

**Nature is  
Necessary:**  
*A Case for Outdoor  
Learning Environments*



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# SURVEY:

*How does time in nature make you feel?*



[menti.com](https://www.menti.com)  
voting code  
**6934 7047**

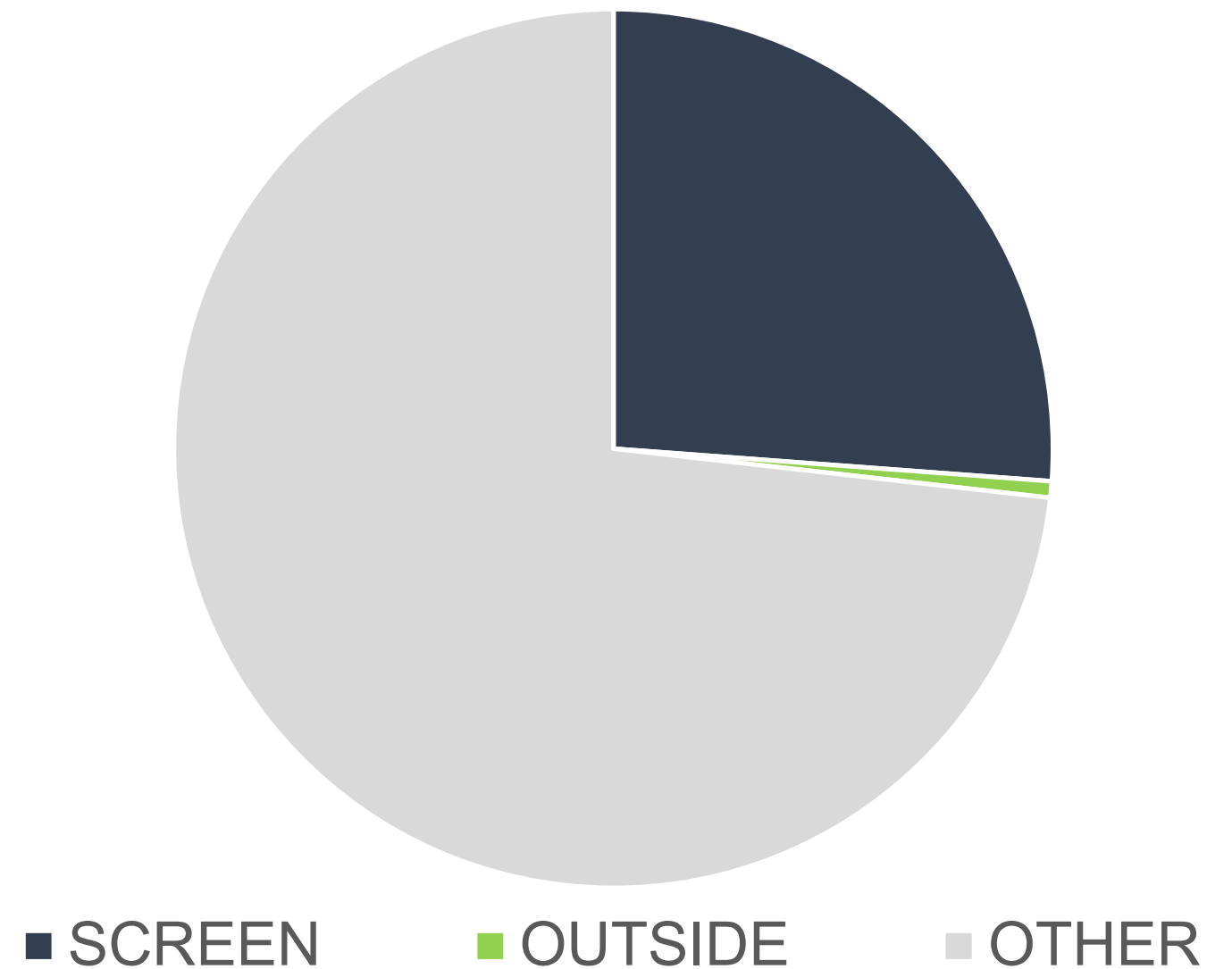
## WHY IS NATURE NECESSARY?

Children today spend up to **44 hours** a week in front of a screen **and less than 10 minutes a day** playing outdoors.

Studies show that **prisoners** get more time outside than school kids.

Children aged 10 to 16 now spend only 12.6 minutes a day on vigorous outdoor activity compared with 10.4 waking hours being relatively motionless\*.

HOURS PER WEEK



\*Information provided by the CDC. More information can be found on their website.

# WHAT ARE THE BENEFITS?



## Improved Education Outcomes

### BETTER ACADEMIC PERFORMANCE

Learning in natural environments can:

- BOOST PERFORMANCE** in reading, writing, math, science and social studies <sup>1,2,3,4,5</sup>
- ENHANCE** creativity, critical thinking and problem solving <sup>9</sup>

Seeing nature from school buildings can foster academic success <sup>6,7,8</sup>

### ENHANCED ATTENTION

Spending time in nature can help children focus their attention:

- ↑ FOCUS AND ATTENTION** <sup>10,11,12,13</sup>
- ↓ ADHD SYMPTOMS** <sup>14,15</sup>

The greener the setting, the better the focus <sup>14,15</sup>

### INCREASED ENGAGEMENT & ENTHUSIASM

Exploration and discovery through outdoor experiences can promote motivation to learn:

- ↑ INCREASED ENTHUSIASM FOR LEARNING** <sup>1,16</sup>
- ↑ GREATER ENGAGEMENT WITH LEARNING** <sup>17</sup>

### IMPROVED BEHAVIOR

Nature-based learning is associated with reduced aggression and fewer discipline problems: <sup>18,19</sup>

- + MORE IMPULSE CONTROL** <sup>10</sup>
- LESS DISRUPTIVE BEHAVIOR** <sup>20</sup>



## Improved Health

### HEALTHY BABIES

Nature exposure for mothers can promote:

- ↑ BETTER FETAL GROWTH** <sup>3</sup>
- ↑ HEALTHIER BIRTH WEIGHTS** <sup>1,2,3</sup>

**NATURE CONTACT IS** especially beneficial for mothers of lower education and socio-economic levels <sup>2,3,4</sup>

### HEALTHY EYES AND VITAMIN D LEVELS

Time spent in bright sunlight can:

- ↓ REDUCE NEARSIGHTEDNESS** <sup>5,6,7</sup>
- ↑ INCREASE VITAMIN D LEVELS** <sup>8</sup>

### INCREASED PHYSICAL ACTIVITY

Access to parks and greenspace can foster:

- ↑ INCREASED PHYSICAL ACTIVITY** <sup>11,12</sup>
- ↓ REDUCED RISK OF OBESITY** <sup>13</sup>

**OUTDOOR PLAY** increases the likelihood that girls will remain active into adolescence <sup>9</sup>

Children are better able to cope with stress when they live near trees and other greenery. <sup>15,16</sup>

### SOCIAL-EMOTIONAL WELLBEING

Learning in nature can support:

- ↑ IMPROVED RELATIONSHIP SKILLS** <sup>17,20</sup>
- ↓ REDUCED STRESS, ANGER AND AGGRESSION** <sup>18,19</sup>

## WHAT ARE THE BENEFITS?

According to the Children & Nature Network, children engaged with the natural world have:



Better Social Skills



Increased Self-Esteem



Pro-Environment Behaviors



Stronger Emotional Connections  
to People and Nature



Enhanced Health



Improved Grades

## WHAT IS THE PURPOSE?

Green schoolyards generate even greater academic progress among children suffering the effects of **economic inequity, systemic racism** or **trauma**—a breakthrough for helping narrow the **growing chasm in opportunity** between privileged students and everyone else.

(Kuo et al. 2019)





