

Delta Consultants, LLC



Delta is a South Florida-headquartered civil engineering firm that takes pride in being 100% minority and woman owned. Their professional staff are not only proficient project managers but are also technical subject matter experts that are experienced in the design, permitting, and construction of water, wastewater, stormwater, roadway, and site civil projects.

With a strong emphasis on innovation, collaboration, and technical excellence, Delta is committed to providing top-tier engineering solutions for today's complex infrastructure challenges. Their multidisciplinary approach allows them to address each project holistically, leveraging their expertise in various fields to deliver sustainable, cost-effective, and environmentally responsible results that contribute to the betterment of communities.

Their background, managing infrastructure projects from beginning to end, and from the perspective of an owner, a consultant, and a contractor, provides an in-depth understanding of proper planning for viable project execution. They have considerable experience in successful major public infrastructure projects and pride themselves in delivering projects that are fully constructed and operational.

As part of Delta's pledge to its clients, the firm focuses on delivering professional services that meet the goals of a public entity while exceeding expectations. This means, not only providing practical and actionable civil infrastructure designs, permitting, and construction management solutions, but also minimizing changes as consultants.

Having been in your shoes as municipal employees, they understand how important it is to have a true partner across all projects—one that is not myopically focused on the short term but is working to build a strong and lasting relationship.

Garth Solutions, Inc.



GSI is a South Florida-based communications and consulting firm specializing in public outreach, community engagement, and stakeholder coordination for public-sector projects. With over two decades of experience managing complex infrastructure programs, they have earned a reputation for delivering strategic, culturally competent, and results-driven solutions that connect project owners, communities, and regulatory agencies.

Their expertise spans infrastructure, transportation, municipal governance, education, and economic development. This breadth enables them to tailor outreach strategies to each project's unique requirements while maintaining the consistency and professionalism that multi-year capital programs demand. By integrating grassroots engagement with digital communication platforms, GSI ensures comprehensive stakeholder participation throughout extended project lifecycles.

Their communications professionals specialize in transforming technical project requirements into accessible public information. They facilitate productive dialogue between project teams and affected communities through multilingual campaigns, structured public meetings, and proactive construction impact messaging.

GSI's portfolio includes significant work within the City of Hollywood, most notably supporting the \$165M General Obligation Bond program. This experience provides their team with:

- » Established relationships with City commissioners and department heads
- » Familiarity with neighborhood dynamics across all City districts
- » Understanding of local HOA structures and meeting preferences
- » Existing coordination protocols with Broward County and FDOT

GHD Services Inc.



Established in 1928, **GHD includes 11,000+ diverse and skilled individuals connected by 160+ offices across five continents—Asia, Australia, Europe, North and South America, and the Pacific region.** In Florida, they maintain five offices and employ over 100 professionals. An interconnected global firm, GHD is renowned for award-winning design and solutions in Water, Transportation, Environment, Energy & Resources, and Property & Buildings.

Their Florida offices were originally part of the HSA/Conestoga-Rovers & Associates group of companies, a 400-person environmental consulting and geotechnical engineering firm that joined the GHD group through a merger in 2015. GHD's qualifications and capabilities for providing superior quality and cost-effective services are well known within Florida. Professionals anchor their team with advanced degrees in environmental engineering, geotechnical engineering, geology, chemistry, biology, construction management, and business administration. They have built a reputation with numerous public and private-sector clients by assigning highly qualified technical personnel with regulatory, consulting, military, and academic backgrounds.

GHD routinely provides comprehensive engineering and geotechnical continuing services to several Florida municipalities and government organizations, including:

- | | |
|---|------------------------------------|
| » South Florida Water Management District | » City of Arcadia |
| » Miami-Dade County | » City of North Port |
| » City of Miami | » City of Pinellas Park |
| » Pinellas County | » City of St. Petersburg |
| » Hillsborough County | » City of Tampa |
| » Manatee County | » Hillsborough County School Board |
| » Pasco County | » Pasco County Schools |
| » Tampa Bay Water | » Pinellas County Schools |

Jacobs Engineering Group, Inc.

Founded in 1947, Jacobs has evolved from a one-man engineering consultant to a publicly traded Fortune 500 company. **With 70+ years of leadership in engineering and construction management, they have been a part of the Florida engineering community since 1951.**

Jacobs is a global leader in professional services, delivering innovative, sustainable, and future-ready solutions for critical infrastructure and environmental challenges. With the purpose to create a more connected, sustainable world, Jacobs delivers full-spectrum services in planning, design, engineering, architecture, technology, and construction management. **Their team of more than 42,000 professionals worldwide, including nearly 1,000 across Florida, partners with public and private sector clients to shape thriving, resilient communities.**

Engineering News-Record (ENR) ranked Jacobs the No. 1 program management firm globally for the fourth consecutive year in 2024. Jacobs also ranked No. 1 on ENR's Top 500 Design Firms list for the seventh consecutive year in 2024. Jacobs has held a top five position in the Top 500 list since ENR's rankings began in 2003.

Jacobs has supported public agencies and utilities across Florida for more than 70 years, with offices throughout the state including Fort Lauderdale, Tampa, Miami, and Orlando. **Throughout South Florida, Jacobs has served as a trusted advisor and technical expert helping cities plan, deliver, and operate infrastructure that supports livability and long-term growth.**

They have deep experience in Florida's regulatory frameworks, permitting processes, and hydrologic conditions. Jacobs is a recognized leader in stormwater planning, modeling, and design. Across Florida, their stormwater professionals have supported municipal clients with system evaluations, regulatory compliance, and adaptive infrastructure that responds to changing climate conditions.

Longitude Surveyors, LLC



Longitude Surveyors is recognized as one of South Florida's premier firms in Surveying & Mapping, 3D Scanning, Subsurface Utility Engineering (SUE), and Construction Surveying services. **Since their inception in 2004, they have delivered precise and reliable solutions across both public and private sectors throughout South Florida.**

Based in Miami, Florida, **with a branch office in Broward County, Longitude Surveyors specializes in control, design, and right-of-way surveys for infrastructure improvements.** Their SUE services include utility designation, soft dig locating, and roadway use permitting for utility investigations.

As a client-driven company, they build their reputation by prioritizing client needs and consistently providing high-quality, on-time, and professional deliverables. They serve municipalities, governmental agencies, and private industries across Southeast Florida and the Caribbean, and are certified as AC-DBE, CBE, DBE, MBE and SBE and with various local, state, and federal government agencies, including Broward County, Miami-Dade County, Greater Miami Expressway Agency (GMX) and Florida Department of Transportation (FDOT).

Their firm's size and experience allow them to handle complex projects effectively while delivering personalized services that exceed client expectations. They combine local, hands-on support with innovative geospatial technologies to address project challenges, aligning their objectives with those of their clients.



Program Controls Inc.



PCI is a minority-owned firm providing professional engineering and construction support services on large and complex construction programs in utilities, aviation and other government and public sectors. **PCI has been actively participating on various water and wastewater projects and programs including the \$2B Consent Decree Program with Miami-Dade County, \$5B WASD-Managed CIP, \$400M South and Central District Treatment Plants as part of the Ocean Outfall Program, \$300M Prospect Lake Water Plant and \$100M I/I Reduction Program for the City of Fort Lauderdale.**

Founded in 2002 as a Florida corporation, PCI is one of the few firms in South Florida with a specialization and complete focus on all controls aspects of large construction projects. Since its inception, the firm has gained wide-spread recognition and has even been credited with "best-of-class" practices by peer reviews and independent boards toward the success of complex programs. Some of the services provided by the firm range from project and construction scheduling to estimating and VE; from cost engineering and budget control to change management and claims analysis; from setting up PMOs including core processes for governance, change, risk, and stage-gating to establishing KPIs and reporting.

PCI has been the controls lead for many local and large Capital Improvement Programs. Many of these billion-dollar programs not only have strict budget constraints but are also mandated with time-sensitive completion milestones to add to the complexity. They have contributed significantly to the success of these programs and have attained a great deal and depth of knowledge and experience.

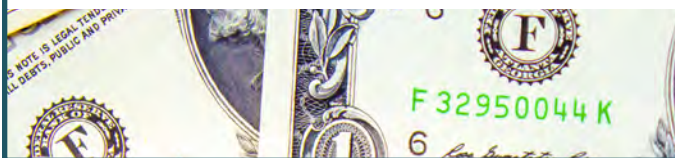


Santicola & Company



Santicola & Company was established in 2001 and over the past 24 years has worked in multiple communities across the United States, including Native American reservations. Santicola & Company helps communities reach economic, health and social equity by providing grant writing, capacity building, project facilitation and strategic planning services. They have helped generate grant funding for community development, including arts, broadband, culture, economic development, education, healthcare, housing, justice, language, open spaces, transportation, victim services and more. **By teaming up with a group of highly successful entrepreneurs and experts in their respective fields, the Santicola & Company team has individually and collectively generated over \$1B in grants in 20+ years and won numerous awards for excellence in leadership.** In 2010 and 2014, Beverly Santicola, the company's President and majority owner, was selected out of 1,600 national nominations as a Purpose Prize Fellow by Encore.org. In 2015, Santicola & Company designed and implemented the first-ever Native National Partnership Retreat that recruited over 40 funding agencies to participate in a three-day event for just one client that resulted in the generation of \$166M in new grant funding. **Their track record of success is 95%, in comparison to the national standard of 65%.**

Additionally, Santicola & Company worked with CES over 12 months to identify grants for the Miccosukee Tribe in Miami, Florida on a septic-to-sewer project. The Tribe had its own internal grant writer, but Santicola & Company worked to identify and co-develop applications due to its long-term, well-established relationships with federal funding partners.



U.S. Cost, Incorporated (dba RIB U.S.COST)



RIB U.S.COST offers a comprehensive range of services based on the knowledge and experience they have gained from working with thousands of clients around the world. Their expertise includes construction estimating, cost management, scheduling, and value engineering at all phases of a project, including Capital Planning, Pre-Construction, Procurement and Construction. Their professional services are delivered using a comprehensive 5D Virtual Design and Construction enterprise solution that encompasses virtual project planning, estimating, cost and time management and controls. Their passion and commitment is to deliver on the promise of BIM to enhance project delivery and sustainability.

RIB U.S.COST is recognized as a leading cost management and project controls firm, assisting clients with specialized services since 1983. With employees across the country, RIB U.S.COST serves facility owners, government agencies, program managers, architects, engineers, contractors and others in the construction industry.

Sample projects include the following:

- » Miami-Dade Water & Sewer Department, Professional Cost Estimating and Scheduling Services/Staff Augmentation, Miami, FL
- » Metropolitan Water District of Southern California, Cost Estimating Model & Database, California
- » Repair/Replacement of Various Wastewater Facilities, Houston, TX
- » Combined Sewer Outflow Plan, Atlanta, GA
- » Fulton County Water Treatment Plant Improvements, Atlanta, GA
- » Hemphill Finished Water Pump Station and Reservoir Pump Station Renovations, Atlanta, GA
- » Proctor Creek and Sandy Creek Basins Sewer Replacement, Atlanta, GA

Tab I: Financial Resources



July 10, 2025

Mr. Hugo Davalos, Senior Project Manager;
Mr. Jean Joinville, Procurement Manager;
Mr. Otis Thomas, Director/Chief Procurement Officer;
and Selection Committee Members

City of Hollywood

1621 N. 14th Avenue
Hollywood, FL 33020

RE: City of Hollywood RFQ-320-25-JJ – Stormwater Program Management

Dear Mr. Davalos, Mr. Joinville, Mr. Thomas, and Selection Committee Members:

CES Consultants, Inc. (CES) is in good financial standing, remains well-capitalized, and has the necessary human and financial/capital resources to execute the services requested under this contract. CES is not now, nor has it ever been, insolvent, in bankruptcy proceedings or receivership, or engaged in or threatened with any litigation or other legal or administrative proceedings or investigations of any kind that would have an adverse effect on its ability to perform its obligations under this contract.

Should you have any questions, please contact me at 954.613.4353 or cesinfo@cesconsult.com.

Sincerely,

CES Consultants, Inc.

A handwritten signature in blue ink, appearing to read 'Juan Alfonso', with a stylized flourish extending to the right.

Juan Alfonso, AIA, NCARB, RID, CCM
President & COO



Tab J: Legal Proceedings and Performance



July 10, 2025

Mr. Hugo Davalos, Senior Project Manager;
Mr. Jean Joinville, Procurement Manager;
Mr. Otis Thomas, Director/Chief Procurement Officer;
and Selection Committee Members

City of Hollywood
1621 N. 14th Avenue
Hollywood, FL 33020

RE: City of Hollywood RFQ-320-25-JJ – Stormwater Program Management

Dear Mr. Davalos, Mr. Joinville, Mr. Thomas, and Selection Committee Members:

CES Consultants, Inc. (CES) has not paid liquidated damages or been terminated for default. There have been no legal proceedings against CES in the last five years. Additionally, as requested, please see below.

1. **Arbitrations:** *List all construction arbitration demands filed by or against your firm in the last five years, and identify the nature of the claim, the amount in dispute, the parties, and the ultimate resolution of the proceeding.*

None

2. **Lawsuits:** *List all construction related lawsuits (other than labor or personal injury litigation) filed by or against your firm in the last five years, and identify the nature of the claim, the amount in dispute, the parties, and the ultimate resolution of the lawsuit.*

None

3. **Other Proceedings:** *Identify any lawsuits, administrative proceedings, or hearings initiated by the National Labor Relations Board or similar state agency in the past five years concerning any labor practices by your firm. Identify the nature of any proceeding and its ultimate resolution. Identify any lawsuits, administrative proceedings, or hearings initiated by the Occupational Safety and Health Administration concerning the project safety practices of your company in the last five years. Identify the nature of any proceeding and its ultimate resolution.*

None

4. **Bankruptcies:** *Has your firm or its parents or any subsidiaries ever had a Bankruptcy Petition filed in its name, voluntarily or involuntarily? (If yes, specify date, circumstances, and resolution).*

No

5. **Has a contract to which you were a party ever been terminated by the other party?**

No

We understand that by submitting an SOQ CES is confirming that it has not been placed on the convicted vendors list as described in Section §287.133 (2) (a), Florida Statutes. We also understand that before awarding a contract, the City of Hollywood reserves the right to require that a firm submit such evidence of their qualifications as the City may deem necessary. Further, we understand that the City may consider any evidence of the financial, technical, and other qualifications and abilities of a firm or principals, including previous experiences of same with the City and performance evaluation for services, in making an award in the best interest of the City.

Should you have any questions, please contact me at 954.613.4353 or cesinfo@cesconsult.com.

Sincerely,

CES Consultants, Inc.

Juan Alfonso, AIA, NCARB, RID, CCM
President & COO



Tab K: Required Forms

Form 2

FORM 2

ACKNOWLEDGMENT AND SIGNATURE PAGE

This form must be completed and submitted by the date and the time of bid opening.

Legal Company Name (include d/b/a if applicable): CES Consultants, Inc.

Reinstatement: 02.23.2001;
If Corporation - Date Incorporated/Organized: First Registered: 10.06.1997 Federal Tax Identification Number: 650792884

State Incorporated/Organized: Florida

Company Operating Address: 880 SW 145th Avenue, Suite 106

City: Pembroke Pines State: FL Zip Code: 33027

Remittance Address (if different from ordering address): 880 SW 145th Avenue, Suite 106

City: Pembroke Pines State: FL Zip Code: 33027

Company Contact Person: Juan Alfonso, AIA, NCARB, RID, CCM Email Address: cesinfo@cesconsult.com
President & COO

Phone Number (include area code): 954.613.4353 Fax Number (include area code): N/A

Company's Internet Web Address: cesconsult.com

IT IS HEREBY CERTIFIED AND AFFIRMED THAT THE BIDDER/PROPOSER CERTIFIES ACCEPTANCE OF THE TERMS, CONDITIONS, SPECIFICATIONS, ATTACHMENTS AND ANY ADDENDA. THE BIDDER/PROPOSER SHALL ACCEPT ANY AWARDS MADE AS A RESULT OF THIS SOLICITATION. BIDDER/PROPOSER FURTHER AGREES THAT PRICES QUOTED WILL REMAIN FIXED FOR THE PERIOD OF TIME STATED IN THE SOLICITATION.

Bidder/Proposer's Authorized Representative's Signature:  Date: 07.10.25

Type or Print Name: Juan Alfonso, AIA, NCARB, RID, CCM, President & COO

THE EXECUTION OF THIS FORM CONSTITUTES THE UNEQUIVOCAL OFFER OF BIDDER/PROPOSER TO BE BOUND BY THE TERMS OF ITS PROPOSAL. FAILURE TO SIGN THIS SOLICITATION WHERE INDICATED BY AN AUTHORIZED REPRESENTATIVE SHALL RENDER THE BID/PROPOSAL NON-RESPONSIVE. THE CITY MAY, HOWEVER, IN ITS SOLE DISCRETION, ACCEPT ANY BID/PROPOSAL THAT INCLUDES AN EXECUTED DOCUMENT WHICH UNEQUIVOCALLY BINDS THE BIDDER/PROPOSER TO THE TERMS OF ITS OFFER.

Form 5

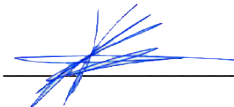
FORM 5

HOLD HARMLESS AND INDEMNITY CLAUSE

CES Consultants, Inc.

(Company Name and Authorized Signature, Print Name)

, the contractor, shall indemnify, defend and hold harmless the City of Hollywood, its elected and appointed officials, employees and agents for any and all suits, actions, legal or administrative proceedings, claims, damage, liabilities, interest, attorney's fees, costs of any kind whether arising prior to the start of activities or following the completion or acceptance and in any manner directly or indirectly caused, occasioned or contributed to in whole or in part by reason of any act, error or omission, fault or negligence whether active or passive by the contractor, or anyone acting under its direction, control, or on its behalf in connection with or incident to its performance of the contract.



Signature

Juan Alfonso, AIA, NCARB, RID, CCM

Printed Name

CES Consultants, Inc.

Name of Company

President & COO

Title

Form 6

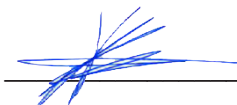
FORM 6

NON-COLLUSION AFFIDAVIT

STATE OF: Florida

COUNTY OF: Broward, being first duly sworn, deposes and says that:

- (1) He/she is President & COO of CES Consultants, Inc., the Proposer that has submitted the attached Proposal.
- (2) He/she has been fully informed regarding the preparation and contents of the attached Proposal and of all pertinent circumstances regarding such Proposal;
- (3) Such Proposal is genuine and is not a collusion or sham Proposal;
- (4) Neither the said Proposer nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Proposer, firm or person to submit a collusive or sham Proposal in connection with the contractor for which the attached Proposal has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Proposer, firm or person to fix the price or prices, profit or cost element of the Proposal price or the Proposal price of any other Proposer, or to secure an advantage against the City of Hollywood or any person interested in the proposed Contract; and
- (5) The price or prices quoted in the attached Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Proposer or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.



Signature

Juan Alfonso, AIA, NCARB, RID, CCM

Printed Name

CES Consultants, Inc.

Name of Company

President & COO

Title

Form 7

FORM 7

SWORN STATEMENT PURSUANT TO SECTION 287.133 (3) (a) FLORIDA STATUTES ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS

1. This form statement is submitted to the City of Hollywood by Juan Alfonso, AIA, NCARB, RID, CCM, President & COO for CES Consultants, Inc.
 (Print individual's name and title) (Print name of entity submitting sworn statement)
 whose _____ business _____ address _____ is _____
880 SW 145th Avenue, Suite 106, Pembroke Pines, FL 33027
 and if applicable its Federal Employer Identification Number (FEIN) is 650792884. If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement.

2. I understand that "public entity crime," as defined in paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misinterpretation.
3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in an federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that "Affiliate," as defined in paragraph 287.133(1)(a), Florida Statutes, means:
 1. A predecessor or successor of a person convicted of a public entity crime, or
 2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

5 I understand that "person," as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or any entity organized under the laws of any state or of the

Form 8

FORM 8

CERTIFICATIONS REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

The applicant certifies that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, sentenced to a denial of Federal benefits by a State or Federal court, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction, violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) Have not within a three-year period preceding this application had one or more public transactions (Federal, State, or local) terminated for cause or default.

Applicant Name and Address:

CES Consultants, Inc.

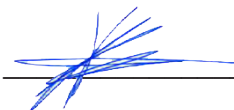
880 SW 145th Avenue, Suite 106

Pembroke Pines, FL 33027

Application Number and/or Project Name:

City of Hollywood RFQ-320-25-JJ – Stormwater Program Management

Applicant IRS/Vendor Number: FEIN: 650792884



Signature

Juan Alfonso, AIA, NCARB, RID, CCM

Printed Name

CES Consultants, Inc.

Name of Company

President & COO

Title

Form 9

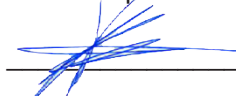
FORM 9

DRUG-FREE WORKPLACE PROGRAM

IDENTICAL TIE PROPOSALS - Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie proposals will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employee that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program (if such is available in the employee's community) by, any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of these requirements.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.



Signature

Juan Alfonso, AIA, NCARB, RID, CCM

Printed Name

CES Consultants, Inc.

Name of Company

President & COO

Title

Form 10

FORM 10

SOLICITATION, GIVING, AND ACCEPTANCE OF GIFTS POLICY

Florida Statute 112.313 prohibits the solicitation or acceptance of Gifts. “No Public officer, employee of an agency, local government attorney, or candidate for nomination or election shall solicit or accept anything of value to the recipient, including a gift, loan, reward, promise of future employment, favor, or service, based upon any understanding that the vote, official action, or judgment of the public officer, employee, local government attorney, or candidate would be influenced thereby.” The term “public officer” includes “any person elected or appointed to hold office in any agency, including any person serving on an advisory body.”

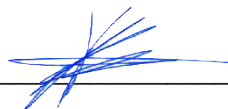
The City of Hollywood/Hollywood CRA policy prohibits all public officers, elected or appointed, all employees, and their families from accepting any gifts of any value, either directly or indirectly, from any contractor, vendor, consultant, or business with whom the City/CRA does business.

The State of Florida definition of “gifts” includes the following:

- Real property or its use,
- Tangible or intangible personal property, or its use,
- A preferential rate or terms on a debt, loan, goods, or services,
- Forgiveness of indebtedness,
- Transportation, lodging, or parking,
- Food or beverage,
- Membership dues,
- Entrance fees, admission fees, or tickets to events, performances, or facilities,
- Plants, flowers or floral arrangements
- Services provided by persons pursuant to a professional license or certificate.
- Other personal services for which a fee is normally charged by the person providing the services.
- Any other similar service or thing having an attributable value not already provided for in this section.

