



CITY COMMISSION MEETING CITY OF ST. PETE BEACH

155 Corey Avenue
St. Pete Beach, FL 33706

Tuesday, January 26, 2021
6:00 PM

Call to Order
Pledge of Allegiance
Roll Call

REGULAR MEETING

1. Appointment of Interim Commissioner and Oath of Office, District 2
2. Changes to the Agenda
3. Audience Comments - **Comments shall be limited to 3 minutes per person**
4. Consent
 - a. **January 12, 2021 Commission Minutes**
 - b. **Blind Pass Road Landscaping**
 - c. **Program Management for Electrical Undergrounding Project**
 - d. **Cardno Pass-a-Grille Way and 17th Avenue Seawall Designs**
5. Action Items
 - a. **Pay Station Upgrades, Parking Meter Removal and Establishment of Mobile Payment Zones**
Parking Pay Station Upgrades Approval from January 12, 2021 Presentation.

Action Request: Motion to approve Option 2 -- upgrade pay station doors and eliminate individual parking meters in replacement of exclusive mobile payment zones and the expenditure of funds in the amount of \$91,875 for the pay station door upgrades.
6. Ordinances

a. Public Hearing and Second Reading Ordinance 2021-03 Budget Appropriations

AN ORDINANCE OF THE CITY OF ST. PETE BEACH, FLORIDA PROVIDING FOR SUPPLEMENTAL BUDGET APPROPRIATIONS; PROVIDING FOR CONFLICTS, SEVERABILITY, CONSTRUCTION, PUBLICATION, AND AN EFFECTIVE DATE.

Open the public hearing. Close the public hearing after comments.

Action Request: Motion to adopt Ordinance 2021-03.

7. Resolutions

a. Resolution 2021-03 Special Election and Qualifying Period

A RESOLUTION OF THE CITY OF ST. PETE BEACH, PINELLAS COUNTY, FLORIDA ESTABLISHING THE DATE FOR THE 2021 SPECIAL MUNICIPAL ELECTION AND THE QUALIFICATION PERIOD FOR THE COMMISSIONER FOR DISTRICT 2.

Action Request: Motion to adopt Resolution 2021-03.

8. Items for Discussion

9. City Clerk, City Manager, City Attorney and City Commission Reports

a. Parklet Program Feedback

Parklet Program Update

10. Adjournment

APPEAL: In accordance with 286.0105, Florida Statute (Notices of meetings and hearings must advise that a record is required to appeal), if a person decides to appeal any decision made by this committee, board, agency, or commission with respect to any matter considered at this meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

AMERICANS WITH DISABILITIES ACT (ADA): In accordance with the Americans with Disabilities Act and Florida Statutes, if any person with a disability defined by the ADA needs special accommodation to participate in this proceeding, then not later than two business days prior to the proceeding, he or she should contact City Hall at (727) 367-2735.

**The public is cordially invited to attend this meeting.
All agenda material is available for review at City Hall or www.stpetebeach.org.**

DRAFT
City Commission Meeting
January 12, 2021
6:00 p.m.

ELECTED OFFICIALS PRESENT:

Al Johnson, Mayor

Doug Izzo, Vice Mayor, Commissioner, District 2—(appeared electronically until 6:04 p.m.)

Ward Friszolowski, Commissioner, District 3

Melinda Pletcher, Commissioner, District 4

ELECTED OFFICIALS ABSENT:

Chris Graus, Commissioner, District 1

STAFF PRESENT:

Alex Rey, City Manager

Andrew Dickman, City Attorney

Amber LaRowe, City Clerk

Vince Tenaglia, Assistant City Manager

Mike Clarke, Public Works Director

Michelle Gonzalez, Parking and Transportation Director

Wesley Wright, Community Development Director

Mayor Johnson called the meeting to order at 6:00 p.m. followed by the Pledge of Allegiance.

Vice Mayor Izzo appeared via Zoom to say goodbye and issue a formal resignation as Commissioner for District 2. He accepted a new job offer that takes him to another city. He appreciated his time with the City. The Mayor and Commission wished him good luck and thanked him for his service. Vice Mayor Izzo left the meeting at 6:04 p.m.

1. PRESENTATIONS

a. Traffic Calming

Michelle Gonzalez, Parking and Transportation Director, gave a presentation on various traffic calming options that can be utilized in the City, more particularly in residential areas, to address the concerns of the community. The options she presented include:

- Speed Limit Bollards—speed limit signs are installed on bollards located on the centerline within the street to serve as a more visible reminder.
- Speed Cushions---these are either speed tables or speed humps that include wheel cutouts for large vehicles to pass unaffected.
- Medians---islands that replace the centerline and narrow the travel lanes.
- Lane Striping/Narrowing---visually narrowing the travel lanes using painted lines to delineate shoulders or bike lanes.
- On-Street Parking---create parking spaces along the street to narrow the travel lanes and provide friction for cars in the travel lanes.
- Chicanes---type of “horizontal deflection” used in traffic calming schemes to reduce the speed of traffic.
 - Two categories include single lane and two-way
- Roundabout---type of circular intersection or junction in which road traffic is permitted to flow in one direction around a central island.
- Speed Enforcement---temporary targeted speed enforcement by police department.
- Radar Trailers---display a passing vehicle’s speed and remind drivers of the posted speed.

The advantages and disadvantages of the above options were discussed. City Manager Rey prefers the roundabout or speed table options of all those listed. Ms. Gonzalez stated that some areas in the City may be best served by one option and another area of the City with another option. She clarified that these options are not one size fits all. The intent is to work with neighborhoods to understand the specific problem that they are having, conduct a study, and then decide which option is the best choice, if any. Ms. Gonzalez explained the process to take once the City receives a complaint.

Commissioner Pletcher would like to have the City look into lighted crosswalks for Pass-A-Grille Way.

Mayor Johnson requested staff look into speed issues at 70th Avenue and Sunset Way.

A copy of this presentation is made a part of the minutes.

Ms. Gonzalez addressed the policy she prepared for the use of speed humps. She outlined the following criteria:

- The street must be a local residential street
- The street shall not have more than one traffic lane in each direction
- The street must be at least 750 feet long, with no intersecting roadways in between
- The street is posted at or has a speed limit of 30 miles per hour or less
- The traffic engineering study has determined that the 85th percentile speed on the street is at least 10 miles per hour over the speed limit
- The speed humps will not be considered within 250 feet of a traffic signal, within 50 feet of an intersection, in front of a driveway, within an intersection, or adjacent to fire hydrants
- The speed humps will not be considered in, or on the approaches, to a horizontal or a vertical curve where visibility of the hump is restricted
- The street should not be located along a primary emergency response route, Regional Transit, or school bus route and must be approved by the respective agencies for the installation of a speed hump
- Two-thirds (2/3) of the property owners of the block(s) shall concur with the installation of the speed hump
- 100 percent concurrence from the residents and/or property owner immediately adjacent to the proposed speed humps

Ms. Gonzalez briefly discussed the application procedure, petition process, and the removal and alteration of speed humps. A copy of the policy is made a part of the minutes.

b. **Parking Enforcement Options**

Ms. Gonzalez gave a presentation to the Commission on improving parking operations. She discussed updates to the current operations, cashless parking system and exclusive mobile payment zones, pay station and meter issues and upgrades, and pay by plate and license plate enforcement system.

Updates to Current Operations:

- Implemented an official appeal review process
- Integrated vehicle payment information into citation machine
- Implementing meter maintenance protocols

Meter Maintenance and Issues with meters and Pay Station:

- 35 Pay Stations and 120 Single and Double Space Meters

- 2 mobile applications
- Average maintenance cost is approximately \$83,000
- Single and double space meters require the most maintenance
- Pay station door buttons are difficult to use, causes damage by the user
 - This is considered “vandalism” and is not covered under warranty--\$500 for new keyboard
- Slow internet connectivity causing slow or no processing of credit card payments
- Difficult visibility on screen and the difficulty of pushing buttons on the touch screen
 - This causes overpayment or no payment
- Meters/Pay Stations use 3G—this will be suspended and require updating
 - \$225 per meter to update = \$27,000
 - \$475 per pay station to update = \$17,000
- Options for Improvement:
 - Leave service as-is
 - Upgrade the modems = \$44,000
 - Web office service = \$36,000
 - Meter Warranty and Maintenance = \$47,000
 - Total for FY21 = \$127,000
 - Pros = continue business as usual
 - Cons = does not resolve the current customer issues, maintenance will increase over time, and meter issues take time away from enforcements other duties
 - Upgrade Pay Station Doors and Eliminate Meters:
 - Cost of door upgrade and warranty = \$92,000
 - Web office service = \$21,000
 - Meter Maintenance = \$12,000
 - County reimbursement = \$8,000
 - Total for FY21 = \$117,000
 - Pros = addresses customer issues, reduces maintenance costs, less maintenance issues taking time from enforcement, less clutter along the streets
 - Cons = not everyone is comfortable using credit card and mobile payment
 - Upgrade Pay Station Doors and Keep Meters:
 - Door upgrade = \$81,000
 - Meter modem upgrade = \$27,000
 - Web office = \$33,000
 - Maintenance = \$23,000
 - Total for FY21 = \$164,000
 - Pros = address customer issues, some reduction in maintenance costs, minimal change to customer experience
 - Cons = increase in maintenance costs overtime and meter maintenance issues will continue to take up enforcements time

Cashless Parking/Mobile Payment Zones:

- City currently allows for credit cards, coins, or mobile payments
- Offering cashless payment options enables customers to make faster payments
- Coin payments only account for 2 percent of total parking revenue collection
- Due to COVID-19, the number of mobile transactions has significantly increased
- Mobile Applications Options:
 - Pay in the application on their smart device
 - Pay by dial in number
 - Pay by text

- Mobile payment zone operates at a lower cost to the City and require minimal maintenance
- Drawback is that some customers may not feel comfortable paying by phone or have a credit card

Pay by Plate and License Plate Enforcement System:

- Pay by space versus pay by plate functionality was discussed
- Use license plate recognition (LPR) parking enforcement technology will allow operators to quickly identify whether a parked car has made a payment via a digital meter application or if they have a permit
- LPR allow enforcement to check payment quickly as opposed to manually entering in license plate information into their devices
- Savings to time and cost
 - Pay for each LPR unit and then ongoing fee is in software maintenance

Ms. Gonzalez is proposing that the Commission choose the option to upgrade pay station doors and eliminate meters and to purchase the LPR software for the parking enforcement. The consensus of the Commission was to go with the recommendation for the upgrade to pay station doors and to eliminate meters; also, purchase LPR cameras.

2. CHANGES TO THE AGENDA

Mrs. LaRowe requested the addition of item 8.a. Interim District 2 Commissioner discussion.

Commissioner Friszolowski asked for items 4.c, 4.d, 4.e to be made action items 5.b, 5.c, and 5.d respectively.

3. AUDIENCE COMMENTS

Mark Grill, resident, complimented the City on the holiday decorations and festivities. He discussed the decorative street signs funding and opined this is not the best use of the surplus funds. He would like to see the funding used for necessities and urgent projects in the City.

Julie Fuller, resident, discussed an email to the City Manager regarding Duke Energy and the sea turtle lighting. She also discussed the street signs for Pass-A-Grille and opined the cost to the signs has been changing. She would like to know the cost per sign and what that entails.

Michael Ciafone discussed accessibility on St. Pete Beaches. He met with the Mayor at one time and discussed the use of Mobi-Mat to help with those in a wheelchair access the beach. He would like the Commission to consider the purchase of a Mobi-Mat or similar item for the beaches.

Jody Armstrong, Director of Disability Achievement Center, discussed the Mobi-Mat as mentioned by Mr. Ciafone. She informed the Commission of other Florida beaches that use this Mat or something similar for the use of disabled individuals to access beaches. She echoed Mr. Ciafone's request to have the Commission and staff look into the purchase of these for their beaches.

Tim Hopkins, resident, discussed tidal valves and the flooding at 44th and Moody. He requested staff and the Commission research on how to fix this more efficiently.

Susan, resident, echoed the opinions as expressed about the decorative street signs for Pass-A-Grille. She believes there are higher priorities for the City.

4. CONSENT

- a. December 8, 2020 Commission Minutes
- b. BLD Services Lateral Lining Contract

Motion: Commissioner Pletcher moved, Commissioner Friszolowski seconded, and the motion carried 3-0 to approve the January 12, 2021 Consent Agenda as recommended by the City Manager.

5. ACTION ITEMS

- a. Royal Restroom Temporary Restroom Invoice

Mr. Rey explained that the initial estimated cost for temporary restroom facilities was \$14,550. There was an unexpected delay at Hurley Park that caused the units to be used for an additional six weeks; this increased the total cost to the amount of \$39,991.74.

Motion: Commissioner Friszolowski moved, Commissioner Pletcher seconded, and the motion carried 3-0 to retroactively approve the invoices from Royal Restrooms, Inc. for temporary restroom facilities in support of the Public Restroom Renovations at Hurley Park, Upham Beach, and Paradise Grille, in the amount of \$39,991.74.

Consent Items moved to Action Items:

- c. Rowland 41st and Belle Vista Stormwater Improvements
- d. Rowland Tidal Check Valve Installations
- e. Rowland Mangrove Point and Belle Vista Stormwater Improvements

The above items were removed from the Consent Agenda and discussed together.

Commissioner Friszolowski questioned if this would increase the capacity of the pipes to allow them to handle greater water flow that is coming off the street.

Mike Clarke, Public Works Director, stated that all three projects do essentially the same thing. In essence, the pipes do allow for a larger volume of water to come off of the street and into the Bay. Mr. Clarke stated that modeling scenarios have been conducted and these areas were all in the top ten that needed to have work done for better functionality for the City and the residents in this area.

The work being performed will help during a rain event; however, Mr. Clarke clarified that there are some times that these solutions are not going to solve everything. He stated that when there is a high tide and the outfall is covered and it is raining a lot, the water cannot go anywhere until the tide goes down, allowing the outfall to have room to flow.

In regard to the tidal check valve installation timeframe, Mr. Clarke plans to order the parts tomorrow, if approved, with a 4-to-6-week timeframe for installation.

Mr. Clarke addressed the stormwater improvements item. He stated that this is a full re-do of the intersection. He expects this project to take approximately two months.

Tim Hopkins, resident, questioned the cost for the tidal valves. Mr. Clarke stated that they are approximately

\$6,000 each.

John T., resident, discussed the comments he emailed to the Commission in regard to this project. He is looking forward to the installation of the check valves.

Motion: Commissioner Friszolowski moved, Commissioner Pletcher seconded, and the motion carried 3-0 to approve the cost estimate from Rowland Inc., under the existing on-call Civil & Large Pipeline Contractor Services Agreement for 41st Avenue and Belle Vista stormwater improvements in the amount of \$295,959.40.

Motion: Commissioner Friszolowski moved, Commissioner Pletcher seconded, and the motion carried 3-0 to approve the cost estimate from Rowland Inc., under the existing on-call Civil & Large Pipeline Contractor Services Agreement for the purchase and installation of tidal check valves at two outfalls on the Pinellas Bayway and one outfall in the Belle Vista neighborhood in the amount of \$59,256.00.

Motion: Commissioner Friszolowski moved, Commissioner Pletcher seconded, and the motion carried 3-0 to approve the cost estimate from Rowland Inc., under the existing on-call Civil & Large Pipeline Contractor Services Agreement for Mangrove Point and Belle Vista stormwater improvements in the amount of \$352,818.40.

6. ORDINANCES

a. Public Hearing Ordinance 2020-28 One Way Streets

AN ORDINANCE OF THE CITY OF ST. PETE BEACH, FLORIDA AMENDING THE CODE OF ORDINANCES, CHAPTER 82 – TRAFFIC AND VEHICLES, ARTICLE II - SPECIFIC STREET REGULATIONS, DIVISION 1 - GENERALLY, SECTION 82-31 – ONE-WAY STREETS; PROVIDING FOR CODIFICATION, CONFLICTS, SEVERABILITY, CONSTRUCTION, PUBLICATION, AND AN EFFECTIVE DATE.

Mr. Rey reiterated that this Ordinance provides for a new one-way designation north of 73rd Avenue at the alley behind the Library. This Ordinance also identifies all streets that are designated as one-way and the direction of traffic.

Mayor Johnson opened the public hearing and closed the public hearing after no comments.

Motion Commissioner Pletcher moved, Commissioner Friszolowski seconded, and the motion carried 3-0 to adopt Ordinance 2020-28.

b. First Reading Ordinance 2021-01 Seawall Height

AN ORDINANCE OF THE CITY OF ST. PETE BEACH, FLORIDA PROVIDING FOR AMENDMENTS TO THE CODE OF ORDINANCES, ARTICLE IV – SEAWALLS, BULKHEADS, AND RETAINING WALLS, SECTION 98-100 – STANDARDS FOR SEAWALLS, BULKHEADS, AND RETAINING WALLS NOT ON THE GULF OF MEXICO, SUB-SECTION (1) CONCRETE SEAWALLS, PARAGRAPH H, PERTAINING TO ELEVATION DATUM FOR SEAWALLS; SECTION 98-101 – STANDARDS FOR SEAWALLS, BULKHEADS AND RETAINING WALLS ON GULF OF MEXICO; SUB-SECTION (8) PERTAINING TO ELEVATION DATUM FOR SEAWALLS, BULKHEADS AND RETAINING WALLS FRONTING THE GULF OF MEXICO; PROVIDING FOR CONFLICTS, SEVERABILITY, CONSTRUCTION, PUBLICATION, AND AN EFFECTIVE DATE.

City Manager Rey clarified that this Ordinance is not the City's way of forcing anyone to replace, upgrade, or re-do their existing seawalls. This Ordinance will help to improve the resiliency of the City.

Wesley Wright, Community Development Director, gave a presentation to the Commission on Ordinance 2021-01. A copy of the presentation is made a part of the minutes. He explained that this Ordinance is to amend the City's seawall measurement standards to utilize the North American Vertical datum mean sea level employed by the National Oceanic and Atmospheric Administration (NOAA). Staff recommends approval of this Ordinance to allow for consistent and updated seawall measurements going forward.

Commissioner Pletcher complimented the Planning Board for their thorough review of the Ordinance. There was a question posed at the Planning meeting in regard to the back of a seawall that has been raised to meet the approved height; what goes behind the wall? She understands it is to be backfilled with non-structural fill to match the elevation of the seawall and opined this is a requirement of FEMA.

John, resident, would like the City to consider the effects that raising a seawall may have on the existing docks. City Manager Rey indicated that there will not be a requirement to raise any existing docks to the new level of a seawall.

Betty Rzewnicki, resident, spoke regarding the last presentation made on the flowing in the Don CeSar neighborhood (the presentation was made in September 2020). She agrees that seawalls need to be raised to meet the sea level rise; however, she was hoping the City could come up with a private/public partnership with the Don CeSar neighborhood to help with the cost to raise their walls.

Lydia Castle, resident, spoke regarding the raising of the seawalls and the costs associated.

Commissioner Pletcher opined that maybe a tax-increment financing (TIF) could be assessed. City Manager Rey indicated that it can be a discussion to think about in the coming years.

Michelle, resident, opined a consistent level for raising the seawalls for the City should be discussed instead of a mean level that could mean different for residents in various locations in the City.

Mr. Clarke clarified that the sea level rise is based on studies performed by scientists at NOAA. He stated that five feet is the exact level for the entire island.

Mark Grill, resident, opined that the City should look into incentives for residents to raise the seawall levels.

Mayor Johnson asked staff to speak with the County in regard to any incentives as well as the Property Assessed Clean Energy (PACE) Program.

Tim Hopkins, resident, asked if the City can force repairs to be made. Commissioner Friszolowski stated that yes, it can be forced based on the City's ordinances.

Motion: Commissioner Pletcher moved, Commissioner Friszolowski seconded, and the motion carried 3-0 to approve the first reading of Ordinance 2021-01.

c. First Reading Ordinance 2021-02 Substantial Improvement

AN ORDINANCE OF THE CITY OF ST. PETE BEACH, FLORIDA AMENDING THE CODE OF ORDINANCES, CHAPTER 98 – BUILDINGS AND BUILDING REGULATIONS, ARTICLE II – TECHNICAL CODES, SECTION 98-33 – FLORIDA BUILDING CODE, RESIDENTIAL; AMENDMENTS; ARTICLE V – FLOOD HAZARD MITIGATION REGULATIONS, DIVISION 3 – ADMINISTRATION, SECTION 98-122.4 – SUBSTANTIAL IMPROVEMENT AND SUBSTANTIAL DAMAGE DETERMINATIONS, PROVIDING FOR CODIFICATION, CONFLICTS;, SEVERABILITY, CORRECTION OF SCRIVENER’S ERROR, CONSTRUCTION, PUBLICATION, AND AN EFFECTIVE DATE.

Mr. Wright gave a presentation on Ordinance 2021-02; a copy of the presentation is made a part of the minutes. He explained that this Ordinance changes Section 98-33 to allow for a maximum of 299 square feet below the design flood elevation for living space and amends Section 98-122.4 to say that the cost to perform the repairs shall be cumulative over a five-year period from the issuance of the permit. Also, roofs and ancillary equipment shall be replaced as necessary.

Tim Hopkins, resident, is not opposed to the Ordinance but opined there may be certain situations where the amendment to Section 98-122.4 may not be practical.

Mr. Wright stated that roofing, air conditioning, windows, and those type of home renovations and upgrades are exempt from the cumulative five-year period. A standard was created in December 2019 that exempts reinforcements made to homes such as roofs, hurricane strapping, impact resistant windows, etc.

Commissioner Friszolowski explained the Pinellas County is looking into making some changes to the rules for property owners who have owned their homes for a long period of time along with homestead exemption and property taxes increasing if they tear down and rebuild into compliance.

Betty Rzewnicki, resident, is interested in hearing more about Pinellas County making these changes and hopes that the City can provide information on when the County Commission will have more discussion about this topic. She questioned if there was anything the City can do or is doing to help homeowners who have had significant loss to their home due to a storm event, like recent Hurricane Eta, and do not have the funds to make the repairs to their homes.

Mayor Johnson asked about exempting permit fees. Mr. Rey stated that the City cannot waive or exempt permit fees. However, the City can pay the permit fees for the residents out of the General Fund. He stated if the City is wants to do that, he can make some amendments to Ordinance 2021-03 (before the adoption) to allocate money in the General Fund for the help of residents and permits.

Motion: Commissioner Friszolowski moved, Commissioner Pletcher seconded, and the motion carried 3-0 to approve the first reading of Ordinance 2021-02.

d. First Reading Ordinance 2021-03 Budget Appropriations

AN ORDINANCE OF THE CITY OF ST. PETE BEACH, FLORIDA PROVIDING FOR SUPPLEMENTAL BUDGET APPROPRIATIONS; PROVIDING FOR CONFLICTS, SEVERABILITY, CONSTRUCTION, PUBLICATION, AND AN EFFECTIVE DATE.

Vince Tenaglia, Finance Director, informed the Commission of the audit that the Finance Department is preparing for, for next week. He stated that the City is in a much better financial position than expected since COVID-19 began last fiscal year. Appendix A is attached to the Ordinance and outlines the requests to utilize the available balances.

Mr. Rey explained that the decorative street signs budget is only for Pass-A-Grille and the funds, as questioned during public comment, relate to budgeted funds versus the bid proposal amount to purchase the signs.

Motion: Commissioner Friszolowski moved, Commissioner Pletcher seconded, and the motion carried 3-0 to approve the first reading of Ordinance 2021-03.

7. RESOLUTIONS

a. Resolution 2020-60 Parking Zones

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF ST. PETE BEACH, FLORIDA, RELATING TO THE CITY'S STREET REGULATIONS; RESTRICTED PARKING ZONES; AND PROVIDING FOR AN EFFECTIVE DATE.

Michelle Gonzalez explained that this Resolution is a companion to Ordinance 2020-21 that was recently adopted. It also confirms the current parking rules set in place and includes parking adjustments as discussed at the June 23rd City Commission meeting. She will be working with the Sign Department to update signage in the City to reflect that in the Resolution.

Motion Commissioner Pletcher moved, Commissioner Friszolowski seconded, and the motion carried 3-0 to adopt Resolution 2020-60.

Mayor Johnson recessed the City Commission meeting at 9:18 p.m.

Mayor Johnson reconvened the City Commission meeting at 9:26 p.m.

8. ITEMS FOR DISCUSSION

a. Discussion of the Interim District 2 Commissioner—*Added to the Agenda*

Mrs. LaRowe informed the Commission of her discussion with the Supervisor of Elections in regard to other election dates in the year that the City could participate in since the March election was not occurring. The two dates provided were August 24th and November 2nd. The Charter says that the Commission shall choose a successor to serve until the newly elected Commissioner is qualified and hold a special election no sooner than sixty (60) days nor more than one (1) year following the vacancy; the August 24th date falls into that timeline. She proposed that the Commission ask for letters of interest and a resume to be received by the City Clerk by January 20, 2021 at 3:00 p.m. and have a special Commission meeting to interview and select on January 26, 2021 at 4:00 p.m. with the swearing in of the selected Commissioner to occur at the 6:00 p.m. meeting that same night.

Discussion ensued on the timeline as recommended by the City Clerk. Mrs. LaRowe stated that she has the advertisement prepared and ready to be sent out on the social media, the website, and posted on the boards outside the Library and City Hall tomorrow; this will give interested residents approximately seven (7) days to respond. Interested candidates may apply to the City Clerk via mail, e-mail, or in person.

Attorney Dickman advised the Commission to select a Vice Mayor to serve until March and then in March re-select another Vice Mayor.

Motion: Commissioner Pletcher moved, Mayor Johnson seconded, and the motion carried 3-0 to elect Commissioner Ward Friszolowski to serve as the Vice Mayor.

Motion: Commissioner Pletcher moved, Commissioner Friszolowski seconded, and the motion carried 3-0 to schedule a special meeting on January 26, 2021 at 4:00 p.m. to interview and select the interim Commissioner for District 2.

Motion: Commissioner Pletcher moved, Commissioner Friszolowski seconded, and the motion carried 3-0 to require candidates to submit a letter of interest with resume by 3:00 p.m. on Wednesday January 20, 2021, to the City Clerk's Office located at 155 Corey Avenue for consideration as interim City Commissioner for District 2.

9. CITY CLERK, CITY MANAGER, CITY ATTORNEY AND CITY COMMISSION REPORTS

Mr. Rey, City Manager—discussed the Pinellas Library Cooperative and the dilemma regarding pay per card versus a fixed amount. Treasure Island is interested in participating with the City for their residents to utilize the St. Pete Beach Library; the City of Treasure Island is willing to pay the fixed annual fee to the City as part of the Cooperative. On the other side of this, however, is South Pasadena who pays per user. Mr. Rey is working with the Cooperative as well as the municipalities.

Mr. Rey discussed the flood insurance policy renewals for City facilities and the \$250,000 that is due at the end of the month. Staff would like to establish a self-insured plan and deposit the money into that instead. The consensus of the Commission is to have Mr. Rey and Mr. Tenaglia look into this option before the end of the month.

Mr. Dickman, City Attorney—discussed the updated Litigation Memo he distributed prior to the meeting. He filed a motion to Intervene as Respondent in the Don CeSar Property Owners Corporation; the judge granted this motion. He will be speaking with the attorney representing the Corporation on Friday and the intent of the City to resolve these issues. He would like authorization to follow up with another letter to the property owners updating them on the process and why. He will report back to the Commission after the discussion with the attorney.

Commissioner Pletcher—stated that there have been coyote sightings on Pass-A-Grille.

She informed everyone that the Seahorse Restaurant re-opened on Monday with the same family operating it and the same menu. They are still closed on Tuesdays.

Mayor Johnson—received a thank you card from the Neighborly Care Network for the City's annual contribution.

He informed the Commission of the Law for Public Officials Zoom webinar to be held on January 29th from 9:00 a.m. to 12:00 p.m.; Mrs. LaRowe will forward the information to the Commission.

Mayor Johnson adjourned the meeting at 10:04 p.m.

MINUTES APPROVED:

AMBER LAROWE
CITY CLERK

ALAN JOHNSON
MAYOR

**St. Pete Beach City Commission
Agenda Report**

Issue Considered: Request to approve for the payment to Morelli Landscaping, Inc in the amount of \$37,040.00

Date: January 26, 2021

Prepared By: Jennifer McMahon, Parks and Recreation Director

Through: Alex Rey, City Manager

Summary of Issue: As part of the city's beautification efforts, the parks department landscaped Blind Pass Road from Gulf Blvd to Corey Ave with Natchez Crape Myrtle and Sabal Palm trees after the completion of the Blind Pass Road project. Morelli was under contract with the city from piggybacking on a bid from the City of St Pete Beach for landscaping services.

The City used 4inch cal. Crape Myrtle tree for the project because it was available to Morelli on his tree farm for completion of the project in a timely manner, a 3.5inch Crape Myrtle was not. A 3.5inch cal. Crape Myrtle is listed in the inventory on the City of St Petersburg bid not the 4inch cal.

Staff has been working closely with Morelli Landscaping on both the Pass-a-Grille Way and Corey Ave landscape projects and were comfortable with the cost and size of the Crape Myrtle used in the project. Staff is recommending approval for the payment to Morelli Landscaping, Inc in the amount of \$37,040 for the Blind Pass Road landscape beautification.

Funding: This item is budgeted in account #001-6104-572-5527

Requested Motion: "I move to approve the payment to Morelli Landscaping, Inc in the amount of \$37,040.00"

Attachments: Invoice

**Reviewed by
City Manager:** _____

INVOICE

DATE:
November 3, 2020

For:
Miscellaneous Landscape Services
Blind Pass - Corey Avenue to Gulf Boulevard

Purchase Order No.Page 14 of 161

**St. Pete Beach City Commission
Agenda Report**

Issue Considered: Program Management for Electrical Undergrounding Project

Date: January 26, 2021

Prepared By: Alex Rey, City Manager

Summary of Issue: The City initiated the electrical undergrounding project in the summer of 2017, over three years ago, and has spent over \$500,000 in consulting fees during this time. Late last year, we determined that the scope of the consultant agreement was limited to the design only and did not include a design to build aspect.

Since then, I have now personally taken over the management of this project and intend to utilize Alpha Corporation to assist me in bringing the first phase of this project (from 55th Avenue to 75th Avenue) to bid and award. Once the first project enters the construction phase, it will be transferred to the Public Works department to allow me to work on getting the second phase of the project going.

Alpha Corporation has been approved as a Consultant and a CCNA agreement has been executed.

Funding: This service will be funded from the Electrical Undergrounding project account.

Requested Motion: “I move to authorize the City Manager to utilize the CCNA agreement with Alpha Corporation to assist with program management for the electrical undergrounding project.”

Attachment: Alpha Corporation Task Order 1



TASK ORDER FORM - CONTINUING CONTRACT FOR PROFESSIONAL DESIGN
SERVICES

<i>Date of Task Order Request</i>	January 21, 2021
-----------------------------------	------------------

<i>Firm Selected for Task</i>	Alpha Corporation
-------------------------------	-------------------

<i>Task (Project) Name</i>	Undergrounding Project
----------------------------	------------------------

<i>Task Description (and other relevant details)</i>	City requested project management services for Phase 1 of the Utility Underground project. Phase 1 consist of the underground of electrical, communication and cable utilities in Gulf Avenue Utilities from 55 th Ave to 75 th Ave.
--	--

<i>Task Budget</i>	\$36,640.00
--------------------	-------------

<i>Task Proposal Due Date</i>	January 26, 2021
-------------------------------	------------------

Thank you for your efforts on behalf of the City of St. Pete Beach. If there are any questions or additional information needed, please contact the Public Works Department at (727) 363-9243.

Acknowledgement of Task Order:

Alex Rey
City Manager
City of St. Pete Beach

Date

Signature

Date

Name

Title

Firm

Brett Warner
Assistant Public Works Director
City of St. Pete Beach

Date

TASK ORDER 1

Date:	January 12, 2021
Contract No.:	
Contractor:	Alpha Corporation
Project Title	Undergrounding Project

Project Description and Background Information

St. Pete Beach has requested that we assist them in the project management of their Phase 1- Utility Undergrounding project. Phase 1 consist of the undergrounding of electrical, communication and cable utilities in Gulf Avenue Utilities from 55th Ave to 75th Ave.

Scope of Services

St Pete Beach has contracted Kimley Horn to evaluate the current technical status of the project. In conjunction with that effort, Alpha Corporation will work as St. Pete Beach as client representative to move the project forward to finalize design, permitting and select construction firm. Alpha will provide management and coordination support for the project activities listed below:

- Securing Easements
- Defining future lighting needs with Duke
- Evaluating Duke's Binding Cost Estimate
- Coordinating FDOT Permit
- Reviewing Bid Packages
- Assisting Bid Evaluation
- Construction Administration Consultations- as needed, hourly.

Deliverables:

Monthly progress reports

Fee Proposal:

Task 1: Securing Easements	Total
Facilitating coordination between CPWG and Duke	\$ 3,600.00
Follow up to get legal documents from property owners for easement in place as per CPWG 12-14-2020 email (It is understood that communication with property owners will be coordinated by Park and Recreation Director, CPWG is in charge of ensuring that locations needed for the design are acquired, and that Alpha will be following up on the overall progress of the task)	\$ 4,800.00
* If alternate equipment locations are necessary, additional hours will be required	
Task 2: Defining lighting Design from Duke	
Work with Duke to define future lighting needs	\$ 720.00
Coordinate with CPWG to incorporate feeds for future light poles into the design	\$ 1,200.00
Task 3: Evaluating Duke's Binding Cost Estimate	
Review binding cost estimate with CPWG to ensure appropriate credits are provided	\$ 2,400.00
Coordinate legal review of document with attorney on retainer	\$ 1,200.00
Task 4: FDOT permit coordination	
Coordinate Kimley Horn QA/QC review for completeness of permit set	\$ 720.00
Coordinate with CPWG any corrections needed	\$ 720.00
Follow up on the permit process as needed	\$ 1,920.00
Task 5: Bid Document Review	
Coordinate Kimley Horn review of bid documents for completeness	\$ 1,200.00
Coordinate with CPWG any corrections needed	\$ 1,200.00
Task 6: Bid Evaluation Assistance	
Review bids provided	\$ 2,400.00
Participate in Selection Committee meeting	\$ 960.00
General Coordinating Meetings	
In person meetings with City/Duke/Consultants (25 hours estimated)	\$ 6,000.00
Construction Administration Consultation- (allowance)	
To be performed by Public Works staff. If any consultation is needed at this stage, we can do hourly or separate work order.	\$ 3,600.00
Travel (allowance)	
Travel includes mileage or air travel (\$300/ trip)	\$ 1,500.00
hotel (subject to receipts)	\$ 2,000.00
Reproduction	
8 1/2 x 11 (black and white): \$0.10/sheet	\$250
9 1/2 x 11 (color): \$1.00/sheet	\$250
Plans: (\$2.00/ sheet)	as needed
Any material needed to be produced for public meeting - rate	as needed
TOTAL	\$ 36,640.00

VI. Period of Performance

Work under this Task Order shall begin no earlier than January 26, 2021 and shall terminate upon acceptance and approval by the city of SPB of all required deliverables.

VII. Signatures

I certify that the Task Order and attachments comply with the provisions of the City of St. Pete Beach Continuing Contract for Professional Design Services and are necessary for the satisfactory completion of the product contracted for, and that sufficient funding has been encumbered to pay for this work.

Alex Rey

Date

City of St Pete Beach Manager

I certify that this Task Order and attachments are within the scope of the project and are necessary for the successful completion of the project.

Carmen Olazabal, P.E.

