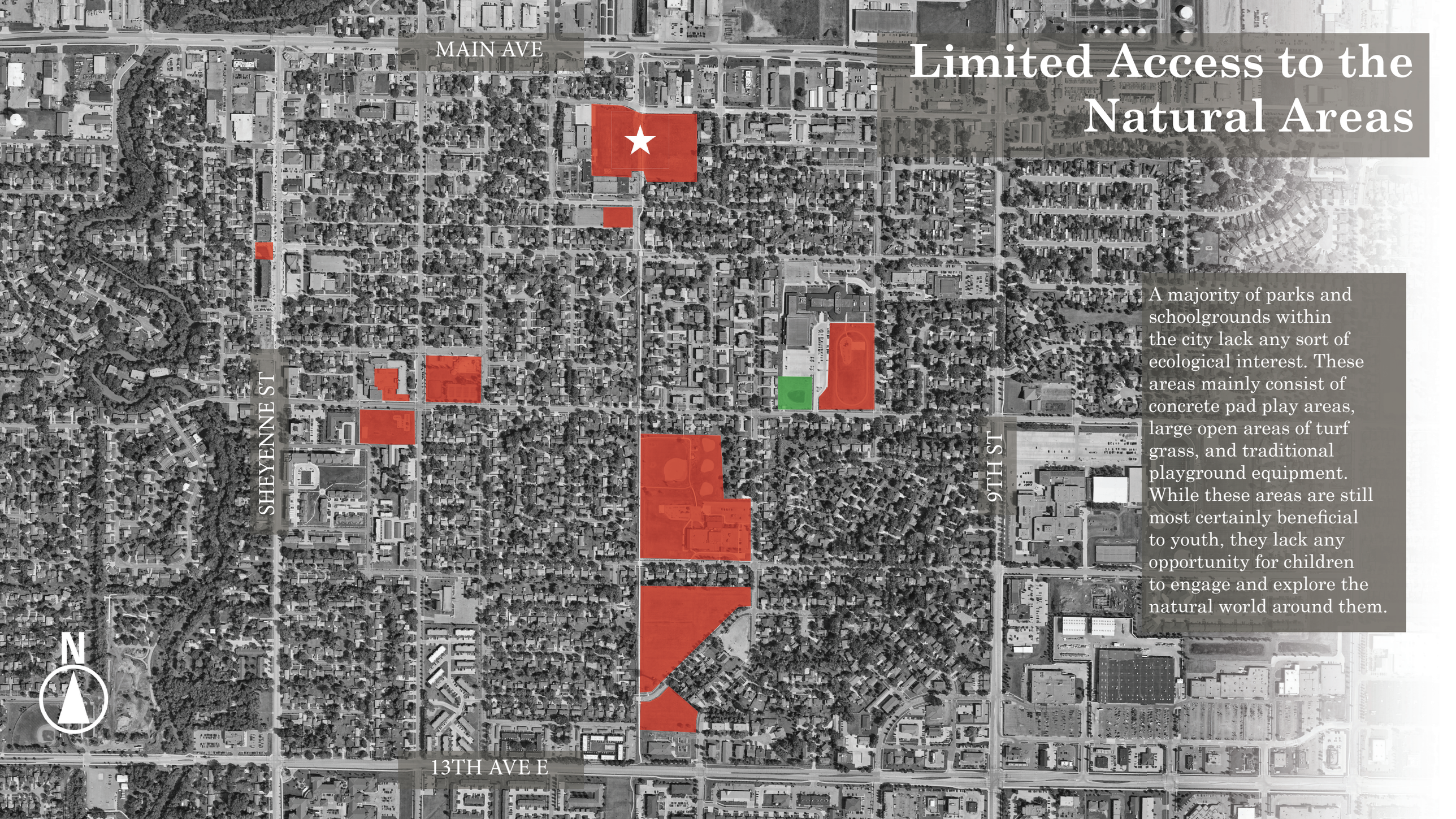
Under-Used and Not Maintained

N

A Great Opportunity for Accessibility

Limited Access to the Natural Areas

Limited Access to the Natural Areas



A majority of parks and schoolgrounds within the city lack any sort of ecological interest. These areas mainly consist of concrete pad play areas, large open areas of turf grass, and traditional playground equipment. While these areas are still most certainly beneficial to youth, they lack any opportunity for children to engage and explore the natural world around them.

