



Real Property Committee
1:30 p.m., Monday, March 7, 2022
1207 Palm Boulevard
City Hall Council Chambers

Public Comment:

All citizens who wish to speak during the meeting must email their first and last name, address and topic to Nicole DeNeane, City Clerk, at nicoled@iop.net no later than **3:00 p.m. the day before the meeting**. Citizens may also provide written public comment here:

<https://www.iop.net/public-comment-form>

Agenda

1. **Call to order** and acknowledgment that the press and the public have been duly notified of the meeting in accordance with the Freedom of Information Act.
2. **Approval of previous meeting's minutes** – February 7, 2022
3. **Citizens' Comments** – All comments have a time limit of three (3) minutes.
4. **Marina Tenants Comments**
5. **Old Business**
 - a. Update on marina dock rehabilitation project
 - b. Update on marina restaurant renovation by Marker116, LLC
 - c. Update on proposed public dock and greenspace at the IOP Marina
 - d. Update on ADA beach access improvements
 - e. Discussion of evaluating alternatives for redevelopment of Municipal parking lots
[\[Strategic Plan Priority 1, Goal, a.\]](#)
6. **New Business**
 - a. Presentation and discussion of condition assessment report of AIWW and Public Dock
 - b. Discussion and consideration of proposed options for redevelopment of the new public dock at the marina [\[Strategic Plan Priority 5, Goal a.\]](#)
 - c. Discussion of proposed FY23 Operational Budget for IOP Marina and Front Beach [\[Strategic Plan Priority 3, Goal b.\]](#)
 - d. Discussion of 70th Anniversary of City's incorporation
7. **Miscellaneous Business**

Next meeting date: 1:30 p.m., Monday, April 4, 2022
8. **Executive Session** – If needed
9. **Adjournment**



REAL PROPERTY COMMITTEE
1:30pm, Monday, February 7, 2022
1207 Palm Boulevard, Isle of Palms, SC 29451
and broadcasted live on YouTube: <https://www.youtube.com/user/cityofisleofpalms>

MINUTES

1. **Call to order**

Present: Council members Miars, Popson and Streetman

Staff Present: Administrator Fragoso, Director Kerr

2. **Approval of previous meeting's minutes – January 10, 2022**

MOTION: Council Member Popson made a motion to approve the minutes of the January 10, 2022 meeting and Council Member Miars seconded the motion. The motion passed unanimously.

3. **Citizens' Comments -- none**

4. **Marina Tenant Comments -- none**

5. **Old business**

A. **Update on marina dock rehabilitation project**

Administrator Fragoso reported, "Work on the final phase of the fuel dock and the fuel pump is ongoing. The fuel dock is fully installed...The construction of the fuel hut is underway. The structure is fully framed in, and the exterior utility work is ongoing."

The electrical problems noted last month have been corrected by the resetting of the pedestals. The restaurant and face docks have been re-energized, and they are working on a plan to make sure the equipment meets the warranty expectations. A solution to the slipperiness at the end of the gangway has been devised and will be installed soon.

Administrator Fragoso will add a concern about the gangway being off center to the list of items being addressed by ATM and the contractor. Council Member Streetman asked about the lack of two pilings behind the smaller docks. Administrator Fragoso said that the docks were designed to sustain high wind speeds and the engineer said they are not needed. The contractor said it would cost \$60,000 to add the two pilings and the Marina Manager would be responsible for paying for those if he felt they were needed.

B. Update on marina restaurant renovation by Marker 116, LLC

Administrator Fragoso reviewed the recent work at the restaurant including the installation of the kitchen hood, bathroom partitions, bathroom countertops, and bars; completion of drywall and the kitchen walls as well as the metal roof; and the completion of the electrical work except for the connections to the mechanical units on the roof. Some kitchen equipment is still on backorder. Installation of pavers in the area previously planned as a sandpit will begin next week.

If all equipment arrives on time, they anticipate opening in early March. They are still considering the need for an outdoor freezer truck.

Staff is still working on the security gate at the T-docks.

C. Update on the proposed public dock and greenspace at the IOP Marina

Administrator Fragoso reported that Salmon's has begun working on the fixes needed at the public dock. The contract for ATM to begin working on the design of the public dock has been executed, and a kickoff meeting is scheduled for this week.

In order to follow the vision for the greenspace created by Kelly Messier, the City has been working with the tenants on some needed land swaps. The next meeting will be Wednesday.

Staff is still working on the operational procedures for the public dock and will present them to the Committee when they are ready.

D. Update on ADA beach access improvements

Administrator Fragoso said the City has submitted a request for Greenbelt funding for the 34A Beach Access, and an onsite visit is scheduled for February 23. They hope to get feedback from them on the project's eligibility for funding.

Director Kerr shared a positive conversation he recently had with Matt Slagle of DHEC regarding the City's request to extend the MobiMats to the hard sand. Director Kerr said they believe four out of five requests to extend will be approved some time in the next 30 days, and the City can apply to do the same at 34A Beach Access once the project is complete there.

E. Discussion of shared parking at marina

Committee members went into Executive Session to discuss this matter further.

6. Executive Session

MOTION: Council Member Miars made a motion to go into Executive Session in accordance with South Carolina Code §30-4-70(a) to receive legal advice in regards to Marina leases and parking at the marina. Council Member Popson seconded the motion. The motion passed unanimously.

The Real Property Committee moved into Executive Session at 1:54pm.

The Real Property Committee returned from Executive Session at 3:10pm. Council Member Streetman said no votes or action were taken.

7. **New Business**

A. **Discussion of evaluating alternatives for redevelopment of Municipal Parking Lots [Strategic Plan Priority 1, Goal a]**

Administrator Fragoso stated, “The suggestion was made that the City consider either taking or putting this topic, giving it to the Planning Commission for further discussion and consideration or also maybe issuing a request for information to private entities for a potential public-private partnership with the City where the City continues to meet its obligations with providing parking on Front Beach but basically letting a developer come back with some options to the City of how to better utilize that space.”

The issue had been discussed by the Real Property Committee in the past but there was some apprehension around it. Administrator Fragoso noted that when the City purchased the lot back in 1985, it did so with a \$50,000 grant from the State’s Parks, Recreation, and Tourism Commission. She said, “The City is encumbered to ensuring that that property is used for outdoor recreational purposes and parking.” That Commission would need to approve any changes or the City would have to pay the money back.

Director Kerr said, “The challenge with any development in that district is the City’s code no longer allows any hotels, condos, housing units of any type. So any property that becomes available just on the kind of free market, it is a struggle.” He said City Council would need to determine if they will allow any relaxation to the zoning restrictions in that area to allow for such development.

After some discussion, the Committee decided to bring the issue to the full City Council.

MOTION: Council Member Popson made a motion to present the idea of redeveloping the Front Beach municipal parking lot area while maintaining public parking to the full City Council. Council Member Streetman seconded the motion. The motion passed unanimously.

B. **Discussion of proposed FY23 10-Year Capital Plan for IOP Marina and Front Beach [Strategic Plan Priority 3, Goal b]**

Administrator Fragoso presented the capital items to be considered for inclusion in the FY23 budget. At the Front Beach area these items included: the replacement of some parking kiosks; monies for the replacement, repair or addition of dune walkovers; replacement of MobiMats as needed; monies to replace or rehabilitate public art; and repairs to sidewalks between 10th and 14th avenues in addition to the 1% of insured value for facilities maintenance.

Committee members discussed the need for some work at the Breach Inlet Boat Ramp and whether or not it is being used as intended. Council Member Popson said it is not a great place to launch a boat but is a better place to launch a kayak. He did note that the Fire Department launches jet skis in that area to affect water rescues.

Monies are also in the FY23 budget for beach maintenance and monitoring as well as for the design and construction of the public greenspace at the Marina.

8. Miscellaneous Business

The next meeting of the Real Property Committee will be held on Monday, March 7, 2022 at 1:30pm.

9. Adjournment

Council Member Popson made a motion to adjourn and Council Member Miars seconded the motion. The meeting was adjourned at 3:44pm.