Date

Alpha Corporation

St. Pete Beach City Commission Agenda Report

Issue Considered: Cardno Pass-a-Grille Way and 17th Avenue Seawall Designs

Date: January 26, 2021

Prepared By: Mike Clarke, Public Works Director

Through: Alex Rey, City Manager

Summary of Issue: During the reconstruction of Pass-a-Grille Way from 1st Avenue to 19th Avenue, the soil beneath the sidewalk adjacent to the seawall was found to be eroding away. This erosion prompted a Ground Penetrating Radar (GPR) study to evaluate the extent of the subsidence. The results of this study uncovered a substantial number of voids beneath the edge of the sidewalk immediately adjacent to the seawall.

Following this discovery, the City requested a Task Order from Cardno to inspect and propose alternate designs to address the existing damaged and deteriorating seawall. Based upon the findings of the resulting Basis of Design report, the City of St. Pete Beach requested that Cardno move forward with the design and permitting of wall repairs, wall replacement, grout injections, addition of rubble riprap and reef balls, and permitting for areas along the 2,900-ft long seawall.

Additionally, the seawall at the eastern end of 17th Avenue is also in need of replacement. The City requested that Cardno include the design for the replacement of this seawall as part of this plan set, reducing the cost of this design.

Funding: CIP - Seawall: Pass-a-Grille Way (301-8000-590-0020)

Requested Motion: I move to approve the Task Order under the Continuing Engineering Services Contract with Cardno, Inc., in the amount of \$122,105.97 for the design and construction documents for the Pass-a-Grille Way repairs and 17th Avenue Seawall replacement.

Attachments:

1. Task Order from Cardno
2. Basis of Design Report - PAG Seawall



Exhibit "B"

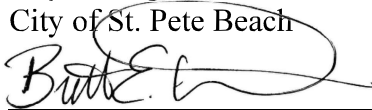
**TASK ORDER FORM - CONTINUING CONTRACT FOR
ENGINEERING AND CONSULTING SERVICES**

<i>Date of Task Order Request</i>	January 14 th , 2021
<i>Firm Selected for Task</i>	Cardno, Inc.
<i>Task (Project) Name</i>	Pass-a-Grille Way and 17 th Ave. Seawall Design
<i>Task Description (and other relevant details)</i>	This Scope of Services includes the design and permitting for the rehabilitation of the seawall along Pass-a-Grille Way and the replacement of the existing seawall at the terminus of 17 th Ave. N.
<i>Task Budget</i>	\$122,105.97
<i>Task Proposal Due Date</i>	January 15 th , 2021

Thank you for your efforts on behalf of the City of St. Pete Beach. If there are any questions or additional information needed, please contact the City Public Works Department at 727.363.9243.

Acknowledgement of Task Order:

Alex Rey
City Manager
City of St. Pete Beach

 1/11/2021

Brett Warner, PE
Assistant Public Works Director
City of St. Pete Beach


Doug Stoker, PE
Vice President
Cardno, Inc.



SCOPE OF SERVICES

Pass-a-Grille Way & 17th Ave. Seawall Design & Construction Plans

1.0 PROJECT OBJECTIVE

A Basis of Design Report (BODR) was prepared for the seawall along Pass-a-Grille Way. Based upon the findings of the report, the City of St. Pete Beach (CITY) wishes for Cardno, Inc. (CONSULTANT) to move forward with the design and permitting of wall repairs, wall replacement, grout injections, addition of rubble riprap and reef balls, and permitting for areas along the 2,900-ft long seawall. The top of the new cap in the areas of wall repair and replacement will be at elevation 5 ft NAVD.

Additionally, the 17th Ave Seawall has rotated (failed) and the City wishes for the CONSULTANT to move forward with the design and permitting of an FRP sheet pile wall that will be placed in the footprint of the approximately 40 ft long existing wall. The design will include tiebacks with anchors, details for a drainage pipe pass-through and associated manatee protection grate, and a reinforced concrete cap. The top of the new cap will be at elevation 5 ft NAVD.

The purpose of the task is to provide construction documents including signed and sealed plans, specifications, and environmental permits for the seawall work.

2.0 PROJECT SCOPE OF WORK (SOW)

This Scope of Services includes

- Ground Penetrating Radar (GPR) scan of picnic area adjacent to Merry Pier
- Grout injections along entire Pass-a-Grille Way wall
- Cap replacement at Pass-a-Grille Way wall along dog beach (Station 0+00 thru 5+00 of Seawall BODR)
- New wall, riprap, and reef balls along Pass-a-Grille Way wall from 7th Ave. to S. of Merry Pier and from N. of Merry Pier to 10th Ave., and at the north end of 12th Ave.
- New cap with cathodic protection system along Pass-a-Grille Way wall adjacent to Merry Pier
- Filling of gap between existing Pass-a-Grille Way wall and walled picnic area south of Merry Pier
- New sheet pile wall in the footprint of the existing wall at 17th Ave.

The following tasks will be performed:

Task 1: Geotechnical Investigation at 17th Ave.

- 1.1 Review soil information from the “Soil Survey of Pinellas County, Florida” published by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). Review topographic information obtained from the appropriate Quadrangle Map published by the United States Geological Survey (USGS). Review potentiometric information obtained from the

“Potentiometric Surface of the Upper Floridan Aquifer in Florida” Maps also published by the USGS.

- 1.2 Conduct a visual reconnaissance of the project site and coordinate utility clearance via Sunshine State One Call.
- 1.3 Execute a program of subsurface exploration consisting of subsurface sampling and field testing. Perform One (1) Standard Penetration Test (SPT) boring advanced to a depth of approximately 40 to 50 feet below the ground surface (on land) adjacent to the existing seawall.
- 1.4 Visually classify and stratify the soil samples in the laboratory using the Unified Soil Classification System (USCS).
- 1.5 Conduct laboratory testing on select soil samples to confirm the visual classification and estimate engineering properties.
- 1.6 Generate soil parameters for use by the structural engineer (Cardno, Inc.) in evaluation and analysis of the seawall design.
- 1.7 Identify conditions encountered within the borings that may affect the design or construction.
- 1.8 Prepare a geotechnical report that summarizes the course of study pursued, the field and laboratory data generated, subsurface conditions encountered and our geotechnical recommendations.

Task 2: Survey at 17th Ave.

Survey will include topographic and bathymetric survey along the wall. The topographic survey will extend 50 ft on the land side and the bathymetric survey will extend 25 feet on the water side.

Task 3: Design and Construction Plans

The CONSULTANT shall prepare design calculations and construction plans for the seawall and associated components utilizing the methodology outlined in the Florida Department of Transportation (FDOT) Structures Design Guidelines. The CONSULTANT shall also provide wall details to accommodate drainage outlet pipes with manatee grates within the limits of the wall replacement. Construction plans and calculations will be prepared as described below:

- 3.1 Key Sheet & General Notes
- 3.2 Wall Plan & Elevation for both walls (seven (7) sheets)
- 3.3 Wall Replacement Typical Section Design & Details – anchors assumed (PAGW)
- 3.4 Wall Replacement Typical Section & Cap Details – cantilever wall assumed (17th)
- 3.5 Cap Replacement Typical Section Design & Details
- 3.6 Cathodic Protection Design & Details
- 3.7 Grout Injection Design & Detailing
- 3.8 Riprap & Reefball Details
- 3.9 Other Details – Gap Filling, Drainage Outfall, Manatee Grate
- 3.10 Reinforcing Bar List

Task 4: Merry Pier GPR Survey

The CONSULTANT shall perform a GPR Survey to determine locations of any potential voids in the soil or water intrusion behind the wall in the picnic area south of Merry Pier. This section of wall is built out from the typical profile of the retaining wall and is an independently-constructed section of retaining wall with fill behind it.

The CONSULTANT shall:

- Conduct GPR scans along this area to determine if there are voids in the fill material.
- Develop a detailed report regarding the testing procedure and results. Maps indicating the location of voids and water infiltration to be provided

Task 5: 17th Ave. Wall Environmental Permitting

4.1 Preparation and Submittal of Permit/Exemption Packages

This task includes development of permit exhibits, preparing a project narrative, preparing permit application, and preparing PDC analysis. This information will be collated and submitted to Pinellas County and the Florida Department of Environmental Protection (FDEP). It is expected that the County will permit the proposed seawall activities. It is expected that FDEP will exempt the seawall activities, and will authorize the seawall activities on behalf of the Corps of Engineers under SPGP-V-R1.

4.2 Permit Application Assistance

This task includes working with the CITY to prepare and process your permits toward approval through the Pinellas County and Florida Department of Environmental Protection. This task may include responding to agency requests for additional information, conducting agency field reviews, meeting with agency staff or the CITY, and negotiating permit conditions.

Task 6: Pass-a-Grille Way Wall Environmental Permitting

The Project will most likely not meet State of Florida Environmental Resource Permit (ERP) exemption criteria or requirements for use of the United States Army of Engineers (USACE) State Programmatic General Permit (SPGP) due to the addition of reef balls and the proposed footprint of the rip rap. The CONSULTANT has developed this scope in order to avoid multiple mobilizations during the construction phase and will submit the necessary ERP and USACE permit application packages.

6.1 Seagrass Baseline Field Survey

A baseline seagrass survey will be required to satisfy permitting requirements prior to construction by either FDEP or USACE. Seagrass surveys are only valid for one year and must be conducted during peak growing season between April 1st and October 31st. The baseline verification will utilize two field staff for one eight-hour period to conduct seagrass mapping and verify the presence/absence of aquatic resources previously identified in the aquatic resource report included in the BODR. The seagrass survey results will be compiled into an appropriate report for review by permitting agencies.

6.2 Environmental Permitting

- The CONSULTANT will attend one (1) inter-agency pre-application meeting with the regulatory agencies in order to introduce the project and to identify any environmental concerns that may be present early in the review process. It is recommended that representatives from the Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP) office, SWFWMD, the USACE, and FDEP sovereign Submerged Lands Department attend the pre-application meeting. The purpose

of the pre-application meeting is to determine the permitting authority for state agency jurisdiction and obtain agency feedback and comments before application submittal. The pre-application discussion assists the project engineers and permitting staff with any early project design modifications to achieve the lowest form of permitting and assists the agency staff with making timely, well-informed decisions on permit issuance. The ultimate goal of the pre-application meeting is to confirm the permitting pathways and to determine the exact permitting path for this Project.

- The CONSULTANT will prepare the environmental narrative for the Environmental Resource Permit (ERP) that will be submitted to the State. This will include development of project site conditions for coastal wetland and/or submerged aquatic habitat. The ERP environmental narrative will describe how the applicant has provided avoidance and minimization of environmental impacts to the greatest extent practicable. Regulatory agencies will evaluate the project activities for unacceptable direct, secondary, and cumulative impacts to natural and water resources. If in the event environmental impacts cannot be avoided, the regulatory agencies may require mitigation efforts to offset the loss from environmental impacts. The environmental narrative will be developed to characterize the nature of the proposed unavoidable impacts. The environmental narrative shall include a synopsis of the permitting history and compliance of the project to date.

The following key items will need to be addressed in the permitting process:

- Avoidance and minimization to benthic and submerged aquatic resources;
- Avoidance and minimization of wetland vegetation;
- Avoidance of impacts to any threatened and endangered species;
- A demonstration that the project will not degrade water quality;

During the pre-application meeting, the USACE will confirm the applicability of the Nationwide Permit Program. The project may qualify under USACE NWP 3 – Maintenance or the NWP 13 Bank Stabilization. NWP-3 covers repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. A NWP 13 covers bank stabilization activities necessary for erosion control or prevention, such as vegetative stabilization, bioengineering, sills, rip rap, revetment, gabion baskets, stream barbs, and bulkheads, or combinations of bank stabilization technique. Prior USACE permit documentation will be necessary to qualify for NW-3 or NW-13. This SOS assumes the USACE will confirm the use of Nationwide Permit (NWP)-3 Maintenance or NWP-13 Bank Stabilization and will need to submit a preconstruction notification package (PCN) for formal confirmation of use.

- GIS mapping and analysis will be conducted in support of the preparation of an ERP Environmental Narrative and documentation of use for NWP 3 or NWP 13.
- The CONSULTANT will obtain a determination on Sovereign Submerged Lands for the proposed seawall replacement locations between 7th to 10th Ave and north end of 12th Ave. We assume that this project will qualify for a letter of consent for the proposed seawall replacement locations. This assumes that the seawall replacement will qualify for the letter of consent and meets subparagraph 18-20.004(1)(e)7. F.A.C, eligibility.

6.3 Requests for Additional Information, Coordination

- If necessary, Request for Additional Information (RAIs) may be received from the agencies via telephone, email, or written correspondence. The CONSULTANT will respond to up to two (2) total RAIs. If RAIs are requested, it is assumed these tasks will be limited to clarifications not requiring a cumulative total of more than 16 personnel hours to respond.
- The CONSULTANT will coordinate with the team via team conference calls and will schedule and attend one (1) field meeting with representatives of the agency personnel to review the existing environmental conditions of the proposed seawall repair/replacement, if needed. The team calls and potential field meeting are included in the 16 personnel hours allotted to respond to RAIs.

Task 7: Construction Cost Estimates

The Consultant will provide quantities and a construction cost estimate for the project.

Task 8: Technical Special Provisions

The Consultant will provide up to two Technical Special Provisions (TSPs) in support of the project.

3.0 SCHEDULE OF DELIVERABLES

The Draft Plans, Cost Estimate and Environmental Permit Applications for the Seawall will be provided to the City within 90 days of Notice to Proceed.

The Final Plans and Specifications will be provided to the City within 20 days of receipt of the City's comments on the Draft Plans Submittal and Environmental Permits.

All documents shall be submitted electronically.

4.0 ASSUMPTIONS

This scope assumes the following:

- Any required shoring or temporary wall design will be the responsibility of the contractor.
- The pre-application meeting will be attended by environmental project manager and assistant, that it will be conducted via a teleconference, and last no more than two hours.
- The project will not meet ERP exemption criteria or the requirements of the SPGP.
- The USACE will confirm the use of Nationwide Permit (NWP)-3 Maintenance or Nationwide 13 Bank Stabilization with the need to submit a preconstruction notification package (PCN) for formal confirmation of use.
- There will be no impacts to mangroves.
- No maintenance dredging will be required for the project construction.
- No mitigation will be required for the project.
- The agencies requiring permits will only request information considered normal and necessary for this type of permit. This proposal considers quantitative sampling for water quality, benthos, sediment, flora or fauna to be examples of extraordinary work beyond our proposed Scope of Services, and they are therefore not included.
- If RAIs are requested, it is assumed these tasks will be limited to clarifications not requiring a cumulative total of more than 16 personnel hours to respond.

- Drawings, plans, etc. submitted as part of the permit application will not have to be revised in response to a redesign or re-engineering of the project outside the control of the CONSULTANT.

5.0 SERVICES NOT INCLUDED

- Scour Analysis
- Payment of agency application fees
- In-water surveys for seagrasses and other benthic communities at 17th Ave. Seawall
- Submittal of an Environmental Narrative to support an ERP for 17th Ave. Seawall
- Separate submittal to the USACE for dredge and fill activities
- Development of a mangrove trimming plan or implementation of such a plan by a State Authorized Professional Mangrove Trimmer (PMT)
- Quantitative sampling for water quality, benthos, sediment, flora or fauna
- Censuses of historic or cultural resources
- Public Involvement
- Specifications Package
- Bid and Construction Phase Services

6.0 ADDITIONAL SERVICES

The CONSULTANT will provide additional services whenever requested in writing by the CITY based on a negotiated lump sum or not-to-exceed amount.

7.0 CITY RESPONSIBILITIES

The CITY will provide the following for the CONSULTANT to use and rely on:

- A letter of permission for the CONSULTANT to access the site, as necessary
- Any necessary agency fees involved with the Scope of Work
- One round of review and comments
- Execution of all appropriate regulatory permit applications
- Copies of all maps, plats, aerial photographs and other available information and data pertinent to the project design which the CITY may have in its possession
- Coordination of public outreach

8.0 COMPENSATION

For the above-described SCOPE OF SERVICES, the CITY will compensate the CONSULTANT a lump sum amount of \$122,105.97. A detailed fee breakdown is included in Attachment A.

ATTACHMENT A
Work Task Breakdown
City of St. Pete Beach
Task No. XX
Pass-a-Grille Way and 17th Ave. Seawall Designs

I. Staffhour Estimate: All Tasks

Direct Labor Rates Classifications		Principal Engineer	Project Manager 2	Senior Engineer 1	Designer	Senior Env. Specialist	Senior Scientist	Project Scientist	GIS Specialist	Scientist	Clerical	Total Hours	Labor Cost
Task		Billing Rate											
1	Geotechnical Investigation at 17th Ave.	(LS)	0	2	0	0	0	0	0	0	0	2	\$ 400.00
2	Survey at 17th Ave.	(LS)	0	2	0	0	0	0	0	0	0	2	\$ 400.00
3	Design and Construction Plans	(LS)	9	40	102	342	0	0	0	0	0	493	\$ 72,470.00
3.1	Key Sheet & General Notes		1	2	4	10	0	0	0	0	0	17	\$ 2,670.00
3.2	Wall Plan & Elevation (7 sheets)		1	8	32	138	0	0	0	0	0	179	\$ 25,190.00
3.3	Wall Replacement Typical Section Design & Details - anchors assumed (PAGW)		1	4	8	32	0	0	0	0	0	45	\$ 6,580.00
3.4	Wall Replacement Typical Section Design & Details - cantilever wall assumed (17th)		1	4	8	32	0	0	0	0	0	45	\$ 6,580.00
3.5	Cap Replacement Typical Section Design & Details		1	4	8	16	0	0	0	0	0	29	\$ 4,580.00
3.6	Cathodic Protection Design & Details		1	4	8	32	0	0	0	0	0	45	\$ 6,580.00
3.7	Grout Injection Design & Detailing		1	4	8	18	0	0	0	0	0	31	\$ 4,830.00
3.8	Riprap & Reefball Details		1	4	8	24	0	0	0	0	0	37	\$ 5,580.00
3.9	Other Details - Cap Filling, Drainage Outfall, Manatee Grate		1	4	16	30	0	0	0	0	0	51	\$ 7,850.00
3.10	Reinforcing Bar List		0	2	2	10	0	0	0	0	0	14	\$ 2,030.00
4	Merry Pier GPR Survey	(LS)	0	2	0	0	0	0	0	0	0	2	\$ 400.00
5	17th Ave. Wall Environmental Permitting	(LS)	0	2	1	4	0	0	0	0	0	7	\$ 1,090.00
6	Pass-a-Grille Way Wall Environmental Permitting	(LS)	0	8	4	10	20	35	24	32	3	178	\$ 21,953.00
6.1	Seagrass Baseline Field Survey		0	2	0	0	3	4	6	24	2	2	\$ 400.00
6.2	Environmental Permitting		0	4	2	8	14	26	16	8	1	14	\$ 2,180.00
6.3	Request for Additional Information/Team Coordination and Agency Site Visit		0	2	2	2	3	5	2	0	0	6	\$ 1,030.00
7	Construction Cost Estimate	(LS)	1	2	4	16	0	0	0	0	0	23	\$ 3,420.00
8	Technical Special Provisions	(LS)	1	4	16	0	0	0	0	0	0	21	\$ 4,100.00
LABOR TOTAL			11	62	127	372	20	35	24	32	3	728	\$ 104,233.00

II. Fee Calculation

Phase	Labor Cost	Expenses	Subconsultant Services	Total Cost
1	\$ 400.00	\$ 3,362.97	Tierra	\$ 3,762.97
2	\$ 400.00	\$ 1,990.00	Hyatt	\$ 2,390.00
3	\$ 72,470.00	\$ 7,620.00	VCS	\$ 80,090.00
4	\$ 400.00	\$ 1,800.00	VCS	\$ 2,200.00
5	\$ 1,090.00	\$ 3,000.00	GFY	\$ 4,190.00
6	\$ 21,953.00			\$ 21,953.00
7	\$ 3,420.00			\$ 3,420.00
8	\$ 4,100.00			\$ 4,100.00
Grand Total				\$ 122,105.97

Seawall Basis of Design Report (BODR) City of St. Pete Beach Pass-A-Grille Way

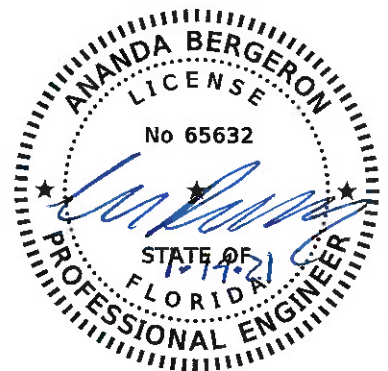
P.O. No. 19-00706
Cardno Project No. 00160056.00



Prepared for
City of St. Pete Beach, FL



January 14, 2021



380 Park Place Blvd., Suite 300
Clearwater, FL 33759
Cert. of Authorization No. 29915



Executive Summary

Scope of Work

The scope of work for this project includes the assembly of findings and recommendations for the seawall. The investigation into structure repairs/replacement, riprap installation, and living shoreline options will be discussed based on their merits, this report will provide the viable alternatives for structural rehabilitation and engineering with nature opportunities along with preliminary costs estimates and permitting requirements. Costs for the alternatives will be based on historic unit price averages and previous projects with similar conditions.

The seawall inspected and evaluated in this report is located adjacent to Pass-a-Grille Way and is 2,917 feet long, extending from the Pass-a-Grille Dog Beach north to Ercius Park.

Existing Conditions

Pass-a-Grille Way is oriented in a north-south direction along the west bank of the Pass-a-Grille Channel. The wall is located on the east side of the roadway and is 2,917 feet long, with an exposed wall height ranging between 5 ft. to 8 ft. The wall consists of concrete piles with inset concrete panels reinforced with welded wire fabric and a concrete cap on top. The concrete cap on the wall shows several cracks, with some areas containing spalls with exposed rebar having partial to complete section loss. The worst condition occurs at station 17+00 adjacent to Merry Pier where there is 100% section loss, large spalls and the cap is near failure.

The face of the wall shows several areas with corrosion stain bleedout and exposed welded wire fabric. The shotcrete surface coating has consistent spalls along the wall. Piles show deterioration and section loss with some areas of significant diminished capacity.

Per a February 2020 survey from Vector Corrosion Services, Inc., there is a significant reduction of soil density and/or voids underneath the sidewalk adjacent to the wall for most of the length of the wall. It appears most of this backfill loss has not yet propagated up to the sidewalk, but occurs within a range of 2-4 feet below the sidewalk. The loss of density of backfill suggests that backfill soil is propagating through cracks in or under the wall. If left unresolved, this issue will continue to propagate and eventually result in cracks and deformations of the sidewalk.

In addition to the structural concerns of the wall, other considerations considered within this report include the impacts to adjacent seagrass, aquatic habitat promotion, and sea level rise mitigation.

Alternatives

Two structural alternatives and three environmental alternatives have been considered to address the issues for this seawall. Structural alternatives are:

- A. Seawall Replacement
- B. Seawall Rehabilitation

And environmental alternatives are:

- A. Riprap with Reef Balls
- B. Riprap with Mangroves
- C. Riprap Only

These alternatives were evaluated based on cost and durability to provide the City with the most sustainable and cost effective solution.

Table of Contents

Executive Summary	i
1 Introduction	1
1.1 Purpose	1
1.2 Scope of Work	1
1.3 Existing Condition	2
2 Evaluation	3
2.1 Seawall Inspection	3
2.2 Ground Penetrating Radar Investigation	5
2.3 Environmental Assessment	5
3 Alternatives	6
3.1 Structural Alternative 1 - Replacement	6
3.2 Structural Alternative 2 - Rehabilitation	7
3.3 Environmental Option A – Riprap with Reef Balls	9
3.4 Environmental Option B – Riprap with Mangroves	9
3.5 Environmental Option C – Riprap Only	10
4 Grant Research	11
4.1 Community Development	11
4.2 Emergency Response and Disaster Preparation	11
4.3 Parks and Recreation	12
4.4 Corporate/Private Grants	13
5 Recommendations	14

Tables

Table 3-1 Alternative 1 Cost Breakdown	7
Table 3-2 Alternative 2 Cost Breakdown	8
Table 3-3 Environmental Option A Cost Estimate	9
Table 3-4 Environmental Option B Cost Estimate	9
Table 3-5 Environmental Option C Cost Estimate	10

Figures

Figure 1-1 Location Plan	2
Figure 2-1 Section Layout Along the Wall	3
Figure 2-2 Summary of Condition Ratings for Each Section	4
Figure 3-1 Alternative 1 Section	7
Figure 3-2 Alternative 2 Section	8

Appendices

Appendix A	Seawall Inspection
Appendix B	GPR Investigation and Findings
Appendix C	Aquatic Resource Survey
Appendix D	Geotechnical Report
Appendix E	Survey

1 Introduction

1.1 Purpose

The City of St. Pete Beach wishes to evaluate the seawall located adjacent to Pass-a-Grille Way from 1st Avenue to 12th Avenue. The purpose of this Report is to develop alternatives to address the existing damaged/deteriorating seawall and environmental conditions and provide viable solutions based on cost, constructability, and serviceability. Cardno will inspect, photograph, and assess the seawall and surrounding environment, and provide recommendations and a detailed cost estimate for seawall repairs dependent upon level and type of damage. The alternatives and recommendations will be summarized in this report.

Shoreline hardening, in the form of seawalls and revetments, inhibits the development of ecosystems with high levels of biodiversity, disrupts natural water flow dynamics and accelerates erosion on adjacent lands. With increasing sea level rise and storm intensity, increased shoreline hardening can lead to long term coastal erosion and beach degradation in adjacent communities. A return to a more natural shoreline is anticipated to more successfully reduce wave attenuation and erosion during large storm events, and combat rising waters while preventing coastal erosion in the immediate vicinity of the project and adjacent beaches and natural lands. Initial assessment of the ecological communities along the toe of the existing seawall indicates the potential for recruitment and growth of vegetative and fish communities, but will require a full assessment for applicability, successful design, proper construction methodology, and required maintenance for various natural and engineered installations.

1.2 Scope of Work

The scope of work for this project includes inspection and evaluation of 2,917 linear feet of seawall owned by the City of St. Pete Beach. Task 1 of this scope involves the hands-on inspection of the seawalls to include photographs, measurements, and visual assessments. Task 2 of this scope involves developing and evaluating repair and replacement alternatives and providing a Seawall Basis of Design Report (BODR) that includes finding and recommendations, and provides the viable alternatives with preliminary cost estimates and permitting requirements.

The City of St. Pete Beach is considering a variety of natural and engineered solutions for the replacement of the Pass-a-Grille Seawall, including but not limited to the installation of wave attenuation devices (WAD), reef balls, riprap installation, and mangrove plantings. Depending on the environmental conditions, hydrologic dynamics and structural feasibility, the City is considering one or more installation types to create a more natural shoreline.

The seawall inspected and evaluated in this report is located adjacent to Pass-a-Grille Way in St. Pete Beach.

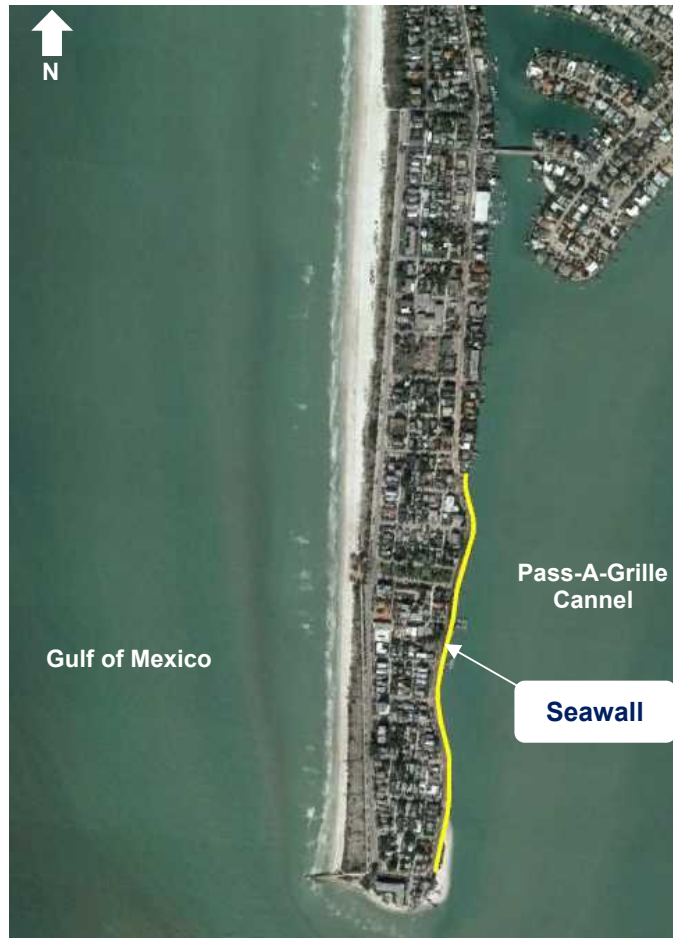


Figure 1-1 Location Plan

1.3 Existing Condition

Pass-a-Grille Way is oriented in a north-south direction along the west bank of the Pass-a-Grille Channel. The wall is located on the east side of the roadway and is 2,917 feet long, with an exposed height ranging between 5 ft. to 8 ft. The wall consists of concrete piles with inset concrete panels and a concrete cap on top. The face of the wall has been coated with a shotcrete surface repair. Some areas in front of the wall are protected by riprap, but that is not consistent along the wall's length. The date of the original wall construction is not known.

2 Evaluation

2.1 Seawall Inspection

Cardno conducted an inspection for the existing condition of the seawall. The inspection divided the wall into 100 foot sections to group measurements and observation of the issues. Each section of the wall was then rated with an overall condition code. The inspection found out that there are intermittent transverse cracks throughout the length of the seawall. Most cracks of this variety are not significant, but there are some cracks that will require action to prevent corrosion of rebar and further concrete damage. Almost the entire cap has longitudinal cracking of some severity. Severity varies from minor to significant. Some cracks exhibit corrosion bleedout, implying underlying rebar corrosion. There are also a few instances of severe cracks beginning to spall. For most of the seawall, spalls are minor corner spalls with no exposed rebar or signs of underlying corrosion. There are also some previously repaired spalls that show signs of failure and may need to be repaired again. The shotcrete on the waterway side of the wall is delaminating throughout the length of the wall. In the relatively minor cases, the delamination occurs only around the piles. In the rarer, but more severe instances, the shotcrete surrounding both the piles and the panels is delaminating. This is exposing the joints between the panels and the welded wire fabric reinforcing the shotcrete.

Below is a layout of the stations that were covered along the wall and a summary of the condition code rating for each section. The full inspection report is attached in Appendix A.



Figure 2-1 Section Layout Along the Wall



Figure 2-2 Summary of Condition Ratings for Each Section

2.2 Ground Penetrating Radar Investigation

Ground Penetration Radar (GPR) is an electromagnetic geophysical method used to evaluate subsurface conditions by transmitting high frequency electromagnetic waves into the ground and detecting the energy reflected back to the surface. GPR has the ability to detect differences in subsurface material densities and is used in this instance to identify the presence of subgrade voids.

GPR scanning of Pass-a-Grille Way was performed on January 14th, 2020 along the seawall between 2nd Ave. and 12th Ave. Scans were performed in parallel lines spaced approximately 3 feet apart. Three scans were performed along the sidewalk and three scans were performed in the adjacent roadside parking spaces. A copy of the full GPR Investigation Report is included in Appendix B.

Per the February 2020 survey from Vector Corrosion Services, Inc., there is a significant reduction of soil density and/or voids underneath the sidewalk adjacent to the wall for most of the length of the wall. It appears most of this backfill loss has not yet propagated up to the sidewalk, but occur up to a range of 2-4 feet below the sidewalk. The loss of density of backfill suggests that backfill soil is propagating through cracks in or under the wall. If left unresolved, this issue will continue to propagate and will eventually result in cracks and deformations of the sidewalk. The full report is attached in Appendix B.

2.3 Environmental Assessment

An Environmental Due Diligence Report was prepared. The purpose of this Report is to provide the results of the habitat assessment within the Project boundary, including a characterization of the benthic habitats, presence of aquatic resources, presence or potential presence of listed species, and the occurrence of non-listed wildlife species. The full report for Environmental Assessment is attached in Appendix C.

The Environmental Due Diligence report recommends that in order to minimize impacts to seagrasses, which provide forage habitat and habitat for prey items of the West Indian manatee, and Endangered Species Act (ESA)-listed sea turtles, the project should consider repair and reconstruction activities take place from the landward side of the seawall. Low-draft barges have the potential to impact the seagrass beds through direct contact, excess prop-wash, and increased turbidity and siltation. Standard erosion control measures and turbidity barriers should be considered in the project design. Any impacts to seagrasses, either direct impact from machinery or material placement, or indirect from increased turbidity and siltation would require mitigation, and potential post-construction monitoring. Additionally, construction from the water-ward side of the seawall adds additional risk of collision with manatees utilizing the seagrass beds for forage. If construction from the water cannot be avoided, it is recommended that construction activities comply with the U.S. Fish and Wildlife Services (USFWS) Standard Manatee Conditions for In-Water Work (2011), including construction personnel species education, species signage during construction activities, vessel operation at "Idle Speed/No Wake", proper construction and installation of siltation control, daily monitoring during in-water work, and prompt reporting to the Florida Wildlife Commission (FWC) hotline, and USFWS office.

3 Alternatives

Cardno is considering two structural alternatives in combination with three environmental options for action regarding the seawall. The alternatives vary in terms of cost and life expectancy of repair.

In general, beneficial impacts of these various natural and engineered installations include recruitment of marine life and enhanced biodiversity, wave attenuation and buffered storm effects, erosion control and land loss minimization, improved water quality by filtering coastal runoff, and land elevation increase as sea level rises. With these enhanced ecological functions, comes an increase in recreational activities such as fishing and wildlife viewing as well as an overall increase in aesthetics.

Wave attenuation devices (WAD) actively slow the incoming wave and dissipating its energy behind the device. This causes sediments to fall out of suspension and accumulate behind. These devices are best used in areas where coastal erosion and land loss are an issue. They help to increase sedimentation and rebuild lost land.

Reef balls are designed to replicate natural hard bottom substrate necessary for reef development and recruitment of marine life. They assist in creating habitat for coral species, provide a foundation for oyster beds, provide relief for demersal fish species, and can provide substrate for mangrove planting.

Similar to wave attenuation devices, which are located away from the shoreline, riprap placed along the shore edge absorbs wave energy as it comes towards the shoreline. Energy is dissipated rather than reflected, allowing for the sediment along the toe of the riprap to remain, rather than erode away. Riprap also provides some relief and creates habitat for fish, crabs, and other marine life.

Mangroves provide a barrier between coastlines and damaging storm and hurricane winds, waves, and floods. Intricate root systems provide soil stabilization and reduce erosion. Additionally, mangrove communities serve as nursery grounds for a variety of fish, shrimp, crustaceans, and mollusks, providing a critical component to commercial and recreational fisheries.

3.1 Structural Alternative 1 - Replacement

Alternative 1 consists of installing new Fiber Reinforced Polymer (FRP) sheet piles in front of the existing sheet piles, filling the void between the piles, and pouring a new cap to tie in the new wall with the old wall. This type of construction would be the most cost effective for this location and wall height. In addition, it is also recommended to inject grout below the sidewalk in order to increase the soil density and prevent future maintenance issues. The riprap in front of the wall would have to be removed to drive the sheets and then would be reinstalled and supplemented with new riprap based on the chosen environmental option. This alternative would have a high construction cost and a long design life of around 75 years.

