



GO TELL IT ON THE MOUNTAIN

A Story of Innovation & Community Partnership
in South Carolina's Largest School District

A one-of-a-kind facility: a school district owned science center with a plethora of unique resources on a 62 acre campus

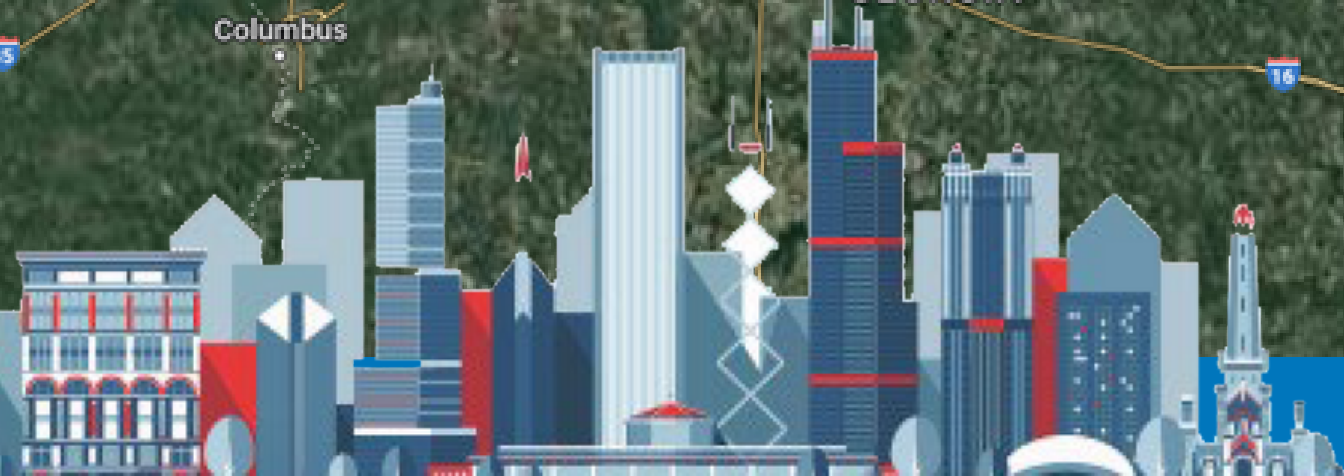
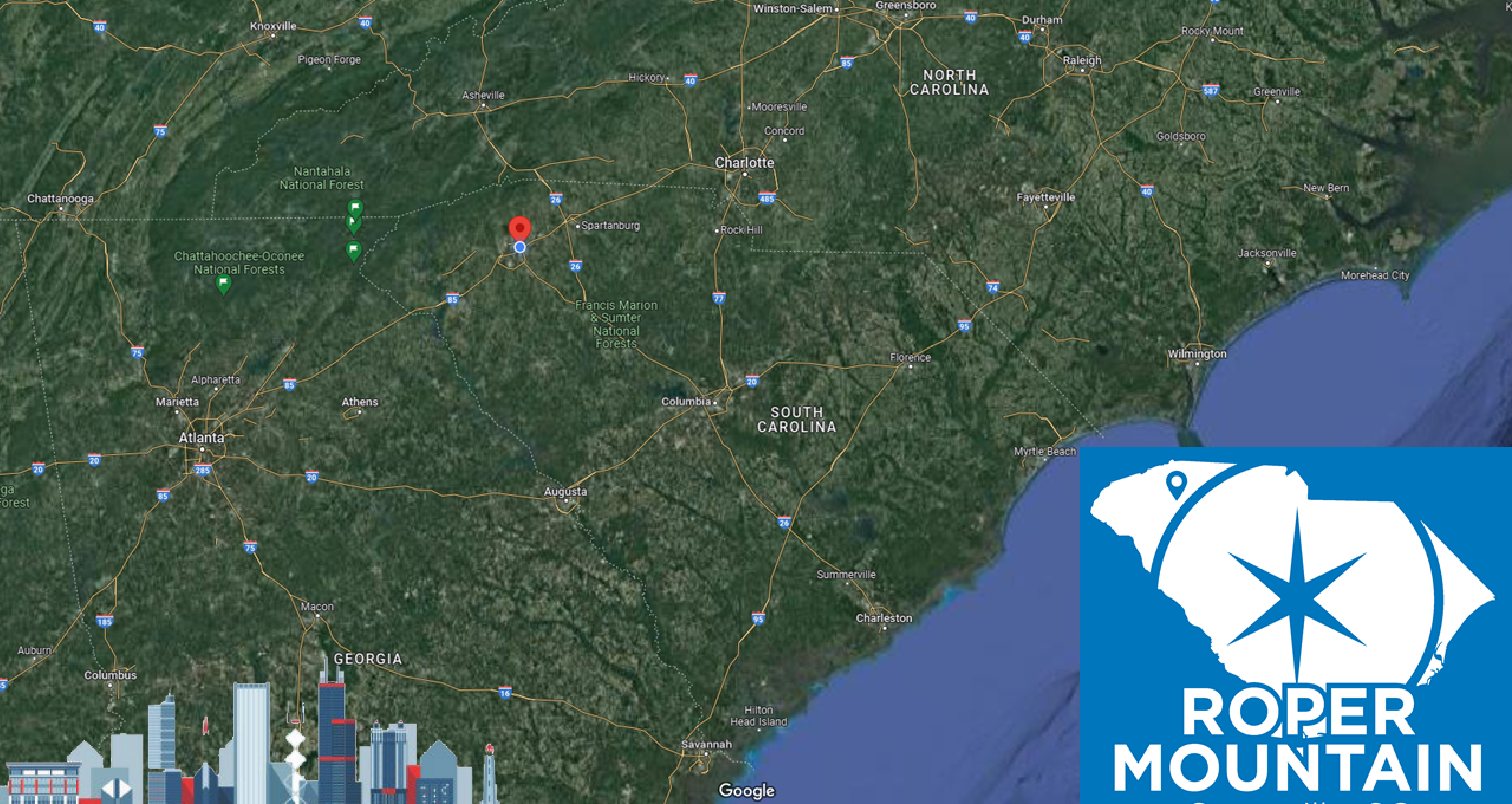
The background image shows the Roper Mountain Science Center at night. The building features a prominent observatory with a large telescope visible through its open dome. To the left, a large, illuminated starburst light fixture is visible against a dark, starry sky. In the bottom left corner, there is a stylized, colorful illustration of a city skyline with various skyscrapers and buildings.

ROPER MOUNTAIN SCIENCE CENTER

Our Vision

To be a pinnacle of innovative learning, an engine for community engagement,
and a national leader in science education





ROPER
MOUNTAIN
Greenville, SC

Google

A Brief History of Roper Mountain Science Center

OUR HISTORY

1967

Roper Mountain site purchased by State of South Carolina for tricentennial celebration.