Respectfully submitted,

Nicole DeNeane
City Clerk



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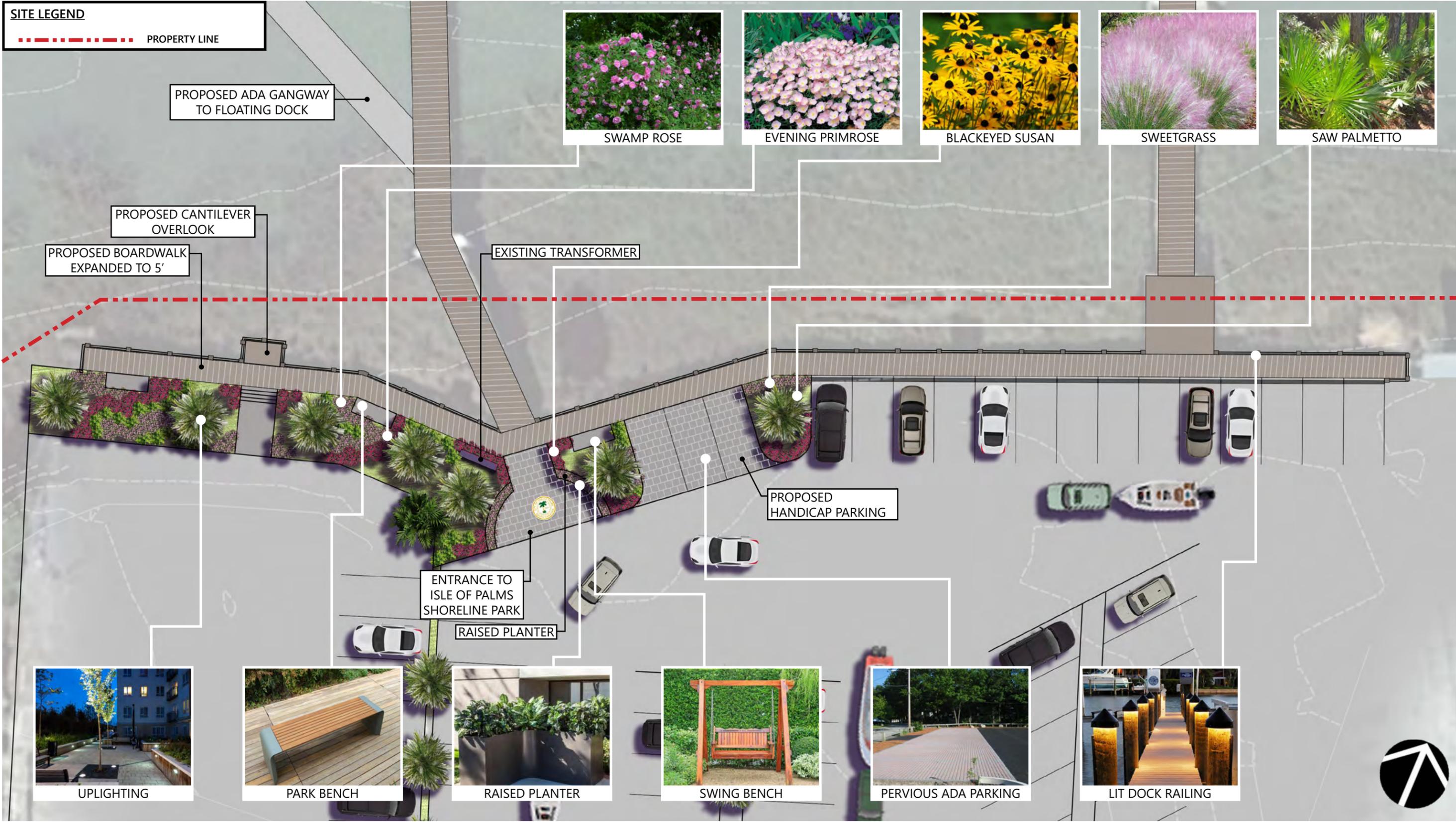
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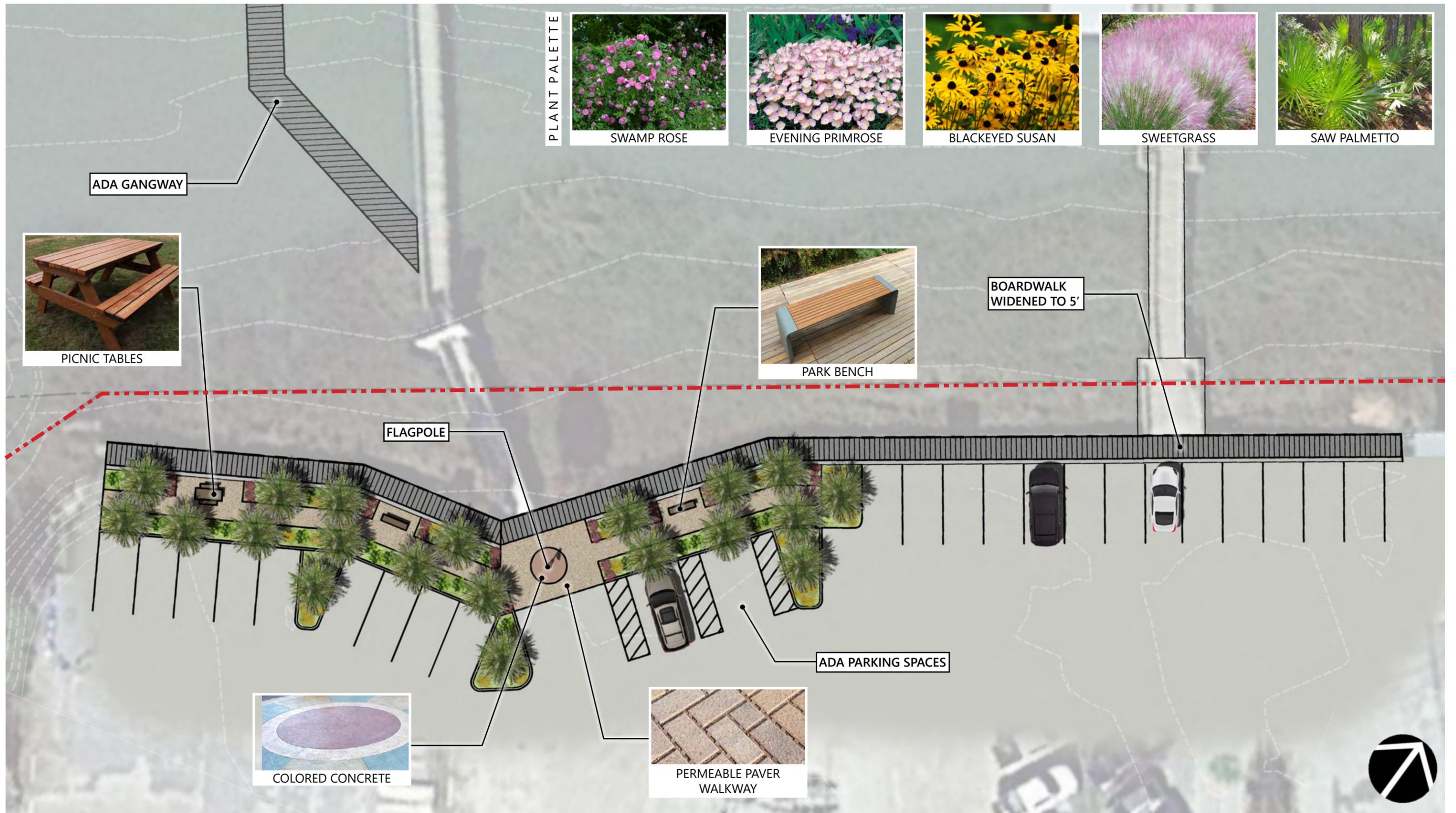
Respectfully submitted,

Nicole DeNeane
City Clerk



ISLE OF PALMS MARINA SITE CONCEPT I & FURNISHINGS

ISLE OF PALMS, SOUTH CAROLINA
 MARCH 3, 2022



PLANT PALETTE



SWAMP ROSE



EVENING PRIMROSE



BLACKEYED SUSAN



SWEETGRASS



SAW PALMETTO

ADA GANGWAY



PICNIC TABLES



PARK BENCH

BOARDWALK WIDENED TO 5'