PROJECT OBJECTIVES

Objective 1: Nature Play and Exploration

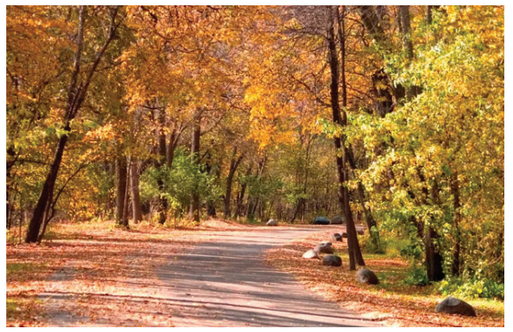
Provide opportunities for youth to explore in nature while creating ecological connections.

Objective 2: Restore Native Ecology

Restore native vegetation that has dominated this region for thousands of years, while attracting native wildlife.

Objective 3: Seasonal Opportunities

Seasonal opportunities allow youth to understand the concept of time and educate them on weather, vegetation, wildlife patterns, etc.



DESIGNING THE SITE

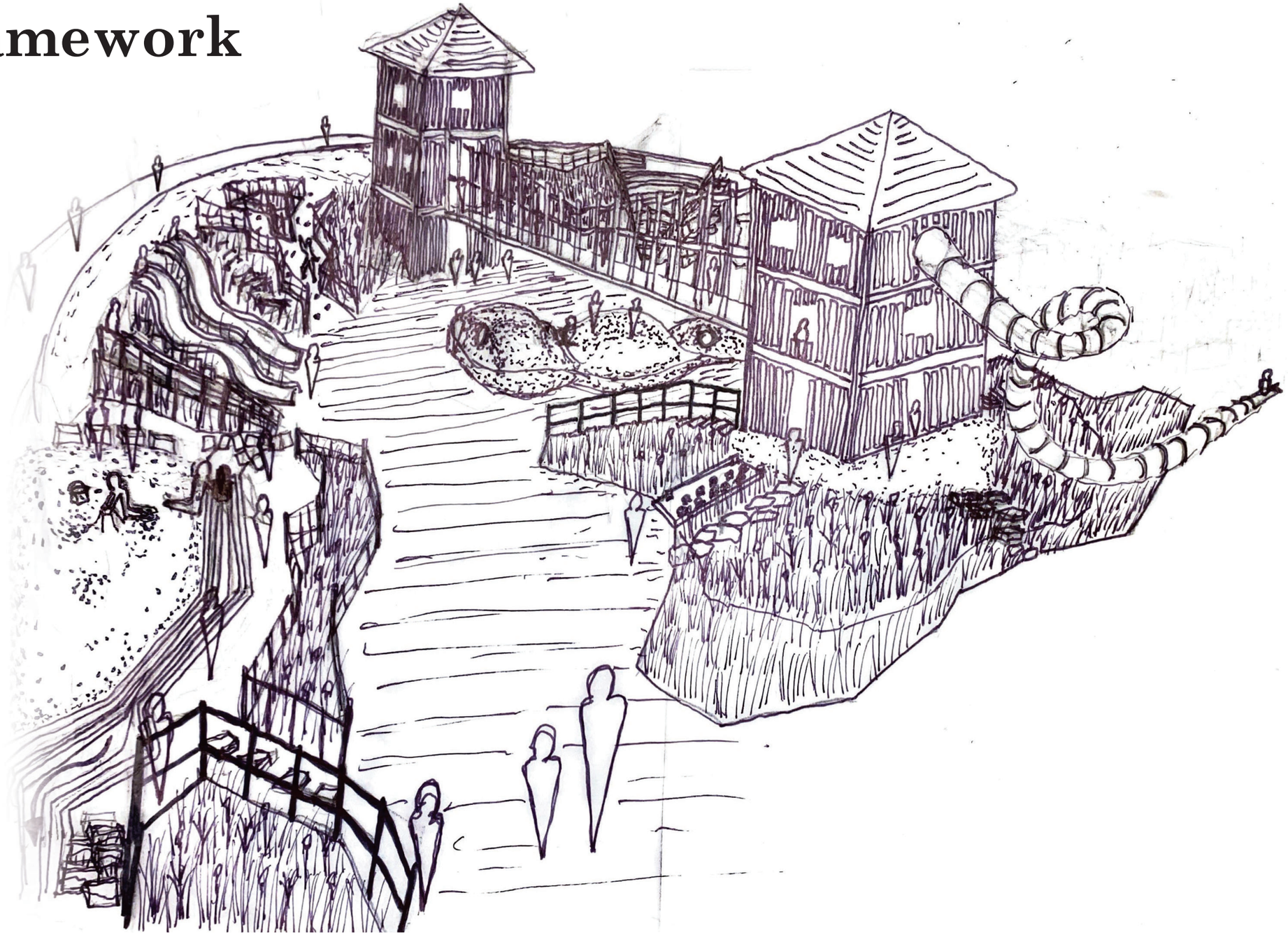
Masterplan

LODOEN COMMUNITY CENTER
SHEYENNE RIVER
BOULDER COUNCIL
SHEYENNE FOREST
4TH STREET EAST
GREENWAY
1ST AVENUE EAST
BOULDER COUNCIL
THE HEADWATERS
