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# Master Plan Components

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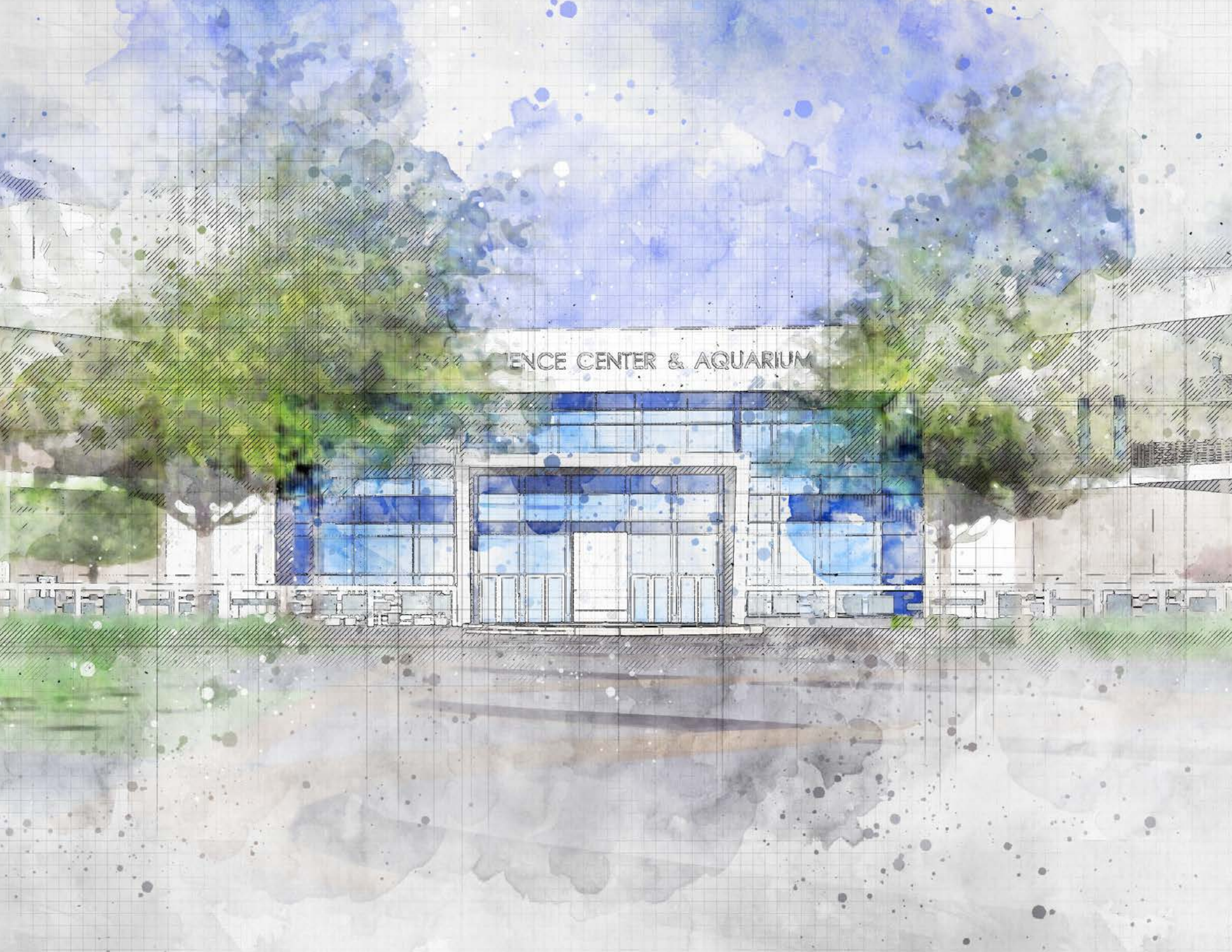
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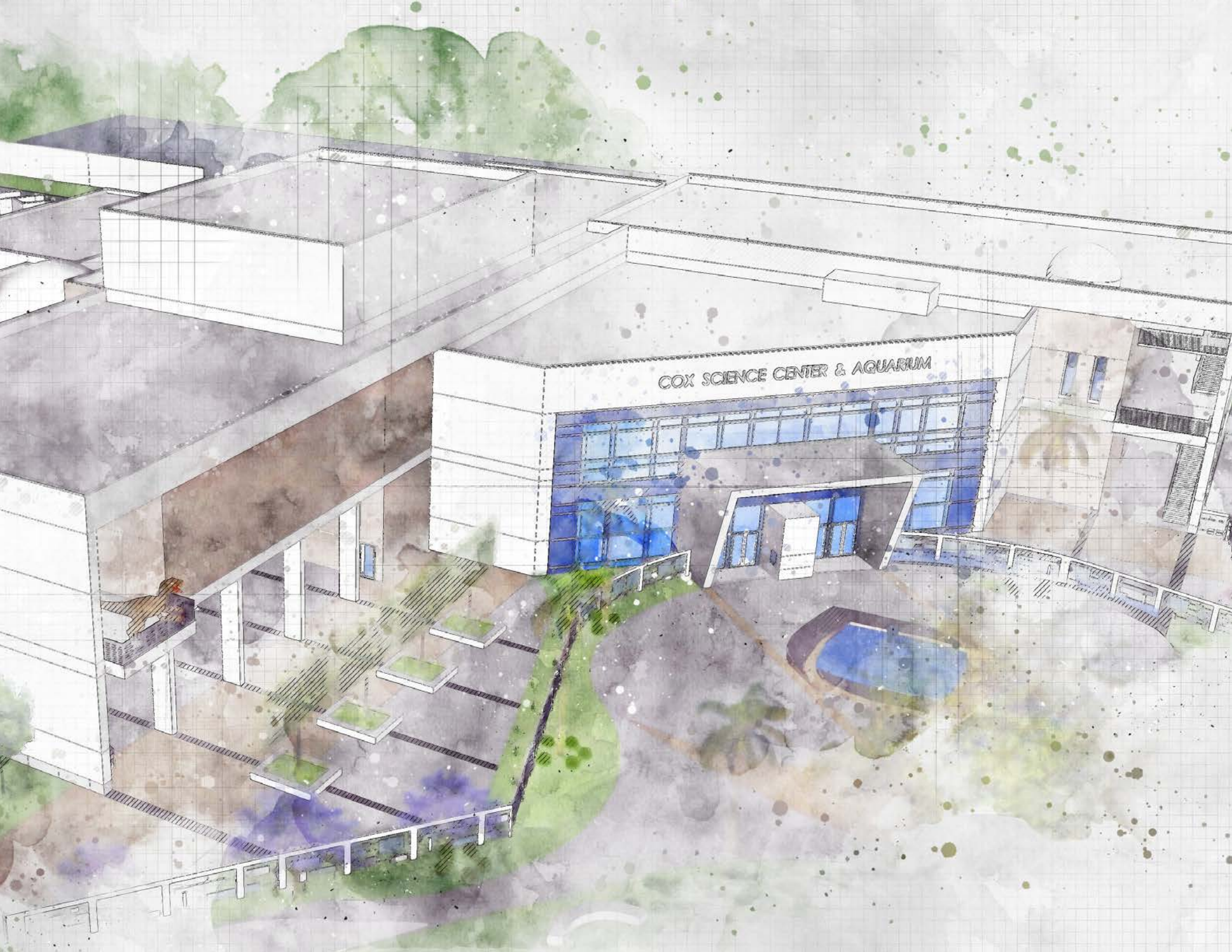