# TRANSFORMATION

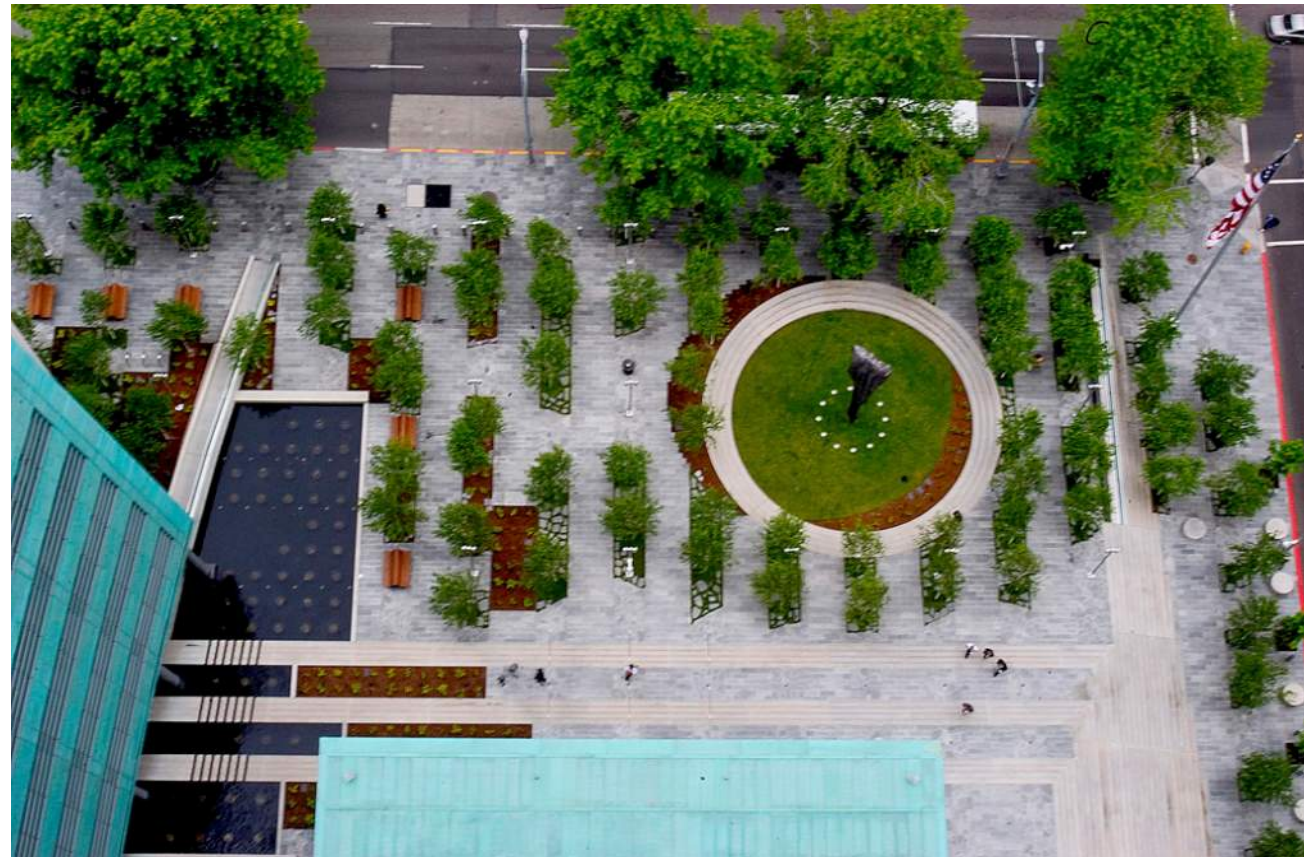
*What does time outside look like?*



# PLAY COURTS



# BREAKING THE PAVING



# OUTDOOR DINING



# EDIBLE GARDENS



# MULTI USE LAWN



# GATHERING SPACES



# INCLUSION





# PLAYGROUNDS



# OUTDOOR CLASSROOMS



# JOURNEY & NATURE TRAILS



# SHADE



# INTERACTIVE LEARNING



# NATURE BASED PLAY



# NATIVE LANDSCAPING



# SMALL GROUP:

*What natural or outdoor element would you want to see in schools?*

*What obstacles must you overcome to make it happen?*





### Maintenance



- Will it be harder to maintain?