1974

South Carolina Department of Parks, Recreation and Tourism deeds Roper Mountain to the School District of Greenville County "for use as an environmental science center."

1982

Horticulture building - now Harrison Hall - opened.



1985

Official opening of Roper Mountain Science Center



1970

The "Piedmont Expo Center" opens at Roper Mountain.



1979

First permanent facility, Robert Wilson Amphitheater, is dedicated.



1983

Roper Mountain Science Center Association established. Minor Shaw is first President.

Piedmont Expo SC Tricentennial Project - 1970



Grand opening



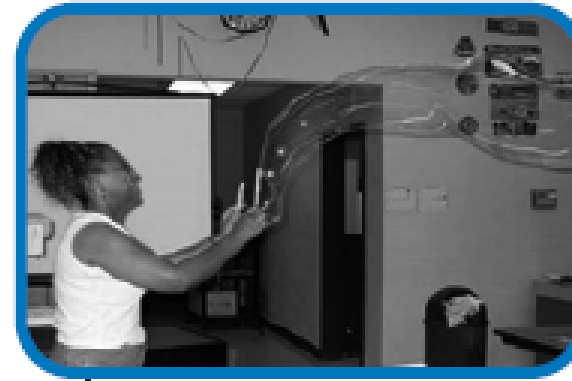
July 4, 1970

A Brief History of Roper Mountain Science Center

1988
*Symmes
Hall of Science
grand opening.*



1993
*Science
PLUS Institute
starts.*



2017
*Harrison Hall
of Natural Science
renovation*



1987
*Dedication of
Daniel
Observatory*



1990
*Hooper
Planetarium
opens*



2002
*Opening of
David H. Wilkins
Conference Center*



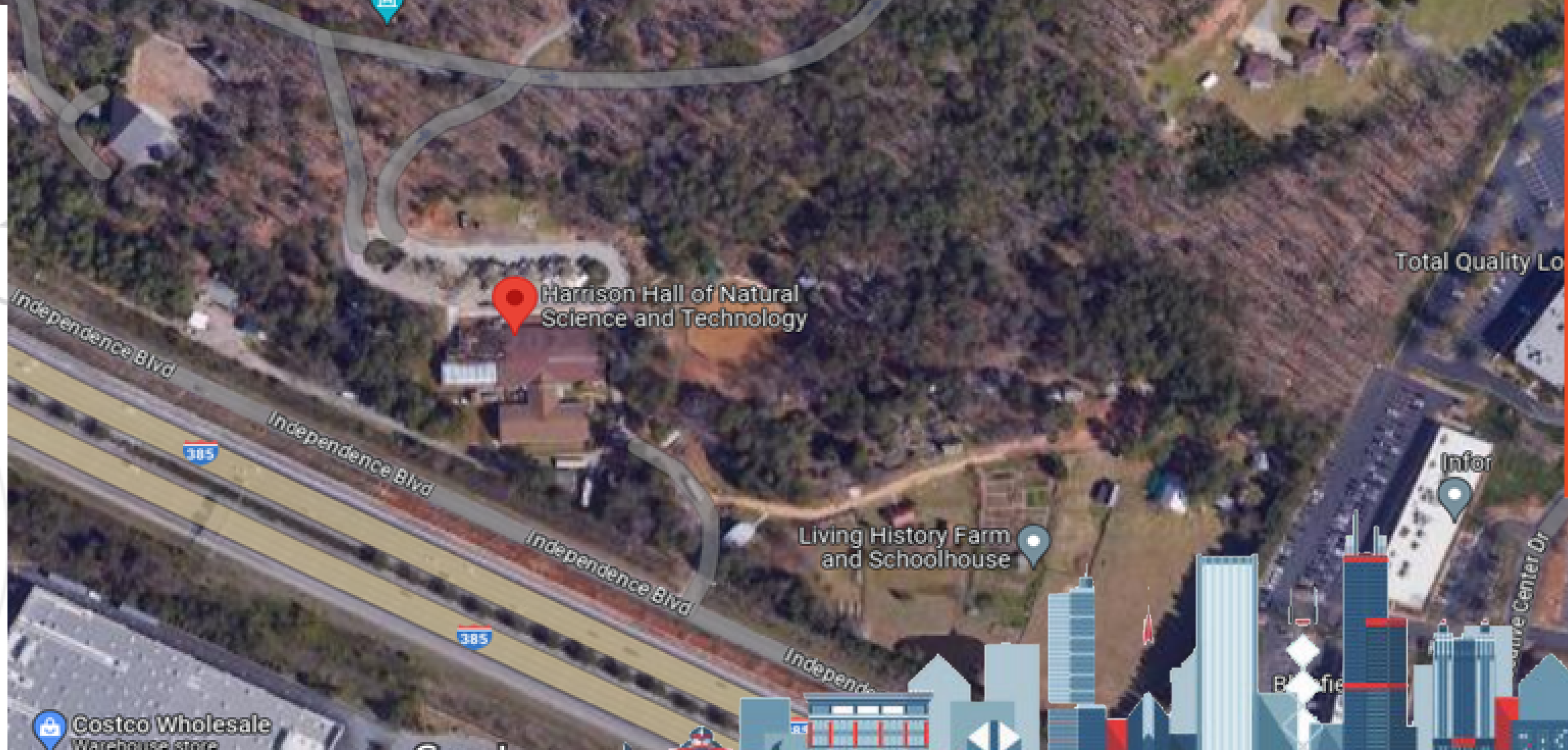
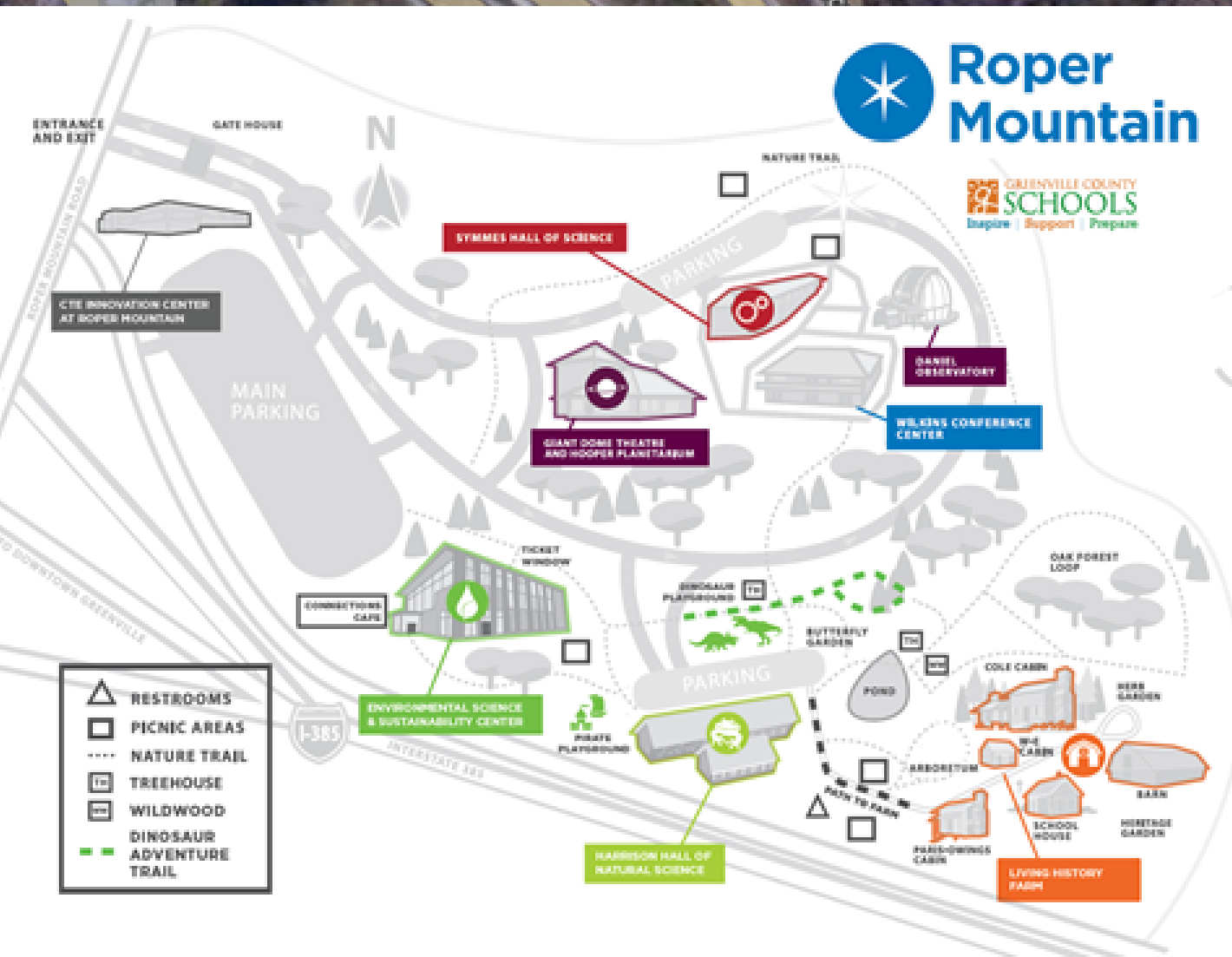
2019
*Groundbreaking
for new Environmental
Science Center*