# Planning Team

The planning team included the following:

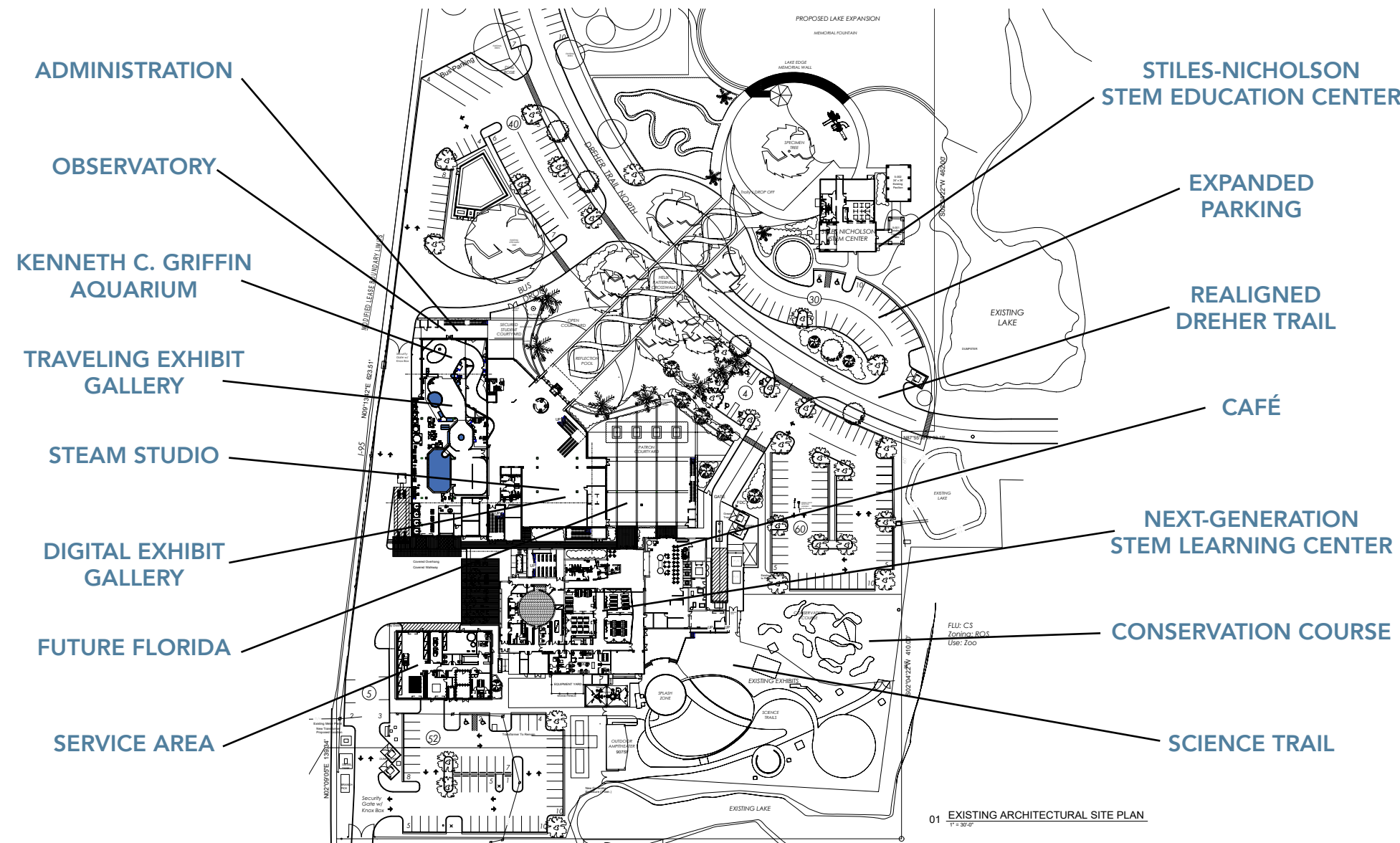






OVERVIEW

# The Expanded CSCA Site Map







## Science Pavilion

A new landmark building called Science Pavilion will be the centerpiece facility in the expansion. It will provide CSCA with state-of-the-art exhibition space for the expanded aquarium, permanent exhibitions, and traveling exhibitions.

- The new 75,000 sq ft facility will have prominent visibility from Interstate 95
- The ground level will house aquarium exhibits including an 80,000 gallon open ocean tank, and the STEAM Studio Exhibit Gallery
- The second level will be equipped with a Traveling Exhibit Gallery, a state-of-the-art Digital Exhibit Gallery, and will house new Future Florida exhibits
- The third level will feature the Observatory, housing one of the largest refractor telescopes in Florida





## EXHIBITION NAMING OPPORTUNITIES

# Future Florida

Future Florida will feature a series of exhibits developed in partnership with local corporations and the business community focusing on areas of STEM that are driving the regional economy. STEM Jobs and careers in STEM fields will be a major focus of Future Florida – encouraging students to consider careers in STEM that are very much in demand locally.