- Does it have to be irrigated?
- What are the maintenance and operations cost implications?

### Perception



- The site strategy is a departure from public K-12 facilities.
- Public perception of the site

### Cost



- Initial planning and execution costs
- How could this possibly save district money in maintenance and operations?

## KEY COMPONENTS TO SUCCESS

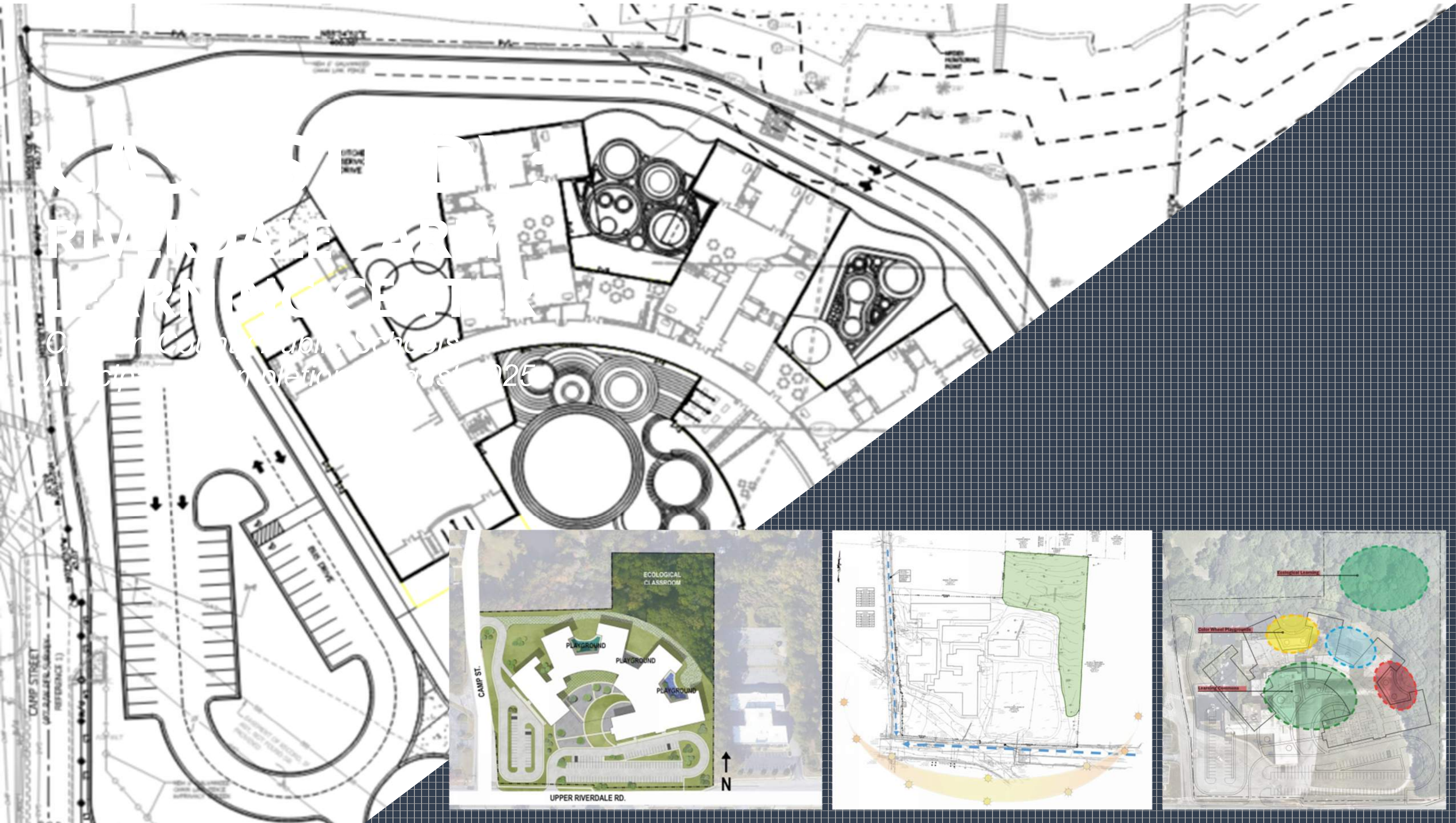


### Accessibility

- Is it easily accessible for one to two teachers with a full class of students?
- Can outdoor spaces be monitored and properly secured?

