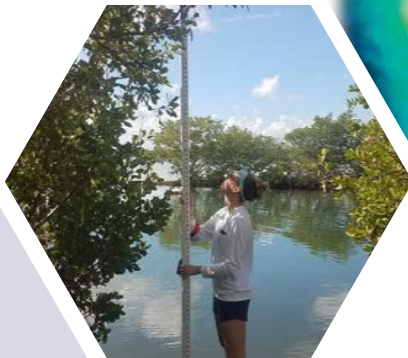


Captiva Island

Bayside Adaptation Plan



CUMMINS | CEDERBERG
Coastal & Marine Engineering

October 25, 2023

Captiva Erosion Prevention District
11513 Andy Rosse Lane
Captiva, FL 33924

RE: Captiva Island Bayside Adaptation Plan

Dear selection committee members,

Cummins Cederberg, Inc. (Cummins Cederberg) is a leading coastal and waterfront engineering, resiliency planning, and environmental consulting firm in Florida. Our firm focuses exclusively on coastal, marine, and environmental projects specializing in solutions to complex coastal and marine engineering challenges. Since the firm's inception, our core services have been solely focused on tidally influenced projects throughout Florida and the Caribbean.

Firm Profile. Cummins Cederberg was founded by Jason Cummins, PE, and Jannek Cederberg, PE in 2010. As a small business, our success is built upon our commitment to high quality work, professional excellence, and transparency as the foundation of our firm. This commitment has led to strong, long-standing client relationships. Nearly 80% of our business is through repeat clients and referrals – for which we believe there is no greater compliment! With over 45 professional employees, our team consists of coastal and marine structural engineers, engineer-divers, construction managers, marine scientists, ecologists, planning professionals, environmental policy specialists, grant managers, geologists, and regulatory permitting experts.

More than one-third of our staff bring over 20+ years of experience in their fields of expertise and over 75% of our professional staff hold advanced degrees in engineering or sciences, maintain professional certifications (e.g. Envision Sustainability (ENV SP), Waterfront Edge Design Guidelines (WEDG), Certified Floodplain Managers (CFM), and LEED AP), hold positions on advisory boards as well as distinguished state and national professional organizations (FSBPA, ASCE, WEDA). Our firm proudly applies Waterfront Edge Design Guidelines (WEDG) and ISI Envision Sustainability criteria into all our projects. The Cummins Cederberg team was curated specifically for this project with a focus on vulnerability assessments, sea level rise, and adaptation planning.

Team. The team will be led by Danielle Irwin, a Senior Director with Cummins Cederberg and former Deputy Director at the Florida Department of Environmental Protection's Division of Water Resource Management and Bureau of Beaches and Coastal Systems. Danielle's recent experience managing adaptation projects includes enhancing shorelines of breakwater islands protecting the largest municipal marina in Florida, providing a range of shoreline solutions for municipalities experiencing tidal flooding, and successfully managing the grant funds and applying for new funding opportunities on each of these.

We have assembled a team of subconsultants for this project with whom we have not only worked before but were selected because they each have experience working on waterfront projects and understanding the unique challenges. **Chen Moore and Associates** will be providing civil engineering services relative to stormwater management and upland flooding impacts. **Cheryl Hapke** with **Fugro** will be providing adaptation planning support and geospatial data collection and analysis. Cheryl brings an established working relationship with Captiva relative to coastal resiliency. **Akerman LLP** will be providing land use and policy support relative to public-private implementation. **The Balmoral Group** will be providing economic analysis relative to the potential financial impacts of infrastructure or policy changes on property values, tax revenue, and similar financial matters.

Location. Cummins Cederberg is headquartered in Miami and located at 201 Alhambra Circle, Suite 601, Coral Gables, FL. The firm maintains 5 additional full-service offices in Sarasota, St. Petersburg, Tallahassee, Jupiter, and Fort Lauderdale. This contract will be serviced through our Sarasota office located at 1491 2nd Street, Suite E, Sarasota, FL.

Project Understanding. As a true Florida coastal engineering firm who has been involved in vulnerability assessments and adaptation planning throughout the State for more than a decade, we understand the importance of evaluating flood risks and infrastructure vulnerabilities in order to develop a comprehensive, proactive, and flexible planning approach that aims to identify current and future adaptation and resilience measures needed to mitigate flood risks.

Our direct experience with conducting regional, county, municipal, and site-specific vulnerability assessments, adaptation alternatives, and resilience planning for public and private clients will serve to seamlessly support the Captiva Bayside Adaptation Plan.

The Adaptation Plan will be one of several important steps toward enhancing Captiva’s resilience to future water levels, storms, and rainfall events. Resiliency enhancement is a long-game process that requires diligence to enhance municipal infrastructure needs. During this process, new data, assumptions, community needs, and sea level rise projections will continue to evolve. The key to ensuring a viable and actionable resilience plan is intimate knowledge of the process required to achieve project implementation.

As Captiva starts to move from the planning phase to the implementation phase, Cummins Cederberg will work with stakeholders to develop infrastructure concepts and policy changes that are suitable and feasible based on permitability, functionality, cost-effectiveness, environmental impact, and most important community support.

A fusion of talent with a demonstrated ability to complete challenging engineering projects utilizing creative and unique solutions combined with our exceptional relationships with local, regional, state, and federal agencies will provide the District with a team who can meet any of its adaptation planning needs, both now and in the future. We commit to perform and complete the services and understand the strict time and budget requirements. Again, we appreciate the opportunity to submit our qualifications and stand ready to assist with this important project. Should you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,
CUMMINS CEDERBERG, INC.



Jannek Cederberg, PE
Principal
jcederberg@CumminsCederberg.com
305-741-6155



Danielle Irwin, CFM, PWS, WEDG, LEED AP
Project Manager
dirwin@CumminsCederberg.com
850-852-0095

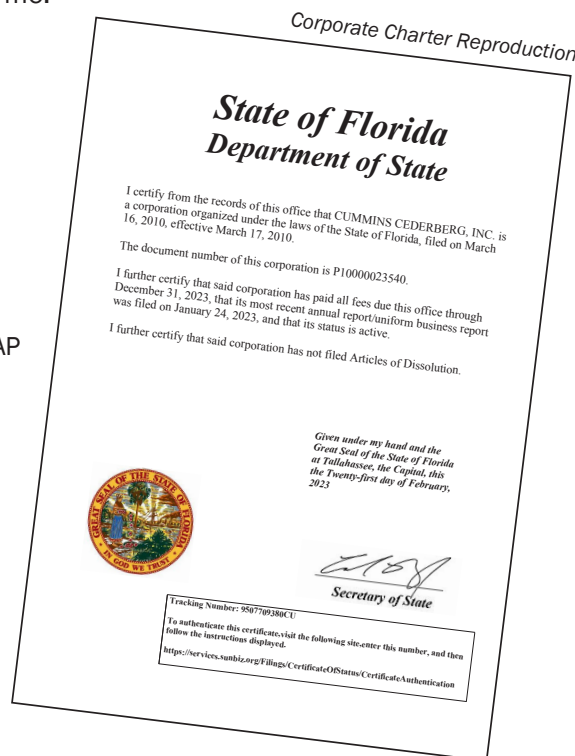


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01. LETTER & EXECUTIVE SUMMARY

Since our inception, we have successfully grown and established ourselves as the leading engineering firm for complex coastal and marine engineering projects in Florida and the Caribbean with **offices in Miami, Fort Lauderdale, Jupiter, St. Petersburg, Sarasota, and Tallahassee**. Cummins Cederberg is repeatedly selected ahead of larger national engineering firms due to our unique and focused qualifications combined with a personalized, hands-on approach. Our success is built on providing high quality work in a transparent manner in order to build long term relationships resulting in organic growth through repeat clients and referrals.

Cummins Cederberg is one of few coastal engineering firms who has moved past the adaptation planning phase many communities are currently in, and into adaptation design, permitting, and construction of shovel-ready projects with funding. This uniquely positions Cummins Cederberg ahead of other firms by understanding, and having worked through, additional challenges that arise as these projects are implemented. In addition to engineering and environmental constraints, the Cummins Cederberg team has addressed funding, land ownership, public outreach, and constructability factors that arise as adaptation project move from words on a page into reality. We recognize the Captiva Bayside Adaptation Plan will include a District strategy that will have a direct, tangible effect on the community in both the short- and long-term as individual projects, ordinance changes, and funding mechanisms are implemented. Educating the public and the District, as well as establishing a clear, consistent message, is the best way to create a unified resiliency movement to achieve island-wide resilience as Captiva faces a new reality to which we must adapt.

The Cummins Cederberg team includes Florida Registered Professional Engineers with extensive experience in the planning, design, permitting, and construction of shoreline stabilization and flood mitigation projects. Our specific experience includes design of various types of shoreline stabilization tailored to specific site conditions including seawalls, rock revetments, living shoreline, and hybrids thereof for shoreline stabilization and flood mitigation treatments. In addition, our team has a thorough understanding of coastal dynamics and the use of advanced computer models to evaluate tides, waves, storm surge, scour, and water levels, as well as hydrodynamic and wave loadings. This experience is leveraged to optimize the longevity and performance of each coastal improvement project. Our team is also highly experienced in sea level rise and adaptation planning and design as well as implementation of flood mitigation infrastructure.



48
Team
Members



18
Coastal & Marine
Engineers

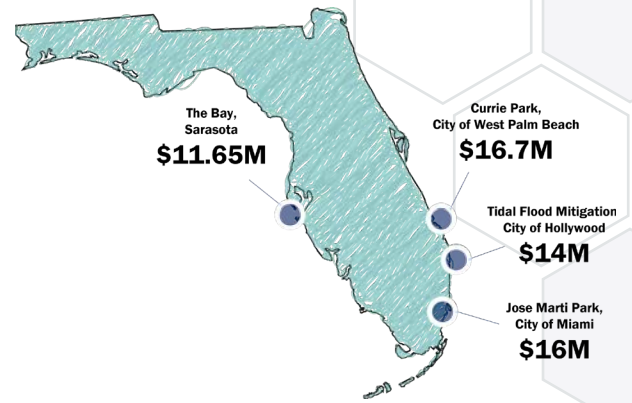


17
Environmental
Specialists

Cummins Cederberg has an in-house team of marine biologists and regulatory experts with experience in local, state, and federal coastal permitting, marine resource surveys, artificial reef design and monitoring, NEPA documentation, Endangered Species Act Section 7 consultation, and Essential Fish Habitat Assessments. Our team includes former executive level Florida Department of Environmental Protection (FDEP), US Army Corps of Engineers (USACE), and Water Management District staff with intimate knowledge of the regulatory process and professional relationships with agency personnel. We bring project experience related to assessing and negotiating marine resource impacts with the regulatory agencies, regional sand management, inlet management, beach nourishment, restoration, FEMA funding from storm impacts, and compliance with stringent sand specifications and hardbottom mitigation requirements. Our biologists work hand in hand with our engineers to ensure projects are completed on time and budget to exceed your project goals, while protecting natural coastal resources.

The Cummins Cederberg in-house team of grant administration and policy experts brings a specialized array of resiliency, coastal and marine engineering design, waterfront infrastructure adaptation and implementation, policy, and planning qualifications to support the District. We recognize developing a plan that cannot be funded will not benefit the District or local Captivans. Our team not only has experience successfully applying for grant awards, but also administering projects that have included elements such as waterfront parks, transportation infrastructure, stormwater improvements, and utilizing innovative technology. We understand the specific reporting requirements, protocols, and deadlines that must be followed to qualify and maintain funding from award to completion. We have secured \$45 million and administered over \$60 million of grant funding for public clients and recently supported private clients to secure funding under the Hurricane Restoration Reimbursement Program through FDEP. We understand the criticality of maximizing and leveraging every dollar to successfully accomplish the recommendations arising from the Captiva Bayside Adaptation Plan.

Signature Project Grant Awards



While this RFQ does not include scope for construction, Cummins Cederberg recognizes the importance of considering constructability early in the conceptual adaptation design phase. Decisions made during design inception should be carefully vetted so the District can avoid conflicts during construction, which can lead to schedule overruns and expensive change orders. Our construction management staff have experience on both the contractor and design side with project management and oversight specifically for shoreline stabilization (e.g., living shorelines, seawalls, revetments) and marina projects throughout Florida including reviewing contract terms, construction specifications, construction methodology, permit compliance, and reviews. Having former marine contractors on staff can result in a substantial cost savings when it comes to constructability reviews and estimating. During construction planning, Cummins Cederberg can collect the bid documents for the District, as well as manage the bid process. Our construction management process includes regular site visits and progress reports to the District staff.

*On the Adaptive Redesign of Jose Marti Park project, **Danielle Irwin elevated project coordination to regulatory management and leadership to assist in authorizing this adaptation project.** Our project managers have in depth knowledge of regulations and policy, often more than the regulators processing permit applications for our innovative waterfront solutions*





Relevant
Experience

02. RELEVANT EXPERIENCE

Adaptation Planning and Coastal Resiliency

Cummins Cederberg has prepared several community and regional vulnerability assessments and flood mitigation plans to analyze the effects of sea level rise and storm surge for both public and private clients. In addition to developing vulnerability assessments in accordance with Florida legislation Section 380.093 F.S., we have completed many general adaptation planning and coastal resiliency projects incorporating background data collection and review, site investigations, environmental assessments, water level analyses, asset resiliency evaluations, and inundation mapping. As engineers, we are able to take these projects into design by developing flood mitigation concepts and rough order of magnitude (ROM) opinion of probable costs (OPCs).

We recently developed flood risk mitigation plans for seven waterfront parks in Miami-Dade County totaling over 2,000 acres, which identified at-risk critical infrastructure and operations. As part of the project, a range of flood adaptation alternatives were developed, and design concepts were provided for the County's use in subsequent capital improvement planning and budgeting. This study was unique, as it combined sea level rise projections, practical concepts, and on-the-ground implementation experience with maintenance and replacement requirements relative to overall service life. The study provided a roadmap for Miami-Dade County park infrastructure improvement planning through the year 2100.

As part of our work at Currie Park in Palm Beach County and the City of Hollywood, we developed a suite of tidal flood barriers, including innovative living shoreline configurations to increase resiliency and natural habitat.

We recently completed Phase 1 of the first of its kind FDOT district-wide sea level rise analysis for District 1. The project entailed review of historical tidal data and the evaluation of sea level rise and storm surge scenarios to analyze potential impacts to critical transportation infrastructure throughout District 1 including Captiva. The analysis included the NOAA intermediate low and intermediate high sea level rise scenarios projected out to year 2100. The work included identifying areas

susceptible to inundation, mapping of emergency evacuation routes, and development of alternatives to support civil/stormwater drainage design.

As part of our work with in the private sector, we recently completed Adaptation Plans for developers at Little Palm Island in the Florida Keys and the waterfront golf courses at Indian Creek in Miami-Dade County, Seminole Country Club in Palm Beach County, and Jupiter Island Club in Martin County. These projects included a review of water levels, inundation mapping, design of flood mitigation concepts, and development of a resiliency roadmap (i.e., adaptation pathways) to identify opportune time to implement infrastructure improvements.

Cummins Cederberg team member recently prepared and completed three vulnerability assessment and resiliency plans under grant funding provided by the FDEP Resilience Coastline Program (RCP) for Sarasota County, the City of Venice, and the City of Punta Gorda. In each of these projects we worked closely with the municipalities to identify critical publicly owned infrastructure, led the coastal storm surge and sea level rise analysis, facilitated multiple public workshops and stakeholder outreach efforts, provided recommendations for comprehensive plan amendments, and prepared a comprehensive written Resilience Plan to include an exhaustive matrix of funding opportunities to assist with future phases. The Resilience Plan was incorporated into other regional and community planning documents in compliance with the "Peril of Flood" statute. These planning documents included Comprehensive Plans, Long-range Transportation Plans, and Risk Mitigation Plans.

Cummins Cederberg has in-house policy expertise with substantial federal and state grant management experience. Cummins Cederberg's Tallahassee office is comprised of policy leaders, regulatory administrators, and grant project managers who have previously worked for FDEP and other state agencies. Their varied experience includes developing and budgeting funding agency programs, administering grant awards with sub recipients and municipalities, preparing, and submitting grant applications on behalf of clients, administering grant contracts, and complying with state and federal grant requirements in consulting services and construction contracts.

Dinner Key Marina Breakwaters Adaptation, City of Miami, FL

David Hoot, PE - City of Miami

444 SW 2nd Ave., Miami, FL 33130

561-289-9170, dhoot@miamigov.com

May 2022 - Ongoing

Cummins Cederberg is leading the coastal and marine engineering team to protect the largest marina on the east coast by armoring the spoil islands at key locations. The scope of work included site assessments for data collection and coastal analysis, specifically assessing the islands at high tide to determine existing flood conditions, sediment transportation, and current vegetation. Concept designs included three levels of protection and recreational activities around the barrier islands. The project plans to pursue future grants to enhance the shoreline and use more nature-based solutions as the coastal infrastructure to serve recreational and storm protection purposes.