- Featuring exhibits on four major industry sectors in Palm Beach County: Health Sciences, Agriculture, Clean Tech and Aerospace
- Will incorporate large-scale artifacts, hands-on interactive devices, and multimedia programs to create an immersive and fun exhibit experience
- The Journey Through the Human Brain exhibit will be refreshed and moved into the Future Florida exhibit gallery as the centerpiece of a Future Florida – Life Sciences permanent exhibition

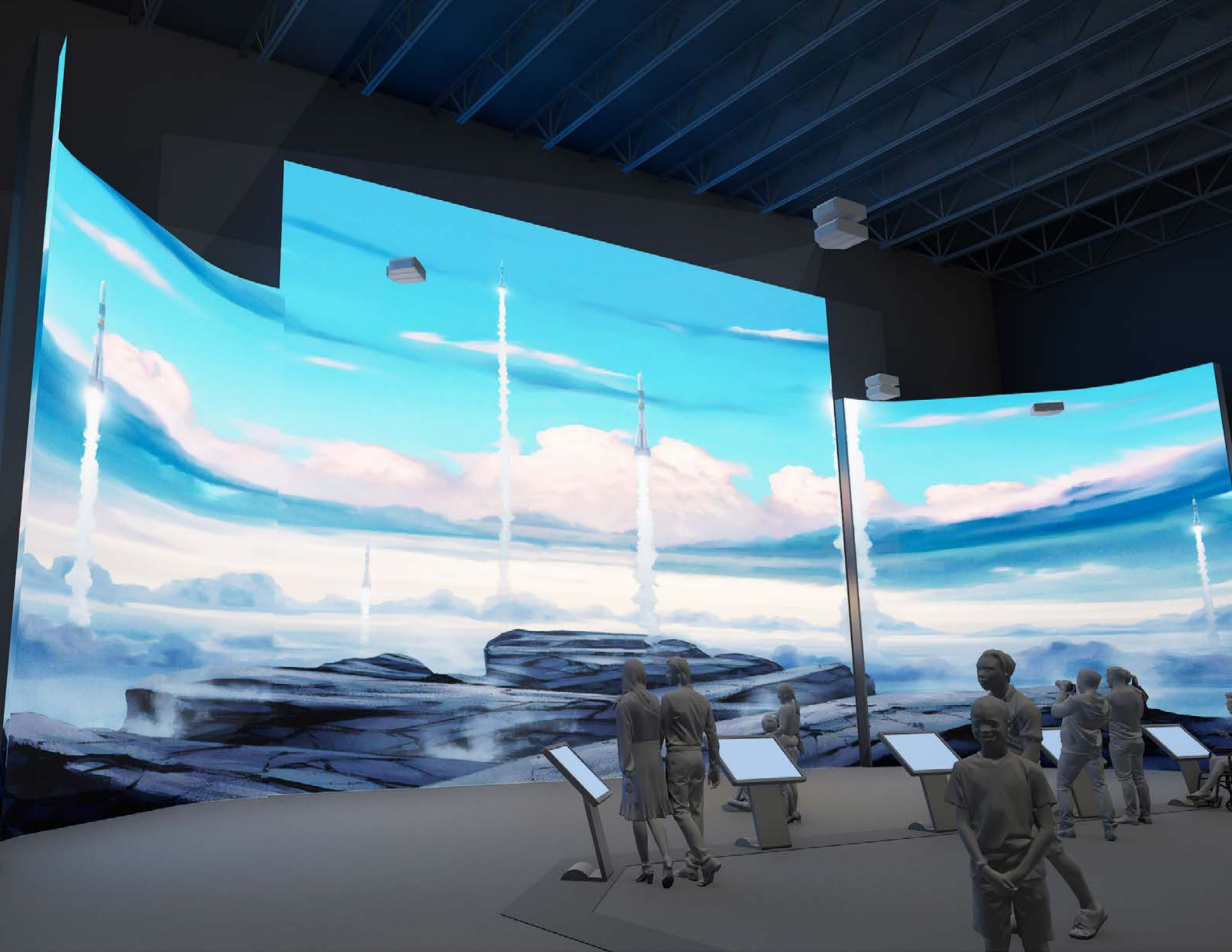




# Digital Exhibit Gallery: An Interactive Extended Reality Experience

The Digital Exhibit Gallery will be an immersive space featuring large projections, displaying signature programs produced by the Science Center utilizing a Future Florida theme and complementing the adjacent Future Florida physical exhibits. Visitors will be able to directly interact with the projections through the use of touch screens.

- The Digital Exhibit Gallery at CSCA will be among the first facilities of its kind in a science center anywhere in the world, and put CSCA on the map as the most technologically advanced science center in the southeastern United States.
- In addition to the signature Future Florida immersive experiences, the digital exhibition gallery at CSCA will also feature traveling exhibits, like *King Tut*.
- The digital art gallery will also serve as a venue to showcase works created by students at CSCA's Digital Arts Studio.
- The digital exhibition gallery at CSCA will be the most sought-after event space in the region, able to accommodate a sit-down dinner event for up to 300 people, weddings, corporate receptions, dance parties, concerts, and other social and corporate events.







## Traveling Exhibit Gallery

CSCA has been very successful over the years in building and broadening its audience base through traveling exhibitions. Currently, the third floor of Science Pavilion is envisioned as housing a 7,500ft special exhibition gallery which will give us nearly twice the space that we currently have dedicated for special exhibits. A new, larger traveling exhibit gallery will allow us to go even bigger and bolder and showcase some of the most sought-after blockbuster exhibits that are available.

- Able to feature special exhibitions as part of a general admission ticket or as a separately-ticketed option
- Able to handle timed-ticketing access control during high-visitation periods
- Can be utilized as a flex space between exhibitions
- Fully isolated from other public visitor areas to minimize visitor disruption during exhibit change-over periods
- Designed to accommodate access for large exhibit components







EXHIBITION NAMING OPPORTUNITIES

# Kenneth C. Griffin Aquarium - Everglades

The expanded facility will house Florida’s fifth largest aquarium with more than 250,000 gallons of salt and fresh water tanks. It will serve as a great place to tell the story of the journey of water in Florida and take visitors from Florida’s inland rivers and streams, through the Everglades, to its coastal beaches, coral reefs and Gulf Stream waters.

Florida’s water story begins in the north where aquifers pump millions of gallons per minute into freshwater springs and rivers—home to a dramatic, beautiful, and fragile diversity of life.

Within this thematic zone, guests will encounter the Florida Springs & Rivers exhibit where above and below water viewing and views of the live vegetation and life found within the springs and rivers. Nearby, guests will see a stand of cypress trees within the Cypress Wetlands exhibit, featuring turtles, fish and freshwater rays.

Moving on, guests will come to an Upland Forest exhibit. Upland forests are unique geological formations that stand slightly higher in elevation from the surrounding biome and serves as an oasis among the wetter surrounding habitats. Here, guests will find an Alligator snapping turtle, Indigo snakes, a variety of frogs and other creatures that live in a series of pop-up terrariums offering unique views.

One of the largest continuous habitats in Florida and perhaps the most impacted by human development are the Sawgrass meadows found within the Everglades. The American alligator will be the focus of this exhibit. This species has become a symbol of how human development can impact the environment.