### Curriculum

- Does the current curriculum allow for outdoor learning?
- Can teachers and administrators be trained properly to use outdoor spaces?
- Would these spaces be used should administration change?





## Clayton County, GA

Student population  
**52,149 (2021)**

**47%** Economically  
Disadvantaged with  
**90.64%** qualifying for  
Free/Reduced Meals

**14%** English Learners

**69%** African American,  
**24%** Hispanic, **3%** Asian,  
**1%** White, **3%** Other

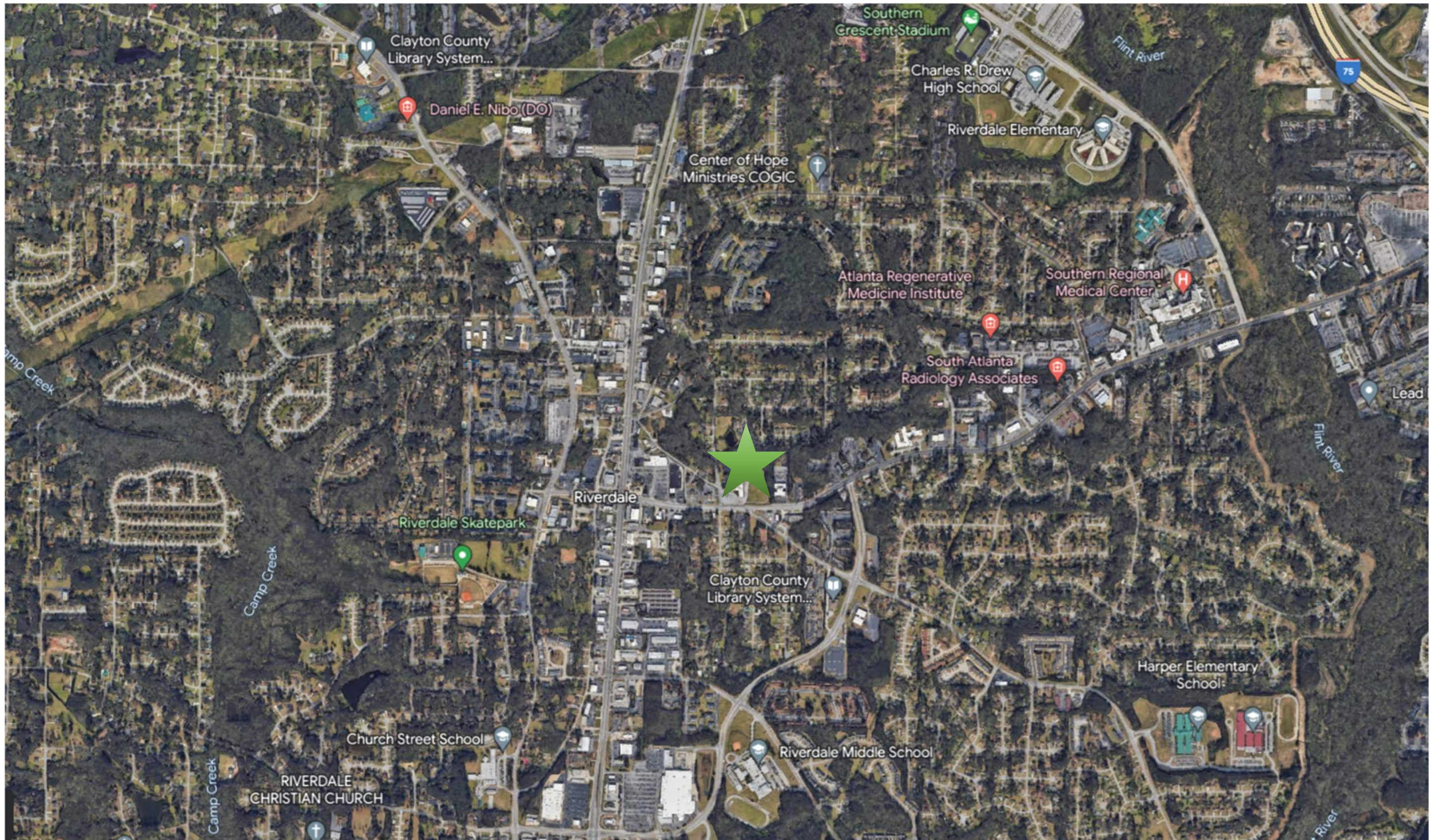
**15%** of 3<sup>rd</sup> grade students  
tested Proficient or  
Distinguished in English