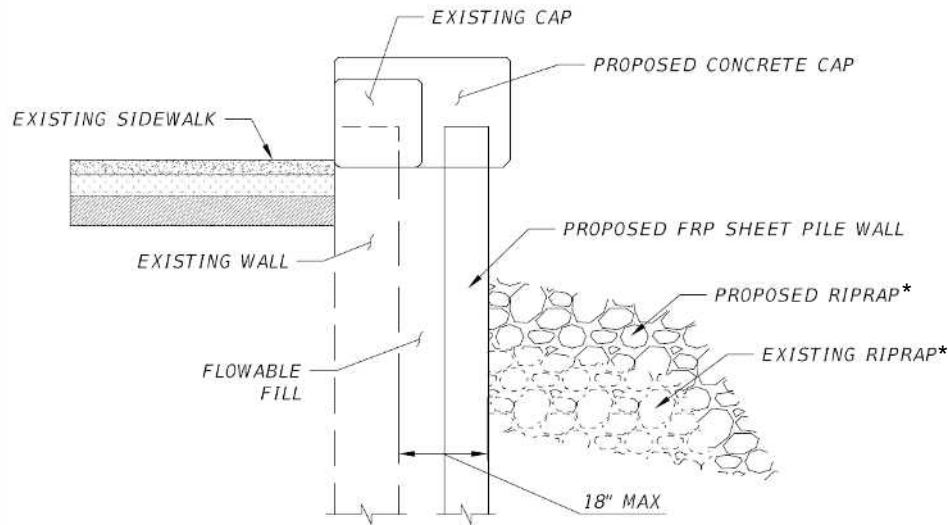


Figure 3-1 Alternative 1 Section

* Riprap placement is intermittent along the wall to coincide with exiting riprap and avoid impacts to seagrass.

Table 3-1 Alternative 1 Cost Breakdown

	ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITY	TOTAL COST
Replacement	Mobilization at 20%	LS	\$406,920	1	\$406,920
	FRP Sheet Piling	SF	\$18.00	58340	\$1,050,120
	Concrete Cap	CY	\$1,200.00	326	\$391,200
	Reinforcing Steel	LB	\$1.15	100680	\$115,782
	Flowable Fill	CY	\$150.00	1314	\$197,100
	Remove and Reinstall Riprap	CY	\$100.00	373	\$37,300
	Subsurface Pressure Grouting	GA	\$100.00	2431	\$243,100
	Construction Oversight (CEI)		5%		\$122,076
	Engineering		5%		\$122,076
	Subtotal- Replacement				\$2,685,674

Please note that the subtotal for Alternative 1 should be combined with Environmental Options A, B or C for the total estimated construction cost and permits fees.

3.2 Structural Alternative 2 - Rehabilitation

Alternative 2 consists of replacing the existing concrete cap and making repairs to the existing wall where necessary. This alternative would have a low construction cost and the design life would be approximately 15 years. The wall would likely require additional repairs during its remaining life and after 15 years, it would likely be necessary to replace the entire wall. This option would require grout injections below the sidewalk and supplemental riprap as with Alternative 1.

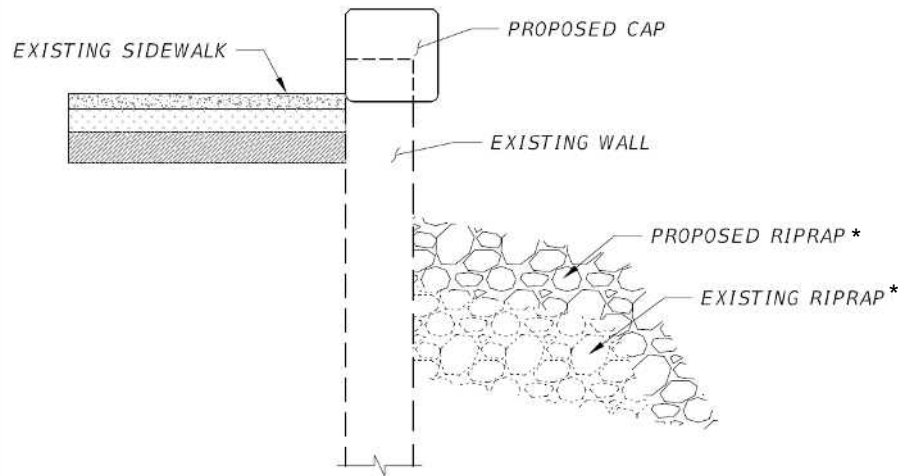


Figure 3-2 Alternative 2 Section

* Riprap placement is intermittent along the wall to coincide with exiting riprap and avoid impacts to seagrass.

Table 3-2 Alternative 2 Cost Breakdown

ITEM DESCRIPTION		UNIT	UNIT COST	QUANTITY	TOTAL COST
Rehabilitation	Mobilization at 20%	LS	\$175,531	1	\$175,531
	Subsurface Pressure Grouting	GA	\$100.00	2431	\$243,100
	Concrete Cap	CY	\$1,200.00	250	\$300,000
	Concrete Repair, Face of the Wall	LF	\$75.00	2917	\$218,775
	Reinforcing Steel	LF	\$1.15	100680	\$115,782
	Construction Oversight (CEI)		5%		\$52,659
	Engineering		5%		\$52,659
	Subtotal- Rehabilitation				\$1,158,506

Please note that the subtotal for Alternative 2 should be combined with Environmental Options A, B or C for the total estimated construction cost and permits fees.

3.3 Environmental Option A – Riprap with Reef Balls

This option consists of using a combination of riprap and reef balls in order to promote the environment and have the least amount of effects on the habitat. Riprap offers an easy way to redirecting water forces and protecting the structure from erosion and scour. Additionally, reef balls are uniquely designed to enhance marine habitats by providing a steady support for growth. This option includes a total of 60 individual reef balls (12 pods of 5) along the seawall. Total cost for this alternative is summarized in the following table.

Table 3-3 Environmental Option A Cost Estimate

	ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITY	TOTAL COST
Option A	Mobilization at 20%	LS	\$22,290.00	1	\$22,290
	Riprap	TN	\$150.00	423	\$63,450
	Reef Ball	EA	\$800.00	60	\$48,000
	Permitting				\$20,000
	Subtotal- Option A				\$153,740

Note: The subtotal for Option A should be combined with Structural Alternatives 1 or 2 for the total estimated construction cost.

3.4 Environmental Option B – Riprap with Mangroves

The dense root systems of mangrove forests trap sediments flowing down rivers and off the land. This helps stabilize the coastline and prevents erosion from waves and storms as well as generates habitat around the root system. Based on the information from the site, Red- Rhizophora Mangle, or Black- Avicennia Germinans mangroves would best suited for the site condition and elevations. The total estimated quantity for the mangrove area is 0.52 ac. This option requires maintenance including trimming, based on local authorities' regulations for mangroves. The mangroves can also be left untrimmed and allowed to grow higher than the top of the seawall. The higher growth would provide some additional wave attenuation, but it would also create physical barrier to visibility and fishing.

Table 3-4 Environmental Option B Cost Estimate

	ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITY	TOTAL COST
Option B	Mobilization at 20%	LS	\$13,590.00	1	\$15,090
	Riprap	TN	\$150.00	423	\$63,450
	Mangroves	LS	\$12,000.00	60	\$12,000
	Permitting				\$20,000
	Subtotal- Option B				\$110,540

Note: The subtotal for Option B should be combined with Structural Alternatives 1 or 2 for the total estimated construction cost.

3.5 Environmental Option C – Riprap Only

If none of the above alternatives are feasible at this time, the existing riprap can be reused with a 6 inch layer of new riprap on top.

Table 3-5 Environmental Option C Cost Estimate

ITEM DESCRIPTION		UNIT	UNIT COST	QUANTITY	TOTAL COST
Option C	Mobilization at 20%	LS	\$12,690.00	1	\$12,690
	Riprap	TN	\$150.00	423	\$63,450
	Permitting				\$20,000
	Total-Repairs				\$96,140

Note: The subtotal for Option C should be combined with Structural Alternatives 1 or 2 for the total estimated construction cost.

4 Grant Research

Grants and Loans by Topic Area

4.1 Community Development

Resilience Planning Grants

(Online application opens August 1st and is due on October 9th)

Awards range between \$25,000 and \$75,000 (planning) and up to \$500,000 (implementation)

Resilience Planning Grants (RPGs) are available to Florida communities that are required to have a coastal management element in their comprehensive plan. The purpose of RPGs is to promote community resilience-planning including complying with the “Peril of Flood” statute (Sec. 163.3178(2)(f) F.S.), analysing vulnerabilities and risks, and developing plans and policies that allow communities to better handle changing coastal conditions, and recover and move forward faster following disasters. Projects should be able to be completed in 10 months. The purpose of these funds is to promote community resilience-planning in Florida’s coastal communities by supporting:

- Complying with “Peril of Flood” statute (Sec. 163.3178(2)(f) F.S.) for communities with a Coastal Management Element in their comprehensive plan;
- Vulnerability assessments, other than that necessary for compliance with Peril of Flood;
- Adaptation/resilience plans; and
- Regional collaboration efforts.

Details on annual planning project priorities (extra points)

<https://floridadep.gov/sites/default/files/RPG%20Project%20Types%20and%20Annual%20Priorities.pdf>

Details on implementation project priorities;

<https://floridadep.gov/sites/default/files/RIG%20Project%20Types.pdf>

4.2 Emergency Response and Disaster Preparation

FY 2019 EDA Disaster Supplemental Department of Commerce Economic Development Administration

EDA announces general policies and application procedures for the Disaster Supplemental NOFO. Subject to the availability of funds, this investment assistance will help communities and regions devise and implement long-term economic recovery strategies through a variety of non-construction and construction projects, as appropriate, to address economic challenges in areas where a Presidential declaration of a major disaster was issued under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. § 5121 et seq.) (Stafford Act) "as a result of Hurricanes Florence, Michael, and Lane, Typhoons Yutu and Mangkhut, and of wildfires, volcanic eruptions, earthquakes and other natural disasters occurring in calendar year 2018, and tornadoes and floods occurring in calendar year 2019. To be competitive, applications must clearly incorporate principles for enhancing the resilience (as defined under Section A.4, below) of the relevant community/region or demonstrate the integration of resilience principles into the investment project itself. Resilience is an essential component of any strategy for mitigating the potential for future disaster-related losses and adverse economic impacts for communities. Therefore, inclusion of resilience principles in the project is a necessary step to improve the capacity of the region to recover more quickly from future disaster events. Applicants must include a narrative attachment as a part of their application materials, describing in detail the nexus between their proposed project scope of work and disaster recovery and resilience efforts. The strength of the nexus to the disaster is drawn from the consequences of the relevant disaster(s) and the intended project outcomes that fulfil the community’s specific post-disaster needs.

FEMA Pre-Disaster Mitigation

Contact County Emergency Management for application details.

Generally, local communities will sponsor applications on behalf of homeowners and then submit the applications to their State. All FEMA grant applications must be submitted to FEMA by a state, territory, or federally-recognized tribe. Eligible activities include the following resilient infrastructure activities, mitigation project and planning activities.

NFWF National Coastal Resilience Fund

(Pre-proposal submitted April 1st)

The National Fish and Wildlife Foundation (NFWF) is pleased to announce the National Coastal Resilience Fund Request for Proposals (RFP) for 2020. NFWF will make investments to restore and strengthen natural systems so they can protect coastal communities from the impacts of storms, floods, and other natural hazards and enable them to recover more quickly, and enhance habitats for fish and wildlife. Contiguous areas of natural habitat such as coastal marshes and wetlands, coastal forests, rivers, and streams, dune and beach systems, oyster and coral reefs -- maintained at a significant size for the habitat type -- provide communities with enhanced protection and buffering from the growing impacts of sea-level rise, changing flood patterns, increased frequency and intensity of storms, and other environmental stressors. NFWF's coastal resilience assessment seeks to identify areas where natural resource restoration efforts will have the greatest impact for human community resilience, as well as for fish and wildlife and identifies these types of natural areas as "Resilience Hubs"¹. It is not required that projects are located in an area identified by NFWF as a Resilience Hub to be eligible, but it is one tool used to assess projects based on the dual benefits to habitats and human communities.

- Applicants apply through easygrant so clients need to establish account ASAP.
- Awards average of \$250,000 with grants from \$125,000 and \$4 million.
- A 1:1 match is expected (combo of in-kind and cash – but not federal funds).
- In addition to a detailed budget, two-page narrative is required.
- Final project design and permitting (18 month projects and an average of \$250k)
- Restoration and monitoring (up to 36 months for projects and an average of \$1-4 million – have already gone through formal plan and permitting process and conversation with permitters)
- No non-natural structures like hardened shorelines – can be hybrid if sorts.

4.3 Parks and Recreation

FLDEP Florida Recreation Development Assistance Program (FRDAP)-Expected release August 2020

The FRDAP is a state competitive grant program that provides financial assistance to local governments to develop and/or acquire land for public outdoor recreational. The maximum grant request is \$200,000.

Eligible Applicants: All county governments and incorporated municipalities of the State of Florida and other legally constituted local governmental entities with the legal responsibility for the provision of outdoor recreational sites and facilities for the use and benefit of the general public.

Maximum Grant Request: The maximum grant request may not exceed \$200,000.00. An applicant's requested grant funds may be revised by the Department due to the availability of program funds. Grant awards are contingent upon appropriation by the Legislature. The agency also offers a program for unique abilities enhancements.

FLDEP Florida Recreational Trails Program

Release expected in November 2020

<https://floridadep.gov/lands/land-and-recreation-grants/content/recreational-trails-program>

The Recreational Trails Program is a federally funded competitive grant program that provides financial assistance to agencies of city, county, state or federal governments, and organizations, approved by the state, or state and federally recognized Indian tribal governments, for the development of recreational trails, trailheads and trailside facilities. The program has been shifted from the Office of Greenways and Trails to DEP's Land and Recreation Grants Section within the Division of State Lands. Potential trailside facility, such as canoe launch, parking or restroom, for SUN Trail.

FLDEP & Department of the Interior, National Park Service

Land and Water Conservation Fund

Program deadline expected for January 2021 – usually short application window

<https://floridadep.gov/lands/land-and-recreation-grants/content/land-and-water-conservation-fund-program>

Land acquisition and development grants may be in support of a wide range of outdoor recreation uses, such as community parks, playgrounds, picnic areas, campgrounds, trails, swimming pools, and sports fields; as well as for certain indoor infrastructure that supports these activities such as restrooms. Outdoor recreation areas and facilities must be publicly owned as well as open to the general public and not limited to special groups. The matching ratio is one applicant dollar to one federal dollar for all LWCF grant awards (50% / 50%).

4.4 Corporate/Private Grants

(May need to partner with a 501c3 to meet applicant guidelines)

TD Charitable Foundation – Vibrant Planet Grants

Rolling Deadlines

<https://www.tdbank.com/corporate-responsibility/the-ready-commitment/funding-opportunities/>

Potential awards from \$10,000-\$50,000 (and higher)

The TD Charitable Foundation provides financial support through its charitable investment application process to non-profit and municipal organizations providing services that align with The Ready Commitment's four interconnected drivers of change. Vibrant Planet for Green space: eligible projects include those that enhance and activate green spaces to build stronger communities. Could encapsulate environmental education portion or environmental restoration. Email questions to US-CharitableGiving@TD.com

Frank E. Duckwall Foundation

Rolling deadlines and no website

Giving \$10,000-\$50,000

Private foundation supports coastal conservation. May support habitat/dune restoration and coastal resiliency. Contact Trustees for information: Frank J Rief III and G. Lowe Morrison. PO Box 3351, Tampa, FL 33601 or (813) 634-4172

Community Foundation of Tampa Bay

<https://cftampabay.org/grant-application-process/applying-for-a-grant/>

Community vibrancy: Improving local communities through access and appreciation of arts and culture; flourishing local environmental resources; and collaboration among residents.

These types of projects will include arts and culture projects to engage the community; resiliency and environmental sustainability; and local community-based projects for community improvement. While all communities will be included, those which serve an at-risk population will be given potential funding priority. Rationale: Residents of engaged communities are more likely to be healthy, well-educated and secure. A vibrant, active community is essential for the well-being of its residents and for building a sense of community. First step is to create Letter of Intent.

5 Recommendations

Based on the alternatives for repair or replacement discussed in the previous sections, the following alternatives are considered viable.

Alternative 1. Structural Alternative 1 Combined with Environmental Option A

Alternative 2. Structural Alternative 1 Combined with Environmental Option B

Alternative 3. Structural Alternative 1 Combined with Environmental Option C

Structural Alternative 2, which repairs the existing structure was considered cost prohibitive, due to short design life after the repair, and not recommended. The environmental option selection depends on the City's future plans for this location and the local preferences about this seawall.

The table below provides costs and key points for the City to consider in its final decision.

Alternative	Description	Total Cost
Alternative 1	Full Replacement of the wall and Combination of Riprap and Reef balls	\$2,839,414.00
Alternative 2	Full Replacement of the wall and Combination of Riprap and Mangroves	\$2,796,214.00
Alternative 3	Full Replacement of the wall and Riprap	\$2,781,814.00

*Note: The estimated cost includes engineering/design services, construction oversight and permitting.

APPENDIX A SEAWALL INSPECTION

Seawall Inspection Report

City of St. Pete Beach

Pass-A-Grille Way

P.O. No. 19-00706
Project No. 00160056.00



Prepared for
City of St. Pete Beach, FL



February 11, 2020

380 Park Place Blvd., Suite 300
Clearwater, FL 33759
Cert. of Authorization No. 29915



Executive Summary

The wall is 2917 feet long, and the exposed height of the wall range between 5 ft. to 8 ft. along the wall. The concrete cap on the wall is showing a lot of cracks, and some areas are showing spalls with exposed rebar and partially to complete section loss. The worst condition is happening at station 17+00 adjacent to Mary Pier where there is 100% section loss, large spalls and the cap is near to failure.

Face of the wall shows several spots with corrosion stain bleed out and exposed steel mesh under the cover. Concrete cover called as a pile jacket has spalls along the wall. Piles are showing deterioration and section loss and some of them might be out of capacity and need to be replaced.

Per a February 2020 survey from Vector Corrosion Services, Inc., there is a significant reduction of soil density and/or voids underneath the sidewalk adjacent to the wall for most of the length of the wall. It appears most of this backfill loss has not yet propagated up to the sidewalk yet, but occur up to a range of 2-4 feet below the sidewalk. The loss of density of backfill suggests the wall is beginning to fail. In addition, this will result in cracks and deformation of the sidewalk if left untreated.

Table of Contents

Executive Summary	i
1 Introduction	1
1.1 Purpose	1
1.2 Scope of Work	1
2 Methodology	3
2.1 Inspection	3
2.2 Nomenclature	3
2.3 Inspection Coding	3
3 Inspection Findings	5
3.1 Wall Concrete Cap	5
3.2 Piles, Panels and Face of the Wall	7
3.3 Sidewalk and Backfill	9

Tables

Table 2-1 Coding for Inspection Condition States	4
Table 3-1 Summarized Inspection Findings	9

Figures

Figure 1-1 Location Plan	2
Figure 2-1 Pass-a-Grille Way Seawall Layout	3
Figure 3-1 Typical Transverse Cracks, Station 1+00	5
Figure 3-2 Severe Transverse Crack, Station 15+00	5
Figure 3-3 Longitudinal cracks in Cap with Corrosion Bleedout	6
Figure 3-4 Longitudinal Cracks with Spalling	6
Figure 3-5 Loss of Shotcrete	7
Figure 3-6 Loss of Shotcrete Exposing Mesh	7
Figure 3-7 Spall with Exposed Rebar	8
Figure 3-8 Severe Spall, Exposed Rebar with Complete Section Loss	8
Figure 3-9 Tiebacks Between Stations 5+00 and 6+00	9

Appendices

Appendix A GPR Investigation and Findings	
---	--

1 Introduction

1.1 Purpose

The City of St. Pete Beach wishes to inspect the seawall located adjacent to Pass-a-Grille Way. The purpose of this task is to develop alternatives to address the existing damaged/deteriorating seawall and associated loss of backfill based on cost, constructability, and serviceability.

1.2 Scope of Work

The scope of work for this project includes inspection and evaluation of 2917 linear feet of seawall owned by the City of St. Pete Beach. Task 1 of this scope involves the hands-on inspection of the seawalls to include photographs, measurements, and visual assessments. Task 2 of this scope will be addressed in a separate basis of design report.

The seawall inspected and evaluated in this report is located adjacent to Pass-a-Grille Way in St. Pete Beach.



Figure 1-1 Location Plan

The seawall is 2917 feet in total length and was broken into increments of 100 feet for recording of the wall inspection.

2 Methodology

2.1 Inspection

Each foot of seawall within the scope of work was individually inspected and assessed by condition. Photographs and measurements of deficiencies were taken as necessary. The report includes certain photos of representative wall conditions. However, photos of every section of wall can be found in Appendix B.

2.2 Nomenclature

Stationing was numbered starting at 0+00 from south to north. The organization of the inspection notes and photos reference the wall name and station designation for tracking purposes.



Figure 2-1 Pass-a-Grille Way Seawall Layout

2.3 Inspection Coding

In addition to location, specific notes, and comments, each 100-foot station increment of seawall was individually inspected and rated with a condition state assessment. The condition states were derived from the FDOT Bridge Management System Coding Guide and range from 0 “Failed” to 9 “Excellent”. The table below provides a summary of the condition state codes used.

Table 2-1 Coding for Inspection Condition States

CODE	DESCRIPTION
9	EXCELLENT – No Deficiencies.
8	VERY GOOD – No noticeable or noteworthy deficiencies which affect the condition of the seawall. Insignificant scrape marks caused by drift.
7	GOOD – Shrinkage cracks, light scaling, and insignificant spalling which does not expose reinforcing steel. Insignificant damage caused by drift with no misalignment and not requiring corrective action. Some minor scouring has occurred walls.
6	SATISFACTORY – Deterioration or initial disintegration, minor chloride contamination, cracking with some leaching, or spalls on concrete. Local minor scouring at walls.
5	FAIR – Moderate to major deterioration or disintegration, extensive cracking and leaching, or spalls on concrete. Minor settlement or misalignment. Noticeable scouring or erosion at walls.
4	POOR – Large spalls, heavy scaling, wide cracks, considerable efflorescence, or opened joint permitting loss of backfill. Considerable settlement or misalignment. Considerable scouring or erosion at walls.
3	SERIOUS – Any condition described in Code 4 but which is excessive in scope. Severe movement or differential settlement of the segments, or loss of fill. Holes may exist in walls. Nearly severed walls. Severe scour or erosion at walls.
2	CRITICAL – Wall near collapsing, severe settlement due to loss of fill. Section of wall may have failed and can no longer support embankment. Undermining at walls. Corrective action required. Closure possibly required.
1	“IMMINENT” FAILURE – Wall near or partially collapsing compromising safety of public safety. Close as necessary and re-route pedestrians
0	FAILED – Wall collapsed compromising safety of public. Close as necessary and re-route pedestrians.

3 Inspection Findings

3.1 Wall Concrete Cap

There are intermittent transverse cracks throughout the length of the seawall. Most cracks of this variety are not significant, but there are some cracks that will require action to prevent corrosion of rebar and further concrete damage.



Figure 3-1 Typical Transverse Cracks, Station 1+00



Figure 3-2 Severe Transverse Crack, Station 15+00

Almost the entire cap has longitudinal cracking of some severity. Severity varies from minor to significant. Some cracks exhibit corrosion bleedout, implying underlying rebar corrosion. There are also a few instances of severe cracks beginning to spall.



Figure 3-3 Longitudinal cracks in Cap with Corrosion Bleedout



Figure 3-4 Longitudinal Cracks with Spalling

3.2 Piles, Panels and Face of the Wall

The shotcrete on the waterway side of the wall is delaminating throughout the length of the wall. In the relatively minor cases, the delamination is occurring only around the piles. In the rarer, but more severe instances, the shotcrete surrounding both the piles and the panels is delaminating. This is exposing the joints between the panels and a steel wire mesh reinforcing the shotcrete.



Figure 3-5 Loss of Shotcrete



Figure 3-6 Loss of Shotcrete Exposing Mesh

There are spalls throughout the cap, some severe. For most of the seawall, spalls are minor corner spalls with no exposed rebar or signs of underlying corrosion. There are also some previously repaired spalls that are showing signs of failure and may need to be repaired again.



Figure 3-7 Spall with Exposed Rebar

Beginning at station 17+00, major spalls with exposed rebar begin to appear. There are 3 locations between stations 17+00 and 18+00 of severe spalls with exposed rebar exhibiting more than 50% section loss. The cap at these locations is structurally deficient. There are also at least 2 locations with exposed rebar without severe section loss.



Figure 3-8 Severe Spall, Exposed Rebar with Complete Section Loss

There are tiebacks between stations 5+00 and 6+00 that are not found in the rest of the wall. They are located at either side of the piles. They are in good condition. It is unclear if these tiebacks were installed with the rest of the wall or at a later date.



Figure 3-9 Tiebacks Between Stations 5+00 and 6+00

3.3 Sidewalk and Backfill

Per a February 2020 survey from Vector Corrosion Services, Inc., there is a significant reduction of soil density and/or voids underneath the sidewalk adjacent to the wall for most of the length of the wall. It appears most of this backfill loss has not yet propagated up to the sidewalk yet, but occur up to a range of 2-4 feet below the sidewalk. The loss of density of backfill suggests that backfill soil is propagating through cracks in or under the wall. In addition, this will result in cracks and deformation of the sidewalk if left untreated. The full report is attached in appendix A.

Table 3-1 Summarized Inspection Findings

Begin Station	Wall Height (ft)	Water Depth (ft)	Condition	Comments
0+00	0	0	7	Transverse Cracks, Minor spalls
1+00	0	0	7	Transverse Cracks
2+00	0	0	7	Transverse Cracks, longitudinal crack
3+00	0	0	6	Transverse Cracks, longitudinal crack, scaling
4+00	2	0	6	Minor spall, scaling
5+00	6.3	0.2	6	Longitudinal crack/spall
6+00	7.7	1.8	6	Scaling on front of wall
7+00	8.3	2.4	7	Minor spall, longitudinal crack

8+00	9.4	3.5	7	Transverse crack, longitudinal crack
9+00	7	1.3	7	Transverse cracks
10+00	7.5	1.7	6	Large transverse cracks, longitudinal crack with leaching
11+00	8	2.3	7	Transverse crack, longitudinal crack
12+00	6.5	0.8	6	Minor leaching
13+00	6.6	0.6	6	Longitudinal crack up to 1/4" wide x 2
14+00	6.9	1.3	6	Minor spall with leaching
15+00	7	1.3	6	Transverse crack up to 1/4" thick, Pier at 15+31
16+00	7.8	2	7	
17+00	7.4	1.8	4	3'-0" x 6" spall with exposed rebar >25% section loss, 4'-0" x 6" spall with 100% section loss, large longitudinal cracks up to 1/8" with leaching, 17+33 shop wall
18+00	8.2	2.5	6	Spall with exposed rebar, minimal section loss
19+00	7.8	2	7	
20+00	7	1.4	5	Longitudinal cracks on face of cap opening into spalls, large longitudinal crack on top of cap
21+00	7	1.3	6	Longitudinal crack
22+00	6.6	0.9	6	Longitudinal crack
23+00	6	0.2	6	Longitudinal crack on top of cap, spall on front face of cap
24+00	5.9	0.2	6	Transverse crack 1/8" wide, pier starts at 24+47
25+00	6.3	0.8	6	Minor spall
26+00	6.7	0.9	6	Transverse crack
27+00	6.8	0.9	6	Longitudinal crack, corrosion bleedout stains on front face of wall
28+00	6	0.1	7	Minor Scaling, 28+70 private pier
29+00	6.9	1.4	4	
29+17			4	Spall with exposed rebar, minimal section loss

APPENDIX B GPR INVESTIGATION AND FINDINGS



VECTOR CORROSION SERVICES, INC.

8413 Laurel Fair Circle, Ste 200B, Tampa, FL 33610

Main: 813-501-0050 | Fax: 813-501-1412

eMail: Info@VCServices.com

SEAWALL ALONG PASS-A-GRILLE WAY ST. PETE BEACH, FLORIDA GROUND PENETRATING RADAR SCANNING



Prepared for:

Ananda Bergeron, PE
Cardno, Inc.

Prepared by:

Natallia Shanahan, Ph.D.
Engineer III – VCS

Reviewed by:

Brian Pailles, PhD, PE, NACE CP-4
Principal Engineer – VCS

VCS Project Number – F19086FL
February 10, 2020

We Save Structures™

Introduction

Pass-a-Grille Way is a roadway on the eastern side of Pass-a-Grille Beach, which is located in the city of St. Pete Beach, Florida. The roadway and sidewalk on the east side between 3rd Ave and 12th Ave are directly adjacent to the Pass-a-Grille Channel and are separated from the channel by a seawall. Drainage line installation in this area revealed the presence of voids below the roadway and sidewalk. Cardon, Inc. has reached out to Vector Corrosion Services (VCS) to conduct ground penetrating radar (GPR) scanning of the side walk and adjacent parking spaces in order to identify the possible presence of voids. The surveyed section of the Pass-a-Grille Way is highlighted in yellow in Figure 1.



Figure 1: Overview of Pass-a-Grille Way

Ground Penetrating Radar Survey

GPR is an electromagnetic geophysical method used to evaluate subsurface conditions by transmitting high frequency electromagnetic waves into the ground and detecting the energy reflected back to the surface. Electromagnetic signals are transmitted from the antenna (transmitter and receiver) at ground surface and reflected back to the antenna from interfaces with differing electrical (dielectric constant and conductivity) properties. The greater the contrast in the electrical properties between two materials, the more energy reflected to the surface and the more defined results are.

GPR scanning of Pass-a-Grille Way was performed on January 14th, 2020 along the seawall between 2nd Ave and 12th Ave. Scans were performed in parallel lines spaced approximately 3 ft apart. Three scans were performed along the sidewalk and three scans were performed in the adjacent roadside parking spaces. The survey was started at meter ID PG-61 across from the 12th Ave. The length of the survey was 2,500 ft along the sidewalk curb, and the GPR scans were terminated at 5.5 ft past the center of the light pole across from 2nd Ave.

The GPR data were acquired with a high-resolution 400 MHz GPR antenna equipped with a calibrated distance measuring wheel. The 400 MHz antenna has a depth of investigation of 5 to 10 ft in moist clays and silts and up to 15 ft in dry sands and gravels. Depths of

investigation are usually deeper in dry sands and gravels than in moist silts and clays and often do not penetrate beyond the water table especially in brackish water or saltwater.

Material interfaces (natural layering and bedding or construction fill “lifts”), can retain moisture and/or salts. These conditions cause a change in conductivity which shows as continuous reflective layers on GPR data. Locations where these soil layers are draped, discontinuous, or abruptly dipping are indicative of subsidence, loose soils and potential voids. Areas where GPR data is less reflective, indicating fine soil materials (clays and silts) have been washed or eroded away or areas that are more reflective, indicating loose soil conditions where moisture can accumulate are also indicative of settlement and voiding. A detailed discussion of the GPR Survey Method is included in Appendix A.

The interpretation of the data collected along the seawall was based on the following GPR signal characteristic associated with developing or previous filled sinkholes and/or areas of soil settlement:

1. Type 1 – Draped or broken soil layers

Type 1 anomalies are areas where the natural subsurface conditions have been disturbed. This usually occurs where fine soil materials (clays and silts) have washed or eroded away or may be areas that were filled with a coarser sand or gravel that allow moisture to drain.

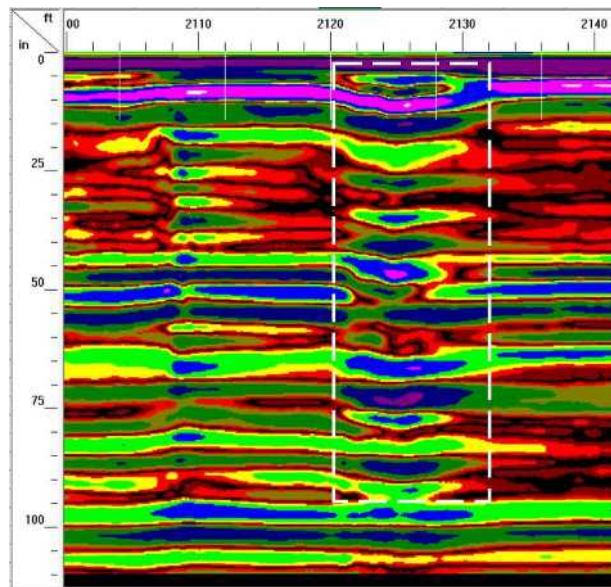


Figure 2: Example of a Type 2 Anomaly in the Collected Data

2. Type 2 – Shallow (less than 10 inches deep from ground surface) anomaly

Type 2 anomalies are areas like Type 1 anomalies, but where the condition has “worked” its way towards the ground surface, indicating a high probability of a forming sink hole/voided area.

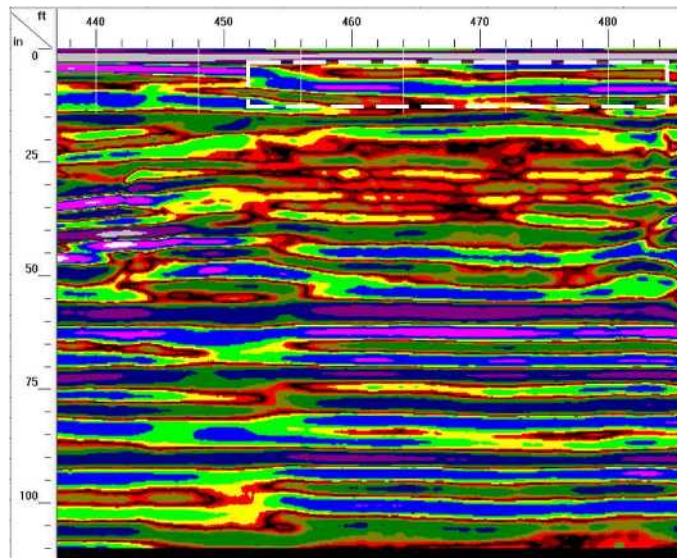


Figure 3: Example of a Type 2 Anomaly in the Collected Data

3. Type 3 – Areas of high conductivity/high moisture content relative to “normal” soil conditions
 Type 3 anomalies are caused by more reflective soil conditions where moisture has accumulated, or may be areas where fine soils (silts and clays) have retained moisture.

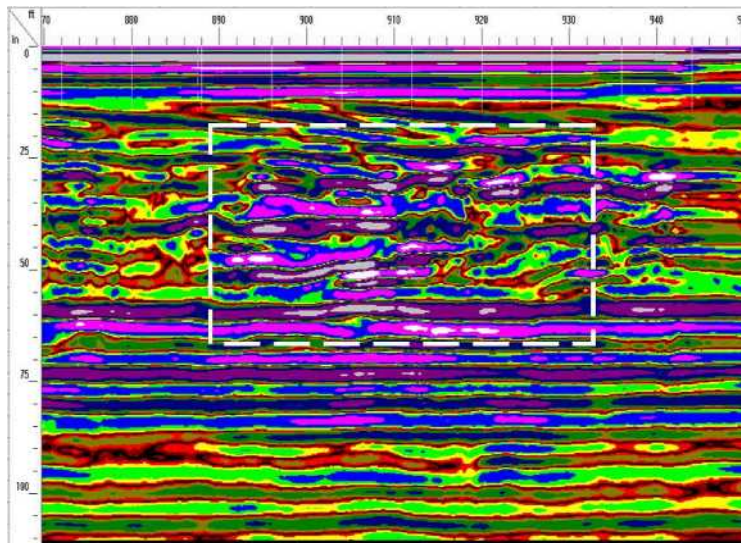


Figure 4: Example of a Type 3 Anomaly in the Collected Data

4. Type 4 – Areas where potential utilities have been installed, or previous reworking of natural soil conditions
 Type 4 anomalies are areas where the ground has previously been reworked and the trench is visible in the data, these areas can be of concern when not properly filled leading to areas where the subsurface layering can turn into a Type 1 condition. It is important to note that filled utility trenches and old excavations may have similar GPR signal characteristics as developing or ancient filled sinkholes and/or areas of soil settlement.