Any contractor, vendor, consultant, or business found to have given a gift to a public officer or employee, or his/her family, will be subject to dismissal or revocation of contract.

As the person authorized to sign the statement, I certify that this firm will comply fully with this policy.



Signature

Juan Alfonso, AIA, NCARB, RID, CCM

Printed Name

CES Consultants, Inc.

Name of Company

President & COO

Title

Form 11

Form **W-9**
(Rev. March 2024)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Go to www.irs.gov/FormW9 for instructions and the latest information.

Give form to the
requester. Do not
send to the IRS.

Before you begin. For guidance related to the purpose of Form W-9, see *Purpose of Form*, below.

Print or type. See Specific Instructions on page 3.	1	Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregarded entity's name on line 2.) CES Consultants, Inc.	
	2	Business name/disregarded entity name, if different from above.	
	3a	Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only one of the following seven boxes. ☐ Individual/sole proprietor ☐ C corporation ☒ S corporation ☐ Partnership ☐ Trust/estate ☐ LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership) _____ Note: Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner. ☐ Other (see instructions) _____	
	4	Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from Foreign Account Tax Compliance Act (FATCA) reporting code (if any) _____ (Applies to accounts maintained outside the United States.)	
	3b	If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See instructions _____ ☐	
	5	Address (number, street, and apt. or suite no.). See instructions. 880 SW 145th Avenue, Suite 106	Requester's name and address (optional)
	6	City, state, and ZIP code Pembroke Pines, FL 33027	
7	List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. See also *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number									
				-					
or									
Employer identification number									
6	5	-	0	7	9	2	8	8	4

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and, generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign
Here

Signature of
U.S. person

Date April 22, 2025

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

What's New

Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.

New line 3b has been added to this form. A flow-through entity is required to complete this line to indicate that it has direct or indirect foreign partners, owners, or beneficiaries when it provides the Form W-9 to another flow-through entity in which it has an ownership interest. This change is intended to provide a flow-through entity with information regarding the status of its indirect foreign partners, owners, or beneficiaries, so that it can satisfy any applicable reporting requirements. For example, a partnership that has any indirect foreign partners may be required to complete Schedules K-2 and K-3. See the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they

Form 14

Form 14 LIST OF SUBCONTRACTORS

The Respondent shall list below the name and address of each Subcontractor who will perform work under this Contract, and shall also list the portion of the work which will be done by such Subcontractor. After the opening of Submittals, changes or substitutions will be allowed with written approval of the City of Hollywood. Subcontractors must be properly licensed.

	Work to be Performed	Subcontractor's Name / Address
1.	<u>Please see attached.</u>	<u>Please see attached.</u>
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

NOTE: Attach additional sheets if required.

- END OF SECTION -

	Work to be Performed	Subcontractor's Name / Address
1.	» Permitting Specialist » Coastal Engineering & Climate Resilience	Cummins Cederberg, Inc. 888 S. Andrews Avenue, Suite 206 Fort Lauderdale, FL 33316
2.	» Civil Engineering	Delta Consultants, LLC 4841 NW 1st Avenue Miami, FL 33127
3.	» Public Engagement » Project Manager/Construction Manager	Garth Solutions, Inc. 5595 Orange Drive, Suite 202 Davie, FL 33314
4.	» Geotechnical Engineering	GHD Services Inc. 5805 Blue Lagoon Drive, Suite 220A Miami, FL 33126
5.	» Program Operations Manager » Project Management Lead » Engineering Design Lead » Project Manager/Construction Manager » Hydraulics/Modeling » Permitting Specialist » Civil Engineering » Climate Resilience	Jacobs Engineering Group, Inc. 550 West Cypress Creek Road, Suite 400 Fort Lauderdale, FL 33309
6.	» Surveying	Longitude Surveyors, LLC 800 West Cypress Creek Road, Suite 340 Fort Lauderdale, FL 33309
7.	» Scheduling	Program Controls Inc. 12515 Orange Drive, Suite 812 Davie, FL 33330
8.	» Grants Management	Santicola & Company 500 Academy Place Sewickley, PA 15143
9.	» Cost Estimating	U.S. Cost, Incorporated (dba RIB U.S.COST) 11900 Biscayne Boulevard, Suite 522 Miami, FL 33181

Insurance

Client#: 1053638

CESCON

ACORD™**CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY)

12/10/2024

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 be endorsed. 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 any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER USI Insurance Services, LLC 2502 N Rocky Point Drive Suite 400 Tampa, FL 33607		CONTACT NAME: PHONE (A/C, No, Ext): 813 321-7500 FAX (A/C, No): E-MAIL ADDRESS:	
INSURED CES Consultants, Inc. 880 Southwest 145th Avenue, Suite 106 Pembroke Pines, FL 33027		INSURER(S) AFFORDING COVERAGE NAIC # INSURER A : Travelers Property Cas. Co. of America 25674 INSURER B : Phoenix Insurance Company 25623 INSURER C : XL Specialty Insurance Company 37885 INSURER D : INSURER E : INSURER F :	

COVERAGES**CERTIFICATE NUMBER:****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 SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PRO-JECT ☐ LOC OTHER:	X	X	6609D349718TCT23	12/06/2024	12/06/2025	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
A	AUTOMOBILE LIABILITY ☒ ANY AUTO OWNED AUTOS ONLY ☒ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS NON-OWNED AUTOS ONLY	X	X	BA2R165655	12/06/2024	12/06/2025	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE DED ☒ RETENTION \$10,000	X	X	CUP4K364717	12/06/2024	12/06/2025	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☒ Y ☒ N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		X	UB0P573198	12/06/2024	12/06/2025	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
C	Professional Liability			DPR5037135	12/06/2024	12/06/2025	\$5,000,000 per claim \$5,000,000 annl aggr.

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

Professional Liability coverage is written on a claims-made basis.

CERTIFICATE HOLDER**CANCELLATION**

For Proposals	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 

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ACORD 25 (2016/03) 1 of 1
 #S47283530/M47283524

The ACORD name and logo are registered marks of ACORD

MRLEW

Proof of State of Florida Sunbiz Registration

State of Florida Department of State

I certify from the records of this office that CES CONSULTANTS, INC. is a corporation organized under the laws of the State of Florida, filed on October 6, 1997.

The document number of this corporation is P97000085972.

I further certify that said corporation has paid all fees due this office through December 31, 2025, that its most recent annual report/uniform business report was filed on January 6, 2025, 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 Sixth day of January, 2025*




Secretary of State

Tracking Number: 0859582493CC

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>



[Department of State](#) / [Division of Corporations](#) / [Search Records](#) / [Search by Entity Name](#) /

Detail by Entity Name

Florida Profit Corporation
CES CONSULTANTS, INC.

Filing Information

Document Number P97000085972
FEI/EIN Number 65-0792884
Date Filed 10/06/1997
State FL
Status ACTIVE
Last Event REINSTATEMENT
Event Date Filed 02/23/2001

Principal Address

3150 SW 38th Avenue
Suite 450
Miami, FL 33146

Changed: 05/13/2024

Mailing Address

3150 SW 38th Avenue
Suite 450
Miami, FL 33146

Changed: 05/13/2024

Registered Agent Name & Address

ORTIZ, RUDY
3150 SW 38th Avenue
Suite 450
Miami, FL 33146

Name Changed: 05/13/2024

Address Changed: 01/06/2025

Officer/Director Detail

Name & Address

Title CEO, Chairman, Secretary

ORTIZ, RUDY
880 SW 145th Avenue
Suite 106
Pembroke Pines, FL 33027

Title Senior Vice President

Hoot, David
2056 Vista Parkway
Suite 200
West Palm Beach, FL 33411

Title CEO

Ortiz, Rudy M
208 North Laura Street
Suite 800
Jacksonville, FL 32202

Title Senior Vice President



Appendix: Relevant Projects and Resumes

Relevant Projects



CITY OF MIAMI OFFICE OF CAPITAL PROJECTS PROGRAM/PROJECT MANAGEMENT SERVICES

LOCATION

Miami, FL

OWNER/CLIENT

City of Miami/AECOM

COMPLETION

2026

KEY FEATURES

Project & Program Management
Civil Engineering Analysis & Design
Stakeholder Coordination
Roadways, Water Main,
Infrastructure & Transportation
QA/QC
Contract Administration
Submittal Review
Change Directive & Change Order
Development & Review
Cost & Change Management
Pay App Review
Enforcement of Contract Terms &
Conditions
Permit Compliance
Utility Coordination
Engineering Analysis & Design
Scheduling & Cost Estimating
Public Outreach
Construction Phase Services
Interagency Coordination



As part of this five-year contract, CES staff are acting as agents of the City of Miami to assist with the undertaking of primarily Miami Forever Bond-funded projects, including roadways and right of ways, parks, municipal facilities, public facilities, public safety facilities, environmental, and sea-level rise, and flood prevention infrastructure projects, as well as other capital project as assigned by the City's Office of Capital Improvements.

CES staff are providing **project and construction management services** for the following projects:

I-395 Open Space & Mobility Connector; I-395 Underdeck/Miami-Overtown Heritage Trail Development

Part of the I-395 Signature Bridge Design project, the \$40M I-395 Underdeck is a new 33-acre public open space, located beneath Interstate Highway 395, extending from NW 3rd Avenue and Gibson Park in the west to Biscayne Boulevard, Museum Park, and Biscayne Bay in the east. Situated just north of Downtown Miami, the project is within or adjacent to multiple established and emerging neighborhoods: Overtown, Omni, Downtown, and the Innovation District. The Underdeck is slated to transform a formerly infrastructural corridor near Miami's urban core into a significant landscape and actively programmed destination for residents, workers, and visitors. The entire I-395 project will be built by the Florida Department of Transportation. The City of Miami will operate and maintain the open space and therefore has an important voice in every stage of the project.

CES's Sr. Project Manager is supporting the City with both Project and Program Management oversight and coordination for this critical community development design/build project, including coordinating with internal City Departments/staff and consultants, the FDOT and its eight JV design/build consultants and two prime contractors, Miami-Dade County, and numerous local stakeholders and Overtown Community Organizations. The planning and project development is currently on a fast-track schedule to bring agreement and understanding to the over 100 "Aesthetic Project Technical Enhancements" (APTEs) between all parties in the form of a Consensus Plan with milestones in February and July 2022. Various aspects and key APTE items are currently in conceptual design, with final design scheduled to start by FDOT's consultants in July 2022 and Underdeck construction anticipated in 2024-25.

I-395 Baywalk Pedestrian & Bikeway Bridge

With nearly 90% of the Downtown Miami Baywalk completed, the most significant pedestrian/cyclist barrier remaining is underneath the MacArthur Causeway between Maurice Ferré Park and the Resorts World Miami site. This barrier forces residents and visitors to use a $\frac{3}{4}$ -mile pedestrian detour with multiple conflicts—perhaps the most dangerous in all of Downtown. When the \$12-20M Under I-395 Pedestrian and Bikeway Bridge Connection is complete, the Baywalk will finally connect Brickell and the Central Business District with the Omni, Edgewater, and Overtown neighborhoods. The fully-completed Baywalk will increase pedestrian and bicycle safety, offer a true transportation alternative, connect diverse neighborhoods, and increase access to the water for everyone.



CES's Sr. Project Manager is supporting the City with both Project and Program Management oversight and coordination for the Feasibility Study, Conceptual Design and Selection, and Final Design of the key bridge connection under the MacArthur Causeway to help the City complete the Downtown Baywalk pedestrian facility, including coordinating with internal City Departments/staff and consultants, the Downtown Development Authority, the FDOT, Miami-Dade County, and numerous local stakeholders and Overtown Community Organizations. The project involves connecting the south portion of the existing Baywalk in front of the Perez Art Museum to the new/proposed Baywalk on the north side of the MacArthur Causeway in Downtown Miami. The City has engaged a group of specialty consultants to develop three Schematic Designs: a Connector Concept; an Enhanced Connector/Destination Concept; and an Iconic Destination Concept in Phase 1. The Pedestrian Baywalk and Bikeway Bridge will be an over-the-water, bridge-type facility approximately 20' wide with a run length of approximately 500 LF. Once a design scheme is selected, the consulting team will design and permit the Pedestrian Baywalk and Bikeway Bridge. Management and design coordination includes environmental and resiliency considerations, public involvement, utility verification, ADA compliance, and aesthetic features. Phase 1 is scheduled for completion and City approval in July 2022, with Phase 2 Design and Permitting to be completed by Q3 of 2024 and construction scheduled for 2025-28.

NW 17th Street from NW 27th Ave. to NW 32nd Ave. Roadway & Drainage Improvements

NW 17th Street from NW 32nd Ave. to NW 37th Ave. Roadway & Drainage Improvements

CES's Sr. Project Manager is supporting the City by providing Project Management oversight and coordination for these two separate, but continuous and related, residential roadway and drainage improvement projects just west of Downtown Miami. These projects also include the design and upgrade of an 8-inch water main, including design, coordination and permitting with Miami-Dade WASD, and utility coordination. The projects combined are approximately one mile in length. CES staff were brought in to manage these horizontal infrastructure projects at the 90% roadway/drainage design stage and 60% WM design stage and, due to the critical community nature of the projects, was tasked to bring them expeditiously to completion and ready for construction bidding through the City's Resiliency and Public Works Department. Both projects are funded through various City and County Bonds and are scheduled for design completion in May 2022, with construction scheduled to commence in August 2022.

Dinner Key Marina Breakwaters Mitigation Project

Dinner Key Marina, one of the largest public marinas on the east coast of US, is protected by spoil islands created in the early 1900s as a result of dredging activities associated with the creation of navigation channels and harbors in the vicinity. The area has a rich history, with the upland area being the former headquarters of the Pan Am Seaplane Terminal in the 1930s. The spoil islands have served to offer protection to the marina and surrounding community, including multiple City properties, such as the City Hall, which has a direct view of the islands.



Following the impacts of Hurricane Irma in 2017, the spoil islands were inundated and sustained damage from the hurricane storm surge, hurricane related waves, and capsized vessels. Furthermore, Dinner Key Marina sustained damage from similar related impacts and recently underwent significant repairs

and restoration. With the increasing threat of future elevated sea levels and increasing threat of storm impacts to important City assets along the waterfront, the City is taking a proactive approach in procuring coastal engineering services for the restoration, increase in resilience, additional storm protection of Dinner Key Marina, and enhanced recreational opportunities of the spoil islands.



This project currently has \$7.9M in City and FEMA funding and appears very well positioned for state and federal grants, which could significantly increase resilience, ecological, and recreational features. As such, a flexible scope of work was developed to meet the intent of the City within the current budget as well as project enhancements if grant pursuits are successful. In an effort to provide flexibility relative to construction cost, the designs have been divided in three levels:

Level 1: Consists of increasing storm protection through wave attenuation improvements at Island D and Island C, and potentially Island E. For Island D improvements are anticipated to consist of an on-island structure, while for Island C the wave attenuation structure would likely connect to the island. Recreational or ecological enhancements are anticipated to be minimal or excluded altogether under this level.

Level 2: Enhancements for storm protection as well as basic recreational and ecological improvements on multiple islands within existing footprints (within 10 feet of MHWL).

Level 3: Enhancements for storm protection with expanded island footprints and/or additional islands as well as advanced recreational and ecological improvements.

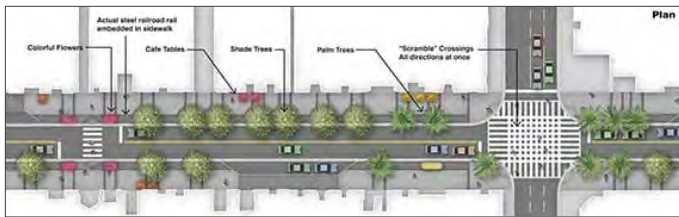
CES's Sr. Project Manager is supporting the City with Project Management oversight and coordination for the Resiliency and Mitigation Analysis and Final Design of the structural and marine component associated with island enhancements needed to protect the Dinner Key Marina. CES staff have recently been assigned to this key City and FEMA project and are coordinating with internal City Departments/staff and consultants, FEMA, the USACE, Miami-Dade County, the Seminole Tribe of Florida, and

numerous local stakeholders and Environmental Organizations. Initial mitigation features, structures, and shoreline protection and marine enhancements include armor stone escarpments on existing Spoil Islands C, D, and E and breakwaters or polymeric marine mattresses to prevent erosion and to provide wave abatement. The project is being coordinated with FEMA and the USACE in accordance with Hurricane Irma funding and Hazard Mitigation Scope requirements. The design portion of the project started in December 2021, and the environmental and resiliency analysis, mitigation design, permitting and construction currently needs to be completed by April 2025 to comply with funding requirements, requiring expert project management by CES staff.

Shenandoah Park Improvements & Pool Enhancements

CES's Sr. Project Manager is supporting the City by providing Project Management oversight and coordination for this ±\$9M City Bond funded project that includes planning, design and construction services for general park enhancements of Shenandoah Park. New and improved elements of the park will include a new swimming pool facility, new basketball courts, a new soccer field, fitness equipment, a library plaza, and ball field improvements.





Flagler Street Beautification

CES's Sr. Project Manager is supporting the City by providing Project Management oversight and coordination for this ±\$32M project with multiple funding sources, including City and County Bonds. The City of Miami's Office of Capital Improvements, in partnership with the Flagler District BID and the Miami Downtown Development Authority (Miami DDA), is working to transform Flagler Street into an iconic, festival-style boulevard and enhance its operations and activities. The main objectives of this project are:

- » Create a festival street from Biscayne Boulevard to NW 1st Avenue by raising the road to the same grade as the sidewalks, changing it to a curbsless street, and adding pavers in the vehicular travel lanes.
- » Deliver an enriched pedestrian experience with expanded sidewalks, large shade trees, outdoor café dining, improved LED lighting, signage, public art, and seating.
- » The new corridor will have the ability to close individual blocks to vehicular traffic for community gatherings, festivals, farmer's markets, art fairs, and family evenings throughout the year.
- » Minimize on-street parking to maximize pedestrian space.
- » Upgrade existing drainage systems to prevent flooding.
- » Install new utilities, including power, gas, and fiber optics, to prepare for new vertical development and to avoid the street being broken up once completed.
- » Improve the quality of life through a safer and more attractive shared space providing opportunities to increase patronage to existing businesses, attract new businesses, spur economic growth, and make Flagler Street a Downtown Miami cultural and commercial destination once again.



West End Park & Pool Enhancements

CES's Sr. Project Manager is supporting the City by providing Project Management oversight and coordination for this City Bond funded project. New and improved proposed elements of the park include a new multi-use sports field, a walking trail with exercise equipment stations, two tennis courts, two basketball courts, a landscaped shaded plaza with sitting areas, a children's splash pad with spray features, dumping buckets, climbable waterplay, and waterfall wall, a new pool building with a new swimming pool for recreational swimming and lessons, including a wellness lap pool component, a new entry plaza with service entrance and a paved walkway, a lightning warning system, and art in public places components.



Badia Center Facility at Flagami Park

CES's Sr. Project Manager is supporting the City by providing Project Management oversight and coordination for this ±\$10.2M City Bond and State of Florida Department of Elder Affairs funded project that includes planning, design and construction services for the Badia Senior Center at Flagami Park.

Douglas Park Community Center

CES's Sr. Project Manager is supporting the City by providing Project Management oversight and coordination for this ±\$5M City Bond funded project for the Douglas Park Community Center, a new single story ±6,000 SF Community Center Building and exterior site improvements.

Miami Forever Bond Homeowner Preservation Program

CES's Sr. Construction Manager is supporting the City by providing Project/Construction Management oversight and coordination for the Homeownership Preservation Program, which will provide up to \$70,000 in rehabilitation assistance to qualified City of Miami homeowners to fund exterior repairs consisting of repair or replacement of roofs, replacement of windows or doors, and/or installation of hurricane shutters, necessary to bring the home to decent, safe and sanitary conditions, and to reinforce the property's exterior to better withstand natural weather occurrences while maximizing the home's energy efficiency. This program can assist households up to 140% of Area Median Income (AMI), based on household size.

Armbrister Park Community Center Design

CES's Sr. Project Manager is supporting the City by providing Project/Construction Management oversight and coordination for this project, which consists of the demolition of the existing community center building and the construction of a new two-story, 10,000 SF facility and an outdoor pavilion at the 4.4-acre Esther Mae Armbrister Park. The new community center will include an administration office, an entrance reception area, a warming kitchen/food prep room, a multi-purpose room, workrooms, including an art workroom that includes a sink, elevator access to the second floor, restrooms at both levels, with ground floor restrooms having exterior access, an information technology (IT) room with laptop charging stations, sport equipment storage with exterior access, a security alarm, lightning detection, security cameras, three individual classrooms, interior storage to accommodate tables, chairs, and recreation supplies, an outdoor pavilion, landscaping and irrigation, an electrical power generator, and an Art in Public Places component.



40-50 Year Recertifications, Citywide Parks & Projects

The City recertifies structures 40 years or older to ensure they are safe for use and occupancy, as per the Miami-Dade County Code. New guidelines and requirements for building recertifications have been put in place since 2022. CES's Sr. Project/Construction Manager is supporting the City by providing project management oversight and coordination and construction management services for multiple, concurrent citywide projects. There are currently 16 Parks projects and 23 Citywide projects being tracked for their 40-year recertification inspection, start up, and completion. Services and responsibilities include: administrative and program management support; reviews and risk assessment reviews; project initiation, monitoring, controlling, and reporting; project management and construction management of projects throughout the planning, design, bidding, construction, closeout, warranty, and related services phases; assisting in the procurement of architecture, engineering, and construction services under the direction of the City's department of Procurement, and in accordance with governing states law and City ordinances and policies; coordinating with outside agencies and construction authorities having jurisdiction for inspection; and conducting value engineering analyses and constructability reviews.

Fire Station #3 40 Year Recertification, Reroofing of Buildings B-1, 2, & 3

The City recertifies structures 40 years or older to ensure they are safe for use and occupancy, as per the Miami-Dade County Code. New guidelines and requirements for building recertifications have been put in place since 2022. CES's Sr. Construction Manager is supporting the City by providing construction management services for Fire Station #3 Reroofing of Buildings B-1, 2, and 3. Services and responsibilities include: administrative and program management support; reviews and risk assessment reviews; project initiation, monitoring, controlling, and reporting; construction management of projects throughout the bidding, construction, closeout, warranty, and related services phases; assisting in the procurement of architecture, engineering, and construction services under the direction of the City's department of Procurement, and in accordance with governing states law and City ordinances and policies; coordinating with outside agencies and construction authorities having jurisdiction for inspection; and conducting value engineering analyses and constructability reviews.