As the freshwater flows further south, guests find themselves viewing into a Mangrove exhibit where live mangroves and limestone coastal formations are home for Crocodiles on exhibit. Mangroves are incredibly important to the ecology of coastal zones and serve as a barrier against coastal erosion and storm surge. Within the protective structure provided by mangrove roots, a multitude of nursery fish can be found as well as larger species, with crocodiles and alligators being among the largest. Here guests will enjoy above and below water views into the Mangrove habitat and one of the apex predators found within the Florida waters.





# Leonard Lauder Coral Reef Gallery

From an education and conservation perspective we will be focusing on telling the story of Florida’s Coral Reef Systems and some of the environmental challenges that these systems face today. Beyond the Coastal Waters of Florida lie a series of coral reef systems such as those found at John Pennekamp Coral Reef State Park off Key Largo and the Dry Tortugas found further out in the Gulf of Mexico.

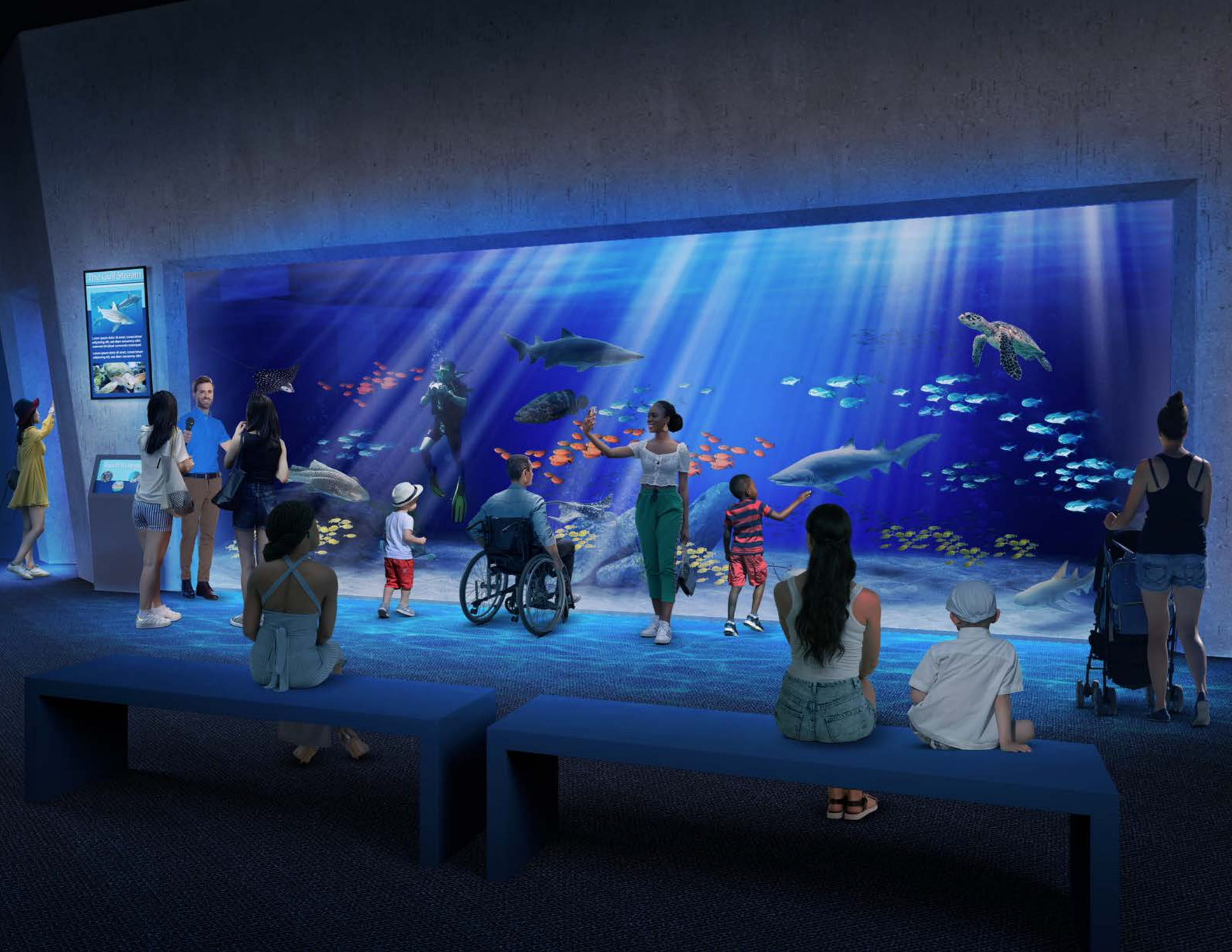
CSCA is partnering with the Reef Institute on the propagation of coral from small fragments known as “frags” and the efforts of that partnership will be interpreted while also being supported by an exhibit highlighting live coral. For comparison purposes, live Florida corals will also be compared with those from the Indo-Pacific tropical waters.

A lionfish tank will highlight the impact that this invasive species has brought upon Florida’s coral reefs. Lionfish have no known predators and therefore have grown in numbers, while grazing on live corals on Florida’s reefs, resulting in extreme degradation to reefs and corals in particular.

Surrounding coral reefs, deep water sea grasses, limestone outcroppings and stretches of open sandy bottom habitats can be found. Within these various habitats, animals have a variety of strategies for survival. Life in the Sand is an exhibit where guests will come face to face with a colony of Garden Eels.

Guests will not be able to miss the Dry Tortugas Coral Reef exhibit with its expansive curved acrylic windows and the incredibly detailed replicated coral reef inside. This exhibit will anchor this thematic zone and will be home to a wide array of reef fish, small sharks, and sea turtles. Gentle water motion will animate the replicated soft corals while dramatic shafts of dappled light animate the reef and its sandy bottom. Guests will come to learn not only about the diversity of this reef ecosystem, but the extreme pressures that are present as a result of storms, climate change, invasive species and recreational impacts from boating and diving.