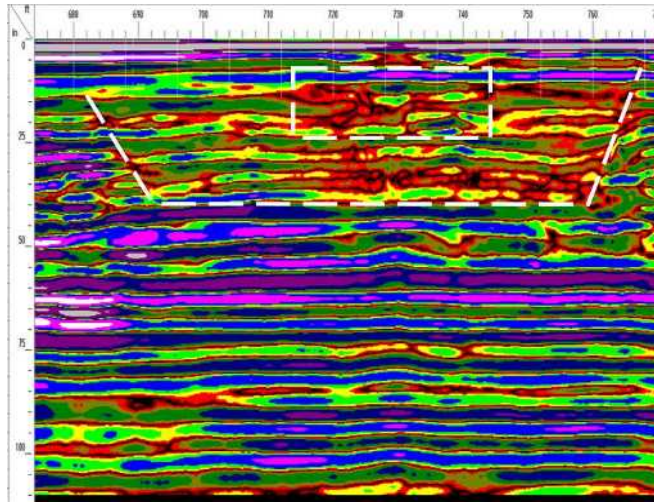


Figure 5: Example of a Type 4 Anomaly in the Collected Data

Of these conditions, Type 2 anomalies would be of the highest concern for the presence of voids, followed by Type 1 anomalies, then Type 3 and Type 4. The location of each anomaly type is identified in the drawings presented in Appendix B. It should be noted that interpretation of GPR data is subjective and GPR results should be verified with borings or test pits.

It should be noted that a large portion of the scan path directly against the seawall was obstructed by the trees and benches placed near the seawall (Figure 6). A void under the sidewalk tiles was observed on the north side of Merry Pier. The location of this void is circled in red in Figure 7, and the depth was of the void was approximately 11 inches below the top of the pavement. However, it was not possible to position the GPR cart over the void to obtain a scan due to the obstructions in the GPR path (electrical box on the north and stair steps on the south side). It looked like some settlement have occurred in the area around the void. The location of this void was added to Appendix B, although it was not possible to determine accurate dimensions for this void.



Figure 6: Path Next to the Seawall Obstructed by Trees and Benches



Figure 7: Void under the Sidewalk

Thank you for the opportunity to work with you on this project and if you have any questions please don't hesitate to contact me directly.

Sincerely,

Natallia Shanahan, Ph.D., NACE CP-2
 Engineer III
 Vector Corrosion Services
natallias@VCServices.com
 Office (813) 501-0050
 Mobile (813) 460-1346

Appendix A
GPR General Information

APPENDIX: GROUND PENETRATING RADAR

Ground Penetrating Radar (GPR) is an electrical geophysical method for evaluating subsurface conditions by transmitting high frequency electromagnetic waves into the ground and detecting the energy reflected back to the surface. Electromagnetic signals are transmitted from the antenna (transmitter and receiver) at ground surface and reflected back to the antenna from interfaces with differing electrical (dielectric constant and conductivity) properties. The greater the contrast in the electrical properties between two materials, the more energy that is reflected to the surface and the more defined results are.

GPR SYSTEM:

GPR systems consist of: Control unit (pulse transmitter, digital recorder, data storage, monitor); and an antenna(s) and survey wheel.



The GPR control unit is a computer which controls data acquisition parameters, such as sampling rate, range, gain control, filtering, etc. The Control Unit also visually displays the data, digitally archives the data, and allows for play back of the data.

Coaxial cable connects the control unit to the antenna. The antenna(s) are sealed and shielded in fiberglass housing.. Selection of the antenna is dictated by the requirements of the survey. For high resolution, near-surface data, a high frequency antenna is used; for deeper penetration investigation, a lower frequency antenna is used. Typically the 100 to 400 MHz antennas are used for geologic surveys; 400 to 900MHz are used for utility, near surface voiding settlement, foundation, etc surveys while the 900 to 1500 MHz are used for concrete reinforcing assessment.

APPLICATIONS

Ground Penetrating Radar (GPR) can be used to locate underground pipes, buried drums, foundations, voids in rock and concrete, soil settlement, determine stratigraphy, depth to water table, buried artifacts, filled excavations, and locate voids/settlement behind walls and under floor slabs, etc. GPR is also a good tool for evaluating concrete structures such as

bridges, walls, beams, ceilings, etc where the GPR can locate rebar and conduits, quantify rebar spacing, cover variability over reinforcing, and concrete thickness.

GPR reflections typically occur at subsurface discontinuities such as:

- Buried metal objects (utilities, tanks, reinforcing)
- Open and water filled voids
- Water table
- Soil stratification
- Seepage paths
- Bedrock fractures

DEPTH OF PENETRATION AND LIMITATIONS

The depth of penetration of GPR is site specific, limited by the attenuation of the electromagnetic energy. Signal attenuation is controlled by four different mechanisms:

- Scattering: energy losses due to scattering occur when signals are dispersed in random directions, away from the receiving antenna, by closely spaced rebar or large irregular shaped objects, such as boulders or tree stumps.
- High conductivity layers: the greater the conductivity values of materials at a site, the more signal attenuation or less penetration. (Mineral content, high moisture content, water table, metal plates, etc.)

Signal penetration is also dependent on the frequency of the antenna. High frequency antennas have shallow penetration and high resolution. Low frequency antennas have greater depths of penetration, but the resolution of small and near surface targets is reduced. Listed below are antenna frequency, approximate depths of penetration and typical application. (Depths of penetration are in ideal conditions if a highly conductive layer, such as a brackish water table, steel plate, etc., is present all antennas will be limited to the depth of this layer.)

1500 and 1600 MHz	+/-2 feet	Asphalt/Concrete thickness Wire mesh/rebar/conduit location Voiding within and behind structures
900 MHz	3-5 feet	Concrete thickness Rebar and utility location Voiding within and behind structures
400 MHz	10-15 feet	Concrete/Masonry thickness Utility location Soil settlement/sinkhole development Geologic and Environmental mapping Archaeological Surveys
200 MHz	25-30	Soil settlement/sinkhole development

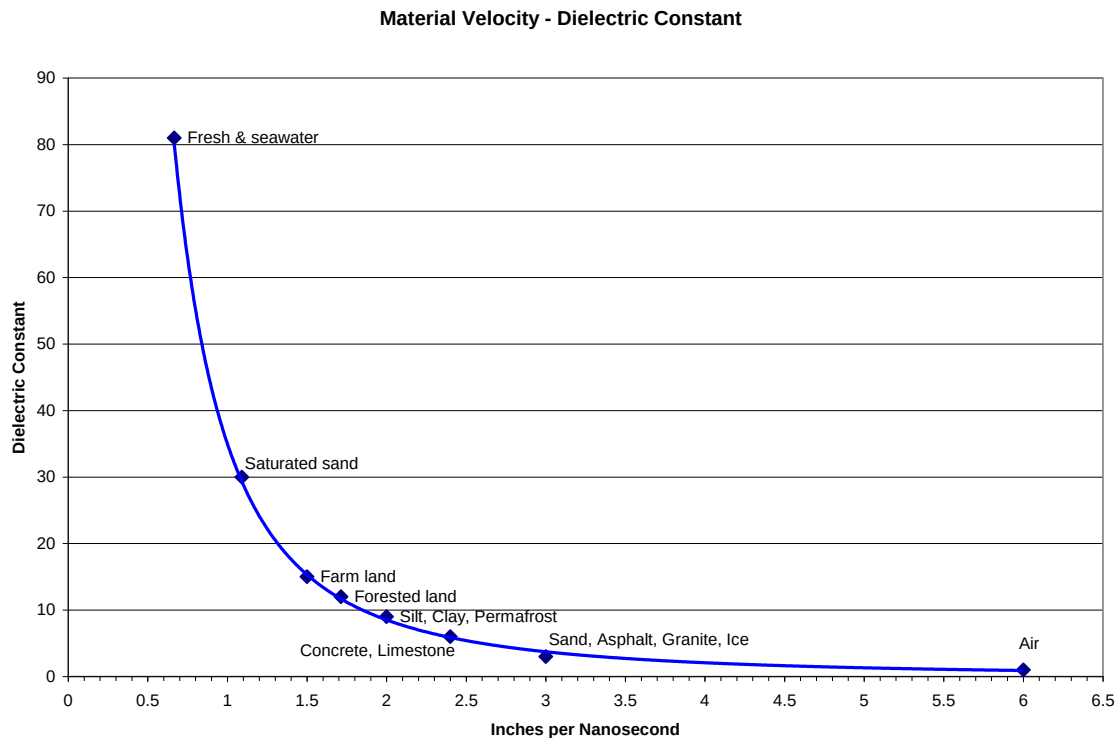
Geologic and Environmental mapping
Archaeological Surveys

100 MHz

+/-50

Soil settlement/sinkhole development
Geologic and Environmental mapping
Archaeological Surveys

Depth of investigation can be estimated using material dielectric constants and the diagram shown below. Typically 2 inches per nanosecond can be used as an average signal velocity for most materials and sites. When available an onsite depth calibration can be conducted to determine the electrical properties (speed of the signal) of the materials at the site. Depth calibrations typically consist of collecting GPR data over a metal target with a known depth. Known utilities, and buried metal plates are good targets for calibrations. GPR surveys can be very effective when coupled with other geophysical surveys and/or ground truth methods to verify, correlate and extrapolate GPR results. GPR surveys are a fast and cost effective method to collect data over large or obstructed sites, and isolate anomalies and areas where borings or other methods can be focused for the best interest of a project.

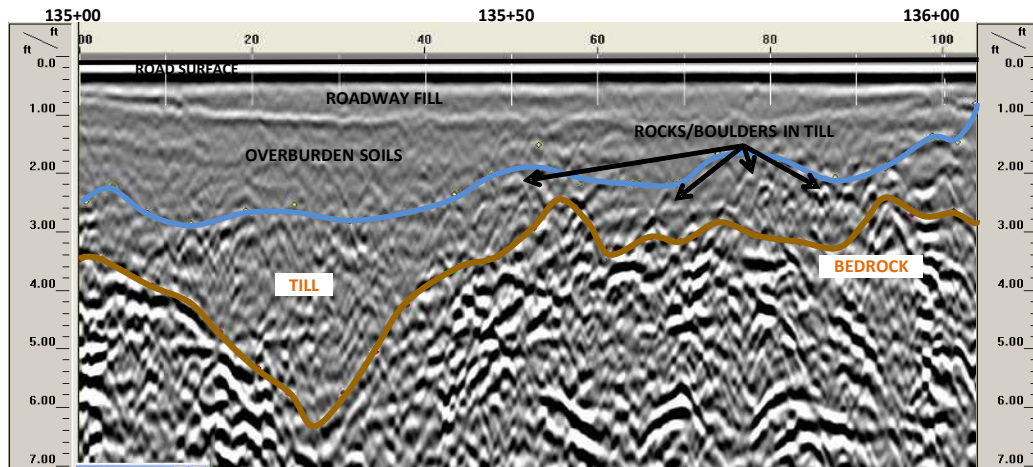


ACQUISITION AND INTERPRETATION:

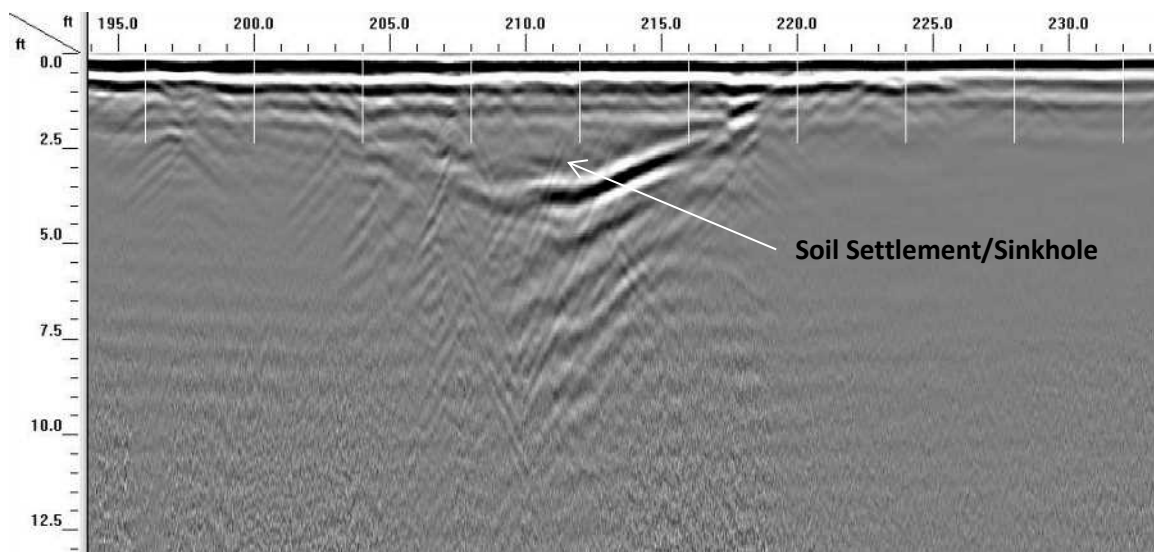
Radar data are typically acquired at a slow walking speed along a grid pattern of survey lines or a series of parallel lines. Data is displayed on LCD screen for field verification and quality control of results and digitally saved. Calibrated measuring wheels are used to automatically added footage/station markers to the digital data. The saved data can be printed or post processed.

Interpretation of GPR data is subjective. GPR results should be verified with borings or test pits. GPR lines indicate a cross-section in time/depth along a survey line.

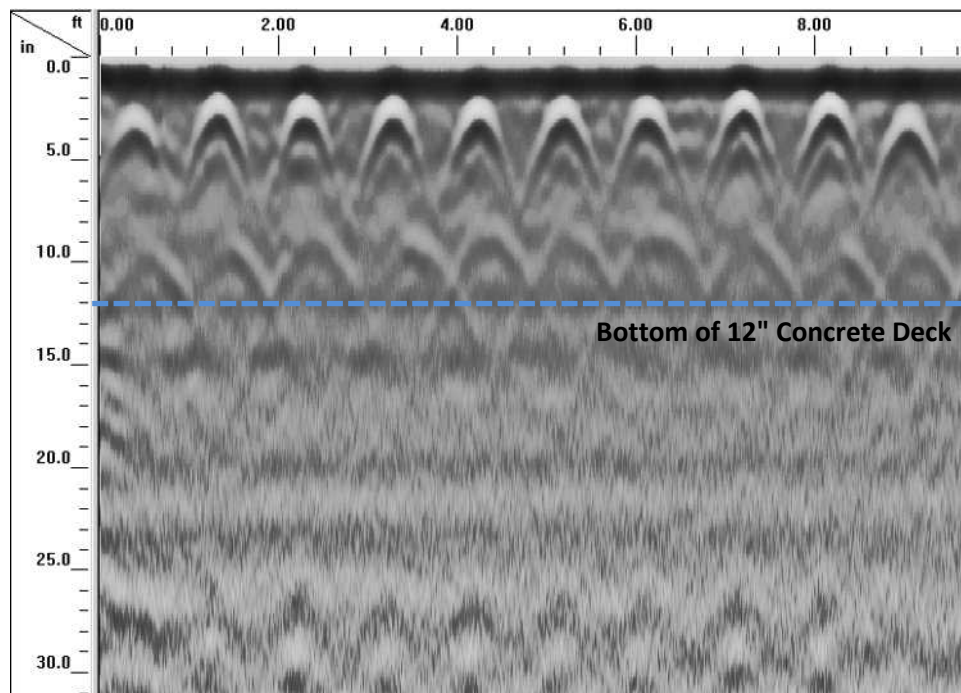
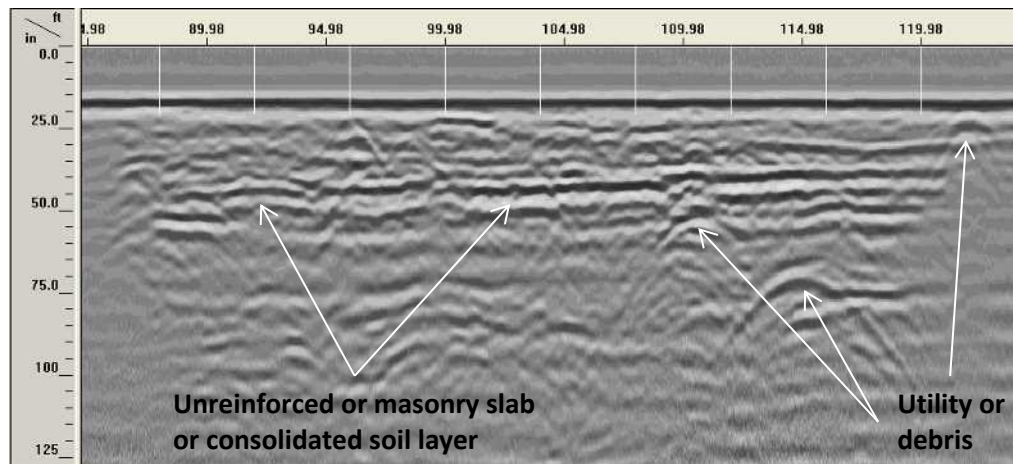
Natural soils or fill placed in lifts during construction retain moisture between material interfaces and typically have horizontal or near horizontal bedding planes. These conditions cause a change in conductivity which shows as continuous reflective layers on GPR data. The strength of a reflected signal and/or the continuity of the reflector across the record may be indicative of a stratigraphic contact, water table, top of rock, back of wall/slab.



Locations where GPR data indicate these horizontal bedding planes/layers are sloping, draped or disturbed can be indication of soil settlement, trenching and/or voiding. Areas where GPR data is less reflective, indicating fine soil materials (clays and silts) have been washed or eroded away or areas that are more reflective, indicating loose soil conditions where moisture has accumulated are also indicative of and associated with settlement, sinkholes, and voiding.



Often point targets, such as reinforcing, buried utilities, boulders, create a distinctive parabolic feature on GPR records. Point targets trending perpendicular to the direction of the line of coverage are detected, therefore to detect longitudinal reinforcing a transverse line of data would be collected and to detect transverse reinforcing, a longitudinal line of data would be collected. Plotting point targets of similar signal strength, depth, and shape located along the grid of GPR lines give the trend and location of individual utilities and/or reinforcing.



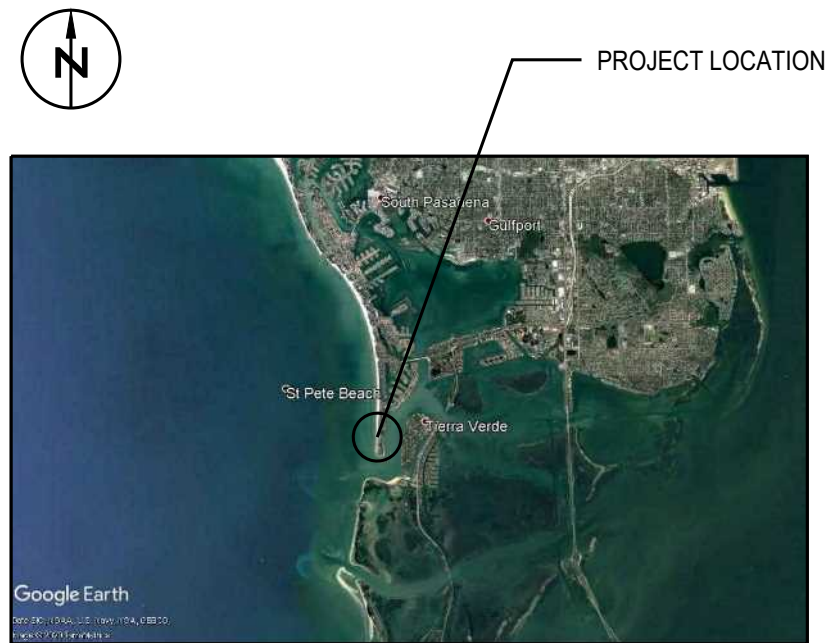
Top Reinforcing
12" spacing
2+/- inches cover

Bottom Reinforcing
12" spacing
8-9 inches cover

Appendix B
GPR Survey Results

GEOPHYSICAL INVESTIGATION REPORT

PASS-A-GRILLE WAY SITE ST. PETERSBURG, FL



CONTENTS	
Sheet Number	Sheet Title
1	Cover Page
2	SiteMap
3	Figure 1
4	Figure 2
5	Figure 3
6	Figure 4
7	Figure 5
8	Figure 6
9	Figure 7
10	Figure 8

DRAWING REVISIONS		
#	DATE	BY DESCRIPTION
0		



PASS-A-GRILLE GPR
PASS-A-GRILLE WAY
ST. PETERSBURG, FL

COVER PAGE

VECTOR CORROSION
SERVICES, INC.
8413 LAUREL FAIR CIRCLE
SUITE 200B
TAMPA, FL 33610
(813) 501-0050
WWW.VCSERVICES.COM
FL CA # 30851

PROJECT NO.
F19086FL

DRAWING NO.
1



DRAWING REVISIONS			
#	DATE	BY	DESCRIPTION
0			



PASS-A-GRILLE GPR
 PASS-A-GRILLE WAY
 ST. PETERSBURG, FL

SITEMAP

VECTOR CORROSION
 SERVICES, INC.
 8413 LAUREL FAIR CIRCLE
 SUITE 200B
 TAMPA, FL 33610
 (813) 501-0050
 WWW.VCSERVICES.COM
 FL CA # 30851

PROJECT NO.
F19086FL

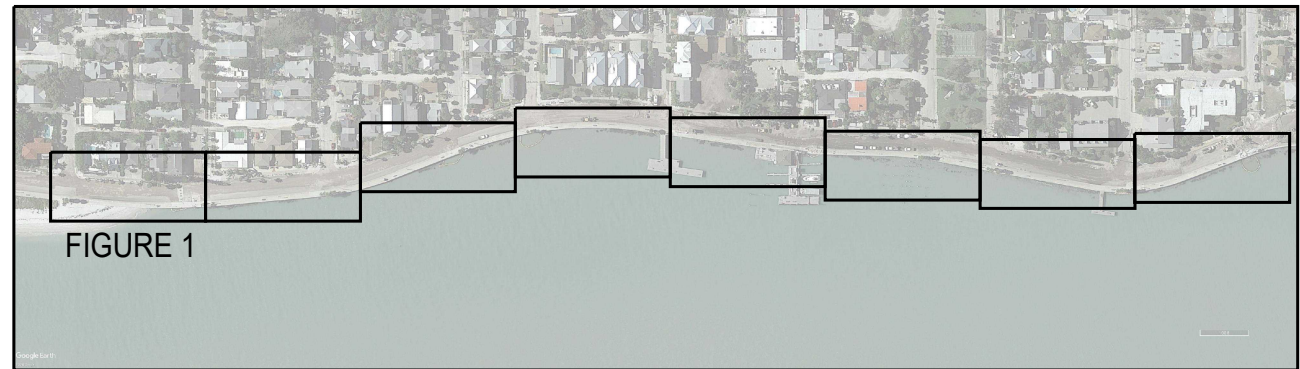
DRAWING NO.
2



LEGEND

-  PATH OF GPR MEASUREMENT
-  TYPE 1: DRAPED/BROKEN LAYERS
-  TYPE 2: SHALLOW ANOMALY
-  TYPE 3: HIGH MOISTURE
-  TYPE 1/ TYPE 3: DRAPED/BROKEN LAYERS + MOISTURE
-  TYPE 4: PREVIOUS REPAIR/ TRENCH

KEYMAP



DRAWING REVISIONS		
#	DATE	DESCRIPTION
0		



PASS-A-GRILLE GPR
 PASS-A-GRILLE WAY
 ST. PETERSBURG, FL

FIGURE 1

VECTOR CORROSION
 SERVICES, INC.
 8413 LAUREL FAIR CIRCLE
 SUITE 200B
 TAMPA, FL 33610
 (813) 501-0050
 WWW.VCSERVICES.COM
 FL CA # 30851

PROJECT NO.
F19086FL

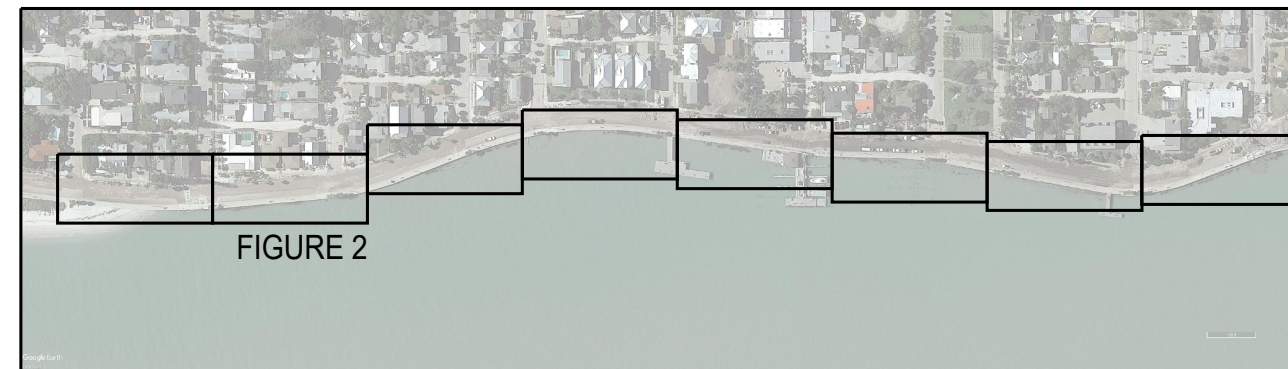
DRAWING NO.
3



LEGEND

-  PATH OF GPR MEASUREMENT
-  TYPE 1: DRAPED/BROKEN LAYERS
-  TYPE 2: SHALLOW ANOMALY
-  TYPE 3: HIGH MOISTURE
-  TYPE 1/ TYPE 3: DRAPED/BROKEN LAYERS + MOISTURE
-  TYPE 4: PREVIOUS REPAIR/ TRENCH

KEYMAP



DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
0			



PASS-A-GRILLE GPR PASS-A-GRILLE WAY ST. PETERSBURG, FL

FIGURE 2

VECTOR CORROSION
SERVICES, INC.
8413 LAUREL FAIR CIRCLE
SUITE 200B
TAMPA, FL 33610
(813) 501-0050
WWW.VCSERVICES.COM
FL CA # 30851

PROJECT NO.
F19086FL

DRAWING NO.
4



LEGEND

- PATH OF GPR MEASUREMENT
-  TYPE 1: DRAPED/BROKEN LAYERS
-  TYPE 2: SHALLOW ANOMALY
-  TYPE 3: HIGH MOISTURE
-  TYPE 1/ TYPE 3: DRAPED/BROKEN LAYERS + MOISTURE
-  TYPE 4: PREVIOUS REPAIR/ TRENCH

KEYMAP



DRAWING REVISIONS			
#	DATE	BY	DESCRIPTION
0			



PASS-A-GRILLE GPR
PASS-A-GRILLE WAY
ST. PETERSBURG, FL

FIGURE 3

VECTOR CORROSION
SERVICES, INC.
8413 LAUREL FAIR CIRCLE
SUITE 200B
TAMPA, FL 33610
(813) 501-0050
WWW.VCSERVICES.COM
FL CA # 30851

PROJECT NO.
F19086FL

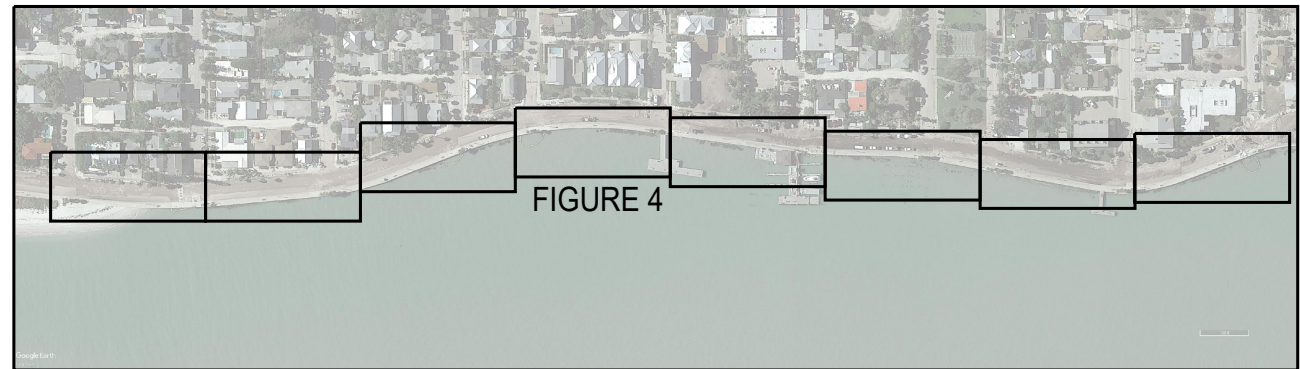
DRAWING NO.
5



LEGEND

-  PATH OF GPR MEASUREMENT
-  TYPE 1: DRAPED/BROKEN LAYERS
-  TYPE 2: SHALLOW ANOMALY
-  TYPE 3: HIGH MOISTURE
-  TYPE 1/ TYPE 3: DRAPED/BROKEN LAYERS + MOISTURE
-  TYPE 4: PREVIOUS REPAIR/ TRENCH

KEYMAP



DRAWING REVISIONS			
#	DATE	BY	DESCRIPTION
0			



PASS-A-GRILLE GPR
 PASS-A-GRILLE WAY
 ST. PETERSBURG, FL

FIGURE 4

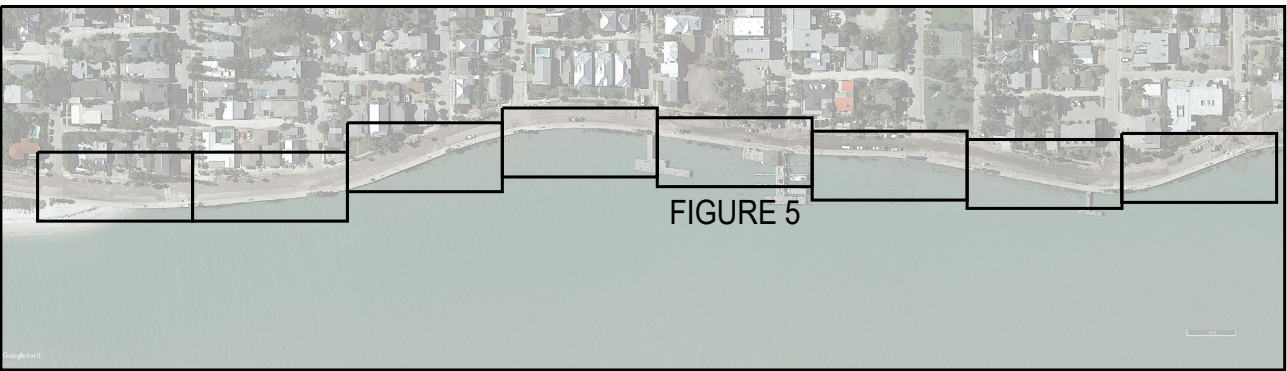
VECTOR CORROSION SERVICES, INC. 8413 LAUREL FAIR CIRCLE SUITE 200B TAMPA, FL 33610 (813) 501-0050 WWW.VCSERVICES.COM FL CA # 30851	
PROJECT NO.	F19086FL
DRAWING NO.	6



LEGEND

- PATH OF GPR MEASUREMENT
- [Diagonal hatching] TYPE 1: DRAPED/BROKEN LAYERS
- [Cross-hatching] TYPE 2: SHALLOW ANOMALY
- [Diagonal hatching, different angle] TYPE 3: HIGH MOISTURE
- [Vertical line pattern] TYPE 1/ TYPE 3: DRAPED/BROKEN LAYERS + MOISTURE
- [Diagonal hatching, different angle] TYPE 4: PREVIOUS REPAIR/ TRENCH

KEYMAP



DRAWING REVISIONS			
#	DATE	BY	DESCRIPTION
0			



PASS-A-GRILLE GPR
PASS-A-GRILLE WAY
ST. PETERSBURG, FL

FIGURE 5

VECTOR CORROSION
SERVICES, INC.
8413 LAUREL FAIR CIRCLE
SUITE 200B
TAMPA, FL 33610
(813) 501-0050
WWW.VCSERVICES.COM
FL CA # 30851

PROJECT NO.
F19086FL

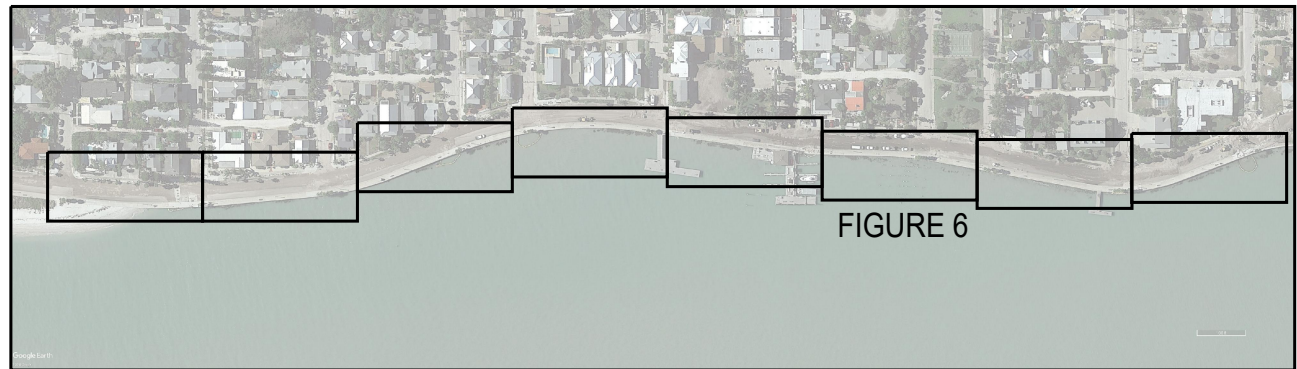
DRAWING NO.
7



LEGEND

- PATH OF GPR MEASUREMENT
-  TYPE 1: DRAPED/BROKEN LAYERS
-  TYPE 2: SHALLOW ANOMALY
-  TYPE 3: HIGH MOISTURE
-  TYPE 1/ TYPE 3: DRAPED/BROKEN LAYERS + MOISTURE
-  TYPE 4: PREVIOUS REPAIR/ TRENCH

KEYMAP



DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
0			



PASS-A-GRILLE GPR

PASS-A-GRILLE WAY
ST. PETERSBURG, FL

FIGURE 6

VECTOR CORROSION
SERVICES, INC.
8413 LAUREL FAIR CIRCLE
SUITE 200B
TAMPA, FL 33610
(813) 501-0050
WWW.VCSERVICES.COM
FL CA # 30851

PROJECT NO.
F19086FL

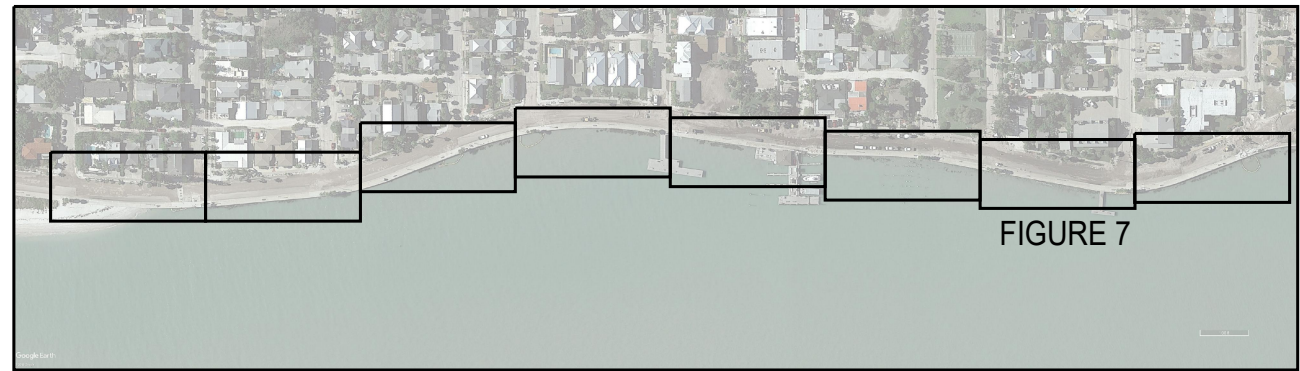
DRAWING NO.
8



LEGEND

-  PATH OF GPR MEASUREMENT
-  TYPE 1: DRAPED/BROKEN LAYERS
-  TYPE 2: SHALLOW ANOMALY
-  TYPE 3: HIGH MOISTURE
-  TYPE 1/ TYPE 3: DRAPED/BROKEN LAYERS + MOISTURE
-  TYPE 4: PREVIOUS REPAIR/ TRENCH