THE GREAT LAWN
BOULDER COUNCIL
P03
THE PRAIRIE POTHOLE
THE GREAT HILL
READING CIRCLE
CANYON COVE (SP01)
ROLLING PRAIRIE
ROLLING PRAIRIE
THE GLADE
EARLY CHILDHOOD GARDEN (SP02)
SHEYENNE RIVER
SHEYENNE FOREST
THE DUNES
MULTI-FAMILY RESIDENTIAL
P04
WEST FARGO EARLY CHILDHOOD CENTER
STORYBOOK TRAIL LOOP
CHILDREN'S NURSERY
THE PRAIRIE POTHOLE
N
3RD AVENUE EAST
SINGLE-FAMILY RESIDENTIAL

Focus Area: Canyon Cove

(Photo: National Park Service)

Conceptual Framework



Canyon Cove

Site Key

- A BOULDER LOUNGE
- B THE CAVE
- C WATER RUNNEL
- D SAND COVE
- E SLIDE MOUNTAIN
- F PRAIRIE DOG VILLAGE
- G SLANTED CLIMB
- H THE GREAT HILL
- I THE GREAT LAWN
- J PLAY TOWER
- K BIKE STATION
- L AMPHITHEATER
- M CLIMBING ZONE
- N BOULDER SCRAMBLE