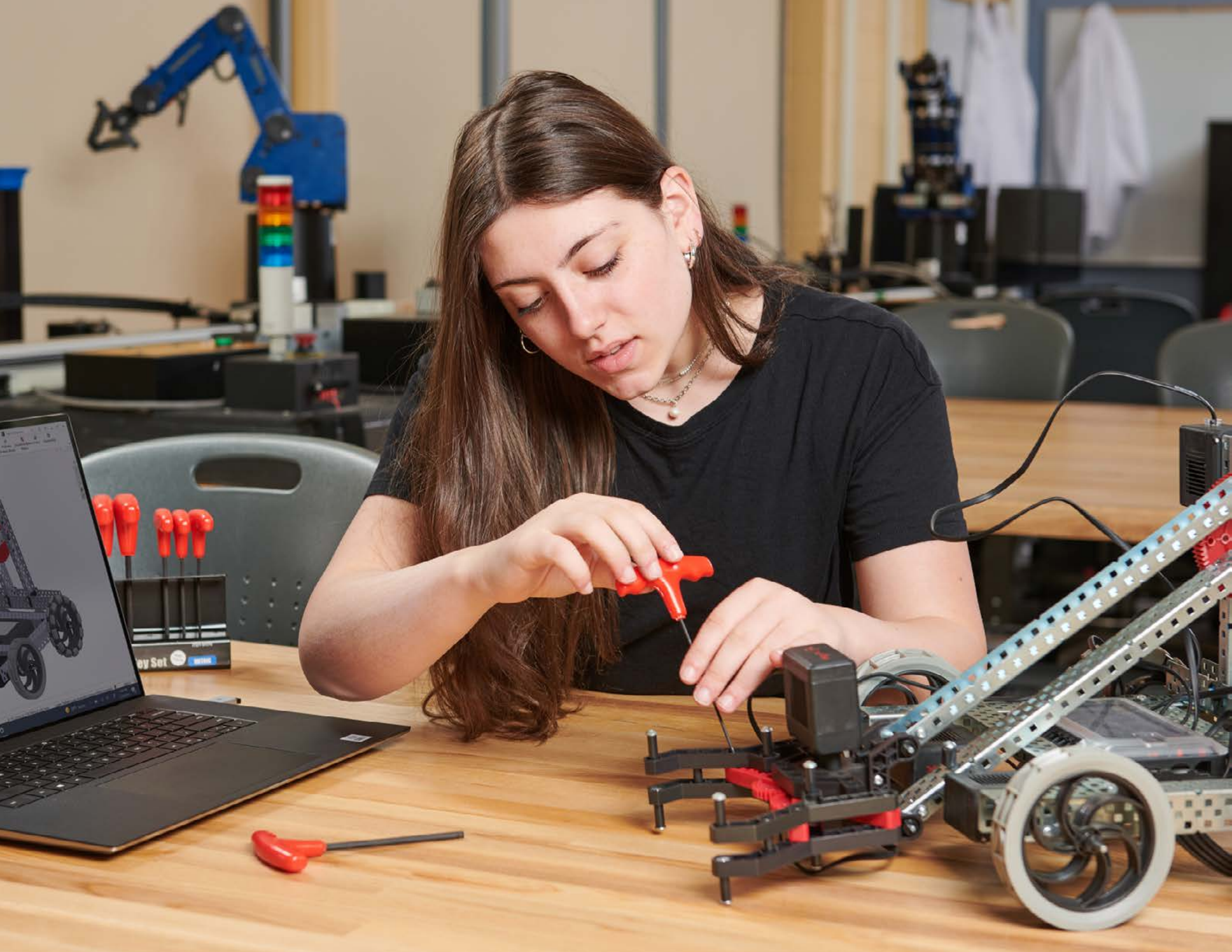
## Kenneth C. Griffin Aquarium - Gulf Stream Waters

Beyond the Florida Reefs zone, guests will naturally flow into the Gulf Stream Waters where the Florida Water story meets the rest of the Atlantic Ocean. The Gulf Stream runs from the tropics north towards Canada, the North Atlantic, and Europe before circling down past the African coast before returning to the tropical waters of the Americas. This super-highway of ocean water sends warm waters to the north along the Americas and then cool water south past the eastern hemisphere continents. It also serves as a highway for a variety of aquatic species that rarely see the sight of solid habitat structures – above water or below.

As guests enter into this final exhibit zone, the tones of lighting become softer and the animals on exhibit will appear to swim in vast open waters. Jellyfish, also known as “drifters” will amaze visitors as they drift in slow rhythmic patterns set against an infinite blue background where the sense of spatial depth appears to be endless.

Guests have now reached the signature exhibit within the aquarium –The Gulf Stream Tank. Here, guests will have a view into a vast body of water where the walls of the tank appear to fall away and boundless open water remains. Schools of fish, sea turtles, sharks, and a variety of other pelagic fish will swim in and around some low-lying rock ledge formations sitting on the sandy bottom of the ocean. Staffed presentations utilizing PA systems, underwater SCUBA communications and on-demand video programs will be available to help interpret this exhibit and the intricacies of the living collection on display. Modular seating will allow for sit-down presentations for school groups or families. These benches will be removable for when an open floor plan is preferred or when the space will be used for evening events.



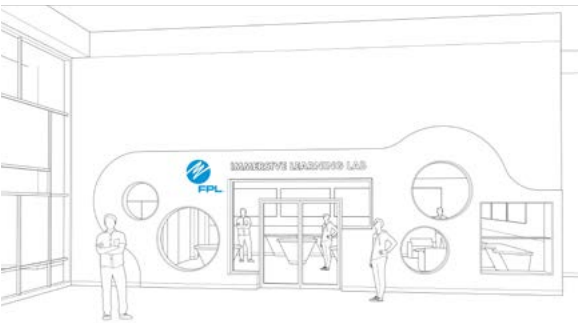


EXHIBITION NAMING OPPORTUNITIES

# STEAM Studio

STEAM Studio, the 6,000 sq ft, high-energy hall will combine hands-on exhibits, program spaces, and educational facilities all in one place to provide an energetic and fun learning experience aimed at our core family audience with children up to age 10. New exhibits and upgraded programs facilities will be integrated with existing exhibits and facilities to create what we think will be the most advanced and comprehensive STEAM learning experience anywhere in South Florida.

- Classic hands-on interactive exhibits that let visitors explore science in fun, tangible ways
- The STEAM Studio experience will encourage curiosity and integrate Science and the Arts
- It will feature the FPL Immersive Learning Lab, a space dedicated to virtual reality and mixed reality experiences.







## EXHIBITION NAMING OPPORTUNITIES

# STEAM Studio Exhibit Hall

STEAM Studio will feature a 6,000 sq ft renovated exhibit hall showcasing innovative and classic, fan-favorite science interactives.

- Organized in five themed areas: Forces and Motion, Electricity and Magnetism, Light and Color, Matter and Energy, and Math
- A visually dramatic, kinetic, and highly tactile experience, with exhibits ranging in scale from a giant pinball machine to small-scale intricate hands-on interactives
- Will incorporate some of CSCA's most popular existing exhibits







# Next Generation STEM Learning Center

The educational programming that CSCA provides to students and families truly is a hallmark of our organization. The Stiles-Nicholson STEM Learning Center has proven to be a truly valuable asset that has allowed us to greatly expand the breadth of our educational programs and become known throughout the region for our tech-track workshops, GEMS program, FIRST LEGO League, and many other signature offerings. A new dedicated education facility – The Next-Generation STEM Learning Center will build upon that success and give us even greater resources for educational programming all concentrated in the west wing of our existing facility.