KEYMAP



DRAWING REVISIONS			
#	DATE	BY	DESCRIPTION
0			



PASS-A-GRILLE GPR
 PASS-A-GRILLE WAY
 ST. PETERSBURG, FL

FIGURE 7

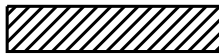
VECTOR CORROSION
 SERVICES, INC.
 8413 LAUREL FAIR CIRCLE
 SUITE 200B
 TAMPA, FL 33610
 (813) 501-0050
 WWW.VCSERVICES.COM
 FL CA # 30851

PROJECT NO.
 F19086FL

DRAWING NO.
 9



LEGEND

-  PATH OF GPR MEASUREMENT
-  TYPE 1: DRAPED/BROKEN LAYERS
-  TYPE 2: SHALLOW ANOMALY
-  TYPE 3: HIGH MOISTURE
-  TYPE 1/ TYPE 3: DRAPED/BROKEN LAYERS + MOISTURE
-  TYPE 4: PREVIOUS REPAIR/ TRENCH

KEYMAP

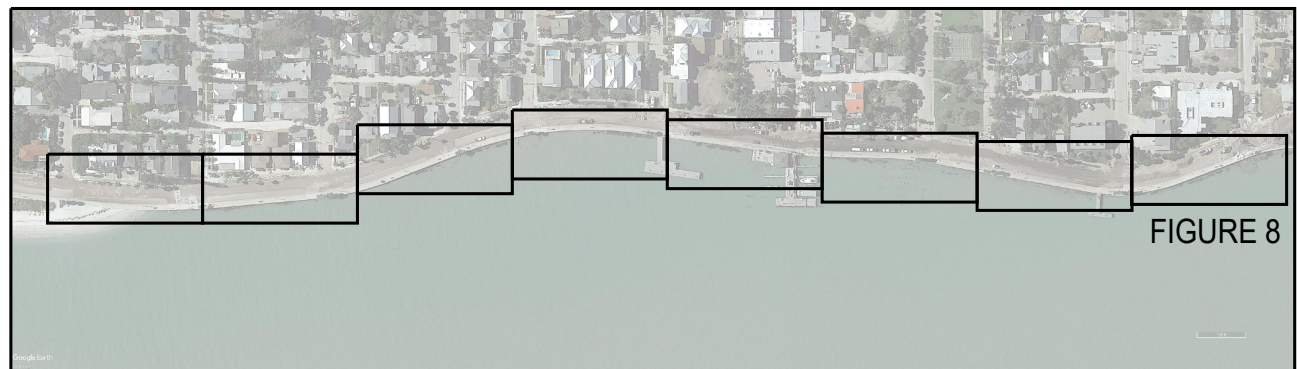


FIGURE 8

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
0			



PASS-A-GRILLE GPR
 PASS-A-GRILLE WAY
 ST. PETERSBURG, FL

FIGURE 8

VECTOR CORROSION
 SERVICES, INC.
 8413 LAUREL FAIR CIRCLE
 SUITE 200B
 TAMPA, FL 33610
 (813) 501-0050
 WWW.VCSERVICES.COM
 FL CA # 30851

PROJECT NO.
 F19086FL

DRAWING NO.
 10

APPENDIX C AQUATIC RESOURCE SURVEY

Environmental Due Diligence

Pass-a-Grille Seawall Repair Project

September 30, 2019



Table of Contents

1	Introduction	1-1
2	Ecological Description.....	2-5
2.1	Study Area.....	2-5
2.2	Benthic and Open Water Habitat.....	2-5
2.3	Protected Species Assessment.....	2-9
2.3.1	Marine Mammals and Sea Turtles	2-13
2.3.2	Fish.....	2-13
2.3.3	Birds	2-14
3	Recommendations	3-15
4	References.....	4-15

Tables

Table 1. Potential Occurrence of Listed Species in the Vicinity of the Project, Pinellas County, Florida.	2-9
--	-----

Figures

Figure 1. Location Map	1-2
Figure 2. USGS Topographic Map.....	1-3
Figure 3. Aerial Map.....	1-4
Figure 4. Aquatic Resources Map.....	2-6
Figure 5. Seagrasses within Project Boundary, Turtle Grass	2-7
Figure 6. Seagrasses, Manatee grass	2-7
Figure 7. Benthic fauna, Robust ivory coral, with caulerpa.....	2-8
Figure 8. Benthic Fauna, Gray snapper	2-8

Acronyms

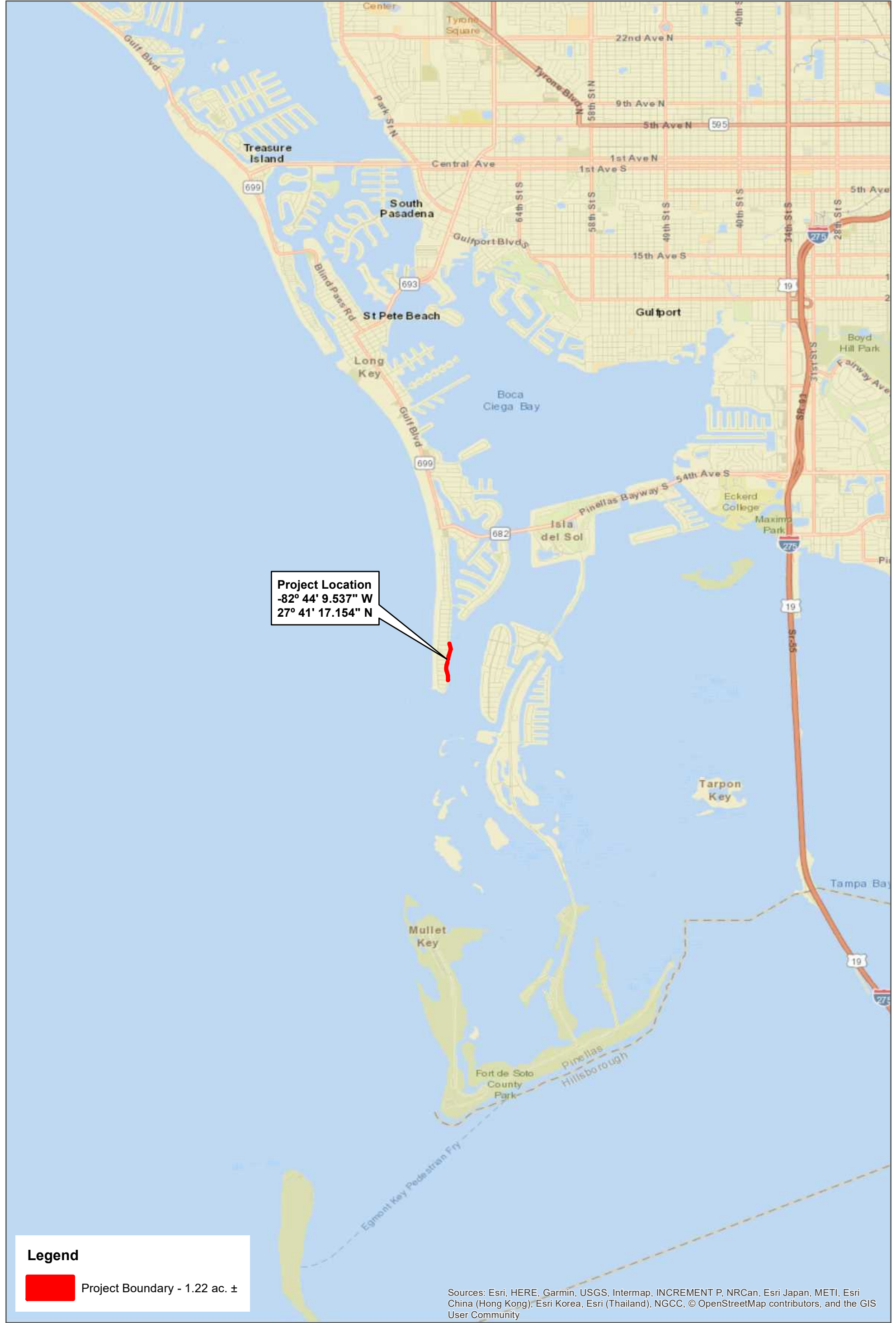
BGEPA	Bald and Golden Eagle Protection Act
City	City of St. Pete Beach
ESA	Endangered Species Act
FNAI	Florida Natural Areas Inventory
FWC	Florida Fish and Wildlife Conservation Commission
JAXBO	Jacksonville District's Programmatic Biological Opinion
NOAA	National Oceanic and Atmospheric Administration
Project	Pass-a-Grille seawall repair project
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey
USFWS	United States Fish and Wildlife Service

This Page Intentionally Left Blank

1 Introduction

Cardno was retained by the City of St. Pete Beach (City) to develop alternatives to address the existing damage and deterioration of the seawall along Pass-a-Grille Way. The Pass-a-Grille seawall repair project (Project) is located in the City of St. Pete Beach, Pinellas County, Florida within Township 32 South, Range 16 East, and Section 19 (Figure 1 – Location Map, Figure 2 – USGS Topographic Map). The seawall, extends along Pass-a-Grill Way and Pass-a-Grille Channel from 12th Ave at the northern extent to 3rd Ave at the southern extent (Figure 3 – Aerial Map).

The purpose of this Environmental Due Diligence report is to provide the results of the habitat assessment within the Project boundary, including a characterization of the benthic habitats, presence of aquatic resources, presence or potential presence of listed species, and the occurrence of non-listed wildlife species, in order to assist with the development of alternatives and recommendations to be summarized in a Basis of Design Report, and provided to the City.



Legend



Project Boundary - 1.22 ac. ±

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

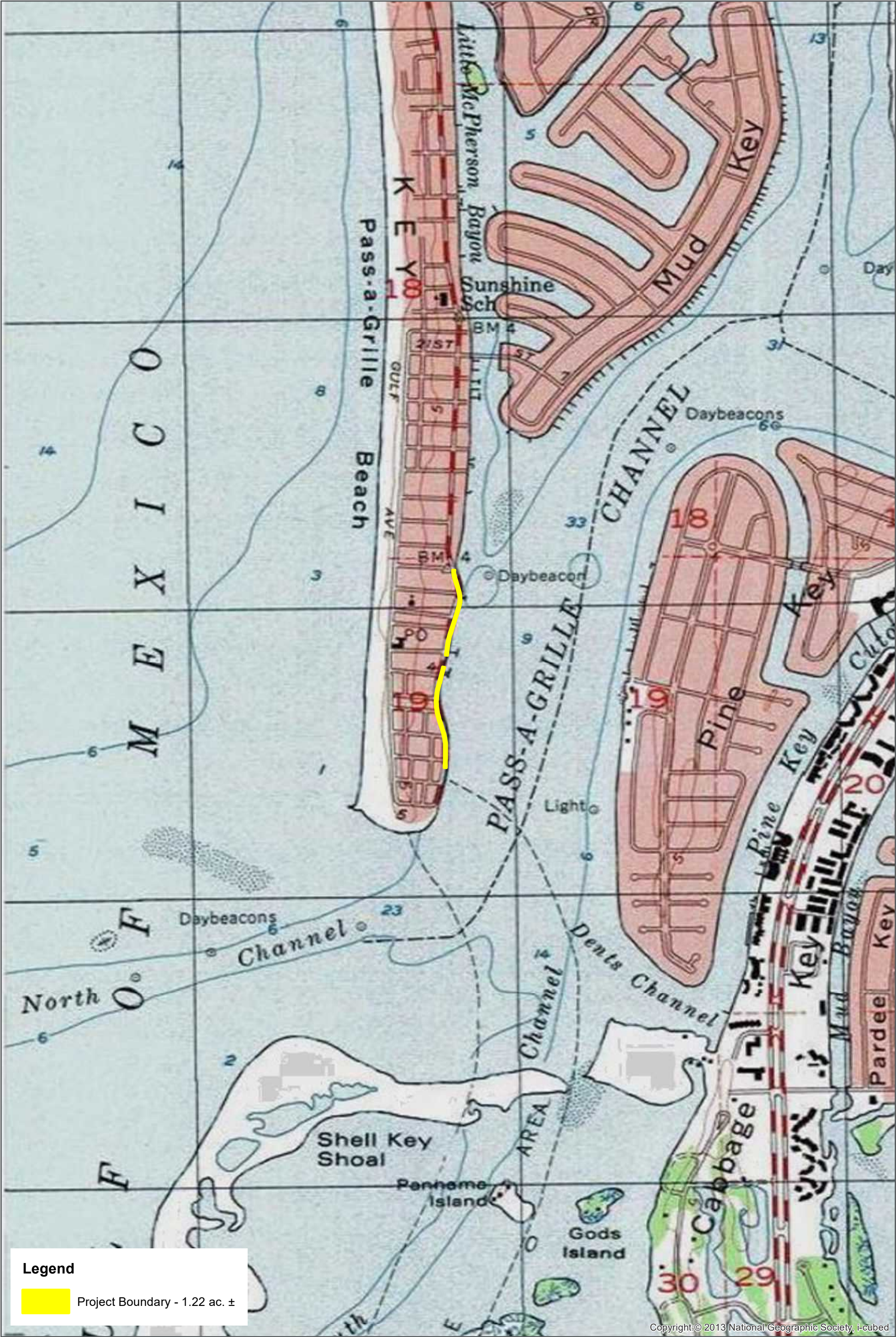


This map and all data contained within are supplied as is with no warranty. Cardno Inc. expressly disclaims responsibility for damages or liability from any claims that may arise out of the use or misuse of this map. It is the sole responsibility of the user to determine if the data on this map meets the user's needs. This map was not created as survey data; nor should it be used as such. It is the user's responsibility to obtain proper survey data, prepared by a licensed surveyor, where required by law.

Project Location
Pass-a-Grille Seawall Repair Project
Pinellas County, Florida



3905 Crescent Park Drive, Riverview, FL 33578 USA
Phone (+1) 813-664-4500 Fax (+1) 813-664-0440
www.cardno.com



Copyright:© 2013 National Geographic Society, i-cubed

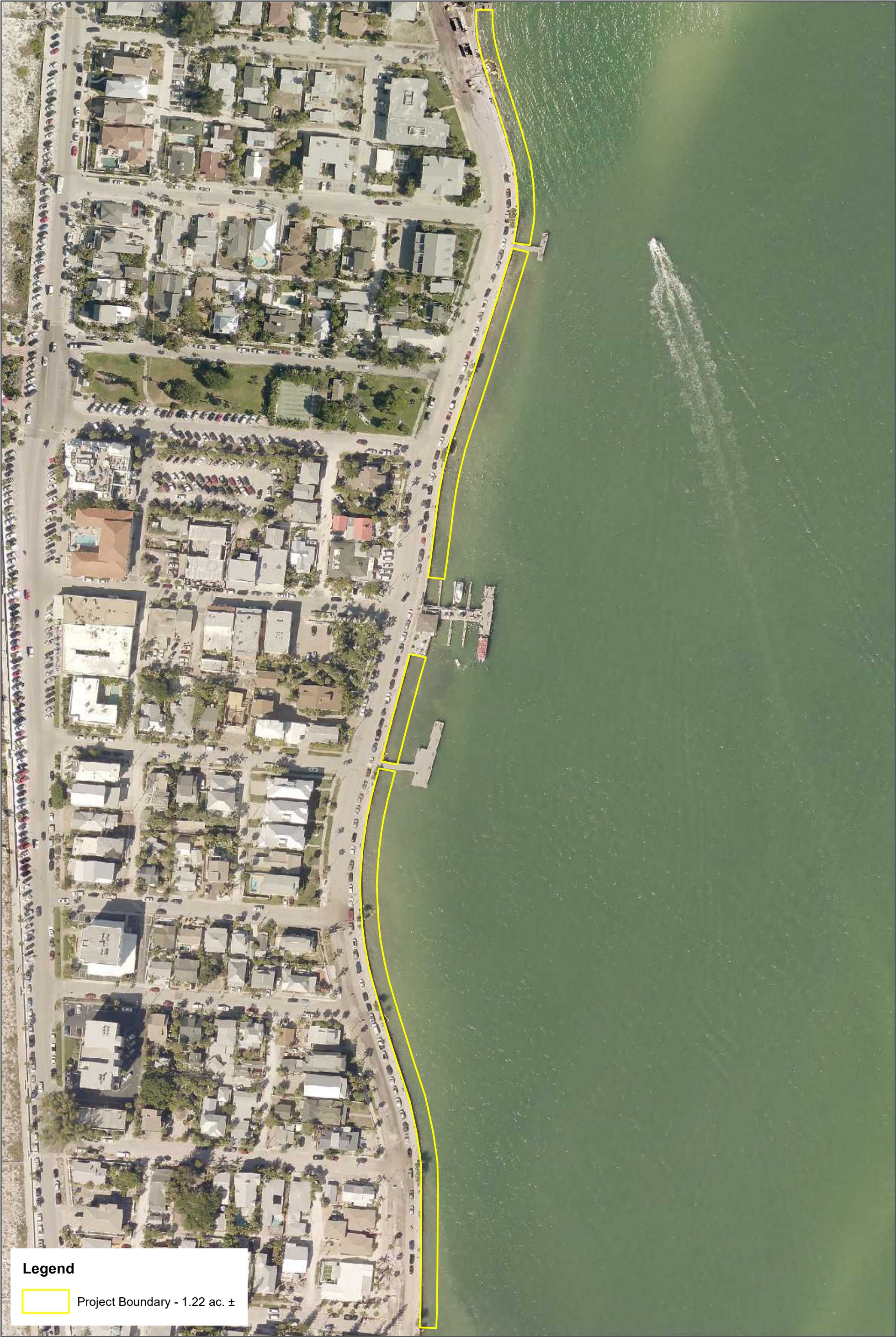


This map and all data contained within are supplied as is with no warranty. Cardno Inc. expressly disclaims responsibility for damages or liability from any claims that may arise out of the use or misuse of this map. It is the sole responsibility of the user to determine if the data on this map meets the user's needs. This map was not created as survey data, nor should it be used as such. It is the user's responsibility to obtain proper survey data, prepared by a licensed surveyor, where required by law.

USGS QUAD
Pass-a-Grille Seawall Repair Project
Pinellas County, Florida



3905 Crescent Park Drive, Riverview, FL 33578 USA
Phone (+1) 813-664-4500 Fax (+1) 813-664-0440
www.cardno.com



Legend

Project Boundary - 1.22 ac. ±

2 Ecological Description

2.1 Study Area

The Project is located along approximately 0.45 miles of seawall, bordering paved sidewalk and roadway on the landward side, and Pass-a-Grille Channel on the seaward side which is classified as Estuarine/Marine Deepwater by the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) database (USFWS 2019). On September 23, 2019, ecologists from Cardno conducted an aquatic resources survey, along the seawall, extending 25 feet into the channel (1.22 acres $\pm$). Two ecologists swam parallel transects along the seawall, with the assistance of a topside observer, to assess and delineate the benthic habitat types, and document the presence of aquatic resources, listed species, and provide general wildlife observations within the Project boundary.

2.2 Benthic and Open Water Habitat

The benthic environment with the Project boundary is characterized by four main habitats, riprap/rubble, seagrass, benthic fauna, and sand (Figure 4 – Aquatic Resources Map). The details of these habitat types are discussed below.

Riprap/Rubble (0.52 acres $\pm$)

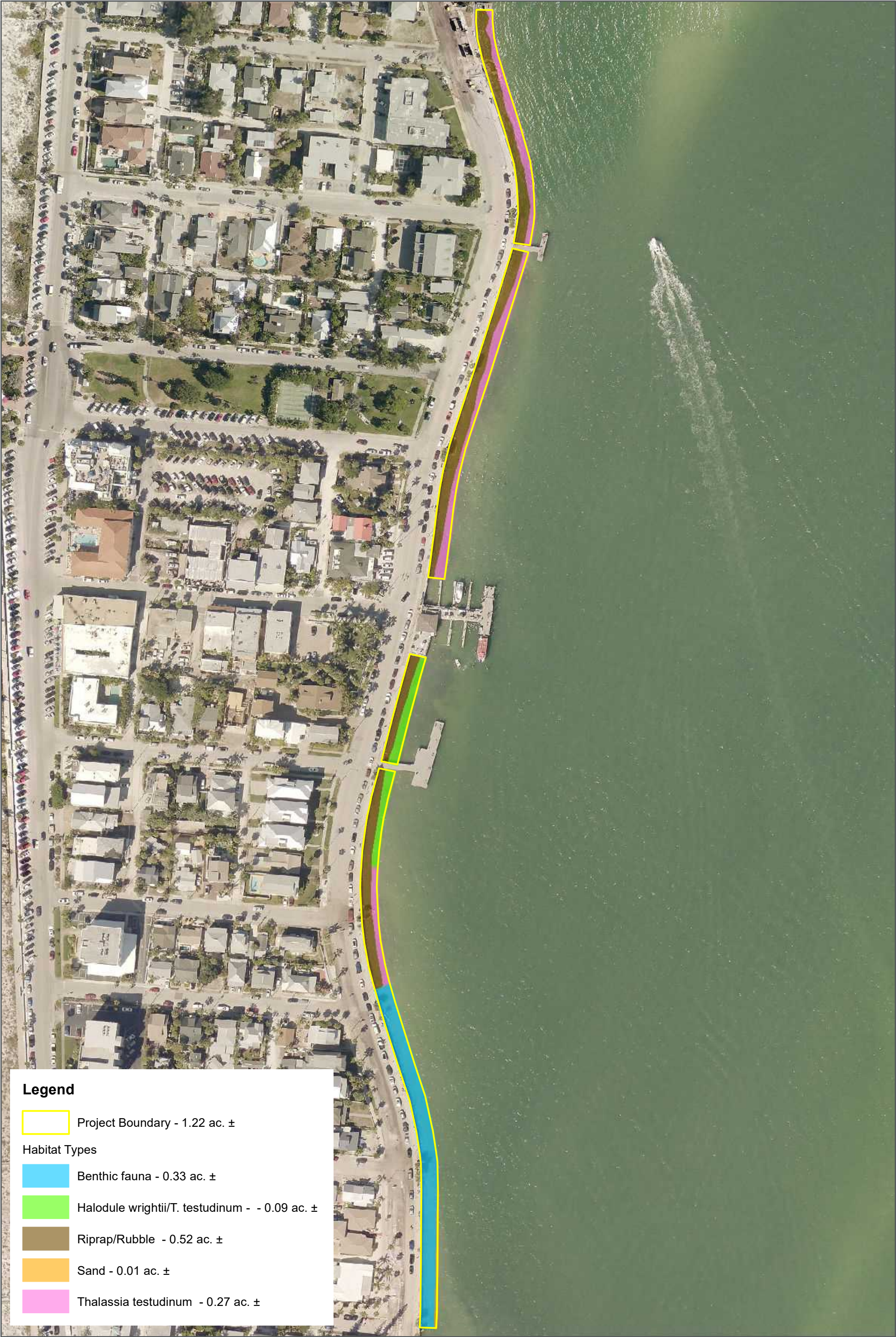
Large riprap and cement rubble extends an approximate average of 12 feet from the seawall towards the channel. The riprap/rubble is covered with filamentous algae near the water surface, and relatively bare at the base. Water depth at this location ranges from approximately 0 to 3 feet.

Seagrass (0.36 acres $\pm$)

Aside from the southern-most third of the Project area, dense seagrass beds occupy the benthic substrate from the toe of the riprap/rubble to the seaward extent of the Project boundary, and into the channel. There are two distinct seagrass types. Turtle grass (*Thalassia testudinum*) (0.27 acres $\pm$) dominates the northern half of the Project boundary, with a smaller section to the south (Figure 5). Between these two stretches of turtle grass, a section of manatee grass (*Syringodium filiforme*), dominated, while interspersed with turtle grass (0.09 acres $\pm$). Additionally, various algae species such as attached Sargassum (*Sargassum sp.*), caulerpa (*Caulerpa mexicana*), and branched brown algae (*Dictyota sp.*) (Figure 6). Water depth at this location ranges from approximately 3 feet to 6 feet.

Benthic Fauna (0.33 acres $\pm$)

The benthic fauna community occupies the southern-most third of the Project boundary. There is no natural hard bottom, but large riprap and debris have created substrate for benthic organism attachment. There is a clear delineation between where the seagrass community ends and the benthic faunal community begins. In this area, the bottom slopes to approximately 8 feet at the edge of the Project boundary. Larger pieces of riprap and rubble extend further from the seawall than in the northern extent. The attached and encrusting benthic community included robust ivory tree coral (*Oculina robusta*), colorful sea whip (*Leptogorgia virgulata*), boring sponge (*Cliona celata*), and other sponge and tunicate species (Figure 7). Sheepshead (*Archosargus probatocephalus*) and gray snapper (*Lutjanus griseus*) were observed utilizing the relief created by the rubble (Figure 8). Small schools of Atlantic bumper (*Chloroscombrus chrysurus*) were observed in the water column above the rubble and seagrass.



Legend

- Project Boundary - 1.22 ac. ±
- Habitat Types
- Benthic fauna - 0.33 ac. ±
- Halodule wrightii/T. testudinum - - 0.09 ac. ±
- Riprap/Rubble - 0.52 ac. ±
- Sand - 0.01 ac. ±
- Thalassia testudinum - 0.27 ac. ±



This map and all data contained within are supplied as is with no warranty. Cardno Inc. expressly disclaims responsibility for damages or liability from any claims that may arise out of the use or misuse of this map. It is the sole responsibility of the user to determine if the data on this map meets the user's needs. This map was not created as survey data, nor should it be used as such. It is the user's responsibility to obtain proper survey data, prepared by a licensed surveyor, where required by law.

Aquatic Resources Map
Pass-a-Grille Seawall Repair Project
Pinellas County, Florida



3905 Crescent Park Drive, Riverview, FL 33578 USA
Phone (+1) 813-664-4500 Fax (+1) 813-664-0440
www.cardno.com



Figure 5. Seagrasses within Project Boundary, Turtle Grass



Figure 6. Seagrasses, Manatee grass



Figure 7. Benthic fauna, Robust ivory coral, with caulerpa.



Figure 8. Benthic Fauna, Gray snapper

2.3 Protected Species Assessment

The benthic and open water habitat within the Project boundary provide potential habitat for a variety of state and federally listed species. A discussion follows for each of those identified species considered possible or likely to occur, and any of those species documented to occur (as a result of biological surveys or literature review), in habitats within or near the Project. The discussion provides the current status of the species, occurrence within or near the Project, and any specific conservation measures implemented as necessary to avoid or minimize potential adverse impacts from the work and to demonstrate regulatory compliance. A table of state and federally listed species, and their presence and likely presence within the Project boundary in Pinellas County (FNAI 2019, USFWS 2019a) is provided as Table 1. Any species unlikely to occur in the Project boundary are not addressed further.

The U.S. Army Corps of Engineers (USACE) Jacksonville District's Programmatic Biological Opinion (JAXBO) for Authorization of Minor In-Water Activities (2017) represents NOAA Fisheries' Opinion based on review of impacts associated with shoreline stabilization projects (Activity 1, A1), which includes installation, repair (all forms of maintenance), replacement, and removal of vertical seawalls (including footers) and shoreline stabilization materials used to protect shorelines. These structures are typically installed either from the land or from a shallow-draft barge. The JAXBO covers repair and replacement of seawalls up to 18-inch water ward of most existing seawalls, and is consistent with the Florida Department of Environmental Protection Exempt Activities (Section 62-330.051). The JAXBO provides project design criteria (PDC) for minimization of impacts to Endangered Species Act (ESA) listed species.

Table 1. Potential Occurrence of Listed Species in the Vicinity of the Project, Pinellas County, Florida.

Common Name	Scientific Name	Listing Status		Preferred Habitat	Survey Window	Occurrence in Project Boundary
		Federal	State			
Fish						
Gulf Sturgeon	<i>Acipenser oxyrinchus desotoi</i>	T	FT	Forages in Gulf of Mexico and associated estuaries; spawns in most major coastal rivers in areas with limestone outcrops. Spend the coldest three to four months in the Gulf and the remainder of the year in rivers where spawning occurs. Spawning typically takes place February – April.	Year-round	Possible
Smalltooth Sawfish	<i>Pristis pectinata</i>	E	FE	Smaller sawfish inhabit shallow water, estuarine habitats, with vegetation that supports foraging for shrimp, crabs, and small fish. Larger individuals can be found in deeper coastal waters.	Year-round	Possible, Project NOT in designated critical habitat
Reptiles						
Loggerhead Sea Turtle	<i>Caretta caretta</i>	T	FT	Marine coastal and oceanic waters, nest on coastal sand beaches often near the dune line, high enough to avoid tidal inundation.	May-Oct (nesting only)	Possible swimming, no nesting habitat; Project NOT in designated critical habitat

Green Sea Turtle	<i>Chelonia mydas</i>	T	FT	Estuarine and marine coastal, and oceanic waters, nest on coastal sand beaches often near dune line.	May-Oct (nesting only)	Possible swimming, no nesting habitat
Leatherback Sea Turtle	<i>Dermochelys coriacea</i>	E	FE	Oceanic waters, nests on coastal sand beaches. Rarely seen in coastal waters except during adult nesting, and hatchling dispersal.	May-Oct (nesting only)	Possible swimming, no nesting habitat; Project NOT in designated critical habitat
Hawksbill Sea Turtle	<i>Eretmochelys imbricata</i>	E	FE	Marine coastal and oceanic waters, commonly associated with coral reefs, keys, and mangroves. Nest on coastal sand beaches, often in vegetation.	May-Oct (nesting only)	Possible swimming, no nesting habitat; Project NOT in designated critical habitat
Kemp's Ridley Sea Turtle	<i>Lepidochelys kempii</i>	E	FE	Distributed throughout the Gulf of Mexico and US coast from Florida to New England, nearly all nesting has been documented along the coast of Mexico, with a few sightings in Florida, South Carolina, and North Carolina. Kemp's Ridelys will leave their nesting grounds and forage in sandy and muddy bottoms in coastal waters throughout the Gulf, including Florida.	May-Oct (nesting only)	Possible swimming, no nesting habitat
Birds						
Red Knot	<i>Calidris canutus rufa</i>	T	FT	Highly migratory shorebird wintering in areas including the southeast United States, including Florida. Non-breeding habitat includes coastal marine and estuarine environments with large areas of expose intertidal sediments. Areas can include both high-energy ocean/bay fronts as well as tidal flats	Wintering	Unlikely, no nesting or forage habitat
Piping Plover	<i>Charadrius melodus</i>	T	FT	Migratory shorebird, breeding in the northern Great Plains, and winter from North Carolina to Florida and the Gulf Coast states. Winters along sandy beaches, sand flats, and mudflats along coastal areas	Feb-Aug	Unlikely, no nesting or forage habitat; Project NOT in designated critical habitat
Snowy Plover	<i>Charadrius nivosus</i>	--	ST	Preferred habitat includes dry sandy beaches, nesting in shallow depressions, near vegetation or debris. They forage in tidal flats along inlets and creeks	Feb-Aug	Unlikely, no nesting or forage habitat

Little Blue Heron	<i>Egretta caerulea</i>	--	ST	Feeds in shallow freshwater, brackish, and saltwater habitats, nesting in colonies in a variety of vegetation types including cypress, willow, maple, black mangrove, and cabbage palm. While the largest nesting colonies are found in coastal areas, preferred foraging is freshwater lakes, marshes, swamps, and streams.	Mar-Nov	Possible forage habitat; no nesting habitat
Reddish Egret	<i>Egretta rufescens</i>	--	ST	Primarily forages in shallow coastal habitats including tidal flats, salt ponds, lagoons, and open mangrove communities. Typically nests on natural islands or man-made spoil islands with nests generally constructed in mangroves 3 - 6 meters above the ground or water. Nests are sometimes placed on ground among low vegetation or on bare sand or shell beach ridges.	Mar-Nov	Possible forage habitat; no nesting habitat
Tricolored Heron	<i>Egretta tricolor</i>	--	ST	Nesting colonies primarily occur on mangrove islands or in willow thickets in fresh water; feeds in a variety of permanently and seasonally flooded wetlands, mangrove swamps, tidal creeks, ditches, and edges of ponds and lakes.	Mar-Nov	Unlikely, no nesting or forage habitat
American Oystercatcher	<i>Haematopus palliatus</i>	--	ST	Requires large areas of beach, sandbar, mud flat, and shellfish beds for foraging; utilizes sparsely vegetated, sandy areas for nesting, but will also use beach wrack and marsh grass; large expanses of suitable nesting areas generally are needed.	Feb-Aug	Unlikely, no nesting or forage habitat
Bald Eagle	<i>Haliaeetus leucocephalus</i>	BGEPA	--	Found in areas close to coastal areas, bays, rivers, lakes, or other bodies of water that provide concentrations of food sources, including fish, waterfowl, and wading birds. Usually nests in tall trees (mostly pines) that provide clear views of surrounding area.	Oct-May	Possible forage habitat; Known nesting locations approximately 1.1 miles (PI048), and 3.1 miles (PI059) away
Eastern Black Rail	<i>Laterallus jamaicensis</i> spp. <i>jamaicensis</i>	PT	N	Elusive marsh bird, inhabiting salt, brackish, and freshwater marsh habitats that have dense herbaceous vegetative cover.	Year round	Unlikely, no nesting or forage habitat

Wood Stork	<i>Mycteria americana</i>	T	FT	Nests colonially in a variety of inundated forested wetlands, including cypress strands and domes, mixed hardwood swamps, sloughs, and mangroves; increasingly nesting in artificial habitats; forages mainly in shallow water in freshwater marshes, swamps, lagoons, ponds, tidal creeks, flooded pastures and ditches. Project area included within the 15-mile CFA of a known nest.	Mar-Nov	Unlikely, no nesting habitat; Outside of core foraging areas of known colonies
Red-cockaded Woodpecker	<i>Picoides borealis</i>	E	FE	Inhabits open, mature pine woodlands, with a diversity of grass, forb, and shrub understory species. Occupies primarily longleaf pine flatwoods, and mixed longleaf pine and slash pine habitats. Not known to occur in Pinellas County, but FWS IPaC radius includes neighboring counties where the RCW is known to occur.	Year round	Unlikely, no nesting or forage habitat
Roseate Spoonbill	<i>Platalea ajaja</i>	--	ST	It primarily nests in mixed-species colonies on coastal mangrove islands or in Brazilian pepper on man-made dredge spoil islands near suitable foraging habitat. Forages in shallow water of variable salinity, including marine tidal flats and ponds, coastal marshes, mangrove dominated inlets and pools, and freshwater sloughs and marshes.	Mar-Nov	Unlikely, no nesting or forage habitat
Black Skimmer	<i>Rynchops niger</i>	--	ST	Inhabits coastal areas in Florida including beaches, bays, estuaries, sandbars, and tidal creeks. Nests primarily on sandy beaches, small coastal islands, and dredge spoil islands, but also on gravel rooftops.	Feb-Aug	Possible forage habitat; no nesting habitat
Least Tern	<i>Sternula antillarum</i>	--	ST	Inhabits areas along the coasts of Florida including beaches, lagoons, bays, and estuaries; increasingly use artificial nesting sites, including gravel rooftops, dredge spoil islands or other dredged material deposits, construction sites, causeways, and mining lands; nesting areas have a substrate of well-drained sand or gravel and usually have little vegetation.	Feb-Aug	Possible forage habitat; no nesting habitat
	Mammals					
West Indian Manatee	<i>Trichechus manatus</i>	T	FT	Live in marine, brackish, and freshwater systems in coastal and riverine areas throughout their range. They feed along seagrass bed margins with access to deep water channels. Florida manatees can be found throughout Florida for most of the year.	Year-round	Observed; forage habitat within project area

State: ST = State Threatened, FE = Federally Endangered, FT = Federally Threatened
Federal: E = Endangered, T = Threatened, PT = Proposed Threatened, BGEPA = Bald and Golden Eagle Protection Act

2.3.1 Marine Mammals and Sea Turtles

West Indian Manatee

The West Indian Manatee (*Trichechus manatus*) is listed as federally threatened by the USFWS under the ESA, and are afforded further protections under the federal Marine Mammal Protection Act. At the state level, manatees are protected by the Florida Manatee Sanctuary Act (379.2431 (2)). The Project study area does not fall within the USFWS designated West Indian Manatee Critical Habitat. The main threats to the manatee include collisions with water craft, habitat loss including seagrass beds, harassment and human disturbance, red tide, and trash and debris. Dense seagrass beds within the Project boundary provide forage for manatees. Prior to the commencement of the benthic survey, one manatee was observed foraging on seagrasses the area in the immediate vicinity of the Project. Direct impacts to the West Indian Manatee have the potential to occur during construction due to collision with vessels, and entanglement in turbidity and sedimentation control devices.