How were the buildings built?

A great example of public/private partnership:

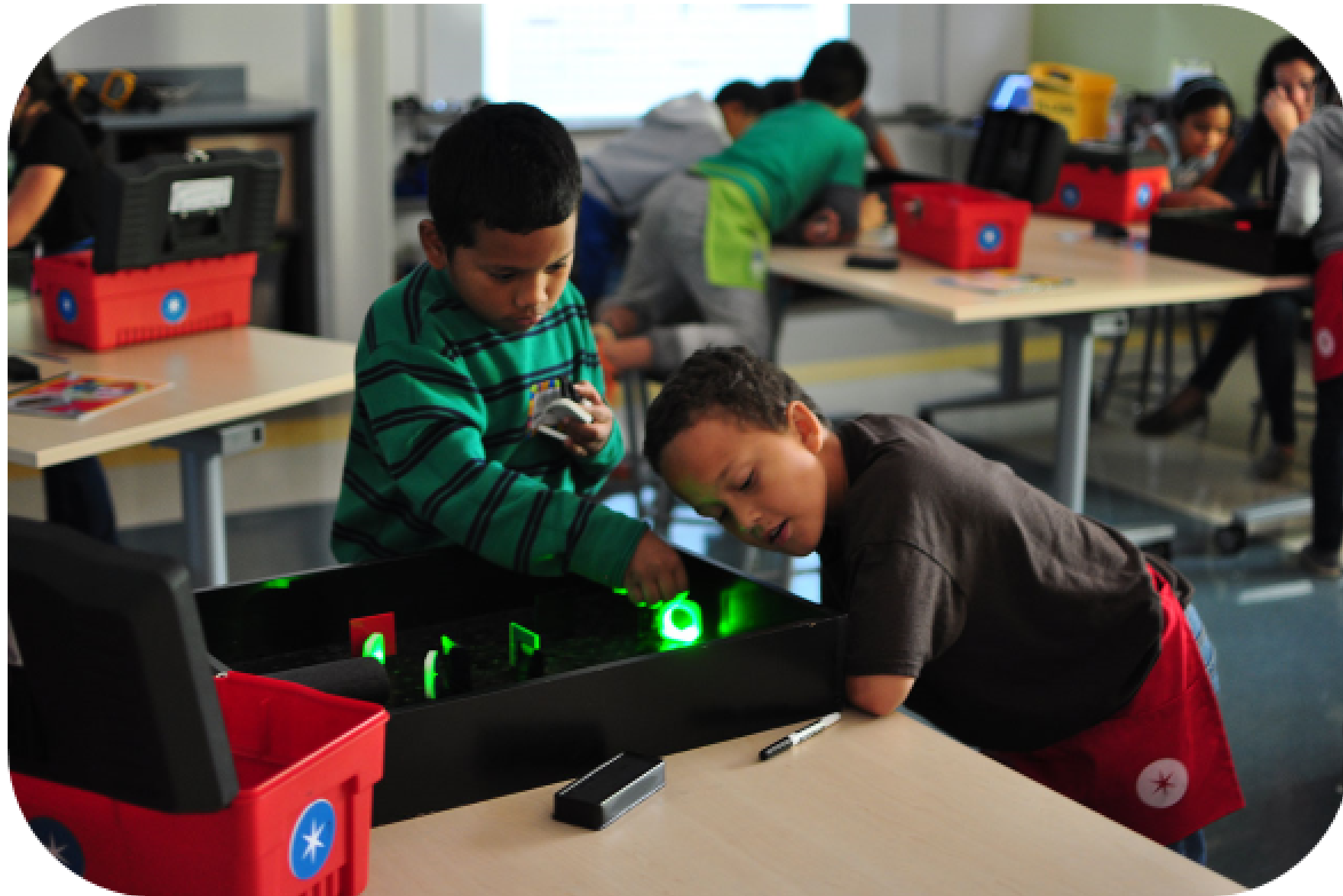
The Roper Mountain Science Center Association, a 501(c)3 whose purpose is to support Roper Mountain through fundraising, advocacy and volunteerism, worked hard to fulfill the master plan. By 1989, the Association had raised funds to construct the main buildings on the campus.

