



2021 LESOLUTIONS AWARDS

RENOVATION / MAJOR ADDITION

**Southeast Career Technical Academy
Phase II**

SOUTHEAST CAREER & TECHNICAL ACADEMY PHASE II LAS VEGAS, NV

The Southeast Career & Technical Academy Master Plan includes two phases, the first of which was completed in 2011. The second phase introduces four new buildings to the SECTA campus. The SECTA master plan is based on a prototypical Career & Technical Academy master plan kit-of-parts that we designed for the Clark County School District in 2009.

Phase II introduces four new buildings to the campus: an administration building with media and career centers; a culinary/educational building with a full-service restaurant, commercial kitchens, and experimental educational learning environment; a health sciences building with skills training lab and sports medicine learning environment; and an information technologies building with Cisco lab and graphic design, animation, and gaming spaces. With the addition of these new buildings, the SECTA campus will have approximately 361,000 square feet of modernized learning and collaboration spaces.



SCOPE OF WORK

Planning
Architecture
Interior Design

CONTRACTOR

Sletten Construction Companies

CONSTRUCTION VALUE

\$77,878,669

CLIENT

Clark County School District

CONSULTANT TEAM

Actus Engineering: Civil Engineering
Hill Clark & Associates: Landscape Architecture
Mendenhall Smith Structural Engineers: Structural Engineering
Petty & Associates, Inc.: Mechanical and Plumbing Engineering
TJK Consulting Engineers: Electrical Engineering

KEY DATES

- Start of Design: December 2017
- Completion of Design: April 2019
- Start of Ph.II-A Construction: February 2019
- Start of Ph.II-B Construction: May 2019
- Substantial Completion: October 2020
- End of Construction: April 2021 (*owner requested extension - additional work*)

TABLE OF CONTENTS

- 1 School and Community Research / Engagement
- 2 Educational Environment Design
- 3 Physical Environment Design
- 4 Results of the Process and Project
- 5 Sustainability and Wellness



1

School and Community
Research / Engagement

CONTEXT & SITE DESIGN

Original Votech high school, one of the oldest campuses in CCSD, one of the first vocational technologies built in the western US (verify this fact), built in 1967, two of the original structures are still in use, master plan is replacing the first structure which is the classroom and admin building, demolished in 2011. Phased master plan, phase I was done in 2011, built two buildings, phase II building 4 more, planning for another gymnasium built by another design team. Plans for future replacement are incorporated into the master plan.

The site itself sits on a mesa at least 60 feet above the surrounding valley with panoramic views into the Henderson and Las Vegas communities. East side of the campus is natural wash and cliffside with hiking trails and natural wildlife. Built into the topography taking advantage of the hillside and creating layered outdoor spaces for student use.

The inner student circulation courtyard is terraced with the natural slope of the site. At the main level, raised planters are provided for learning gardens. A time capsule and historic section of the original building are on display at this main level, with ample seating and covered walkways that create a perimeter circulation zone. Between the main level and lower plaza level is a terraced planter that acts as a water filter for surface runoff from the upper level. At the lower plaza level, a series of small learning garden planters and wall-mounted vertical garden wall create a backdrop and develop a cooler microclimate. This creates a north-facing edge along the culinary department and acts as an extension of the lunchtime gathering spaces.

PHASE II INTRODUCES 225,000 SF AND FOUR NEW BUILDINGS

- A new Administration Building at the center creates the new formal entry to the campus, and includes a Media Center upstairs
- The new Culinary and Educational academy building is to the west, providing a student-run public restaurant with great views of the whole city
- Building 1 to the north is the new Health Sciences building, providing 2 stories of science labs, sports medicine, human disease and a certified nursing program with a simulated clinic environment
- And to the east side is the new Information Technology building, with the CISCO server lab and Graphics Design programs
- All of these buildings work together to provide a safe and secure inner courtyard space for students, while still maintaining a welcoming perimeter presence for all visitors

USER GROUPS

2 User Group workshops were held over a 2-day period with teachers and administrators, to refine the programmatic needs of the campus and teaching spaces.