If construction from the water cannot be avoided, it is recommended that construction activities comply with the USFWS *Standard Manatee Conditions for In-Water Work* (2011), including construction personnel species education, species signage during construction activities, vessel operation at "Idle Speed/No Wake", proper construction and installation of siltation control, daily monitoring during in-water work, and prompt reporting to the FWC hotline, and USFWS office.

Sea Turtles

Multiple species of sea turtles have the potential to traverse waters or forage in the seagrass beds within the Project boundary, including the loggerhead sea turtle (*Caretta caretta*), green sea turtle (*Chelonia mydas*), hawksbill sea turtle (*Eretmochelys imbricata*), Kemp's ridley sea turtle (*Lepidochelys kempii*), and the leatherback sea turtle (*Dermochelys coriacea*). The green sea turtle and the loggerhead sea turtle are both listed as federally threatened, and the leatherback sea turtle, Kemp's ridley sea turtle, and hawksbill sea turtle are listed as federally endangered. The species are further protected by state and local laws. Threats to sea turtles include artificial lighting and urban sky glow, boating traffic, pollution and plastic ingestion, entanglement with fishing gear, and loss of forage and nesting habitat due to coastal development. Sea turtle nesting and hatching season in Pinellas County occurs between May 1st and October 31st, with a peak in June and July. Nesting occurs primarily at night. There is no habitat for nesting within the Project boundary.

The USACE JAXBO evaluated the effect that placement of shoreline stabilization materials in shallow water environments could have on sea turtles. The water bottom habitat contains non-ESA listed species of seagrass, which the JAXBO recommends avoidance and minimization of impacts to the extent practicable, as these areas are provide forage for sea turtles, and habitat for other prey items for sea turtles, including crustaceans, mollusks, fish, jellyfish, shrimp, and other benthic organisms. Through avoidance of impacts to seagrass beds, the JAXBO assumes the effect to sea turtles due to the loss potential loss of nearshore foraging habitat would be insignificant, and the routes of effect from shoreline stabilization projects are not likely to adversely affect sea turtles.

2.3.2 Fish

Gulf Sturgeon

The Gulf sturgeon (*Acipenser oxyrinchus desotoi*) is listed as federally threatened by NOAA Fisheries under the ESA. The reproducing populations in the Gulf of Mexico and its major rivers have been observed from Lake Pontchartrain and Pearl River systems in Louisiana, to the Suwannee River in Florida, and are under jurisdiction of the USFWS. Non-breeding individuals have been observed along the Florida Gulf coast as far south as Charlotte Harbor, and including Tampa Bay, and are under jurisdiction of National Oceanic and Atmospheric Administration (NOAA) Fisheries, while the Project area is outside of the Gulf sturgeon critical habitat, the potential exists for the species to occur within the Project boundary, therefore requires consultation with NOAA Fisheries.

The USACE JAXBO evaluated the effect that placement of shoreline stabilization materials in shallow water environments could have on gulf sturgeon. Shoreline stabilization project have the potential to cover and bury nearshore foraging habitat, containing prey items such as benthic worms and insects, crustaceans, and mollusks. Gulf sturgeon tend to forage along sandy bottoms between 6 and 13 feet deep, characterized by low relief substrate. As such, gulf sturgeon would likely forage in areas deeper than those affected by shoreline stabilization projects. As the Project is outside of gulf sturgeon critical habitat, the JAXBO assumes the effect to gulf sturgeon due to the loss potential loss of nearshore foraging habitat would be insignificant, and the routes of effect from shoreline stabilization projects are not likely to adversely affect gulf sturgeon.

Smalltooth sawfish

The smalltooth sawfish (*Pristis pectinata*) is listed as federally endangered by NOAA Fisheries under the ESA. In Florida, the smalltooth sawfish is found most often in the waters of southwest Florida from Charlotte Harbor, south through the Everglades. Larger juveniles and adults can be found in shallow estuaries, waters of beaches, and along deep water reefs, where waters are above 64°F. Smaller individuals tend to inhabit shallow waters, particularly less than 3 feet, and prefer waters slightly warmer, at least 70°F. While the smalltooth sawfish is not common in Tampa Bay, and the Project area is outside of the smalltooth sawfish critical habitat, the potential exists for it to occur, and therefore requires consultation with NOAA Fisheries.

The USACE JAXBO evaluated the effect that placement of shoreline stabilization materials in shallow water environments could have on smalltooth sawfish. The project does not occur within smalltooth sawfish critical habitat or limited exclusion zones, therefore potential impacts are limited to non-breeding, foraging individuals. Shoreline stabilization project have the potential to cover and bury nearshore foraging habitat and prey items, such as fish and crustaceans. The area of potential impact is minimal compared to the remaining forage habitat of the smalltooth sawfish, therefore the JAXBO assumes the effect to smalltooth sawfish due to the loss potential loss of nearshore foraging habitat would be insignificant, and the routes of effect from shoreline stabilization projects are not likely to adversely affect smalltooth sawfish.

2.3.3 Birds

Listed Shorebirds and Seabirds

While there is no nesting habitat present for shorebirds or seabirds, there is potential nearshore, shallow water foraging habitat within the Project boundary for little blue heron (*Egretta caerulea*), reddish egret (*Egretta rufescens*), black skimmer (*Rynchops niger*), and least tern (*Sternula antillarum*). These species are listed as threatened by the state of Florida under Chapter 68A-27 F.A.C. Critical Habitat is not designated for any of the state-listed species of shorebirds or seabirds with potential to occur. Threats to these birds include habitat loss and degradation, exposure to predators, human disturbances and recreation, and domesticated animals.

No listed species of shorebirds and seabirds were observed during the survey along the seawall, but the potential exists for non-breeding individuals to occur during foraging, loafing, or flying throughout the

general area. Construction will occur along a small section of seawall, with similar habitat and conditions to the north and south of the Project boundary. Considering that individuals can retreat into similar suitable habitats, the work should not adversely affect listed species of shorebirds and seabirds.

Bald Eagle

The bald eagle is afforded protection under the federal Bald and Golden Eagle Protection Act (BGEPA) and in Florida under state rule (68A-16.002, F.A.C.), but is not considered to be a bird of conservation concern species. In Florida, bald eagles nest from October 1st – May 15th. Bald eagles generally nest near areas with an adequate food supply including, but not limited to, coastlines, rivers, large lakes, streams, and marshes. Bald eagles exhibit high nest fidelity and use the same nesting territory each year and the territory is defended by both members of the pair. A territory may range in size from 0.6-1.2 square miles depending on habitat suitability and prey density. The Florida Fish and Wildlife Conservation Commission (FWC) Bald Eagle Nest Locator online database (2018) identifies the closest documented nest site, PI048, is approximately 1.1 miles to the south of the Project boundary, and was last known active in 2011 and last surveyed in 2017. The next closest nest (PI059) is located 3.1 miles to the south of the Project study area, and was last known active and surveyed in 2017.

No bald eagles, nests, or suitable nest trees were observed during the survey. In the absence of other current, site-specific scientific and commercial data indicating the presence of the nesting bald eagles within or immediately adjacent to the Project boundary, the work should not adversely affect the bald eagle. If construction will take place during nesting season, a pre-construction survey should be conducted to ensure no birds are nesting within the vicinity of the Project. If a bald eagle is observed prior to or during construction, the Project should follow the USFWS National Bald Eagle Management Guidelines to prevent impact to the species.

3 Recommendations

In order to minimize impacts to seagrasses, which provide forage habitat and habitat for prey items of the West Indian manatee, and ESA-listed sea turtles, the Project should consider repair and reconstruction activities take place from the landward side of the seawall. Low-draft barges have the potential to impact the seagrass beds through direct contact, excess prop-wash, and increased turbidity and siltation. Standard erosion control measures and turbidity barriers should be considered in the Project design. Any impacts to seagrasses, either direct impact from machinery or material placement, or indirect from increased turbidity and siltation would require mitigation, and potential post-construction monitoring.

Additionally, construction from the waterward side of the seawall adds additional risk of collisions with manatees utilizing the seagrass beds for forage. If construction from the water cannot be avoided, it is recommended that construction activities comply with the USFWS *Standard Manatee Conditions for In-Water Work* (2011), including construction personnel species education, species signage during construction activities, vessel operation at “Idle Speed/No Wake”, proper construction and installation of siltation control, daily monitoring during in-water work, and prompt reporting to the FWC hotline, and USFWS office.

4 References

Florida Fish and Wildlife Conservation Commission (FWC). 2018. FWC Bald Eagle Nest Locator. FWC Tallahassee, Florida.

Florida Natural Areas Inventory (FNAI). 2019. Tracking List. Pinellas County, Florida. FNAI Tallahassee, Florida

United States Army Corps of Engineers. 2017. Jacksonville District's Programmatic Biological Opinion (JAXBO): Authorization of Minor In-Water Activities throughout the Geographic Area of Jurisdiction of the U.S. Army Corps of Engineers-Jacksonville District, including Florida and the U.S. Caribbean. USACE Jacksonville, Florida.

United States Fish and Wildlife Service (USFWS). 2019a. Information for Planning and Consultation: Species List. USFWS North Florida Ecological Services Field Office. Jacksonville, Florida.

United States Fish and Wildlife Service (USFWS). 2019b. National Wetlands Inventory (NWI): Surface Waters and Wetlands Mapper. U.S. Fish and Wildlife Service, Washington, D.C. Accessed September 26, 2019.

United States Fish and Wildlife Service (USFWS). 2011. Standard Manatee Conditions for In-Water Work. USFWS North Florida Field Office, Jacksonville, Florida.

APPENDIX D GEOTECHNICAL REPORT

TIERRA

October 24, 2019

Cardno, Inc.
380 Park Place Blvd., Suite 300
Clearwater, Florida 33759

Attn: Ms. Ananda Kelley, P.E.

**RE: Geotechnical Engineering Services Report
Pass-a-Grille Seawall – Preliminary Feasibility Study
City of St. Petersburg
Pinellas County, Florida
Tierra Project No.: 6511-19-198**

Ms. Kelley:

Tierra, Inc. has completed the geotechnical engineering study for the above referenced project. The results of the study are provided herein.

Should there be any questions regarding this report, please do not hesitate to contact our office at (813) 989-1354. Tierra would be pleased to continue providing geotechnical services throughout the implementation of the project. We look forward to working with you and your organization on this and future projects.

Respectfully Submitted,

TIERRA, INC.



Dylan A. Nelson, E.I.
Geotechnical Engineer Intern



Joseph R. Antinori, P.E.
Geotechnical Engineer
Florida License No. 73176

TABLE OF CONTENTS

1.0	PROJECT DESCRIPTION	1
2.0	PURPOSE AND SCOPE OF SERVICES.....	1
3.0	REVIEW OF AVAILABLE DATA	2
3.1	USGS Quadrangle Map and Survey Information	2
3.2	USDA Soil Survey	2
3.3	Review of Potentiometric Surface Information	3
4.0	SUBSURFACE CONDITIONS	3
4.1	Boring Location Plan and Utility Clearance	3
4.2	Soil Borings	3
5.0	LABORATORY TESTING.....	4
5.1	General	4
5.2	Test Designation	4
6.0	RESULTS OF SUBSURFACE EXPLORATION	4
6.1	General Soil Condition	4
6.2	Groundwater Information	5
7.0	EVALUATION AND RECOMMENDATIONS	5
7.1	General	5
7.2	Environmental Classification	5
7.3	Recommended Soil Parameters	5
8.0	REPORT LIMITATIONS.....	6

APPENDIX

Report of Core Borings (Sheets 1 through 3)
Grain Size Distribution Report
Recommended Soil Parameters for Sheet Pile Walls

1.0 PROJECT DESCRIPTION

The project consists evaluating a section of seawall approximately ½ mile in length along the intracoastal waterway of Pass-a-Grille Beach in Pinellas County, Florida. Tierra's involvement will be to provide geotechnical information for use in the evaluation and analyses associated with the remediation or replacement of the seawall.

2.0 PURPOSE AND SCOPE OF SERVICES

The objective of our study was to obtain information concerning subsurface conditions at the project site in order to base engineering estimates and recommendations for the seawall remediation or replacement. The following services were provided:

1. Reviewed soil information from the "Soil Survey of Pinellas County, Florida" published by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). Reviewed topographic information obtained from the "Pass-a-Grille Beach" Quadrangle Map published by the United States Geological Survey (USGS). Reviewed potentiometric information obtained from the "Potentiometric Surface of Upper Floridian Aquifer in Florida" Maps also published by the USGS.
2. Conducted a visual reconnaissance of the project site and coordinated utility clearance via Sunshine State One Call.
3. Obtained a permit for drilling within the waterway through Florida Department of Environmental Protection.
4. Executed a program of subsurface exploration consisting of subsurface sampling and field testing.
 - Performed two (2) Standard Penetration Test (SPT) borings on land advanced to a depths on the order of 50 and 55 feet below the ground surface along Pass-a-Grille Way adjacent to the seawall/sidewalk.
 - Performed two (2) SPT borings in the water advanced to a depths on the order of 44 and 47 feet below the waterline in the intracoastal water way adjacent to the seawall.
5. Identified groundwater table and water levels at the boring locations.
6. Visually classified the samples in the laboratory using the Unified Soil Classification System (USCS). Identified soil conditions at each boring location.
7. Completed laboratory testing on select soil samples to confirm the visual classification and estimate engineering properties. Samples were collected and tested to determine a D_{50} – Value for use by the Hydraulics Engineer in scour analysis.
8. Generated soil parameters soil parameters for use by the Structural Engineer in evaluation and analysis of the seawall feasibility study.

9. Identified geomaterials or conditions encountered within the borings that may impact the design or construction considerations.
10. Prepared this engineering report in accordance with the scope of services herein that summarizes the course of study pursued, the field and lab data generated, subsurface conditions encountered and our engineering recommendations in each of the pertinent topic areas.

3.0 REVIEW OF AVAILABLE DATA

3.1 USGS Quadrangle Map and Survey Information

Based on a review of the “Pass-a-Grille Beach, Florida” USGS Quadrangle Map, the natural ground elevation at the project site is on the order of approximately -5 (in the waterway) to +5 feet National Geodetic Vertical Datum of 1929 (NGVD 29).

3.2 USDA Soil Survey

Soil data published by the USDA Soil Survey of Pinellas County, Florida was reviewed as part of the subsurface investigation. This information indicates that there is one primary mapping unit within the vicinity of the project site. The following paragraph and table provide a brief description of the soil units as presented in the Soil Survey.

Palm Beach Fine Sand (Map Unit 19): Slopes are 0 to 8 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of shells and sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is very high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent.

USDA Map Unit and Soil Name	Depth (in)	Soil Classification		Permeability (in/hr)	pH	Seasonal High Water Table	
		USCS	AASHTO			Depth (feet)	Months
(19) Palm Beach	0-4	SP, SW	A-1-b, A-2-4, A-3	20.0 - 50.0	7.4-9.0	--- ⁽¹⁾	Jan-Dec
	4-80	SP	A-1, A-2-4, A-3	20.0 - 50.0	7.4-9.0		

⁽¹⁾ USDA/NRCS Soil Survey table does not provide a SHGWT Depth for Unit 19 Palm Beach.

It should be noted that information contained in the USDA/NRCS Soil Survey may not be reflective of current subsurface conditions, particularly if recent development in the project vicinity has modified existing soils or surface/subsurface drainage.

3.3 Review of Potentiometric Surface Information

Based on a review of the “Potentiometric Surface of the Upper Floridan Aquifer in Florida” map published by the USGS, the potentiometric surface elevation of the upper Floridan Aquifer in the project vicinity ranges from approximately +10 to +20 feet, NGVD 29. As indicated in **Section 3.1**, the proposed project site elevations range from approximately -5 to +5 feet, NGVD 29. Although artesian conditions were not apparent at the locations of the borings performed, the Contractor’s dewatering equipment and methods should be adequate to handle artesian flow conditions, if encountered during construction at no additional cost to the owner.

4.0 SUBSURFACE CONDITIONS

4.1 Boring Location Plan and Utility Clearance

Prior to commencing our subsurface exploration, a permit for drilling within a waterway was obtained from the Florida Department of Environmental Protection and utility clearances were coordinated by Tierra through Sunshine State One Call and updated as required to reduce the potential for damage to any underground utilities during the boring process.

The SPT borings were located in the field by a representative of Tierra using a handheld Global Positioning System (GPS) device with a reported accuracy of ± 10 feet. If a more accurate determination of the boring locations and elevations is required, then Tierra recommends the boring locations be survey located by the project surveyor. The approximate boring locations are shown on the attached **Report of Core Borings** sheets in the **Appendix**.

4.2 Soil Borings

SPT borings B-1 and B-3 were completed on land adjacent to the seawall/sidewalk. SPT borings B-2 and B-4 were completed within the intracoastal waterway adjacent to the seawall. The SPT borings were performed using a drill rig with bentonite mud drilling procedures utilizing an automatic hammer for SPT borings B-1 and B-3 and a safety hammer for SPT borings B-2 and B-4. The soil sampling was performed in general accordance with American Society for Testing and Materials (ASTM) Test Designation D-1586. The initial 4 feet of SPT borings B-1 and B-3 were advanced by manual auger to verify utility clearances. SPT resistance N-values were then taken at intervals of 2 feet to a depth of approximately 10 feet and at intervals of 5 feet thereafter. SPT resistance N-values for SPT borings B-2 and B-4 were taken at intervals of 2 feet to a depth of approximately 10 feet and at intervals of 5 feet thereafter. As each soil type was revealed, representative samples were placed in air-tight containers and returned to the laboratory for testing and confirmation of the field classification by a geotechnical engineer.

5.0 LABORATORY TESTING

5.1 General

Representative soil samples collected from the SPT borings were classified and stratified in general accordance with the USCS soil classification system. Our classification was based on visual observations using the results from the laboratory testing as confirmation. These tests included fines content (percentage passing the No. 200 mesh sieve) and grain-size analyses. The test results of the Fines Content are presented on the attached **Report of Core Borings** sheets. The Grain-Size Analyses are presented on the **Grain Size Distribution Report** in the **Appendix**.

5.2 Test Designation

The following list summarizes the laboratory tests performed and respective test methods.

- Fines Content Test - The fines content tests were conducted in general accordance with the AASHTO test designation T-088 (ASTM test designation D-1140).
- Grain-Size Analyses - The grain-size analyses were conducted in general accordance with the AASHTO test designation T-088 (ASTM test designation D-422).

6.0 RESULTS OF SUBSURFACE EXPLORATION

6.1 General Soil Condition

The soil types encountered during the soil exploration have been assigned a stratum number. The stratum numbers and soil types associated with this part of the project are listed in the following table.

Stratum Number	Soil Description	USCS Symbol
1	Gray Sand to Sand with Silt Occasionally with Few (5% to 10%) to Some (30% to 45%) Shell	SP/SP-SM
2	Gray Shelly Sand to Shelly Sand with Silt	SP/SP-SM
3	Gray to Brown Silty Sand with Few to Some Shell	SM

The subsurface soil stratification is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The soil profiles included on the **Report of Core Borings** sheets should be reviewed for specific information at individual boring locations. These profiles include soil descriptions, stratifications and penetration resistances when applicable. The stratifications shown on the boring profiles represent the conditions only at the actual boring location. Variations did occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual.

6.2 Groundwater Information

The groundwater table at the time the SPT borings located on land were performed was encountered at 3½ feet below existing grades. The depth of the water at boring locations B-2 and B-4 fluctuate with tidal conditions. The groundwater levels and depths are depicted adjacent to the soil profiles on the **Report of Core Borings** sheets.

Groundwater conditions will vary with environmental variations, tidal fluctuations, and seasonal conditions, such as the frequency and magnitude of rainfall patterns, as well as man-made influences (i.e. existing swales, drainage ponds, underdrains and areas of covered soils, such as paved parking lots). It should be noted that groundwater levels tend to fluctuate during periods of prolonged drought and extended rainfall and may be affected by man-made influences. In addition, a seasonal effect will also occur in which higher groundwater levels are normally recorded in rainy seasons.

7.0 EVALUATION AND RECOMMENDATIONS

7.1 General

All earthwork and construction should be in accordance with the City of Saint Petersburg requirements or alternatively the FDOT Standard Specifications for Road and Bridge Construction (SSRBC) requirements

7.2 Environmental Classification

The seawall is a marine structure adjacent to a body of water with relatively high chloride contents (likely in excess of 6,000 ppm). Based on the anticipated chloride content, it is recommended that the seawall be designed for an extremely aggressive corrosive environment.

7.3 Recommended Soil Parameters

Recommended soil parameters for use by the Structural Engineer in evaluation of the seawalls borings are provided on the attached **Recommended Soil Parameters for Sheet Pile Walls**. These parameters include soil unit weight, angle of friction, cohesion and wall friction angle. Due to the expected environmental classification to be extremely aggressive, soil parameters for Uncoated Steel Walls were not provided.

8.0 REPORT LIMITATIONS

The analyses, conclusions and recommendations contained in this report are opinions based on the site conditions and project layout described herein and further assume that the conditions observed in the exploratory borings are representative of the subsurface conditions throughout the site, i.e., the subsurface conditions elsewhere on the site are the same as those disclosed by the borings. If, during construction, subsurface conditions different from those encountered in the exploratory borings are observed or appear to be present during construction, we should be advised at once so that we can review these conditions and reconsider our recommendations where necessary.

The scope of our services did not include an environmental assessment for determining the presence or absence of wetlands or hazardous or toxic materials in the soil, bedrock, groundwater, or air, on or below or around this site. Any statements in this report or on the boring logs regarding odors, colors, unusual or suspicious items or conditions are strictly for the information of our client.

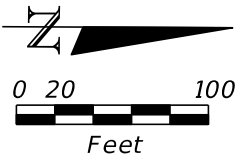
This report was prepared for the exclusive use of Cardno, Inc. and their consultants for evaluating the design of the project as it relates to the geotechnical aspects discussed herein. It should be made available to prospective contractors for information on factual data only and not as a warranty of subsurface conditions included in this report. Unanticipated soil conditions may require that additional expense be made to attain a properly constructed project. Therefore, some contingency fund is recommended to accommodate such potential extra costs.

APPENDIX

Report of Core Borings (Sheets 1 through 3)

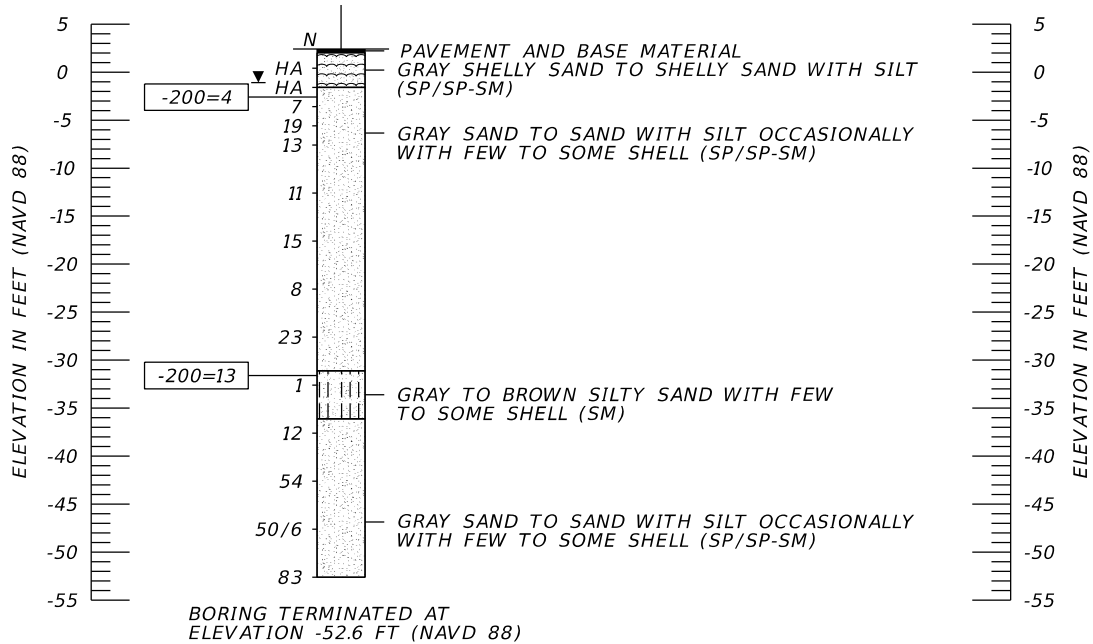
Grain Size Distribution Report

Recommended Soil Parameters for Sheet Pile Walls



BORING LOCATION PLAN

BOR # B-1
EASTING 417888
NORTHING 1218622
ELEV. 2.4
DATE 9/5/2019
DRILLER I. POORAN
HAMMER AUTOMATIC
RIG D-25



- GRAY SAND TO SAND WITH SILT OCCASIONALLY WITH FEW TO SOME SHELL (SP/SP-SM)

GRAY SHELLY SAND TO SHELLY SAND WITH SILT (SP/SP-SM)

GRAY TO BROWN SILTY SAND WITH FEW TO SOME SHELL (SM)

PAVEMENT AND BASE MATERIAL
- SP
UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.

N
NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).

50/4
NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION

HA
HAND AUGERED TO VERIFY UTILITY CLEARANCE

-200
PERCENT PASSING #200 SIEVE

NAVD 88
NORTH AMERICAN VERTICAL DATUM OF 1988

APPROXIMATE SPT BORING LOCATION

GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS

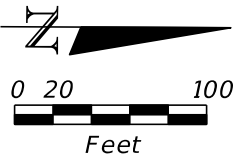
EASTING
EASTING COORDINATE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE, N.A.D. 83 DETERMINED USING HAND-HELD GARMIN ETREX EQUIPMENT WITH A REPORTED ACCURACY OF ± 10 FEET.

NORTHING
NORTHING COORDINATE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE, N.A.D. 83 DETERMINED USING HAND-HELD GARMIN ETREX EQUIPMENT WITH A REPORTED ACCURACY OF ± 10 FEET.

NOTES: THE LOCATIONS AND GROUND SURFACE ELEVATIONS WERE DETERMINED USING THE GPS COORDINATES OBTAINED IN THE FIELD IN CONJUNCTION WITH THE TOPOGRAPHIC SURVEY PROVIDED BY THE PROJECT SURVEYOR AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.

	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	LESS THAN 4 4 to 10 10 to 30 30 to 50 GREATER THAN 50	LESS THAN 3 3 to 8 8 to 24 24 to 40 GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT SOFT FIRM STIFF VERY STIFF HARD	LESS THAN 2 2 to 4 4 to 8 8 to 15 15 to 30 GREATER THAN 30	LESS THAN 1 1 to 3 3 to 6 6 to 12 12 to 24 GREATER THAN 24

REVISIONS						JOSEPH R. ANTINORI, P.E. P.E. LICENSE NUMBER 73176 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION NO. 6486	DRAWN BY: BJS	PINELLAS COUNTY			SHEET TITLE: REPORT OF CORE BORINGS (1)	REF. DWG. NO.	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: DN					ROAD NO.	COUNTY
							DESIGNED BY: BJS		PINELLAS		SHEET NO.		
							CHECKED BY: JRA				Page 118 of		



- LEGEND

GRAY SAND TO SAND WITH SILT OCCASIONALLY WITH FEW TO SOME SHELL (SP/SP-SM)

GRAY SHELLY SAND TO SHELLY SAND WITH SILT (SP/SP-SM)

GRAY TO BROWN SILTY SAND WITH FEW TO SOME SHELL (SM)

PAVEMENT AND BASE MATERIAL

SP

UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.

N

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).

50/4

NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION

HA

HAND AUGERED TO VERIFY UTILITY CLEARANCE

-200

PERCENT PASSING #200 SIEVE

NAVD 88

NORTH AMERICAN VERTICAL DATUM OF 1988

APPROXIMATE SPT BORING LOCATION

GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS

EASTING

EASTING COORDINATE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE, N.A.D. 83 DETERMINED USING HAND-HELD GARMIN ETREX EQUIPMENT WITH A REPORTED ACCURACY OF ± 10 FEET.

NORTHING

NORTHING COORDINATE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE, N.A.D. 83 DETERMINED USING HAND-HELD GARMIN ETREX EQUIPMENT WITH A REPORTED ACCURACY OF ± 10 FEET.

NOTES:

THE LOCATIONS AND GROUND SURFACE ELEVATIONS WERE DETERMINED USING THE GPS COORDINATES OBTAINED IN THE FIELD IN CONJUNCTION WITH THE TOPOGRAPHIC SURVEY PROVIDED BY THE PROJECT SURVEYOR AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.
- BORING LOCATION PLAN
- BOR # B-2
EASTING 417906
NORTHING 1219236
ELEV. -4.5
DATE 9/9/2019
DRILLER J. ERICKSON
HAMMER SAFETY
RIG D-25
- BOR # B-3
EASTING 417882
NORTHING 1219833
ELEV. -2.9
DATE 9/5/2019
DRILLER I. POORAN
HAMMER AUTOMATIC
RIG D-25
- BORING TERMINATED AT ELEVATION -44.5 FT (NAVD 88)
- BORING TERMINATED AT ELEVATION -47.1 FT (NAVD 88)
- | | SAFETY HAMMER | AUTOMATIC HAMMER |
|--|---|---|
| GRANULAR MATERIALS-
RELATIVE DENSITY | SPT N-VALUE
(BLOWS/FT.) | SPT N-VALUE
(BLOWS/FT.) |
| VERY LOOSE
LOOSE
MEDIUM DENSE
DENSE
VERY DENSE | LESS THAN 4
4 to 10
10 to 30
30 to 50
GREATER THAN 50 | LESS THAN 3
3 to 8
8 to 24
24 to 40
GREATER THAN 40 |
| SILTS AND CLAYS
CONSISTENCY | SPT N-VALUE
(BLOWS/FT.) | SPT N-VALUE
(BLOWS/FT.) |
| VERY SOFT
SOFT
FIRM
STIFF
VERY STIFF
HARD | LESS THAN 2
2 to 4
4 to 8
8 to 15
15 to 30
GREATER THAN 30 | LESS THAN 1
1 to 3
3 to 6
6 to 12
12 to 24
GREATER THAN 24 |
- | REVISIONS | | | | | | JOSEPH R. ANTINORI, P.E.
P.E. LICENSE NUMBER 73176
TIERRA, INC.
7351 TEMPLE TERRACE HIGHWAY
TAMPA, FLORIDA 33637
CERTIFICATE OF AUTHORIZATION NO. 6486 | DRAWN BY:
BJS
CHECKED BY:
DN
DESIGNED BY:
BJS
CHECKED BY:
JRA | PINELLAS COUNTY | | | SHEET TITLE:

REPORT OF CORE BORINGS (2)

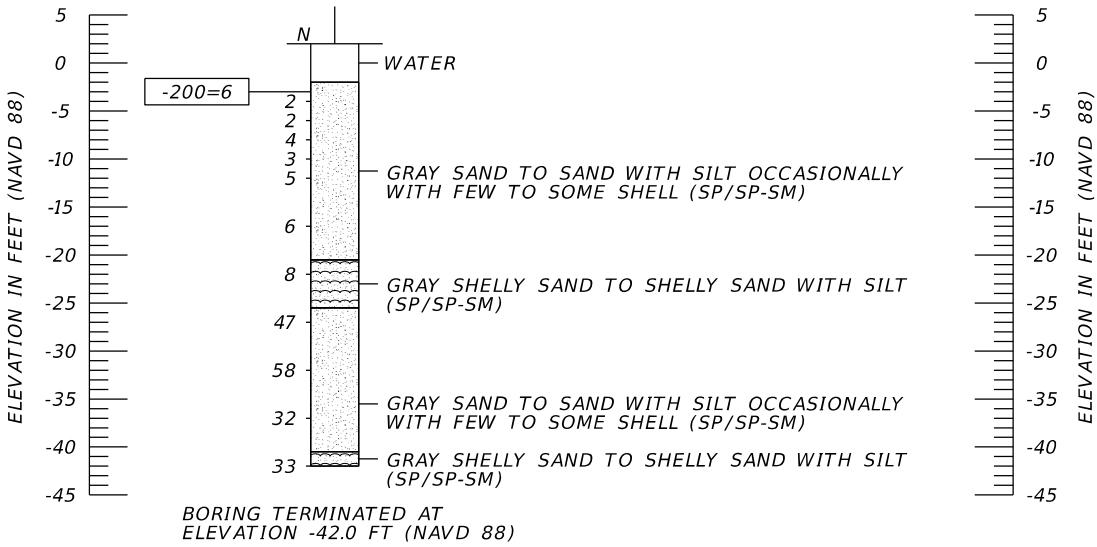
PROJECT NAME:

PASS-A-GRILLE SEAWALL | REF. DWG. NO. |
|-----------|----|-------------|--|------|----|---|--|-----------------|----------|----------------------|--|---------------|
| DATE | BY | DESCRIPTION | | DATE | BY | | | ROAD NO. | COUNTY | FINANCIAL PROJECT ID | | |
| | | | | | | | | | PINELLAS | | | |
| | | | | | | | | | | | | |
- Page 119 of 161



BORING LOCATION PLAN

BOR # B-4
EASTING 418079
NORTHING 1220504
ELEV. -2.0
DATE 9/9/2019
DRILLER J. ERICKSON
HAMMER SAFETY
RIG D-25



- LEGEND

GRAY SAND TO SAND WITH SILT OCCASIONALLY WITH FEW TO SOME SHELL (SP/SP-SM)

GRAY SHELLY SAND TO SHELLY SAND WITH SILT (SP/SP-SM)

GRAY TO BROWN SILTY SAND WITH FEW TO SOME SHELL (SM)

PAVEMENT AND BASE MATERIAL

SP

N

50/4

HA

-200

NAVD 88

UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).

NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION

HAND AUGERED TO VERIFY UTILITY CLEARANCE

PERCENT PASSING #200 SIEVE

NORTH AMERICAN VERTICAL DATUM OF 1988

APPROXIMATE SPT BORING LOCATION

GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS

EASTING

NORTHING

EASTING COORDINATE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE, N.A.D. 83 DETERMINED USING HAND-HELD GARMIN ETREX EQUIPMENT WITH A REPORTED ACCURACY OF ± 10 FEET.

NORTHING COORDINATE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE, N.A.D. 83 DETERMINED USING HAND-HELD GARMIN ETREX EQUIPMENT WITH A REPORTED ACCURACY OF ± 10 FEET.