Belafonte Tacolcy Park 40 Year Recertification

The City recertifies structures 40 years or older to ensure they are safe for use and occupancy, as per the Miami-Dade County Code. New guidelines and requirements for building recertifications have been put in place since 2022. CES's Sr. Construction Manager is supporting the City by providing construction management services for the structures at the 3.5-acre City of Miami Belafonte Tacolcy Park in the heart of Liberty City. Services and responsibilities include: administrative and program management support; reviews and risk assessment reviews; project initiation, monitoring, controlling, and reporting; construction management of projects throughout the bidding, construction, closeout, warranty, and related services phases; assisting in the procurement of architecture, engineering, and construction services under the direction of the City's department of Procurement, and in accordance with governing states law and City ordinances and policies; coordinating with outside agencies and construction authorities having jurisdiction for inspection; and conducting value engineering analyses and constructability reviews.

Curtis Park New Swimming Pool Facility & Boat Ramp Improvements

CES's Sr. Project Manager is supporting the City by providing contract closeout oversight and coordination to assure the contract closeout has met all the terms of a contract and all administrative actions have been completed, all disputes settled, and final payment has been made for the Curtis Park New Swimming Pool Facility and Boat Ramp Improvements project. The project includes the replacement of the existing swimming pool facility, a new 50' x 50' swimming pool with a maximum depth of 4 feet, a Pool Bath House with showers, toilet stalls, urinals, storage, and a pump room, improved function of the existing boat ramp and adjacent marine structures, lengthening of five existing boat trailer parking spaces, re-design of the parking lot to add ten boat trailer parking spaces and 14 regular spaces, and a new center pier.



Sandra De Lucca New Building Addition at Kinloch Park

CES's Sr. Project Manager is supporting the City by providing contract closeout oversight and coordination to assure the contract closeout has met all the terms of a contract and all administrative actions have been completed, all disputes settled, and final payment has been made for the Sandra De Lucca New Building Addition project at Kinloch Park. The project includes a remodel to the existing Sandra De Lucca Senior Center and a new annex to provide programs and services to the area's senior residents. The new 3,000 SF CBS building annex includes multipurpose and activity spaces, administrative offices, a kitchenette, restrooms, storage, expansion of the existing parking area, and site security and landscaping improvements. Construction was completed with the park open to the public and after school care programs serving special needs children and adults.



Ronald Reagan Park (formerly PBA Fern Isle Park) Redevelopment

CES's Sr. Project Manager is supporting the City by providing contract closeout oversight and coordination to assure the contract closeout has met all the terms of a contract and all administrative actions have been completed, all disputes settled, and final payment has been made for the PBA/Fern Isle Redevelopment project. New and improved elements for the newly renamed, 6-acre Ronald Reagan Park include a parking lot with drop-off area, a metal picket fence with vehicular and pedestrian gates, a monument sign on 14th Street, a new concrete Perimeter Walking Path and a River Walk Path with LED lighting, river bioswales for a cleaner environment, a new picnic table area underneath abundant mature trees for shade and comfort, two large, 40'x40' pavilions with BBQ grills, an outdoor fitness station, a multi-use, open play field, wayfinding and historic bridge signage, drinking water fountains, pet stations, trash receptacles, sitting benches, a new bathroom building with a breezeway pass through, beautiful and abundant landscaping with irrigation system, and Art in Public Places elements within the park.



Hadley Park Multipurpose Synthetic Turf & Park Improvements

CES's Sr. Project Manager is supporting the City by providing contract closeout oversight and coordination to assure the contract closeout has met all the terms of a contract and all administrative actions have been completed, all disputes settled, and final payment has been made for the 5.38-acre Hadley Park Multipurpose Synthetic Turf and Park Improvements project. Improvements included a multi-purpose athletic field layout, fencing, fitness stations trail, pedestrian walkways, grading, site amenities, an ADA-accessible ramp, sodding and irrigation.





CITYWIDE PROGRAM MANAGEMENT SUPPORT SERVICES FOR STORMWATER INFRASTRUCTURE IMPROVEMENTS – GROUPS 1 & 2

LOCATION

Miami, FL

OWNER

City of Miami

COST

\$58.7B Program

COMPLETION

Group 1 Program: 2027

Group 1 WO 1: Ongoing

Group 2 Program: 2026

KEY FEATURES

Program Management

Stormwater Infrastructure

Flood Mitigation

Pump Station

Roadway Reconstruction

ADA Compliance

Drainage Wells

Force Main

Exfiltration Trenches

Stormwater Conveyance

Grant Compliance

Public Engagement

Design Oversight

Permitting Coordination

Procurement Support

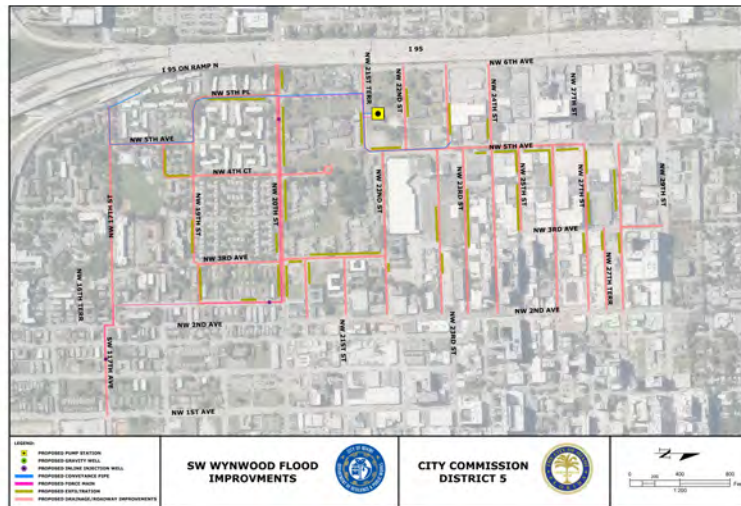
Construction Administration

e-Builder Documentation

Multi-Agency Coordination

Resilience Planning

Capital Improvements



CES is providing comprehensive program management services to the City of Miami for both federally (Group 1) and locally (Group 2) funded stormwater infrastructure projects.

Under the City's Capital Improvements Program Support Services contract, CES serves as an extension of the Department of Resilience and Public Works (DRPW), offering technical and administrative support across all phases of project delivery. CES is responsible for coordinating project planning, budgeting, funding compliance, design oversight, permitting support, procurement assistance, and construction administration. Assignments are issued on a rotational basis and tailored to meet the City's evolving priorities under its Stormwater Infrastructure Master Plan. Our team includes seasoned program managers, construction professionals, and licensed engineers who bring specialized expertise in utility infrastructure, roadway reconstruction, flood mitigation, and regulatory coordination.

As part of these services, CES is currently managing the SW Wynwood Flood Improvements project, a major flood mitigation initiative funded by the Florida Department of Commerce. The project area spans NW 3rd Avenue to NW 5th Place, and NW 16th Street to NW 28th Street, and includes a new stormwater pump station (D-5). Improvements involve road reconstruction, ADA-compliant sidewalks and ramps, new drainage infrastructure, and installation of gravity wells and force mains to convey stormwater to an outfall at Biscayne Bay.

CES is providing end-to-end program support, including grant compliance, public engagement, permitting coordination, and design management. This includes preparing detailed grant deliverables and reimbursement packages, supporting community meetings and outreach materials in both English and Spanish, advising the City through design procurement and consultant oversight, and maintaining all project documentation in the City's e-Builder platform. CES is also managing coordination among permitting agencies and assisting in the preparation of permit applications, timelines, and compliance tracking.

The South-West Wynwood project reflects CES's integrated approach to capital program delivery—bridging technical, regulatory, and community aspects to advance the City's resilience goals and infrastructure modernization efforts.



MIAMI BEACH INTEGRATED WATER MASTER PLAN CSC: SOUTH OF FIFTH STREET BASIN STORMWATER MODEL

LOCATION

Miami Beach, FL

OWNER

City of Miami Beach

COST

\$198,764 (Fee Only)

COMPLETION

2022

KEY FEATURES

Civil Engineering Analysis/Study

Stormwater & Drainage Hydraulic
Modeling

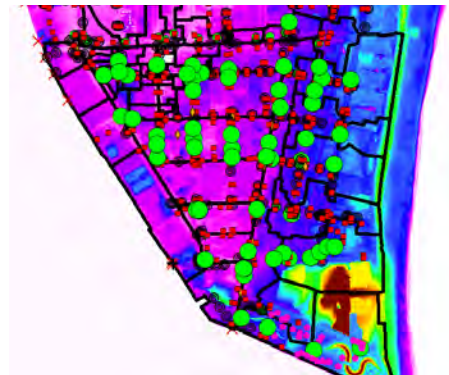
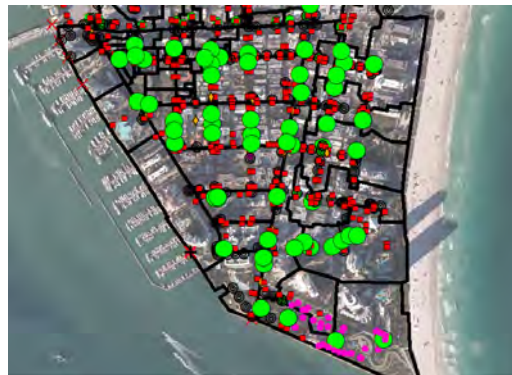
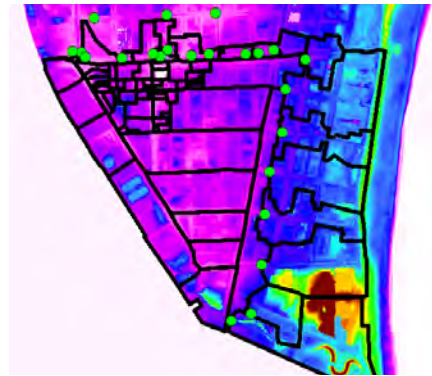
ICPR4

Stormwater Collection System

Stormwater Pump Stations

Water Quality Drainage Wells

Improved Water Quality via Green
Infrastructure



As part of the City of Miami Beach's Integrated Water Master Plan, CES developed a complete hydraulic stormwater model for the South of 5th Street basin in Miami Beach.

The model creation consisted of mapping the existing stormwater system in GIS and transferring this data into ICPR4. The existing conditions model was used as a base template to develop the proposed conditions model for the entire basin. Once complete, a proposed model was developed for both the Ultimate Conditions and Interim Conditions and designed to meet the Level of Service set by the City for a 10-year 24-hour storm event. The model is the platform from which CES will develop full construction plans for the area's stormwater improvements. The improvements include a larger stormwater collection system, a 230,000 GPM pump station, and a series of water quality wells to manage contaminants. The modeling project criteria were the following:

1. Maintain no flood stages above the edge of pavement for a 10-year 24-hour storm event
2. Use a pump station in place of gravity outfalls
3. Provide water quality via green infrastructure and wells to protect Biscayne Bay
4. Improve the flow rate of existing drainage wells with pumping systems



NORTH SHORE D NEIGHBORHOOD IMPROVEMENT PROJECT – PHASE 1

LOCATION

Miami Beach, FL

OWNER

City of Miami Beach

COST

\$175M/\$920,012 (Fee)

COMPLETION

2024

KEY FEATURES

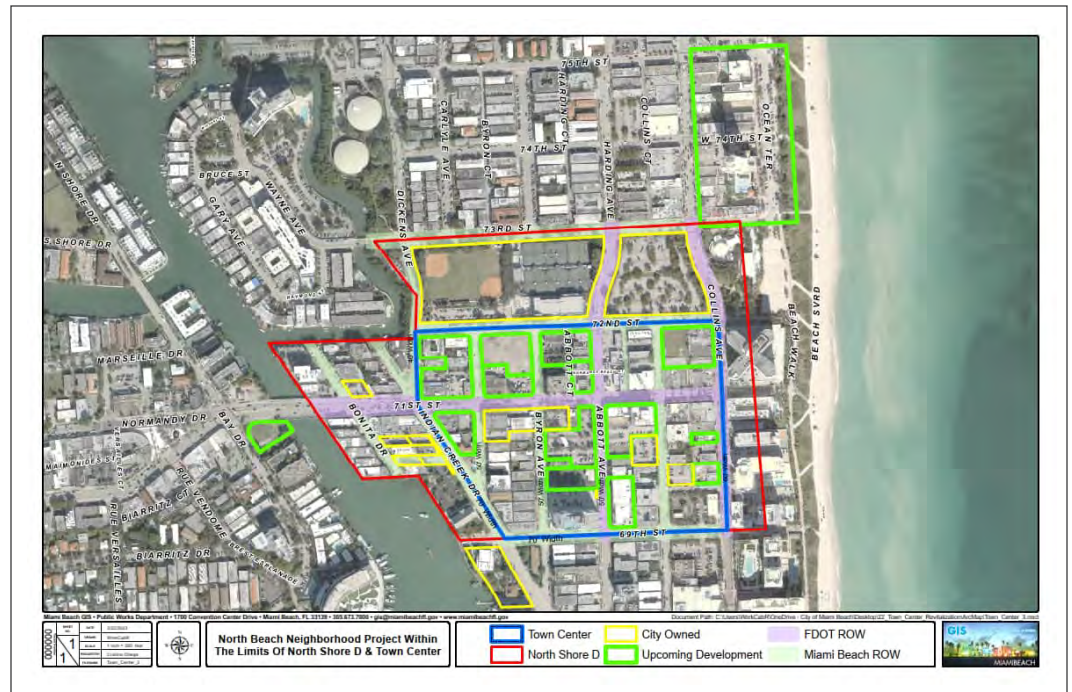
Civil

Stormwater & Drainage

Utilities Design

Hydraulic Modeling

ICPR4



Approximate Project Boundary

CES was part of the team that successfully completed the Conceptual Design/Basis of Design Report (BODR) of the North Shore D Neighborhood Improvement Project, which included the hydraulic stormwater model and conceptual design of key infrastructure elements, including the stormwater system and identifying locations for the pump stations.

CES developed a complete hydraulic stormwater model for the North Shore D basin in Miami Beach as part of the City's Integrated Water Master Plan. The model creation consisted of mapping the existing stormwater system in GIS and transferring this data into ICPR4. The existing conditions model was used as a base template to develop the proposed conditions model for the entire basin. Once complete, a proposed model was developed for both the Ultimate Conditions and Interim Conditions and designed to meet the Level of Service set by the City for a 10-year 24-hour storm event. The model is the platform from which full construction plans for the area's stormwater improvements will be developed. The improvements include a larger stormwater collection system, a 120,000 GPM pump station, and a series of water quality wells to manage contaminants. Modeling project criteria included the following:

1. Maintain flood stages below 1 foot below the nearest finish floor elevation for a 10-year 24-hour storm event
2. Use a pump station in place of gravity outfalls
3. Provide water quality via green infrastructure and wells to protect Biscayne Bay
4. Improve the flow rate of existing drainage wells with pumping systems



KEY BISCAIYNE CSC (CONTINUING ARCHITECTURAL & ENGINEERING SERVICES)

LOCATION

Key Biscayne, FL

OWNER/CLIENT

Village of Key Biscayne

COST

\$801K

COMPLETION

Task: 2024

KEY FEATURES

Construction Engineering
Inspection Services

Drainage and Roadway
Improvements



The Village of Key Biscayne selected CES to provide as-needed civil engineering services.

As part of the Continuing Professional Services Agreement, task order includes the following:

CEI Services – Stormwater Drainage Improvements and Roadway Resurfacing: CES is providing construction engineering inspection services during drainage and roadway improvements to maintain the Village's infrastructure along three independent areas within the Village: Areas 1, 2, and 4. The improvements include installing new curbs, modifying existing catch basins, installing new concrete pads, milling and resurfacing, and landscaping. CES is responsible for visiting the field, preparing daily reports for those field visits, inspecting construction to assure it meets Village standards, confirming the contractor is adhering to Stormwater Pollution Prevention Plan requirements, documenting progress of construction, and producing punchlist at project completion.





WEST AVENUE NORTH & SOUTH NEIGHBORHOOD UTILITY & RESILIENCY IMPROVEMENTS

LOCATION

Miami Beach, FL

OWNER

City of Miami Beach

COST

\$110.6M+ Total

COMPLETION

Construction: Ongoing

KEY FEATURES

Design-Build

Urban Pump Stations, Stormwater
& Drainage

Utility Relocation

Drainage

Water Transmission/Distribution
System

Sanitary Sewer Collection System

Sidewalk/Curbing

Water Meter Service Conversions

SUE/Utility Coordination

Public Involvement

Landscaping

Roadway Design

MOT & Signalization

Streetscape/Complete Streets
Design

Seawall/Bulkhead Improvements

Property Harmonization with
Artist's Renderings for Each
Property

Interagency Coordination



CES is the Lead Consultant/Designer and Engineer of Record for the design and construction of the water transmission/distribution system, sanitary sewer collection system, and stormwater drainage system, for the West Avenue neighborhoods in Miami Beach. The projects include the verification and development of a stormwater model, a new 120,000 GPM master stormwater pump station, and the design, vertical rehabilitation, harmonization, and ultimate construction of 2.2 miles of roadway, sidewalks, landscaping, and related infrastructure, including water meter service conversions from the rear of private properties to new water lines and connections in the right-of-way.



In its continuing efforts to address sea level rise, the City of Miami Beach (CMB) awarded the Ric-man/CES D/B team with two design/build contracts for neighborhood and resiliency improvements throughout the West Avenue North and South Corridors. Rising seas, high groundwater, king tides, wind and deteriorating infrastructure have contributed to frequent flooding of CMB facilities, residences and business properties in the West Avenue Basin. The resiliency and sustainability projects will provide the community with increased protection from flooding during storm events and high seasonal tides and a higher level of service for their infrastructure. CES is responsible for the pedestrian friendly "Complete Streets" redesign, as well as incorporation of the findings of the 100 Resilient Cities

Workshop, which includes raising the existing grade of the roadway by approximately 30 inches while providing drainage capacity for a 10-year storm event level of service with no structure flooding, a revised typical section that incorporates a pedestrian/bicyclist-friendly corridor, public/private property harmonization, new traffic signals, street lighting, and landscaping.



The North project includes the design of a “Bay Walk,” for pedestrians, which extends into Biscayne Bay at the west end of the Lincoln Road Corridor and proposed stormwater pump station. The South project includes the design and harmonization of the main commercial/high-rise condo area which required greater focus on pedestrian access, landscaping and a modified roadway cross-section from 8th to 14th Streets for bicycle traffic.

Coordination & Outreach: CES coordinated with the CMB, Ric-Man Construction Florida and the public/residents via the PIO and managed and interfaced with 10 subconsultants in a variety of disciplines throughout the project development and design, project resiliency improvements, and into permitting and construction. In a collaborative effort, CES directed, held or attended bi-weekly design, utility and project meetings with CMB staff and project team/contractor members. CES also developed, coordinated and attended multiple public meetings and prepared presentations for CMB review/use, supporting resident interface. The team also participated in the 100 Resilient Cities Workshop and incorporated design changes and improvements to the project as a result of the workshop. The CES Team utilized an Urban Forester/Arborist to identify and evaluate the existing tree canopy and its viability both within and adjacent to ROW to save/maintain as much of the existing “green” infrastructure as possible.

CES coordinated with 18 different utilities along the project ROW to identify existing utility locations, potential conflicts and options/opportunities for facility relocation or adjustments. The project also involved the creation, development and maintenance of a Master Utility Plan to develop designs that incorporated or remediated affected utilities. By utilizing Civil 3D Software, CES created a 3D Model and Interactive Video of the existing and proposed utilities to represent location and subsurface conditions to minimize conflicts and to improve utility allocations and corridors.



The CES Team identified and reviewed encroachments and optional design considerations to resolve conflicts, preparing Harmonization Plans for 192 properties (137 North/55 South), with each property set including a Site Plan, Landscape Plan and 3D Perspective Rendering, specific to each property. CES also reviewed and evaluated seven existing CMB and FDOT stormwater pump stations (three North/four South) that impact or integrate with the project for emergency generator locations and connections, including supplemental survey and site investigations. These new generators will allow CMB to improve and maintain stormwater disposal to reduce/minimize flooding as part of the resiliency effort.

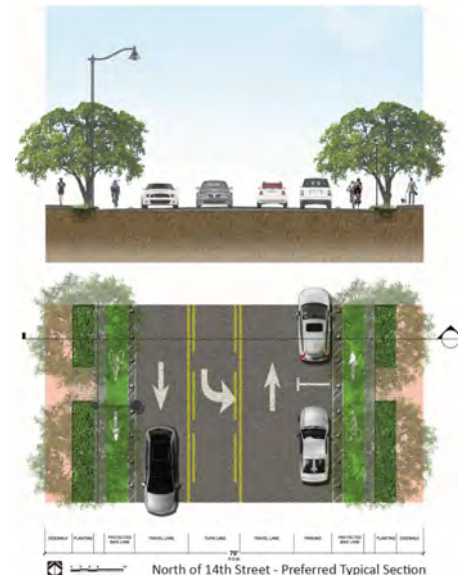


Stormwater Drainage System Improvements & Rehabilitation: CES performed a review and evaluation of two existing hydraulic models and developed an updated Stormwater and Hydraulic Model of the West Ave Project Basin that included the impacts of the City's 600-acre Basin, starting at the project location and extending east to the Atlantic Ocean. The project was modeled using ICPR4 and included upsizing and design of all drainage lines, curb inlets, and yard piping, followed by significant upsizing of and modifications to the proposed pump stations. CES created the stormwater model and developed a pre vs. post scenario, along with three alternative stormwater models. The model considered the proposed roadway elevation and the actual finish floors of each existing structure. A hydraulic grade line was developed and maintained at one foot below the lowest finish floor elevation. The results of this model are being used in the complete design of the stormwater system for both the North and South projects.

The projects include replacement and upsizing of the existing stormwater drainage system. The following will be installed as part of the project: 5,655 LF of 24-inch RCP drainage, 30 LF of 30-inch RCP drainage, 2,970 LF of 48-inch RCP drainage, 2,500 LF of 60-inch RCP drainage, 2,300 LF of 72-inch RCP drainage, 400 LF of 84-inch RCP drainage, and 300 LF of 96-inch RCP drainage, with equivalent sized box culvert materials considered as an alternate. Additionally, a new 120,000 GPM stormwater pump station, including water quality treatment units and a specialized dissipator discharge structure, will be installed on the west end of Lincoln Road.

Water Distribution & Transmission System: The projects will replace the existing water main distribution and transmission system, to include 2,130 LF of 6-inch fire service lines, 11,250 LF of 12-inch distribution main, and 5,400 LF of 20-inch transmission main. New service connections, water meters, fire hydrants, and irrigation lines will be installed. The new water distribution/transmission system will be installed along West Avenue between 8th Street and Lincoln Road, along Bay Road between Flamingo Way and the Collins Canal, and along 8th Street to Lincoln Road between West Avenue and Alton Road. The existing water mains are being decommissioned.