CONTEXT + SITE DESIGN

The site sits on a mesa above the surrounding valley with panoramic views into the Henderson and Las Vegas communities.

The inner student circulation courtyard is terraced with the natural slope of the site.

At the main level, raised planters are provided as learning gardens.

DESIGN OPPORTUNITIES

#1: *Multi-use spaces for diverse student body and academies*

#2: *Opportunities for student artistic expression throughout campus*

#3: *Community and student involvement in design development*



PARTNERS

Our organizational structure is based on the concept of balanced team strengths and a consistent point of contact. We want to provide project consistency in a way that the school district and community feel confident that they are heard and that we have someone who retains both institutional and project specific knowledge throughout the length of the project.

In addition to this commitment, we strive to layer our teams' strengths into the phases of the project in a way that the owner benefits from the appropriate skills applied to their project at impactful moments.

Whether it's design or technical expertise we bring our team's talents based on what the needs of the project are. We also deeply value relationships and within our office we have a group of individuals that have worked together many years and bring this familiarity and respect to all our interactions.



OVERCOMING CHALLENGES AND TEAMWORK

Masterplanning a remodel while it is an active campus took careful planning and operational considerations from all team members. To do this, we held design charettes and “User Group Workshops” over a 2-day period with teachers and administrators, refining the programmatic needs of the campus and teaching spaces. This exercise helped us to come up with a design that functioned across many different departments and created a balance between these disciplines.

Additionally, we faced what many other firms faced during the course of the COVID-19 pandemic. This created obstacles that we haven’t seen throughout design and construction, and we had to adjust accordingly. We performed daily COVID-19 symptom tests for 200+ employees and crews were required to sanitize our site including, ladders, rest rooms, and tools twice a day. We built this project following a 6 foot employee distance for working next to another employee for months. Employees had to wear face coverings and gloves for most of the duration of this project.

The safety coordinator on site had the responsibilities making sure that every subcontractor did a COVID-19 and a general construction toolbox talk and COVID-19 JHA for every task on the project, sometimes we would have 100 JHA’s regarding COVID-19 for tasks to ensure that they were following CDC and OSHA regulations.

ON-SITE SAFETY

When Sletten Construction started the SECTA project we had a safety coordinator onsite to oversee all safety and for the duration of the project. Since we had a lot of equipment and people on site we wanted to start promoting a safe working environment from the start.

Our 1 reported incident involved an ironworker who was working offsite in a lay down yard and had a steel beam roll on to his ankle, we pulled the team together and the subcontractor and came up with a new method of moving and unloading of material in that yard.

In addition to the COVID-19 requirements for construction we also did fall protection training, forklift training, manlift training, silica and respirator training, trench and excavation training for employees on site. We had one employee for each subcontractor fill out a safety daily report that was turned into our on site safety coordinator and we would meet once a week with all employees to discuss the issues found. Overall SECTA finished with a great safety record.

OUR APPROACH

We are people focused. The creation of architecture that supports and inspires people in their spaces and the community context is at the heart of our design process.

Understanding our client's individuality, constraints, communication style, project and organizational goals and then finding the best strategies to help them succeed is immensely rewarding.

By offering a new modern space for learning, this project is providing the children within the community a space to explore what their future can look like. The school's media center is designed as an open space that can be used for both instruction and collaboration, accommodating both smaller and larger groups. The layout and furniture can be reorganized to accommodate the shift toward digital media and evolving concepts of the 21st century library. The career center multipurpose space expands into the media center with an operable partition to accommodate larger events as needed. The career center also contains a computer lab in addition to the two labs located within the media center flex space, providing ample digital resources to the student body.



A faint, light blue architectural sketch of a building with a grid pattern, overlaid on a solid blue background. The sketch shows a perspective view of a building with a grid of lines, possibly representing a floor plan or a structural framework. The lines are thin and light, creating a subtle watermark effect.