SP01

Play Opportunities Enriched through the Seasons

Site Key

- A BOULDER LOUNGE
- B THE CAVE
- C WATER RUNNEL
- D SAND COVE
- E SLIDE MOUNTAIN
- F PRAIRIE DOG VILLAGE
- G SLANTED CLIMB
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- I THE GREAT LAWN
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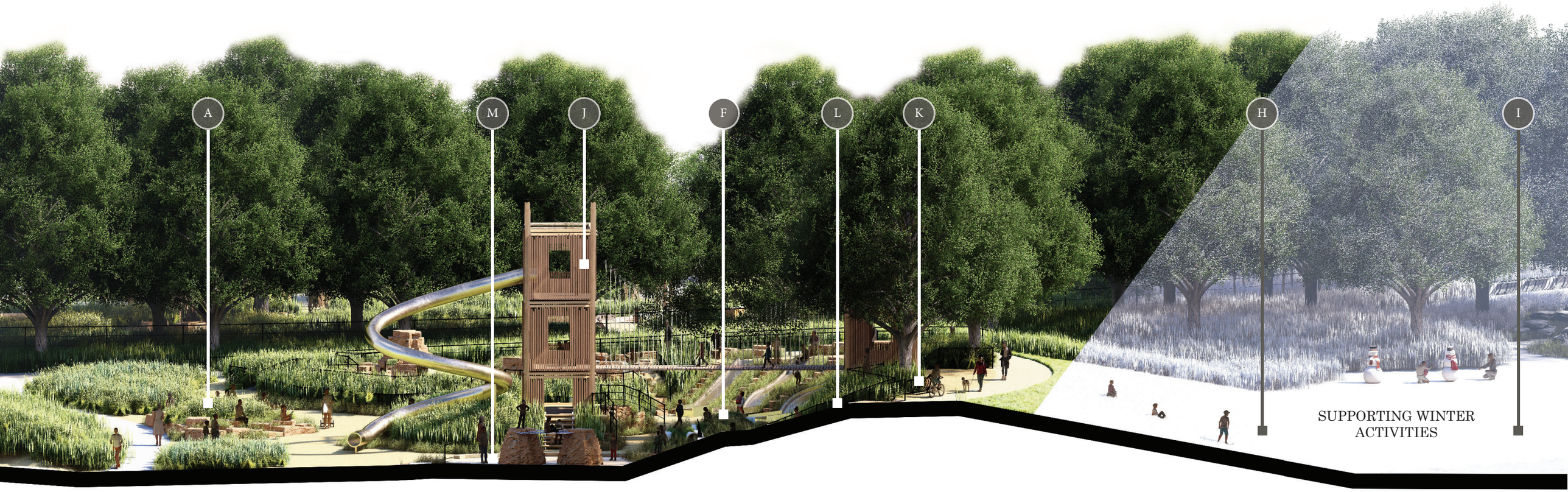

S01: Canyon Cove

Loose-Parts and Imaginative Play Opportunities

P01: Canyon Cove

Overcoming Challenges and Developing Motor-Skills

P02: Canyon Cove

Focus Area: Early Childhood Garden

Early Childhood Garden

Site Key

- A GATE ENTRY
- B WATER CAPTURE ZONE
- C DRY CREEK
- D READING CIRCLE
- E PLAY LAWN
- F DOGWOOD PRAIRIE
- G FLOWERING GROVE
- H THE DUNES
- I DOGWOOD LOOP
- J FOSSIL DIG SITE
- K BRIDGE
- L BOULDER COUNCIL
- M CONIFER GROVE
- N RAINGARDEN
- O WOODY PLAY ZONE
- P MUD KITCHEN
- Q LOG COUNCIL
- R FENCE