Sanitary Sewer Collection System: The projects include rehabilitation and/or replacement-in-kind of the existing sanitary sewer collection system and adjustments to slopes and manholes to improve the existing system. The design includes the replacement of 8,750 LF of pipe of varying sizes (12-inch, 15-inch, 16-inch, and 18-inch), 62 manholes and maintenance access structures.







FIRST STREET NEIGHBORHOOD & RESILIENCY IMPROVEMENT PROJECT

LOCATION

Miami Beach, FL

OWNER

City of Miami Beach

COST

Est. at \$145M

COMPLETION

Ongoing

KEY FEATURES

Civil, Stormwater & Drainage Engineering

Structural & Electrical Engineering

Stormwater & Drainage Hydraulic Modeling

Stormwater Collection System

Stormwater Pump Stations

Water Quality Drainage Wells

Improved Water Quality via Green Infrastructure

Water Transmission/Distribution System

Sanitary Sewer Collection System

SUE/Utility Coordination

Public Involvement

Landscaping

Roadway Raising & Redesign

Streetscape/Complete Streets Design

Sidewalk/Curbing

MOT & Signalization

Seawall Improvements

Road Elevation Adaptation with Adjacent Properties, Sidewalks & Roadways

Interagency Coordination



As part of the City of Miami Beach’s Integrated Water Master Plan, CES is providing integrated engineering design services for a new 230,000 GPM stormwater pump station and stormwater treatment facility to serve the South of Fifth/South Pointe Neighborhood, including infrastructure improvements to storm drainage, potable water, wastewater, road raising, and streetscaping.

First Street is vulnerable to tidal and rainfall flooding, including prolonged annual flooding during the fall seasonal high tides and heavy rain events. The City is implementing improvements to the stormwater management system that will provide a higher level of service that will reduce flood depth and duration. This will be the first project to incorporate the City’s Blue-Green Stormwater Infrastructure Concept Plan and Urban Forestry Master Plan.

After a comprehensive alternatives analysis and multiple community meetings, the selected option proposes a new stormwater pump station, including a below ground stormwater treatment system with aboveground appurtenances (emergency generator, FP&L electrical vault, and controls) at an adjacent City parking lot. First Street from Alton Road to Washington Avenue will be raised and redesigned to the defined typical road section. The project includes stormwater gravity pipelines along roadways and a discharge force main from the First Street pump station to the Government Cut channel through South Pointe Park. In addition to developing the Stormwater Model for the entire Project Basin, CES is responsible for:

- » **Existing Utilities & Conflict Resolution:** Preparing an existing utility map utilizing as-built, survey, and soft dig data for the entire project route.
- » **Water Main Design:** Replacing the existing water mains in kind throughout the entire project route and designing a fire flow line along Alton Road as per the five year priority plan.
- » **Sanitary Sewer Design:** Replacing the sanitary sewer gravity collection system in kind.
- » **54-inch Sanitary Force Main Design:** Replacing approximately 860 LF of the existing 54-inch sanitary force main along Alton Road in kind.



- » **Stormwater Collection System Design:** Designing the stormwater collection system structures and pipes for the entire project route.
- » **Water Quality Wells Systems:** Designing sufficient water quality wells for the entire project basin as required for a DERM Class II permit. The design will integrate the existing CMB drainage wells throughout the project basin and the vortex type filters at the pump station into the water quality calculations.
- » **Pump Station Electrical Design:** Designing the electrical panels, electrical panel platform layout, and stand-by generator and coordinating with FP&L to acquire power to the pump station.
- » **Stormwater Pump Station 96" Discharge Force Main:** Designing the route layout for $\pm 1,200$ LF of 96" diameter discharge force main between the pump station, the dissipator box, and any required junction boxes.
- » **Stakeholder Support:** Participating in neighborhood association meetings and presentations.



BROWARD MPO MTECC GENERAL PROGRAM MANAGEMENT SERVICES

LOCATION

Broward County, FL

OWNER

METRO Transportation Engineering and Construction Cooperative (MTECC)/WSP

COST

Fee Only

CONTRACT TERM

2023–2026

KEY FEATURES

Project Management Support

On-Call Support Services

LAP Project Delivery

FDOT Coordination

Grant-Funded Projects

Procurement Assistance

Cost Estimate Development

Consultant Evaluation

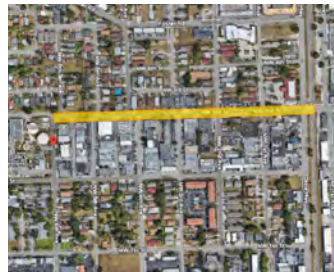
Checklist Process Creation

Access Management Improvements

Bicycle & Sidewalk Upgrades

Technical Scope Review

Public Infrastructure Enhancements



This contract provides on-call program planning, technical, design, and construction support services for MTECC's projects, with an initial focus on delivering Local Agency Program (LAP) projects in coordination with FDOT and member cities.

The METRO Transportation Engineering and Construction Cooperative (MTECC) is a multi-city coalition formed to implement transportation projects on behalf of its member cities, which include Hollywood, Plantation, Pompano Beach, Deerfield Beach, Hallandale Beach, and Pembroke Pines. The first priority of MTECC is to implement Local Agency Program (LAP) projects on behalf of MTECC member cities that are funded with federal funds through FDOT. Supported administratively by the Broward Metropolitan Planning Organization (MPO), MTECC's purpose is to deliver high-quality, cost-effective transportation projects funded by Federal, State, and Local grants. Task Orders assigned for support services under this contract to date include:

- » **General MTECC Start-Up Services:** Support coordination efforts with member cities, prospective member cities, and FDOT for Local Agency Program (LAP) projects included in the FDOT Five-Year Work Program and Broward MPO TIP. Participate in up to four coordination meetings with FDOT D4 LAP office and develop a draft LAP checklist process to guide project implementation.
- » **NW 3rd Street Sidewalks & Bike Lane from NW 6th Avenue to Dixie Hwy, City of Hallandale Beach:** Provide coordination support for the City of Hallandale Beach and FDOT D4 to facilitate Local Agency Program (LAP) project processing. Assist with mini-procurements by reviewing design consultant scopes, supporting technical evaluations, preparing independent cost estimates, summarizing negotiations, and coordinating FDOT comment resolution.
- » **NW 45th Street & Crystal Lakes Drive Access Management Improvements, City of Deerfield Beach:** Provide coordination support for the City of Deerfield Beach and FDOT D4 to assist with LAP project processing. Support includes participation in meetings, coordination with the LAP office, and technical assistance with mini-procurement activities such as reviewing design scopes, evaluating consultants, preparing independent cost estimates, summarizing negotiations, and resolving FDOT comments.
- » **Pembroke Pines Road Protected Bike Lanes & Wider Sidewalks from SW 145th Ave to Flamingo Road, City of Pembroke Pines:** Provide project management support for the City of Pembroke Pines and FDOT D4 to advance LAP-funded improvements along Pembroke Pines Road from SW 145th Ave to Flamingo Road for the implementation of protected bike lanes and wider sidewalks. Scope includes coordination with the FDOT D4 LAP office and assistance with mini-procurements, including review of design consultant scopes, technical evaluation support, preparation of independent cost estimates, negotiation summaries, and FDOT comment resolution.



MDWASD OCEAN OUTFALL LEGISLATION (OOL) PROGRAM MANAGEMENT SERVICES

LOCATION

Miami-Dade County, FL

OWNER

Miami-Dade Water & Sewer
Department

COST

\$3.3B Program

COMPLETION

Ongoing

KEY FEATURES

Wastewater Treatment Plant

Construction Engineering
Inspection Services

Construction Management

Program Controls

Scheduling & Cost Estimating

Construction Contract
Administration

Construction Submittal Review

Constructability Reviews

Change Directive & Change Order
Development & Review

Enforcement of Contract Terms &
Conditions

Pay App Review

Permit Compliance

Stakeholder Coordination

Punch Lists

As-Built Drawings

QA/QC

Reporting

Permitting & Interagency
Coordination

Program Management Support

Project Management

Civil Engineering Analysis & Design

Large Diameter Pipeline

Lift Station Evaluation & Design



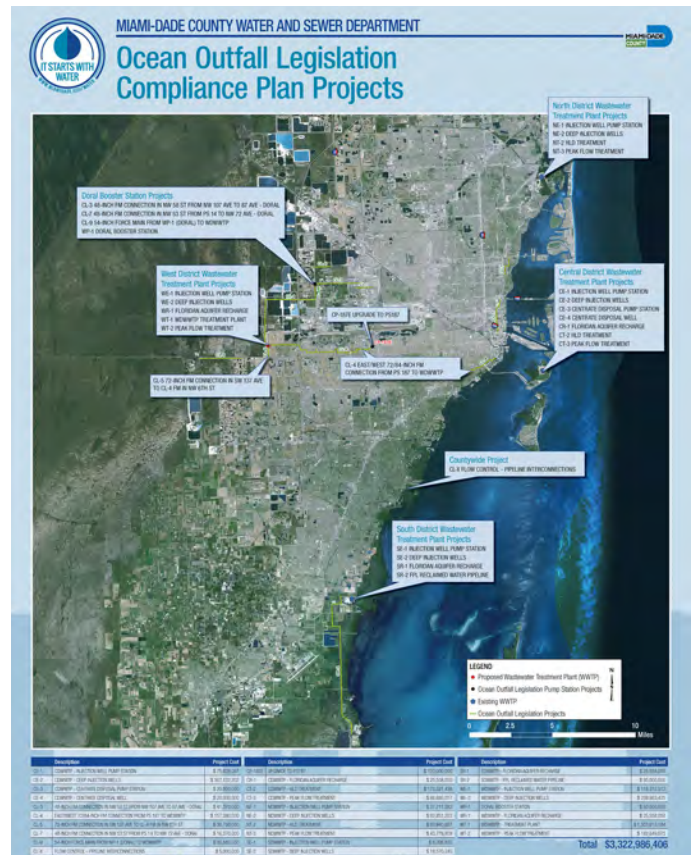
CES is providing Program Management, Construction Engineering Inspection, Construction Management, and Program Controls Support Design Engineering Services on the Miami-Dade Water & Sewer Department's \$3.3 billion OOL Program.

The 11-year Ocean Outfall Legislation (OOL) Program started in 2014 and is the culmination of a regulatory mandate by the Florida Legislature to stop all wastewater discharge to the ocean by 2025. This program will eliminate wastewater from being discharged to the ocean and boost the local economy by creating new jobs. The objective is to reverse the County's wastewater system flows away from the ocean outfalls and reroute flows to a new membrane bioreactor treatment plant. The plant, when complete, will be one of the largest of its kind in the world—capable of treating more than 100 million gallons of wastewater each day and injecting the treated water into deep wells. The OOL Program is one component of the Miami-Dade Water & Sewer Department's comprehensive Capital Improvement Plan for numerous water and wastewater infrastructure projects. The projects are critical for the County to meet the service needs of its customers, accommodate future growth, as well as comply with Federal and State and local regulations.

CES support services include assisting the Jacobs Team with managing the overall delivery of a comprehensive, technically sound, long-term program that encompasses the design, procurement, construction, and commissioning of projects under the OOL program.

CES's Program Management Support Services included Program Controls and Technical Support and Design Project Management Services during all phases of the project development, including planning, design procurement, design, bid/contract award, and construction administration for the following projects:

- » **NDWWTP Plant Package NE-1:** New Injection Well Pump Station and associated electrical components, injection wellheads, injection well yard piping supply loop, and flushing water system; conversion of the existing Outfall Pump Station to a Transfer/Outfall Pump Station and installation of the transfer pipe from the Transfer/Outfall Pump Station to the flocculation tank; new roads; utilities extending up to 10 feet from the buildings; stormwater collection and conveyance system; and sanitary sewer pump station.
- » **NDWWTP Package NE-2 New Municipal Injection Wells:** Five new municipal injection wells and two monitoring wells.
- » **NDWWTP Package NT-2B New High-Level Disinfection Facilities:** Site preparation, new stormwater conveyance system including stormwater master plan/modeling, and stormwater pond.
- » **NDWWTP Package NT-2C:** Rapid mix and flocculation tanks; polymer building; disk filters; filter backwash waste treatment system; sodium hypochlorite storage and feed facility; chlorine contact tanks; and substations HLD-1 and HLD-2; and associated electrical, instrumentation, and controls.
- » **NDWWTP Package NT-3 New Electrical Distribution Building No. 2 & Fuel Storage Facility**
- » **NDWWTP Effluent Pumps**
- » **NDWWTP Peak Flow CDR**
- » **NDWWTP High-Level Disinfection System & Peak Flow Treatment Conceptual Design Report:** Defining the improvements required for the North District Wastewater Treatment Plant (NDWWTP) to address the OOL Compliance Plan 2017 Update, which includes improvements and expansion of the existing wastewater collection and treatment system to meet the 2035 projected flows and loads.
- » **NDWWTP Conveyance**
- » **CDWWTP Package CE-1:** New Municipal Injection Well Pump Station, injection well pipeline, wellheads, and filling of the existing sludge drying beds 1, 2 5, 9, 11 and 12.
- » **CDWWTP Package CE-2 New Municipal Injection Wells:** Nine (9) municipal injection wells and four (4) monitoring wells.
- » **CDWWTP Package CT-2A-1:** (New HLD Facilities) High-Level Disinfection Facilities including flocculation tanks, disk filters, chlorine contact tanks, and backwash water treatment.
- » **CDWWTP Package CT-2A-2 Dual-purpose Transfer/Effluent Pump Station:** Conversion of the existing effluent pump station to a transfer/effluent pump station and the construction of a pipeline to convey secondary effluent to the proposed HLD facilities.
- » **Multiple Lift Station Evaluations & Design**
- » **West District WWTP Conceptual Design**
- » **Project SL-3A.1 & SL-3B.1, SP-1 Transmission Force Main Phase 1 & SP-1 Suction Force Main:** Permitting and Procurement assistance for the design of 7,500 LF of a proposed 36-inch and 54-inch suction force main, and 8,000 LF of a proposed 60-inch discharge force main, both from the proposed SP-1 Booster Pump Station to the intersection of SW 137th Ave and SW 152nd St.



- » **Project SL-3B, SP-1 North Suction Force Main Phase 1:** Permitting and Procurement assistance for the installation of 11,000 LF of a proposed 42-inch force main along 137th Ave from SW 104th St. to SW 136th St.
- » **Project SL-3A.2, SP-1 Transmission Force Main Phase 2:** Permitting and Procurement assistance for the installation of 8,000 LF of a proposed 60-inch force main along SW 137 Ave from SW 152nd St.- SW 176th St.

CES is currently providing **Construction Project Management and Construction Engineering Inspection Services** for these Task Orders:

- » **ST-1B Oxygenation Trains 1-7 Rehabilitations and New Electrical Buildings:** The project consists of furnishing all materials, labor, and equipment necessary for improvements to existing oxygenation trains, construction of new electrical buildings, and improvements to the potable water, fire water, and plant water distribution systems at the South District Wastewater Treatment Plant (SDWWTP). The scope includes: demolition; retrofitting of oxygenation trains with step feed capability, structural rehabilitation repairs of ox trains 1 to 7; construction of new concrete slab with electrical conduits and access ramps over existing concrete slab of oxygenation trains 1 to 4 and 5 to 7; furnishing and installation of new mechanical aerators, blowers, gates, valves, and other process mechanical equipment; furnishing and installation of new sensors, including flowmeters, gas samplers, wastewater analyzers, and gas detection; construction of two (2) new electrical buildings for oxygenation trains 1 to 4 and 5 to 7; furnishing and installation of new fire alarm system, electrical systems, SCADA system (supply of select SCADA equipment by SCADA Equipment Supplier), conduits, MCCs, VFDs, control panels, and lighting systems; furnishing and installation of new HVAC systems, water source heat pumps (WHPs) cooling water pumps (CWPs), cooling towers (CTs), fans, air ducts and air purification system; furnishing and installation, doors, windows and roll up doors; furnishing and installation of all plumbing; furnishing and installation of all appurtenances for control room; and site grading and construction of new yard piping and electrical conduits to connect new structures to the SDWWTP existing electrical, water, sewer, process water, fire alarm and SCADA systems.
- » **ST-2D-B New Substations 5/6 and 15/16:** The project consists of the construction of the two new Substations 5/6 and 15/16 along with its electrical equipment, and 13.2kV and 480V electrical duct banks at the SDWWTP. The scope includes: 1) constructing a new stand-alone building for Substations 5/6, and furnishing and installing related equipment; 2) constructing a new stand-alone building for Substations 15/16, and furnishing and installing related equipment; and 3) furnishing and installing new Duct Bank System.

The **Construction Engineering Inspection Services** provided include: creating Daily Inspection Reports on e-builder; participating in Bi-Weekly Progress Meetings; reviewing QA and QC plan from Contractor; field inspection of the construction progress; reviewing and updating as built drawings and change log for final set of drawings; reviewing and approving of the Monthly Pay Applications; reviewing and following up on all approved submittals; review of all RFIs (Request for Information) submitted by the Contractor; taking photos of all construction progress; revision of specifications to ensure Contractor compliance with the contract; revision of drawing set to ensure compliance with the contract; reviewing and coordinating all RFSs (Request for Services) submitted by the Contractor; documenting and certifying all related work for a change order; coordinating all activities for related projects that require the assistance of MDWASD personnel; inspecting all equipment and material delivered to ensure vendor, material quality and model; inspecting proper storage for all in advance equipment delivery; safety walk inspections to ensure contractor employees meet the minimum safety requirements; coordinating, scheduling and supervising third party special inspections and testing lab; creating and presenting the safety topic on the Progress Meeting; informing the contractors of any safety issues found and follow up until corrected; and review and follow up Contractor Commissioning Start-up Plan.

The **Construction Management Services** provided include: leading preconstruction and progress meetings; reviewing, managing, and responding to project submittals, Contractor's RFIs and RFSs, and the Contract's drawings and specifications; participating in monthly coordination, OOL MVR, schedule review, Contractor, and Risk Register review meetings; reviewing and approving Inspector's Daily Construction Reports; reviewing Project Schedule Updates; reviewing Contractor's Payment Applications; coordinating Contractor's Requests for Services with MDWASD Plant Operation Staff; reviewing and providing recommendations for Contractor's claims for additional work and time; preparing and submitting Contractor's Request for Proposal and Allowance Authorization/Change Orders; field visits to oversee construction progress; supervising project inspectors; and monitoring project's QA/QC.



MDC PROGRAM MANAGEMENT SERVICES: INFRASTRUCTURE ASSET DATA MINING & ANALYSIS

LOCATION

Miami, FL

OWNER/CLIENT

Miami Dade College

COST

Fee Only

COMPLETION

2024

KEY FEATURES

Program Controls

Data Analysis

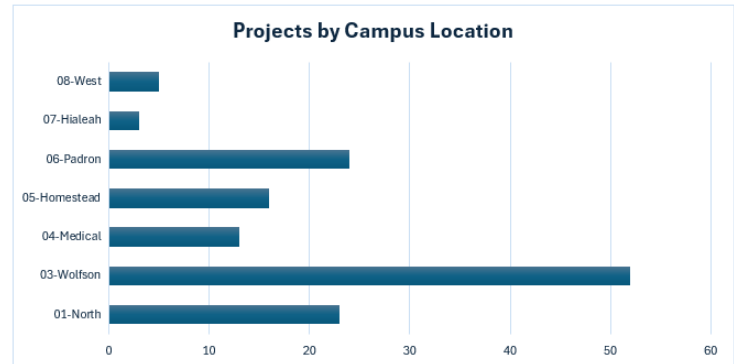
Capital Infrastructure Funding

Asset Management

Data Collection & Mining

Facilities Condition

Count of File Title		
Building	Project Num	Total
01-North		23
03-Wolfson		52
04-Medical		13
05-Homestead		16
06-Padron		24
07-Hialeah		3
08-West		5
Grand Total		136



CES provided data collection, mining, and analysis services for Miami Dade College to support capital planning and infrastructure funding.

Miami Dade College needed to update its critical infrastructure database with information about projects completed in the last five years. CES conducted a thorough review of every available document related to over 100 projects to update the database accurately. CES compared their critical infrastructure list side-by-side with the scope of work completed for each project during this period. This information was essential for the college to request funding for operational projects aimed at maintaining its critical infrastructure, hence the criticality to have the project completed before funding request submission.



MICCOSUKEE TRIBE OF INDIANS OF FLORIDA SEPTIC-TO-SEWER PROGRAM

LOCATION

Miami, FL

OWNER/CLIENT

Miccosukee Tribe of Indians
of Florida

COST

Confidential

COMPLETION

Ongoing

KEY FEATURES

Septic-to-Sewer Conversions

Engineering Design Services

Interagency Coordination



The integrated, progressive design-build team of CES Construction and CES Consultants is working with the Miccosukee Tribe of Indians of Florida to manage the funding, design, and construction of its septic-to-sewer program.

This progressive design-build project consists of septic-to-sewer conversions for the Miccosukee Tribe of Indians of Florida. The length of the project corridor is six miles. The Miccosukee Indian Village includes approximately 200 single-family residences, administrative building, healthcare clinic, police and justice facility, school, commercial area, and planned future residences. Each location currently has either an individual septic tank or wastewater is guided toward a large septic tank and drain field. Due to the sensitivity of the surrounding lands and sea-level rise, the Miccosukee Tribe would like to implement this program to preserve the environment and ensure the safety of the community. For Phase 1, the CES Team is providing engineering design services, as well as managing the grant funding procurement efforts. Phase 2 will consist of construction phase services.