2

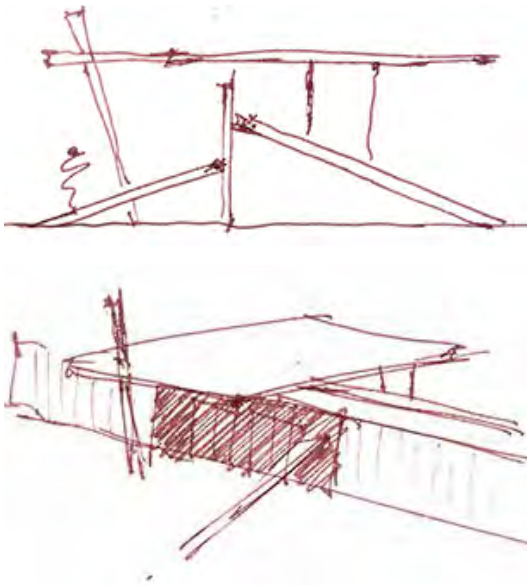
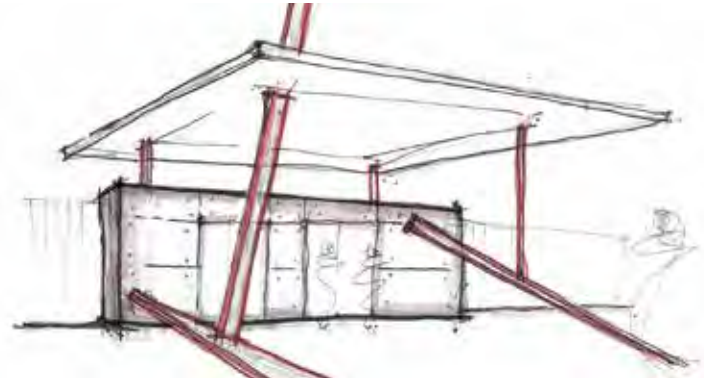
Educational
Environment Design

DESIGN CONCEPTS

One of the main goals was to give the historical campus a new and updated image while creating opportunities to respect the history of the school.

The facade's "urban camouflage" design allows the colors to relate to their context while the metal paneling provides a unique identity to the school through the use of graphics, signage, and school colors.

As a result of collaboration and charettes with the students, the school mascot proved to be an important symbol for the students. The roadrunner, SECTA's mascot, was graphically expressed through metal perforated panels and is meant to set up the central courtyard to be completed in future phases.



DESIGNING FOR FLEXIBILITY AND MULTI-USE SPACES

The school's media center is designed as an open space that can be used for both instruction and collaboration, accommodating both smaller and larger groups. The layout and furniture can be reorganized to accommodate the shift toward digital media and evolving concepts of the 21st century library. The career center multipurpose space expands into the media center with an operable partition to accommodate larger events as needed. The career center also contains a computer lab in addition to the two labs located within the media center flex space, providing ample digital resources to the student body.

The restaurant and café are primarily used as a training restaurant for the culinary program but will also act as a primary gathering space for students and staff. SECTA has the only high school-operated restaurant open to the public in Las Vegas. The coffee and juice bar at the entry of the restaurant and café extend use to early mornings, lunch time, and during informal collaborative sessions. The two areas have an operable partition between them to allow for expansion when banquet/conference programs are hosted. The outdoor dining patio extends over the hillside with full panoramic views of the Las Vegas Valley.

General classroom spaces are designed with flexibility for evolving educational pedagogy. These +/- 900 square foot spaces have natural light, open space, and updated audio/visual amenities such as short-throw interactive projectors and white boards, integrated speaker systems, and dynamic lighting controls. Color temperature changing light fixtures allow the instructor to modify the environment of the classroom to fit the evolving needs of each space.