- A facility within STEAM Studio with specially equipped lab spaces that help CSCA advance to the next level in its STEM education and tech-skills training programs
- STEM Lab Classrooms outfitted with specialized equipment to support advanced STEM and tech-skills hands-on learning







EXHIBITION NAMING OPPORTUNITIES

# Kids Place presented by PNC

Kids Place will be a dedicated indoor/outdoor exhibit and program experience space designed exclusively for children under six years of age. All of the experiences in Kids Place will be designed in an age-appropriate manner and developed to engage and inspire young children to explore STEM through play.

Kids Place experiences will incorporate such activities as observing, building and creating. Indoor activities will include exhibits on construction, light and color, and live animal observation. Outdoor activities will include water play and a STEM playground area.







# Digital Arts Studio

The Digital Arts Studio is a specialized facility within the Next Generation STEM Learning Center that is being planned in partnership with the West Palm Beach Center for Arts and Technology. It will offer digital arts training to residents, including low- and moderate-income individuals, to prepare them for high-tech, high-demand jobs in the region that do not require a college degree. A Virtual Learning Production Studio integrated into the Digital Arts Studio will allow Education Staff to produce high-quality virtual-learning programs that can be streamed and distributed across a wide range of digital platforms such as You Tube and Coursera.

The Digital Arts Studio will be accessible to general-public visitors to CSCA, and will also feature reserved programs, workshops, and events such as FIRST LEGO League competitions. An after-school program for high-school students will be a signature offering of the Digital Arts Studio, serving youth who reside in community surrounding CSCA. Works created by students will be featured in the STEAM Studio exhibit gallery, and students will have opportunities to advance over time to become CSCA volunteers, interns and staff instructors.







EXHIBITION NAMING OPPORTUNITIES

# Conservation Course

The Conservation Course is a miniature course designed by Jim Fazio and Gary Nicklaus, located in the Science Center's beautiful backyard. In concert with the Science Center's mission to *"Open Every Mind to Science,"* the Conservation Course educates guests about natural Florida habitats, specifically the Everglades, since each hole is named for animals or plants indigenous to South Florida.

Players of all ages can enjoy the Conservation Course and its babbling brooks, butterfly gardens and lush green landscaping. A golf experience unlike any other, recently selected as Travel Channel's "13 of the Best Mini Golf Course Across the Country," "Top Ten" in Forbes Magazine, and featured on the Weather Channel.







# Individual Programmatic Naming Opportunities

## GEMS Club

On the last Tuesday of every month, GEMS Club (Girls Excelling in Math and Science) offers the perfect opportunity for young girls in grades 3<sup>rd</sup>- 8<sup>th</sup> to learn and grow as they discover the exciting world of math, science, engineering and technology. Female presenters from the STEM fields and activities vary each month and correlate with different educational themes.

## FIRST® LEGO® League Robotics Club

Using curriculum developed by the internationally known FIRST® LEGO® League program, participants ages 9-14 plan, build, code, and test robots using LEGO® robotics tools over a 12-week session. They collaborate to develop an Innovation Project that tackles global problems head-on. This is a great chance to develop skills in research, problem-solving, coding, and engineering in a collaborative, project-focused, student-lead environment.

## 3D Printing Workshops

Once a month, guests of all ages are invited to join us for our entry-level course into the world of 3D design. Participants learn all of the skills needed to manipulate 3-dimensional objects in a 2-dimensional workspace using a web-based CAD (computer-aided design) program. Once the design is complete we bring it to life using the amazing technology of 3D printers.

## Early Childhood Classes

Once a month, children ages 18 months to 4 years, with their parent/caregiver are introduced to chemistry, biology, physics, and geology through play-based, hands-on activities that stimulate thought and teach cause and effect. Young children learn through play, and each class provides an experience that is both educational and memorable.

## Code Palm Beach

This is an opportunity for kids ages 6-14 to be exposed/learn further how to code and the world of technology. Code Palm Beach is a global movement of free, volunteer-led, community-based programming clubs for young people between 7 and 17. They learn how to code, develop websites, apps, programs, and games and explore technology in an informal and creative environment. In addition to learning to code, attendees meet like-minded people and are exposed to the possibilities of technology.

## Distance Learning

Exciting virtual learning programs for the classroom, meetings, birthday parties, or special events led by an expert science educator. With featured STEM programs for early learners, elementary, middle, high school, and adults.



# Individual Programmatic Naming Opportunities

**ASCEND NeuroExplorers**

The ASCEND (Advancing STEM-Community Engagement through Neuroscience Discovery) NeuroExplorers program is a semester-long learning opportunity at the Center’s STEM Studio outpost in Jupiter for middle schoolers made possible by the Florida Atlantic University Stiles-Nicholson Brain Institute. Led by professional neuroscientists and their trainees, using cutting-edge educational tools including hands-on virtual and augmented reality applications, participants are provided biweekly neuroscience lessons and activities.

**Hack Shack Tech Club**

A special after-school club for kids in grades 5<sup>th</sup>–8<sup>th</sup> who like to make, tinker, design, engineer, and explore technology in a new way. Meetings are hosted by our expert science educators and held monthly in the Center’s tech lab.

**Homeschool Classes**

K – 8<sup>th</sup> grade students are invited to learn about a variety of topics in an interactive and engaging setting. Classes involve fun experiments and hands-on labs designed to present a rich science experience, increase students’ critical thinking skills, engage students in active discussions and enrich the school curricula.

**STEM Passport**

This 2-part program is inspired by our most popular educational experiences provided to underserved students. The first part of the program is served at the school by our science educators and the second takes place at CSCA. Transportation is included as that is often a major hurdle for schools trying to bring groups to us. Programs include shark tooth labs, squid dissections, Nitromania, and more!

**Pint Size Science**

In partnership with Palm Beach State College’s Institute of Excellence in Early Care and Education, this early learning program provides STEM training for Early Learning Professionals as well as materials for their classrooms and students in Palm Beach County.

**STEM Kit Program**

We develop and assemble STEM-based kits with materials required for 2 or 3 activities related to a specific subject like robotics, marine biology, engineering, etc. We provide instructions and supplemental information for each kit in written or video format. Kits are delivered at no charge to Title 1 schools throughout the region.