The Dinner Key Marina Breakwaters Adaptation will set the standard for coastal resiliency utilizing natural solutions to showcase how spoil islands and nature based features can mitigate the impacts of storms on coastal communities

Jose Marti Park Adaptive Redesign, City of Miami, FL

Keith Ng, CFM - City of Miami

444 SW 2nd Ave Miami, FL, 33130

305-416-1298, keithng@miamigov.com

2019 - Ongoing

The redesign of this 13-acre, multi-use recreational space on the Miami River explores ways in which the park can minimize tidal flood impacts to the surrounding neighborhood, adapt to sea level rise, and enhance waterfront access to residents. The Jose Marti Park Adaptive Redesign will serve as a model for resilient waterfront parks that can adapt to current and future flood risks associated with climate change through the lenses of economy, ecology, and equity. Cummins Cederberg is responsible for the inundation modeling, waterfront engineering design, environmental permitting, and grant management.



Jose Marti Park Adaptive Redesign includes a floating boardwalk, living shoreline, living seawall, mangrove planters, and a water taxi slip

Tidal Flood Mitigation and Shoreline Protection, City of Hollywood, FL

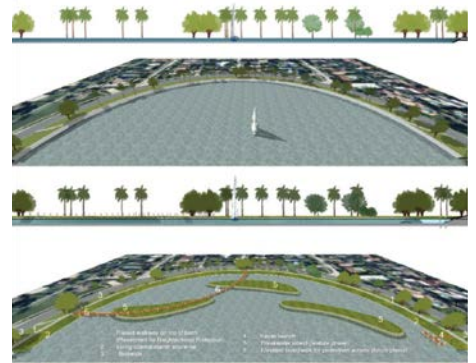
Jose Cortes, LEED AP - City of Hollywood

309 N. 21st Avenue, Hollywood, FL 33020

954-921-3410, jcortes@hollywoodfl.org

2020 - Ongoing

Cummins Cederberg is assisting the City with their Tidal Flooding Mitigation and Shoreline Protection project. The scope includes evaluation of 22 City owned shoreline segments along 10,000+ feet of shoreline within North Lake, South Lake, and the Intracoastal Waterway. Conceptual designs have been prepared for each shoreline segment to provide site specific solutions to address tidal flooding. Concepts include living shorelines, rock revetments, and bulkheads and are consistent with the new City and County tidal flood barrier ordinances.



Adaptation strategies for the City of Hollywood included various shoreline options for each site - not a one size fits all approach

Little Palm Island Adaptation Plan, Munson Island, FL

Clayton Meyer - American Equity Investment Life Insurance Company

6000 Westown Pkwy, West Des Moines, IA 50266

908-577-0066, clayton.meyer@american-equity.com

Oct. 2022 - Dec. 2022

Cummins Cederberg performed a site inspection of the mainland access and resort parcels of Little Palm Island Resort to evaluate the coastal resiliency against sea level rise, shoreline erosion, and storm surge. The assessment included inventory and cursory evaluation of existing structures relative to operations, condition, and service life. Cummins Cederberg identified the areas of infrastructure with the highest risks of failure and inundation under existing and future water levels.



Mitigation strategies and an implementation schedule was developed for Little Palm Island to increase the island's resiliency

Currie Park Redevelopment Master Plan, City of West Palm Beach, FL

Leah Rockwell - City of West Palm Beach
401 Clematis St., West Palm Beach, FL 33401
561-804-4904, lrockwell@wpb.org
2020 - Ongoing

Cummins Cederberg has completed Phase I and is currently on Phase II which includes the marine resources surveying, engineering design, environmental permitting, and grant implementation support for the waterfront work including rock revetment, living shoreline, boat ramp improvements, kayak launches, new over water piers and boardwalks, and “social” steps down to the water. A bathymetric survey, preliminary coastal analysis, environmental feasibility, and grant opportunity research were conducted, as well as the preparation of a marina implementation strategy.



Working with the City of West Palm Beach, Cummins Cederberg assisted in successfully securing and is now managing a \$16M grant from the Florida Department of Economic Opportunity to be used to implement the master plan

Sawfish Bay Park Shoreline Improvements, Jupiter, FL

Stephanie Thoburn, AICP, ASLA - Town of Jupiter
210 Military Trail, Jupiter, FL 33458
561-741-2342, stepht@jupiter.fl.us
Sept. 2021 - Ongoing

As part of a multi-year project to environmentally restore a historic marina basin and protect the shoreline of a municipal park, Cummins Cederberg is assisting the Town of Jupiter implement living shoreline elements at Sawfish Bay Park. Cummins Cederberg completed an engineering inspection of approximately 1,000 LF of existing vinyl bulkhead, a flushing analysis study, and a marine resources survey for the historic marina basin. Design included sections of living shoreline including mangrove planters, rock revetments, and reef ball units in configurations that will accomplish the Town of Jupiter’s goals of increasing coastal resiliency and enhancing natural habitat, while minimizing design and permitting costs.

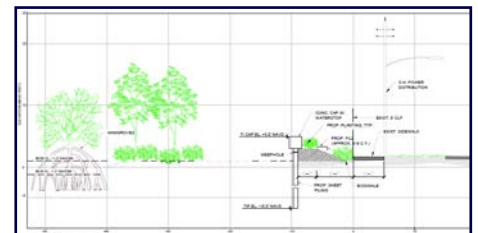


By partnering with a local high school science program, Cummins Cederberg and the Town were able to host a community event with the students including casting the reef ball molds and deploying them along the shoreline

Holland Park Flood Adaptation, City of Hollywood, FL

Jose Cortes, LEED AP - City of Hollywood
309 N. 21st Avenue, Hollywood, FL 33020
954-921-3410, jcortes@hollywoodfl.org
2020 - Ongoing

The purpose of this project is to elevate areas of the park through fill placement and associated shoreline stabilization measures to enhance the coastal resiliency and protect the adjacent neighborhood against projected sea level rise and storm surge. Concept design included a continuous elevated berm for the access road and pedestrian walkways and a sheet pile bulkhead with upland fill to reduce groundwater seepage. Exotic species removal will be incorporated into the design to create an on-site mitigation bank.

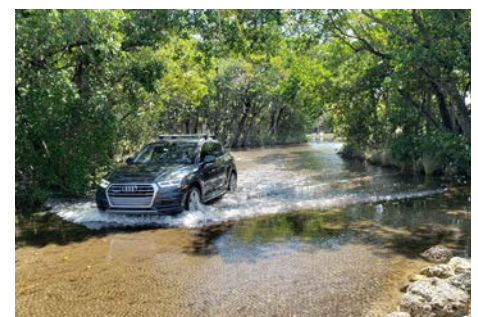


Our team worked with the City to develop site specific solutions during the concept development, including walkthroughs to identify critical design criteria

Waterfront Parks Sea Level Rise Adaptation Plan, Miami-Dade County, FL

Angel Trujillo - Miami-Dade County
275 NW 2nd Street, Miami, FL 33128
305-755-7800, angel.trujillo@miamidade.gov
Sept. 2019 - 2021

Led the preparation of a Sea Level Rise and Flood Mitigation Roadmap for seven waterfront parks throughout Miami-Dade County. This plan combined sea level rise projections, practical concepts and on-the-ground implementation experience with maintenance and replacement requirements relative to overall service life. In this way, the plan, provided a clear roadmap for Miami-Dade County relative to further planning infrastructure improvements in the Park until 2100.



Over 2,000 acres of waterfront park space was evaluated as part of the Counties waterfront adaptation plan

Little Palm Island Adaptation Plan

Munson Island, Florida

CUMMINS | CEDERBERG
Coastal & Marine Engineering



Cummins Cederberg performed a site inspection of the mainland access and resort parcels of Little Palm Island Resort to evaluate the coastal resiliency against sea level rise, shoreline erosion, and storm surge. The assessment included inventory and cursory evaluation of existing structures relative to operations, condition, and service life. Cummins Cederberg identified the areas of infrastructure with the highest risks of failure and inundation under existing and future water levels.

Mitigation strategies were developed to address the points of exposure and increase resiliency for the mainland and Resort. The mitigation measures considered short and long-term risks, as well as the level of protection provided, maintenance costs, regulatory constraints, phasing potential, operational impacts, service life, and capital costs. An implementation schedule was planned based on the short and long-term risks to minimize operational impacts and costs to the client.

**Referenced project*

Scope:

- *Permit history due diligence*
- *Topography compilation*
- *Storm surge and sea level rise projections*
- *Above-water site inspection*
- *Coastal resiliency report*
- *Flood inundation mapping*

Client Reference:

*Clayton Meyer
Portfolio Manager, Commercial
Real Estate
American Equity Investment
Life Insurance Company
908-577-0066
clayton.meyer@american-
equity.com*

Dates:

Oct. 2022 - Dec. 2022

Total Fees:

\$65,510

Indian Creek Village Vulnerability Assessment Miami-Dade County, Florida

CUMMINS | CEDERBERG
Coastal & Marine Engineering



Evaluated the coastal resiliency of Indian Creek Country Club including potential for sea level rise, vulnerability assessments, and provided recommendations for potential mitigation measures as part of the club's planned upgrades to their property. The club had experienced difficulties with flooding, shutting down portions of the course. The evaluation and recommendations will consider both short and long-term impacts to operations, as well as the service life of existing amenities and future improvements to the club.

Scope:

- Sea level rise projections
- Photogrammetric analyses
- Seawall Inspection
- Vulnerability assessment
- Flood mapping
- Mitigation measures

This project was carried out in two phases of services, the first phase of services measured the overall vulnerability assessment of the Club and surrounding areas of influence. LiDAR survey data and tidal gauges were used to develop water level projections and flood maps. A seawall assessment was conducted to develop an inventory and evaluation of existing structures relative to operations, condition, and service life. A team of engineer-divers from Cummins Cederberg performed an above and below water inspection of the approximately 1,200 LF of seawall along the southwest shoreline, and approximately 3,730 LF of shoreline and seawall along the north side of the island, which a reinforcement project was conducted several years ago.

Client Reference:

Clarece Depkin, CMP
General Manager
Indian Creek Country Club
55 Indian Creek Island Road
Indian Creek Village, FL 33154
305-866-5751 ext 111
cdepkin@
indiancreekcountryclub.org

The second phase of services included specific technical support to the design team for upcoming infrastructure projects, such as the improvements to the golf course. Conceptual mitigation measures were developed to address points of exposure and increase resiliency for the Club. These recommendations were based on the flood mapping conducted under the first phase, meetings with the Club, and sea level rise projections.

Dates:

Oct. 2022 - Dec. 2022

Total Fees:

\$35,830

*Referenced project

CUMMINS | CEDERBERG
Coastal & Marine Engineering

Waterfront Parks SLR Adaptation Plan

Miami-Dade County, Florida

CUMMINS | CEDERBERG
Coastal & Marine Engineering



Led the preparation of a Sea Level Rise and Flood Mitigation Roadmap for seven waterfront parks throughout Miami-Dade County. The primary objective was to analyze the impacts of sea level rise on the park's infrastructure and operations, as well as develop flood mitigation and adaptation concepts for planning and budgeting purposes. These parks are relatively low lying, which results in flooding to some areas during high tide events. Flooding is a nuisance to visitors, as areas become inaccessible.

Cummins Cederberg compiled existing survey data provided by the County overlaid with LiDAR data to prepare a comprehensive topographic map of the park study area.

This comprehensive map was used as the basis for development of an implementation roadmap. Cummins Cederberg developed a site specific roadmap for each of the seven waterfront county parks. The roadmaps are unique, as they combine sea level rise projections, practical concepts and on-the-ground implementation experience with maintenance and replacement requirements relative to overall service life.

Cummins Cederberg prepared studies for: Matheson Hammock Park, Crandon Park, Haulover Park, Virginia Key Park, Biscayne Shores & Gardens Park, Black Point Marina, and Homestead Bayfront Park totaling over 2,000 acres.

**Referenced project*

Scope:

- Coastal engineering
- Numerical modeling resiliency
- Flood mitigation
- Condition assessment
- Adaptation planning
- Stakeholder involvement
- Capital improvement planning

Client Reference:

Angel Trujillo
Miami-Dade County Parks,
Recreation, & Open Spaces
275 NW 2nd Street,
Miami, FL 33128
305-755-7800
angel.trujillo@miamidade.gov

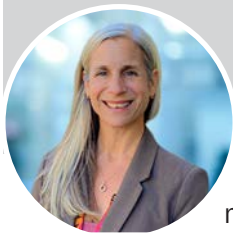
Dates:

2018 - 2021

Total Fees:

\$698,405

KEY PERSONNEL



**Danielle Irwin, CFM, PWS,
WEDG, LEED AP**
Project Manager

Danielle specializes in water resource management and has extensive expertise in adaptation implementation funding, waterfront development, shoreline erosion prevention, coastal management, stormwater practices, resiliency planning, sovereignty submerged lands regulations, and marine habitat assessments. Danielle leads the grant writing team at Cummins Cederberg, recently responsible for the award of over \$45M in funding for coastal projects to our municipal clients. Prior to joining Cummins Cederberg, Danielle served at the FDEP as Deputy Director of the Division of Water Resource Management overseeing nine statewide regulatory programs, Environmental Resource Permitting, Joint Coastal Permitting, and Coastal Construction Control Line Permitting. In addition, she held the position of Chief of FDEP's Bureau of Beaches & Coastal Systems, leading the State's coastal management programs including funding.



Jenna Phillips
Senior Coastal Engineer

Jenna has over 17 years of experience in a broad range of coastal/marine engineering works, including the preparation of feasibility studies, beach management plans, coastal assessments, coastal structure design, resiliency planning and flood vulnerability analyses, numerical modeling, living shoreline/nature-based planning and design, environmental restoration and mitigation, structural assessment and rehabilitation, beach design and renourishment, dredging and dredged material management, and regulatory coordination/permitting. Jenna has designed a variety of new and rehabilitated marinas and docks, jetties, breakwaters/groins, artificial reefs, navigation channels, mooring fields, and shoreline stabilization projects. She also has experience in designing living shorelines, artificial reef, and nature-based projects.



Jason Cummins, PE
QA/QC Manager,
Principal Engineer

As the QA/QC Manager, Jason will provide ongoing oversight and thorough review of all tasks and deliverables. Quality assurance and control plans will be developed and strictly followed for each task order. Coordination with Captiva and the Cummins Cederberg team during task development will streamline a more efficient process. Jason has designed shoreline stabilization and coastal structure projects including living shorelines for public and private clients, steel sheet pile bulkheads, breakwaters, groins, jetties, fixed docks, and wave attenuators.



Jannek Cederberg, PE
Principal-in-Charge,
Senior Coastal Engineer

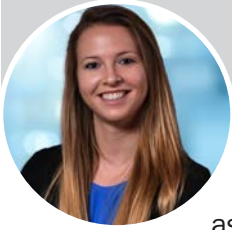
Jannek is a senior coastal engineer with extensive experience in planning, designing, and permitting coastal and marine projects in Florida. Jannek is formally trained as a civil engineer, specializing in coastal engineering from the Technical University of Denmark. He has more than 20 years of experience in marine field investigations, hydrodynamics, linear and nonlinear wave dynamics, sediment transport, hurricanes, numerical modeling, coastal structure design, sea level rise, environmental permitting, and infrastructure projects.



Jordon Cheifet, PE, CFM
Senior Coastal Engineer

Jordon is a coastal and marine engineer with more than 18 years of technical and project management experience, including coastal engineering, beach nourishment design, waterfront structure design, FEMA coastal floodplain mapping, shoreline restoration/stabilization design, numerical modeling, and marina design. His field experience includes underwater waterfront facility inspections, GIS/GPS data collection and analysis, surveying, and construction administration.

KEY PERSONNEL



Rebecah Delp, WEDG
Marine Scientist &
Environmental Permitting

Rebecah is responsible for performing aquatic and terrestrial biological assessments, writing technical and analytical reports, and assisting with local, state, and federal environmental permitting. Rebecah specializes on projects with a focus on environmental compliance, benthic marine resource mapping and monitoring, habitat restoration and mitigation, coral relocation, and scientific report writing. She is an experienced diver and knowledgeable in South Florida and Caribbean species identification.



Gina Chiello
Marine Scientist &
Environmental Permitting

As a former reviewer with the FDEP, Gina has a strong background in regulatory proceedings, including environmental and land use regulations at the local, state, and federal levels. Gina also played an instrumental role in the FDEP Dive Team during her time with the Department. Gina's professional knowledge and experience with permitting and marine resource surveys across a variety of programs and sites, have equipped her to successfully implement projects while meeting regulatory challenges.