FLAGPOLE

ADA PARKING SPACES



COLORED CONCRETE



PERMEABLE PAVER WALKWAY

ISLE OF PALMS MARINA SITE CONCEPT II

ISLE OF PALMS, SOUTH CAROLINA
MARCH 3, 2022



IN-GROUND LUMINAIRES "RAVENNA" - HESS LIGHTING



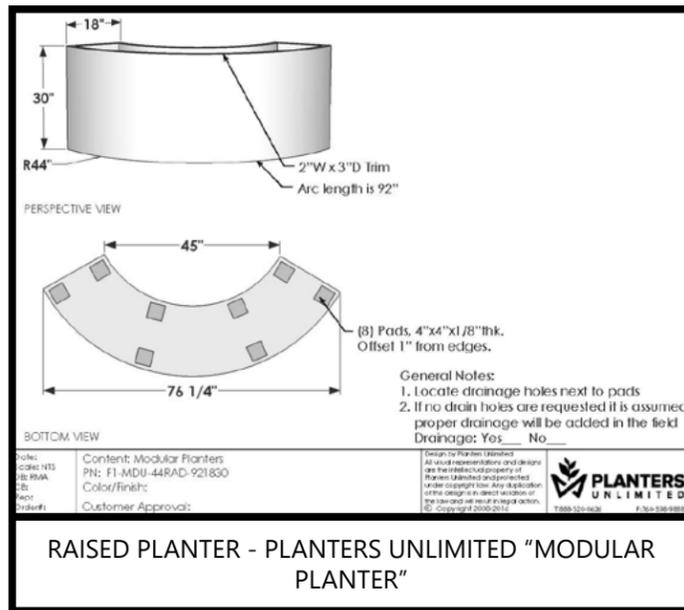
WOODEN BENCH "PARKER" - SITECRAFT DESIGNS



PERVIOUS PAVERS - LOWCOUNTY PAVERS "HYDRAPLANK"



BREEZY ACRES SWING STAND - THE PORCH SWING



RAISED PLANTER - PLANTERS UNLIMITED "MODULAR PLANTER"

ISLE OF PALMS MARINA SITE SPECIFICATIONS

ISLE OF PALMS, SOUTH CAROLINA
 MARCH 3, 2022



A Geosyntec Company

MEMORANDUM

941 Houston Northcutt Blvd, Suite 201
Mount Pleasant, SC 29464
843.414.1040

To: Ms. Desiree Fragoso, City of Isle of Palms

From: Kirby Marshall

CC: Mike Kenny, ATM

Date: February 28, 2022

Re: Isle of Palms Marina – Public and Intracoastal Dock Visual Condition Assessment

This memorandum is intended to summarize the visual condition assessment of the Public Dock and Intracoastal Dock at the Isle of Palms Marina conducted by ATM on February 17, 2022. The goal of this effort is to provide an overview of the existing condition of each structure, generally estimate the remaining useful life of each major dock element, and explore the potential for re-use of dock infrastructure as part of marina rehabilitation.

Background

The two areas of focus for this assessment are the Public Dock and the Intracoastal Dock.

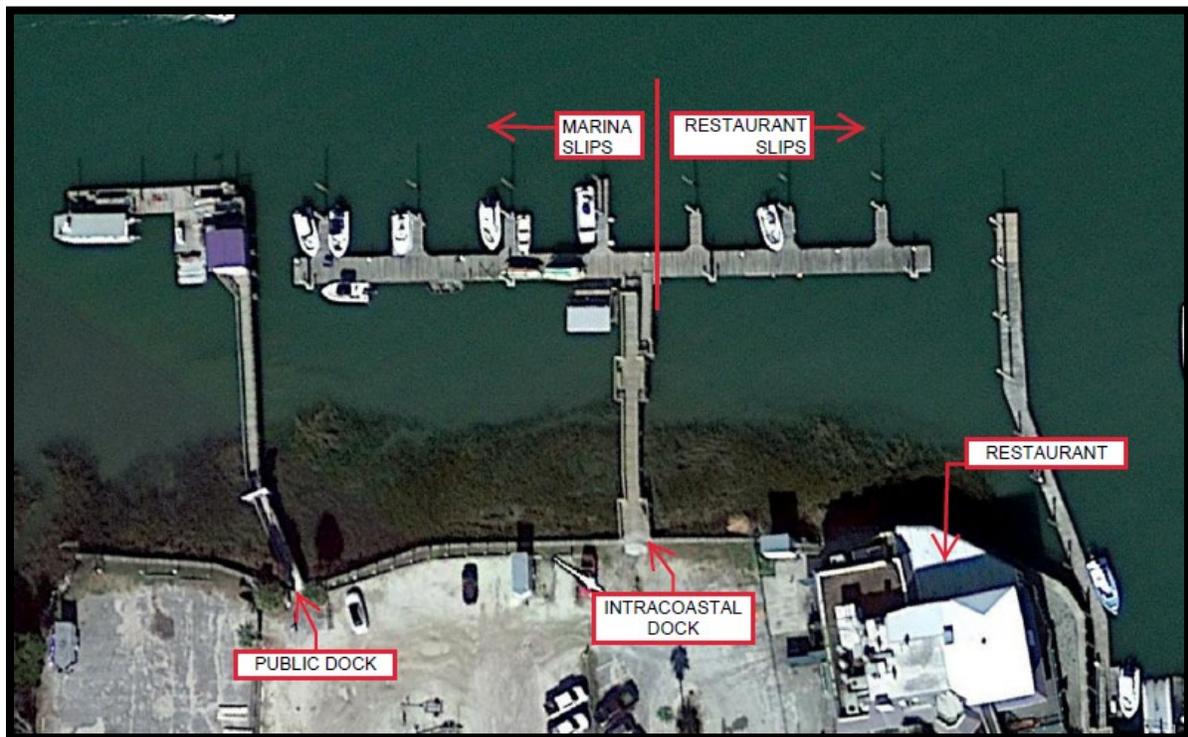


Figure 1. Site Map

The use of the Intracoastal Dock is bifurcated between marina operations use and day dockage for restaurant operations. Minor repairs were conducted to the restaurant portion of the dock in 2021 to replace damaged bumper strip and select timber members/decking of the floating dock. Regulatory authorization has been obtained to relocate the Intracoastal Dock waterward and remove the outer finger piers to make the dock more accessible and user-friendly.

The Public Dock was formerly operated as a watersports rental dock offering personal watercraft rentals, parasailing, etc. The dock went through a renovation project around 2010 to reinforce the fixed-timber access pier. Regulatory authorization has been obtained to make this dock more useful for watersports operations and more accessible, including the addition of a new gangway that is compliant with the Americans with Disabilities Act (ADA).

Condition Assessment

Intracoastal Dock

The Intracoastal Dock includes of a fixed timber access pier that extends approximately 100 feet (ft) out from a timber bulkhead along shore. The pier is 6 ft wide, with two larger platform areas that are 12 ft wide. A 30-ft aluminum gangway connects the access pier to the floating dock that parallels the Atlantic Intracoastal Waterway. The floating dock has partial-length fingers that provide approximately 16 boat slips and side-tie dockage along the shore side of the dock. Floating “EZ Docks” were in place adjacent to the shore side of the main pier, adjacent to the gangway ramp. ATM understands that these docks are used to facilitate commercial kayak/paddleboard tour use by Coastal Expeditions. ATM understands that the Intracoastal Dock was built in approximately 2004 and designed by an engineering firm out of Beaufort. This dock was clearly designed as a commercial-grade structure.



Photo 1. Intracoastal Dock

Piles

The fixed-access pier of the Intracoastal Dock is supported by pressure treated timber piles (approx. 12-inch diameter). Minimal variance in pile alignment was observed, which is assumed to be consistent with the originally installed piles. The tidal zone of the piles was in fair to good condition, with some marine growth present and no tapering (hour glassing) observed.

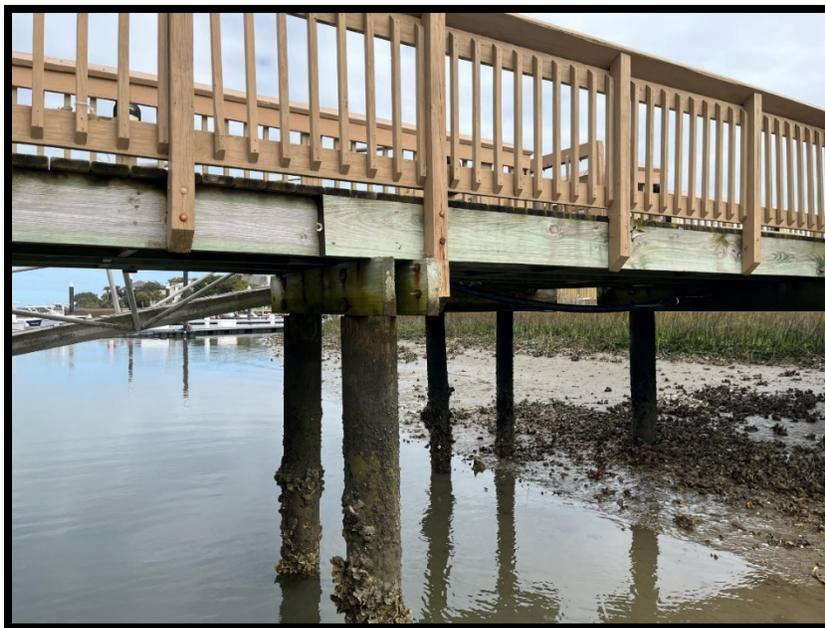


Photo 2. Timber Piles and Framing

Timber Framing, Decking and Hardware

Pressure-treated timber framing is utilized on the access pier and consists of robust 3-inch by 12-inch timber pile caps, and 3-inch by 12-inch timber stringers running the length of the pier. The timber framing members appear to be in good condition, given their age, however, moderate to severe corrosion was observed on the primary hardware connecting the pile caps to the piles. One bolt was missing at the waterward end of the pier, and several appeared loose or unsecured. The decking on the access pier is 2-inch by 6-inch treated timber decking fastened with stainless steel screws. Moderate deterioration was noted in the decking, which is beginning to splinter.