WATSON ISLAND EMERGENCY DIRECTIONAL DRILL 36-INCH HDPE WATER MAIN

LOCATION

Miami-Dade County, FL

OWNER

Miami-Dade Water & Sewer
Department

COST

\$9M

COMPLETION

2023

AWARDS

2023 Cuban American
Association of Civil
Engineers Project of the
Year



KEY FEATURES

Civil Engineering Analysis & Design

Design-Build

Water Transmission/Distribution
System

HDD, Open Cut & Jack and Bore
Installation

Shaft Design

SUE/Utility Coordination

Surveying & Geotechnical Services

Scheduling & Cost Estimating

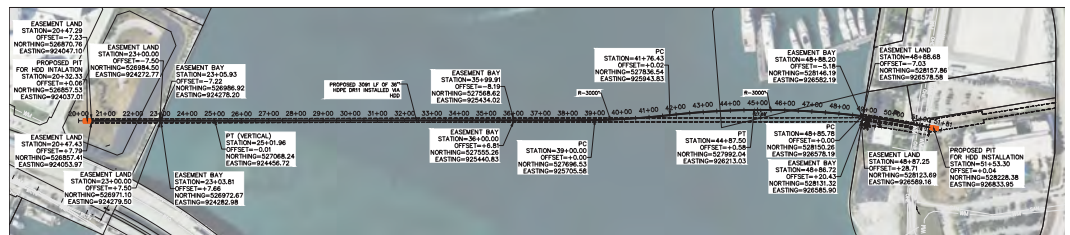
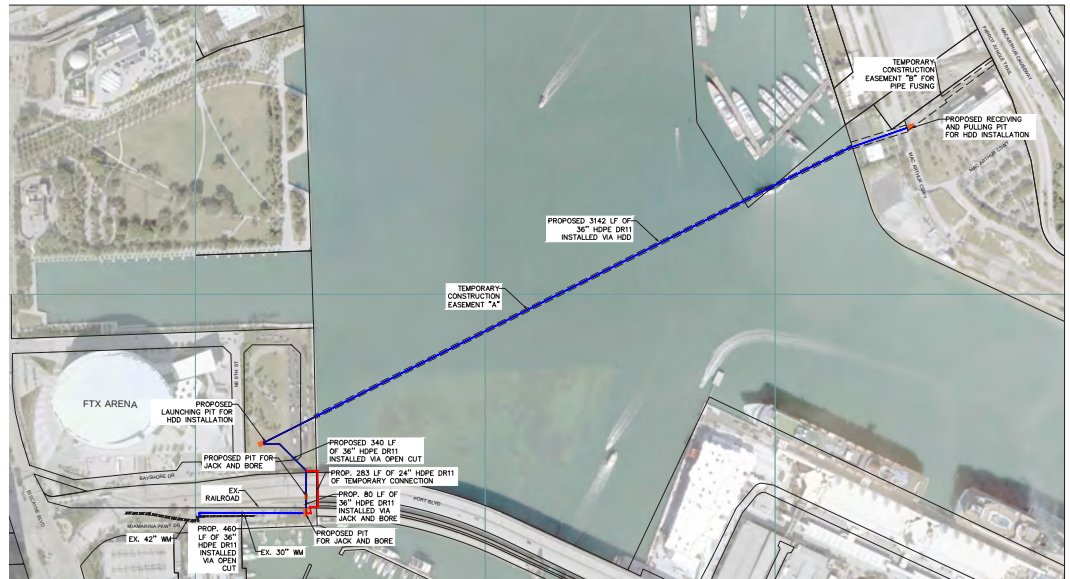
Permitting

Interagency Coordination

Public Outreach

MOT

Construction Phase Services



The Watson Island 36" Water Main Replacement was a Design-Build project involving the development of plan and profile sheets for the emergency relocation of an existing 36" water main.

This water main is one of the major sources of potable water for the City of Miami Beach. Due to an FDOT bridge expansion into Miami Beach, MDWASD requested the relocation of the water main under an emergency mandate. The project included the design and construction of approximately 3,200 LF of 36" HDPE water main installed via directional drill beneath Biscayne Bay, an additional 880 LF of 36" HDPE water main installed via open cut, and approximately 100 feet of 48" steel casing beneath an FEC easement installed via jack and bore. Due to the type of installation, the density of the area, and the urgency of the project, CES developed a comprehensive existing utility plan that included plotting as-builts in 3-D and identifying over 20 soft digs to clearly map the existing utilities.



Services provided included civil engineering design and permitting services, as well as surveying, geotechnical investigation, and SUE services, for the development of complete engineering plans for the entire route of the project, including connection points. This project was declared an emergency, and permits were completed after-the-fact.



DESIGN-BUILD REHABILITATION OF 48"/54" FORCE MAIN ON SE 9TH AVE. & SE 10TH AVE. TO GTL WWTP

LOCATION

Fort Lauderdale, FL

OWNER

City of Fort Lauderdale

COST

\$46M

COMPLETION

2026

KEY FEATURES

Civil Engineering Analysis & Design

Design-Build

Water Transmission/Distribution System

Open Cut, HDD & CIPP Lining

Utility Coordination

Roadway Restoration

Scheduling & Cost Estimating

Public Right of Way

Interagency Coordination

Public Outreach

MOT

Construction Phase Services

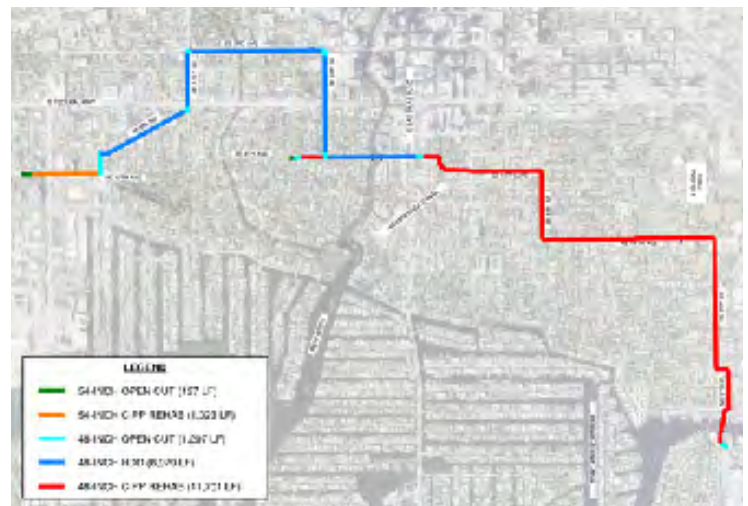
The Lanzo-CES DB Team is providing the rehabilitation/replacement of 15,150 LF of existing 48" and 54" FM and the installation of 8,220 LF of new 48" FM, totaling 23,370 LF of pipeline improvements.

This project aims to restore and upgrade critical wastewater infrastructure that conveys raw wastewater from SE 9th Avenue and SE 10th Avenue (Galleria Mall area) to the George T. Lohmeyer Wastewater Treatment Plant (GTL WWTP) due to a 2019 force main (FM) break and the subsequent abandonment of the Tarpon River crossing section. The project also involves utility relocations, roadway restoration, permitting, and compliance with regulatory standards to ensure long-term operational reliability.

Project includes the design, permitting, construction, testing and startup for all four (4) phases:

- » **Phase A, New 48-inch FM:** Approx. 8,100 LF of new 48-inch FM along SE 15th St, Miami Road, Davie Blvd, SE 3rd Ave, SE 6th St utilizing a combination of open-cut and HDD; plus 120 LF of a new 48-inch subaqueous crossing under Himmarshee Canal utilizing CIPP; and installation of 48-inch isolation and air release valves, , along with the reinstatement of connections to other FMs.
- » **Phase B, Rehab of Existing FM (Roadway):** Rehabilitates 14,200 feet of existing FM through CIPP & HDD to the existing 48-inch and 54-inch ductile iron FMs along SE 10th Ave, SE 9th Ave, NE 4th St, NE 9th St, NE 9th Pl, NE 10th Ave, NE 14th Ave, and NE 18th Ave; and replacement, installation, abandonment, or reuse of isolation and air release valves (54-inch, 48-inch, 36-inch, and smaller), along with the reinstatement of force main connections.
- » **Phase C, Rehab of Existing FM (under New River):** Approx. 300 LF of rehabilitation using CIPP to the existing 48-inch ductile iron FM under the New River, along with the reinstatement of connections to other FMs.
- » **Phase D (Bid Alternate), Rehab of Existing FM (under Middle River):** Approx. 650 LF of rehabilitation using CIPP to the existing 48-inch ductile iron FM under the Middle River; installation of a new 42-inch valve on the existing 42-inch FM in Middle River Drive just north of NE 9th Ave and the existing 20-inch connection; and reinstatement of connections to other FMs.

Lanzo serves as the general contractor for this project and is tasked with the construction, project management, safety, and oversight of all field operations.





SW 27TH AVE. DRAINAGE IMPROVEMENTS, ROADWAY RECONSTRUCTION & WIDENING

LOCATION

Miami, FL

OWNER

Miami-Dade County Public Works
Department

COST

\$5.7M

COMPLETION

2016

KEY FEATURES

Drainage Design

Hydraulic Analysis

Permitting

Interagency Coordination

Traffic Calming

Bike Lanes

Driveway Harmonization

Utility Coordination

Roadway Reconstruction

Value Engineering

Engineering Analysis

Roadways

Water and Sewer



CES provided hydraulic analysis and engineering design for a closed stormwater management system and roadway reconstruction of approximately 0.75 mile along SW 27th Avenue from US-1 to South Bayshore Drive.

The purpose of the project was to provide drainage and traffic improvements through roadway widening, median installations, redesign of intersections, and improvements to drainage, parking, lighting, signalization and landscaping in the Coconut Grove neighborhood of the City of Miami. The land use is a combination of residential and commercial. Since the roadway is part of an older, well established neighborhood, many different utilities are installed within the right of way. The project corridor includes a 30-inch water main, smaller water mains, gas, multiple fiber-optic cable duct banks, sanitary sewers and force mains, requiring extensive utility and interagency coordination. Other complicating factors in the design were the elevations, which included low grades and a high groundwater table at the southern end of the project directly adjacent to Biscayne Bay, higher elevations in the mid-section, and “normal” elevations around the northern end.

The final cross-section of the roadway included additional vehicular travel lanes, sidewalk, curbing, drainage, on-street parking, a bicycle lane, and a traffic calming circle. The design required a clean transition through planned driveway and property harmonization between the new roadway and the existing private property ingress and egress to match the new roadway elevation, width and contours. Additionally, the project required intensive utility coordination to execute the necessary utility relocations, including coordinating with FPL to remove the existing power poles and install all their assets below ground.

The stormwater drainage design was developed in accordance with the guidelines set forth by the County and the Florida Department of Transportation. The design consists of approximately 70 drainage structures to capture and convey all the stormwater, 3,000 LF of piping and 2,000 LF of French drains divided into eight (8) independent, closed systems. By creating independent systems, CES was able to develop a design that satisfied the project requirements while achieving significant cost savings to the client compared to their customary approach of creating interdependent systems.



CITY OF MIAMI 2021 STORMWATER MASTER PLAN

LOCATION

Miami, FL

OWNER/CLIENT

City of Miami/CDM Smith

COST

Fee Only

COMPLETION

2020

KEY FEATURES

Civil Engineering Analysis/Study

Sea Level Rise & Resiliency Planning

Stormwater & Drainage Hydraulic Modeling

Storm Water Management Model (SWMM)

Capital Improvement Project Planning

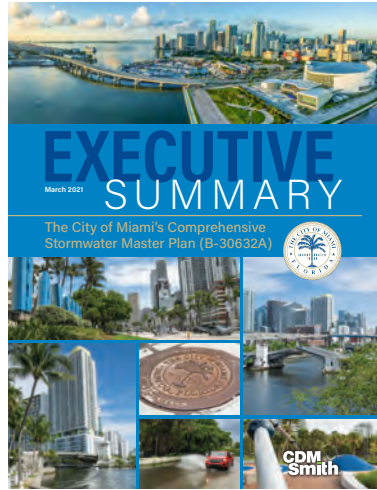
QA/QC

Stormwater Pump Stations

Water Quality Drainage Wells

Interagency Coordination

Public Involvement



CES assisted the CDM Smith Team in the development of a comprehensive, resilient, and adaptable stormwater and coastal resiliency master plan update for the City of Miami to mitigate flooding, enhance the water quality of Biscayne Bay, increase aquifer recharge, reduce saltwater intrusion and strengthen the shorelines from tidal storm surge inundation.

The City encompasses approximately 56 square miles—36 are located in upland areas, while the remaining 20 square miles are found within coastal basins and Biscayne Bay, and designated as Outstanding Florida Water (OFW) and granted special protection. Well-known as a bustling tourist destination and economic powerhouse, Miami also experiences significant flooding from extreme rainfall and tidal events in addition to sea level rise, changes in land use from re-development and frequent regulatory environment changes. The newly updated and comprehensive SWMP serves as the blueprint for capital project and operational recommendations for existing and future climate conditions over the next 50+ years.

CES provided Consulting and Engineering Services to assist CDM Smith with:

- » Sea Level Rise, Resiliency, Facility Redundancy and Hardening for Stormwater Facilities
- » Municipal, Governmental, Social, Public Awareness, and Economic Issues
- » Capital Improvements Program Planning and Implementation
- » Stormwater Planning, Design Criteria, and Permitting Strategies

CES's Scope of Services included:

1. Review and assessment of existing City of Miami strategies for managing sea level rise, resiliency for major storm event impacts, and facility redundancy and hardening.
2. Attendance at select meetings of municipal and governmental agencies regarding policy and strategy of sea level rise and resiliency. Assessment and reporting of findings to the CDM Master Plan team and assistance with incorporation of these strategies into the Master Plan.
3. Provide engineering expertise, advice and consulting for stormwater systems and facilities, stormwater design standards, level of service issues, and regulatory issues and permitting.
4. QA/QC of stormwater hydraulic modeling calculations. Participation in Project Quality Management (PQM) Workshop.
5. Review of Capital Improvement Program components for cost-benefit, resiliency, redundancy, hardening, and compatibility with sea level rise strategies.
6. Assistance with development of Capital Improvement Program schedules and prioritization of program elements.
7. Coordination of City planned neighborhood betterments including utility, landscaping, and roadway improvements with the Stormwater Master Plan.



NE 191ST STREET SYSTEM STORMWATER DRAINAGE & ROADWAY IMPROVEMENTS

LOCATION

Aventura, FL

OWNER

City of Aventura

COST

\$1M

COMPLETION

Ongoing

KEY FEATURES

Stormwater & Drainage Hydraulic Modeling

W/WW Master Plan

Strategic Planning

Cost Estimates

System Performance Criteria Development

Technical Training

Capital Improvement Planning



CES is providing engineering design and technical support for the flood mitigation and infrastructure hardening of the NE 191st Street system, a critical east-west corridor that experiences recurrent flooding due to storm events and rising sea levels, under a multidisciplinary continuing services contract.

The project aims to enhance drainage capacity, roadway resilience, and emergency accessibility while integrating long-term sustainability solutions. Project limits are comprised of NE 191st Street, east of Biscayne Blvd and NE 29th Avenue. The scope includes developing a new stormwater collection system, conducting hydraulic modeling and vulnerability assessments, and designing elevated roadway improvements to minimize flood impacts. CES will analyze existing infrastructure, assess stormwater conveyance, and provide utility coordination to integrate new and existing systems effectively. The project will also incorporate water quality infrastructure, such as pressurized injection wells or filtration systems, to meet regulatory requirements and improve environmental resilience.

Additional tasks include traffic signal upgrades, pavement enhancements, and harmonization plans to ensure minimal disruption to adjacent properties. CES will oversee project management, permitting, stakeholder coordination, and construction phase support to deliver a flood-resilient roadway that improves public safety, facilitates emergency response, and supports the City of Aventura's long-term infrastructure planning.



CITY OF HOMESTEAD WATER & SEWER INFRASTRUCTURE MASTER PLANNING

LOCATION

Homestead, FL

OWNER

City of Homestead

COST

Fee Only

COMPLETION

Ongoing

KEY FEATURES

Stormwater & Drainage Hydraulic
Modeling

Water/Wastewater Master Plan

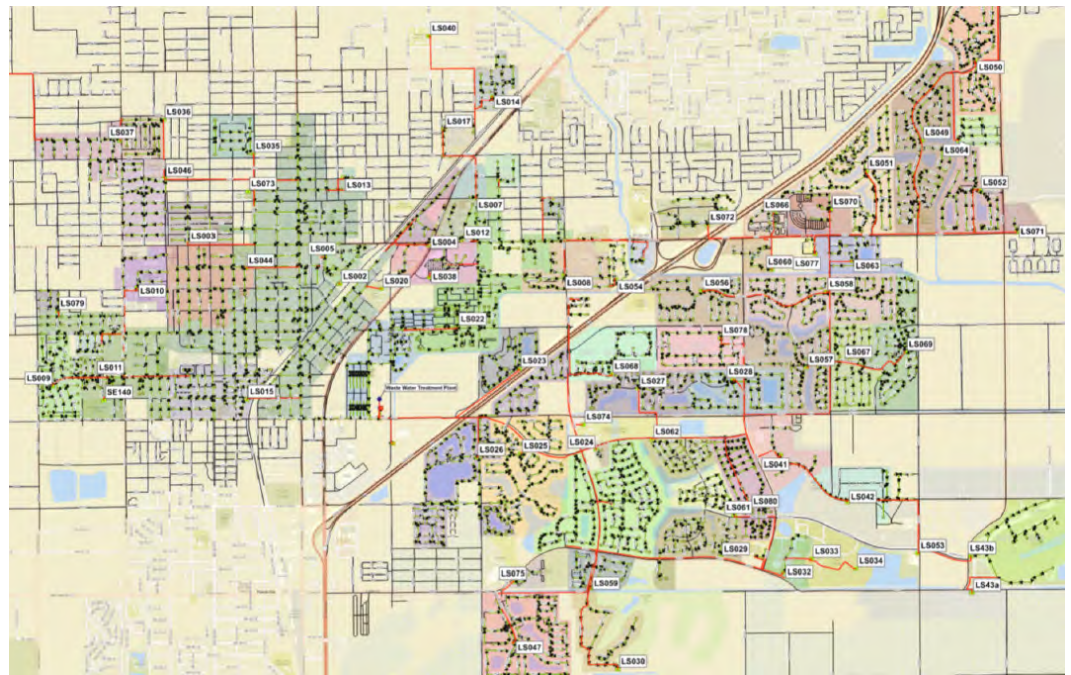
Strategic Planning

Cost Estimates

System Performance Criteria
Development

Technical Training

Capital Improvement Planning



CES is providing comprehensive hydraulic modeling and master planning services for the City of Homestead’s water and wastewater infrastructure with an aim to evaluate system capacity, identify the impacts of future developments, and streamline connection requests.

Scope of work includes data collection and system analysis, hydraulic modeling using WaterGem and SewerGem, vulnerability assessments to identify critical infrastructure risks, and capital improvement planning (CIP) to prioritize system upgrades. CES will analyze existing and future water distribution and wastewater collection systems, assess lift stations and pump stations, evaluate interconnections, and develop system performance criteria. Deliverables include a prioritized CIP with phased recommendations, cost estimates, and a comprehensive Water and Wastewater Master Plan Report, incorporating findings, models, and strategic planning for long-term system improvements. CES will coordinate closely with City staff, provide technical training, and ensure seamless project execution to enhance Homestead’s infrastructure resilience and operational efficiency.



CITY OF MIAMI GARDENS CSC TO: ROADWAY & DRAINAGE IMPROVEMENTS FOR ANNEXED AREA

LOCATION

Miami Gardens, FL

OWNER/CLIENT

City of Miami Gardens

COST

\$3.1M

COMPLETION

Ongoing

KEY FEATURES

Civil, Stormwater, Drainage & Transportation Engineering Analysis & Design

Stormwater & Drainage Hydraulic Modeling

Stormwater Collection System

Water Quality Drainage Wells

Improved Water Quality via Green Infrastructure

Public Involvement

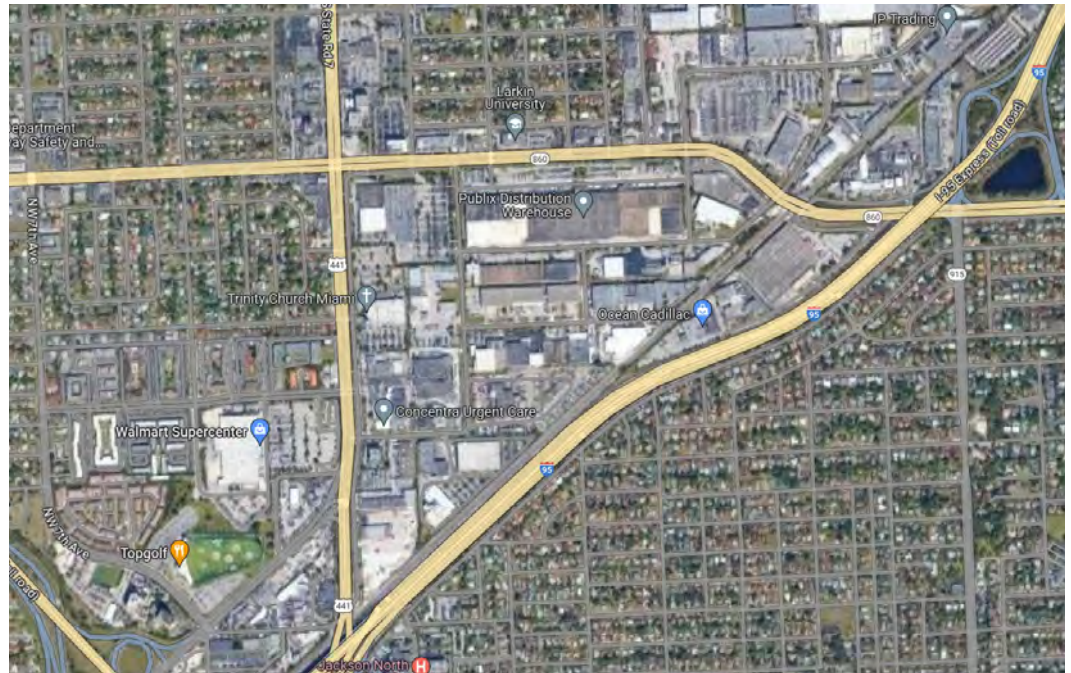
Landscaping

Roadway Redesign & Restoration

Sidewalk/Curbing

Interagency Coordination

Permitting



CES staff prepared a complete stormwater model and design, which included a stormwater collection system, graded swales, concrete curbing with flumes, and drainage wells to dispose of the excess stormwater in the area.

The City of Miami Gardens annexed the area bounded by NE 181st Street to the north, NW 176th Street to the south, I-95 to the east, and NW 2nd Avenue to the west from Miami-Dade County. This area is mainly heavy industrial with significant tractor trailer activity. The area experiences significant flooding during almost any rain event, and the City of Miami Gardens contracted with CES to address the localized flooding. CES staff prepared a complete stormwater model and design, which included a stormwater collection system, graded swales, concrete curbing with flumes, and drainage wells to dispose of the excess stormwater. The plans include plan and profile sheets, drainage structure details, and stormwater management details. CES developed the complete model, signed and sealed plans, and processed the plans through the proper regulatory agencies.





CITY OF HOLLYWOOD CSC: ROTARY PARK SURFACE WATER MANAGEMENT SYSTEM INSPECTION & CERTIFICATION

LOCATION

Hollywood, FL

OWNER/CLIENT

City of Hollywood

COST

\$1,200 (Fee Only)

COMPLETION

2021

KEY FEATURES

Civil Engineering Analysis

Stormwater Management License
Renewal

Drainage System

Inspection

Interagency Coordination



As part of a continuing service contract, CES was tasked with renewing an expired stormwater management license (SWM License).