- 1983 - Roper Mountain Science Center Association approved by School Board in September.
- 1984 - Master plan approved by School Board
- 1985 - Official opening of Roper Mountain Science Center and dedication of Living History Farm
- 1984-1990 - Daniel Observatory, Symmes Hall of Science, Hooper Planetarium, Living History Farm constructed.
- ALL funds for buildings and masterplan projects were fundraised for and raised by the RMSC Association. After construction, the buildings were turned over to GCS to operate and maintain.
- From 1983-2018 the Association had raised more than \$11.5M to construct buildings and support programs.
- Key donors during this period: Daniel Foundation, Symmes Foundation, Hipp Foundation, Junior League, DOW Chemical, Greenville Medical Auxiliary, Piedmont Health Care Foundation, Liberty Corporation, State of South Carolina, Duke Energy, GE, Fluor, Michelin, Bon Secours.



Symmes Hall of Science

STEM, physics, chemistry, and robotics labs



Harrison Hall of Natural Science

Animal habitats, rainforest, marine, ecology and mineral labs



Daniel Observatory

8th largest refracting telescope in North America



Hooper Planetarium

New 4K state of the art projection system



Living History Farm

Log cabins, one-room school, and heritage gardens





Community Focus Groups

community Cycle facility energy work
storybased use create engaging Art
indoor ages local immersive inviting
Public Light ride technology Time
Tech Life open exhibits spaces
Large Roof Lab Fun natural flexible
global Flex live interactive Travel
Green animals Virtual water place
sound learners Experience hands on access
colors experiences animal outdoor Farm
using exhibitory Rooms movement Action



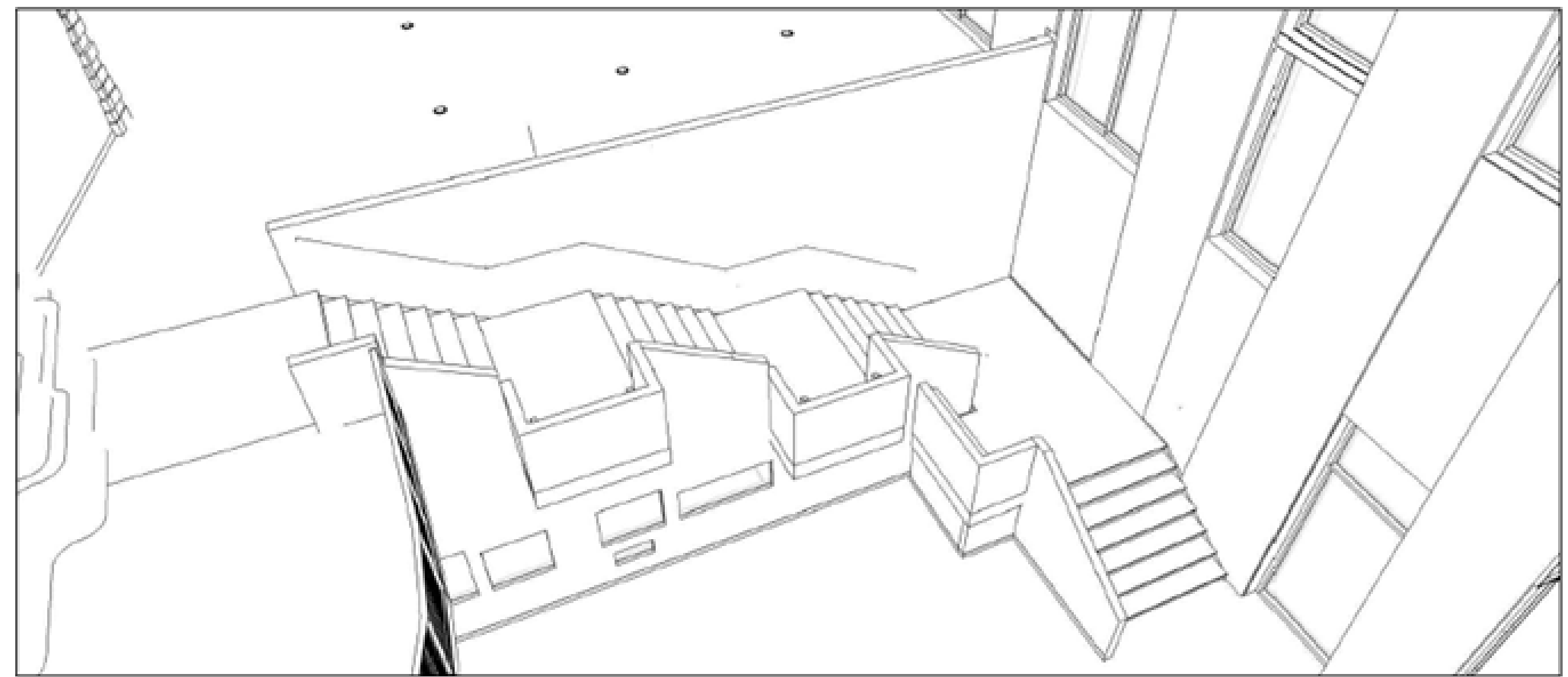
Community Focus Groups Ed Specs

The Top Ten

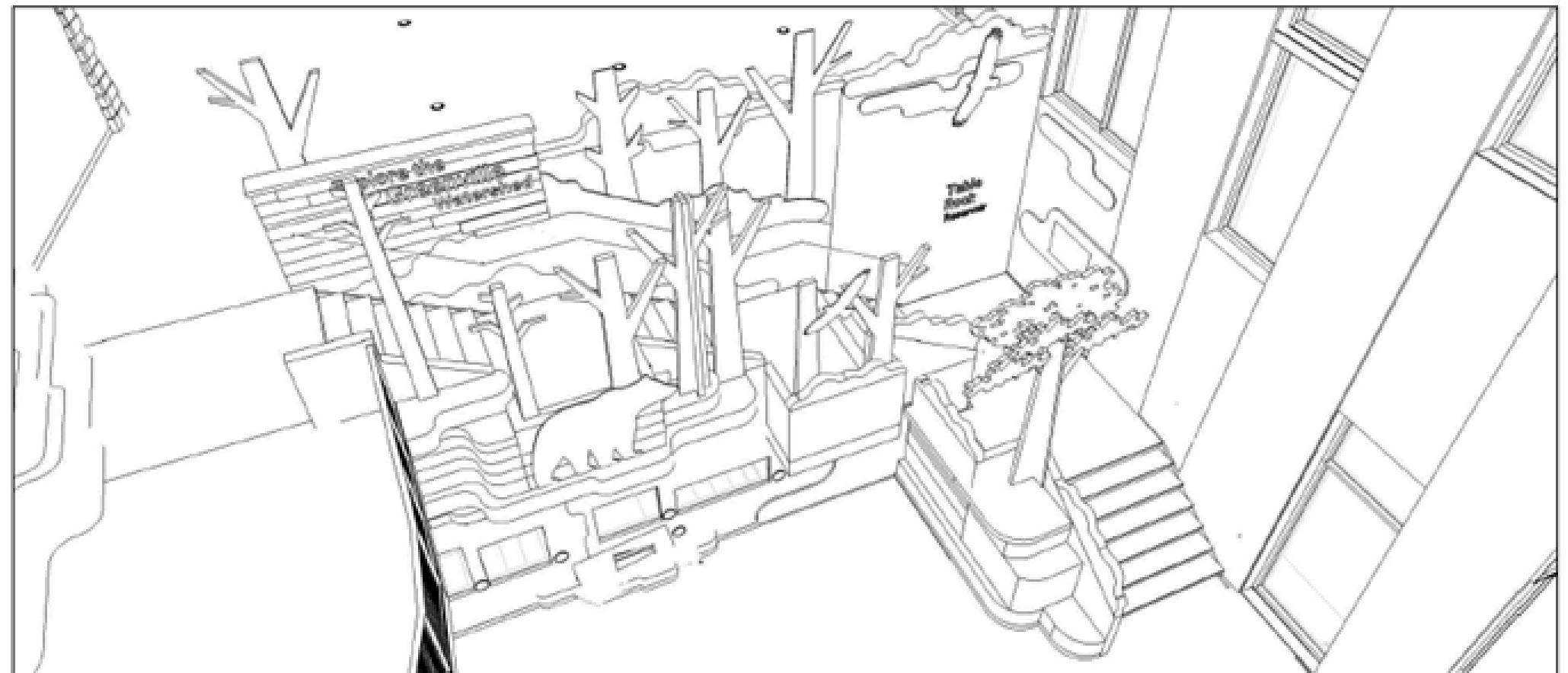
create
technology
water
natural
immersive
flexible exhibits
interactive
living animals