Photo 3. Severely Corroded and Missing Through-Bolts



Photo 4. Decking Condition on Intracoastal Dock Access Pier

Railing

A timber railing system wraps around the perimeter of the access pier and was observed to be in fair condition. The railing is constructed of treated timber that has been painted, which is helping to preserve the material. Minor chipping of the paint and corrosion of the galvanized hardware was noted throughout the railing. Isolated locations of severe splitting in the support timbers were also noted. The access gate leading to the gangway has several spindles missing and was beginning to warp.



Photo 5. Cracked Railing Support



Photo 6. Damaged and Worn Access Gate

Gangway

The aluminum gangway is in fair condition, considering its age. However, this is not an ADA-compliant gangway.

Floating Dock

The main floating dock measures 10 ft wide by 275 ft long. The finger piers are 4 ft wide by 15 ft long each. The floatation of the floating dock was in good condition and consistent throughout the main dock and finger piers. As such, the dock looks and feels very stable. The treated timber decking is showing signs of moderate deterioration and is beginning to splinter throughout the dock. The decking is fastened with stainless steel screws that are showing signs of limited corrosion. The timber walers along the edge of the floating dock were worn along a majority of the dock and detached from the floating dock structure in a few areas, particularly in the marina-controlled area of the dock. The bumper strip was detached and hanging in the water in several locations in the marina-controlled area of the dock. In general, the restaurant portion of the Intracoastal Dock was in better condition due to the recent repairs the City conducted last year.

The Intracoastal Dock serves as a place of operation for a kayak tour company, Coastal Expeditions. The company stores numerous kayaks on two large racks on the marina-controlled side of the Intracoastal Dock. They also have affixed a floating Jet Dock/EZ Dock in this area to facilitate their launch/retrieval operations. The presence of this operation and stored materials

does not seem to be dramatically affecting the flotation of the docks in this area but does constrict clear space on the main walkway of the floating dock.



Photo 7. Timber Waler Condition and Missing Bumper Strip (Marina-Controlled Area)



Photo 8. Decking Condition, EZ Dock used by Coastal Expeditions



Photo 9. New Rub Rail and Select Timber Members (Restaurant-Controlled Area)

Anchorage

The floating dock has an anchor pile at the end of each finger pier (seven) and a series of four anchor piles along the shoreward side of the main dock. The anchor piles are square reinforced-concrete piles and appear to be in fair to good condition. Moderate marine growth was observed in the tidal zone of the piles. Some of the exterior pile guides along the shore-side of the main pier were not plumb and appear loose, which may be a result of compromised connection to the floating dock waler and internal framing system.



Photo 10. Kayak Storage and Dock Overview

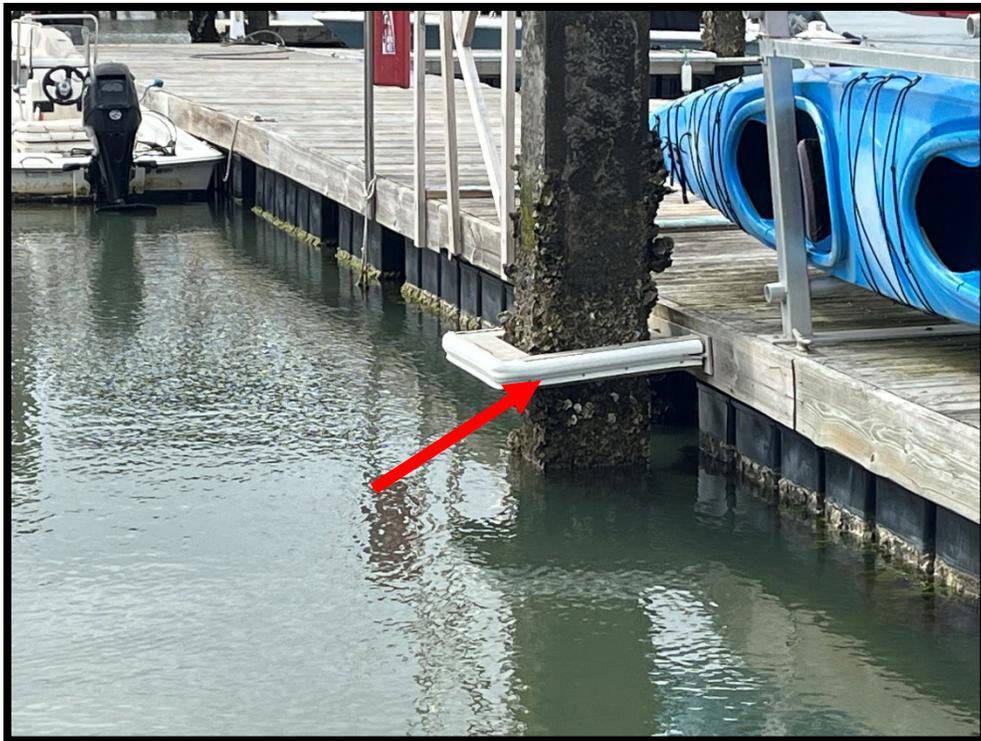


Photo 11. Loose Exterior Guide Pile

Utilities

The utilities routed to the Intracoastal Dock consist of water and limited electrical service. This utility service is provided via five power pedestals on the marina-controlled portion of the dock and three power pedestals on the restaurant-controlled portion of the dock. The utility pedestals are in generally poor condition. Those that are on the restaurant-controlled area of the dock are broken, not functional, and beyond repair. Power receptacles (20-amp) and water spigots are provided at the deteriorated and damaged pedestals.



Photo 12. Utility Pedestal Damaged Beyond Repair

Fire and Life Safety Systems

The dock does not have a plumbed-in fire suppression system, however, several fire extinguishers are mounted along the main pier and along the fixed access pier. Several of the extinguisher stands have missing or broken glass. There were no safety ladders observed along this dock, which should be considered as part of future improvements, particularly if watersports operations such as kayaking are continued in this area.



Photo 13. Fire Extinguisher with Missing Protective Covering

Public Dock

Similar to the Intracoastal Dock, the Public Dock consists of a fixed timber access pier extending from the existing timber bulkhead. The pier is 5 ft wide with handrails on each side. An aluminum security access gate is in place to restrict access (a carryover from recent commercial use on this dock). The access pier includes a larger covered pier head near the waterward end of the structure, with a smaller, uncovered pierhead portion beyond that. A 20-ft-long aluminum gangway runs from the outermost, uncovered portion of the pier head down onto a floating dock. The floating dock includes a shore-parallel dock and a smaller rectangular platform on the landward side.



Photo 14. Public Dock – Current Arrangement

Piles

The Public Dock access pier is supported by pressure-treated timber piles that appear to be a lighter duty pile (than the Intracoastal Dock access pier) with a diameter of approximately 10 inches. Toward the platform end of the access pier, additional (larger) pilings have been sistered to the original, smaller interior piling. We understand that this work was completed around 2010 as part of a repair/improvement project on the dock pier head. Overall, the pilings appear to be in fair condition, given their age. The tidal zone of the pilings was in fair condition, with some marine growth present. No tapering (hour glassing) was observed, but a few voids/cavities were noted.