OPPORTUNITIES TO ENGAGE

The design of Phase II prioritizes informal and connectivity spaces. Tech hubs are located at the main student entry of each academy to promote multi-disciplinary collaboration with both high-tech and low-tech amenities. Flexible furniture layouts, presentation walls with interactive monitors, white boards, and extra power supply throughout give students and instructors the backdrop for formal and informal events and accommodate both small and large groups. The hubs also allow for individual academy branding that welcomes other students from different programs. The campus-style layout of different academic buildings interconnects each academy with raised walkways, allowing for circulation and gathering spaces throughout the campus. Outdoor covered dining areas, raised platforms, and learning gardens provide diverse choices of outdoor classroom extensions throughout the campus.

FUTURE PHASES

Finally, the master plan also included planning for a future Phase III Gymnasium, and eventually Phase IV which will be the replacement of the last original structures around the edges of campus.

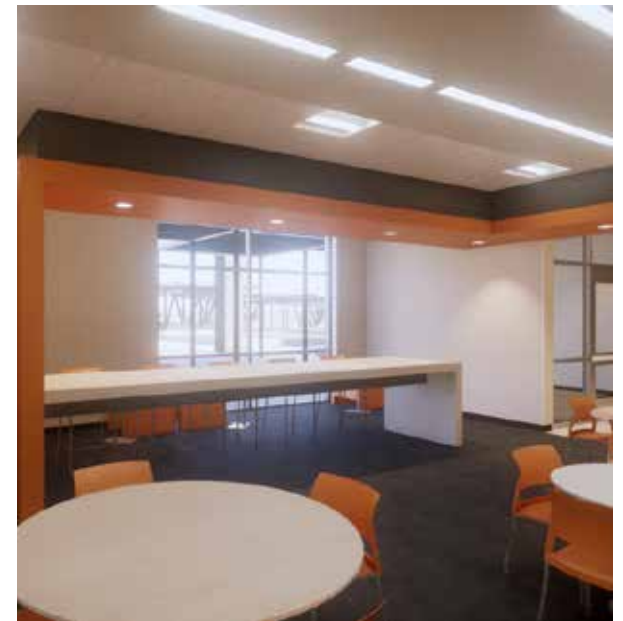
To prepare for this, we did careful planning of the site grading and utilities so that future construction could resume with minimal disruption to schools operations.

Now, we are continuing to help the school team with a small remodel of an old Auto Body shop, into their new Robotics classroom.

THE DESIGN OF PHASE II PRIORITIZES INFORMAL AND CONNECTIVITY SPACES.

Flexible furniture layouts, presentation walls with interactive monitors, white boards, and extra power supply throughout—give students and instructors the backdrop for formal and informal events that accommodate both small and large groups. The hubs also allow for individual academy branding that welcomes other students from different programs. The campus-style layout of different academic buildings interconnects each academy with raised walkways, allowing for circulation and gathering spaces throughout the campus.