Valerie Seidel
Economics & Funding
Strategies



Valerie's economics experience focuses on infrastructure and natural resource valuation, GIS and statistical models of resource allocation and optimization, and cost-benefit analysis. She has demonstrated expertise in data synthesis of numerous data types for objectives ranging from sea level rise vulnerability analysis to economic development. Completed projects include researching economic impacts of public policies to application of econometric methods. She has proven ability to manage detailed and sensitive projects successfully, participate in public forums to address concerns of stakeholders, and generate innovative solutions to complex issues.



Cheryl Hapke, PhD
Community Liaison



Dr. Cheryl Hapke is a coastal geologist with more than 25 years of experience studying coastal processes and working with decision-makers impacted by the challenges of coastal climate risk and resilience, which include municipalities, private coastal facilities, insurers, government entities, and other stakeholders. Her clients need technical expertise to answer questions about future risks and provide solutions for mitigating impacts. She understands the future holds significant risks, and her technical expertise allows her to communicate foundational science to clients and diverse stakeholder groups.



Spencer Crowley
Land Ownership &
Policy Support



Spencer focuses on land use and environmental permitting matters, including zoning, growth management, urban development, transportation, sovereignty submerged lands, coastal regulation, marina permitting, wetlands, and water resources. In addition to his private practice, Spencer has served on several waterfront boards. In 2008, County Commissioner Carlos Gimenez appointed Spencer to the committee charged with reviewing and recommending changes to Miami-Dade County's Manatee Protection Plan.



Patrick Kaimrajh, PE
Civil/Stormwater Engineering



Patrick specializes in leading and managing civil engineering design, permitting, and construction oversight. Patrick has worked for a variety of public sector clients at the City, County, and State level, as well as private development clients. His experience includes preparation of final design packages including paving, grading, drainage collection systems with controlled outfalls and injection wells in coastal areas, water distribution systems, wastewater collection systems and lift stations, pavement marking and signage, traffic control and phasing, and erosion and sediment control plans.

SUB-CONSULTANTS

We have assembled a team to complete the scope listed within this adaptation plan. As mentioned the team will be led by Danielle Irwin who specializes in water resource management and has extensive expertise in waterfront development, shoreline erosion prevention, coastal management, stormwater practices, resiliency planning, sovereignty submerged lands regulations, marinas/ports/inlets, and marine habitat assessments.

Our team will remain committed to this project until completion.



Chen Moore and Associates is leading the civil and stormwater engineering portion and has experience with public, semi-public and private clients. Their experience includes a wide range of civil engineering solutions involving water resources, and water and sanitary sewer engineering services including large scale master planning and modeling, existing system assessments, design and rehabilitation from the level of a basis of design report through design, permitting and construction administration services.



Akerman LLP will provide guidance when supporting design alternatives as they may overlap with private properties. Akerman's nationally recognized Land Use and Development Practice advises a nationwide roster of real estate developers, landowners, investors, and lenders on the full spectrum of land use and development matters, including acquisitions, land assemblage, project and public finance, land use entitlements, development incentives, and zoning and concurrency issues.

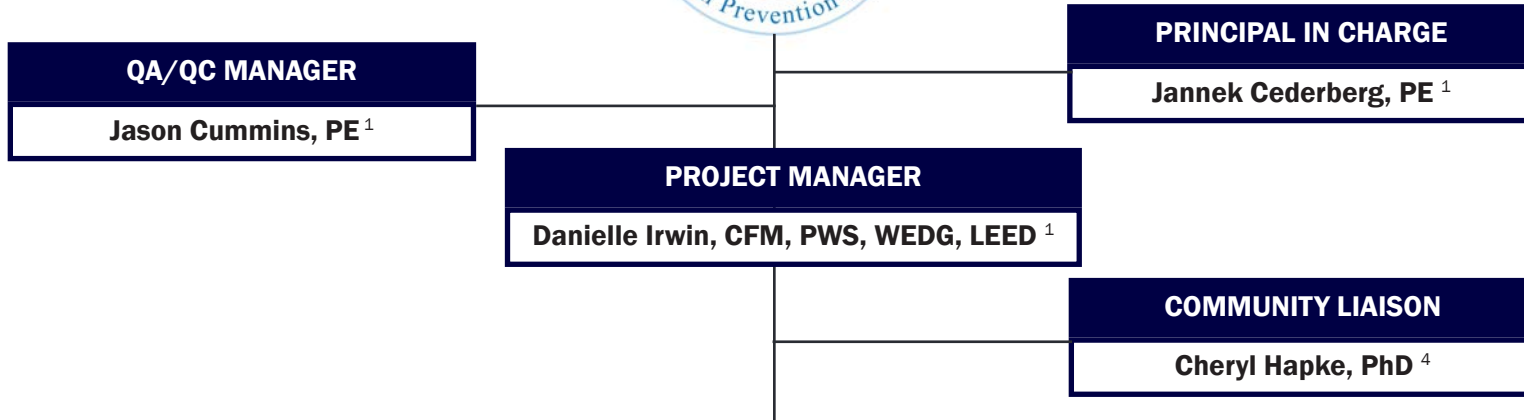


The Balmoral Group is a small, women owned business that operates within the nexus of public policy and socioeconomic outcomes related to infrastructure, utilities, and natural resources. They will be looking at a range of funding strategies, specifically potential special assessments to private properties. As a niche engineering and economic consulting firm, they have produced landmark, precedent-setting projects over the past 18 years. Their professionals apply specialized expertise in geospatial modeling, economic theory, funding access, engineering design and social equity to address and solve complex issues for their clients.



Fugro is a globally recognized geospatial solutions provider that specializes in collecting, analyzing, and interpreting data related to the earth's surface and subsurface. ***Specifically, their team member Dr. Cheryl Hapke led the Vulnerability Assessment and Coastal Adaptation Concept Designs for the island community of Captiva. She has direct experience working with community to present initial designs, gather community feedback, and incorporate revisions towards developing an adaptation pathway.***

ORGANIZATIONAL CHART



<p>REGULATORY PERMITTING & ENVIRONMENTAL SCIENCE</p> <p>Rebecah Delp, WEDG ¹ Gina Chiello, WEDG ¹</p>	<p>COASTAL ENGINEERING, RESILIENCY, & ADAPTATION</p> <p>Jenna Phillips ¹ Jordon Cheifet, PE, CFM ¹ Leonard Barrera, PE, WEDG, ENV SP, CFM ¹</p>	<p>GRANT MANAGEMENT SUPPORT</p> <p>Katie Britt Williams, WEDG, CFM ¹</p>
<p>LAND OWNERSHIP & POLICY SUPPORT</p> <p>Spencer Crowley ³</p>	<p>PUBLIC OUTREACH & ECONOMIC ANALYSES</p> <p>Cheryl Hapke, PhD ⁴ Valerie Seidel ⁵</p>	<p>CIVIL/STORMWATER ENGINEERING</p> <p>Patrick Kaimrajh, PE ² Daniela Martinat, PE ²</p>

1. Cummins Cederberg; 2. Chen Moore and Associates; 3. Akerman LLP; 4. Fugro; 5. The Balmoral Group



YEARS OF EXPERIENCE

- 22

EDUCATION

- MSc Oceanography, Florida State University
- BA Environmental Studies, University of Southern California
- BSc Biology, University of Southern California

CERTIFICATIONS

- Certified Floodplain Manager
- Professional Wetland Scientist
- LEED Accredited Professional BD&C
- WEDG Associate

PROFESSIONAL AFFILIATIONS

- Florida Association of Environmental Professionals, Tallahassee Area Chapter
- Appointee, Leon County Water Resources Committee
- Society of Wetland Scientists
- Florida Floodplain Managers Association
- Association of State Floodplain Managers
- US Green Building Council

RELEVANT PROJECT EXPERIENCE

Dinner Key Marina Breakwaters Mitigation, City of Miami, Florida. Resiliency and mitigation improvements to one of the largest public marinas on the east coast of the US. Originally created in the early 1900's, man-made spoil islands have provided protective services to upland areas including the historic Pan Am Seaplane Terminal in the 1930s but have worn over time and sustained considerable damage from Hurricane Irma in 2017. Scope includes restoration, increase in sea level rise resilience and storm protection, recreational enhancements, and consideration of potential additional funding opportunities.

Waterfront Adaptation at Jose Marti Park, Miami, Florida. The adaptive redesign of this 13-acre, multi-use recreational space on the Miami River explores ways in which the park can minimize tidal flood impacts to the surrounding neighborhood, adapt to sea-level rise, and enhance waterfront access to residents. Danielle led the environmental permitting, and grant management. The Jose Marti park redesign will serve as a model for resilient waterfront parks that can adapt to current and future flood risks associated with climate change and sea-level rise.

Apalachee Regional Vulnerability Assessment, Apalachee Region, Florida. Provided QA/QC review of critical asset data inventory, data gap analysis, flood depth results by asset, coordination with clients and regional stakeholders for data collection efforts, and review the final deliverable report. Danielle also provided policy related input specific to application of Section 380.093 F.S. The report illustrated and quantified the exposure and sensitivity of critical and regionally significant assets to tidal, SLR, and coastal storm surge flooding for 9 counties in the Apalachee region.

Tidal Flood Protection Ordinance, City of Hollywood, Florida. Project manager responsible for review of the Broward County model ordinance for tidal flood barriers. The purpose of this review was ensure the new ordinance was adaptable to the current and future conditions of the City of Hollywood. After coordination with the City, two public hearings, and a presentation to the City the ordinance was accepted.

Bal Harbour Village Vulnerability Assessment, Bal Harbour Village, Florida. Grant application and award of \$169,700 to perform a village-wide vulnerability assessment compliant with s. 380.093, F.S. Scope includes the acquisition of background data, exposure and sensitivity analysis, peril of flood comprehensive plan updates, public outreach meetings, a Vulnerability Assessment Report, identification of critical asset focus areas, and a Coastal Resilience Adaptation Plan.

Currie Park Redevelopment, West Palm Beach, Florida. Coordinated grant application for the Currie Park Redevelopment and sea level rise adaptation project. Coordinated with the FDEO to receive CDBG-mitigation grant through US Department of Housing and Urban Development. Lead the environmental assessment to meet federal grant requirements.



YEARS OF EXPERIENCE

- 22

EDUCATION

- MSc Coastal Engineering, Technical University of Denmark

LICENSES

- Florida PE No. 69839

PROFESSIONAL AFFILIATIONS

- Permanent International Association of Navigation Congress
- Member of PIANC Working group Design and Operational Guidelines for “Superyacht Facilities”
- Danish Society of Hydraulic Engineering
- Florida Association of Environmental Professionals
- Port Everglades Association
- Florida Engineering Society Miami Chapter
- Florida Bar’s Environmental and Law Use Law Section
- Biscayne Watershed Management Advisory Board

RELEVANT PROJECT EXPERIENCE

Miami-Dade County Waterfront Parks Sea Level Rise & Flood Mitigation Roadmap, Coral Gables, Florida. Senior Project Manager for analysis of the impacts of sea level rise on park’s infrastructure and operations, as well as flood mitigation concepts for planning and budgeting. Compiled existing survey and LiDAR data to prepare general topographic map; infrastructure condition assessment, remaining service life and adaption feasibility relative to sea level rise; assessment of environmental conditions on site to understand and document current conditions, as it would relate to environmental permitting; conducted an engineering analysis to provide extreme tide water levels; developed flood mitigation concepts and preliminary cost estimates; coordinated stakeholder involvement; and developed an implementation strategy. Project sites included Matheson Hammock, Crandon, Haulover, Virginia Key, Biscayne Shores and Gardens, Blackpoint Marina, and Homestead Bayfront Park.

FDOT D1 Coastal Asset Management, Collier County, Florida. (Phase I complete, Phase II ongoing). Principal Engineer responsible for conducting extensive research to assess the vulnerability of coastal assets in FDOT District 1 counties, the first district-wide sea level rise analysis effort for FDOT. The scope included creation of future tidal projections based on evaluating historical tidal measurements and the expected impact of climate change to sea level rise, local to District 1, until the year 2100. These projections were applied in a water level analysis to identify critical low-lying infrastructure throughout the district that is at risk to sea level rise and storm surge.

Dinner Key Marina Breakwaters Mitigation, City of Miami, Florida. Principal Engineer for resiliency and mitigation improvements to one of the largest public marinas on the east coast of the US. Originally created in the early 1900’s, man-made spoil islands have provided protective services to upland areas but have worn over time. Scope includes restoration, increase in sea level rise resilience and storm protection, recreational enhancements, and consideration of potential additional funding opportunities.

Town of Bay Harbor Islands Resiliency and Seawall Condition Assessment, Bay Harbor Islands, Florida. Shoreline assessment and island resiliency study for the entire Town of Bay Harbor Islands. The shoreline assessment included 20,000 LF of shoreline, including seawalls, rock revetment, residential areas, bridges, and the causeway that connects the Town to the mainland. LiDAR survey data was processed to provide 3D elevation map, and an analysis of the water levels to predict sea level rise, along with tidal data analysis.

Adaptive Redesign of Jose Marti Park, City of Miami, Florida. Serving as a model for resilient waterfront parks that can adapt to current and future flood rises associated with climate change and sea level rise, this project explores ways to minimize tidal flood impacts and enhance waterfront access to residents. Jannek led the inundation modeling, and waterfront engineering design, while the Cummins Cederberg team also led the environmental permitting, coordination with FIND, and grant management.



YEARS OF EXPERIENCE

- 17

EDUCATION

- MSc Coastal and Oceanographic Engineering, University of Florida
- BSc Civil Engineering, University of Florida

LICENSES

- Florida PE No. 71538

Certifications

- Certified Diver
- FHWA A-NHI 130091 Underwater Bridge Inspection – National Highway Institute and Association of Diving Contractors

PROFESSIONAL AFFILIATIONS

- Urban Land Institute, SE Florida/Caribbean, Member
- American Society of Civil Engineers
- American Institute of Architects
- South Florida Association of Environmental Professionals

RELEVANT PROJECT EXPERIENCE

Storm Surge Protection Wall & Wetland Restoration at Vizcaya Museum & Gardens, Miami, Florida. Site plan for storm surge protection wall, environmental wetland restoration and public space. Grant application, regulatory permitting, and engineering design for marine works. Storm surge wall was designed with reinforced concrete able to withstand storm surge and high wave loads associated with tropical storm event.

Dade Boulevard/Collins Canal Shoreline Stabilization & Seawall Replacement, Miami Beach, Florida. Marine engineering and construction drawings for 2,670 LF of shoreline stabilization associated with a linear park and bike path. Structural design of steel sheet pile and reinforced concrete cap, including barrier wall connection, and utility crossover detail for FPL 69KV oil-filled transmission line.

Indian Creek Village Country Club Vulnerability, Miami-Dade County, Florida. QA/QC to evaluate coastal resiliency of the Club including potential sea level rise, vulnerability assessments and provided recommendations for potential mitigation measures as part of the club's planned upgrades to their property. Conceptual mitigation measures were developed to address points of exposure and increase resiliency for the Club.

Dinner Key Marina Breakwaters Mitigation, City of Miami, Florida. QA/QC for resiliency and mitigation improvements to one of the largest public marinas on the east coast of the US. Originally created in the early 1900's, man-made spoil islands have provided protective services to upland areas. Scope includes restoration, increase in sea level rise resiliency and storm protection, recreational enhancements, and consideration of potential additional funding opportunities.

Brickell Key Coastal Resiliency Study, Miami, Florida. Assessment of condition of the existing shoreline and infrastructure in order to understand the effects of sea level rise on normal and extreme conditions (hurricanes). An inspection of existing coastal infrastructure was conducted to identify vulnerable areas along the entire shoreline perimeter. Analysis of sea level rise and extreme tide events were conducted to understand water level design conditions. The potential for increased storm impacts was assessed. Recommendations for long term planning was provided along with mitigation options. Construction documents and environmental permitting was conducted for the design. The design focused on adapting existing infrastructure to provide a cost-effective solution.

FDOT A1A Seawall, Indian River County, Florida. Scour and wave load analysis for proposed seawall for almost 2 miles of shoreline that experienced significant erosion during Hurricane Mathew. A hydrodynamic MIKE21 model was established to simulate tidal and storm surge flow. A MIKE21 wave model was developed to simulate the wave conditions during extreme events. The scour associated with a 100-year event was determined and proper scour protection was designed. Wave loads were calculated for the proposed seawall for extreme event under varying conditions and water levels.