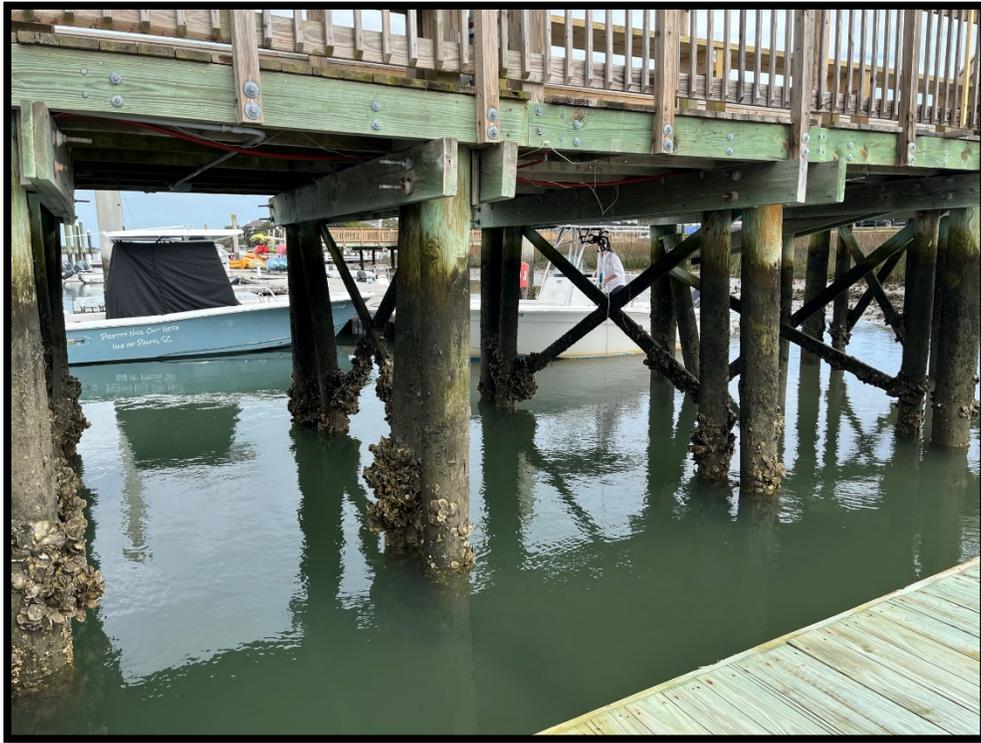


Photo 15. Timber Piles and Framing - Public Dock Access Pier

Timber Framing, Decking and Hardware

Pressure-treated timber framing is utilized on this structure, consisting of 2-inch by 10-inch timber pile caps along a majority of the main pier until the larger pier head, where double 2-inch by 12-inch timber pile caps are present. The stringers were observed to be 2-inch by 10-inch members running the length of the pier. The timber framing members appear to be in fair condition, given their estimated age. Some cross bracing decay was noted. The dock hardware appeared to be in very good condition. It is assumed that this was replaced during the 2010 repairs. Hardware observed included through bolts and hurricane straps. These appear to be stainless steel and are only very slightly oxidized. The decking of the fixed pier is 2-inch by 6-inch treated timber decking fastened with stainless steel screws. The decking is in fair condition with moderate deterioration and splintering occurring consistent with other locations at the marina.

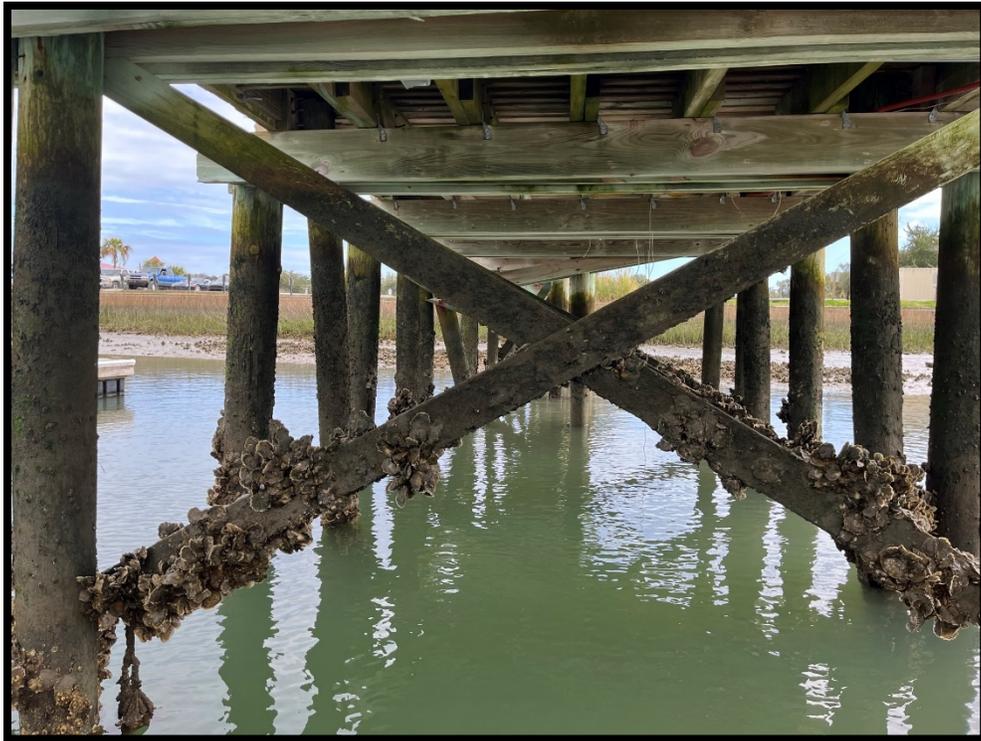


Photo 16. Public Dock Access Pier - Piles and Framing



Photo 17. Public Dock Access Pier - Decking Condition

Railing

A treated timber railing wraps around the perimeter of the access pier, which was observed to be in fair to good condition.



Photo 18. Public Dock Access Pier - Railing

Gangway

The aluminum gangway that leads from the fixed pier head to the floating dock is approximately 3 ft wide by 20 ft long. It lands on the joint of two floating dock sections. This is causing some instability of the gangway during use. The gangway access is quite steep at low tide and certainly not ADA compliant. This could pose a challenge for safe public use, particularly if future kayak/paddleboard use is envisioned at this dock. The gangway itself is aged, and several failed welds were observed beneath the walking surface. The transition plate at the base of the gangway is currently being repaired and was not in place at the time of the site assessment.



Photo 19. Public Dock - Gangway Landing

Floating Dock

The shore-parallel floating dock was observed to be in good condition. The floatation appeared good and consistent with a slight difference in freeboard noted where the shore-side rectangular platform attaches. The rectangular platform is in poor condition and was recently repaired as part of the shore-parallel dock relocation effort performed by Salmons Dredging in 2021. The interior structural framing of this homemade-style rectangular dock is known to be compromised. The decking on the floating docks is fastened with stainless steel screws, which are showing very limited corrosion. The timber walers along the edge of the floating dock were worn, and no vinyl bumper strip was observed along the dock.



Photo 20. Typical Floating Dock Condition – Public Dock

Anchorage

The floating dock is anchored by four treated timber anchor piles. The anchor piles appear to be in fair condition and are not showing significant signs of visible damage. There are three internal pile guides and one external pile guide at the far northeast end of the dock. Minimal marine growth was noted along the anchor piles within the tidal zone.



Photo 21. Anchorage Pile and Pile Guide - Public Dock

Utilities

There is one utility pedestal and one hose spigot located on the Public Dock. The utility pedestal appeared to be in fair condition.

Fire and Life Safety Systems

The dock does not have a plumbed-in fire suppression system nor does it have any fire extinguishers. No safety ladders were observed along this dock, which should be considered as part of future improvements if watersports/paddlesports activities are planned for this area of the marina.

Additional Items

Water Depths

During the assessment of the Intracoastal Dock, the water bottom was easily visible on the shore-side of the floating dock and depths appeared to be limited. This may restrict navigation and mooring during lower tide cycles. Even with the planned relocation of this dock waterward, the water depths in this area may affect dock use (including Jet Dock function and safe access to the restaurant day dock area). Thus, the need to evaluate maintenance dredging in this area is evident.

Timber Bulkhead

The existing bulkhead along the Intracoastal Waterway portion of the site is a timber structure with a limited/low exposed height. The structure consists of vertical timber sheeting with a horizontal timber waler and vertical timber support piling on the waterward side. A narrow timber walkway sits atop the structure. In a few areas, a slight waterward lean of the entire bulkhead wall was observed. This is indicative of undue stress on the structure. Several areas of the timber walkway were degraded, and a handful of timber deck boards were missing. It is recommended that a more detailed assessment of the bulkhead be conducted to ensure long-term sustainability and to identify short- and immediate-term repair needs to ensure marina patron safety.