Explorative Play for ECC Students

Site Key

- A GATE ENTRY
- B WATER CAPTURE ZONE
- C DRY CREEK
- D READING CIRCLE
- E PLAY LAWN
- F DOGWOOD PRAIRIE
- G FLOWERING GROVE
- H THE DUNES
- I DOGWOOD LOOP
- J FOSSIL DIG SITE
- K BRIDGE
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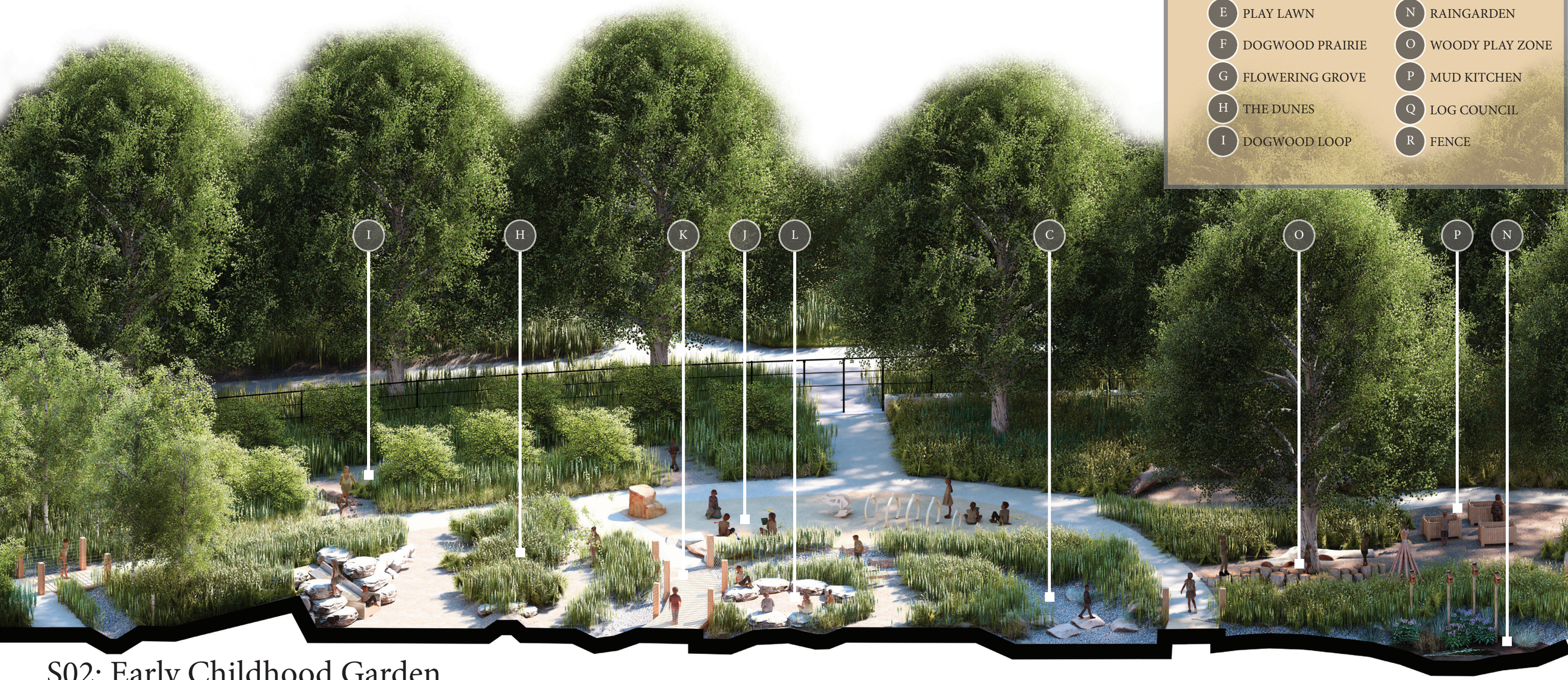
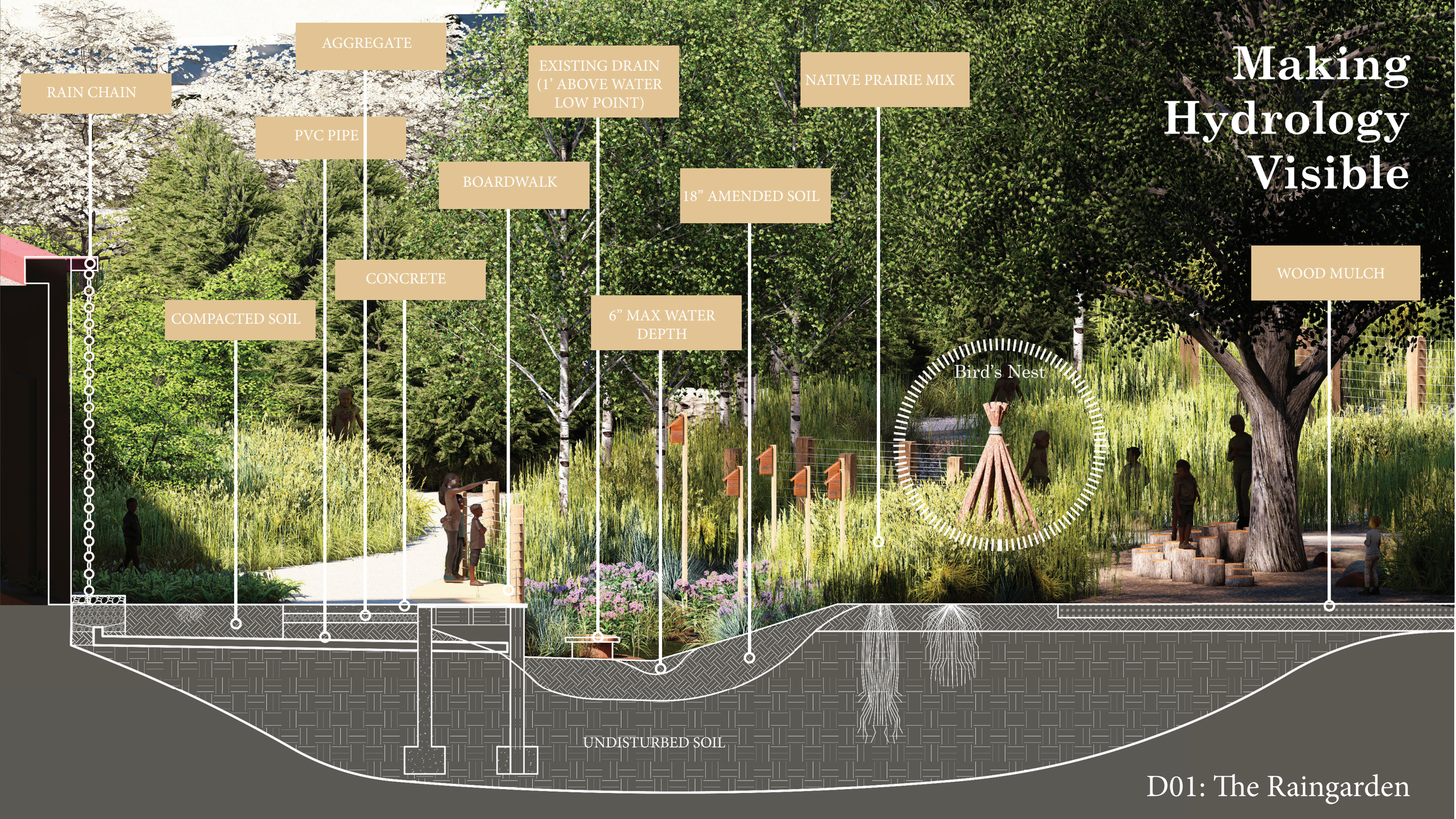