YEARS OF EXPERIENCE

- 17

EDUCATION

- MSc Ocean Engineering, Florida Institute of Technology
- BSc Ocean Engineering, Florida Institute of Technology

LICENSES

- Engineer Intern
- Open Water Certified Diver - National Association of Underwater Instructors (NAUI)

PROFESSIONAL AFFILIATIONS

- Coastal, Oceans, Ports, and Rivers Institute (COPRI), ASCE – Policy Committee Chair
- American Society of Civil Engineers – Energy, Environment, and Water Policy Committee Member
- American Shore & Beach Preservation Association – Science & Technology Committee Member
- Western Dredging Association (WEDA)
- WEDA, Education Commission
- Propeller Club, Port Manatee
- Sarasota County Coastal Advisory Committee (2019-present)

RELEVANT PROJECT EXPERIENCE

Sarasota County Coastal Conditions Analysis and Vulnerability Assessment, Sarasota, County, Florida. Served as project manager and technical lead responsible for shoreline conditions assessment for coastal barrier island beaches, managed and unmanaged, to determine historic shoreline position and volumetric changes. Project included conducting vulnerability analysis for barrier islands to identify at risk critical assets, develop adaptation strategies, and prepare a Resilience Plan. Project included public outreach, grant reporting, GIS data collection and analysis, and regional planning documents.*

Apalachee Regional Vulnerability Assessment, Apalachee Region, Florida. Project Manager and technical lead for a 9-county vulnerability assessment funded under the Resilient Florida grant program in accordance with Section 380.093 F.S. Responsible for leading multidiscipline team of coastal engineers, climate scientists, policy planners and GIS specialists to develop a comprehensive critical asset inventory for the regional coastal counties, with emphasis on publicly owned and regionally significant assets and collected LiDAR and water level data for vulnerability assessment. Provided QA/QC review of coastal and sea level rise analysis, which utilized 2 FEMA storm surge scenarios and NOAA sea level rise projects for 2040 and 2070 planning horizons. Assessment included critical asset exposure and sensitivity analysis for 30 flood scenarios. Flood scenarios and flood depths were characterized, spatially mapped and summarized in tabular format for the assessment report deliverable.

Punta Gorda Climate Adaptation Plan, Punta Gorda, Florida. As project manager, lead a multi-disciplinary team to prepare an update to the City's 2009 Climate Adaptation Plan and create a living shoreline technical guidance document. Performed vulnerability analysis using GIS-based bathtub model, available digital elevation data, and the latest available sea level rise projections published by IPCC. Report identifies vulnerable thresholds and qualitatively delineates areas of vulnerability, as well as recommendations to the City's Comprehensive Plan and coastal management element language. Climate Plan update includes a wide range of micro and macro level adaptation strategies.*

City of Venice Vulnerability Analysis and Resiliency Plan, Venice, Florida. Project manager and technical lead responsible for performance of a vulnerability analysis using a GIS modified bathtub model to determine depth/damage curves for critical public infrastructure. Project consists of conducting a vulnerability analysis, development of adaptation strategies, prioritization of key infrastructure, public outreach, grant reporting, and preparation of a resiliency plan.*

Bal Harbour Village Coastal Management, Bal Harbour Village, Florida. Senior Coastal Engineer responsible for submitting an FDEP Resilient Florida grant application and work plan development as part of Cummins Cederberg's ongoing coastal management program.

*Services provided with prior firm



YEARS OF EXPERIENCE

- 18

EDUCATION

- MSc Ocean and Resources Engineering, University of Hawaii
- BSc Civil Engineering, Pennsylvania State University

LICENSES

- Florida PE No. 72876

CERTIFICATIONS

- Certified Floodplain Manager
- Certified Video Ray ROV Operator
- Surface Supplied Air Underwater Inspection Certification
- Advanced/Rescue/Nitrox SCUBA

PROFESSIONAL AFFILIATIONS

- Association of State Floodplain Managers, Member
- Florida Floodplain Managers Association, Member

RELEVANT PROJECT EXPERIENCE

Tidal Flood Mitigation and Shoreline Protection, Hollywood, Florida. The project consists of evaluating 22 areas, covering over 10,000 linear feet of shoreline. Each area will have specific solutions to address seasonal flooding challenges, which may entail the design and implementation of varied shoreline protection infrastructure such as of living shorelines, rock revetments, and bulkheads, to meet the requirements of the new Broward County ordinance. He has performed upland and in-water engineering site inspections along City owned shoreline to evaluate conditions of existing seawalls and revetments. Analyzed tide gauge data to determine tidal prisms, lag time, and water elevation differences. The analysis from this data will be used in the design of the flood mitigation structures.

Currie Park Redevelopment, West Palm Beach, Florida. Jordan is the EOR for all the waterfront design for the Currie Park Redevelopment project. Project includes marine surveying, engineering design, environmental permitting, and grant implementation support for the waterfront work including rock revetment, living shoreline, boat ramp improvements, kayak launches, new over water piers and boardwalks, and “social” steps down to the water.

City of Deerfield Beach Stormwater Master Plan, Deerfield Beach, Florida. Conducted a field investigation to evaluate existing coastal stormwater and flood defense structures in tidal waters relative to service life for the City. The project included a detailed analysis of historical water levels to establish design water levels based on king tides, storm events, and long-term sea level rise projections. Recommendations for maintenance and repairs were summarized in a Coastal Condition and Resiliency Report.

Riverside Village Shoreline Improvements, Jensen Beach, Florida. Provided structural/coastal engineering design for 480 feet of shoreline stabilization along an eroding shoreline. Project included rock revetment, kayak ramp, bulkhead, overwater viewing platform, and landscape restoration. Services performed included wave load analyses, scour analyses, structural design of composite bulkhead and timber viewing platform, and construction administration. Construction is currently underway.

Southern Palm Beach Island Comprehensive Shoreline Stabilization, Town of Palm Beach, Florida. Provided coastal engineering support to respond to public comments associated with the USACE Environmental Impact Statement review process. Technical responses were prepared based on a review of the basis of design and technical documentation used to prepare the draft and final EIS documents.*

Kristi House Shoreline Stabilization, Miami, Florida. Provided structural/coastal engineering design for 525 feet of shoreline stabilization along an eroded portion of Wagner Creek. The project included a steel sheet pile bulkhead and armor stones with transition grading to the existing upland parking lot. Services performed included scour analyses, wave load analyses, and structure design.

*Services provided with prior firm



YEARS OF EXPERIENCE

• 9

EDUCATION

- MSc Ocean Engineering, University of Miami
- BSc Civil Engineering, University of Miami

LICENSES

- Florida PE No. 90872
- Puerto Rico PE No. 28385

CERTIFICATIONS

- Waterfront Edge Design Guidelines Associate
- Envision Sustainability Professional
- Federal Aviation Administration Remote Pilot
- Certified Flood Plain Manager

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers
- Coastal, Oceans, Ports, and Rivers Institute (COPRI), ASCE – South Florida Co-Chair
- Society of Hispanic Professional Engineers
- Urban Land Institute SE Florida/Caribbean

RELEVANT PROJECT EXPERIENCE

FDOT D1 Coastal Asset Management, Collier County, Florida. (Phase I complete, Phase II ongoing). Senior Coastal Engineer who performed a sea level rise and water level analysis to identify critical infrastructure, evaluate impacts, and prepare flood mitigation concepts. Developed preliminary cost estimates for improvement and budget planning purposes.

Matheson Hammock Park Sea Level Rise Flood Mitigation Study, Coral Gables, Florida. Assisted in preparing a Sea Level Rise Flood Mitigation Study to analyze the impacts of sea level rise on the park's infrastructure and operations, as well as develop flood mitigation concepts for planning and budgeting. Compiled existing survey data within the Park and LiDAR data for the area to prepare a general topographic map for the Park; assessed the condition of existing infrastructure to understand conditions, remaining service life and adaption feasibility relative to sea level rise; performed an assessment of the environmental conditions on site to generally understand and document current conditions, as it would relate to environmental permitting; conducted an engineering analysis to provide extreme tide water levels; developed flood mitigation concepts and preliminary cost estimates; coordinated stakeholder involvement; developed an implementation strategy; and presented the results and findings into a report.

Town of Bay Harbor Islands Resiliency and Seawall Condition Assessment, Bay Harbor Islands, Florida. Shoreline assessment and island resiliency study for the entire Town. The shoreline assessment included 20,000 feet of shoreline, including seawalls, rock revetment, residential areas, bridges, and they causeway that connects the town to the mainland. LiDAR survey data was processed to provide 3D elevation map, and an analysis of the water levels to predict sea level rise, along with tidal data analysis.

Brickell Key Island Coastal Resiliency Study, Brickell Key Island, Florida. Site inspection to identify vulnerable areas, including the perimeter of the entire Brickell Key Island. Analyses of sea level rise and extreme tide events were conducted to understand water level design conditions. The potential for increased storm impacts was assessed. Recommendations for long term planning was provided along with mitigation options. Construction documents and environmental permitting was conducted for the design. The design focused on adapting existing infrastructure to provide a cost-effective solution.

Tidal Flood Mitigation and Shoreline Protection, Hollywood, Florida. The project consists of evaluating 22 areas, covering over 10,000 linear feet of shoreline, along the areas known as North and South Lake in the City of Hollywood. Each area will have specific solutions to address seasonal flooding challenges, which may entail the design and implementation of varied shoreline protection infrastructure such as of living shorelines, rock revetments, and bulkheads, to meet the requirements of the new Broward County ordinance.



YEARS OF EXPERIENCE

- 10

EDUCATION

- MSc Natural Resource Conservation, University of Florida
- BA Environmental Science & Policy, Florida State University

CERTIFICATIONS

- Certified Floodplain Manager
- WEDG Associate

PROFESSIONAL AFFILIATIONS

- UF IFAS Natural Resource Leadership Fellow, Class XVII
- Florida Floodplain Managers Association, Member
- Board Member of Tallahassee Area Environmental Professionals
- American Water Resource Association, Member
- City of Tallahassee Environmental Review Board
- Leadership Tallahassee Graduate

RELEVANT PROJECT EXPERIENCE

City of Sarasota Bay Resiliency Initiative, Sarasota, Florida. Leading the administration of the 2.6M grant from FDEP along with supplemental funding from WCIND. Deputy Project Manager role supporting and managing the project budget, schedules and project milestones. Project includes supporting the planning, design, and construction of a replacement seawall and implementing living shoreline and other nature based solutions along City owned shorelines. Project also includes soliciting a contractor to upgrade Citywide topographic mapping, aerial, and mobile LiDAR data.

Shoreline and Seawall Shoreline Vulnerability, St. Petersburg, Florida. Deputy Project Manager role on implementation of the project. Leading the grant management of the FL Commerce (FDEO) Mitigation planning grant(\$900,000) that is supporting the majority of the project funding to draft a Strategic Seawall Capital Improvement Plan for improvements to 71,900 linear feet of seawalls to mitigate against adverse impacts from future natural and man-made disasters. The Plan will review existing seawall conditions, develop design criteria and concepts to improve flood protection and erosion control, and establish a strategy to implement prioritized projects.

Jose Marti Park Waterfront Adaptation Project, Miami, Florida. The City of Miami received a FIND grant to perform a waterfront adaptation project at Jose Marti Park to improve the park to be more resilient to future flooding due to sea level rise. Ms. Williams also assisted in the complex permitting efforts by preparing application package materials for Miami-Dade County DERM, SFWMD, and the USACE. She also coordination the complex requests for additional information associated with the applications. Permitting efforts also consisted of formal pre-application meetings, a 1957 Butler Act Disclaimer, sovereign submerged lands lease application, adherence to the Miami-Dade County Manatee Protection Plan, ROW permitting, and BOCC coordination. Additionally, the project aims to be the first WEDG-certified project in Florida,

Apalachee Regional Vulnerability Assessment, Apalachee Region, Florida. Provided stakeholder outreach, managed the County and ARPC contact list, and coordinated with the ARPC for GIS data. Funded through a Resilient Florida grant, the report illustrated and quantified the exposure and sensitivity of critical and regionally significant assets to tidal, SLR, and coastal storm surge flooding for 9 counties in the Apalachee region.

Tidal Flood Protection Ordinance, City of Hollywood, Florida. Project management support for the Broward County Model ordinance for tidal flood barriers. The purpose of this review was to ensure the new ordinance was adaptable to the current and future conditions of the City of Hollywood.

County Shoreline Resiliency Planning, Palm Beach County, Florida. Project management support to update County's local mitigation strategy (LMS). Updates to the strategy included updating the priority list to include sea level rise adaptation strategies for publicly owned seawalls. LMS applications were approved and added to the County's LMS.



YEARS OF EXPERIENCE

• 5

EDUCATION

- MPS Tropical Marine Ecosystem Management, Rosenstiel School for Marine and Atmospheric Science, University of Miami
- BS Biology, Minor Marine Science, Wittenberg University

CERTIFICATIONS

- Waterfront Edge Design Guidelines (WEDG) Associate
- PADI Rescue Diver
- Nitrox Diver
- DAN Oxygen First Aid for Scuba Diving Injuries
- American Academy of Underwater Sciences (AAUS) Scientific Diver Certified, University of Miami 2017, AAUS Compliant
- Motorboat Operator Certification (MOCC)
- SFAEP Wetland Delineation Training

PROFESSIONAL AFFILIATIONS

- American Academy of Underwater Sciences (AAUS), Individual Member
- Florida Association of Environmental Professionals (FAEP), Member

RELEVANT PROJECT EXPERIENCE

Jose Marti Park Waterfront Adaptation Project, Miami, Florida. The City of Miami received a FIND grant to perform a waterfront adaptation project at Jose Marti Park in order to improve the park to be more resilient to future flooding due to sea level rise. Rebekah performed a drop-camera survey within the Miami River to assess presence of submerged marine resources within the proposed project footprint. She also assisted in the complex permitting efforts by preparing application package materials for Miami-Dade County DERM, SFWMD, and the USACE. Permitting efforts consisted of formal pre-application meetings, a 1957 Butler Act Disclaimer, sovereign submerged lands lease application, adherence to the Miami-Dade County Manatee Protection Plan, a restrictive covenant, and BCC coordination. Additionally, the project aims to be the first WEDG certified project in Florida, which Rebekah assisted in gathering necessary criteria requirements and information for.

Crandon Park & Haulover Park Sea Level Rise Flooding Mitigation Studies, Miami, Florida. Managed project team to assess coastal resiliency and create a sea level rise road map and action plan. The study included compiling existing survey data, including LIDAR survey data, performing site assessments to analyze existing infrastructure and environmental conditions at the park, conducting engineering analyses on sea level rise projections and local tidal data in order to predict future water levels, performing inundation mapping using existing elevation data to gage flooding vulnerability, creating flood mitigation concepts and recommendations, and providing preliminary costs estimates of recommended improvements. A final sea level rise flooding mitigation study report was provided to Miami-Dade County Parks, Recreation, and Open Spaces for their internal use and future infrastructure implementation schedule planning. Proposed improvements recommended by 2040, totaling over \$190M between the two parks, were included in the report.

Historic Virginia Key Beach Park Sea Level Rise Flooding Mitigation Study, Miami, Florida. Managed project team to assess coastal resiliency and create a sea level rise road map and action plan. The study included compiling existing survey data, including LIDAR survey data, performing site assessments to analyze existing infrastructure and environmental conditions at the park, conducting engineering analyses on sea level rise projections and local tidal data in order to predict future water levels, performing inundation mapping using existing elevation data to gage flooding vulnerability, creating flood mitigation concepts and recommendations, and providing preliminary costs estimates of recommended improvements. A final sea level rise flood mitigation study report was provided to Miami-Dade County Parks, Recreation, and Open Spaces for internal use and future capital improvement project planning.

Crandon Park Marina North Shoreline Rip Rap, Key Biscayne, Florida. Cummins Cederberg designed and permitted a breakwater and mangrove planter system. Rebekah created a marsh grass planting plan which was needed to stabilize the mangrove planter side slope and incorporated into the final design.



YEARS OF EXPERIENCE

- 15

EDUCATION

- Graduate Certificate, Geographic Information Systems, Florida Atlantic University
- BSc Marine Biology, University of West Florida

CERTIFICATIONS

- NAUI Rescue Diver; PADI Enriched Air Nitrox Diver (IAND/EANx)
- AAUS Scientific Diver Certified
- FDEP Stormwater, Erosion and Sedimentation Control Inspector
- Waterfront Edge Design Guidelines Associate

PROFESSIONAL AFFILIATIONS

- America Academy of Underwater Sciences Individual Member
- Florida Association of Environmental Professionals, Treasure Coast Chapter, President
- Florida Association of Environmental Professionals, Vice President
- Urban Land Institute SE Florida/Caribbean
- Environmental and Land Use Law Section of the Florida Bar
- Leadership Palm Beach County, Alumni

RELEVANT PROJECT EXPERIENCE

Sawfish Bay Park Shoreline Improvements, Jupiter, Florida. Responsible for permitting and marine resource surveying for a multi-phased project to environmentally restore a historic marina basin and protect the shoreline of a municipal park. The project includes capping sand for seagrass recruitment, living shoreline, rock revetment, and reef ball units in configurations that will accomplish the Town of Jupiter's goals of increasing coastal resiliency and enhancing natural habitat, while minimizing design and permitting costs. USACE and FDEP permits secured for Phases 1 and 2.