NOTES:

THE LOCATIONS AND GROUND SURFACE ELEVATIONS WERE DETERMINED USING THE GPS COORDINATES OBTAINED IN THE FIELD IN CONJUNCTION WITH THE TOPOGRAPHIC SURVEY PROVIDED BY THE PROJECT SURVEYOR AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.
- | | SAFETY HAMMER | AUTOMATIC HAMMER |
|--|---|---|
| GRANULAR MATERIALS-
RELATIVE DENSITY | SPT N-VALUE
(BLOWS/FT.) | SPT N-VALUE
(BLOWS/FT.) |
| VERY LOOSE
LOOSE
MEDIUM DENSE
DENSE
VERY DENSE | LESS THAN 4
4 to 10
10 to 30
30 to 50
GREATER THAN 50 | LESS THAN 3
3 to 8
8 to 24
24 to 40
GREATER THAN 40 |
| SILTS AND CLAYS
CONSISTENCY | SPT N-VALUE
(BLOWS/FT.) | SPT N-VALUE
(BLOWS/FT.) |
| VERY SOFT
SOFT
FIRM
STIFF
VERY STIFF
HARD | LESS THAN 2
2 to 4
4 to 8
8 to 15
15 to 30
GREATER THAN 30 | LESS THAN 1
1 to 3
3 to 6
6 to 12
12 to 24
GREATER THAN 24 |
- REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

JOSEPH R. ANTINORI, P.E.
P.E. LICENSE NUMBER 73176
TIERRA, INC.
7351 TEMPLE TERRACE HIGHWAY
TAMPA, FLORIDA 33637
CERTIFICATE OF AUTHORIZATION NO. 6486

DRAWN BY:
BJS
CHECKED BY:
DN
DESIGNED BY:
BJS
CHECKED BY:
JRA

PINELLAS COUNTY

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	PINELLAS	

SHEET TITLE:
REPORT OF CORE BORINGS (3)

PROJECT NAME:
PASS-A-GRILLE SEAWALL

REF. DWG. NO.
SHEET NO.

Page 120 of 161

bgarcia 10/22/2019 8:01:29 AM J:\6511\2019 Files\6511-19-198 Pass a Grille Seawall\Microstation\Sheet\PileWall\Geo03.dgn

**Recommended Soil Parameters for Sheet Pile Walls
Pass-a-Grille Seawall
Pinellas County, Florida
Tierra Project No. 6511-19-198**

Reference Boring Number	Approximate Elevation Range (feet, NAVD 88)		Soil Unit Weight (pcf)		Internal Friction Angle	Cohesion	Uncoated Concrete Walls Only*		Vinyl and FRP Walls Only	
							Wall/Soil Adhesion*	Wall Friction Angle*	Wall/Soil Adhesion	Wall Friction Angle
	from	to	Saturated/ Moist	Effective	(°)	(psf)	(psf)	(°)	(psf)	(°)
B-1	2.4	-3.6	105	42.6	29	0	0	17	0	0
	-3.6	-31.1	110	47.6	30	0	0	17	0	0
	-31.1	-36.1	100	37.6	26	0	0	14	0	0
	-36.1	-41.1	110	47.6	30	0	0	17	0	0
	-41.1	-52.6	125	62.6	34	0	0	17	0	0
B-2	-4.5	-8.5	105	42.6	29	0	0	17	0	0
	-8.5	-23.0	110	47.6	30	0	0	17	0	0
	-23.0	-28.0	125	62.6	34	0	0	17	0	0
	-28.0	-33.0	100	37.6	28	0	0	14	0	0
	-33.0	-38.0	110	47.6	30	0	0	17	0	0
	-38.0	-44.5	125	62.6	34	0	0	17	0	0
B-3	2.5	-30.6	110	47.6	30	0	0	17	0	0
	-30.6	-47.1	125	62.6	34	0	0	17	0	0
B-4	-2.0	-12.0	100	37.6	28	0	0	17	0	0
	-12.0	-25.5	105	42.6	29	0	0	17	0	0
	-25.5	-42.0	120	57.6	33	0	0	17	0	0

* Wall friction angle and wall/soil adhesion should not be used for coated walls and should apply to uncoated concrete sheet piles ONLY.

Grain Size Distribution Report
Pass-a-Grille Seawall
Tierra Project No.: 6511-19-198

Easting	Northing	Sample No.	Depth (ft)
418079	1220504	B-4	0.0-2.0

Grain Size Distribution Curve



Material Description	Classification	
	USCS	AASHTO
Gray Fine Sand	SP	A-3

Sieve Number	Diameter (mm)	Percent Finer by Weight (%)	Coefficients			
3/4"	19.000	100	D_{10} 0.080 D_{30} 0.111 D_{50} 0.154 D_{60} 0.184 D_{85} 1.446 D_{90} 2.822 D_{95} 4.295 C_u 2.314 C_c 0.836			
3/8"	9.500	99.9				
4	4.750	96.2				
10	2.000	85.9				
40	0.425	81.6				
60	0.250	77.3				
100	0.150	48.4				
200	0.075	6.4				



APPENDIX E SURVEY

	SITE CONTROL POINT	(M)	MEASURED DISTANCE/BEARING
	IRON PIPE FOUND	(P/C)	PLAT DISTANCE/BEARING
	IRON ROD FOUND	B/C	BACK OF CURB
	CONCRETE MONUMENT FOUND	BOS	BOTTOM OF STRUCTURE
	SUBSURFACE INVESTIGATION	CMF	CONCRETE MONUMENT FOUND
	SIGN	CO	COUNTY
	WOOD UTILITY POLE	CP	CONTROL POINT
	CONCRETE UTILITY POLE	CPP	CORRUGATED PLASTIC PIPE
	GUY WIRE	D	DELTA
	WATER METER	DHF	DRILL HOLE FOUND
	WATER VALVE	DIP	DUCTILE IRON PIPE
	RECLAIM VALVE	DL	DRIP LINE (RADIUS)
	SANITARY MANHOLE	EL	ELEVATION
	STORM MANHOLE	ELEV	ELEVATION
	GRATE INLET	EM	ELECTRIC METER
	FIRE HYDRANT	E/B	EDGE OF BRICK
	BACKFLOW PREVENTER	E/P	EDGE OF PAVEMENT
	UTILITY RISER	GIS	GEOGRAPHIC INFORMATION SYSTEM
		INC	INCORPORATED
		INV	INVERT
		IRF	IRON ROD FOUND
		IRS	IRON ROD SET
	UTILITY VAULT	L	LENGTH
	MAILBOX	LB	LICENSED BUSINESS
	WOOD POST	NADV	NORTH AMERICAN VERTICAL DATUM
	CLEANOUT	NDF	NAIL & DISK FOUND
	GAS MARKER	NDS	NAIL & DISK SET
	UTILITY MANHOLE	NGCS	NATIONAL GEODETIC SURVEY
	ANTENNA	NO	NUMBER
	CONTROL PANEL	PID	PARCEL IDENTIFICATION NUMBER
	CABLE SERVICE BOX	PRM	PERMANENT REFERENCE MONUMENT
	TELEPHONE SERVICE BOX	PSM	PROFESSIONAL SURVEYOR & MAPPER
	GROUND LIGHT	PVC	POLYVINYL CHLORIDE
		R	RADIUS
		R/W	RIGHT-OF-WAY
		RCP	REINFORCED CONCRETE PIPE
		RANGE	RANGE
		SIRC	SET IRON ROD & CAP
		S/W	SIDEWALK
		TWN	TOWNSHIP
		#	NUMBER

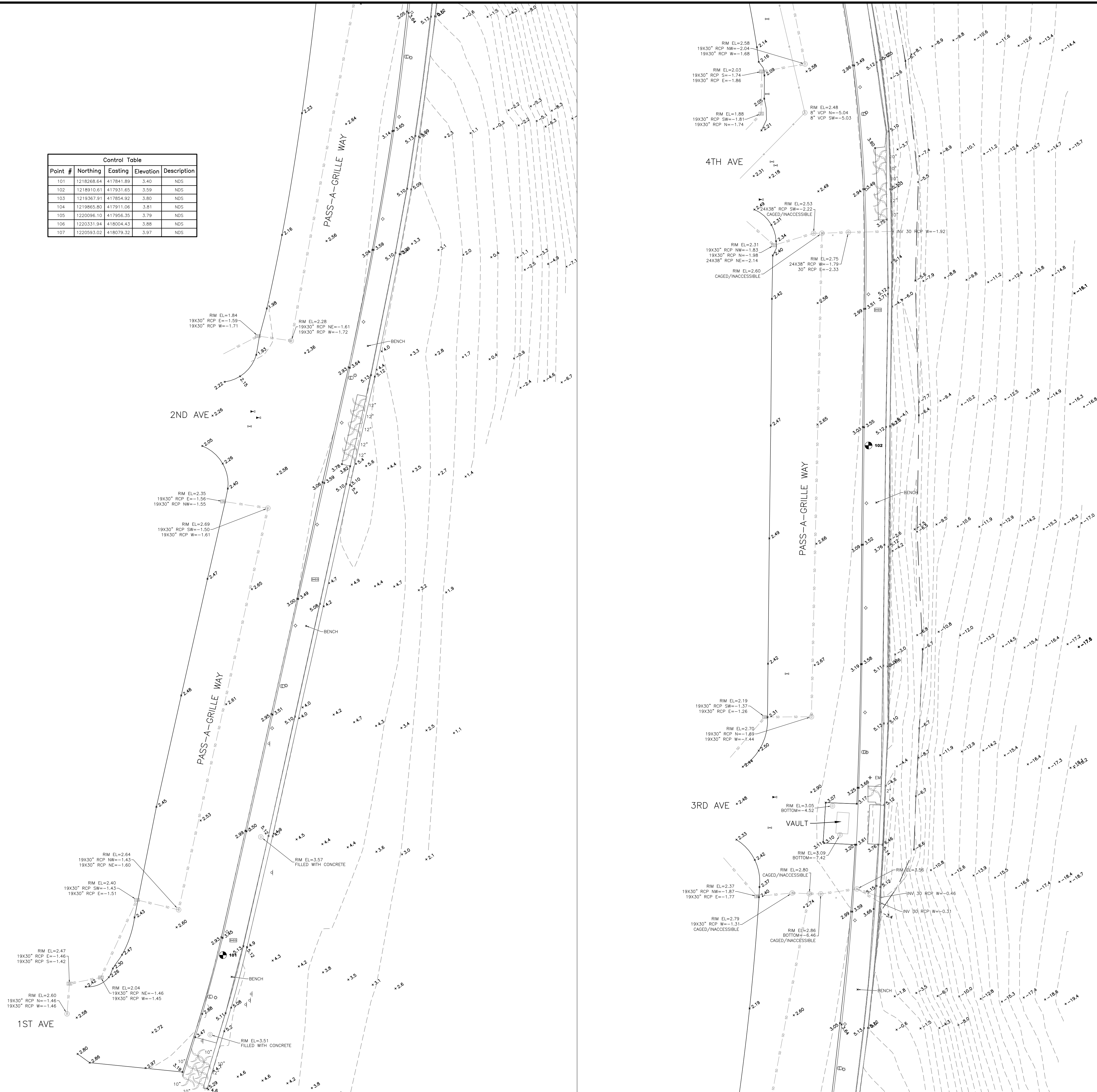
	PALM				DRIP LINE
	OAK	_____ x _____			FENCE LINE
	TREE	_____ - - - -			RIGHT OF WAY
		_____ OE _____			OVERHEAD ELECTRIC
	BUSH	_____ OHU _____			OVERHEAD UTILITIES
		_____ } _____			HEDGE/VEGETATION LINE
		_____ 1' - _____			1-FOOT CONTOURS

1. THE FOLLOWING NATIONAL EODETIC SERVICE HORIZONTAL & VERTICAL CONTROL MONUMENT WAS RECOVERED AND UTILIZED FOR THE ELEVATIONS AND COORDINATES INDICATED HEREIN:

DESIGNATION "872-6442 TIDAL 2", NAVD 88 ELEV.=5.22'
2. THIS SURVEY IS REFERENCED TO A PROJECTION OF THE FLORIDA STATE PLANE COORDINATE SYSTEM (WEST ZONE NAD 1983/2011 ADJUSTMENT).
3. HORIZONTAL CONTROL ESTABLISHED BY REAL-TIME KINEMATIC (RTK) GLOBAL POSITIONING SERVICE (GPS).
4. THIS IS NOT A BOUNDARY SURVEY, NO TITLE WORK WAS PROVIDED.
5. FIELD WORK FOR THIS SURVEY COMPLETED AUGUST 15, 2019.
6. ORIGINAL SHEET SIZE IS 24"x36".
7. THIS SURVEY IS SUBJECT TO PERTINENT EASEMENTS, RIGHTS-OF-WAY AND RESTRICTIONS OF RECORD, IF ANY.
8. RIGHT-OF-WAY LINES INDICATED HEREIN, IF ANY, ARE BASED ON AVAILABLE PUBLIC RECORD INFORMATION TOGETHER WITH FOUND BOUNDARY MONUMENTATION.
9. THIS SURVEY DRAWING WAS PREPARED FOR THE EXCLUSIVE USE OF THE PARTY OR PARTIES CERTIFIED TO BELOW FOR THE EXPRESS PURPOSE STATED HEREON AND/OR CONTAINED IN THE CONTRACT BETWEEN HYATT SURVEY SERVICES, INC. AND IN CONNECTION WITH THIS PROJECT, COPYING, DISTRIBUTING AND/OR USING THIS DRAWING, IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN ORIGINALLY INTENDED WITHOUT WRITTEN CONSENT FROM HYATT SURVEY SERVICES, INC. IS STRICTLY PROHIBITED AND RENDERS THE SURVEYOR'S CERTIFICATION, SIGNATURE AND SEAL NULL AND VOID. ANY QUESTIONS CONCERNING THE CONTENT OR PURPOSE OF THIS DRAWING SHOULD BE DIRECTED TO HYATT SURVEY SERVICES, INC.

A map of the Tampa Bay area with various locations labeled. An arrow points from the text 'PROJECT LOCATION' to a blue dot on the west side of Tampa Bay, near the Longboat Key bridge. The map shows major roads, water bodies, and green spaces.

Control Table				
Point #	Northing	Easting	Elevation	Description
101	1218268.64	417841.89	3.40	NDS
102	1218910.61	417931.65	3.59	NDS
103	1219367.91	417854.92	3.80	NDS
104	1219865.80	417911.06	3.81	NDS
105	1220096.10	417956.35	3.79	NDS
106	1220331.94	418004.43	3.88	NDS
107	1220593.02	418079.32	3.97	NDS



**TOPOGRAPHIC SURVEY
PASS-A-GRIFF SEAWALL
PINELLAS COUNTY, FLORIDA**

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

SHANE ALAN CHRISTY, PSM
FLORIDA SURVEYORS REGISTRATION NO. 7100

CERTIFIED TO: CARDNO

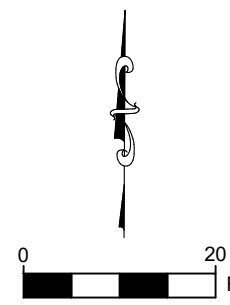
Hyatt Survey Services, Inc.

Geographic Data Specialists

LB No.: 7203

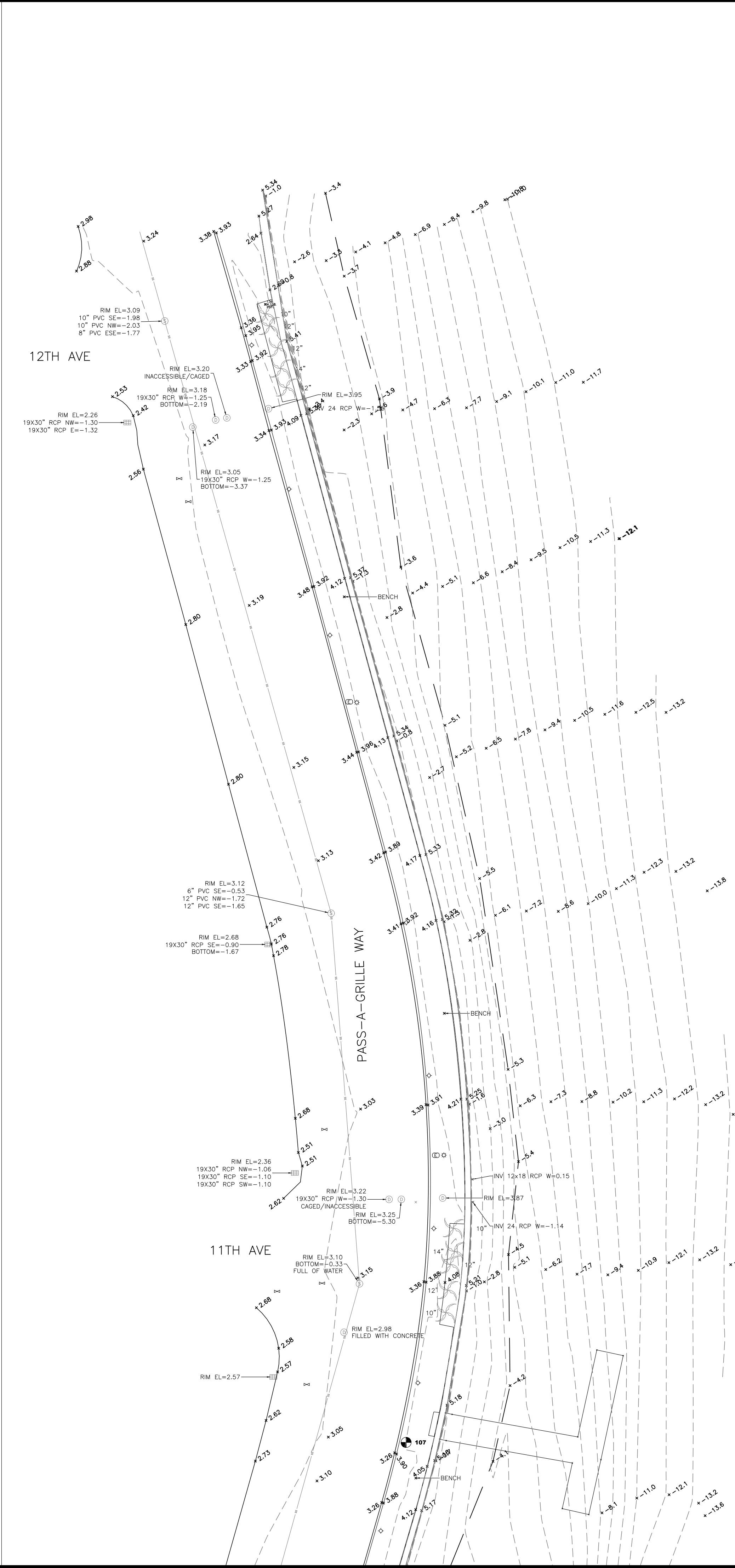
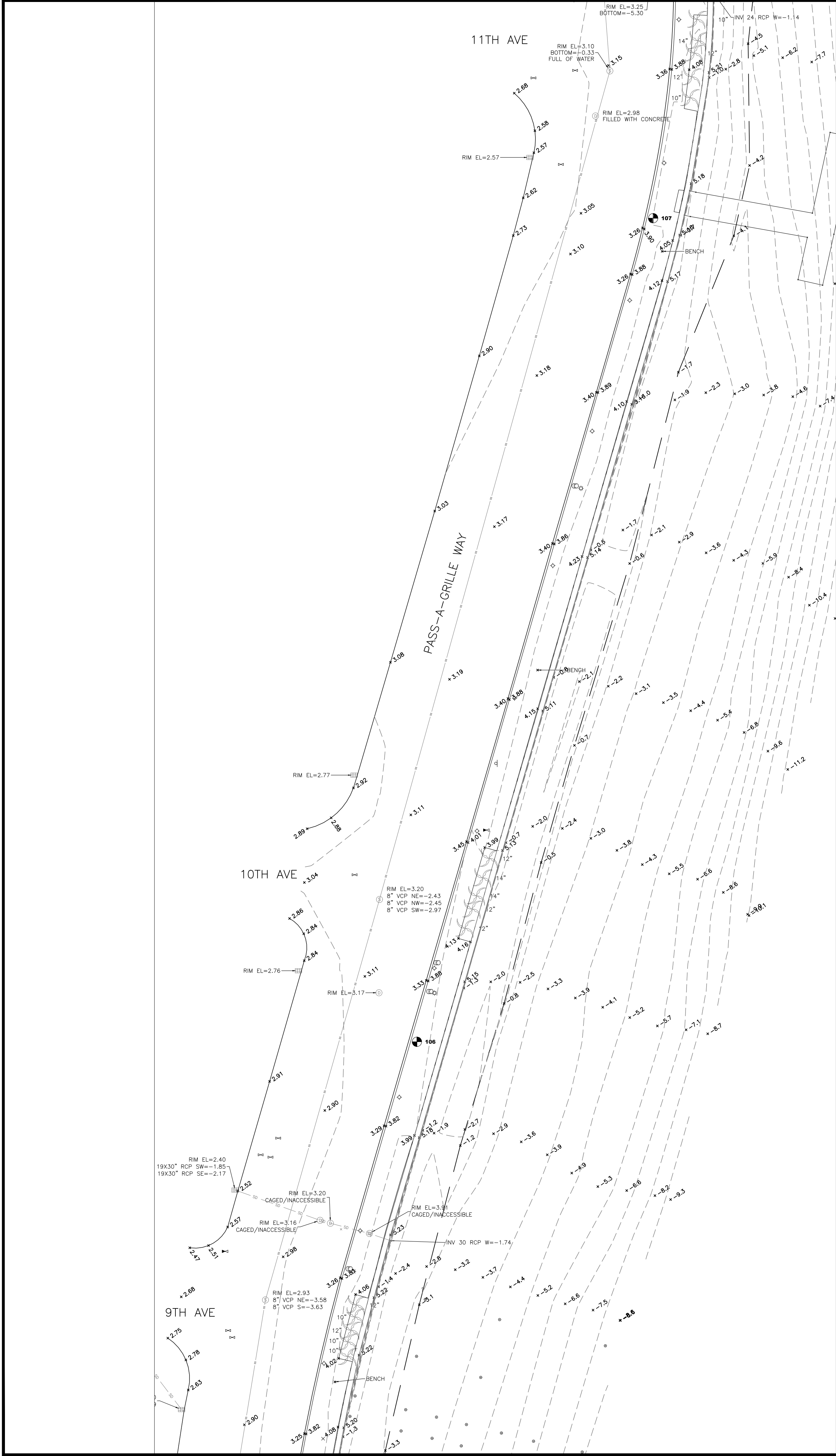
Phone: (941) 748-4693 Fax: (941) 744-1643

PROJECT #	19-2408	
SURVEY #	19-2408	
SECTION	TWN	RNG
	19-32-16	
SCALE		1" = 20'
SURVEYED	HYATT	9/2019
DESIGNED		
DRAWN	SC	9/2019
CHECKED	RH	9/2019



SHEET 1 OF 3





TOPOGRAPHIC SURVEY
PASS-A-GRILLE SEAWALL
PINELLAS COUNTY, FLORIDA

Hyatt Survey Services, Inc.
Geographic Data Specialists
LB No.: 7203
2012 Lena Road Bradenton, Florida 34211
Phone: (841) 748-6693 Fax: (941) 744-1643

PROJECT #	19-2408
SURVEY #	19-2408
SECTION TWN RNG	19-32-16
SCALE	1" = 20'
SURVEYED	HYATT 9/2019
DESIGNED	
DRAWN	SC 9/2019
CHECKED	RH 9/2019

0 20 FT

SHEET 3 OF 3

Page 126 of 161

St. Pete Beach City Commission Agenda Report

Issue Considered: City of St. Pete Beach Parking Pay Station Upgrades, Parking Meter Removal and Establishment of Mobile Payment Zones

Date: 1/26/2020

Prepared By: Michelle Gonzalez, Transportation and Parking Director

Through: Alex Rey, City Manager

Summary of Issue: Based on the direction received from the City Commission at the 1/12/20 meeting, it was agreed to move forward with Option 2- Upgrade Pay Station Doors and Eliminate Individual Parking Meters in Replacement of Exclusive Mobile Payment Zones. This option proposes to keep and upgrade the 35 pay stations currently in place city wide by our major beach parking areas and remove the 120 individual parking meters and set up exclusive mobile payment zones as the accepted form of payment.

This option reflects the most cost-effective approach for the long-term operations of the city's parking program. Under Option 2, each year meter maintenance (includes web office reporting, parts warranty, maintenance, & supplies) is estimated to cost \$43K instead of \$83K. This savings accounts for the following:

- Reduced number of units needed to be maintained from 155 units to 35 units
- Web office reporting cost decreased (from \$36K to \$21K)
- Parts Warranty cost decreased (from \$24K to \$12K)
- Mobile Payment Zones have associated minimal maintenance costs

Other benefits from moving forward with Option 2 is, it addresses customer issues currently faced with the pay station buttons, which often result in users overpaying at the meter and reduces the maintenance time required and allows enforcement officers to better focus their time on parking enforcement. In addition, it also frees up space on city sidewalks and helps to encourage healthier and safer community.

To address the negative potential impacts the removal of individual parking meters may place, the City is working with our current mobile payment option providers to expand the options users can by their phone. Mobile payments will be allowed by the following means: mobile application, by phone call, by text message, or by scan QR code with your smart phone. Currently, the city only accepts credit card or coin payments and the city's parking rate is \$3.25 per hour, which would require someone to carry a large amount of coins. Payments made by coins account for 2% of the parking revenue collected.

Lastly, the cost of the pay station upgrades is \$91,875 this includes the cost of the touch screen door, modem upgrade, new battery for each pay station and 1-year part warranty. Furthermore, \$8,250 of this cost will be reimbursed by the County for the County Beach Access Park pay stations, bringing the total project cost down to \$83,625 for the City.

Funding: Parking and Transportation Budget- Other Equipment (001-5605-521-5649)

Requested Motion: "I move to approve Option 2- Upgrade Pay Station Doors and Eliminate Individual Parking Meters in Replacement of Exclusive Mobile Payment Zones and the expenditure of funds in the of \$91,875 for the pay station door upgrades.

Attachment: Pay Station Door Upgrade Estimate

**Reviewed by the
City Manager:**



ST Pete Beach Quote Summary

Quote Date 7/29/2020
Quote Expires 10/27/2020
Quote Issued By Scott Fox

Equipment				
Product Name	Quantity	Unit Price	Term	Year 1
CWT Credit Card and Upgrade Door - Color Touch Display * credit card reader non EMV - LTE Modem and antenna, 75W Battery Configuration: Pay by Plate, No printer, Warranty: 12-month	35	\$ 2,550.00	One Time	\$89,250
Equipment Total: \$				89,250.00

General Services				
Shipping	35	\$ 75.00		\$ 2,625.00
General Services Total: \$				2,625.00
Total: \$				91,875.00

All prices stated are exclusive of taxes and shipping costs unless specifically itemized in this quotation. Customer is responsible for all taxes or providing proof of tax-exempt status. By accepting this order, Customer agrees to be bound by all applicable terms and conditions or terms of existing contract(s) between Customer and Flowbird for the same products and services, if any:

Accepted by: _____ Date: ____/____/____

St. Pete Beach City Commission Agenda Report

Issue Considered: Ordinance 2021-03: An Ordinance of the City of St. Pete Beach, Florida Providing for Supplemental Budget Appropriations.

Date: January 26, 2021

Prepared By: Vince Tenaglia, Assistant City Manager

Through: Alex Rey, City Manager

Summary of Issue: The intent of Ordinance 2021-03 is to recognize the City's financial position as of September 30, 2020 and re-balance available funds. Throughout the annual budget process, staff estimates working capital balances for the purpose of determining current and future spending availability. To the extent revenue exceeds staff estimates, or expenditures fall short of estimates, funding becomes available to either increase spending or increase fund balance.

As illustrated in Appendix A, reconciling items include revenue and expenditures re-appropriated from the prior fiscal year. Revenue includes sources that correspond to construction schedules, such as the sanitary sewer expansion project's revolving loan, County funds for the Gulf Blvd. electrical undergrounding project, and grant reimbursements contingent upon the completion of CIP projects. Expenditure reconciliations include re-appropriations for projects and services encumbered or rescheduled as of September 30, 2020.

A budgetary gain or loss reflects only the difference between staff estimates and actual results, as opposed to operating income or an operating loss, comparing revenue and operating expenses. All funds will report positive operating income for fiscal year 2020 in the Comprehensive Annual Financial Report, to be published in March 2021.

The net budgetary gain for fiscal year 2020, across all funds and as compared to the adopted budget, was \$1,946,210, of which \$460,157 represents capital float that is routinely re-programmed for infrastructure spending in the Reclaimed Water and Stormwater Funds. The remaining \$1,486,053 represents true budgetary gains attributed to the General, Capital, and Building Funds, net of a Wastewater Fund budgetary loss.

The net budgetary gain in the General Fund was \$604,049, primarily driven by unanticipated revenue strength. Revenue estimates were projected conservatively based on the uncertain outlook of Covid-19. Parking activity was particularly strong, exceeding estimates by 10.8% and contributing approximately \$333,000 to the gain. Sales-tax related revenue also outperformed economic headwinds and exceeded estimates by nearly \$81,000, while plan review activity was unprecedented, contributing another \$39,000 to the gain. Reimbursement funding of \$81,000 from the Cares Act for Covid-19 related expenses was also unanticipated at the time of budget adoption. Total General Fund revenue was \$29.6 million, exceeding the budget by 1.8%.

The \$704,351 budgetary gain in the Capital Fund was primarily achieved by closing out capital projects. The final closeout of Pass-a-Grille Phase II reflected a deductive change order of \$350,159, while several annual installment programs were cumulatively closed with approximately \$92,000 remaining. Penny for Pinellas revenue, projected conservatively due to Covid-19 uncertainty, exceeded estimates by nearly \$61,000, declining only 5.2% year-over-year.

The budgetary gain in the Building Fund was \$211,992, as the City continued to experience unprecedented building activity. Permit revenue increased 28.7% over the prior year, totaling nearly \$1.1 million.

The Wastewater Fund reflected a \$35,650 budgetary loss, which is a complex issue still being analyzed by staff. Despite a 7% service fee increase, operating revenue increased only 1.4%, totaling \$6.6 million. Commercial property vacancies associated with Covid-19 were a contributing factor, with water consumption declining at least 6% year-over-year. Yet total flows treated by the City of St. Petersburg declined only 1.8%, short of the 4% staff estimate, resulting in higher treatment expenses than planned. The City was fortunate to receive a very favorable \$569,000 true-up from St. Petersburg for sewage treatment, which offset most of the budgetary losses.

Two options are presented to the City Commission for determining the utilization of the available balances: Appendix A (Original) and Appendix A (Alternate). The original schedule includes the same list of expenditures as presented on first reading January 12, 201. The alternate schedule provides funding for the acquisition of property located at 7300 Boca Ciega Dr., which, if purchased, would

allow the City to expand public parking options for Corey Avenue. It also includes an additional \$30,000 for the library parking lot while removing the \$65,000 capital project contingency. The alternate schedule increases fund balance by \$11,400 rather than the \$326,400 provided by the original schedule.

Capital outlay:

Reclaimed water infrastructure	87,537
Stormwater infrastructure	372,620
Tennis court lighting at Egan Park	90,000
Tennis court lighting at Vina del Mar	100,000
Corey Ave pier	250,000
Pass-a-Grille lighting	92,000
Street resurfacing	100,000
Parking license plate recognition & GIS	70,000
Library parking lot	50,000
Property acquisition	350,000
Capital outlay total:	<u>\$ 1,562,157</u>

Operating expenditures:

Weekend garbage collection	70,000
Rescheduled July 4 fireworks	12,500
Clerk's office software	7,500
Finance software	50,000
Contingency	25,000
Operating expenditure total:	<u>\$ 165,000</u>

To (from) fund balance:

General	41,400
Building	211,992
Fleet	1,311
Capital	-
Wastewater	(35,650)
Reclaimed	-
Stormwater	-
Fund balance total:	<u>\$ 219,053</u>

Total FY 2021 allocation requests: \$ 1,946,210

Funding:

Appendix A itemizes the requests summarized above. All figures reported above are unaudited. In the event of any significant reclassifications during the audit process, reconciliations will be brought forward via budget amendment or reflected in the FY 2022 proposed budget.

Requested Motion:

“I move to adopt Ordinance 2021-03.”

Attachment:

Ordinance 2021-03
Appendix A

Ordinance 2021-03

**AN ORDINANCE OF THE CITY OF ST. PETE BEACH,
FLORIDA, PROVIDING FOR SUPPLEMENTAL BUDGET
APPROPRIATIONS; PROVIDING FOR CONFLICTS,
SEVERABILITY, CONSTRUCTION, PUBLICATION, AND
AN EFFECTIVE DATE.**

**NOW, THEREFORE, THE CITY COMMISSION OF THE CITY OF ST. PETE BEACH,
FLORIDA, HEREBY ORDAINS:**

WHEREAS, the fiscal year 2021 budget includes revenue and expenditures as adopted by Ordinance 2020-18; and

WHEREAS, the City Commission of the City of St. Pete Beach desires to amend the fiscal year 2021 budget; and

WHEREAS, Article III, Section 3.13(a) of the City Charter provides authority for appropriation amendments; and

WHEREAS, the City Commission of the City of St. Pete Beach desires to appropriate revenue and expenditures derived from fiscal year 2020 outstanding encumbrances and available balances.

**NOW, THEREFORE, THE CITY COMMISSION OF THE CITY OF ST. PETE BEACH,
FLORIDA, HEREBY ORDAINS:**

SECTION 1. Recitals. The above recitals (“Whereas” clauses) are hereby adopted as legislative findings, purpose and intent of the City Commission.

SECTION 2. The City of St. Pete Beach fiscal year 2021 budget shall be amended per Appendix A, attached and made part of this Ordinance.

SECTION 3. Conflicts. All Ordinances or parts of Ordinances in conflict with any of the provisions of this Ordinance are hereby repealed to the extent of any conflict with the Ordinance.

SECTION 4. Severability. The provisions of this Ordinance are declared to be severable, and if any section, sentence, clause or phrase of this Ordinance shall for any reason be held to be invalid, unlawful, or unconstitutional, such decision shall not affect the validity of the remaining sections, sentences, clauses, and phrases of this

Ordinance but they shall remain in effect, it being the legislative intent that this Ordinance shall stand notwithstanding of any part.

SECTION 5. Construction. This Ordinance is to be liberally construed to accomplish its objectives.

SECTION 6. Publication. This Ordinance shall be published in accordance with the requirements of law.

SECTION 7. Effective Date. This Ordinance shall become effective immediately upon its passage and adoption.

FIRST READING: _____
PUBLISHED: _____
SECOND READING: _____
PUBLIC HEARING: _____

CITY COMMISSION, CITY OF ST. PETE
BEACH, FLORIDA.

Alan Johnson, Mayor

I, Amber LaRowe, City Clerk of the City of St. Pete Beach, Florida, do hereby certify that the foregoing Ordinance was duly adopted in accordance with the provisions of applicable law this _____ day of _____, 2021.