Engaging community stakeholders in order to make a staircase into an immersive watershed



1 AXON - "AS BUILT" STAIRCASE
10.12 NYS



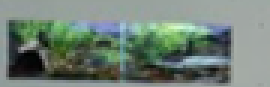
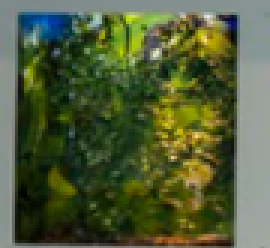
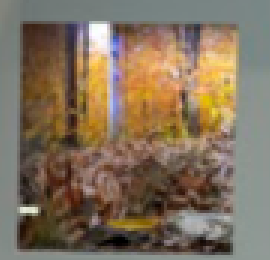
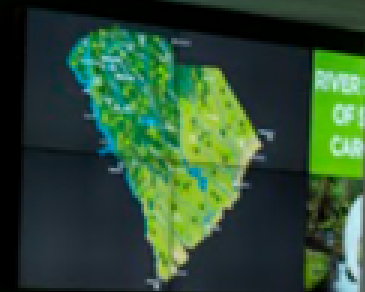
2 AXON - STAIRCASE WITH EXHIBITS
10.12 NYS



Greenvi
W
ed



Table Rock
Reservoir



Featuring exhibits and enhancements:

- The Nature Exchange and Habitat Walkthrough in Orientation,
 - Our Water Story, and
 - Sustainable Future.
-
- The RMSC Association has developed and executed the “Doing Big Things on a Little Mountain” Capital Campaign, which has raised over \$3 million to fund these exhibits and enhancements.





THE DANIEL-MICKEL
FOUNDATION



BMW Manufacturing Co.



TOM & LINDA
HAMILTON



SOUTH CAROLINA
CHARITIES



JOHN R. &
MARGRITE DAVIS
FOUNDATION



HAL & MINOR
SHAW



LES & KAY
KNIGHT




RON & TOMMIE
REECE






These learning environments allow us to offer more than 70 different on-site lessons, labs, and experiences in Science and Social Studies to more than 50,000 students annually





Roper Mountain

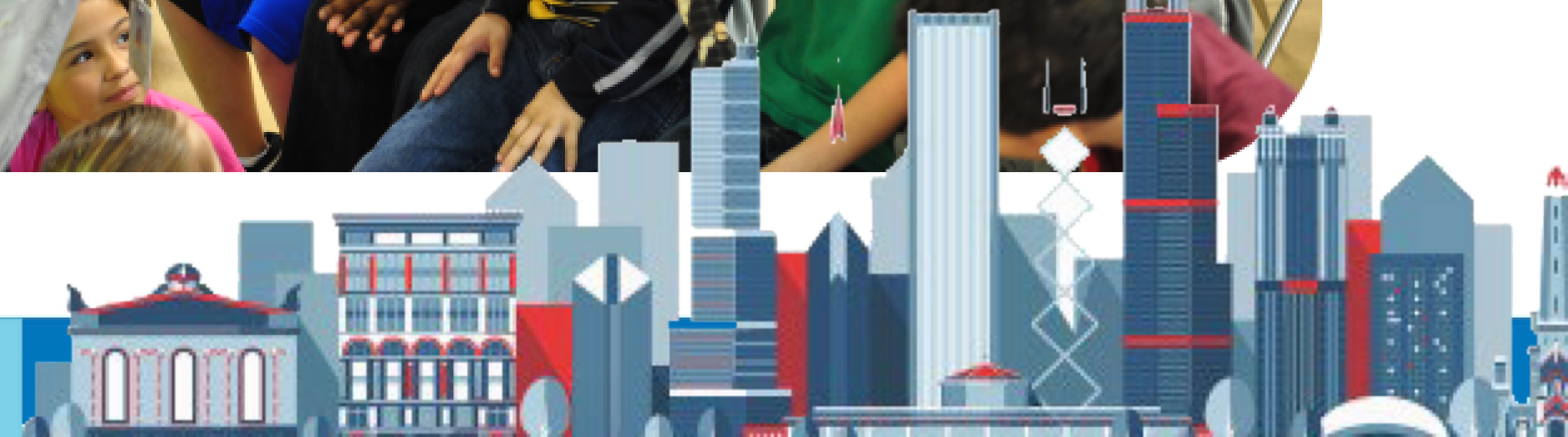


2022 - 2023 Educator's Directory
Standards Based Learning Labs
in Science and Social Studies