Currie Park Enhancement Project, City of West Palm Beach, Florida. Currie Park is a 13.6-acre public waterfront park. The city is preparing an adaptive redesign of the park to mitigate flooding from rainfall, king tides, and sea level rise. Project manager responsible for the coastal components of the project's master plan including but not limited to permitting feasibility, concept planning, marina implementation strategy, public outreach interpretation and grant funding options master plan completed 2021. Responsible for fieldwork, engineering, permitting, and grant management to implement the master plan. State and federal permits underway. Additionally, assisted with securing a DEO grant which was awarded to the project in the amount of \$16M.

Sea Level Rise & Flood Mitigation Studies, Miami-Dade County, Florida. Conducted sea level rise studies at various Miami-Dade County Parks including Matheson Hammock, Haulover, Crandon, Biscayne Shores and Gardens, Black Point Marina, and Homestead Bayfront Park. Performed all review and quality control for environmental permitting and environmental surveying.

Matheson Hammock Boardwalk Permitting, Miami-Dade County, Florida. This project involves the construction of a new boardwalk along a mangrove trail within Matheson Hammock Park involving mangrove trimming and some wetland impacts. Performed a wetland delineation, design development, permitting, and mitigation planning and calculations for the newly proposed boardwalk. Coordination with USACE, FDEP, DERM, NFC and EEL is underway.

Roads Vulnerability Pilot Study Environmental Permitting, Monroe County, Florida. Performed wetland delineation of mangrove habitat in support of permitting a pilot study to raise roads in Monroe County identified as vulnerable to sea level rise impacts. Consulted with FWS, obtained a 'No Permit Required' letter from the USACE and coordinated with the NPS relative to land ownership issues.

Shoreline Stabilization at Jungle Island, Miami, Florida. Project manager responsible for marine resource surveying, permitting and overseeing engineering design and plans. Performed a qualitative marine resource and vegetative survey along 1,100 linear feet of shoreline at the site to identify the location, species, and extent of natural resources. Permits from FDEP, USACE and DERM were secured.

Cheryl J. Hapke, Ph.D.

Principal Consultant– Coastal Resilience and Ocean Science (CROS) - Americas Region

Personal Information

Profile Dr. Cheryl Hapke is a Principal Consultant, Coastal Resilience with Fugro. She is a coastal geologist with more than 25 years of experience studying coastal processes and working with decision-makers impacted by the challenges of coastal climate risk and resilience, which include municipalities, private coastal facilities, insurers, government entities, and other stakeholders. Her clients need technical expertise to answer questions about future risks and provide solutions for mitigating impacts. She understands the future holds significant risks, and her technical expertise allows her to communicate foundational science to clients and diverse stakeholder groups. Using her deep understanding of complex system dynamics, she develops state-of-the-art tools and data-driven approaches to efficiently provide insight into risks and identify solutions to help mitigate them. Dr. Hapke has extensive experience overseeing and managing large projects and coordinating across diverse groups of stakeholders and partners. In addition, she has served as a technical advisor on coastal change hazards to state and federal agencies and international groups and authored numerous peer-reviewed journal articles.

Qualifications 2002 - Ph.D., Coastal Geology, University of California Santa Cruz, Santa Cruz, California,

Achievements and Awards 2023 - Distinguished Alumni Award, University of Pittsburgh, Department of Geology and Environmental Science

2021 - Presidential Citation, Association of Environmental and Engineering Geologists

2020 - Jahns Distinguished Lecturer for Excellence in Applied Environmental Science

Relevant Experience

2019-2020 Coastal Vulnerability Assessment, Captiva, FL - Project lead on study that conducted a site characterization of coastal typology and land use for the island community of Captiva, FL, including the open ocean and estuarine coasts. The vulnerability assessment required the compilation of GIS data of community assets including commercial and residential buildings, roadways, evacuation routes, and critical facilities. We integrated sea level rise flood inundation model outputs from NOAA to evaluate what future conditions may be for the island's assets for the future scenarios. A subsequent risk assessment identified the numbers and locations of various assets that would be impacted progressively as sea levels rise.

2021-2022 Coastal Adaptation Conceptual Designs, Captiva, FL - Project lead on study that used the foundational information from the Captiva Vulnerability Assessment to develop conceptual nature-based adaptation strategies for various locations on the bayside of the island. The designs consider the exposure to waves and currents, the gradient, accommodation space, and tidal flow. We worked closely with the community to present initial designs, gather feedback, and incorporate revisions to work towards developing an adaptation pathway. The designs are in the adaptation categories of protection or accommodation.

People



T. Spencer Crowley III
 Co-Chair, Land Use and Development Practice
 Miami
 T: +1 305 982 5549
 spencer.crowley@akerman.com
 vCard
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Notable Work

Marina and Coastal Permitting

Mega Yacht Arena: Representing client in permitting of 50 slip mega yacht marina. Project involves negotiation of submerged land lease with the city, waiver of public purpose restriction by the Board of Trustees of the Internal Improvement trust Fund, permitting managed mooring field as seagrass mitigation for the project

Allied Marine and Bertram Yacht Headquarters: Represented former owner of Allied Marine and Bertram Yacht headquarters in Miami, specifically in matters related to marina slip allocations, maintenance dredging, and fortification of aging coastal infrastructure

Permitting: Assist city of Miami with permitting of public seawall using pilot program between US Army Corps of Engineers and National Marine Fisheries Service

Land Use

Brickell City Centre: Represented Swire Properties in development of the Brickell City Centre project in downtown Miami, a \$1.5 billion, 5.5 million square foot mixed-use development in the city’s financial district. The project includes office space, retail, residential units, hotel, and underground parking. A model of large-scale mixed-use projects, it is the first Special Area Plan built under the Miami 21 Zoning Code.

Midtown Miami Project: Represent client in regards to Midtown Miami project in Miami, Florida. Advised client in land use, zoning, and site plan approval matters for 56 acre urban infill project in downtown Miami which will contain 645,000 square feet of retail development and 4,500 residential units.

Areas of Experience

- Real Estate
- Economic Development and Incentives Environment and Natural Resources
- Environment and Natural Resources Policy and Regulation
- Florida Land Use and Entitlements
- State Legislative and Executive Lobbying
- Land Use and Development
- Local Government Advocacy
- Public-Private Partnerships
- Water Task Force
- Hospitality
- Hospitality Regulatory Compliance
- Hospitality Acquisition and Development

Education

- J.D., University of Florida Levin College of Law, 2001, Certificate in Environmental and Land Use Law
- M.B.A., University of Florida, 2001, Specialization in Real Estate and Urban Analysis
- M.A., University of Miami Rosenstiel School of Marine and Atmospheric Sciences, 1998
- A.B., Duke University, Environmental Science and Policy, Geology, 1996

Admissions

- Bars**
- Florida



VALERIE SEIDEL

Chief Economist



Valerie's economics experience focuses on infrastructure and natural resource valuation, GIS and statistical models of resource allocation and optimization, and cost-benefit analysis. She has demonstrated expertise in data synthesis of numerous data types for objectives ranging from sea level rise vulnerability analysis to economic development. Completed projects include researching economic impacts of public policies to application of econometric methods. She has proven ability to manage detailed and sensitive projects successfully, participate in public forums to address concerns of stakeholders, and generate innovative solutions to complex issues.

EXPERIENCE

37 years

EDUCATION

- Master of Commerce in Economics, University of Sydney, Australia
- Post-graduate studies: Environmental Economics, University of Central Florida;
- Bachelor of Science Accounting, Economics University of Tampa

PROFESSIONAL AFFILIATIONS

- Leadership Florida Class XXXI
- American Applied Economics Association
- Association of Environmental and Resource Economists

RELATED EXPERIENCE

Roadmap to Resiliency, Florida Department of Transportation, District One - Project Manager for analysis of all FDOT assets that may be vulnerable to sea level rise and climate-induced hazards. Analysis included evaluating riverine areas in inland counties for tidal interactions, GIS analysis of roadway, drainage system, and bridge data, and assessment of combined King Tide, hurricane and climate model impacts. Using existing data to manage District costs, prepared technical memorandum including policy recommendations, operational implications, and suggested data collection going forward to maintain current information on District vulnerability.

Coastal Resiliency Management Alternatives for Martin and Okaloosa Counties, Cost-Benefit Analysis, FDEO - Project Manager. Evaluated the costs and benefits of alternative adaptation strategies for coastal resiliency. Economic principles were used to develop pilot policies for managing and mitigating issues related to coastal resiliency suitable for the counties' comprehensive plans. Parcel-level analysis estimated the change in relative benefits from different policy alternatives over time and calculated the value of incentives necessary to successfully implement specific policies. Analysis included property values, impacts on public infrastructure and natural resources. NOAA Funded, the final deliverable was intended to be a template transferrable to all coastal Florida counties.

Vulnerability Assessment Phase I & II, Nassau County - Project Manager for FDEP-funded vulnerability assessment for this coastal county. Evaluated topographic, demographic and land use data to identify communities at risk from multiple scenarios of flood risk due to storm surge, sea level rise, or altered hydrology. Led public meetings and directed GIS map production to show vulnerable populations, properties and businesses.

Economic Valuation for the Coastal Heartlands National Estuary Program, CHNEP - Principal for this economic valuation of CHNEP's 6,800 square mile area (including Lee County). Tasks included stakeholder input and data collection to support economic and fiscal impact analysis, and cost-benefit analysis of case study restoration projects. Estimated economic values for tourism, recreational spending, commerce including fisheries and agricultural production, property values, values of conservation lands, as well as associated tax revenues.

Patrick Kaimrajh, P.E.
Principal Engineer



Hire Date: 10/03/2011
Years with other firms: 3

Education

Bachelor of Science, Civil Engineering, University of Miami, 2010

Registration

Professional Engineer,
Florida, 78535, 2015

Professional Affiliations

American Society of Civil Engineers
American Water Works Association
Florida Engineering Leadership Institute
Florida Engineering Society
University of Miami Civil Engineering Industry Advisory Board
Urban Land Institute

Awards

2017-2018 Miami-Dade
ASCE Engineer of the Year



Patrick is Director of Land Development/Principal Engineer for CMA and specializes in leading and managing civil engineering design, permitting, and construction oversight. Patrick has worked for a variety of public sector clients at the City, County and State level, as well as private development clients in commercial, hospitality, healthcare, industrial, mixed-use, and residential market sectors. Land development involves numerous engineering specialties to transform a plot of land into a built environment. Patrick has the expertise needed to complete complex land development projects. His experience includes preparation of final design packages including paving, grading, drainage collection systems with controlled outfalls and injection wells in coastal areas, water distribution systems, wastewater collection systems and lift stations, pavement marking and signage, traffic control and phasing, and erosion and sediment control plans.

Project Experience

Miami Beach Sunset Islands 3 & 4 ROW Improvement Program. Ric-Man International. CMA provided civil engineering and landscape architecture for the utility infrastructure and roadway reconstruction of two islands (Sunset Islands 3 and 4) off the Miami Beach west coast, along the inter-coastal waterway. The project was publicly bid as a design-build and funded by the City of Miami Beach. It required coordination with various agencies including the City of Miami Beach, the Miami-Dade Water and Sewer Department, the Miami-Dade Public Works Department, the Miami-Dade Regulatory and Economic Resources Department and others. The project consisted of the replacement of 8" potable water mains, the lining of existing sanitary sewer mains, a completely new storm water drainage system, including discharge pumps and outfalls, the undergrounding of all existing overhead utilities, new service connections to all properties, complete roadway reconstruction and grading with new pavement section and curb, landscaping, signage and striping.

CERP FL Keys Ridal Restoration. Florida Department of Environmental Protection. The project consists of two (2) proposed tidal connections between Florida Bay and the Atlantic Ocean via culverts crossing Overseas Highway (US Highway 1), located within the City of Marathon in Monroe County, Florida. The first location is Unnamed Creek between Fat Deer Key and Long Point Key, south of Mile Marker 56 (width 450 feet) and the second location is a tidal connection adjacent to Little Crawl Key (width 300 feet). CMA served as a subconsultant to Cummins Cederberg, as the civil engineer and landscape architect of record.

D-16 & D-18 Pump Station Rehabilitation. Town of Palm Beach. The CMA team provided civil, mechanical, electrical, and structural engineering design and permitting services for the rehabilitation of the existing D-16 and D-18 stormwater pump stations at the western ends of Jungle Road and El Brillo Way. CMA also provided a detailed structural analysis and provided repair recommendations for adjacent concrete facilities and developed a modification to the trash grate within the wet well to reduce the difficulty of maintenance access.

Killian Park Road Stormwater Improvements. Village of Pinecrest. The Village of Pinecrest contracted CMA to review an existing residential area along Killian Park Road from SW 110 Street to SW 112 Street after receiving reports from residents concerning stormwater/flooding problems. Chen Moore and Associates conducted an analysis of the project area and designed and permitted improvements to meet the Village Level of Service for Stormwater. CMA also assisted the Village throughout the bidding process and selection of a contractor, field observations during construction and close out of the project for the proposed improvements.

Daniela Martinat, P.E.
Project Engineer



Hire Date: 04/06/2021
Years with other firms: 5

Education

Bachelor of Science, Civil
Engineering, Florida
Atlantic University, 2015

Registration

Engineer In Training,
Florida, 1100019751, 2016
Professional Engineer,
Florida, 93311, 2022

Professional Affiliations

American Society of Civil
Engineers

Daniela is a Project Engineer for CMA's engineering team and has experience working on various aspects of civil engineering design, plan preparation, permitting efforts, scheduling project activities, and construction oversight while leading complete project design teams. Her experience includes utility coordination; site grading; pavement analysis, water distribution systems; sanitary sewer collection systems; lift station design; stormwater management system and drainage analysis; roadway design; maintenance of traffic and phasing; pavement marking; signage; and erosion control. She prepares project scope, budget, schedule, reviews and approves meeting agendas, minutes, and estimates of probable costs. She oversees the permitting processes, coordinates with all agencies and responds to comments and request for information. She is responsible for integrating the internal quality control process including review of all contract documents for compliance with industry and engineering standards.

Project Experience

Colonial Club Condominium Association Drainage Improvements. Colonial Club Condominium. The Colonial Club Condominium property has had flooding issues since the replacement of the seawall, likely due to the elimination of seepage through the previous bulkhead. CMA designed and oversaw construction of a stormwater management system to collect, treat and discharge the excess runoff and provide flood protection to the community.

Davis Road Stormwater Improvements - Canal Road to 10th Avenue North. Village of Palm Springs. CMA provided engineering design services to improve the level of service of the drainage in this area. Flooding currently occurs along Andros Road between Tortuga Road and Davis Road, and along Davis Road, south of Andros Road during storm events. The project included rehabilitating the existing swales and retrofitting the existing outfalls to Lake Worth Drainage District L-11 Canal and Sago Park Lake. For this project, a hydrologic and hydraulic (H&H) model was developed of the stormwater management system to determine the improved flood protection of different proposed conditions. To verify the model. The existing condition was simulated and compared to historical observations of flooding. After validation a suite of alternative scenarios was developed to compare design alternatives. The most preferred design was selected as the basis of design for the proposed stormwater improvements.

Intracoastal Waterway 16-in I.D. Force Main Crossing. City of Riviera Beach Utility District. The City's 2013 Water and Wastewater Master Plan identified the need for redundancy in the sewer system and recommended the installation of a 16-inch inside diameter (I.D.) force main crossing the Intracoastal Waterway. The design also proposes interconnecting two lift stations for redundancy. It is estimated that the project will consist of approximately 5,500 LF of 16-inch I.D. force main installed via horizontal directional drill and 6,300 LF of 16-inch I.D. force main installed via open cut. The scope of services includes benthic, bathymetric and topographic survey, geotechnical investigation, subsurface utility exploration, and a Basis of Design Report to identify design parameters, property availability, route analysis, regulatory agency criteria, and construction considerations. The remaining scope of services includes design, permitting, bidding assistance and construction administration.

El Portal Stormwater Improvements. Village of Tequesta. CMA is providing design engineering services for drainage improvements along El Portal Drive between Fariview West and Country Club Drive. Proposed improvements include upgrades to existing grassed swales and installation of stormwater infrastructure including culverts and inlets to provide positive drainage connections to the existing stormwater management system.





03. PROJECT APPROACH

General Approach

Our general approach utilizes a dynamic team of technical staff including coastal engineers, marine structural engineers, marine scientists, land-use attorneys, economists, civil engineers, and regulatory experts to meet the District’s needs, as well as coastal resiliency specialists with a long history working with Captivans to ensure that the project, goals, methodologies, and conclusions are understood and supported by community stakeholders.