Photo 22. Timber Bulkhead Waterward Lean



Photo 23. Timber Bulkhead with Missing Deck Boards

Summary and Recommendations

Intracoastal Dock

- The fixed pier is a robust, commercial-grade structure but suffers from substantial hardware degradation. This hardware should be repaired/replaced as soon as practical to ensure the continued reliable function of this dock structure. Timber piling and framing appear to be in good condition. With proper maintenance and repair/replacement of the marine hardware on this fixed pier, the structure should have a remaining service life of approximately 10 years.
- The gangway servicing this dock is in fair, serviceable condition, but is not ADA compliant. It is noted that the permitted dock plan for this area of the marina includes installation of a new 80-ft-long ADA-compliant gangway.
- The floating dock in this area of the marina is in fair/good condition. The marina-controlled end requires basic maintenance, and the decking along the entirety of the dock is worn. The floating dock is 18 years old. Typically, floating timber docks have a useful life of ~20 to 25 years in the marine environment.

The proposed plan for this area of the marina includes removal of the floating finger piers and relocation of the shore-parallel dock waterward. This presents a modest challenge in that the majority of anchor pilings for the dock are located at the end of the partial-length finger piers. As such, these piling would likely have to be relocated to the shore-side of the relocated dock to not encumber side-tie berthing along the Waterway side. It will require substantial effort to effectively integrate the pile guides into the structural framing system of this dock. Further, the numerous external pilings on the shore-side of the relocated dock would encumber side-tie dockage and Jet Dock placement in this area.

The anchor piling for this floating dock system appear to be in good condition. As mentioned, they are made of pre-stressed concrete. The pile length is unknown. If the piles are able to be extracted intact, they may be able to be reused in a dock relocation scheme. However, concrete piling often chip, crack, or break during extraction.

With all of this in mind, installation of a completely new floating dock and anchorage system should be considered during the planning stages of the Intracoastal Dock relocation project. This should be carefully evaluated against the likely costs, challenges, and estimated useful life of relocating the existing floating dock.

- The utility system on this dock is in poor condition overall and will have to be completely re-done in a dock renovation project. Installation of a dry fire standpipe system, if required

by the fire marshal, could prove exceptionally difficult or impossible to install within the framing system of the existing dock.

Public Dock

- The fixed pier portion of this structure is aged, and the access portion (outside of the pier head) appears to be less robust and more residential in nature (narrow, smaller framing members, etc.). The pier head has been bolstered with additional large piling to increase strength. Hardware is all in very good condition. Overall, the fixed dock in this area is in good, serviceable condition with an estimated remaining useful life of perhaps 10 years.
- The width of this dock will likely present a challenge in terms of providing safe, clear public access, including access for patrons with paddle equipment (kayaks, paddleboards, etc.).
- The gangway servicing the floating dock portion is aged, with failing welds. It is not considered suitable for public access or use due to its condition and length (including steep slope at low tide levels). The size and orientation of this gangway is not good in terms of providing safe, clear access for paddlesports equipment. It is noted that dock redevelopment plans for this area of the marina contemplate include a new, wide, 80-ft-long ADA-compliant gangway.
- The floating dock in this area is in fair to poor condition. The shore-parallel face dock is in fair condition but does require maintenance to ensure safe service for public access (fender boards, bumper strip, decking, etc.). Timber anchor pilings appear to be in fair to good condition. The interior rectangular dock is in poor condition and requires replacement. The estimated remaining useful life for the shore-parallel face dock is 5 to 7 years, and the rectangular dock section has reached the end of its service life.
- Careful consideration should be given to replacement of all the floating docks in this area. The new gangway will require a specially designed “pony” float to rest on. The rectangular dock section requires replacement. It may not be appropriate to connect these two new dock sections to an aged shore-parallel face dock with a limited remaining service life. Further, a fully integrated floating dock solution in this area, including a floating paddlesports launch dock, will yield much better stability and sustainability over the long term.
- The limited utilities on this dock should be wholly replaced to ensure safety and code-compliance with the Public Dock redevelopment project.

Memorandum to Ms. Desiree Fragoso
February 28, 2022
Page 23 of 23

Please note that this assessment is limited in nature and included cursory, topside visual observations only. No structural review, analysis, subaqueous observation, geotechnical, destructive testing or similar work was conducted.



A Geosyntec Company

MEMORANDUM

941 Houston Northcutt Blvd, Suite 201
Mount Pleasant, SC 29464
843.414.1040

To: Ms. Desiree Fragoso
From: Kirby Marshall
CC: ATM File
Date: March 4, 2022
Re: Public Dock and Intracoastal Dock Rehabilitation Concepts and Cost Estimates

Please find attached two rehabilitation concepts for both the Public Dock and the Intracoastal Dock at the Isle of Palms Marina. As discussed, these concepts include a less intensive/repair alternative and a more intensive/replacement alternative for each dock. The conceptual cost estimates developed for each alternative are based on recent bid data that ATM has received on other, local projects and ATM's experience in the industry. We do note, however, that the current construction market is highly volatile and costs may fluctuate prior to project execution.

We look forward to discussing these rehabilitation concepts and costs with you and the Real Property Committee next Monday at City Hall.

If you have any immediate questions, please do not hesitate to call me directly.

Attachments

0:\Projects\18-0287 IOP Marina Permitting & Design\DWG\waterports dock 2022-02.dwg W.A. 3/1/22
NOTE: THESE DRAWINGS AND DESIGNS ARE STRICTLY CONFIDENTIAL AND PROTECTED BY INTERNATIONAL COPYRIGHT LAW. DETAILS MUST NOT BE DISCLOSED, REPRODUCED OR COMMUNICATED TO A 3rd PARTY IN ANY FORM OR MANNER WITHOUT THE PRIOR WRITTEN APPROVAL OF APPLIED TECHNOLOGY & MANAGEMENT.

ATLANTIC
INTRACOASTAL
WATERWAY

INTRACOASTAL
DOCK

EXISTING GANGWAY
TO BE REMOVED

REFURBISHED
FLOATING DOCK

77'

10'

14'

19'

EXISTING COVERED AREA
TO REMAIN

NEW KAYAK LAUNCH AREA

120'

EXISTING FIXED PIER
TO REMAIN/BE REFURBISHED

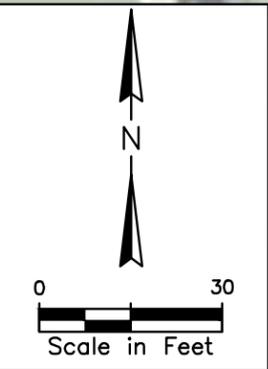
5'

0' MLW

NEW 80' ADA
COMPLIANT GANGWAY

47'

NEW GANGWAY
ACCESS PLATFORM
(8'x11')



- NOTES:
1. MLW LINE BASED ON 2016 BATHYMETRIC SURVEY.
 2. IMAGE BASED ON CHARLESTON COUNTY 2021 AERIALS.

PUBLIC DOCK - CONCEPT A
ISLE OF PALMS MARINA
04-MARCH-2022



Isle of Palms Marina - Intracoastal and Public Dock Redevelopment - Public Dock Concept A
Conceptual Construction Cost Estimate - March 2022

Item	Number	Unit	Unit Cost	Total Cost	Comments
Preliminaries					
Performance and Payment Bond	1	LS	\$8,000	\$8,000	~2% of Construction Total
Builders Risk Insurance	1	LS	\$8,000	\$8,000	~2% of Construction Total
Mobilization/Demobilization	1	LS	\$40,000	\$40,000	Assume local contractor; split between Public and Intracoastal Docks
Public Dock					
Demolition	1	LS	\$10,000	\$10,000	Assume face dock kept in place and re-used; demo interior floaters, gangway, etc.
Fixed Pier	90	SF	\$700	\$63,000	Assume timber construction similar to existing
ADA Gangway 8'x80'	1	EA	\$100,000	\$100,000	Assume aluminum ADA compliant gangway
Fire extinguishers	3	EA	\$1,750	\$5,250	Assume no standpipe required
New Floating Dock	316	SF	\$100	\$31,600	Assume re-use existing face dock; new interior dock w/limited piling
Existing Dock Maintenance	1	LS	\$15,000	\$15,000	General maintenance floating dock, fenders, rollers, etc. (over and above recent clean up)
Re-Decking All Existing Docks	1,800	SF	\$40	\$72,000	Demo and replace worn decking with SYP (fixed and floating); Add \$27/SF for IPE
Lighting Pedestals	3	EA	\$2,000	\$6,000	Assume limited lighting on floating dock
Potable Water	1	Pedestal	\$3,500	\$3,500	Assume potable water to one lighting pedestal to aid in dock cleaning/maintenance
Standpipe System	160	LF	\$400	\$64,000	(If Required)
Floating Kayak Launch Dock	1	LS	\$45,000	\$45,000	Approx. 10'x20' with anchorage
Additional Soft Costs (Permitting, Design, Construction Phase Services)	1	LS	\$30,000	\$30,000	Additional utilities design, permitting, etc. - Includes standpipe (if required)
Total				\$501,350	
Total with 15% Contingency				\$576,553	

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ATLANTIC
INTRACOASTAL
WATERWAY

INTRACOASTAL
DOCK

NEW FLOATING DOCK

75'

10'

19'

NEW PUBLIC
OBSERVATION PIER

NEW KAYAK LAUNCH AREA

COVERED
SEATING/SWINGS

156'

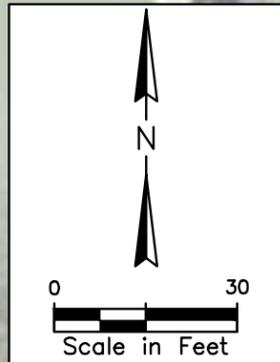
0'MLW

NEW 8'x80' ADA
COMPLIANT GANGWAY

NEW GANGWAY
ACCESS PLATFORM
(12'x21')

16'

RELOCATE
ELECTRICAL PANEL



NOTES:
1. MLW LINE BASED ON 2016 BATHYMETRIC SURVEY.
2. IMAGE BASED ON CHARLESTON COUNTY 2021 AERIALS.