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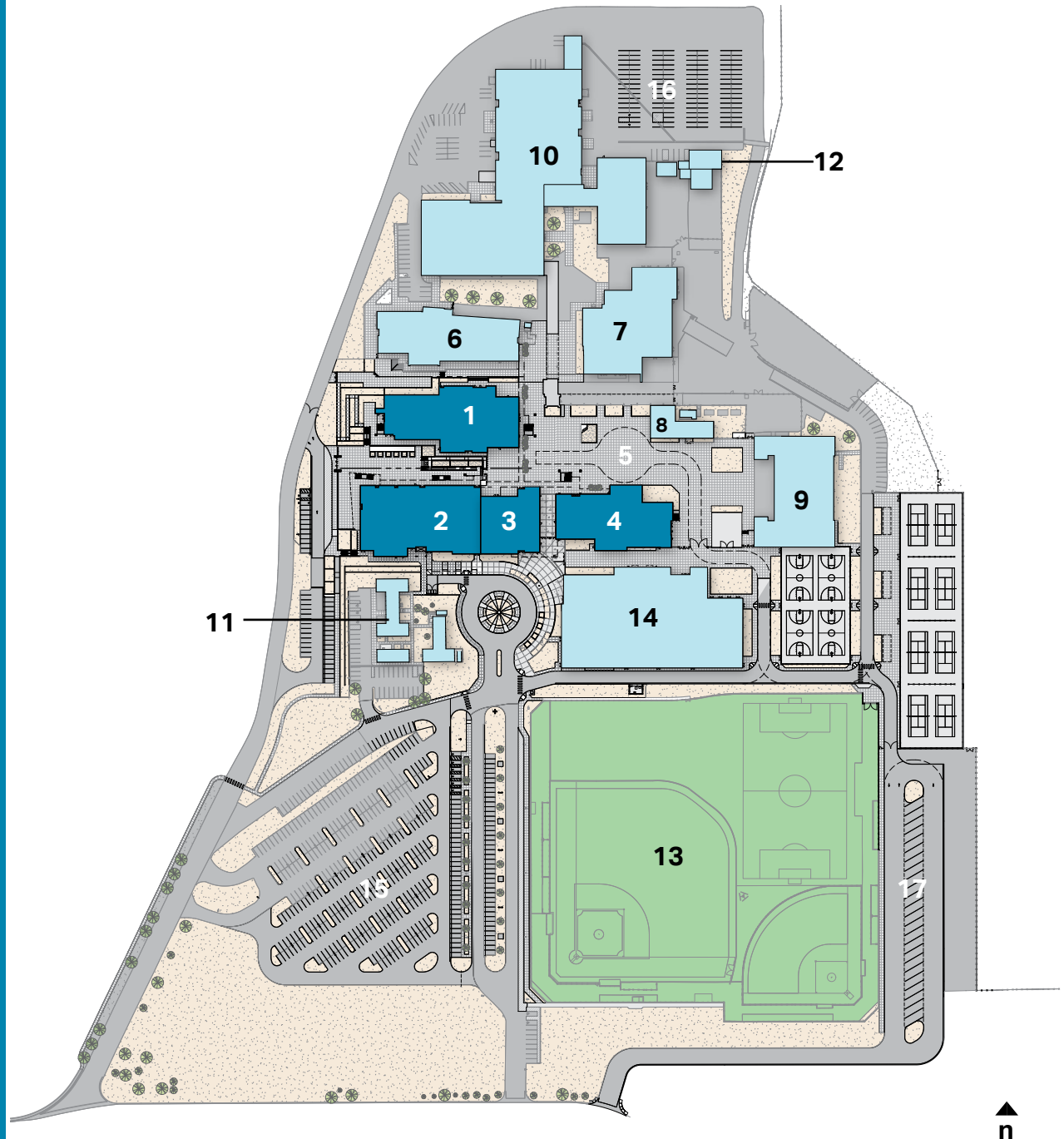


A faint, light blue architectural sketch of a building complex is visible in the background, overlaid on a solid blue gradient. The sketch shows various rectangular structures with internal grid lines, suggesting a floor plan or site plan.

3

Physical Environment
Design

- 1** Health sciences
- 2** Culinary studies & education
- 3** Administration building
- 4** Information Technology
- 5** Main courtyard
- 6** Classroom building D (phase I)
- 7** Commons building (phase I)
- 8** Existing central plant
- 9** Existing gymnasium
- 10** Existing classroom building E
- 11** Existing regional admin complex
- 12** Existing construction tech yard
- 13** Existing ball fields
- 14** Future gymnasium
- 15** Visitor / Student parking
- 16** Staff parking
- 17** Bus parking



GOALS

With the development and advancement of the typology, the design team explored various options for the many hats to be worn by SECTA as a modernized learning facility.

Throughout programming, we looked at the existing school as well as future phases of the project's enhancement. Our team worked carefully with all stakeholders to construct a program that is custom-tailored to the needs of the school and community.

One of the interesting things we were asked to do in the campus design was to create opportunities for student-led experimentation, project-based learning, and display of projects.