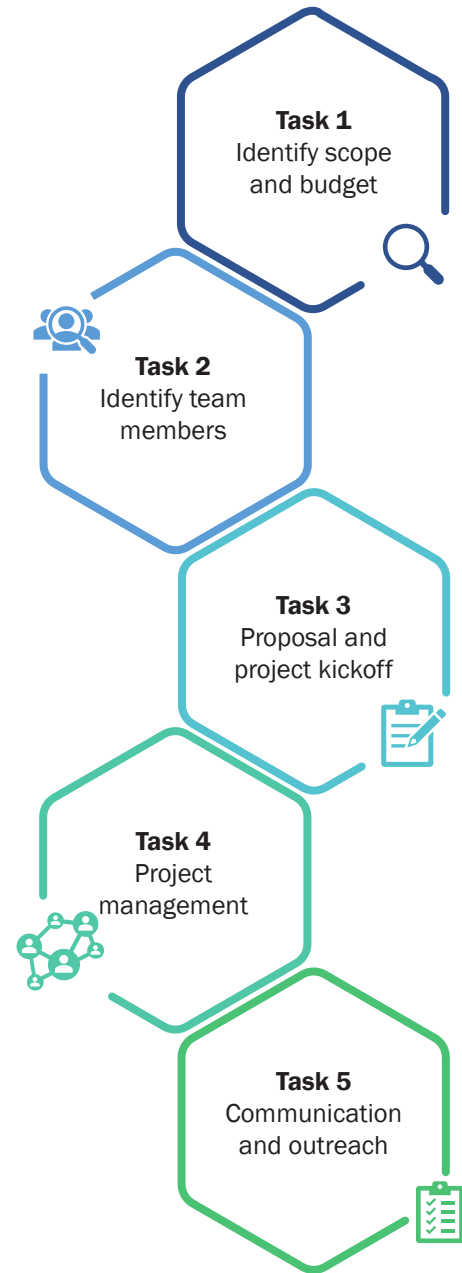
Our team is prepared to assist the District to develop the Captiva Bayside Adaptation Plan, and ensuring it complies with all technical and funding standards, while maintaining regulatory agency requirements. The Cummins Cederberg team will be an extension of the District and is committed to assisting in all aspects of project management from initial kickoff meetings to project closeout. Our team management process will be used for managing and integrating all activities associated with each task utilizing the following detailed 5-step approach:

Task 1: Identify scope and budget. The first step will include early communications with the District to gain a full understanding of the scope of the project. We will work with the District to identify the project needs in order to develop the scope, qualifications, staffing, and budget estimate for each task along with potential phasing. Developing a full understanding of the needs of the project early on will help to avoid change orders as the project progresses and schedule overruns.

Task 2: Identify team members. Upon approval of the project scope by the District, we will immediately coordinate with the team (e.g., coastal engineering, environmental services, land use, economics) to select appropriate team members and staff to fulfill the requirements of each task. Our goals during this step are to identify the best suited personnel to address the task at hand, as well as to provide a highly responsive team who can conduct the requested work within the District’s desired timeframe and budget to meet the grant requirements.

Task 3: Proposal and project kickoff. Upon authorization to proceed, we will schedule a project kickoff meeting and immediately notify the District to discuss the project assignment and to develop and issue scopes of work for each subconsultant to clearly define the roles, responsibilities, project objectives, schedules, and expected deliverables for each team member. Effective channels of communication will be established, including points of contact and procedures for feedback.

Task 4: Project management. As part of overall project management, our team will obtain regular progress updates from our subconsultants and provide progress reports to the District as needed or as determined during project kickoff. We will regularly coordinate with the District to monitor the progress of individual tasks and will communicate often with District staff to ensure our team is meeting



or exceeding the level of quality and responsiveness the District expects. We will communicate frequently with the District to confirm our team is compliant with established procedures.

Task 5: Communication and reporting. To maximize the effectiveness of the project and gain public support for the plan, our team will develop presentations and outreach programming to engage with local stakeholders and community members. These programs will address the various adaptation strategies to address sea level rise, storm surge, and other long-term impacts identified during previous efforts; the challenges faced in the decision-making process; and the reasoning that informed the conceptual design concepts in the form of costs and benefits to the local environment and economy.

Quality Assurance and Control

Our quality management philosophy is focused on essential elements including customer satisfaction, management responsibility, continuous improvement, and proactive prevention (instead of reaction). We believe Project Management and Quality Management should complement each other as they work together. We have developed basic principles that guide our approach to quality management of our project deliverables throughout the project lifecycle.

As a top priority for Cummins Cederberg, quality drives our overall project management approach. Jason Cummins, PE, will serve as QA/QC Manager and will ensure each team member follows proven quality protocols. He will coordinate overall QA/QC, review project QA/QC plans, and review and verify satisfactory QA/QC procedures. He will also be responsible for working with Danielle Irwin, who will serve as Project Manager, to ensure said QA/QC procedures are being followed by all members of the team, including subconsultants.

With several former regulators on staff, who bring unmatched insight into the environmental regulatory permitting process, including senior staff from the FDEP and the USACE, we have an unmatched understanding of the State and Federal rules and regulations, and their application to complex coastal and marine projects, including adaptation plans. Through environmental permitting due diligence, our regulatory experts will review the overall concepts and individual project components to evaluate their feasibility and confirm they are not only permissible, but also ensure a streamlined permit process when eventually submitted to the regulatory

agencies. Each concept will be evaluated to ensure they clearly address the project's goals and applicable rules and regulations to include avoidance, minimization, and compensation of any impacts to aquatic functions and values.

Ground Truthing

Ground truthing in the context of addressing sea level rise and coastal resilience involves a multifaceted technical approach. It is understood the scope of this RFQ is not a peer review of the work by others (e.g., APTIM); however, some level of ground truthing can be completed to provide an additional level of comfort to the District and local stakeholders that the Captiva Bayside Adaptation Plan is formed on a sound foundation. For example, water levels published for nearby communities can be reviewed to compare water levels and the latest NOAA sea level rise projections can be reviewed to determine if changes have been made. Discussions with Public Works can be held to discuss recent grade changes, large erosion events, beach nourishments, and similar projects that would result in variations from the most-recent LiDAR data (circa 2018) and current conditions. Further, resampling and analysis of LiDAR data can be completed to identify existing seawall cap elevations using remote methods so detailed field surveys are not needed to save project budget. Cummins Cederberg completed this exercise for the City of Hollywood to simulate inland inundation on a parcel-by-parcel basis.

Acknowledgment Statement

Cummins Cederberg has read the details of the Request for Qualifications and background documents, including existing reports such as the Sea Level Rise Vulnerability Analysis (APTIM, 2023), Captiva Island Vulnerability Assessment and Adaptation Plan (Brizaga, 2022), and the Phase I Legal Memorandum (Erin Deady, Date Unknown). We understand the project's scope of work and goals both in the short- and long-term. We have reviewed the stated project schedule for the services included in the RFQ and will work with the District and local community stakeholders to complete the project by November 30, 2024.

Technical Approach

The Cummins Cederberg team of engineers, scientists, and additional technical staff are familiar with the flooding issues Captiva is facing and understand the technical expertise required to develop a comprehensive Adaptation Plan for the priority areas identified on the bay side. Many of our subconsultants have also gained direct experience working with us on coastal resiliency projects including the City of Hollywood Tidal Flood Mitigation and FDOT D1 Roadmap to Resiliency.

As a leader in the resiliency and adaptation plan space in the State of Florida, Cummins Cederberg will leverage our experience produce a list of prioritized bayside adaptation areas. Using our experience developing resiliency roadmaps for all of Miami-Dade County's waterfront parks, we understand the need to prioritize and phase individual components of an adaptation plan.

For example, improvements to a fire station before raising the road providing access to the fire station would result in inaccessibility during an extreme event. Understanding how disparate elements of community work together is vital to developing a comprehensive plan.

The following summarizes our technical approach to servicing this adaptation plan and describes how the Cummins Cederberg team will assist the District with each area of the scope of work described under this RFQ.



Kick off and Project Steering Committee

Upon contract award, Cummins Cederberg will meet with District staff to understand project goals, confirm schedule and budget, establish a key list of stakeholders and determine an appropriate public outreach approach as needed (while not explicitly required in the Grant Work Plan, this is a component generally favored by the Resilient Florida Grant Program). We believe the key to success for any project is COMMUNICATION, which begins at project start! During this meeting, we will establish regular biweekly progress meetings with District staff and the Project Steering Committee to understand their specific concerns for the Adaptation Plan.

As part of the kickoff meeting discussion, we will also identify available data to be provided by the District, such as GIS asset data, and discuss any notable areas where flooding is prevalent not previously identified. Additionally, we will review the Grant Agreement and Grant Work Plan as well as attachments between FDEP and the District to

provide full support from our Grant Administration team. **Notably, our grants team has secured over \$45M in grant funding for our municipal and local government clients – among which our firm is actively managing over \$60M.**

Additionally, our team is intimately familiar with the Resilient Florida grant program – among others – and we have applied, negotiated, and managed them, including Resilient Florida grants for nearly 5 years (before the program name changed to Resilient Florida). **We can seamlessly support the District's needs to ensure the project is executed in accordance with the grants so as to not only jeopardize current funding, but also bolster the District's opportunity for future funding.**



Acquire Background Data

Cummins Cederberg will research and compile the data needed to develop the Adaptation Plan. We will identify existing data to avoid duplicative efforts and data gaps or data of low quality. New data collection efforts will be initiated to obtain the most recent and best available data, including but not limited to:

- Topographic/Bathymetric survey data within the City and in the nearshore
- GIS asset data including elevation certificates, as-built plans, and relevant building permits within the municipal boundary
- Marine resource surveys to map mangroves and submerged resources (e.g., seagrass, corals)
- Existing utility layout to avoid conflicts with proposed works
- Existing construction easements to facilitate access



Public-Private Implementation Analysis

Cummins Cederberg will evaluate ownership issues which may arise based on the ownership status of each parcel. An initial review of the Phase 1 Legal Memorandum (Erin Deady, Date Unknown) appears to indicate the District has broad authority to implement measures on public and private land provided they are “considered erosion prevention... and are necessary or useful in the protection of the lands.” Therefore, it appears the District has flexibility in the Adaptation Plan.

We will work with our internal expert on Sovereign Submerged Lands and land use attorney (Akerman)

to review the preliminary legal opinion and complete a thorough evaluation of the concepts, both structure-based and policy-based, to ensure they align with the District’s goals and expectations. For example, the District and stakeholders may need to consider obtaining construction easements to allow construction on private property or perpetual easements to allow the District to access private property for ongoing maintenance due to long-term deterioration, sea level rise, or storm damage.

New construction could also change access, so ADA requirements are no longer met if not considered in the design. The Adaptation Plan may include incentives for private homeowners to complete projects or work together with adjacent parcels to form more continuous and consistent shoreline treatments. This strategy may create more cost savings throughout the project lifecycle for private homeowners as well as, potentially, the District. Our experience with the City of Hollywood’s Tidal Flood project will be leveraged as Cummins Cederberg supported the City navigating the legal basis for installing tidal flood barriers on land leased to private homeowners that required demolition of the private docks.



Adaptation Plan

Cummins Cederberg will work with the District to develop a comprehensive Captiva Bayside Adaptation Plan that outlines and expands up short-, intermediate-, and long-term strategies identified in the Sea Level Rise Vulnerability Analysis (APTIM, 2023) and Captiva Island Vulnerability Assessment and Adaptation Plan (Brizaga, 2022) for implementation in order to reduce or mitigate flood risks. The Adaptation Plan will consider local and regional goals to ensure the proposed island-wide strategies align rather than contradict with regional stakeholder initiatives.

Additionally, the Adaptation Plan will be consistent with the Florida Adaptation Planning Guidebook. The Plan will include an assessment of adaptive capacities for each publicly owned critical and regionally significant asset, develop prioritization of adaptation needs within each critical asset class, and identify a matrix of adaptation strategies. Our team will also evaluate potential focus areas and adaptation action areas as necessary, conduct additional stakeholder engagement and integrate this adaptation and resiliency plan into other existing City and County Planning documents, including but not limited to the Lee County Code of Ordinances and Comprehensive Plan.

Adaptation to coastal erosion and sea level rise along the bayside of Captiva will require multiple approaches over

time as **no one category or specific adaptation strategy is considered the “best” option forever.** Uncertainties in the timing of storm waves occurring at high tides, the increase of water levels in the future, and projected extents of future coastal erosion and inundation, require consideration of feasible adaptation strategies over both short- and long-term time scales with an adaptation pathways approach.

An adaptation pathway helps visualize the sequences of possible adaptation responses through time in a stepwise manner. Each modification is designed to meet a certain performance level over a period of time, and once a threshold is reached where the results are no longer acceptable, a transition to another strategy or modification of the existing strategy is required. Before this point is reached, planning should be undertaken to identify possible triggers and anticipate the lag times associated with outreach, permitting, design, and construction. Due to the uncertainty over future physical conditions, natural variability, and changing societal values, adaptation pathways should remain flexible.

The moment of an adaptation tipping point or trigger helps identify when a change in path is necessary; however, not all actions can be implemented at once. As a result, trigger points are used that are hindcast from a potential tipping point, providing lead time for permitting and other considerations. Adaptation plans that utilize selected triggers in a robust manner are important for facilitating planning, which incorporates the inherent uncertainty and risk surrounding the effects of sea level rise and climate change hazards on coastal areas.



Public Outreach Meetings

Cummins Cederberg has extensive experience with public outreach meetings and communicating technical concepts to non-technical audiences. As a mid-sized firm, we have the experience of working not only with large municipalities but also with single-family homeowners and multi-family HOAs, which uniquely positions us to understand the individual needs of a community. Also, our size allows our principals to be involved and provide rapid decision making on issues that may affect the community or the project.

We will leverage our experience in communications and outreach strategy to present a unified message and solicit and consider public input. Our staff are experts in gathering community support and building public will around projects while providing low-cost, high-quality outreach programming. We will work with the District to

ensure public meetings are designed to solicit feedback and engage the community early on in the planning and conceptual design process. Events are streamlined so residents can provide feedback and make their concerns known in a short period of time, allowing them to get back to their homes and families.

We can also collaborate with the District, residents, and local stakeholders, including the Captiva Community Panel, Sanibel-Captiva Conservation Foundation, and City of Sanibel, to collaborate to determine the highest priority concerns from both quantitative and qualitative perspectives. This process can be used in any community engagement process to prioritize community desires across multiple public meetings and stakeholder engagements and inform the design decisions that will affect the community's quality of life.

Cummins Cederberg will strive to effectively communicate the many aspects of the plan and concepts therein. We prioritize communicating the factors considered with each strategy and concept, specifically the permitability, function, cost-effectiveness, fundability, and environmental impact. We have done this previously by creating a matrix of potential adaptation options to clearly present the information in a graphical form. We will be sure to explain Florida's unique challenges with regard to sea level rise, including storm surge, porous limestone, leaching septic tanks, ecosystem health, and an aging infrastructure, which creates a complex web of interconnected systems that must be considered fully to effectively and responsibly implement any project.



Engineering Report with Conceptual Adaptation Drawings

Cummins Cederberg will prepare a comprehensive engineering report detailing the finding of each task. The report will serve as the foundational document to manage resiliency for Captiva through the end of the century. We recognize that the infrastructure and policy changes implemented now must consider current needs and future conditions. A detailed description of the adaptation strategy for critical and other assets, or portions thereof, will be included.

As part of the report, conceptual adaptation drawings will be developed and be consistent with an approximate 30%-level design. Each concept will be drawn to scale and consider zoning setbacks, water levels, protection levels, typical engineering design principals, adjacent marine resources, and constructability. The conceptual plans will be signed and sealed by a Florida-registered Professional

Engineer. Cummins Cederberg will utilize our in-house database of costs for similar marine works to develop Rough Order of Magnitude (ROM) Opinions of Probable Costs (OPC) for each concept to support planning and future grant funding endeavors. A field reconnaissance program will be developed, which will include site visits by a Cummins Cederberg engineer to document the existing conditions, potential challenges, and to support conceptual design.

Project Schedule

The District's timeline in the short- and long-term must be considered with each task. While short-term efforts are well defined and governed by the grant, long-term efforts, including infrastructure and planning changes, must be implemented with urgency to increase the resiliency of Captiva. A preliminary timeline for each subtask to meet the District's timeline for the project relative to the established grant deadlines can be found in Tab 5.