**15%** of 3<sup>rd</sup> grade students  
tested Proficient or  
Distinguished in Math

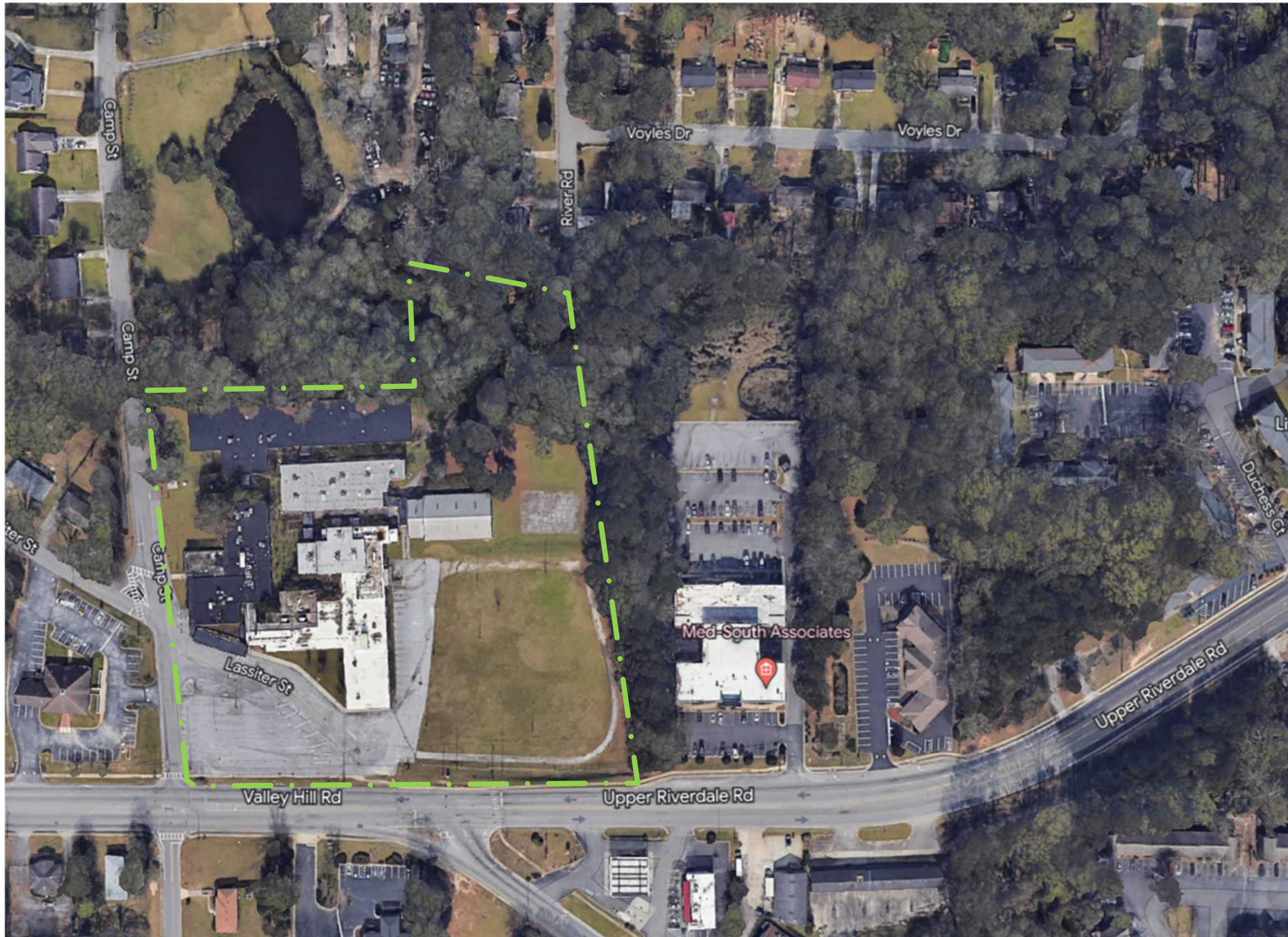
**15%** of Clayton County  
population live within .5  
miles of a park or  
outdoor space.  
US average – 38%

**>2,000** homeless  
students

# RIVERDALE EARLY LEARNING CENTER



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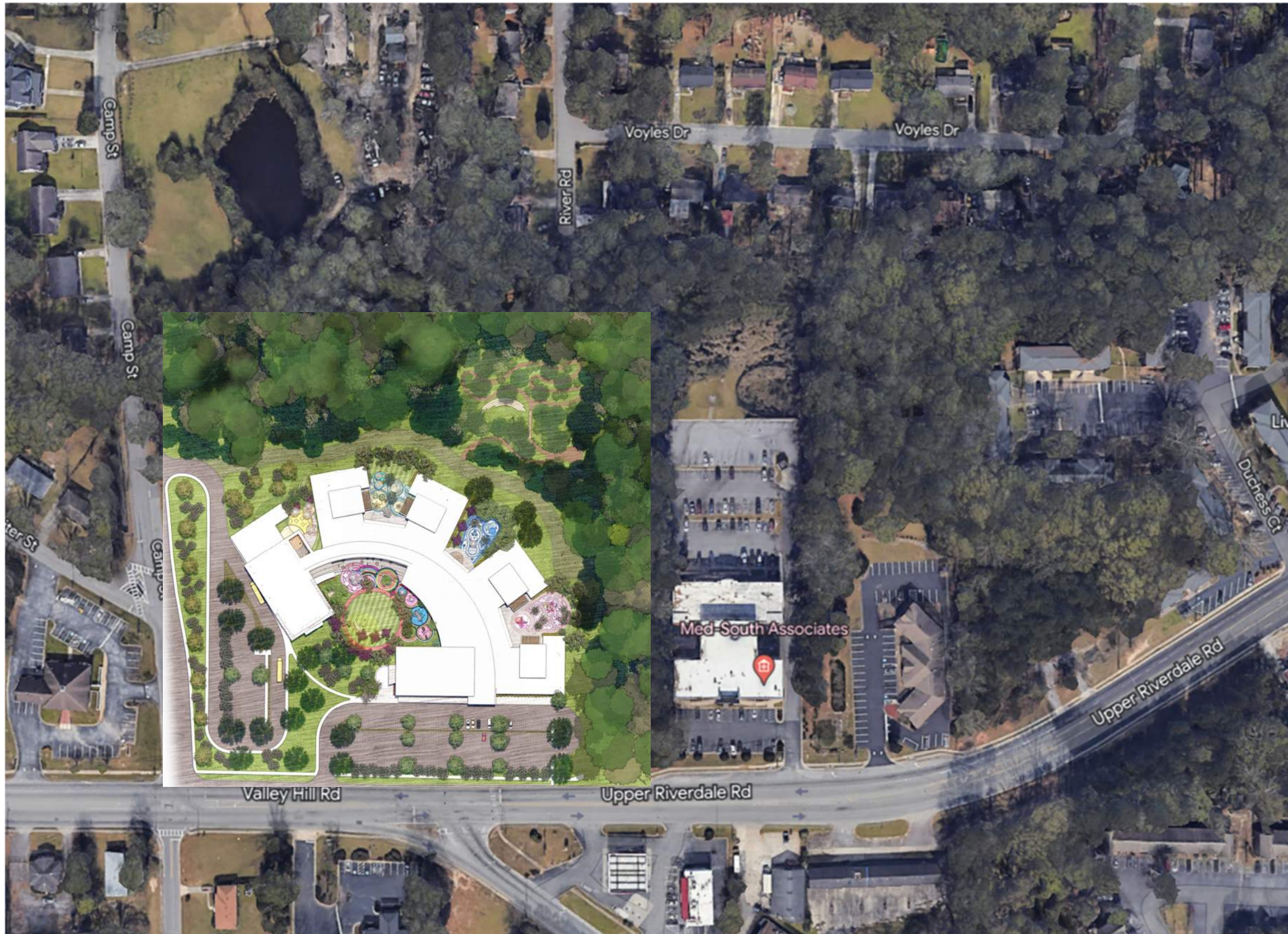
6630 Camp St.,  
Riverdale, GA