Amber LaRowe, City Clerk

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

Andrew Dickman, City Attorney

Ordinance 2021-03: Appendix A (Original)

	General	Building	Fleet	Capital	Wastewater	Reclaimed	Stormwater	Total
Budgeted balance	9,400,000	940,000	580,000	8,000	870,000	975,000	392,000	13,165,000
December 2020 balance	10,216,000	1,156,000	638,000	5,426,000	5,494,000	1,218,000	2,207,000	26,355,000
Reconciliation:								-
<u>Revenue re-appropriations:</u>								
Blind Pass Road - FDEP	-	-	-	50,000	-	-	-	50,000
Blind Pass Road - Pinellas	-	-	-	40,166	-	-	-	40,166
Generator - FDEM	-	-	-	112,500	-	-	-	112,500
Rescue 23 - Pinellas	-	-	-	200,000	-	-	-	200,000
Gulf Blvd undergrounding - Pinellas	-	-	-	5,185,648	-	-	-	5,185,648
Sanitary sewer expansion - revolving loan	-	-	-	-	13,230,948	-	-	13,230,948
Revenue re-appropriations total	\$ -	\$ -	\$ -	\$ 5,588,314	\$ 13,230,948	\$ -	\$ -	\$ 18,819,262
<u>Adopted re-appropriations:</u>								
Library improvements	-	-	-	(1,000,000)	-	-	-	(1,000,000)
Bridge repairs	-	-	-	(300,000)	-	-	-	(300,000)
Decorative street signs	-	-	-	(135,000)	-	-	-	(135,000)
Seawall maintenance	-	-	-	(425,000)	-	-	-	(425,000)
Placemaking improvements	-	-	-	(165,000)	-	-	-	(165,000)
Hurley Park	-	-	-	(300,000)	-	-	-	(300,000)
Generator power	-	-	-	(200,000)	-	-	-	(200,000)
Dune crossover replacements	-	-	-	(80,000)	-	-	-	(80,000)
Fishing piers	-	-	-	(800,000)	-	-	-	(800,000)
Warren Webster facility	-	-	-	(50,000)	-	-	-	(50,000)
Fire Station 22	-	-	-	(67,000)	-	-	-	(67,000)
Fire Station 23	-	-	-	(49,000)	-	-	-	(49,000)
Gulf Blvd electrical undergrounding	-	-	-	(4,500,000)	-	-	-	(4,500,000)
Sanitary sewer expansion	-	-	-	-	(15,000,000)	-	-	(15,000,000)
Capital improvements	-	-	-	-	-	-	(1,105,000)	(1,105,000)
Adopted re-appropriations total	\$ -	\$ -	\$ -	\$ (8,071,000)	\$ (15,000,000)	\$ -	\$ (1,105,000)	\$ (24,176,000)
<u>Pending re-appropriations:</u>								
Operating encumbrances	(211,951)	(4,008)	(56,689)	-	-	-	-	(272,648)
Capital improvements	-	-	-	-	-	(155,463)	(337,380)	(492,843)
Security improvements	-	-	-	(22,434)	-	-	-	(22,434)
Facility improvements	-	-	-	(9,700)	-	-	-	(9,700)
PAG park	-	-	-	(40,194)	-	-	-	(40,194)
ADA program	-	-	-	-	-	-	-	-
Library improvements	-	-	-	(242,891)	-	-	-	(242,891)
Upham Beach parking lot	-	-	-	(24,158)	-	-	-	(24,158)
Shell alleys	-	-	-	(26,291)	-	-	-	(26,291)
Street rehabilitation	-	-	-	(181,958)	-	-	-	(181,958)
Corey Ave street rehabilitation	-	-	-	(29,523)	-	-	-	(29,523)
Bridge repairs	-	-	-	(275,542)	-	-	-	(275,542)

Ordinance 2021-03: Appendix A (Original)

	General	Building	Fleet	Capital	Wastewater	Reclaimed	Stormwater	Total
Pass-a-Grille seawall	-	-	-	(27,590)	-	-	-	(27,590)
Seawall maintenance	-	-	-	(25,296)	-	-	-	(25,296)
Placemaking improvements	-	-	-	(101,894)	-	-	-	(101,894)
Property beautification	-	-	-	(6,086)	-	-	-	(6,086)
Hurley Park	-	-	-	(85,998)	-	-	-	(85,998)
Playground equipment	-	-	-	(128,320)	-	-	-	(128,320)
Public restrooms	-	-	-	(15,175)	-	-	-	(15,175)
Dune and beach improvements	-	-	-	(12,806)	-	-	-	(12,806)
Generator power	-	-	-	(18,868)	-	-	-	(18,868)
Dune crossover replacements	-	-	-	(9,353)	-	-	-	(9,353)
Fishing piers	-	-	-	(166,911)	-	-	-	(166,911)
SCBA compressor system	-	-	-	-	-	-	-	-
EMS boat dock	-	-	-	(23,000)	-	-	-	(23,000)
Fire Station 22	-	-	-	(937)	-	-	-	(937)
Fire Station 23	-	-	-	(641)	-	-	-	(641)
Court resurfacing	-	-	-	(10,445)	-	-	-	(10,445)
Egan Park	-	-	-	(95,047)	-	-	-	(95,047)
Asset management	-	-	-	(39,010)	-	-	-	(39,010)
Apparatus replacement	-	-	-	(181,500)	-	-	-	(181,500)
Gulf Blvd electrical undergrounding	-	-	-	(297,104)	-	-	-	(297,104)
FDOT highway landscape	-	-	-	(18,885)	-	-	-	(18,885)
CIP engineering	-	-	-	(113,406)	-	-	-	(113,406)
Lift station R&R	-	-	-	-	(941,728)	-	-	(941,728)
Sanitary sewer I&I	-	-	-	-	(81,932)	-	-	(81,932)
Asset management	-	-	-	-	(41,021)	-	-	(41,021)
Sanitary sewer expansion	-	-	-	-	(1,825,917)	-	-	(1,825,917)
Pending re-appropriations total	\$ (211,951)	\$ (4,008)	\$ (56,689)	\$ (2,230,963)	\$ (2,890,598)	\$ (155,463)	\$ (337,380)	\$ (5,887,052)
Adjusted balance	10,004,049	1,151,992	581,311	712,351	834,350	1,062,537	764,620	15,111,210
Net budgetary gain (loss)	604,049	211,992	1,311	704,351	(35,650)	87,537	372,620	1,946,210
Transfers in (out)	(112,649)	-	-	112,649	-	-	-	-
Available	\$ 491,400	\$ 211,992	\$ 1,311	\$ 817,000	\$ (35,650)	\$ 87,537	\$ 372,620	\$ 1,946,210
FY21 allocation requests:								
Capital improvements	-	-	-	-	-	87,537	372,620	460,157
Tennis court lighting at Egan Park	-	-	-	90,000	-	-	-	90,000
Tennis court lighting at Vina del Mar	-	-	-	100,000	-	-	-	100,000
Corey Ave pier	-	-	-	250,000	-	-	-	250,000
Pass-a-Grille lighting	-	-	-	92,000	-	-	-	92,000
Street resurfacing	-	-	-	100,000	-	-	-	100,000
Parking license plate recognition & GIS	-	-	-	70,000	-	-	-	70,000
Library parking lot	-	-	-	50,000	-	-	-	50,000
Capital project contingency	-	-	-	65,000	-	-	-	65,000

Ordinance 2021-03: Appendix A (Original)

	General	Building	Fleet	Capital	Wastewater	Reclaimed	Stormwater	Total
Weekend garbage collection	70,000	-	-	-	-	-	-	70,000
Rescheduled July 4 fireworks	12,500	-	-	-	-	-	-	12,500
Clerk's office software	7,500	-	-	-	-	-	-	7,500
Finance software	50,000	-	-	-	-	-	-	50,000
Operating contingency	25,000	-	-	-	-	-	-	25,000
FY21 allocation request total	\$ 165,000	\$ -	\$ -	\$ 817,000	\$ -	\$ 87,537	\$ 372,620	\$ 1,442,157
Net to (from) fund balance	\$ 326,400	\$ 211,992	\$ 1,311	\$ -	\$ (35,650)	\$ -	\$ -	\$ 504,053

Ordinance 2021-03: Appendix A (Alternate)

	General	Building	Fleet	Capital	Wastewater	Reclaimed	Stormwater	Total
Budgeted balance	9,400,000	940,000	580,000	8,000	870,000	975,000	392,000	13,165,000
December 2020 balance	10,216,000	1,156,000	638,000	5,426,000	5,494,000	1,218,000	2,207,000	26,355,000
Reconciliation:								-
<u>Revenue re-appropriations:</u>								
Blind Pass Road - FDEP	-	-	-	50,000	-	-	-	50,000
Blind Pass Road - Pinellas	-	-	-	40,166	-	-	-	40,166
Generator - FDEM	-	-	-	112,500	-	-	-	112,500
Rescue 23 - Pinellas	-	-	-	200,000	-	-	-	200,000
Gulf Blvd undergrounding - Pinellas	-	-	-	5,185,648	-	-	-	5,185,648
Sanitary sewer expansion - revolving loan	-	-	-	-	13,230,948	-	-	13,230,948
Revenue re-appropriations total	\$ -	\$ -	\$ -	\$ 5,588,314	\$ 13,230,948	\$ -	\$ -	\$ 18,819,262
<u>Adopted re-appropriations:</u>								
Library improvements	-	-	-	(1,000,000)	-	-	-	(1,000,000)
Bridge repairs	-	-	-	(300,000)	-	-	-	(300,000)
Decorative street signs	-	-	-	(135,000)	-	-	-	(135,000)
Seawall maintenance	-	-	-	(425,000)	-	-	-	(425,000)
Placemaking improvements	-	-	-	(165,000)	-	-	-	(165,000)
Hurley Park	-	-	-	(300,000)	-	-	-	(300,000)
Generator power	-	-	-	(200,000)	-	-	-	(200,000)
Dune crossover replacements	-	-	-	(80,000)	-	-	-	(80,000)
Fishing piers	-	-	-	(800,000)	-	-	-	(800,000)
Warren Webster facility	-	-	-	(50,000)	-	-	-	(50,000)
Fire Station 22	-	-	-	(67,000)	-	-	-	(67,000)
Fire Station 23	-	-	-	(49,000)	-	-	-	(49,000)
Gulf Blvd electrical undergrounding	-	-	-	(4,500,000)	-	-	-	(4,500,000)
Sanitary sewer expansion	-	-	-	-	(15,000,000)	-	-	(15,000,000)
Capital improvements	-	-	-	-	-	-	(1,105,000)	(1,105,000)
Adopted re-appropriations total	\$ -	\$ -	\$ -	\$ (8,071,000)	\$ (15,000,000)	\$ -	\$ (1,105,000)	\$ (24,176,000)
<u>Pending re-appropriations:</u>								
Operating encumbrances	(211,951)	(4,008)	(56,689)	-	-	-	-	(272,648)
Capital improvements	-	-	-	-	-	(155,463)	(337,380)	(492,843)
Security improvements	-	-	-	(22,434)	-	-	-	(22,434)
Facility improvements	-	-	-	(9,700)	-	-	-	(9,700)
PAG park	-	-	-	(40,194)	-	-	-	(40,194)
ADA program	-	-	-	-	-	-	-	-
Library improvements	-	-	-	(242,891)	-	-	-	(242,891)
Upham Beach parking lot	-	-	-	(24,158)	-	-	-	(24,158)
Shell alleys	-	-	-	(26,291)	-	-	-	(26,291)
Street rehabilitation	-	-	-	(181,958)	-	-	-	(181,958)
Corey Ave street rehabilitation	-	-	-	(29,523)	-	-	-	(29,523)
Bridge repairs	-	-	-	(275,542)	-	-	-	(275,542)

Ordinance 2021-03: Appendix A (Alternate)

	General	Building	Fleet	Capital	Wastewater	Reclaimed	Stormwater	Total
Pass-a-Grille seawall	-	-	-	(27,590)	-	-	-	(27,590)
Seawall maintenance	-	-	-	(25,296)	-	-	-	(25,296)
Placemaking improvements	-	-	-	(101,894)	-	-	-	(101,894)
Property beautification	-	-	-	(6,086)	-	-	-	(6,086)
Hurley Park	-	-	-	(85,998)	-	-	-	(85,998)
Playground equipment	-	-	-	(128,320)	-	-	-	(128,320)
Public restrooms	-	-	-	(15,175)	-	-	-	(15,175)
Dune and beach improvements	-	-	-	(12,806)	-	-	-	(12,806)
Generator power	-	-	-	(18,868)	-	-	-	(18,868)
Dune crossover replacements	-	-	-	(9,353)	-	-	-	(9,353)
Fishing piers	-	-	-	(166,911)	-	-	-	(166,911)
SCBA compressor system	-	-	-	-	-	-	-	-
EMS boat dock	-	-	-	(23,000)	-	-	-	(23,000)
Fire Station 22	-	-	-	(937)	-	-	-	(937)
Fire Station 23	-	-	-	(641)	-	-	-	(641)
Court resurfacing	-	-	-	(10,445)	-	-	-	(10,445)
Egan Park	-	-	-	(95,047)	-	-	-	(95,047)
Asset management	-	-	-	(39,010)	-	-	-	(39,010)
Apparatus replacement	-	-	-	(181,500)	-	-	-	(181,500)
Gulf Blvd electrical undergrounding	-	-	-	(297,104)	-	-	-	(297,104)
FDOT highway landscape	-	-	-	(18,885)	-	-	-	(18,885)
CIP engineering	-	-	-	(113,406)	-	-	-	(113,406)
Lift station R&R	-	-	-	-	(941,728)	-	-	(941,728)
Sanitary sewer I&I	-	-	-	-	(81,932)	-	-	(81,932)
Asset management	-	-	-	-	(41,021)	-	-	(41,021)
Sanitary sewer expansion	-	-	-	-	(1,825,917)	-	-	(1,825,917)
Pending re-appropriations total	\$ (211,951)	\$ (4,008)	\$ (56,689)	\$ (2,230,963)	\$ (2,890,598)	\$ (155,463)	\$ (337,380)	\$ (5,887,052)
Adjusted balance	10,004,049	1,151,992	581,311	712,351	834,350	1,062,537	764,620	15,111,210
Net budgetary gain (loss)	604,049	211,992	1,311	704,351	(35,650)	87,537	372,620	1,946,210
Transfers in (out)	(427,649)	-	-	427,649	-	-	-	-
Available	\$ 176,400	\$ 211,992	\$ 1,311	\$ 1,132,000	\$ (35,650)	\$ 87,537	\$ 372,620	\$ 1,946,210
FY21 allocation requests:								
Capital improvements	-	-	-	-	-	87,537	372,620	460,157
Tennis court lighting at Egan Park	-	-	-	90,000	-	-	-	90,000
Tennis court lighting at Vina del Mar	-	-	-	100,000	-	-	-	100,000
Corey Ave pier	-	-	-	250,000	-	-	-	250,000
Pass-a-Grille lighting	-	-	-	92,000	-	-	-	92,000
Street resurfacing	-	-	-	100,000	-	-	-	100,000
Parking license plate recognition & GIS	-	-	-	70,000	-	-	-	70,000
Library parking lot	-	-	-	80,000	-	-	-	80,000
Property acquisition	-	-	-	350,000	-	-	-	350,000

Ordinance 2021-03: Appendix A (Alternate)

	General	Building	Fleet	Capital	Wastewater	Reclaimed	Stormwater	Total
Capital project contingency	-	-	-	-	-	-	-	-
Weekend garbage collection	70,000	-	-	-	-	-	-	70,000
Rescheduled July 4 fireworks	12,500	-	-	-	-	-	-	12,500
Clerk's office software	7,500	-	-	-	-	-	-	7,500
Finance software	50,000	-	-	-	-	-	-	50,000
Operating contingency	25,000	-	-	-	-	-	-	25,000
FY21 allocation request total	\$ 165,000	\$ -	\$ -	\$ 1,132,000	\$ -	\$ 87,537	\$ 372,620	\$ 1,757,157
Net to (from) fund balance	\$ 11,400	\$ 211,992	\$ 1,311	\$ -	\$ (35,650)	\$ -	\$ -	\$ 189,053

**St. Pete Beach City Commission
Agenda Report**

Issue Considered: Resolution 2021-03 Special Election and Qualifying Period

Date: January 26, 2021

Prepared By: Amber LaRowe, City Clerk

Through: Amber LaRowe, City Clerk

Summary of Issue: This Resolution will establish the date for the 2021 Special Municipal Election as August 24, 2021. The Resolution also designates the Qualifying Period as 12:00 p.m. (noon) Tuesday, June 1, 2021 through 12:00 p.m. (noon) Friday, June 11, 2021 for the District 2 Commissioner.

Funding: Account No. 001-5101-512-5493; waiting on estimated costs from Supervisor of Elections

Requested Motion: I move to adopt Resolution 2021-03.

Attachments: 1. 2021-03 QP and Special Election

RESOLUTION NO. 2021-03

**A RESOLUTION OF THE CITY OF ST. PETE BEACH,
PINELLAS COUNTY, FLORIDA ESTABLISHING THE DATE
FOR THE 2021 SPECIAL MUNICIPAL ELECTION AND THE
QUALIFICATION PERIOD FOR THE COMMISSIONER FOR
DISTRICT 2**

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF
THE CITY OF ST. PETE BEACH, THAT:**

1. A Special Municipal Election will be held on Tuesday, August 24, 2021 for the purpose of electing a Commissioner for District No. 2; and the Qualification Period is set as 12:00 p.m., Tuesday, June 1, 2021 through 12:00 p.m., Friday June 11, 2021.
2. Every person who shall be a candidate for the Office of City Commissioner shall file the necessary papers with the Office of the City Clerk not earlier than 12:00 p.m., on June 1, 2021 and not later than 12:00 p.m. on June 11, 2021.
3. To qualify for the position of Commissioner for District 2, a candidate must be a full-time resident of the District in which s/he seeks to represent for a period of twelve (12) months next preceding the last day of the established qualifying period.

**PASSED AND APPROVED BY THE COMMISSION OF THE CITY OF ST.
PETE BEACH, FLORIDA, THIS 26TH DAY OF JANUARY, 2021.**

CITY COMMISSION, CITY OF ST. PETE
BEACH, FLORIDA

Alan Johnson, Mayor

ATTEST:

Amber LaRowe, City Clerk

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

Andrew Dickman, City Attorney

**St. Pete Beach City Commission
Agenda Report**

Issue Considered: Parklet Program Feedback

Date: January 26, 2021

Prepared By: Jennifer McMahon, Parks and Recreation Director

Through: Alex Rey, City Manager

Summary of Issue: Staff have been working on implementing a parklet program in the City of St Pete Beach. Currently there are temporary parklets in the City in response to COVID 19. This program's permit guidelines were presented to Commission on October 27, 2020. The direction was to meet with the City's Planning and Historic Preservation boards for feedback. Staff did meet with both boards, as well as CABA members for feedback.

Funding: N/A

Requested Motion: Discussion

Attachments:

1. Parklet Program Feedback 1-11-21
2. City of St Pete Beach Parklet Program v6 Dec 1 2020

Parklet Program Feedback

Planning and Historic Preservation Boards

Feedback

- Both boards were in favor of the program with the exception of one member of the Historic Preservation board that was not in favor of the program in PAG
- Open it up to retail/business in additional to restaurants.
- Set a criteria for who can apply for parklets when looking at street width
- Consider making a percentage of number of parking spaces allowed in a district and/or street
- Look into 2 types of permits – One permanent with a platform and one that is temporary with movable parklet set up certain hours or days
- Parklets as seasonal
- Considering closing streets to allow outdoor seating/dining on some weekend nights
- Look at what the increase of value to the businesses is by adding outdoor space
- Ensure handicap parking is not taken away



Addressing Parking Concerns

CABA building owners meeting

- ☞ Designated parking in front of businesses
- ☞ Time limit parking
- ☞ Loading and unloading zones for businesses
- ☞ Widen sidewalks and look at compact car spaces
- ☞ Designated space in library parking lot
- ☞ Employee parking at funeral home and library
- ☞ Find replacement parking spaces within reasonable distance
 - ☞ Gulf Way, new spaces on west side of PAG park
 - ☞ Corey – New spaces by the library and potential purchase of lot on Boca Ciega and 73rd.

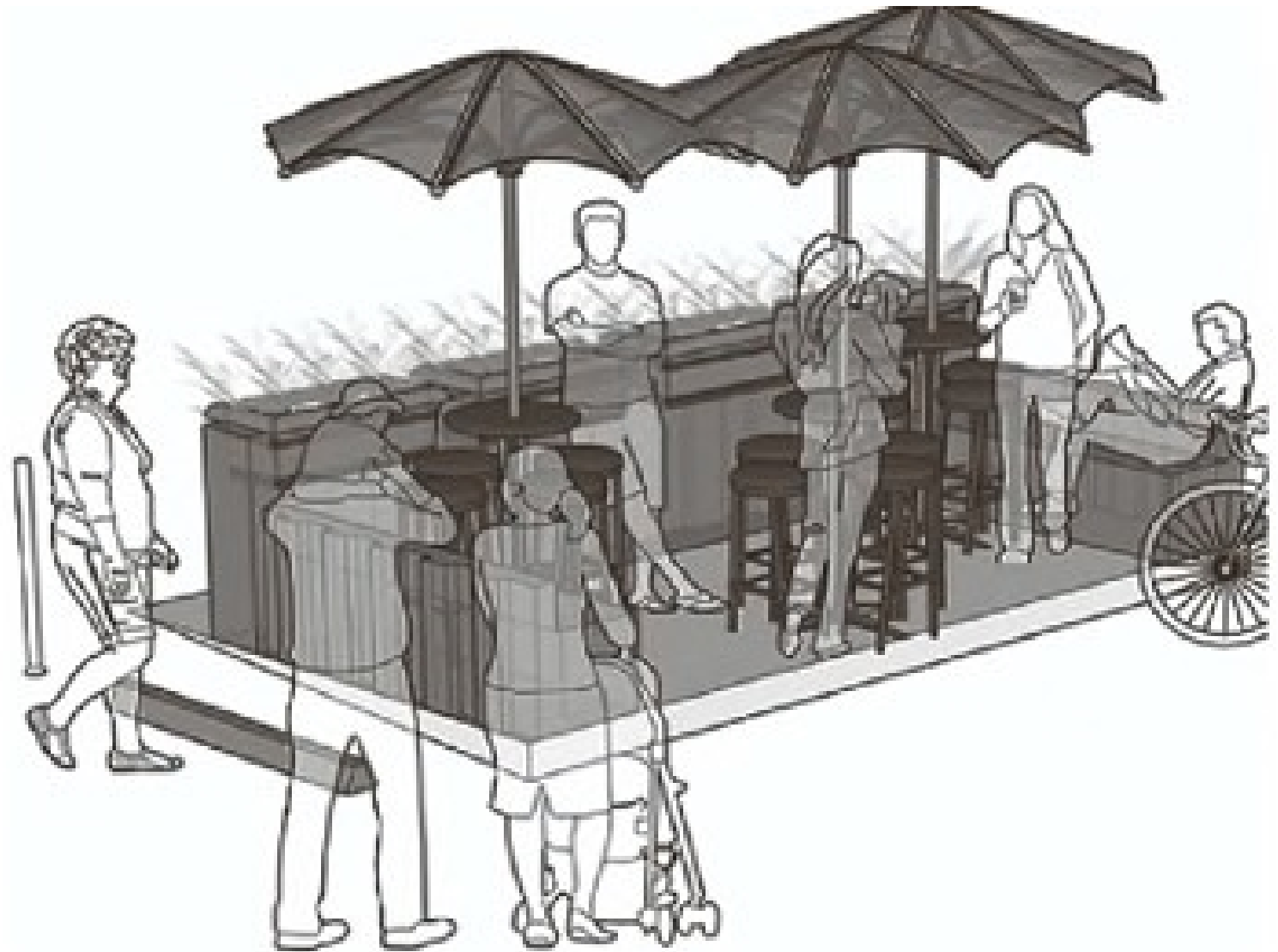
Discussion

Timeline

Type/s

Seasonal vs year round

Once a month event with wet zone and street closures on 8th Ave and Corey Avenues





City of St Pete Beach Parklet Program

PERMIT GUIDELINES

2020

OVERVIEW

The City of St Pete Beach's Parklet Program focuses on conversion of on-street parking spaces into publicly accessible open space. The program provides a way for merchants to take individual actions in the development and beautification of the City's public spaces. Parklets were first formally initiated in San Francisco in 2010 and duplicated in cities all around the world due to the success. The benefits that parklets provide are:

- Brings aesthetic enhancements to the city's streetscape
- Provides an economic solution to the need for increased public open spaces.
- Provides amenities like seating, planting, bike parking, and art.
- Reflects the city's commitment to encourage walking and biking
- Creates a pedestrian friendly street
- Provides an economic solution to the need for increased public open space

PROGRAM GOALS

Meet the demand of outdoor dining. As we continue to navigate through this pandemic, the desire for people to eat outdoors has grown immensely. Restaurants report 3 out of 4 people choose dining outdoors over indoors.

Reimagine the potential of the city streets. Parklets promote a low-cost, easily implementable approach to public space improvement through projects that energize and re-invent the streetscape of an area.

Encourage non-motorized transportation and pedestrian activity. Parklets provide pocket spaces for pedestrians to sit and relax and often provide bicycle parking.

Support local businesses. Parklets attract attention to businesses and provide additional seating that can be used by café customers and others. A parklet also beautifies the street and creates a neighborhood destination.

Existing Temporary Parklets in the city:



Brass Monkey
709 Gulf Way #200



Grace Restaurant
120 8th Ave.



Chill Restaurant & Bar
357 Corey Ave.



SWIGAM BEACH BAR
340 Corey Ave



Hurricane Seafood Restaurant
809 Gulf Way.



Willy's Burgers and Booze
645 Corey Ave.

PARKLET GUIDELINES

- 1) Parklets are permitted on streets with speed limits of 25 mph or less.
- 2) Parking Spaces. Parklets can be sited along the curb line on streets where on-street parking spaces exist. They can be considered in any location where there are space(s) for on-street parallel, angled, or perpendicular parking, including spaces with metered or unmetered parking.
- 3) In general, parklets must be located at least one parking space away from an intersection or street corner. A curb extension (bulb-out), or some other physical barrier that would protect the parklet in a corner location may allow the city to consider corner parklets.
- 4) Parklets are prohibited in front of active driveways, on street curves or hills where horizontal or vertical sight-distance is an issue. There will be a required side parking offset of at least one parking space to any element that could impede sight lines. There must be visibility for anyone parking adjacent to the parklet.
- 5) Parklets are prohibited in bus lanes, in front of fire hydrants, at utility access points (like manholes), and at high turnover parking spots (like banks, post office, and reserved take out/ delivery service parking).
- 6) Parklets cannot be installed in locations where traffic congestion is an issue or where congestion could be an issue in the short term.

DESIGN GUIDELINES

Reflective Elements at Corners

Reflective elements are required at the outside corners of all parklets. Soft-hit posts are a standard solution deployed at the outside edges; however, the City will consider additional reflective elements incorporated in the parklet design.



Wheel Stops

For parklets in parallel parking spaces, a three-foot wheel stop must be installed one foot from the curb at the edge of the front and back parking spaces. When parklets are installed adjacent to parallel parking spaces, wheel stops should be setback four feet from the parklet structure. For angled parking spaces and adjacent to driveways, City staff will work with you to determine the appropriate location for wheel stops. Wheel stops shall be made of recycled rubber/plastic.



Site Conditions

Your initial site plan should accurately reflect the existing site conditions and include streetscape features like adjacent bike racks, utility covers, street poles, existing signs, street trees, tree wells, etc.

The Platform

The platform provides the structural base for the parklet. The City strongly recommends consulting a design or construction professional to ensure that the platform will be sturdy and safe. The top of the parklet platform must be flush with the sidewalk with a maximum gap of one-half inch. In the case of a sloping street, staff will work with the designer to address issues of access.

Bolting

Bolting into the street or penetrating the surface of the road in any way is strongly discouraged and may not be allowed without a restoration plan and an excavation bond posted by the applicant and their contractor. Parklets may be bolted to the existing curb, with specific restoration requirements. The parklet shall not prevent the roadway from returning to its original state.

Access and ADA compliance

If the platform base is not solid, the space underneath the platform surface must be accessible for maintenance through access panels, removable pavers, etc. A minimum 36" ADA accessible entryway to the Parklet must be maintained for all parklets.

Drainage

The parklet cannot impede the flow of curbside drainage. Designers are strongly encouraged to cover openings at either end of the parklet with screens to prevent blockage from debris.

Maintain a Visual Connection to the Street

Your parklet design should maintain a visual connection to the street. Continuous opaque walls above forty-two inches that block views into the parklet from the surrounding streetscape are prohibited. You are allowed to include columns and other vertical elements.

Umbrellas

For a parklet, if umbrellas are proposed, they shall not exceed 6 feet by 6 feet with a vertical clearance of 96 inches.

Barriers

Enclosures are required to provide a clearly defined boundary and help create a comfortable and separated space for patrons. A combination of Heavyweight Barriers and Lightweight Barriers must be used to demarcate the perimeter of the enclosure. Heavyweight barriers shall be placed no more than 6 feet apart. Lightweight barriers shall be used between Heavyweight Barriers to form a completely enclosed space.

Parklet Amenities

Amenities within the parklet space should provide comfortable seating and/or shopping arrangements. All amenities must conform to the traffic safety height requirements. Additionally, all dining elements need to sit flush with the ground without rocking.

Adherence to CDC Guidelines

Dining spaces, tables and chairs must be spaced 6 to 8 feet from table to table depending on chairs in between the tables.

Emergency Access

The following emergency vehicle access considerations must be considered as part of the parklet design:

- Tables, chairs, umbrellas, merchandise racks, or other objects or equipment shall not encroach into any fire lanes, circulations lanes, handicap spaces, pedestrian paths, sidewalk ramps, or corner curb ramp area.
- Maintain 12foot fire and emergency vehicle access on the streets
- Access to fire hydrants, fire hose connections for sprinkler systems, and entrances and exits of all buildings shall not be obstructed at any time by barriers or seating.

Emergency Action Plan

Prepare an Emergency Action Plan that will be taken in case of an emergency (hurricane or other natural disasters) addressing the removal of equipment and securing the parklet.

Responsibilities of Permittee

The permittee will be responsible for the following:

- A non-refundable application fee of *\$TBD*
- All costs related to design, materials and installation.
- In case of removal, the sponsor is responsible for all removal costs.
- The on-going maintenance of the parklet including replacing, painting or fixing elements damaged due to vandalism. All parklet designs shall contain at least one (1) ADA compliant accessible entrance.
- A (1) million combines single limit per occurrence liability insurance is required for the installation and maintenance of a parklet depending on location and use.
- Maintenance of any movable furniture. In addition, all movable elements of the parklet must be safely stored indoors after business hours or prior to a tropical storm or hurricane. Landscaping elements are encouraged in parklet design. All landscaping maintenance is the responsibility of the parklet permittee.
- General maintenance including furniture and non-approved graffiti removal. In addition, permittees must maintain the area under the parklet free of debris in order to allow proper drainage, and pressure clean the parklet as necessary.

Parklets shall not have any additional signage other than the parklet public space designation approved by the City of St Pete Beach. Parklets must be located at least one parallel parking space away from the corner, unless curb configuration, such as a large bump-out, allows for safe placement of a parklet closer to the corner (evaluated on a case by case basis). In addition, parklets must have a three-foot wheel stop at both ends, and bollards or large non-movable planters, in order to provide adequate protection for parklet users. Parklets may not take up any handicap parking space.

It is understood that some parking spaces maybe in front of businesses. The location of the parklet on an existing on-street parking space will be reviewed as part of the application process. The City will allow parklets to cross over between property and business frontages.

The nature of the program will allow City staff to evaluate and adjust the program as needed. The Transportation Department will take parklet applications on a first come first serve basis.

Fees

1. A non-refundable application fee of \$TBD
2. \$TBD
3. The city has the right to waive the fees in case of declared state of emergencies.

1. Submit Application

a. Application form. All Applicants must complete the attached application form.

Applications maybe denied for the following reasons;

- Incomplete applications will not be accepted.
- Inactivity for a period of three (3) months since the last action was taken.
- Failing to meet any required deadlines.

b. Site Plan. All Applicants shall provide a plan with their application form that clearly includes and indicates all of the following information:

- The footprint of the proposed Parklet, including sufficient detailed information to illustrate the design elements on either end of the proposed Parklet. The site plan can go beyond the business footprint.
- Indicate all property lines, right-of-way lines, sidewalk width, Parklet length and width, existing parking stalls, and all surface obstructions within 15 feet of the occupied area (e.g., fire hydrants, streetlights, parking meters, street trees, utility access covers).
- The number(s) on all parking meters that are to be removed must also be included in all drawings. These numbers are generally posted on the meter.
- Provide as much detail as possible to aid in the City's review of the application.

c. Neighborhood Support: Parklet sponsors must demonstrate outreach to establish support for a parklet project through

- A public meeting will be scheduled for the applicant for provide the plan for the permit and allow for public input

d. Parklet Programming. Indicate what type of elements you are proposing on the Parklet (e.g. tables and chairs, benches, landscaping, bike parking, etc.)

e. Indemnity and hold harmless statement. Each applicant shall provide a signed agreement to defend, indemnify, save, and hold harmless the City and all its officer, agents, or employees from any liability for damages resulting from any and all operations under the permit in a form approved by the City Attorney.

2. Departmental review

An interdepartmental committee (Public Works, Planning, Transportation, Parks and Recreation) will review applications, on a first-come-first-served basis, to ensure that Applicants conceptually meet program criteria.

3. Permit Application

For those Applicants with an accepted conceptual application; the next step is to submit a construction permit application and fully detailed site plan, including but not limited to items such as cross sections, elevations, structural details, safety treatments, existing utilities and maintenance of traffic plans. City staff will work with the Applicant in a collaborative fashion during this period to ensure that the Parklet design is appropriate and that the final drawings produced meet requirements.

4. Department of Business and Professional Regulation

For those applicants that will be serving alcohol, we will require the extension of the DBPR alcohol permit with amended sketches of the service area.

5. Construction Permit Approval

a. Within 10 days from submittal of a Final Plan, if it is determined by the city departments that the application satisfies all policy requirements and the Applicant has paid all necessary fees, the Department of Transportation and Parking will grant final approval and issue a permit.

6. Construct Parklet

Upon permit issuance and as a condition of permit approval, Applicants are required to inform the Department of Transportation and Parking no less than ten (10) days before beginning any site work. Installation of the Parklet must be completed within 2 weeks of permit issuance.

7. Other Permits

In conjunction with the Parklet permit, the Applicant is required to obtain any other applicable permits that may be required by other agencies.

8. Parklet Removal

Permittee, at Permittee's sole cost, shall be responsible for removal of the Parklet and restoring the ROW to its original condition upon the occurrence of one (1) or more of the following:

- the cessation of use,
- failure to comply with permit conditions or other legal requirements, or
- The Parklet poses a dangerous condition or threat to life or property.

The City may remove the Parklet for any of the following reasons:

- a. Failure to maintain,
- b. Violation of this Pilot Program Policy,
- c. Violation of the Permit,
- d. Modifications unapproved by the City,
- e. When the Parklet encroachment causes a dangerous condition or threat of danger to life or property as determined by the city staff. This includes but is not limited to:
 - The Parklet is encroaching into a travel lane or bike lane
 - The Parklet has lost structural integrity
 - A gap develops between the Parklet and sidewalk
 - The Parklet creates a visibility issues
- f. As a condition of permit issuance, the Parklet Permittee shall agree in writing to authorize the City to remove the Parklet at the Permittee's sole cost in the event that any of the occurrence of any of the circumstances for removal herein.

If any of the above violations occur, the applicant will be sent notice of the violations and except in the case of dangerous or threatening conditions, will be given a maximum of five (5) working days to remedy the condition or remove the Parklet. If in the event that the Permittee fails to timely or adequately maintain or repair the encroachment or remove the encroachment within the five (5) working days, the permit will be terminated. Once the permit is terminated, the Parklet must be removed at the sole cost of the Permittee within three (3) calendar days. When the encroachment causes a dangerous condition or threat of danger to life or property, the permit will be terminated without the five (5) day notice and removed immediately at Permittee's cost.

The City, at its sole discretion, may remove the Parklet and restore the public right-of-way to its previous condition upon a finding that it is in the public interest for the City to fund or partially fund removal of the Parklet.

Transfer of Permits

If the Permittee sells its business interests, one of the following must be done:

1. Remove the Parklet; or
2. With the City's approval, Purchaser and Permittee must execute a new permit in the purchaser's name with their signature and comply with all other requirements for the issuance of a permit, such as insurance.