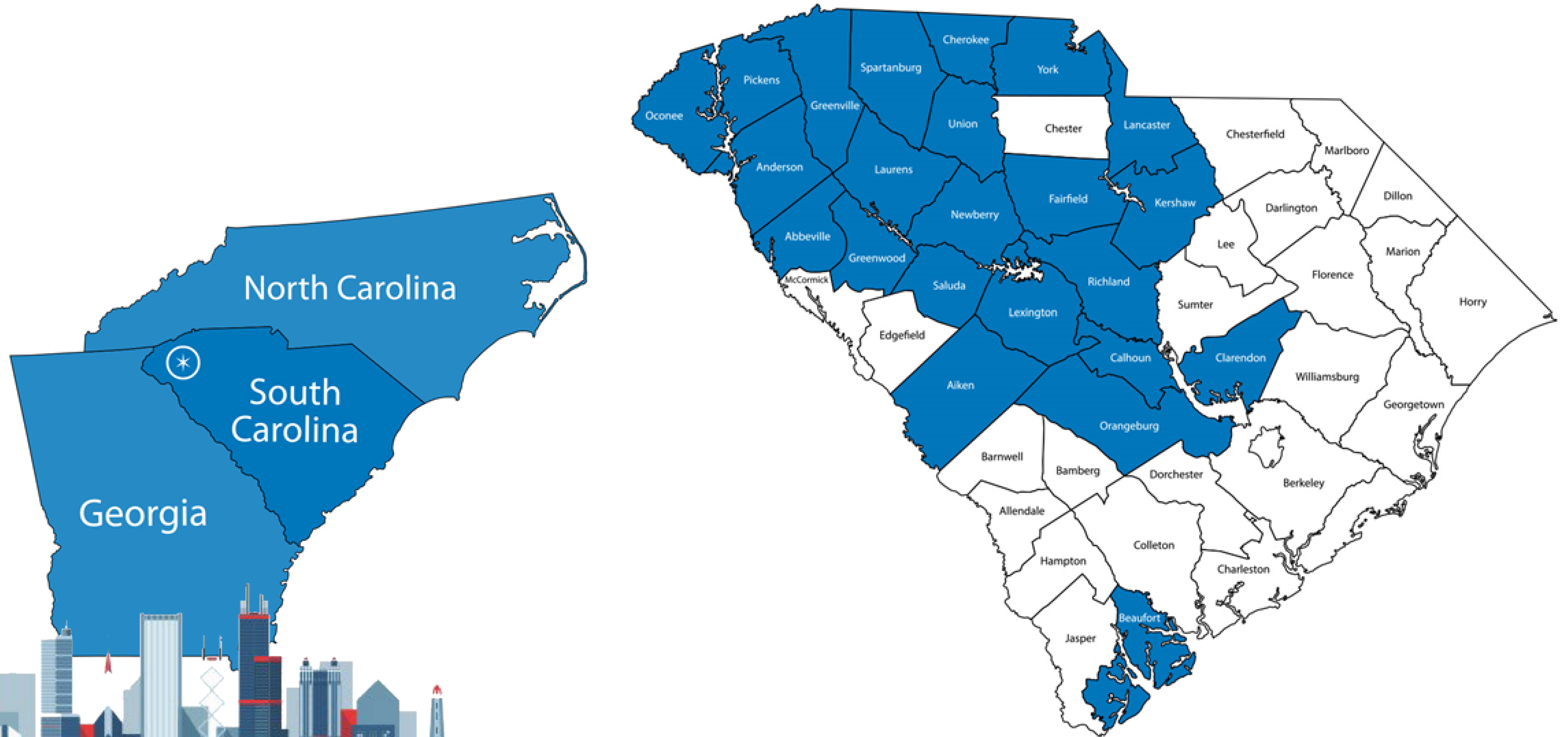
Priority registration deadline for on-site learning labs is September 9, 2022

 **Roper Mountain**
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RoperMountain.org

 **GREenville COUNTY SCHOOLS**
Inspire | Support | Prepare



Our students come from 45 school districts in 23 South Carolina counties and 3 states.



And they
all need
to eat
lunch
every day

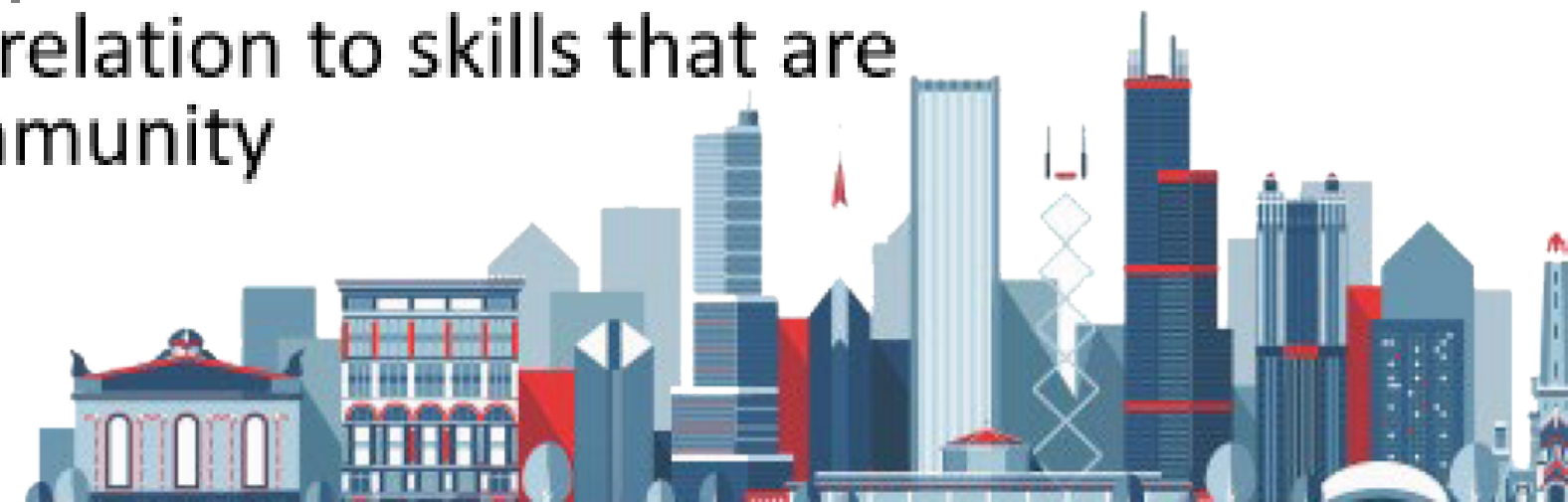


Employability Credential

Employability education - instruction, services, and supports that will prepare the student to attain a job after completion of the Employability Credential. Encompasses

- Career exploration
- Vocational education
- Functional skill development needed for the work place
- Focus on job-readiness skills
- May include Career and Technical Education programs & services

Readiness assessment Work - formal assessment (norm references or criterion referenced) that measures a student's skills set in relation to skills that are necessary for competitive employment in the community



- Complete a career portfolio that includes a multimedia presentation project
- Obtain work readiness assessment results that demonstrate the student is ready for competitive employment
- 360 Hours of Work Based Learning/Training Experience
 - School-based, community-based, and/or paid/unpaid
 - Must align to student interest, preference, & post-secondary goals/IGP
 - Paid employment must be minimum wage or above





Training and Employment:

Roper Mountain Science Center Connections Café



Connections Café @ Roper Mountain Science Center

- 43 students have completed
- the program
- 5 currently assigned
- 14 have obtained the
- ServSafe certification
- 6 hired in FANS
- 1 Publix bakery,
- 1 Prisma Cafeteria, 1 Harvey's,
- 1 teaching assistant, 1 hired CC
- 3 Building Services



Skills to Learn

- Food Safety Procedures
- Proper Personal Hygiene
- Cleaning & Sanitizing
- Taking Temperatures
- Utilizing PPEs (Personal Protective Equipment)
- Culinary Skills
- Preparing Meals
- Cooking & Baking Items
- Knife Skills
- Importance of Teamwork
- Customer Service Skills



Food Safety

- Washing Hands & Proper Personal Hygiene
- Cleaning & Sanitizing
- Taking Temperatures of Food
- Using PPEs- Example, Gloves (Personal Protective Equipment)
- Storage of Food Items



Culinary Skills

- Preparing Sandwiches
- Preparing Grilled Cheese
- Prepping Fruits & Veggies
- Learning about Equipment
- Using Measurements
- Cutting Fruits & Vegetables
- Using Cutting Gloves
- Proper Usage of Knife
- Proper Storage of Product



Customer Service

- Positive Attitude
- Friendly Service
- Fast Service
- Thank the Customer



Team Work

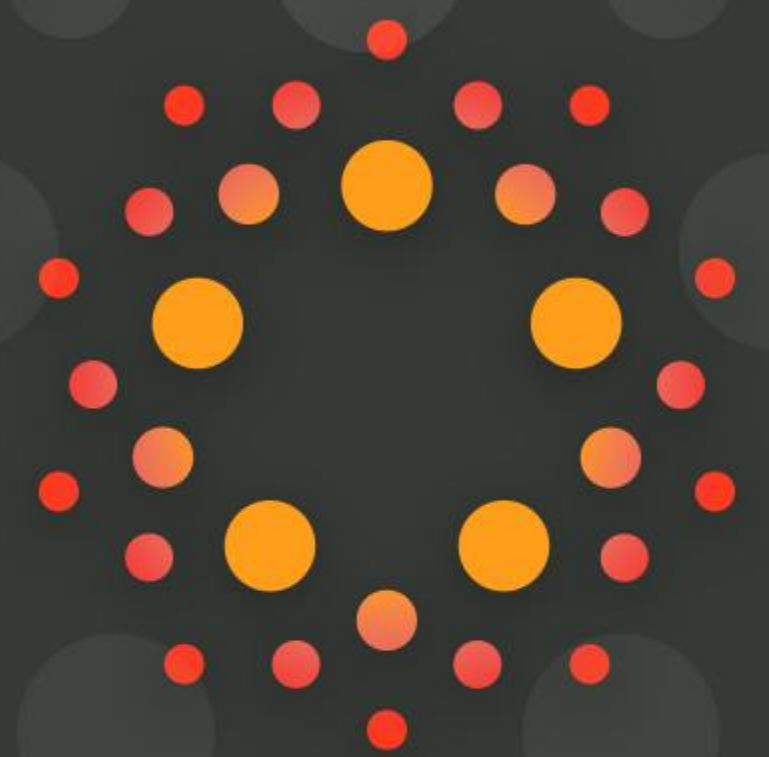
- Team Building
- Working Together
- Helping Each Other



Field Trips and Summer

- Serve between 500-750 meals daily for student field trips during the school year
- Serve between 500-900 meals daily free of charge during the summer





CTE

INNOVATION CENTER

at ROPER MOUNTAIN

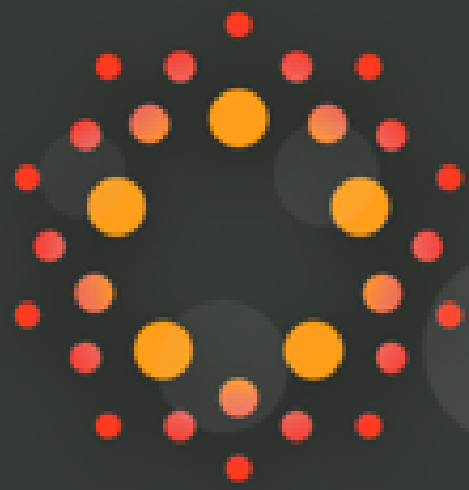
CTE INNOVATION CENTER



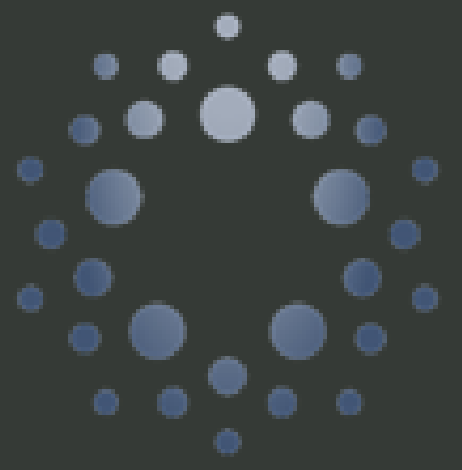
GREENVILLE COUNTY
SCHOOLS

Inspire | Support | Prepare





CTE
INNOVATION
CENTER
 at **ROPER MOUNTAIN**



aerospace
technologies
 CTE INNOVATION CENTER



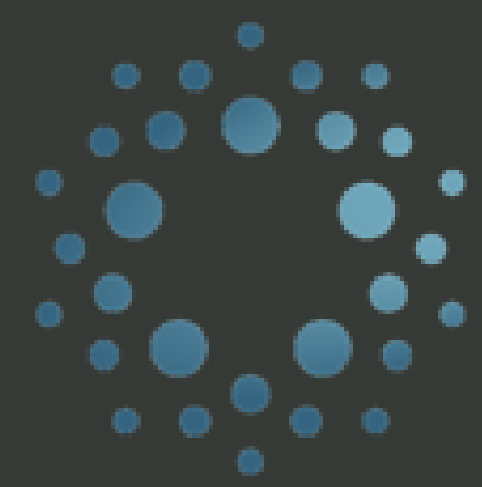
clean energy
technology
 CTE INNOVATION CENTER



automation
and robotics
 CTE INNOVATION CENTER



**networking/
 cybersecurity**
 CTE INNOVATION CENTER



emerging
automotive research
 CTE INNOVATION CENTER





CTE

INNOVATION CENTER

at ROPER MOUNTAIN

Background Information:

- CTE Pathway Restructuring –
 - High Schools – All Pathways that can be feasibly offered at the school were moved to their respective high schools
 - Career Centers – Pathways requiring specialized space
- Explore Workforce Needs –
 - Partnership with Greenville Area Development Corp and Greenville Chamber of Commerce to determine greatest workforce development needs
 - Developed an initial list of potential programs
- Initial Advisory Roundtable Discussions -





Everworks Inc.