*continued*

**Dissections and General Science Programs**

We offer several dissection programs including pig, squid, frog, and shark for over 30,000 students in grades 2-12. We plan to double that number when the expansion opens in 2025. Participants learn to use glassware, dissection equipment, consumable materials for chemistry, and much more in an exciting science lab setting.

**Museums for All Program**

This new program launched in October 2021 and allows disadvantaged families to experience the Science Center for a discounted rate of \$3.00 per entry. This is available to all individuals and families presenting an EBT (Electronic Benefit Transfer) card and helps to fulfill one of the Cox Science Center’s Racial Equity Core Team goals to make the Science Center more equitable for our local community.

**Cox Science Pathways Program**

A joint mentorship / internship program for Palm Beach County High School and University students focused on disadvantaged youth and young people of color. It is a year-long program that places 5 students as paid interns in various departments at the Science Center.

**Digital Arts Programs**

In partnership with West Palm Beach Center for Arts and Technology, these new programs will take place in the Digital Arts Studio once construction is complete in 2025. Classes will be designed to train low- and moderate-income individuals in digital technologies in the arts that will qualify them for high-demand jobs in the region that pay family-sustaining wages. The Digital Arts Studio will be outfitted with hardware and software that can be used to teach photography, video, animation, and graphic design in workshops and training courses offered by CSCA.





# The Cox Science Center and Aquarium’s Endowed Fund

The Cox Science Center and Aquarium is undergoing a major expansion from 48,000ft2 to 100,000ft2 and will include a new aquarium, permanent exhibits, a traveling blockbuster exhibit hall, STEM education facilities, and new administrative and operations facilities. The aquarium alone will grow from 10,000 gallons to 250,000 gallons and will feature everglades and coral reef exhibits and shark tanks large enough for divers to explore and interface with visitors. CSCA will grow from serving 500,000 annually to nearly 1,000,000 individuals through general attendance and educational outreach.

The current operating budget totals about \$5m in annual expenses and will increase to \$8m by 2025. In order to maintain the highest physical, programmatic, and organizational standards of a world-class Science Center and Aquarium, we must invest in these areas on an ongoing basis.

The anticipated total capital cost of this effort is \$75,000,000 with an additional \$10,000,000 for an endowment to support operations and programs. Currently, CSCA has no endowment. A \$20,000,000 leadership gift from Howard and Wendy Cox was announced in November 2021, and capital fundraising efforts to secure the remaining goal are progressing well. Assuming CSCA uses a 5% spending rule for its endowment funds, a \$10,000,000 endowment would generate \$500,000 annually towards the \$3m increase in expenses. The expanded facilities will greatly enhance CSCA’s ability to increase visitation and grow its earned revenue base to cover the incremental costs.

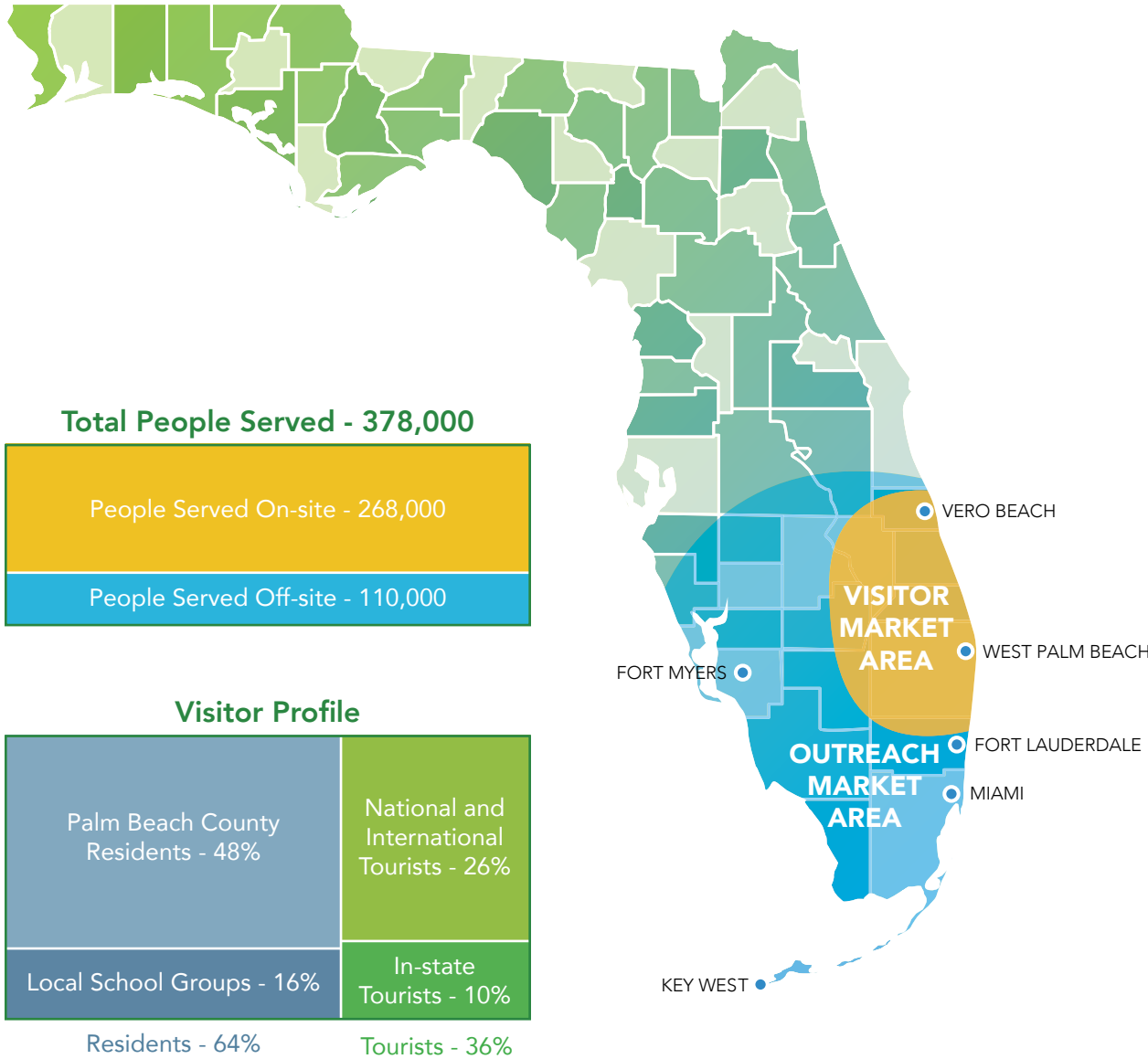
The historical ratio of earned revenue (85%) relative to contributed revenue (15%) has created a challenge for CSCA, making it vulnerable during times of economic downturn, such as during the recent COVID-19 crisis. The high dependence on earned revenue

also makes it challenging for CSCA to provide access to individuals who are unable to pay the full admission fees, and requires CSCA to make financial sacrifices to ensure that its services are fully available to low and moderate-income residents of the region. In order to ensure that the ongoing costs of maintaining its expanded facilities are stabilized, CSCA is seeking an Endowment.