The effort required the following.

1. Analysis of the as-builts for the existing drainage system.
2. A visual inspection of the existing drainage system.
3. Preparation of an inspection report defining the existing drainage system and its deficiencies (Identified which catch basins to properly clean. No design or changes to the system.).
4. Verify the catch basins have been cleaned by being present for the cleaning. Document the cleaning process.
5. Prepare a stormwater license renewal, which includes a key map of the drainage system, the original inspection report, and a system renewal certification letter and a cleaning certification letter signed by a professional engineer. The cleaning certification letter identifies which catch basins were cleaned and by what method of cleaning (water jet, vac truck, etc.).



CITY OF LARGO GES TASK ORDER: STARKEY ROAD BASIN MANAGEMENT PLAN (BMP) PROJECTS

LOCATION

Largo, FL

OWNER

City of Largo

COST

Est. at \$2-3M

COMPLETION

Design Complete;
Construction is Pending Funding

KEY FEATURES

Civil/Structural Engineering
Analysis & Design

Stormwater & Drainage Hydraulic
Modeling

ICPR4

Culverts

Roadways

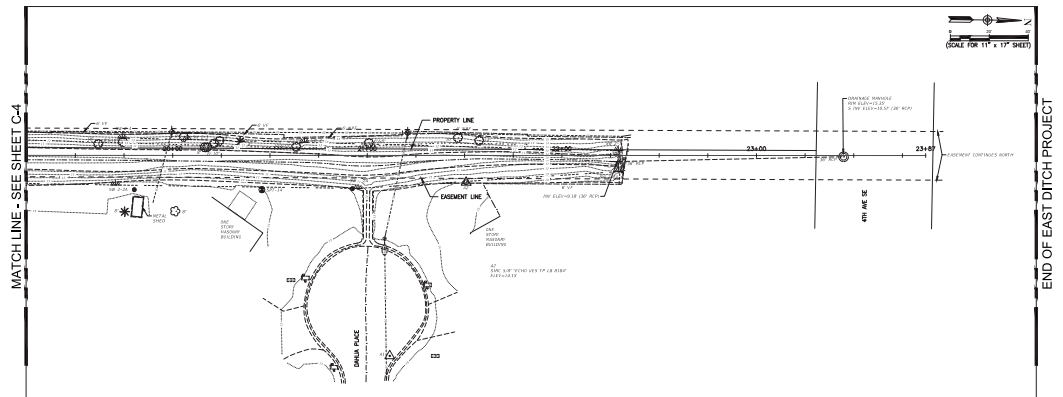
Cost Estimating

Permitting

Environmental Permitting

Interagency Coordination

Public Outreach



CES provided planning, engineering design, geotechnical, field survey, and public information services in connection with several stormwater best management practices projects for the City of Largo Channel 10 and its tributary structures.

The overall project objective was to develop plans and specifications, and related project permit applications, for project bidding and construction, and other professional engineering work. The work comprised the following:

1. Re-grade approximately 1,220 feet of existing ditch between 4th Avenue SE and Channel 10 (Willow Avenue Right of Way, West of Dahlia Place and Gardenia Place. Reconstruct inlet structures from tributary roads. Expand bottom width and provide positive bottom gradient. Engineering included evaluating the construction and future maintenance costs of geocell and/or gabion construction for channel bottom and sides versus continued reliance on earthen bottom and sides.
2. Re-grade approximately 1,340 feet of existing ditch between Meadow View Avenue and Channel 10 (Willow Avenue Right of Way, West of Pine Tree Avenue, Oaklawn Avenue and Green Acres Avenue. Reconstruct inlet structures from tributary roads. Expand bottom width and provide positive bottom gradient. Engineering included (1) evaluating the construction and future maintenance costs of geocell and/or gabion construction for channel bottom and sides versus (2) constructing new stormwater pipe and supplemental drainage swale to replace ditch, versus (3) continued reliance on earthen bottom and sides.
3. Culvert Upgrade at Lake Palms Avenue on Channel 10 comprising replacement of existing 54" diameter culverts with two 12x5 box culverts. New box culverts to be constructed with hydraulic restrictions limiting downgradient flows to existing peak flows until Pinellas County completes proposed Culvert Upgrades at the Starkey Road Crossing. Hydraulic restrictions will be constructed to be readily removed when the Starkey Road Culvert Upgrades are completed.
4. Modeling and design for the incorporation of Channel 10 from the existing project's East Ditch to the existing project's box culverts at Lake Palm Drive, including structural design of the weir and headwall, Channel 10 wetlands definition, updated environmental reports, and expanded ERP process to include Channel 10.





CITY OF TAMPA GES TASK ORDER: SEPTIC TO SEWER STUDY

LOCATION

Tampa, FL

OWNER

City of Tampa

COST

\$93,580 (Fee Only)

COMPLETION

2022

KEY FEATURES

Civil Engineering Analysis/Study & Design

Septic Conversions

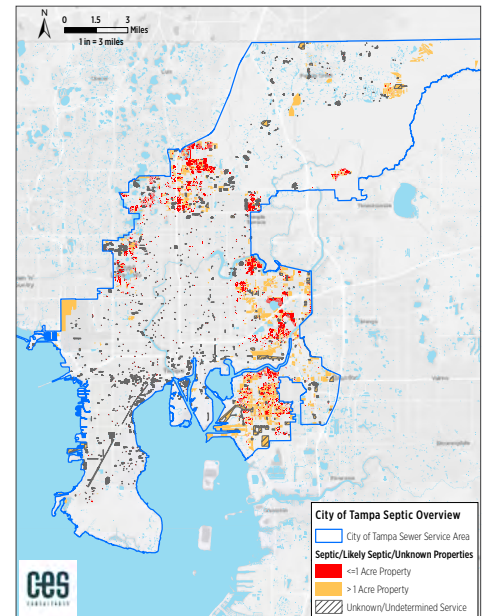
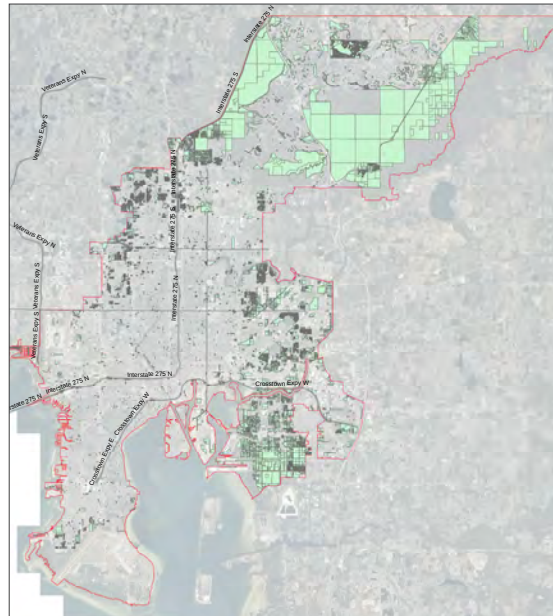
Wastewater Collection Systems

Hydraulic Modeling

Cost Estimating

Interagency Coordination

Contract Administration



CES developed a concept plan to replace existing septic tanks serving residential and other properties within the City limits with an expanded network of sanitary sewers, lift stations and force mains.

The plan is based on extending sewer service to existing developed and undeveloped properties. The purpose of the plan was to identify areas with properties that have septic tanks within the City of Tampa, to develop conceptual layouts of the wastewater facilities needed to extend sewer service to these and adjacent undeveloped properties, and to develop a concept level estimate of costs to construct the facilities needed to convert from septic to sanitary sewer service. Tasks included:

1. Confirm study goals, approach, scope and deliverables.
2. Collect and confirm project area data.
3. Identify properties served by septic systems, identified in the Florida Department of Health database, as Septic System Areas located within the City of Tampa limits.
4. Identify adjacent undeveloped properties and related, potential wastewater flow rates based on current land use, size of property and standard guidelines for estimating wastewater flow rates,
5. Develop unit costs to demolish and abandon septic systems and connect to new, in public street, sanitary sewer.
6. Develop estimated sewage flow rates for these existing developed and undeveloped properties.
7. Develop sewer system layout concepts, using SWFWMD LiDar topography, estimated flow rates for developed and undeveloped properties, minimum slope for B, 10, 12-inch pipe, depth range from 4'-12', duplex submersible lift stations.
8. Aggregate Septic System Areas and adjacent undeveloped properties into "sewerable" Project Areas presented, as practical, in GIS and Shapefile formats.
9. Prepare Concept Plan for each project area using gravity sewers and lift stations/force main connections to existing sewers. Plan will include figures of the areas and spreadsheets with the lists of properties and estimated flow rates.
10. Prepare Concept Level cost estimates for public and private component costs.
11. Compile Preliminary Concept Plan Report.



CITY OF MIAMI BEACH ENGINEERING SERVICES FOR WATER & WASTEWATER SYSTEMS PROJECTS

LOCATION

Miami Beach, FL

OWNER/CLIENT

City of Miami Beach/
Hazen & Sawyer

COST

Fee Only

COMPLETION

2023

AWARD

American Society of Civil
Engineers (ASCE) Miami-
Dade Branch 2022–2023
Project of the Year Award
for the Venetian Causeway
Water and Sewer Main Upgrades



KEY FEATURES

Civil Engineering Analysis/Study/
Design

Specifications & Detail Design

Stormwater & Drainage

Stormwater Pump Stations

Stormwater Manholes

Stormwater Pipe Casing

Stormwater Inlets

Curb Inlets

Curb & Gutter Inlets

Offset Drainage Structures

Apron Details

Exfiltration Trenches

Swale Drainage

Drainage Wells

Deep Drainage Wells

Trench Drain Systems

Extra Heavy Duty Floor Drains

Skimmers for French Drains

Filter Fabric Jackets

Sheet Piles

Outfalls

Roadway

Sanitary Sewer/Wastewater
Water

Landscaping



CES provided engineering and field services in connection with the City of Miami Beach Engineering Services for Water & Wastewater Systems Projects.

Task orders included the following:

Water/Wastewater Condition Assessment: In an effort to improve maintenance of their water and wastewater assets, the City of Miami Beach tasked CES and Hazen & Sawyer with performing a condition assessment of all water and wastewater assets, preparing a replacement report, updating the existing GIS system, and incorporating improvements into the existing water and wastewater models. CES performed visual condition assessments on six water booster stations, 31 wastewater pump stations, and approximately 41 aerial crossings. The visual condition assessment included a site visit, photographic documentation, and a conditions assessment report, which included an estimated useful life.

Leak Detection Program Phase I: The City of Miami Beach has been experiencing an increase in its unaccounted for water over the past few years. As such, the City requested Hazen & Sawyer's assistance in developing solutions to address unaccounted for water through the implementation of a leak detection program. To assist Hazen & Sawyer, CES provided large meter field inspection services. CES provided personnel to conduct field investigation and reporting for all City water meters 3 inches and larger (estimated to be 354 meters). CES visited each meter in the field and recorded the following information for each meter: address verification; location (street/sidewalk/driveway/alley/easement/yard-grass area); meter size; bypass installed (Y/N); isolation valves provided (Y/N); isolation valves exposed/buried; meter brand; manufacture date; meter serial number; meter read; register type; register output; meter box size; meter box condition; test port available; test port size; excavation required; take photo (provide dimension/scale); and provide sketches as needed. All data recorded in the field was provided in an Excel spreadsheet format, with photos and field sketches provided electronically as well.

Water and Wastewater Master Plan Assistance: CES and Hazen & Sawyer were tasked with updating the City of Miami Beach Water and Wastewater to identify needed repairs and upgrades to the existing system. The objective of the project was to analyze the water and wastewater systems for areas of deficiencies, areas of growth, and areas that need maintenance. With this information, the team inputted this information into the respective models and developed a priority list. CES assisted in the task by gathering required data, performing conditions assessments, identifying remaining useful life of many assets, and cross-referencing assets with upcoming projects from other departments.

Public Works Manual Review and Update: CES reviewed and updated the existing City of Miami Beach Public Works Manual and developed a revised version of the manual based on current codes and construction practices.

The previous version of the City of Miami Beach's Public Works Manual (PWM) was dated April 1, 2007. It was comprised of 23 sections that cover design criteria, project procedures, minimum specifications, and standard details. It covered a variety of topics including roadways, water, sanitary sewer, irrigation, landscaping, street lighting, stormwater, and seawalls.

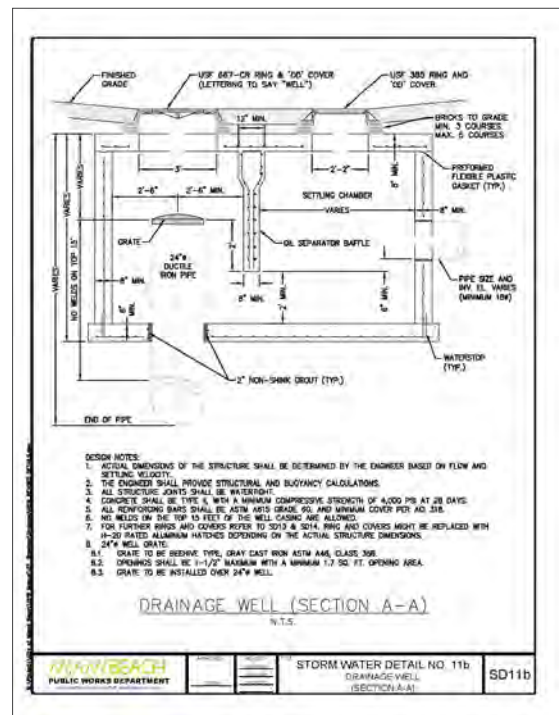
In an effort to ensure the PWM was following the most current industry standards and best practices, the team was tasked to review all sections of the PWM and provide updates as needed for City review and approval.

The team reviewed the existing PWM taking into consideration the following:

- » Verification that noted standards and references are applicable and provide updates as needed.
- » Review standard detail drawings with particular attention directed to the terminology and clarity of intent and conformance with the corresponding minimum specifications as appropriate.
- » Verification that minimum specifications and standard details are following the most current industry standards and best practices.
- » Review minimum specifications and standard details for completeness, identify any gaps and generate new details as required.
- » Provide recommendations with respect to improving the minimum specifications and standard details from the perspective of cost and constructability, as well as future maintenance considerations.

CES specifically developed the following sections, specifications, and standard details:

- » **Stormwater & Drainage:** All existing specifications and details were updated to meet current codes and



construction practices. Additional new specifications and details were created for stormwater pump stations, which were previously not included in the manual. Other new specifications created and details designed include: Stormwater Manholes, Stormwater Pipe Casing, Stormwater Inlets, Curb Inlets, Curb & Gutter Inlets, Offset Drainage Structures, Apron Details, Exfiltration Trenches, Swale Drainage, Drainage Wells, Deep Drainage Wells, Trench Drain Systems, Extra Heavy Duty Floor Drains, Skimmers for French Drains, Filter Fabric Jackets, Sheet Piles, and Outfalls.

- » **Roadway:** All existing specifications and details were updated to meet current codes and construction practices.
- » **Sanitary Sewer/Wastewater:** All existing specifications and details were updated to meet current codes and construction practices.
- » **Water:** All existing specifications and details were updated to meet current codes and construction practices.
- » **Landscaping:** All existing specifications and details were updated to meet current codes and construction practices.

Venetian Causeway Water and Sewer Main Upgrades Phase 1 – Construction Inspection Services: CES performed periodic field inspection of the construction work to confirm compliance with contract documents. A written report documented each visit. Each report included, but was not limited to, date of visit, contractor personnel and equipment on site, construction activities and construction progress. Progress photographs were also taken during the periodic field visits to visually document the contractor's activities. **Award: American Society of Civil Engineers (ASCE) Miami-Dade Branch 2022–2023 Project of the Year Award for the Venetian Causeway Water and Sewer Main Upgrades.**



BCWWS CSC: WATER & SANITARY SEWER SYSTEM IMPROVEMENTS & SERVICE CONVERSIONS FOR UAZS

LOCATION

Broward County, FL

OWNER

Broward County Water & Wastewater Services

COST

\$25M

COMPLETION

2022

KEY FEATURES

Civil Engineering Design

Construction Phase Engineering & Inspection Services

Water & Septic Service Conversions

Gravity Sewer Pipe, Manholes & Laterals

Force Main Replacement

Lift Station Connections

Septic Tank Connections to Gravity Sewer System

Water Main Upsizing & Replacement

Fire Hydrants

Utility Easement Grants

Esri ArcGIS Mapping

QA/QC

Constructability Review

Construction Contract Administration

Construction Submittal Review

Utility Coordination

ACAD Civil 3D Design & Support

Permit Compliance



CES was a key team member on these projects providing design and construction administration services for the water and sanitary sewer improvements within the Broward County Water and Sanitary Sewer System Utility Analysis Zones (UAZs) 110/111 and 113.

In total, the project includes the replacement of 135,000 LF of Gravity Sewer/Force Main and 152,000 LF of Water Main, as well as water distribution system design and sanitary sewer system design for Utility Analysis Zone 113B in the City of Lauderdale Lakes. CES provided information for utility conflict adjustments and prepared specifications for the construction of improvements.

The improvements of both UAZ 110 and UAZ 111 areas include:

- » Replacement of all gravity sewer pipe, manholes and laterals
- » Replacement of a portion of the force main pipe between Lift Station 50K and 50K2
- » Service conversions and connection of parcels with septic tanks to gravity sewer system
- » Replacement of water mains, water service conversions and fire hydrants
- » Installation of new and/or upsizing water mains to maintain proper hydraulics as defined by the County
- » Installation of additional fire hydrants to provide proper coverage

CES also provided utility easement procurement services. Under the existing system configuration, BCWWS was unable to access existing sanitary sewer infrastructure for maintenance and/or repair purposes. Five (5) Letters of No Objection were signed by property owners to obtain 25' utility easement grants and to facilitate the installation/maintenance of the required sanitary sewer improvements by the County. The effort included coordination with property owners and associations, as well as Esri ArcGIS mapping and utility easement figure development.



MDWASD PUMP STATION IMPROVEMENT PROGRAM

LOCATION

Miami-Dade County, FL

OWNER

Miami-Dade Water & Sewer
Department

COST

\$27M+

COMPLETION

2022

AWARDS

2019 Cuban American
Association of Civil
Engineers Project of the
Year

2018-2019 American Society
of Civil Engineers Project of
the Year Category III



KEY FEATURES

Lift/Pump Stations

Force Mains

Utility Relocation

Sanitary Sewer Collection System

Civil Engineering & Design

Inspection/Evaluation & Analysis

Mechanical, Electrical & Structural
Engineering

Sidewalk/Curbing

SUE/Utility Coordination

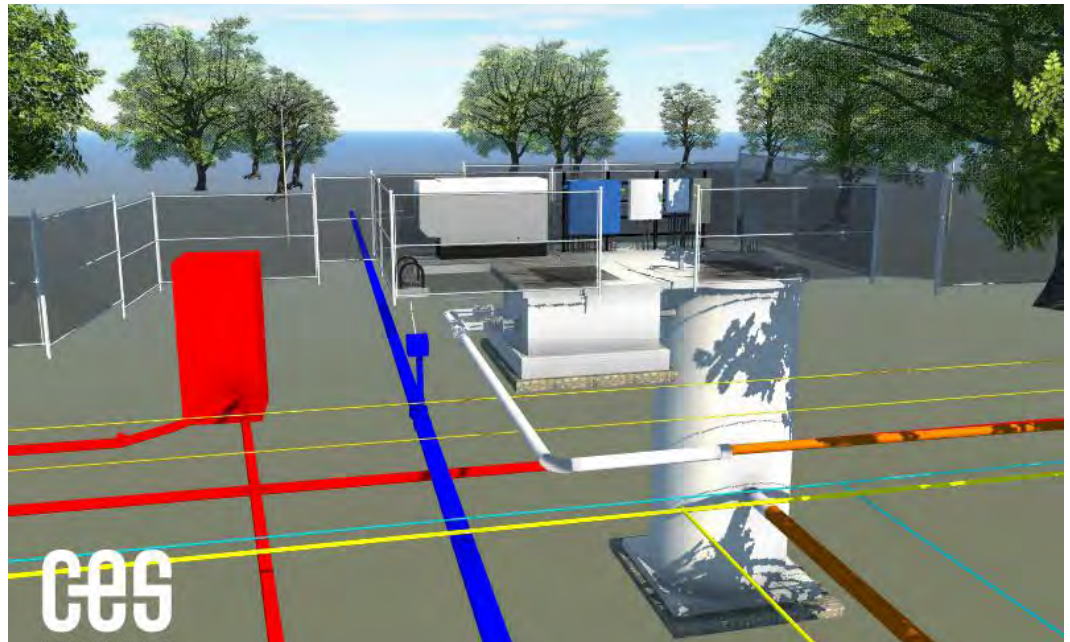
Public Involvement

Landscaping

Interagency Coordination

Consent Decree Program

Accelerated Schedules

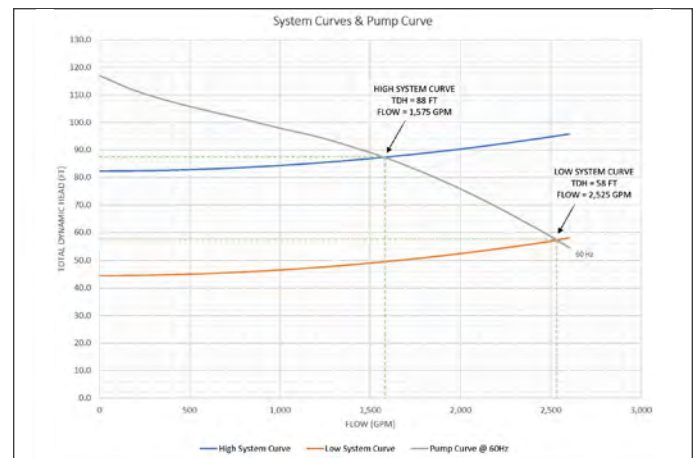


CES provided the inspection/evaluation, analysis and design for more than 35 sanitary sewer lift stations ranging from 20 HP to 60 HP and associated force mains. Our team provided full design services, which included surveying, geotechnical engineering, civil engineering, mechanical engineering, structural engineering, and electrical engineering.