Innovative Methods or Concepts

Cummins Cederberg developed a database for the FDEP of state-permitted living shorelines from 2010 – Present. We will leverage this proprietary knowledge base to develop and propose living shorelines that have been successfully permitted in Florida to avoid proposing a non-feasible solution. To build out this database we led meetings with each agency and their office of technology/IT department as needed to ensure the data complies with agency standards. Upon completing this project, we presented the FDEP with a GIS geodatabase with metadata, the living shoreline permit database, maps and charts summarizing the living shoreline project information, and contact information from our outreach efforts. While building out the database, team members attended Florida Sea Grant's Marine Contractor Living Shoreline Training Course to better understand not only how to permit the shorelines, but to develop a hands on approach to the construction side to ensure our designs are buildable.



04. OTHER INFORMATION

A) Understanding of Adaptation Plans and the creation of related goals, objectives, and policies.

Adaptation plans are essential strategies aimed at mitigating the impact of sea level rise and increased flooding from hurricanes. These plans are developed to protect communities, infrastructure, and ecosystems from the adverse effects of climate change. Adaptation plans must consider many interconnected components to arrive at feasible goals, meet plan objectives, and create policies that balance protection with continued community enjoyment. While developing adaptation plans for other municipalities, the Cummins Cederberg has identified the following key considerations that must be assessed and evaluated carefully and thoroughly to meet the Adaptation Plan's intent:



B) Firm's experience and understanding of adaptation planning for both public and privately-owned shorelines and sovereign submerged lands.

The Cummins Cederberg team is uniquely positioned to address the inevitable challenge of adaptation planning for both public and privately-owned shorelines and sovereign submerged lands. We have direct experience with similar issues from our work on the City of Hollywood Tidal Flooding project, which included the City building tidal flood barriers along City-owned parcels. As we worked through permitting and design, the City discovered that private homeowners had leased the area immediately waterward of the City-owned parcels to build private docks. As a result, the City-built tidal flood barriers would restrict the access to the private docks used by the homeowners immediately upland on the other side of the right-of-way. Early engagement and education of the private homeowners was required to explain the

project, specifically the benefit provided by the barriers relative to upland flooding. Also, Cummins Cederberg supported the internal City counsel to provide technical assistance through the process. The Cummins Cederberg team includes experts on Sovereign Submerged Lands issues relative to adaptation planning. The in-water improvements we have permitting and designed for the City of Hollywood, Jose Marti Park in Miami, Currie Park in West Palm Beach, and The Bay in the City of Sarasota required careful evaluation of sovereign submerged lands and proximity to Federal channels (i.e., Intracoastal Waterway) and aquatic preserves.

C) Firm’s understanding of Engineering Reports and the creation of conceptual design drawings.

Engineering reports and the creation of conceptual design drawings are essential components of the design and development process. Both play a crucial role in the successful planning, development, and execution of our engineering projects. With a keen focus on adaptation and its far-reaching implications, our team excels in crafting reports that meticulously analyze the dynamic coastal environment, predicting future scenarios and vulnerabilities. Most importantly, our experience working for myriad public and private clients allows us to understand that a technical report must communicate technical ideas and concepts to a non-technical audience. Reports serve as a written record and communication tool, while conceptual design drawings provide a visual representation of initial design ideas. Also, Jason Cummins, one of our founders and principal engineers, will be serving as QA/QC Manager to ensure all work products are of the utmost quality and meet the District’s expectations. We also recognize that the Engineering Reports are frequently living documents that are modified as future conditions and needs are encountered; therefore, we write our engineering reports in way that allows for these changes to easily be incorporated.

Our conceptual design drawings will provide a comprehensive and systematic presentation of technical information related to infrastructure projects presented in the Adaptation Plan. They play a crucial role in documenting, analyzing, and communicating the various aspects of a project including layout, scale, and aesthetics. Conceptual design drawings will show our visual representation of the adaptation design ideas and facilitate decision making by both the District and local community. They are typically created during the early stages of the project, before detailed design and engineering work begins, and can be updated as the project progresses. Our extensive work for private homeowners and developers has shown us the importance of realistic conceptual designs as a non-technical audience may not fully grasp a technical engineering drawing.

D) Firm’s understanding and experience identifying and assessing nature-based solutions and hybrid (green-grey) adaptation strategies with respect to projected climate change impacts, including flooding impacts such as coastal tidal flooding, sea level rise (SLR), and coastal erosion.

Cummins Cederberg understands that implementing nature-based solutions and adaptation strategies to mitigate flooding impacts due to climate change is a holistic and interdisciplinary process that requires collaboration between engineers, environmental specialists, policymakers, and the local community. The goal is to enhance resilience and reduce the risks associated with sea level rise, coastal erosion, and other flooding events while preserving and restoring natural ecosystems. Identifying the suitability of nature-based solutions for each priority area is of paramount importance to ensure the treatment for each area or parcel is effective and functional during normal and extreme events. Cummins Cederberg will work with the District to conduct a thorough review of each concept and policy change at a broad and granular level to meet the project goals.

Our team has led several of the most significant ongoing or implemented sea level rise adaptation projects in Florida. We have developed executable resiliency roadmaps for many communities including seven Miami-Dade County’s waterfront parks plans (+2,000 acres), which are currently in various stages of implementation. For the City of Hollywood, we are leading their \$26M shoreline adaptation project in the Lakes neighborhood, which is significantly exposed to tidal flooding and subject to Florida Resiliency grant deadlines and reporting requirements. We also supported the City with review and implementation of their recently adopted seawall ordinance. At Jose Marti Park in the City of Miami, we led the waterfront design, providing the City with a toolbox of shoreline stabilization options ranging from living shoreline, rock revetment, and a recently permitted living seawall. For the Town of Bay Harbor Island, we performed inspections for the entire Town-wide shoreline to develop a GIS inventory with an evaluation of sea level rise exposure. The outcome of this project directly resulted in updates to the Town’s Stormwater Masterplan.

E) Firm’s familiarity with non-structural strategies such as best management practices, proposed ordinance changes, etc.

The Cummins Cederberg recognizes that achieving resiliency through adaptation requires a multi-pronged approach. In addition to engineering solutions, a suite of best management practices (BMPs) should be developed to complement physical changes. Cummins Cederberg always looks to enhance or expand planting areas to not only reduce wave energy and provide shoreline stabilization, but also to provide habitat and a more natural aesthetic. Further, we have developed maintenance plans for these areas to maintain their health and function. The Captiva Bayside Adaptation Plan will require review and potential changes to the stormwater management within the City. Specifically, BMPs may include re-locating equipment where accessibility is guaranteed if maintenance is regularly needed and inundation is possible, or to build redundant systems. Other potential BMPs for consideration include maintaining accurate as-built drawings so lost, damaged, or inaccessible equipment can be located and identified.

Cummins Cederberg provided a technical review of the Broward County model ordinance for tidal flooding to provide recommendations and modifications to ensure the model ordinance was consistent with the local municipality and their specific needs. We reviewed the Broward County Model Ordinance, the City of Hollywood draft Ordinance, other municipal seawall ordinances within and outside of Broward County, and additional code reviews requested by the City. We conducted research, outreach to other municipalities, outreach and interviews with leading experts, attendance at public meetings, policy-level engineering reviews, consolidation of findings, and formulation of recommendations.

F) Firm’s completed projects for clients in the United States, Florida, in the Southwest region of the United States, on islands including barrier islands, and for state and local governmental clients.

The Cummins Cederberg team has worked extensively on adaptation and resiliency projects throughout Florida and the United States, including projects in South Padre Island, TX; Captiva, FL; Naples, FL; multiple locations in CA; and Seaside, OR. Our focus is on the waterfront, almost exclusively on work along the Intracoastal Waterway, Atlantic Ocean, Gulf of Mexico, and the barrier islands in between. We understand that challenges of work on barriers islands including exposure on multiple sides, proximity to inlets, exclusive neighborhoods, and construction challenges due to limited access. More than half of our work is for state and local governments, so we understand the specific internal and external requirements of these projects.

Most recently, Cummins Cederberg completed a Coastal Asset Management Plan for all of FDOT District 1, which includes the City of Captiva. This is the first district wide sea level rise analysis for FDOT in Florida. The scope included creation of future tidal projections based on evaluating historical tidal measurements and the expected impact of climate change to sea level rise, local to District 1, until the year 2100. These projections were applied in a water level analysis to identify critical low-lying infrastructure throughout the district that is at risk to sea level rise and storm surge. Mitigation concepts were then developed which included designs for harmonization to roadway surroundings, natural or developed, along with the roadway improvements to assist neighboring adaption.

G) Describe any additional value-added benefits your firm/organization can offer the District not enumerated in the scope of work, submittal requirement responses or evaluation criteria.

The Cummins Cederberg team will provide a comprehensive suite of service to the District to support the current RFQ as well as future phases of the Project as Captiva moves to become a more resilient community. In addition to the services outlined in the RFQ, we can provide access to the following value-added benefits, which may improve the Adaptation even further:

Marine Inspections

The District and many private homeowners utilize coastal structures to stabilize and protect their shorelines on both the Gulf of Mexico and Pine Island Sound (i.e., bayside) waterfront through a combination of revetments and seawalls, in addition to traditional beach nourishment undertaken by the District. The maintenance of these structures can significantly extend their service life and reduce capital costs incurred by owners to replace these expensive structures. Cummins Cederberg is unique in Florida by bringing expertise in both coastal engineering and structural engineering. We are capable of fielding two OSHA-compliant dive teams to conduct underwater investigations of coastal structures. Our staff includes eight engineer-divers, seven of which are registered Professional Engineers in Florida. As the District moves forward with the Captiva Bayside Adaptation Plan project, many Captivans may argue that their

private structures do not need improvement. The District, through potential ordinance changes, may elect to require private structures be assessed by a Professional Engineer with coastal structure to determine if these structures are structurally sound and provide the level of protection required of the Plan. Implementation of a periodic maintenance program consisting of routine above- and underwater structural investigations could provide the District and private homeowners with valuable information. Cummins Cederberg can assist the District to develop and implement this management program, which could also include a plan for post-storm assessments of these assets.

Drones/Aerial Photography

The use of aerial photography provides an invaluable tool to observe changes to Captiva's coastline and upland areas. Cummins Cederberg owns and operates an Unmanned Aerial Vehicle (UAV), or drone, which we routinely use to collect data (e.g., photography, elevations) along the shoreline and in other difficult to access locations for our projects. We could deploy our drone to rapidly assess shoreline changes after a coastal storm, monitor shoreline improvement construction progress, evaluate king tide inundation relative to projections, or to supplement aerial photography efforts by other entities. Our technical staff includes three Federal Aviation Administration (FAA) certified remote pilots for small, unmanned aircraft systems (i.e., drone pilot) who can not only efficiently operate the drone, but are familiar with the legal requirements for filing a flight plan with the FAA and applying for the appropriate permits to work in Captiva's airspace.



Cummins Cederberg utilizes UAV's for surveying shoreline and dune systems

Bathymetric LiDAR Mapping

The US Army Corps of Engineers periodically collects elevation data after storm events (i.e., hurricanes) to document shoreline erosion. As the District has come to understand through management of Gulf-side beaches, this data proves valuable to document shoreline changes and erosion. There are two primary limitations with the status quo: timing and depth. The Corps only mobilizes their LiDAR equipment after a storm and may not reflect current conditions of the island. Through Cheryl Hapke's firm, Fugro, the District has access to the new RAMMS (Rapid Airborne Multibeam Mapping System) technology, which could be deployed more frequently than the Corps' schedule. RAMMS is a new bathymetric lidar system that delivers industry-leading depth penetration and point densities for nearshore and coastal mapping in turbid waters. Using this data would provide the District with the most current data to support planning and design as part of this project.

H) Proposer shall provide any additional project experience that will give an indication of the Proposer's overall abilities.

The Cummins Cederberg includes Dr. Cheryl Hapke, who will serve as Community Liaison for this project, and brings extensive experience working on Captiva and is familiar with needs of the District and Captivans. In 2021-2022, she led a team of scientists in the development of a series of conceptual nature-based adaptation designs for five Captiva bayside priority areas identified by the community based on the sea level rise vulnerability assessment her team completed in 2020. The first stage was to evaluate each area for exposure to waves and tidal currents, availability of space to accommodate the adaptation strategy, the current land use, and the gradient. The second stage involved the development of potential design elements for each of the areas. This included an extensive literature review of a variety of adaptation design elements successfully implemented in similar subtropical estuarine environments and focused on nature-based solutions to adhere to Captiva's Community Plan. The study resulted in a conceptual nature-based adaptation strategy design for each of the five typical priority areas, consisting of a combination of design elements optimal to that particular area, that takes into consideration efficacy, costs, and sustainability in their formulation. The project was undertaken in close consultation with the Captiva Sea Level Rise Committee, and the results were presented to the Captiva Community Panel, the Captiva Erosion Prevention Board, and at a broader community meeting on the island.

In 2019-2020, on behalf of the Captiva Sea Level Rise Committee, Dr. Hapke led a team of scientists in the assessment of the vulnerabilities of different community sectors to high tide inundation including sea level rise on Captiva Island. The assessment included acquisition and review of sea level rise data for a range of future scenarios; acquisition

and review of publicly accessible GIS data for relevant asset sectors; and analysis and mapping of existing and future vulnerabilities for relevant community sectors over time using best available data. The assessment clearly identified that the bayside of Captiva was the most vulnerable, especially by the time sea levels rise 2 ft. In addition, Dr. Hapke served as the coastal science subject matter expert to the Captiva Sea Level Rise committee, including attending monthly meetings and providing scientific advice.

In 2023, the Corps re-opened the Collier County Coastal Storm Risk Management Plan for review. On behalf of the Conservancy for Southwest Florida, Dr. Hapke led a team of scientists in the development of a series of nature-based strategies to be proposed as alternatives to the gray and hard features being proposed by Corps. For the Naples Bay region, the team developed conceptual nature-based solutions as a comprehensive and integrated system designed to work together whilst benefiting the ecosystem. The team created artistic renderings of the alternative strategies that clearly communicated the function and appearance of the portfolio of options to be used in both internal discussion as well as for external communication at community meetings. The team provided a powerful communication tool kit to demonstrate the benefits of nature-based solutions not only for the natural environment but also for community infrastructure.

I) If the Proposer will require any other information from the District not included in this Request for Proposal or require from the District any information in a particular computerized format in order to carry out the Scope of Services in Section 3, the Proposer shall also include such requirement in this section, i.e. Tab 4.

The Cummins Cederberg team will research and compile the data needed to develop the adaptation plan as outlined in the scope of work to identify data gaps and avoid duplicative data collection efforts. In addition to thoroughly reviewing existing reports such as the Sea Level Rise Vulnerability Analysis (APTIM, 2023), Captiva Island Vulnerability Assessment and Adaptation Plan (Brizaga, 2022), and the Phase I Legal Memorandum (Erin Deady, Date Unknown), Cummins Cederberg will review existing data used to support previous studies or infrastructure projects. Specific data requests of the District may include digital copies of surveys, GIS shapefiles/geodatabases of critical assets, and historical maps/aerial photographs. Further, historical versions of ordinances, environmental/building permits, and copies of the grant applications will be requests to provide a comprehensive product. A preliminary review of existing elevation data indicates the most recent available LiDAR elevation data is from 2018 (Pre-Hurricane Ian) and may not be indicative of existing conditions. The Cummins Cederberg team could potentially deploy subconsultant Fugro's RAMMS system to collect current Captiva-specific elevation data to provide the most current baseline for conceptual design.

J) If the Proposer cannot fully comply with any of the terms contained in the draft contract, shown in Section Two, all deviations to the terms must be spelled out in this section, i.e. Tab 4. This is particularly important for the timely completion and submission of deliverables to meet the schedules in the grants.

Cummins Cederberg will comply with the terms and conditions listed in the draft contract shown in section two of the RFQ. We recognize the sensitivity of the grant funding and commit to the timely completion and submission of deliverables to meet grant schedule deadlines.



**Cost Breakdown
Across Tasks/Schedule**

05. COST BREAKDOWN ACROSS TASKS & SCHEDULE

Project Timeline		2023												2024		
Task	Budget Allocation	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov		
1. Kickoff and Project Steering Committee	\$10,000															
1.1 Project Kickoff Meeting																
1.2 Monthly Progress Meetings																
2. Acquire Background Data	\$20,000															
2.1 Compile Background Data and Identify Gaps																
2.2 Review & Process Existing Topo/Bathy Data																
2.3 Prepare Technical and Summary Reports																
3. Public-Private Implementation Analysis	\$30,000															
3.1 Strategic Analysis of Adaptation Strategies																
3.2 Develop Standards and Evaluation Criteria																
3.3 Analysis and Findings Report																
4. Adaptation Plan	\$200,000															
4.1 Prioritizations and Strategy Identification																
4.2 Prioritize Projects for Asset Classes																
4.3 Feasibility Study and Policy Recommendations																
4.4 Development of Adaptation Pathways																
4.5 Final Adaptation Plan																
5. Public Outreach Meetings	\$40,000															
5.1 Public Outreach																
6. Engineering Report with Conceptual Adaptation Drawings	\$200,000															
6.1 Develop Conceptual Designs																
6.2 Narrative for Designs																
6.3 Engineering Report																



06. CORPORATE INFORMATION

1. List of officers and directors of the entity.

Jannek Cederberg, PE

Jason Cummins, PE

2. The number of years the entity has been operating.

13 years

3. The number of years the entity has been operated under its present name.

13 years

4. Answers to the following questions regarding claims and suits:

a) Has the person, principals, entity, or any entity previously owns, operated or directed by any of its officers, major shareholders or directors, ever failed to complete work or provide the goods for which it has contracted?