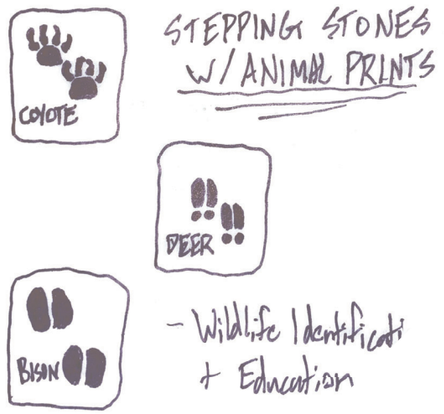
S02: Early Childhood Garden

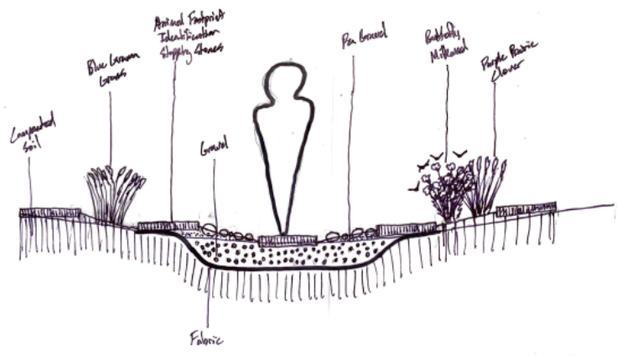


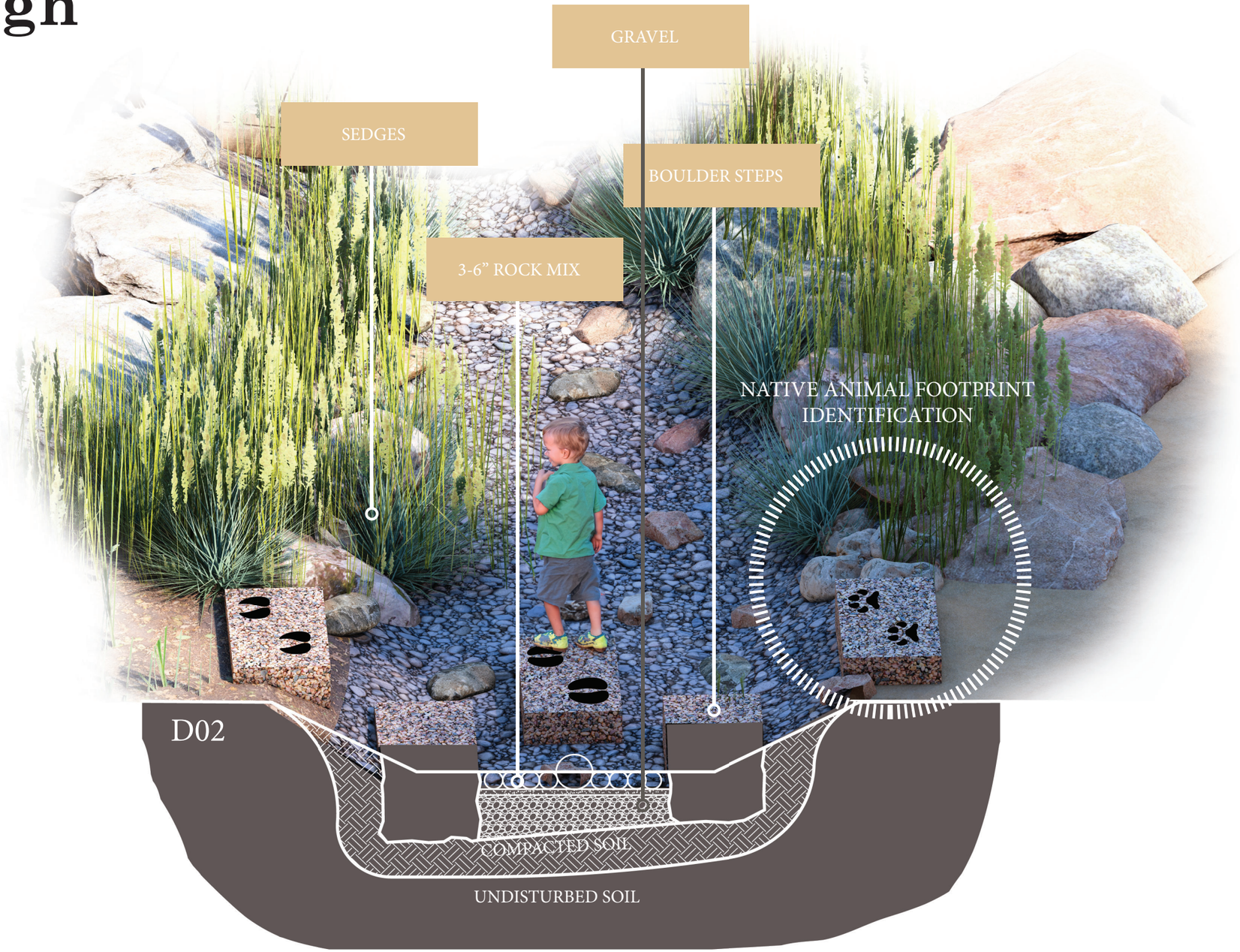
Making Hydrology Visible

D01: The Raingarden

Learning Through Play







D02: Dry Creek

Storybook Trails offer Seasonal Experiences

P04: Storybook Trail Loop

Connecting to Native Ecology

P03: The Prairie Pothole

Conclusion

Nature Play and Exploration

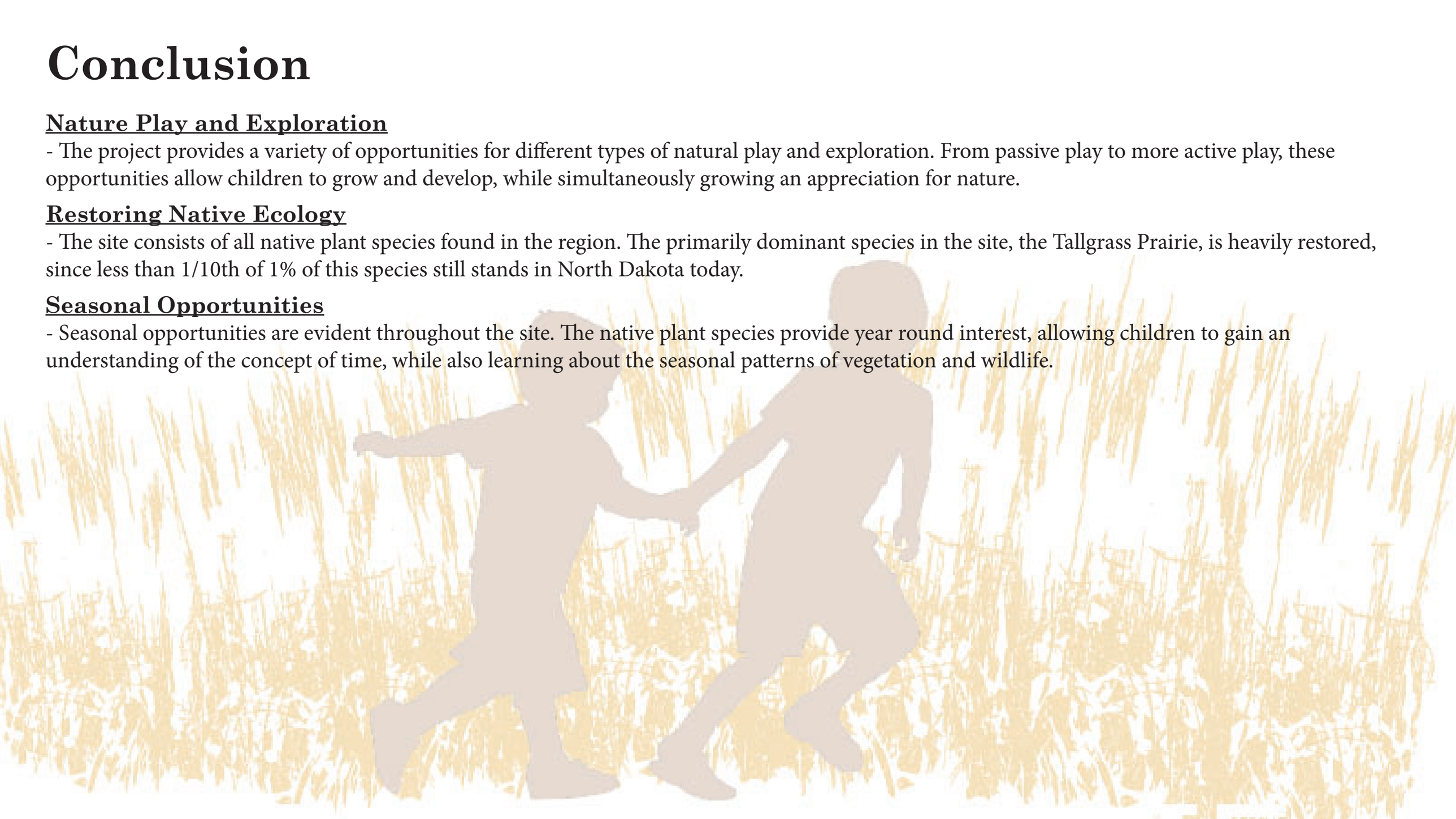
- The project provides a variety of opportunities for different types of natural play and exploration. From passive play to more active play, these opportunities allow children to grow and develop, while simultaneously growing an appreciation for nature.

Restoring Native Ecology

- The site consists of all native plant species found in the region. The primarily dominant species in the site, the Tallgrass Prairie, is heavily restored, since less than 1/10th of 1% of this species still stands in North Dakota today.

Seasonal Opportunities

- Seasonal opportunities are evident throughout the site. The native plant species provide year round interest, allowing children to gain an understanding of the concept of time, while also learning about the seasonal patterns of vegetation and wildlife.



THANK YOU