CTE Historical Background Information

Phase 1:
**Shifting
applicable
CTE classes
to the High
School**

Phase 2:
**Restructuring
CTE Pathways**

Phase 3:
**Additional
programs at
our 4 Career
Centers**

Phase 4:
**Explore
Workforce
Needs**

Phase 5:
**Initial
Advisory
Roundtable
Discussions**





CTE
INNOVATION
CENTER
at **ROPER MOUNTAIN**

Development and Utilization of the Industry Advisory Committee

Building Design

**Curriculum Selection and
Development**

Program Sponsorships

**Mentoring and Classroom
Involvement**





CTE

INNOVATION CENTER

at ROPER MOUNTAIN

Fundamental Components

- 25 students per program
- Level 1 and Level 2 programming
 - Pathway for all students
 - Workforce
- Technical college/Associates
 - College/University

Innovative and Future Focused

- 3 to 5 year life cycle of programs
- Replication at centers/schools
- Assess/Discontinue programs
- Seek Innovative CTE Programming



aerospace technologies

CTE INNOVATION CENTER

Aerospace 1
Fundamentals of
Aerospace
Technology

Aerospace 2
Advanced
Aerospace
Technology

Aerospace 4
Astronautics
Engineering
Applications

Aerospace 3
Aeronautics
Engineering
Applications

- Project Based Learning
 - Engineering Design
 - Maintenance
 - Electrical Systems
 - Mechanical Components
 - Flight Calculations
 - Propulsion
 - Material Science



automation and robotics

CTE INNOVATION CENTER

Course 1
**Advanced
Technology
for Design &
Production**

Course 4
**Design for
Production
of Advanced
Products**

Course 2
**Systems of
Advanced
Technology**

Course 3
**Mechatronic
Systems for
Advanced
Production**

- Project Based Learning
 - Automated Process
 - Robotic Arms
 - PLC
 - CAD
 - Programming
 - Mechatronic Systems
 - Drives/Controls



emerging automotive research

CTE INNOVATION CENTER

Course 1
**Automotive
Technology
1 Honors**

Course 4
**Automotive
Technology
4 Honors**

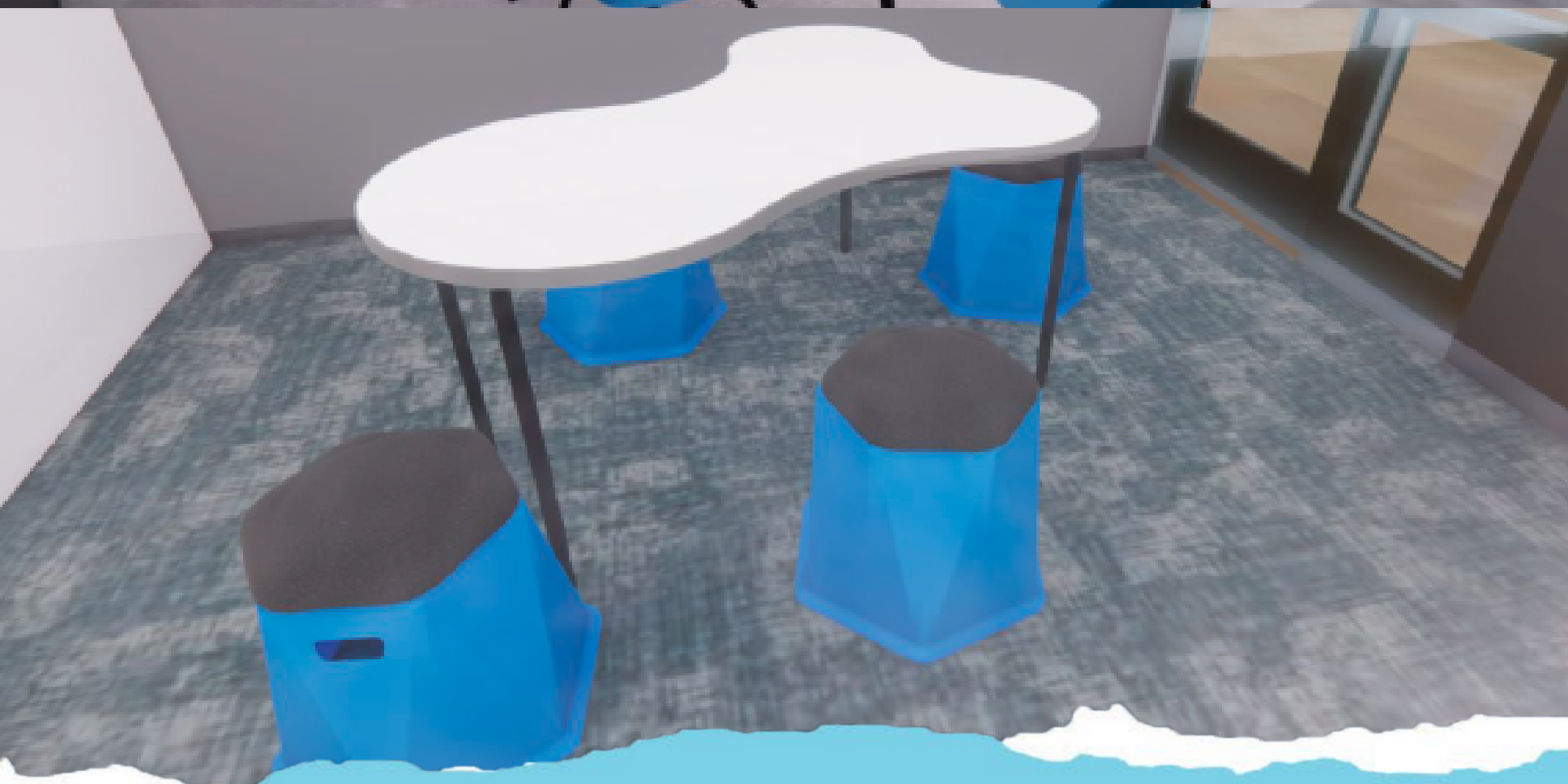
Course 2
**Automotive
Technology
2 Honors**

Course 3
**Automotive
Technology 3
Honors**

- Project Based Learning
 - Electrical Theory
 - Hydraulics
 - Breaking Systems
 - EV Technologies
 - Advanced Driver Assist Systems
 - Fuel Injections
 - HVAC/Coolants



Group Study Rooms





Roper Mountain

OUR VISION

TO BE A PINNACLE OF INNOVATIVE LEARNING,
AN ENGINE FOR COMMUNITY ENGAGEMENT AND
A NATIONAL LEADER IN SCIENCE EDUCATION



GREENVILLE COUNTY
SCHOOLS

Inspire | Support | Prepare



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ASSOCIATION FOR
**LEARNING
ENVIRONMENTS**

CHICAGO
LearningSCAPES 2023

THANK YOU!