No

b) Are there any judgments, claims, arbitration proceeding or suits pending or outstanding against the person, principal of the entity, or entity, or any entity previously owned, operated or directed by any of its officers, directors, or general partners?

No

c) Has the person, principal of the entity, or any entity previously owned, operated or directed by any of its officers, major shareholders or directors within the last five (5) years, been a party to any lawsuit, arbitration, or mediation with regard to a contract for services, goods or construction services similar to those requested in the specifications with private or public entities?

No

d) Has the person principal of the entity, or any entity previously owned, operated or directed by any of its officers, owners, partners, major shareholders or directors, ever initiated litigation against previous clients or been sued by previous clients in connection with a contract to provide services, goods, or construction services? If yes, provide details; e) Whether, within the last five (5) years, the owner, an officer, general partner, principal, controlling shareholder or major creditor of the person or entity was an officer, director, general partner, principal, controlling shareholder or major creditor of any entity that failed to perform services or furnish goods similar to those sought in the request for competitive solicitation.

No

f) Credit References:

CPA:

Brian Misiunas
bmisiunas@psms-cpa.com
Haller Robbins Epelbaum Misiunas, LLC
3444 Main Highway
Second Floor
Miami, Florida 33133
305/858-5800

Banker:

Max Vazquez
Senior Vice President
Regional Branch Manager
First National Bank of South Florida
5750 Sunset Drive
S. Miami, Florida 33143
305/662-5447

Insurance Broker:

Patricia Lane Schmaltz
Executive Vice President
Lassiterware
1300 North Westshore Blvd.
Suite 110
Tampa, Florida 33607
800/845-8437

g) Financial Statements for the prior three years for the responding entity

Please see separate file.



District-required Documents

07. CERTIFICATE OF INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE ENDORSEMENT
09/26/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or its endorsement. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in the event of such endorsement(s).

PRODUCER LassiterWare LLC 1300 N. Westshore Blvd. Suite 110 Tampa FL 33607		Wendy Tyree (800) 845-8437 wendyt@lassiterware.com (888) 883-8680	
INSURED Cummins Cederberg, Inc. 201 Alhambra Circle, Suite 601 Coral Gables FL 33134		INSURERS AFFORDING COVERAGE	
		INSURER A: American Casualty Co-Reading	NAIC # 20427
		INSURER B: Continental Insurance Company	35289
		INSURER C: Benchmark Ins Co	41394
		INSURER D: Pacific Insurance Company Ltd	10046
		INSURER E:	
		INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** 23-24 Cert **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS \$-AMOUNT MAY HAVE BEEN REDUCED BY FUND CLAIMS.

TYPE	TYPE OF INSURANCE	POLICY NO.	POLICY NUMBER	POLICY EFF. DATE (MM/DD/YYYY)	POLICY EXPI. DATE (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIM-MADE <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> 100 <input type="checkbox"/> 100 <input type="checkbox"/> 100 <input type="checkbox"/> OTHER		7034507431	09/26/2023	09/26/2024	EACH OCCURRENCE \$ 1,000,000 PERSONAL & ADV INJURY \$ 1,000,000 BODILY INJURY \$ 15,000 PERSONAL & ADV INJURY \$ 1,000,000 COMMERCIAL GENERAL LIABILITY \$ 2,000,000 PRODUCTS - COMMER AGG \$ 2,000,000
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> AUTO ONLY <input checked="" type="checkbox"/> AUTO ONLY		7034507445	09/26/2023	09/26/2024	COMMERCIAL LIABILITY \$ 1,000,000 BODILY INJURY (PERSONAL) \$ BODILY INJURY (PERSONAL) \$ PERSONAL & ADV INJURY \$ PIP-BASIC \$ 10,000
	UMBRELLA LIME EXCESS LIME <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIM-MADE DED RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$ \$
C	WORKERS COMPENSATION AND EMPLOYERS LIABILITY ANY EMPLOYER/CONTRACTOR/RENTAL/OPERATIVE Y/N N W/A		MWC2200075-01	09/26/2023	09/26/2024	<input checked="" type="checkbox"/> PERMUTE <input type="checkbox"/> NON-PERMUTE EL EMPLOYER \$ 1,000,000 EL EMPLOYEE \$ 1,000,000 EL EMPLOYEE - POLICY LIMIT \$ 1,000,000
D	Professional Liability / Pollution Incident Liability (Claims-Made)		OH045445623	09/30/2023	09/26/2024	Each Claim \$2,000,000 Aggregate \$2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER ~Evidence of Insurance c/o Cummins Cederberg, Inc. 201 Alhambra Circle, Suite 601 Coral Gables FL 33134	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
---	--

BUSINESS TAX RECEIPT



City of Sarasota Local Business Tax Division

City Hall Annex Bldg.
1565 1st Street
Sarasota, FL 34236
Phone: (941) 263-6469
Fax: (941) 954-4178

October 18, 2023

Cummins Cederberg Inc
Attn: Monica Nuevo
201 Alhambra Cir Suite 601
Coral Gables, FL 33134

RE: Local Business Tax Receipt Approval and Balance Due Notice

Dear Monica Nuevo:

You are hereby notified that your application for a Local Business Tax Receipt has been approved for the address below but the outstanding fees have not been paid.

Name: **Cummins Cederberg Inc**

DBA: **Cummins Cederberg Inc**

Address: **1491 2nd St Suite E**

City, State Zip: **Sarasota, FL 34236**

To complete processing of your application, all fees must be paid in full. The balance due on your application is \$71.85. Payment may be rendered by Check or Money Order made payable to City of Sarasota Local Business Tax Division.

You may also pay for your application electronically through the City of Sarasota Local Business Tax Division Portal. A link to this portal is located on our website: <https://ftgportal.sarasotafl.gov/>. If you cannot find your Tax Receipt listed, select the "Can't find your existing application listed?" option. Then enter your Application ID: 2024-0075789 and your Phone Number: (305)741-6155 to access your application.

Should you have any questions, please feel free to contact this office.

Thank you,

City of Sarasota Local Business Tax Division

Application ID: 2024-0075789

003349

Local Business Tax Receipt
Miami-Dade County, State of Florida
-THIS IS NOT A BILL - DO NOT PAY



6603626

BUSINESS NAME/LOCATION
CUMMINS CEDERBERG INC
201 ALHAMBRA CIR STE 601
CORAL GABLES FL 33134-5199

RECEIPT NO.
RENEWAL
6874342



EXPIRES
SEPTEMBER 30, 2024
Must be displayed at place of business
Pursuant to County Code
Chapter 8A - Art. 9 & 10

OWNER
CUMMINS CEDERBERG INC
C/O JANNEK CEDERBERG, PRES

SEC. TYPE OF BUSINESS
212 P.A./CORP/PARTNERSHIP/FIRM
EB29062

PAYMENT RECEIVED
BY TAX COLLECTOR
\$45.00 07/27/2023
FPPU06-23-004156

Employee(s) 1

This Local Business Tax Receipt only confirms payment of the Local Business Tax. The Receipt is not a license, permit, or a certification of the holder's qualifications, to do business. Holder must comply with any governmental or nongovernmental regulatory laws and requirements which apply to the business.

The RECEIPT NO. above must be displayed on all commercial vehicles - Miami-Dade Code Sec 8a-276.

For more information, visit www.miamidade.gov/taxcollector

BUSINESS LICENSE

8/16/23, 9:25 AM

DBPR - CUMMINS CEDERBERG, INC., Engineering Business Registry

THE OFFICIAL SITE OF THE FLORIDA DEPARTMENT OF BUSINESS &
PROFESSIONAL REGULATION



Florida
dbpr Department of Business
& Professional Regulation

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- [Unlicensed Activity Search](#)
- [AB&T Delinquent Invoice & Activity List Search](#)

LICENSEE DETAILS

9:25:01 AM 8/16/2023

Licensee Information

Name:	CUMMINS CEDERBERG, INC. (Primary Name)
Main Address:	201 ALHAMBRA CIRCLE SUITE 601 CORAL GABLES Florida 33134
County:	DADE

License Information

License Type:	Engineering Business Registry
Rank:	Registry
License Number:	29062
Status:	Current
Licensure Date:	04/02/2010
Expires:	

Special Qualifications

Qualification Effective

Alternate Names

[View Related License Information](#)

[View License Complaint](#)

2601 Blair Stone Road, Tallahassee FL 32399 :: Email: [Customer Contact Center](#) :: Customer Contact Center: 850.487.1395

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Under Florida law, email addresses are public records. If you do not want your email address released in response to a public-records request, do not send electronic mail to this entity. Instead, contact the office by phone or by traditional mail. If you have any questions, please contact 850.487.1395. *Pursuant to Section 455.275(1), Florida Statutes, effective October 1, 2012, licensees licensed under Chapter 455, F.S. must provide the Department with an email address if they have one. The emails provided may be used for official communication with the licensee. However email addresses are public record. If you do not wish to supply a personal address, please provide the Department with an email address which can be made available to the public. Please see our [Chapter 455](#) page to determine if you are affected by this change.

<https://www.myfloridalicense.com/LicenseDetail.asp?SID=&id=1578466F32D93D1249156C686C9D0BAA>

1/2

State of Florida

Department of State

I certify from the records of this office that CUMMINS CEDERBERG, INC. is a corporation organized under the laws of the State of Florida, filed on March 16, 2010, effective March 17, 2010.


The document number of this corporation is P10000023540.

I further certify that said corporation has paid all fees due this office through December 31, 2023, that its most recent annual report/uniform business report was filed on January 24, 2023, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

*Given under my hand and the
Great Seal of the State of Florida
at Tallahassee, the Capital, this
the Twenty-first day of February,
2023*




Secretary of State

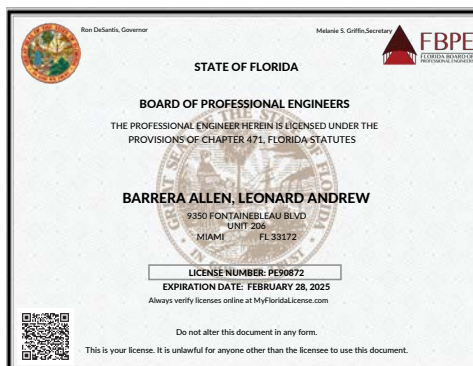
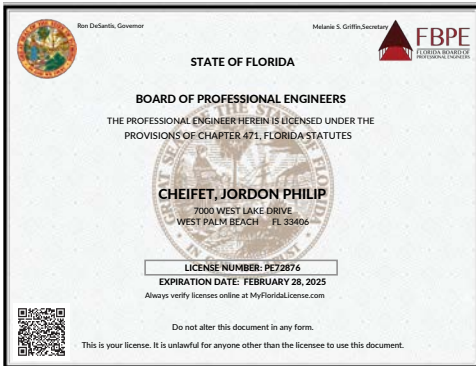
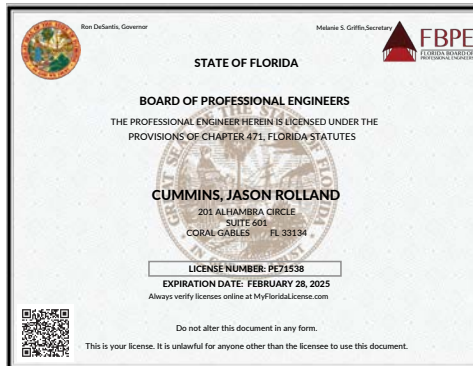
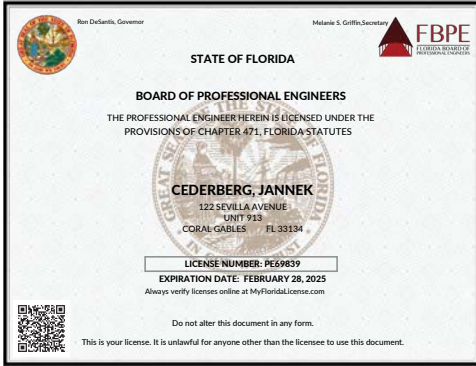
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CUMMINS | CEDERBERG

Coastal & Marine Engineering



CUMMINS | CEDERBERG Coastal & Marine Engineering




CERTIFICATE OF COMPLETION

This certificate is presented to
Leonard Barrera
WEDG Associate

For successfully completing the WEDG Professionals Course on June 9-10th 2021.
Given on this day, **June 22, 2021.**

CREDENTIAL ID: WEDG-Assoc-2020

DATE ISSUED: 5 OCT 2020


VALID THROUGH: 5 OCT 2024



Karen Imas
VP of Programs





Cortney Koenig-Worrall
CEO and President



Waterfront Alliance verifies that
Danielle Irwin
Has attained the designation of
WEDG Associate

by completing the WEDG Professionals course on September 24 and 25, 2020 and attaining a satisfactory exam score, demonstrating an understanding of WEDG best practices for resilient, ecologically-sound, and accessible waterfront design.



Cortney Worrall
President & CEO
Waterfront Alliance
October 5, 2020




CERTIFICATE OF COMPLETION

This certificate is presented to
Katie Britt Williams
WEDG Associate

For successfully completing the WEDG Professionals Course on June 9-10th 2021.
Given on this day, **June 22, 2021.**



Karen Imas
VP of Programs




Cortney Koenig-Worrall
CEO and President




CERTIFICATE OF COMPLETION

This certificate is presented to
Rebecah Delp
WEDG Associate

For successfully completing the WEDG Professionals Course on June 9-10th 2021.
Given on this day, **June 22, 2021.**



Karen Imas
VP of Programs




Cortney Koenig-Worrall
CEO and President




CERTIFICATE OF COMPLETION

This certificate is presented to
Gina Chiello
WEDG Associate


For successfully completing the WEDG Professionals Course on June 9-10th 2021.
Given on this day, **June 22, 2021.**



Karen Imas
VP of Programs




Cortney Koenig-Worrall
CEO and President




LEONARD BARRERA ALLEN

ENVISION SUSTAINABILITY PROFESSIONAL


This individual has demonstrated Sustainability Professional-level competence through successful completion of the requisite training and exam.

May 03, 2022
Issued On

May 03, 2024
Valid Through



Anthony D. Allen
President & CEO
Institute for Sustainable Infrastructure



440728



10400596-AP-BD+C

11 NOV 2009

09 FEB 2022

GREEN BUSINESS CERTIFICATION INC. CERTIFIES THAT

Danielle Irwin

HAS ATTAINED THE DESIGNATION OF
LEED AP[®] Building Design + Construction

by demonstrating the knowledge and understanding of green building practices and principles needed to support the use of the LEED[®] green building program.



Malach Kaminion
PRESIDENT & CEO, U.S. GREEN BUILDING COUNCIL
PRESIDENT & CEO, GREEN BUSINESS CERTIFICATION

CUMMINS | CEDERBERG Coastal & Marine Engineering

The screenshot shows the Florida DBPR Online Services interface. At the top left is the 'Florida dbpr' logo. In the center is a banner with the text 'DBPR ONLINE SERVICES' and a 'Home' link. On the right, the date and time '3:09:10 PM 6/25/2011' are displayed. A left-hand navigation menu includes links such as 'Log On', 'Search for a Licensee', 'Apply for a License', 'View Application Status', 'Find Exam Information', 'File a Complaint', 'AB&T Delinquent Invoice & Activity', and 'List Search'. The main content area is titled 'Licensee Details' and contains two sections: 'Licensee Information' and 'License Information'.

Licensee Information	
Name:	CUMMINS CEDERBERG, INC. (Primary Name)
Main Address:	7550 RED ROAD SUITE 217 SOUTH MIAMI Florida 33143
County:	DADE
License Mailing:	
LicenseLocation:	

License Information	
License Type:	Registry
Rank:	Registry
License Number:	29062
Status:	Current
Licensure Date:	04/02/2010
Expires:	



STATE OF FLORIDA

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

KAIMRAJH, PATRICK DAVENDRA
 5732 SW 20TH STREET
 MIAMI FL 33135

LICENSE NUMBER: PE78535
 EXPIRATION DATE: FEBRUARY 28, 2025
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MARTINAT, DANIELA ALVAREZ
 1317 ISLEWORTH COURT
 ROYAL PALM BEACH FL 33411

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