PUBLIC DOCK - CONCEPT B
ISLE OF PALMS MARINA
04-MARCH-2022



Isle of Palms Marina - Intracoastal and Public Dock Redevelopment - Public Dock Concept B
 Conceptual Construction Cost Estimate - March 2022

Item	Number	Unit	Unit Cost	Total Cost	Comments
Preliminaries					
Performance and Payment Bond	1	LS	\$27,000	\$27,000	~2% of Construction Total
Builders Risk Insurance	1	LS	\$27,000	\$27,000	~2% of Construction Total
Mobilization/Demobilization	1	LS	\$40,000	\$40,000	Assume local contractor; split between Public and Intracoastal Docks
Public Dock					
Demolition	1	LS	\$50,000	\$50,000	Assume all existing demolished
Fixed Pier	2,625	SF	\$325	\$853,125	Assume timber construction
Fixed Pier Shade Structures	2	EA	\$15,000	\$30,000	Assume Posts with Metal Roof; Swings
ADA Gangway 8'x80'	1	EA	\$100,000	\$100,000	Assume aluminum ADA compliant gangway
Fire extinguishers	3	EA	\$1,750	\$5,250	Assume no standpipe required
New Floating Dock	950	SF	\$190	\$180,500	Assume all new floating dock; timber frame with anchorage
Relocate Upland Utility Service	1	LS	\$7,500	\$7,500	Relocate electrical panel
Lighting Pedestals	3	EA	\$2,500	\$7,500	Assume limited lighting on floating dock; new service
Potable Water	1	Pedestal	\$3,500	\$3,500	Assume potable water to one lighting pedestal to aid in dock cleaning/maintenance
Standpipe System	160	LF	\$400	\$64,000	(If Required)
Floating Kayak Launch Dock	1	LS	\$45,000	\$45,000	Approx. 10'x20' with anchorage
Additional Soft Costs (Permitting, Design, Construction Phase Services)	1	LS	\$105,000	\$105,000	Additional permitting and design of new structure (includes standpipe - if required)
Total				\$1,545,375	
Total with 15% Contingency				\$1,777,181	

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ATLANTIC
INTRACOASTAL
WATERWAY

ALL EXISTING PILES TO BE REMOVED

REFURBISHED FLOATING DOCK

PERMITTED
JET DOCKS

NEW LANDING
PONY FLOAT

COASTAL EXPEDITIONS
OPERATIONS AREA
(6'x30')

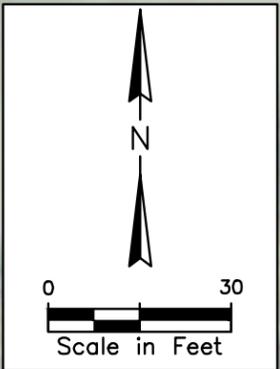
EXISTING FIXED PIER TO
REMAIN/BE REFURBISHED

NEW 6'x80' ADA
COMPLIANT GANGWAY

NEW GANGWAY
ACCESS PLATFORM
(10'x10')

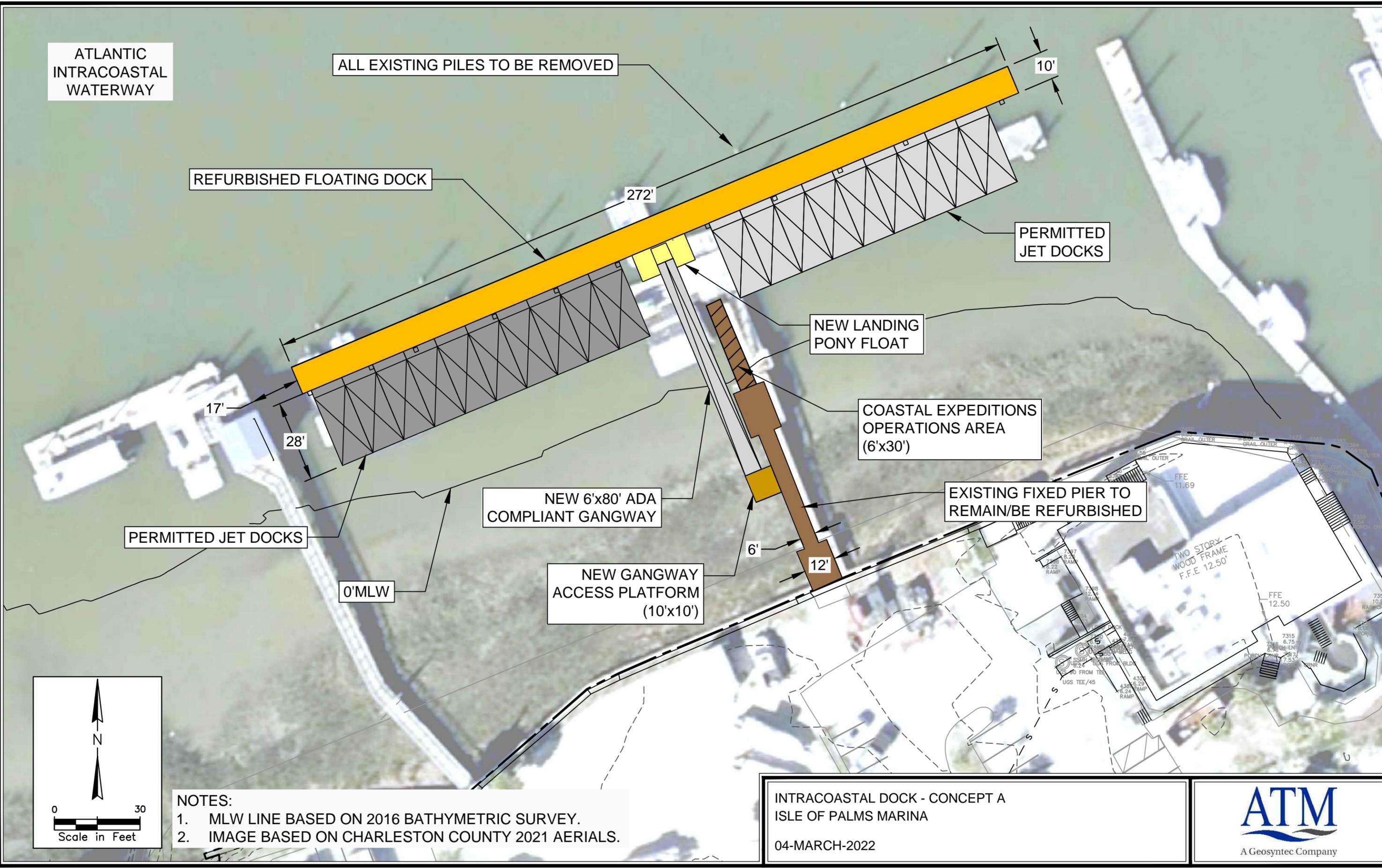
PERMITTED JET DOCKS

0'MLW



- NOTES:
1. MLW LINE BASED ON 2016 BATHYMETRIC SURVEY.
 2. IMAGE BASED ON CHARLESTON COUNTY 2021 AERIALS.