9.3 Acres

Proposed:

- 90,000sqft Pre-K
- 500 Students
- Ages 4-5
- 10 Busses, with queuing for parent drop-off

# RIVERDALE EARLY LEARNING CENTER



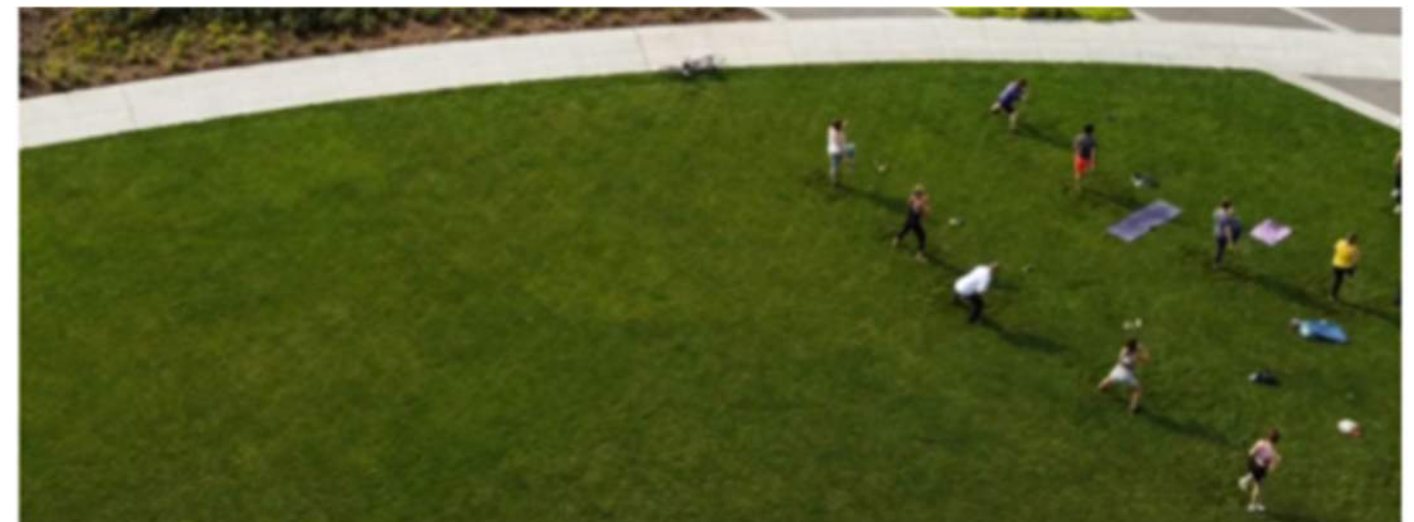
Proposed

# PHYSICAL EDUCATION SPACE

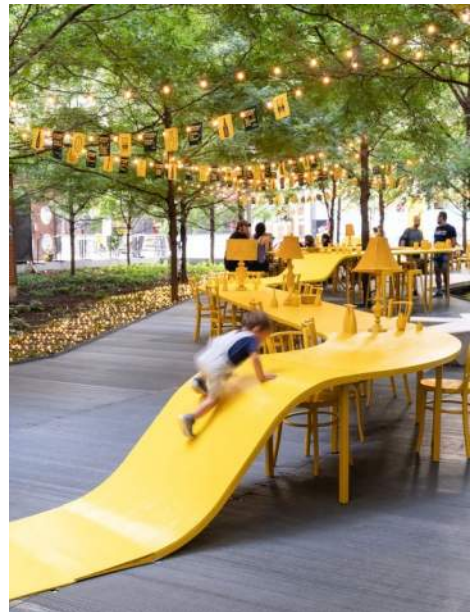




# MULTI-USE LAWN



# OUTDOOR DINING



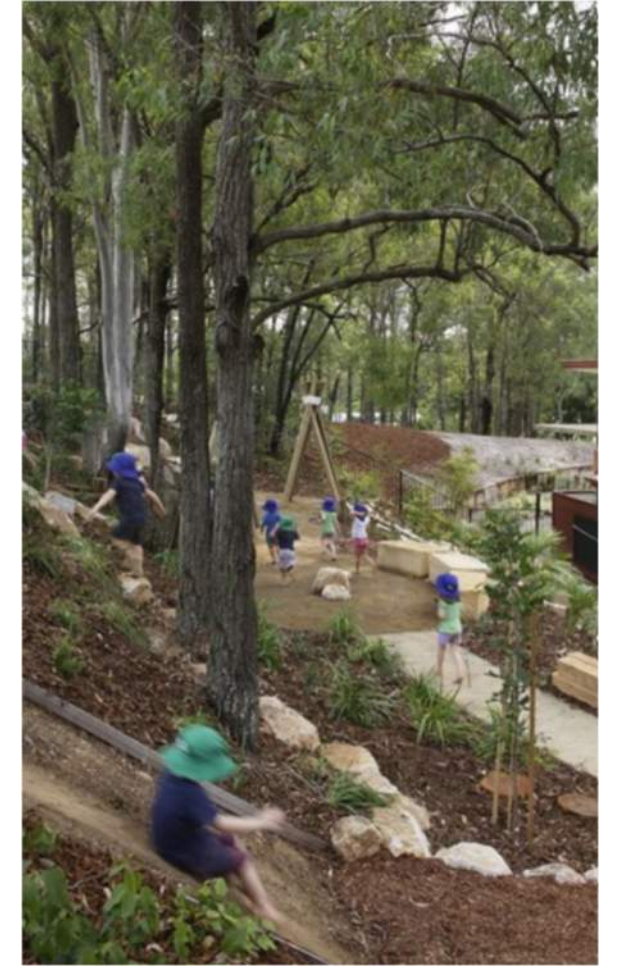
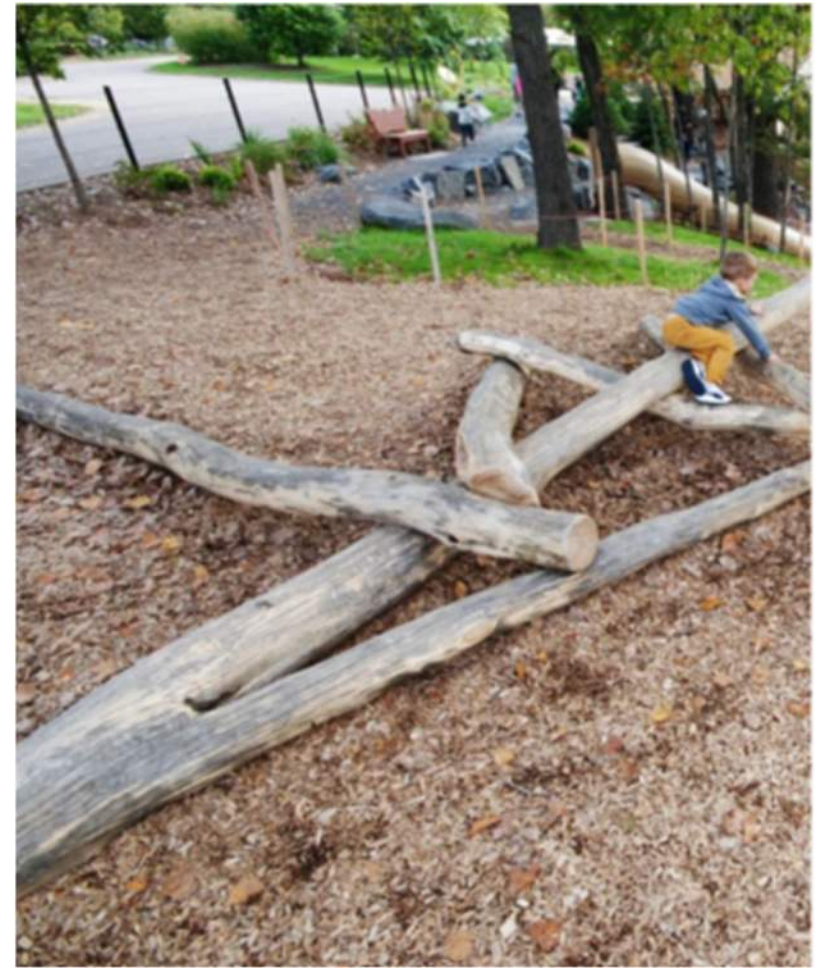
# PLAYGROUNDS