In customizing the prototype to meet the specific educational needs of the programs here, we also did a thorough post-occupancy evaluation of this campus' spaces and similar career tech schools so that we could learn from the past and improve upon the design.

These studies explored the user, activity, outcome, and purpose of each of the new academies while taking a look at the translation of these new spaces to the existing campus.



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4

Results of the
Process and Project

KEY ELEMENTS

Flexibility was a key theme in our evaluation, as we are seeing more and more learning spaces evolve in their needs and likewise need the building to adapt with them.

EvaluOne space that both provides specific program needs, but also remains adaptable for future program uses, is the Media Center. With so much information readily available in digital format, the Media Center is no longer focused on books, but is now a flex space including computer labs.

A modular power/data grid of floor boxes allows for multiple configurations and uses throughout the space.

We've even seen them rearrange the space over three times in the past year as the students shifted to hybrid learning, then to full time on campus.

This is just one layer of the robust technology provided here and throughout the campus, along with additional power outlets and charging areas, strong wi-fi access, and upgraded audio/visual systems in the critical areas that need it most.

The key element for this successful technology integration was listening to our clients.





5

Sustainability and
Wellness

SUSTAINABLE EFFORTS

Here we see the new Student Career Center which occupies one end of the Media Center. We installed a full-width operable wall between the rooms that can provide acoustic separation when closed, or it has the ability to be opened up for seating to expand into the media center for larger events.

This kind of careful treatment of acoustic separation combined with the flexibility of operable walls is also included between many of the other specialty learning labs and their adjacent traditional lecture spaces.

Natural lighting is also a critical component of the project design. While incorporating sustainable practices is something we do at all levels, the building's orientation and attention to natural light is one of the least expensive and most rewarding things we can do.

In the Media Center you see here, the space is actually in the center of the building's footprint. By opening the space to the adjacent computer labs along the outside wall, we are able to share the natural light coming in from the exterior windows.

Here, all of the classrooms have natural lighting. When the room is larger, we layer in Solatube skylights to make sure the areas of the room away from windows can also receive natural light.