INTRACOASTAL DOCK - CONCEPT A
ISLE OF PALMS MARINA
04-MARCH-2022



Isle of Palms Marina - Intracoastal and Public Dock Redevelopment - Intracoastal Dock Concept A
Conceptual Construction Cost Estimate - March 2022

Item	Number	Unit	Unit Cost	Total Cost	Comments
Preliminaries					
Performance and Payment Bond	1	LS	\$19,000	\$19,000	~2% of Construction Total
Builders Risk Insurance	1	LS	\$19,000	\$19,000	~2% of Construction Total
Mobilization/Demobilization	1	LS	\$40,000	\$40,000	Assume local contractor; split with Public Dock work
Intracoastal Dock					
Demolition	1	LS	\$40,000	\$40,000	Demo piling, utilities, finger piers, and existing gangway
Fixed Pier	100	SF	\$700	\$70,000	Assume timber construction similar to existing
ADA Gangway 6'x80'	1	EA	\$85,000	\$85,000	Assume aluminum ADA compliant gangway
New Pony Float	200	SF	\$100	\$20,000	Pony float for gangway landing; no anchorage
Floating Dock Relocation, Maintenance, and new Anchoring	1	LS	\$300,000	\$300,000	Relocate existing floating dock; dock maintenance (fenders, bumper strip), new pile guides, new piles
Fixed Pier Maintenance	1	LS	\$30,000	\$30,000	Replace hardware; repair handrails
Re-Decking All Existing Docks	3,600	SF	\$40	\$144,000	Demo and replace worn decking with SYP; Add \$27/SF for IPE
Marina Electrical	14	Slips	\$11,000	\$154,000	Assume limited shore power on marina-controlled end of dock to all Jet Docks and some side tie
Lighting Pedestals	3	EA	\$2,500	\$7,500	Assume lighting pedestals on restaurant end of dock
Potable Water	17	Slips	\$2,500	\$42,500	Assume potable water to all pedestals
Standpipe System	160	LF	\$400	\$64,000	Assume new standpipe system required; integrate into old floating dock
Fire extinguishers	4	EA	\$1,750	\$7,000	Extinguishers with housings similar to rest of marina
Additional soft costs	1	LS	\$15,000	\$15,000	Related to fixed pier repair/maintenance needs identified during condition assessment
Total				\$1,057,000	
Total with 15% Contingency				\$1,215,550	

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ATLANTIC
INTRACOASTAL
WATERWAY

ALL EXISTING PILES TO BE REMOVED

NEW FLOATING DOCK

PERMITTED
JET DOCKS

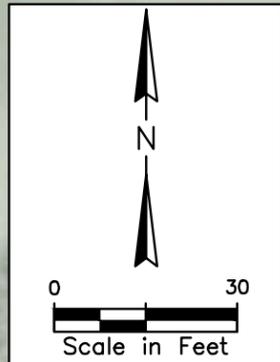
NEW 6'x80' ADA
COMPLIANT GANGWAY

NEW FIXED
ACCESS PIER

COASTAL EXPEDITIONS
OPERATIONS AREA
(20'x20')

PERMITTED
JET DOCKS

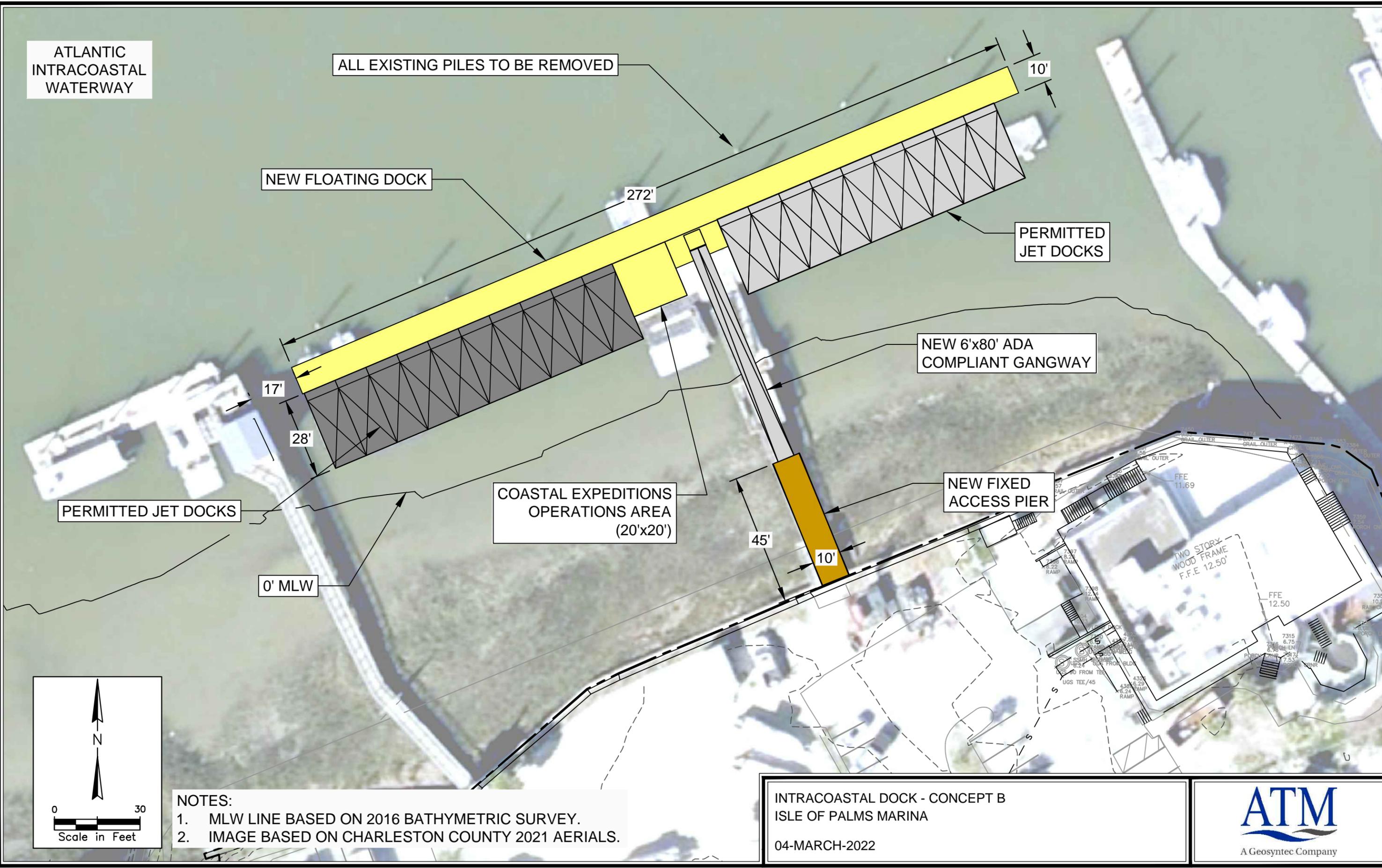
0' MLW



- NOTES:
1. MLW LINE BASED ON 2016 BATHYMETRIC SURVEY.
 2. IMAGE BASED ON CHARLESTON COUNTY 2021 AERIALS.

INTRACOASTAL DOCK - CONCEPT B
ISLE OF PALMS MARINA

04-MARCH-2022



Isle of Palms Marina - Intracoastal and Public Dock Redevelopment - Intracoastal Dock Concept B
Conceptual Construction Cost Estimate - March 2022

Item	Number	Unit	Unit Cost	Total Cost	Comments
Preliminaries					
Performance and Payment Bond	1	LS	\$26,000	\$26,000	~2% of Construction Total
Builders Risk Insurance	1	LS	\$26,000	\$26,000	~2% of Construction Total
Mobilization/Demobilization	1	LS	\$40,000	\$40,000	Assume local contractor; split with Public Dock work
Intracoastal Dock					
Demolition	1	LS	\$125,000	\$125,000	Assume all existing AIWW Docks demolished; include fixed pier
Fixed Pier	450	SF	\$325	\$146,250	Assume timber construction similar to existing
ADA Gangway 6'x80'	1	EA	\$85,000	\$85,000	Assume aluminum ADA compliant gangway
New Floating Dock with Anchorage	3,324	SF	\$200	\$664,800	New floating dock and anchorage; slightly more robust loading
Marina Electrical	14	Slips	\$10,000	\$140,000	Assume limited shore power on marina-controlled end of dock to all Jet Docks and some side tie
Lighting Pedestals	3	EA	\$2,500	\$7,500	Assume lighting pedestals on restaurant end of dock
Potable Water	17	Slips	\$2,500	\$42,500	Assume potable water to all pedestals
Standpipe System	160	LF	\$400	\$64,000	Assume new standpipe system required
Fire extinguishers	4	EA	\$1,750	\$7,000	Extinguishers with housings similar to rest of marina
Additional Soft Costs (Permitting, Design, Construction Phase)	1	LS	\$100,000	\$100,000	New pier design; permit modification; new floating dock specification; additional CA services
Total				\$1,474,050	
Total with 15% Contingency				\$1,695,158	