The Miami-Dade Water & Sewer Department (WASD), in an effort to comply with the 2013 Consent Decree and improve operation its wastewater collection system to achieve compliance, established the Pump Station Improvement Program. Under this program, MDWASD will repair or replace over 140 existing and non-compliant wastewater pump stations. The improvements vary from pump upgrades to complete pump station and force main upgrades. The main complexities of these projects and designs were the accelerated schedules required to meet the Consent Decree schedules. The aggressive schedule required efficient project management and effective project controls. Some of the projects included in the PSIP Task Orders are:

- » **Design of Pump Station No. 609:** Analyzed and designed the upgrades to PS 609. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. With this data, it was concluded that this station required resurfacing and recoating the inside of the existing wet well, new 40 HP pumps, and a new motor connection box.
- » **Design of Pump Station No. 147:** Analyzed and designed the upgrades to PS 147. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. The data indicated that this pump station had undersized pumps, wet well, discharge piping and valve vault. The design included a new 8-foot diameter wet well, a new valve vault, new 56 HP pumps, new 10-inch discharge piping and force main, a new electrical panel, a new permanently installed 175 KW emergency generator, and a complete civil site redesign to optimize the limited space.

- » **Design of Pump Station No. 331:** Analyzed and designed the upgrades to PS 331. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. This station is a large underground wet well/dry well facility with a concrete above ground enclosure. Originally, MDWASD requested that we retrofit this station, but our survey identified that the station was built partially outside of its designated easement. Our design incorporated a complete demolition of the existing station, and a complete layout design within the correct easement boundaries. The design included a new 8-foot diameter wet well, a new valve vault, a new receiving manhole, new 34 HP pumps, new 8-inch discharge piping, a new electrical panel, and new 18-inch gravity piping. The layout design for this pump station required early communication with FPL to relocate an existing transformer.
- » **Design of Pump Station No. 440 (Phase 1):** Analyzed and designed the upgrades to PS 440 (Phase 1). The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. With this data, it was concluded that this station required resurfacing and recoating the inside of the existing wet well, new 10 HP pumps, and a new motor connection box. This station was challenging because of the existing elevation of the inflow. The existing system does not allow for a reasonable effective volume without surging the gravity system, which our PM allowed since CES also designed a new pump station to replace this station. The design, although temporary, was designed to avoid clogging during the gravity system surging and to keep surging to a minimum to protect private property.
- » **Design of Pump Station No. 449:** Analyzed and designed the upgrades to PS 449. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. The data indicated that this pump station had undersized pumps, wet well, discharge piping and valve vault. The design included a new 8-foot diameter wet well, a new valve vault, new 21.5 HP pumps, new 10-inch discharge piping, a new electrical panel, 250 LF of 10-inch force main, and a complete civil site redesign to optimize use of the limited space.
- » **Design of Pump Station No. 440 (Phase 2):** Analyzed and designed the upgrades to PS 440 (Phase 2). This design is a completely new pump station located within the public right of way to replace the existing station located in an easement behind four single family residences. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. The design included a new 8-foot



diameter wet well, a new valve vault, new 10 HP pumps, new 8-inch discharge piping, a new electrical panel, and complete civil site design to minimize the impact to the public right of way.

- » **Design of Pump Station No. 081:** Analyzed and designed the upgrades to PS 081. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. The data indicated that this pump station had undersized pumps, wet well, discharge piping and valve vault. The design included a new 8-foot diameter wet well, a new valve vault, new 20 HP pumps, new 8-inch discharge piping, a new electrical panel, 950 LF of 8-inch force main, and a complete civil site redesign to optimize use of the limited space.
- » **Design of Pump Station No. 592 (24-inch Force Main):** Design of approximately 2,750 LF of 24-inch force main along SW 147th Avenue from SW 176th Street to SW 184th Street. The design consisted of connecting to an existing 12-inch and an existing 16-inch force main at SW 176th Street. The pipeline continues south utilizing an open cut method of installation. A 200-foot micro-tunnel operation was designed to cross an existing railroad easement. The pipeline then continues south and connects to an existing stub-out located at SW 184th Street. Our PM was in direct contact with the CSX Utility Coordination Department to accelerate the permitting process.
- » **Design of Pump Station No. 672:** Analyzed and designed the upgrades to PS 672. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. The data indicated that this pump station had undersized pumps, wet well, discharge piping and valve vault. The design included a new 8-foot diameter wet well, a new valve vault, new 47 HP pumps, new 8-inch discharge piping, a new electrical panel, and a complete civil site redesign to optimize use of the limited space.



- » **Design of Pump Station No. 336:** Analyzed and designed the upgrades to PS 336. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. The data indicated that this pump station had undersized pumps, wet well, discharge piping and valve vault. The design included a new 8-foot diameter wet well, a new valve vault, new 20 HP pumps, new 6-inch discharge piping, a new electrical panel, 50 LF of 6-inch force main, and a complete civil site redesign to optimize use of the limited space.
- » **Design of Pump Station No. 1026:** Analyzed and designed the upgrades to PS 1026. This design is a completely new pump station located within the public right of way in an easement next to residential properties. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. The design included refurbish a 6-foot diameter wet well, a new valve vault, new 30 HP pumps, new 6-inch discharge piping, a new electrical panel, and complete civil site design to minimize the impact to the public right of way.
- » **Design of Pump Station No. 1065:** Analyzed and designed the upgrades to PS 1065. This design is a completely new pump station located within the public right of way in an easement next to a commercial properties (warehouses). The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. The design included refurbishing a 6-foot diameter wet well, a new valve vault, new 15 HP pumps, new 6-inch discharge piping, a new electrical panel, and complete civil site design to minimize the impact to the public right of way.
- » **Design of Pump Station No. 0394:** Analyzed and designed the demolition of PS 0394. This design was to remove a pump station located within an easement inside a private school. A new pump station had been designed and constructed within the right of way to facilitate maintenance. Once the new pump station was certified and operational, CES developed construction plans for the complete demolition of the original station.
- » **Design of Pump Station No. 491:** Analyzed and designed the upgrades to PS 491. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. With this data, it was concluded that this station required a full conversion from a wet well/dry well system. The existing wet well was converted into a receiving manhole, the existing dry well area was converted into a wet well, and a new valve vault was designed. Finally, the pump station was upgraded from 20-HP pumps to a more efficient 25-HP submersible pumps.



ENGINEERING, DESIGN & RELATED SERVICES FOR THE LOCAL PUMP STATION IMPROVEMENT PROGRAM

LOCATION

Miami-Dade County, FL

OWNER

Miami-Dade Water & Sewer
Department

COST

\$30M+

COMPLETION

Multiple; Contract is Ongoing

KEY FEATURES

Civil Engineering & Design
Inspection/Evaluation & Analysis
Consent Decree Program
Accelerated Schedules
Lift/Pump Stations
Force Mains
Utility Relocation
Sanitary Sewer Collection System
Mechanical, Electrical & Structural
Engineering
Sidewalk/Curbing
SUE/Utility Coordination
Public Involvement
Landscaping
Interagency Coordination



CES is providing the inspection/evaluation, analysis and design of multiple sanitary sewer lift stations ranging from 20 HP to 60 HP and associated force mains. Our team is providing full design services, which includes surveying, geotechnical engineering, civil engineering, mechanical engineering, structural engineering, and electrical engineering.

The Miami-Dade Water & Sewer Department (WASD), as a continuation of the PSIP Program effort and in an effort to comply with the 2013 Consent Decree to improve operation of its wastewater collection system to achieve compliance, established an internal team and consultants selected specifically for their understanding of wastewater pump station systems. With this “Local Pump Stations” contract, MDWASD will repair, replace and/or upgrade existing and non-compliant wastewater pump stations throughout the County. The improvements vary from pump upgrades to complete pump station and force main upgrades.

The challenges found in designing these upgrades relate to two items. First, meeting the FEMA Base Flood Elevation for some of these small locations while maintaining operations and maintenance protocols is a challenge. Under this contract, we have converted several wet well/dry well systems into submersible stations. These conversions are requiring significant structural design in order to reuse the existing facilities. This effort is more cost effective than installing a new wet well. Additionally, our team looks carefully at constructability in developing creative solutions that meet all of the client’s needs while maximizing construction dollars. Below are some of the pump stations awarded as task orders to CES under this contract:



- » **Design of Pump Station No. 673:** Analyzed and designed the upgrades to PS 673. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. With this data, it was concluded that this station required a full conversion from a wet well/dry well system. An above ground structure was completely demolished, and all internal components removed. The existing wet well was converted into a receiving manhole, and the existing dry well area was converted into a wet well and a valve vault. Finally, the pump station was upgraded from 50-HP pumps to 58-HP submersible pumps.
- » **Generator Replacement PS318, PS464 & PS475:** Analyzed and designed the upgrades of a permanent generator for PS318, PS464, and PS475. The station analysis included reviewing existing as-built information, site inspections, and existing utility information. Designs were developed to site a permanent generator on-site, which included meeting the FEMA base flood elevation plus two feet, site grading, and modification of the electrical equipment in order to connect the permanent generator to the pump station.
- » **Design of Pump Station No. 063:** Analyzed the existing pump station including reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. CES staff has identified three (3) feasible locations to relocate the pump station, which included several meetings with MDWASD and City of Miami staff. Once the location was approved by all parties, a Basis of Design Report (BODR) was prepared defining the new location and all details necessary to complete a design for the pump station relocation.
- » **Design of Pump Station No. 348:** Analyzed and designed the installation of a flow meter for PS 348. This design included analyzing the existing flow meter and underground vault. We designed a new vault utilizing some of the existing facilities.



- » **Design of Pump Station No. 639:** Analyzed and designed the upgrades to PS 639. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. With this data, it was concluded that this station required a full conversion from a wet well/dry well system. An above ground structure was completely demolished, and all internal components removed. The existing wet well was converted into a receiving manhole, and the existing dry well area was converted into a wet well and a valve vault. Finally, the pump station was upgraded from 20-HP pumps to a more efficient 45-HP submersible pumps.
- » **Design of Pump Station No. 659:** Analyzed and designed the upgrades to PS 659. The station analysis included reviewing SCADA data, hydraulic information provided by WASD, as-built information, and site inspections. With this data, it was concluded that this station required a full conversion from a wet well/dry well system. An above ground structure was completely demolished, and all internal components removed. The existing wet well was converted into a receiving manhole, and the existing dry well area was converted into a wet well and a valve vault. Finally, the pump station was upgraded from 50-HP pumps to a more efficient 45-HP submersible pumps.





CITY OF PEMBROKE PINES GENERAL ENGINEERING SERVICES CONTINUING SERVICE CONTRACT

LOCATION

Pembroke Pines, FL

OWNER

City of Pembroke Pines

COST

Lift Stations: \$45,000 (Fee Only)

Traffic Study: \$23,355 (Fee Only)

COMPLETION

Lift Stations: 2020

Traffic Study: 2019

KEY FEATURES

General Civil & Environmental Engineering

Function & Condition Assessment

Mechanical & Electrical Assessments

Inflow/Outflow Calculations

Studies & Reports

Testing

Modeling

Capital Planning & Cost Estimating

Inspection & Evaluation

Lift Station Rehabilitations

Roadway Design

Lane Alignment

Channelization

Pavement Markings

Signalization

Signage



CES was selected by the City of Pembroke Pines for a General Engineering Services Continuing Service Contract.

Task Orders awarded under the contract include:

FY2019 Selected Lift Station Evaluations: CES provided Wastewater Pump Station Assessments and Rehabilitation Recommendations for nine pump stations for the City of Pembroke Pines. The Lift Stations included in the FY2019 Study are: LS19, LS74, LS64, LS119, LS120, LS25, LS140, LS68 and LS167. The scope of work included:

1) Reviewing available documentation including original design criteria, pump curves, O&M documents, etc.; 2) Conducting function and condition assessments including mechanical and electrical; 3) Providing Data Logging Equipment to collect a minimum of one week of pressure data for inflow and outflow calculations, average working pressures, drawdown tests, etc.; 4) Determining station cycle time compliance with 10-State Standards and County requirements; 5) Determining the present horsepower requirements for each station versus existing; 6) Conducting a comparative analysis of the original design vs present operating conditions; and 7) Providing a report and recommendations for station rehabilitation including the elimination of confined space entry conditions.



Intersection at SW 145th Ave. & Pembroke Rd. Feasibility Study & Conceptual Design Options: The City of Pembroke Pines has had significant issues with automobile accidents at the intersection of SW 145th Avenue and Pembroke Road. In order to better understand the issue and to provide solutions, the City tasked CES Consultants with developing a feasibility study of that intersection. This effort required analyzing traffic count data of the intersection, understanding of the existing ROW and all infrastructure assets in the intersection, and development of several conceptual alternatives to improve the safety of the intersection.

Our feasibility study began by inspecting the existing conditions of the intersection, reviewing the most recent survey, reviewing the previous roadway drawings, and interviewing with both City of Pembroke Pines and City of Miramar staff. Once the investigation was complete, CES developed three (3) conceptual alternatives. These alternatives varied from adjusting the pavement markings to creating dedicated turning lanes. The primary issue detected was that there was a slight lane shift within the intersection. This lane shift caused poor visibility for the eastbound left turn lane. In order to correct this, CES proposed to adjust the lanes further away from the intersection. CES also proposed a solution to widen the intersection to include dedicated turning lanes with a raised concrete median to prevent illegal U-turns. The project included: 1) Utility Identification and Relocation; 2) Traffic Count Analysis; 3) Preparation of Budgetary Cost Estimates; and 4) Conceptual Design Alternative Development.



CITY OF MIAMI BEACH CONSTRUCTION ENGINEERING INSPECTION (CEI) SERVICES ON AN AS-NEEDED BASIS

LOCATION

Miami Beach, FL

OWNER

City of Miami Beach

COST

Fee Only

COMPLETION

Ongoing

KEY FEATURES

Construction Engineering Inspection Services

Construction Contract Administration

Roadway Reconstruction

Seawall Installation

Roadway Widening

Milling and Resurfacing

Drainage Improvements

Signalization

Pavement Markings



The City of Miami Beach selected CES to provide ongoing Construction Engineering Inspection Services, to include Construction Contract Administration, through a multi-year Continuing Services Contract.

Tasks include the following:

Seawall Replacements at Flamingo Drive/29th Street Pedestrian Bridge & 48th Street/North Bay Road Street End: The City of Miami Beach, encircled by 55 miles of seawall, faces a critical challenge in enhancing its resilience against rising sea levels and tidal flooding. Of this extensive seawall network, only 5 miles are publicly owned, underscoring the need for focused efforts on upgrading and replacing these vital structures. Raising and fortifying seawalls are crucial steps toward safeguarding the city's waterfront and maintaining its structural integrity. This project includes inspection of the new seawall installation, roadway widening, roadway reconstruction, milling and resurfacing, drainage improvements, signalization, and pavement markings.

The new seawall installation projects are identified as:

- » **Flamingo Drive & 29th Street Pedestrian Bridge Seawall:** The project scope includes the replacement of the existing seawall sections on 29th Street, including the installation of 49 LF of concrete/sheet piles seawall, 50 LF of concrete seawall cap, six concrete piles, three concrete batter piles, one row of limerock riprap boulders, roadway widening, roadway reconstruction, milling and resurfacing, drainage improvements, signalization, and pavement markings. Specifically, this project, managed in collaboration with Shoreline, involves the installation of King and Bater piles to support concrete panels, which will be further reinforced with a concrete cap to ensure durability.
- » **48th Street & North Bay Road Street End Seawall:** The project scope includes the replacement of the existing seawall sections on 48th Street, including the installation of 49 LF of concrete/sheet piles seawall, 60 LF of concrete seawall cap, eight concrete piles, seven concrete batter piles, one row of limerock riprap boulders, roadway widening, roadway reconstruction, milling and resurfacing, drainage improvements, signalization, and pavement markings.

CES's Construction Project Manager and Construction Engineering Inspectors are monitoring all aspects of the project and supervising the field inspection and materials testing team. The services provided include guidance and resolution on field changes, MOT, PIO, RFIs, shop drawing submittals, material acceptance, documentation, and pay requests, as well as responsibility for observing and monitoring the project schedule and budget.

Water Main Aerial Crossing along West 41st Street Bridge between Pine Tree Drive and Indian Creek Drive Replacement: This project includes the complete replacement of the existing 16-inch cast-iron aerial water main crossing that is currently attached to the 41st Street Bridge between Indian Creek and Collins Avenue with the proposed water main of approximately 1,280 LF in length, with 920 LF HDPE DR 11 Pipe (20-inch), 300 LF Ductile Iron Pipe (20-inch), and 60 LF Ductile Iron Pipe (16-inch).



TRIBALWIDE CONSTRUCTION ENGINEERING INSPECTION CONTINUING SERVICES CONTRACT

LOCATION

Seminole Tribe of Florida
Reservations, FL

OWNER

Seminole Tribe of Florida

COST

\$300M+

COMPLETION

Multiple; Contract is Ongoing

KEY FEATURES

Construction Engineering
Inspections

Mechanical Inspections

Construction Contract
Administration

Construction Submittal Review

Change Directive & Change Order
Development & Review

Pay App Review

Substantial Completion & Final
Project Certifications

As-Built Drawings

Public Outreach

Stakeholder Coordination

Enforcement of Contract Terms &
Conditions

Permit Compliance

QA/QC Audits

Field Administration

Enhanced Commissioning

Special Threshold Inspections

Vertical & Horizontal Construction

Phasing



Priscilla Sayen Way Apartments

CES is proudly providing ongoing Construction Engineering Inspection services to the Seminole Tribe of Florida (STOF) through a multi-year Continuing Services Contract.

Scope of services include coordinating inspection activities from Notice to Proceed through Final Completion for each Task Order and daily on-site, full time inspection of the work in progress to determine if it is proceeding in accordance with the Contract Documents, approved submittals, shop drawings and permits. Duties also include: verification that the Contractor initiates, maintains, and supervises all Safety precautions and programs; maintenance of Job Site Records and Permits; Project Reporting; evaluation and approval of Contractor's Payment and Procedures; Change Order review and approval; providing interpretations of Contract Documents; reviewing and responding to Contractor's Substitution Requests; coordinating Record Drawings with the Contractor; and Project Punch List coordination, including advising on payments, partial release of retention, final payment, release of retention, and release of insurance and bonds. Assigned Task Orders include:

Priscilla Sayen Way Apartments, STOF Hollywood Reservation: Priscilla Sayen Way Apartments is a new four-story multifamily development within the Hollywood Seminole Tribe Reservation on the NE corner of Howard Tommie Drive and Priscilla Sayen Way. The 41,677 SF CMU building features sixteen (16) 3- and 4-bedroom rental units, plus 47 parking spaces. Precast hollow core slabs with a wooden truss and girder roof system were utilized in this construction.

Seminole Park Phase III Homes, RV Hide-Away Area, STOF Hollywood Reservation: Construction of 29 new townhomes and community playground at the reservation's old RV Hide-Away area. Oak trees from the site were also relocated along Osceola Drive and Royal Palm Blvd. at Seminole Estates.

Ahfachkee Charter School New Construction, STOF Big Cypress Reservation: New 49,835 SF building to house the Ahfachkee charter lower school and feature 21 new classrooms, a music lab, computer lab, multipurpose spaces, a wellness center, locker rooms, and gymnasium complete with a stage and full size competition-quality wood floor.



Ahfachkee Charter School New Construction

New Medical Clinic & Public Safety Building, STOF Immokalee Reservation: New Medical & Behavioral Center inclusive of a 3,057 SF behavioral health building that connects by enclosed corridor to a 16,348 SF medical clinic building serving as a multipurpose treatment facility to include medical care, dentistry, physical therapy, and meeting space. The project also features a 21,504 SF, single-story Public Safety Facility comprised of a Fire, Police Station, and Emergency Operation Center with watch room, bunk rooms, offices, exercise room, kitchen/dining, bunker gear, 3-bay apparatus space and building support spaces. This new 41,000 SF campus is located on 9.7 acres at Immokalee's Seminole Crossing Trail.



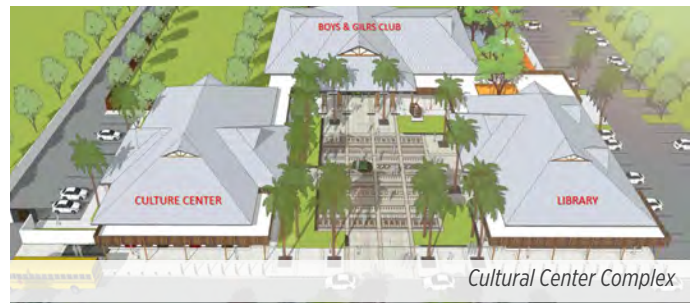
New Medical Clinic & Public Safety Building

Multifamily Development, Eight Clans Replacement, STOF Hollywood Reservation: Multifamily redevelopment replacing the existing Eight Clans Estates buildings. The new construction of eighteen (18), approximately 2,200 SF, 3- and 4-bedroom, two-story townhomes. Amenities include a playground, open space, fenced lanai's, and guest parking.



Multifamily Development, Eight Clans Replacement

Cultural Center Complex, Brighton Reservation: A new complex located just west of the Pemayetv Emahakv Charter School consisting of three buildings to include a new community cultural center, library, and Boys & Girls Club.



Cultural Center Complex

Immokalee Recreational Center Phases 1 & 2, STOF Immokalee Reservation: Phase 1 adds a pool and playground, while Phase 2 includes construction of the recreation center building, Boys & Girls Club, and parking lot.

Brighton Immersion Program School Building, STOF Brighton Reservation: New school facility to house the Pemayetv Emahakv Charter School Tribal Immersion Program.



Brighton Immersion Program School Building

Lakeland Trust Land Community Building, Lakeland, FL: One-story, 35,351 SF community building on a nearly 3-acre site featuring a gymnasium, basketball court, exercise room, game room and an outdoor swimming pool, administrative offices, as well as dedicated Culture program spaces such as a teaching kitchen. The structure is being built to withstand a Category 4 hurricane and can be used as a shelter during storms.

New Senior Center & Preschool, STOF Big Cypress Reservation: The 21,000 SF Senior Center, located parallel to the new Preschool, will include a cafeteria/flex area, commercial kitchen, game area, pottery lab, fitness room, showers, supporting administrative offices, plus a full building generator. The Preschool will serve children ages one- to five-years-old and feature classrooms, cafeteria, kitchen, open-air playground, and supporting administrative offices across approximately 34,700 SF. Additional scope includes raising the entire site's elevation by one foot.



Big Cypress New Senior Center & Preschool

Skate Park Upgrades, STOF Brighton Reservation: Remodel/repurpose of the existing restroom building; refinishing and reconditioning existing skate ramps; refinishing and expanding existing skate park concrete slab; adding new chain link fence and gates; installation of new bleachers; a new overhead Airnasium; plus all associated MEP and civil/site work.