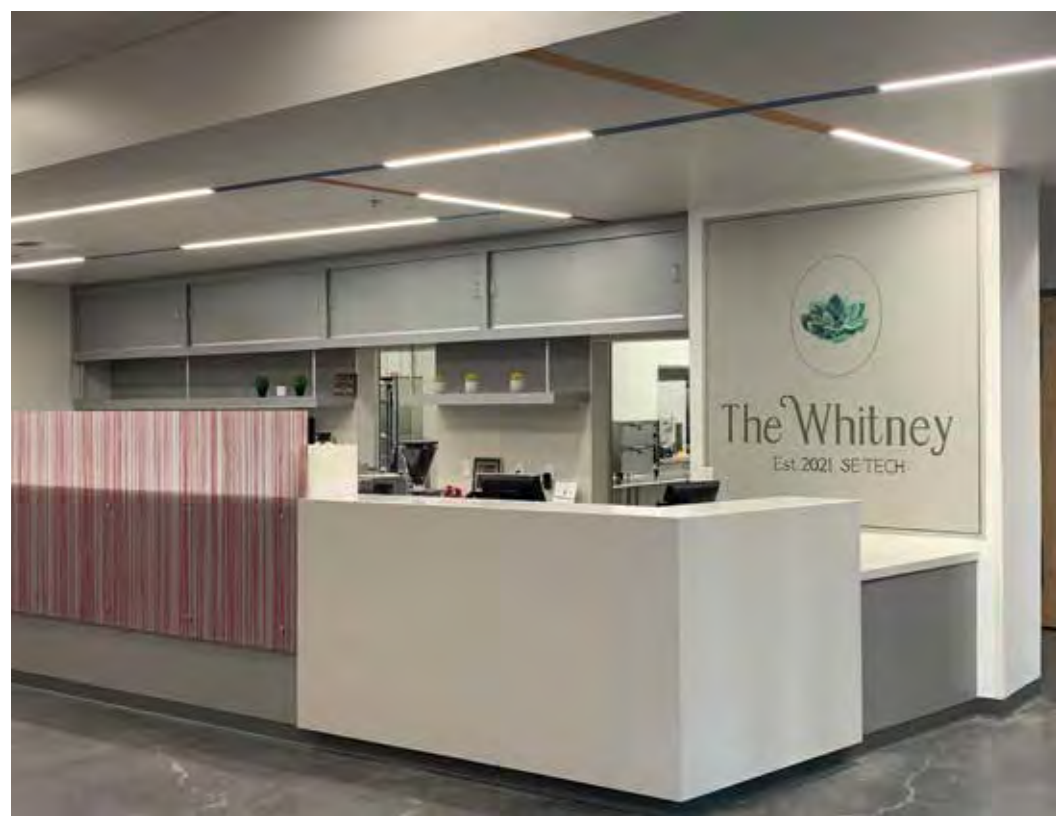




Low-VOC materials, selected for maximum durability and long maintainability, low maintenance, water source heat pump system for more energy efficiency, LED lighting throughout, color-tunable lights in standard classrooms.









SECTA

SOUTHEAST CAREER TECHNICAL ACADEMY

SOUTHEAST CAREER AND TECHNICAL ACADEMY
1000 SOUTH WINDYBROOK ROAD, SUITE 100
TAMPA, FL 33629

2021 LEsolutions Awards
Project Data: Confidential Information

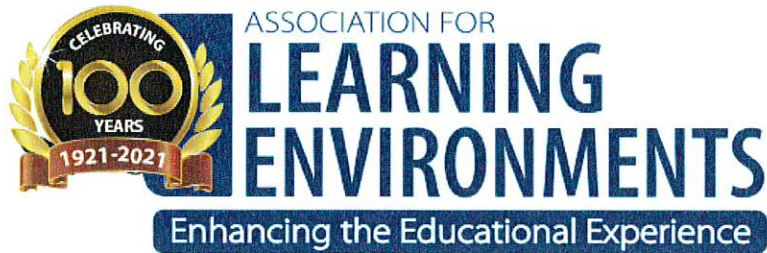
Project Name	Southeast Career Technical Academy Phase II
School District Name	Clark County
Project Address	5710 Mountain Vista St
City/State/Zip/Country	Las Vegas, NV 89120
Superintendent/President	Jesus Jara
Award Category— Please Identify the category of award.	Project of Distinction; New Learning Environment; Post-Secondary Education; Renovation/Major Addition ; Small/Special Project; Exceptional Planning

Submitting Firm:	
Project Role (Architect, Planner, CM, Other)	Planner, Architect
Contact for this Award Application	Trisha Litzau
Title	Marketing Manager
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City, State or Province, Country	Las Vegas, NV 89119
Phone	702-435-1150
Email Address	tlitzau@simpsoncoulter.com

Joint Partner Firm:	
Project Role (Architect, Planner, CM, Other)	
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Project Role (Architect, Planner, CM, Other)	
Title	
Address	
City, State or Province, Country	
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Title	
Address	
City, State or Province, Country	
Phone	
Email Address	



2021 LE Solutions Planning and Design Awards

Photo Release Form

Please initial all that apply

Name of Project Southeast Career Technical Academy | Phase II

Location of Project 5710 Mountain Vista Street, Las Vegas, NV 89120

Occupancy Date, if applicable Remained Operational / Substantial Completion October 2020

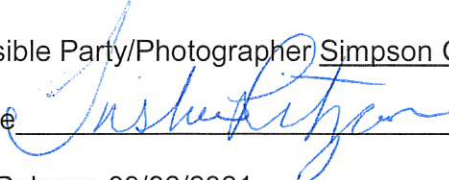
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Firm Simpson Coulter Studio

Responsible Party/Photographer Simpson Coulter Studio / Internal Photography

Signature 

Date of Release 09/02/2021