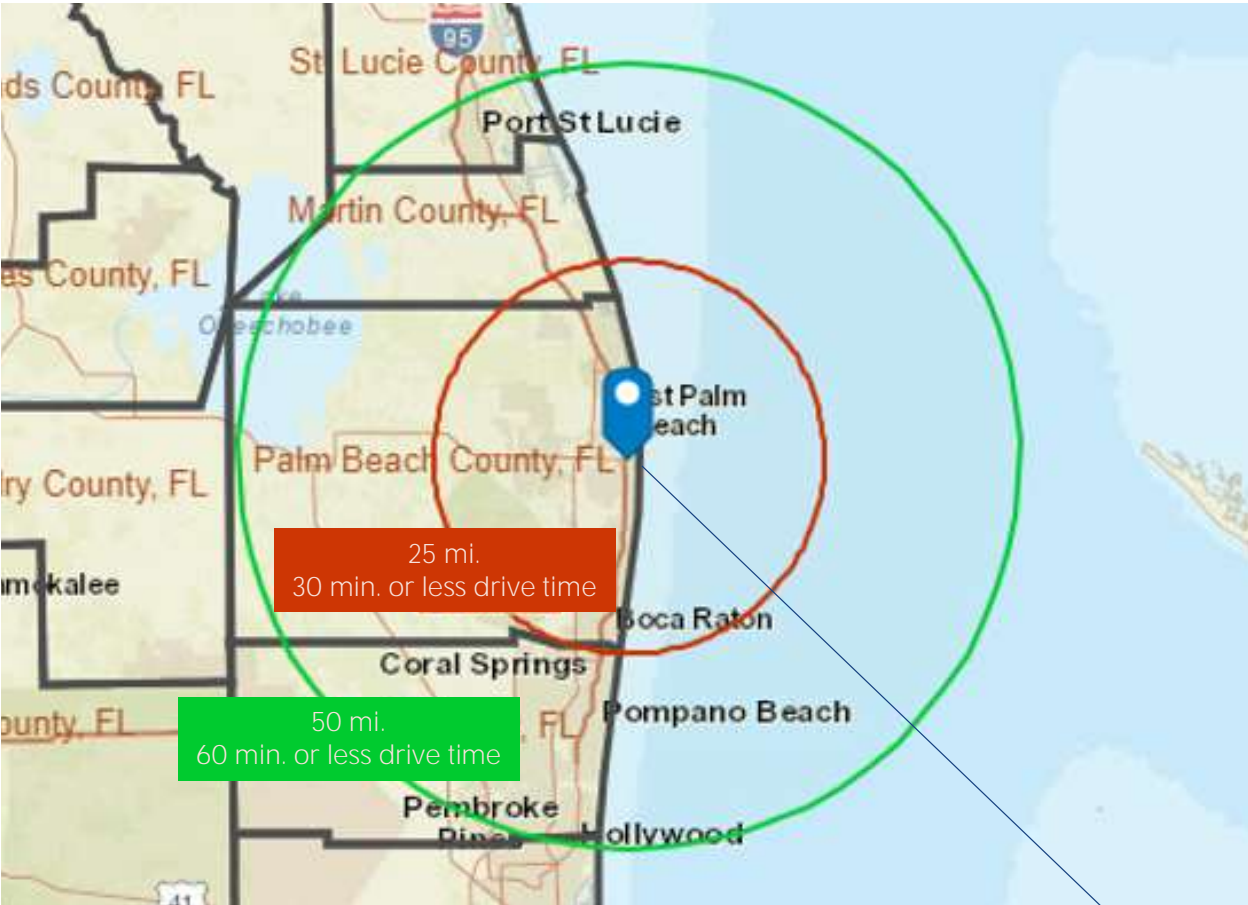
# Current Market and Attendance

- CSCA's current core market area for on-site attendance extends for a 25-mile radius from West Palm Beach and our core market area for outreach extends throughout South Florida as shown on the map
- CSCA's current visitor profile is comprised of about two-thirds residents and about one-third in-state, national and international tourists as shown in the graphic
- During the high-water benchmark year of 2019, CSCA served more than 378,000 people, more than 70% of them on-site at our main campus as shown in the graphic



# Expanded Market and Attendance Potential

- To better understand and quantify the attendance potential of an expanded CSCA, we commissioned H2R, a market-research firm specializing in major attractions to conduct a consumer research study and prepare an attendance potential analysis for the expansion
- H2R explored the potential for an expanded market area extending 50 miles from West Palm Beach
- H2R also studied the in-state, national and international tourism market within Palm Beach County, which attracts more than 8,200,000 tourists annually





# Schedule

Project Timeline

	2020				2021				2022				2023				2024				2025			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Master Plan Phase June 2020 - June 2021																								
Design Phase July 2021 - July or August 2023																								
Construction Phase April 2023 - November 2025																								
Exhibits Phase July 2023 - December 2025																								
Public Opening December 2025																								★

Capital Campaign Timeline

	2020				2021				2022				2023				2024				2025			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Planning Phase September 2020 - July 2021																								
Quiet Phase Fundraising August 2021 - March 2023																								
Public Phase April 2023 - December 2024																								
Grassroots Engagement January 2025 - December 2025																								

# Science Elevated

- Our programmatic vision is compelling – it has been endorsed by consumers and educators, and has attracted a lead donor who has pledged an historic gift to the Science Center
- Our fundraising and business plans are conservative, we are highly confident of our ability to achieve success on both fronts
- Our cost estimates are realistic and include substantial allowances for contingency and cost escalation
- We will continue to challenge our assumptions throughout the design process to ensure that we invest every dollar wisely
- The \$75,000,000 investment in facilities and exhibits will take the Cox Science Center and Aquarium to new heights in terms of our visitor engagement and financial performance
- The expanded CSCA will provide us with far greater capacity to provide cutting-edge STEM education programs both on-site and virtually through a range of digital platforms
- The expanded CSCA will offer our visitors a full “day-out” with science and allow us to truly fulfill our mission to “Open Every Mind to Science”







# COX

## SCIENCE CENTER AND AQUARIUM

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