CITY OF HOLLYWOOD CONSTRUCTION ENGINEERING INSPECTION CONTINUING SERVICES CONTRACT

LOCATION

Hollywood, FL

OWNER

City of Hollywood

COST

Liberty Street: \$1.1M

COMPLETION

Liberty Street: 2023

KEY FEATURES

Construction Engineering
Inspection Services

Construction Contract
Administration

Construction Submittal Review

Constructability Reviews

Change Directive & Change Order
Development & Review

Enforcement of Contract Terms &
Conditions

Pay App Review

Permit Compliance

Public Outreach

Stakeholder Coordination

Punch Lists

Substantial Completion & Final
Project Certifications

As-Built Drawings

Public Infrastructure

QA/QC

Reporting

Surtax Construction Documentation
Compliance

LAP Program Compliance

MOT

Multimodal Roadways



The City of Hollywood selected CES to provide ongoing Construction Engineering Inspection Services for primarily Surtax and LAP funded roadway projects, to include Construction Contract Administration, through a multi-year Continuing Services Contract.

The scope of services includes: review documentation including construction contract, engineering design/material specifications, and field/survey data; serve as the City Representative during the Construction Phase; conduct continuous daily on-site inspections to check the quality or quantity of the work and submit a daily inspection report to ascertain the progress of the Project and to determine in general if the work is proceeding in accordance with the Contract Documents; schedule and attend weekly progress meetings with the City and Contractor; guard the City against defects and deficiencies in the work; ensure that the Contractor is making timely, accurate, and complete notations on the as-built drawings; review all Contractor payment applications and determine the amount due; review and provide recommendations for change orders; review and respond to RFIs and Shop Drawings; review and provide Certificate of Substantial Completion; provide punch list of all discrepancies and defects that require correction; issue Certificate of Final Completion; obtain Contractor compliance with Contractor Documents such as notifications, submittal of required deliverables (MOT, schedules, shop drawings, bill of materials) and final inspection of the site to ensure clean-up; and comply with all Surtax construction documentation requirements including but not limited to CBE monitoring, certified payroll reviews, etc. Task Orders include:

Liberty Street Improvements, Hollywood, FL: This Broward County Transportation Surtax Municipal Rehabilitation and Maintenance (R&M) project includes approximately 350 LF of sidewalk replacement, ADA upgrades, drainage repairs, and pavement resurfacing on Liberty Street between N 33rd Avenue and N 31st Avenue to benefit pedestrians and drivers. Cost: \$1.1M; CES Start: 06/2022



SFWMD STA 1W EXPANSION #2 G-780, G-781 & G-782 PUMP STATIONS

LOCATION

South Florida

OWNER

South Florida Water Management
District

COST

\$100M

COMPLETION

2022

KEY FEATURES

Construction Management &
Contract Administration

Construction Engineering &
Inspection Services

Civil Engineering Analysis,
Modeling & Design

Hydrologic/Hydraulic Modeling

Construction Submittal Review

Constructability Reviews

Cost & Change Management

Change Directive & Change Order
Development & Review

Enforcement of Contract Terms &
Conditions

Pay App Review

Permit Compliance

Interagency Coordination

Public Outreach & Stakeholder
Coordination

Substantial Completion & Final
Project Certifications

As-Built Drawings

Public Infrastructure

QA/QC

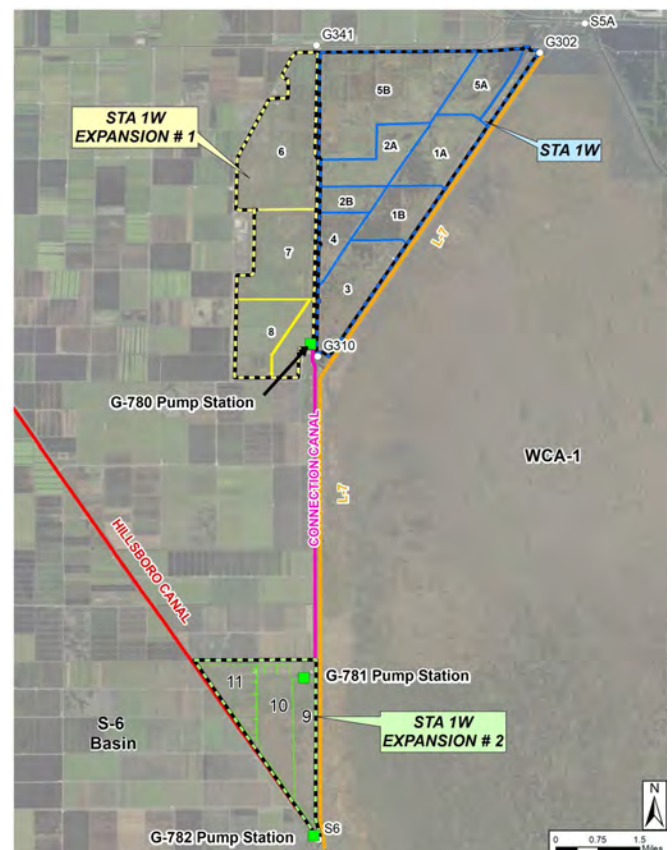
Materials Testing/Analysis

Reporting



CES provided a Construction Project Manager to support the SFWMD EC Bureau's Project Team's activities on the STA 1W Expansion #2 G-780, G-781, and G-782 Pump Stations project.

There are several challenges to overcome in making the connection between the STA 1W and the Expansion #2 STA area which included a significantly constrained strip of District owned land to construct the new connection canal and the higher topography of Expansion #2 compared to STA 1W. These constraints resulted in two (2) new Inflow Pump Stations (G-780 and G-781) being required to convey water from the STA 1W discharge canal south through a 6-mile connection canal, and ultimately into the Expansion #2 STA. The G-310 Pump Station currently serves as the primary outflow pump station providing flood control for STA 1W and Expansion #1 which receives stormwater runoff from the S-5A Pump Station through inflow structure G-302.





SFWMD STORMWATER TREATMENT AREA (STA) #5 AND #6 INTERNAL IMPROVEMENTS PLANNING & DESIGN

LOCATION

South Florida

OWNER

South Florida Water Management District

COST

Part of \$880M Program

COMPLETION

2023

KEY FEATURES

Project Management & Contract Administration

Civil Engineering Analysis, Modeling & Design

Hydrologic/Hydraulic Modeling

Constructability Reviews

Cost & Change Management

Enforcement of Contract Terms & Conditions

Pay App Review

Permit Compliance

Interagency Coordination

Public Outreach & Stakeholder Coordination

Public Infrastructure

QA/QC

Reporting



CES provided a Project Manager to support the SFWMD EC Bureau's Project Team's activities for design development of 3,400 acres of Storm Water Treatment Areas (STA 5/6) as part of the SFWMD Everglades Restoration Program.

STA 5/6 is part of the SFWMD Everglades Restoration Program as mandated by the Everglades Forever Act to direct polluted stormwater runoff into STAs for treatment before final discharge to sensitive ecosystems. The modifications to the 14,000-acre STA 5/6 are a component of the Restoration Strategies Plan to improve Everglades water quality. The project removes high spots in the STA to improve treatment performance and reduce nutrient pollution.





FORT LAUDERDALE WATERWORKS PROGRAM

LOCATION

Fort Lauderdale, FL

OWNER/CLIENT

City of Fort Lauderdale/CMTS

COST

\$200M

\$550M Overall Program

COMPLETION

2012

KEY FEATURES

Civil Engineering Analysis & Design

Construction Phase Engineering & Inspection Services

Lift/Pump Stations

Large Diameter Pipeline/Water Main, Sanitary Sewer Force Main & Sanitary Gravity Sewer

Public Involvement

Utility Coordination

Interagency Coordination

Scheduling & Cost Estimating

Site Restoration

Construction Contract Administration

Construction Submittal Review

Change Directive & Change Order Development & Review

Pay App Review

Substantial Completion & Final Project Certifications

Permit Compliance

Drainage

Swale, Roadway & Sidewalk Reconstruction

Open-cut, Jack & Bore & Horizontal Directional Drill



CES was part of the engineering team for *WaterWorks*, providing critical Owner's Representative, Engineering Inspection, and Construction Phase Services to the City to ensure compliance with the City's robust infrastructure improvement plan.

The City of Fort Lauderdale, in an effort to provide its residents with the most up-to-date water, sewer, and drainage services, developed a long-term capital improvements project that improved the city's infrastructure. The City invested over \$550M towards these improvements. CES staff worked on a full-time basis, observing several work crews in various stages of completion and drafting daily reports that the client used towards payment requisition verification, schedule compliance, work site safety, and verification of construction adherence to design specifications. Since these reports were developed and submitted on a daily basis, the client was able to adhere to the project schedule without incurring delays, and was able to make corrections as needed. Construction activities observed by CES staff included the following:

- » Water Main Installation
- » Sanitary Sewer Force Main Installations
- » Sanitary Gravity Sewer Installation
- » Pump Station Upgrades and Installation
- » Drainage Installation
- » Swale Reconstruction
- » Roadway Reconstruction
- » Sidewalk Reconstruction

The *WaterWorks* projects focused on water and sewer improvements in twenty neighborhood communities, including approximately 50 miles of new gravity sewer, 19 new lift stations, 19 miles of new water main, and five miles of new force main. The projects included conventional open-cut construction and trenchless technologies such as jack and bore and directional drill.

Stormwater Master Plan Deerfield Beach, Florida

CUMMINS | CEDERBERG
Coastal & Marine Engineering



As part of the overall Stormwater Master Plan, Cummins Cederberg led coastal and marine engineering assessments and design, assessed the condition of associated marine structures and environmental resources, and provided consulting support for coastal resiliency and sea level rise.

Scope:

- Coastal resiliency
- Field investigations
- Outfall assessments

Cummins Cederberg conducted an engineering site assessment of all affected coastal and marine structures within the project site and provided condition ratings. An evaluation was performed on existing coastal stormwater and coastal flood defense structures in tidal waters relative to condition of structural components and service life. A high-level desktop study was performed to determine marine and coastal environmental resources within the project area and identify potential constraints. Water levels including seasonal tidal variations and storm surge were evaluated relative to sea level rise impacts and future design conditions.

Completion: 2020

Tidal Flood Mitigation and Shoreline Protection City of Hollywood, Florida

CUMMINS | CEDERBERG
Coastal & Marine Engineering



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+ ft. of shoreline within North Lake, South Lake, and the ICW. 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.

Our team of marine biologists completed a benthic resource survey of the submerged lands adjacent to the 22 project areas. The survey was conducted using SCUBA during the seagrass growing season and identified important protected resources. Resources observed included shoal grass, paddle grass, and Johnson's seagrass. This survey informed project design to ensure impacts to these important resources are avoided and minimized to the maximum extent practicable and will support environmental permit applications. Biologists also assessed the vegetation to identify protected and invasive species along the 22 project areas. Native vegetation will be protected, and exotic vegetation will be eradicated as part of project implementation.

Engineering inspections were conducted above and below water to assess the current condition of the 22 shoreline segments. These inspections informed design of tidal flood barriers that meet the City and County Codes and will be sufficient to protect the shorelines against sea level rise that is reasonably anticipated to occur during the design life of these structures. Tide gauges were deployed in North Lake, South Lake, and the Hollywood Marina to determine tidal prisms, lag time, and water level elevation differences between each lake and the ICW. This information was utilized for design of tidal flood barriers for the project sites. This project will enable the City to mitigate the severe flooding that occurs

Scope:

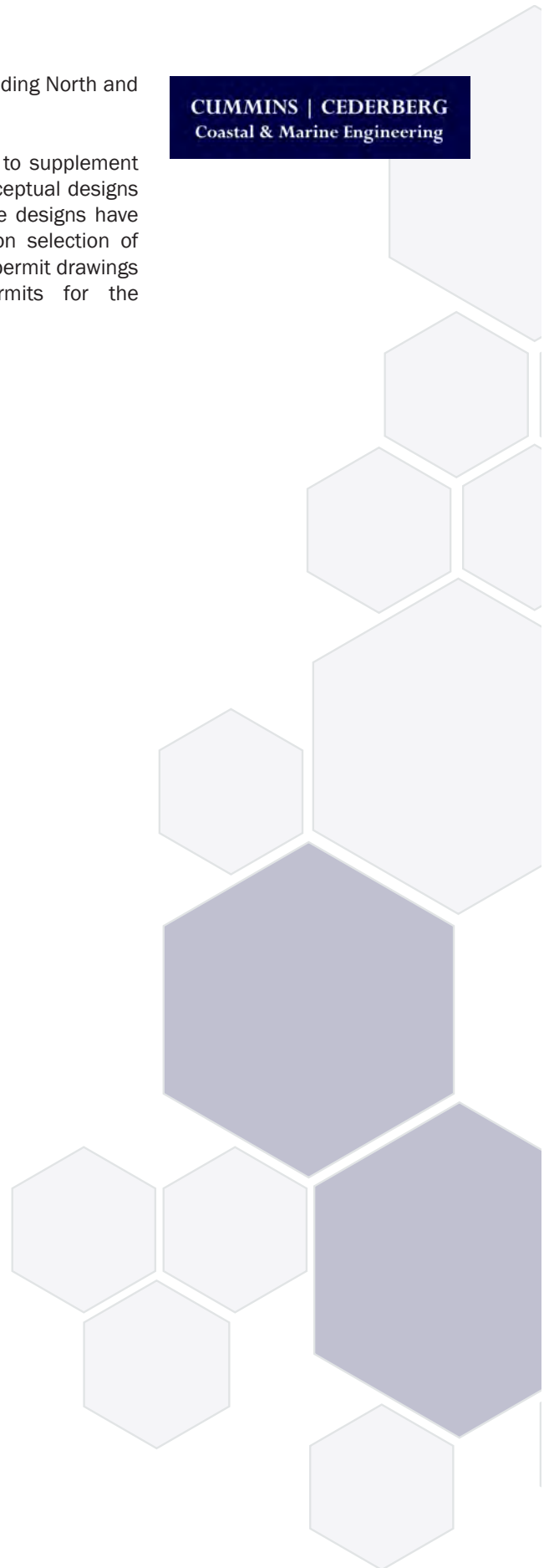
- Marine resource survey
- Coastal wetland surveys
- Above and below water
- Structural engineering assessments
- Coastal engineering assessments
- Environmental permitting
- Grant application and administration
- Engineering design
- Construction administration
- Ordinance development

during king tides and sea level rise in the neighborhoods surrounding North and South Lakes.

Cummins Cederberg secured a \$13.9M Resilient Florida Grant to supplement the City's GO Bond funding for project implementation. The conceptual designs were presented during a public meeting to solicit input and the designs have been reviewed with relevant departments within the City. Upon selection of project elements for each site, Cummins Cederberg will prepare permit drawings and applications to secure environmental regulatory permits for the proposed projects.

Completion: Ongoing

CUMMINS | CEDERBERG
Coastal & Marine Engineering



Pump Station Bulkhead Rehabilitation

City of Weston, Florida

CUMMINS | CEDERBERG
Coastal & Marine Engineering



Cummins Cederberg was contracted for marine engineering and environmental permitting services for the Pump Station Bulkhead Rehabilitation project on the C-11 canal. Two existing pump stations exhibit corrosion along the exposed steel elements, including the bulkhead, flap gates, and pump assemblies, and are in need of rehabilitation.

Scope:

- *Marine engineering*
- *Environmental permitting*
- *Inspections*
- *Construction administration*

Our team of engineers performed a design-level inspection to investigate the condition of the existing structures including the exposed concrete and steel elements and unstabilized shorelines around the structures. A repair plan was developed for approximately 10,000 square feet of existing steel sheet pile bulkhead on each pump station. The repair design consisted of encapsulating the existing steel sheet pile with FRP panels, concrete crack and spall repairs, and construction of a riprap revetment. Cummins Cederberg also obtained environmental permits for the repair project from Broward County and the Florida Department of Environmental Protection.

Cummins Cederberg is currently bidding support and construction administration services as the project is expected begin construction in Fall 2023.

Completion: Ongoing



Indian Creek Neighborhood Improvement Project

Indian Creek Neighborhood, City of Miami Beach



Figure 1 – Construction of stormwater culvert

The Indian Creek Neighborhood underwent several developments including roadway and stormwater drainage improvements along Indian Creek Drive from 26th street to 41st street and the associated side streets, including completing the 45,000 gpm stormwater pump station at 32nd Street, reconstruction of the roadway, signing and pavement marking improvements, curb and gutter

redesign, harmonization (to adjacent private properties), and sidewalk on a portion of Collins Avenue.

The project complied with Chapter 24 – Environmental Protection, Biscayne Bay and Environs Designated Aquatic Park and Conservation Area, The Biscayne Bay Environmental Enhancement Trust Fund, and The Environmentally endangered Lands Program of the Miami Dade County Code of Ordinances; including the requirements of 24-43, 24-48, and 24-49.

The project included the retrofit of a 45,000 gpm stormwater pump station and its pollution control structure. It also included a standby generator and an emergency overflow for extreme conditions. The project entailed permitting and compliance with various jurisdictions including: SFWM, FDEP, MDRER (DERM), and FDOT. The project also entailed compliance with Volume IV of the SFWM permit manual.

The project included the design of stormwater drainage systems, the inspection of existing systems, the development of an engineering report to provide recommendations for the retrofit of existing drainage systems and the installation of new drainage systems, and the professional recommendations that included engineering calculations for stormwater drainage design and mass inflow and outflow. It also included the evaluation of topographic surveys, infrastructure as-builts for utility coordination and relocation, construction as-builts for project certification, and soils data from geotechnical firms for the construction of infrastructure and the hydraulic conductivity of the soils. As part of the project professional engineering recommendations were developed and provided using the Advanced Interconnected Channel and Pond Routing Model (AdICPR).

Project Highlights

- ✓ 60" Stormwater Culvert Design
- ✓ 45,000 gpm Stormwater Pump Station
- ✓ Public Engagement & Workshops
- ✓ Maintenance of Traffic
- ✓ Stormwater Technical Specifications
- ✓ Roadway Design
- ✓ Road Raising & Harmonization
- ✓ Sea Level Rise Adaptation

Reference

Patricia Rendon, PE

Project Manager

City of Miami Beach

Phone: 305-673-7080

patriciarendon@miamibeachfl.gov

Project Duration

01/2019 – 02/2023

Construction Cost

\$18,000,000

*Note this is personal experience for Mariana Evora



Integrated Water Program - Blue-Green Infrastructure Strategy / Road Elevation Policy / Neighborhood Prioritization

City of Miami Beach - Citywide

As part of the recommendations from the Urban Land Institute (ULI), the City endeavored to address resiliency throughout the City with an Integrated Water program. This was comprised of three main tasks, that together comprised the City's integrated water strategy. The tasks included: the development of a Blue Green Stormwater Infrastructure (BGSi) Concept Plan, the review and validation of the City's Road Elevation Strategy, and the Prioritization of Neighborhood Projects.



Figure 1 – Rendering of bioswales and permeable pavement – BGSi Concept Plan

The BGSi Concept Plan defined drainage infrastructure beyond grey (pipes and pumps) would look like for the City. It included benefits, such as: reducing flooding from minor and frequent storms, managing non-point source pollution, sustaining and replenishing the freshwater lens underneath the City, and providing various social, economic, and environmental co-benefits. The concept plan included digital renderings of bioretention, permeable pavement, bioswales, and rain gardens along typical Miami Beach roadways and residences to help visualize BGSi implementation.

The Neighborhood Prioritization Report included their methodology that involved created a project evaluation framework based on infrastructure vulnerability. It evaluated individual capital project benefits in support of the City's management priorities and goals, aggregating individual capital projects into logical Project Group Areas (PGAs), and prioritizing PGAs based on City management priorities and planning scenarios, including flood risk management.

Project Highlights

- ✓ Overall City Resilience Strategy
- ✓ Development of BGSi Concept Plan
- ✓ Development of Road Elevation Strategy
- ✓ Development of Neighborhood Prioritization
- ✓ Local Project in Miami Beach
- ✓ Extensive Public Outreach

Reference

Cristina Ortega, PE

Former City Engineer

City of Miami Beach

Phone: 305-962-7149

cristina.ortega@hdrinc.com

Design Start / Completion

April, 2019 - April, 2020

Design Fee

\$1,100,000 (Jacobs Engineering)

Construction Start / Completion

N/A – Program Development

Construction Cost

N/A – Program Development

*Note this is personal experience for Mariana Evora



The third task included a review and revision of the road elevation policy to reflect the most current sea level rise data and projections and to help the City accommodate private property harmonization. The proposed road elevation policy considered sea level rise over time, surface water elevation, groundwater elevation, road clearance, harmonization, and the general urban fabric. The proposed policy included three methods to calculate minimum road elevation criteria for any future project, an evaluation of limiting factors and selection process for the minimum road elevation, policy application and timing, road section hardening and reference standards, and alternative road sections. The report was adopted by the City Commission and referenced as part of the City's Stormwater Master Plan, Public Works Manual, Capital Improvements Plan, Standard Operating Procedures.

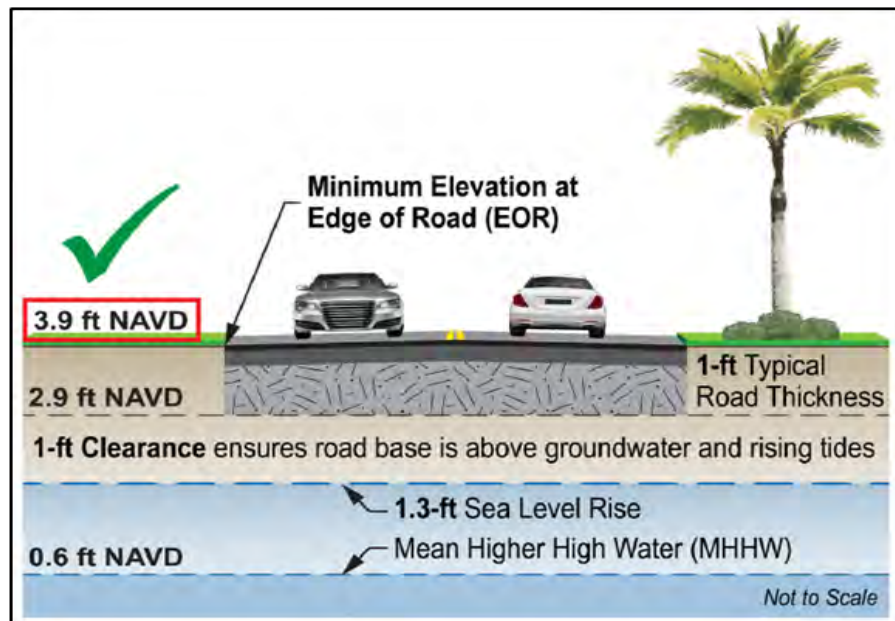


Figure 2 - Minimum Elevation for the Edge of Road for all Major and Local Roads