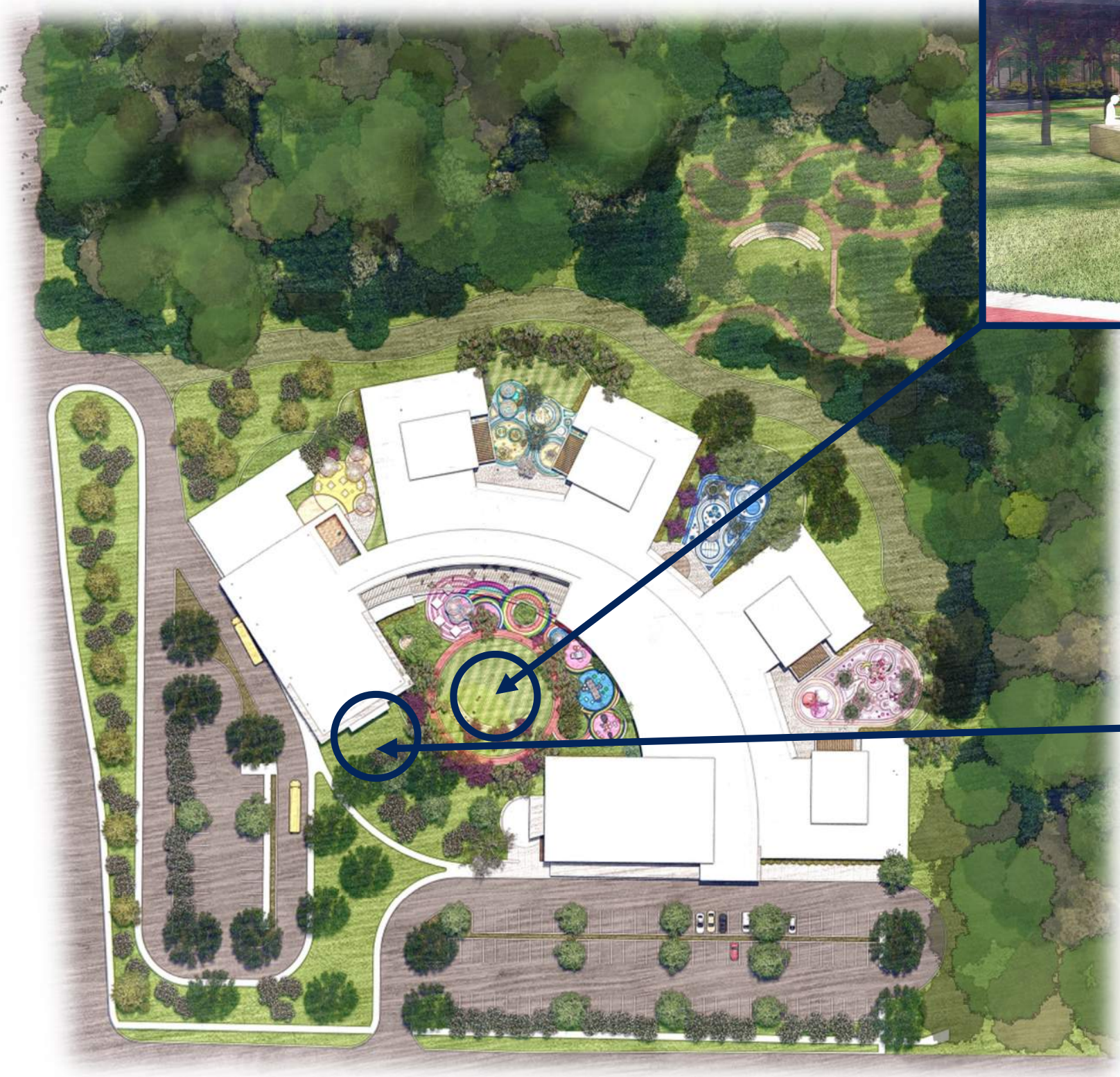
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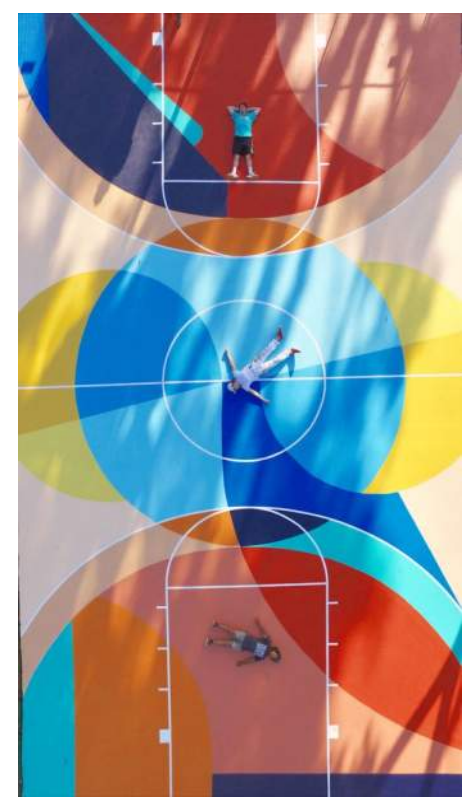
# ECOLOGICAL CLASSROOM



# GATHERING SPACE



# PLAY COURTS



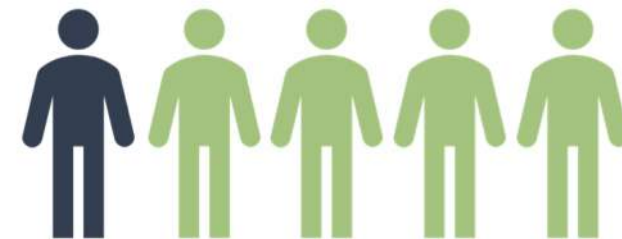
# WHAT IS THE POSSIBLE IMPACT?





Public schools occupy over **2 million acres** across the country. Transforming them all into Community Schoolyards™ spaces would create access to the outdoors for **20 million people**.

20% of the population in the United States is in schools



That is 1 in 5 people in the United States.

*"In the end, we will conserve only what we love; we will love only what we understand; we and we will understand only what we're taught."*

**- Baba Dioum, Senegalese Forestry Engineer**



# Q & A



**THANK YOU!**