

CITY OF CLEARWATER CLEARWATER POLICE DOCKING FACILITY INSPECTION AND DAMAGE ASSESSMENT

April 2026



Prepared for:
The City of Clearwater

Prepared by:



**FIRST LINE
COASTAL**

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1 Background / Scope of Report

The City of Clearwater has contracted First Line Coastal (FLC) to perform a due-diligence and post-hurricane structural inspection on the Clearwater Police Station dock located at 700 Bayway Blvd #24 in Clearwater, FL. This inspection provides information regarding the general condition of this existing facility; recommends repairs and provides an opinion on potential costs; and provides a projection of future repair criteria. The scope of the inspection is a visual/tactile inspection to determine the general condition of the facility, identify significant damage requiring repairs, identify any maintenance repairs, and determine the ability of the facility to support the current or anticipated operations. This inspection was also performed to assess the conditions following Hurricanes Helene (September 2024) and Milton (October 2024). These inspections were performed to examine the condition of the structures and, if possible, delineate damage that is directly attributed to the hurricanes. FLC performed both topside and underwater structural inspections between 12/03/2025 and 12/04/2025 of the seawall, marginal dock and finger piers and associated infrastructure. Data collected includes general conditions, photos and identifications of defects. All inspections were to ascertain the visual conditions of the waterside elements and are limited to accessible components. Buried components such as tie backs, deadman anchors, or below-grade portions of piles are excluded. No excavation below the mudline was included.

The inspection also takes into consideration the emergency function of the facility and potential for failure at times when needed for emergency responses, like during storm events.

The inspection report provides a professional opinion regarding the existing conditions, opines on storm-related damage, and provides recommendations for repairs.

Attention was given to impacts attributable to the 2024 hurricane season. In interviews, staff at the Clearwater Police Station reported the following immediate impacts from Hurricanes Helene and Milton:

- Fire boat was lifted from the slip 1 hoist onto the main deck
- Damage to and failure of lift slip 3
- Instability along finger piers 1 & 2
- Instability along the main deck
- Loose and damaged decking
- Submersion of electrical systems

This report provides a discussion on issues related to the conditions of the mechanical and structural components of the dock system. It discusses the forces including wind, waves and surge related to the hurricanes and how they impacted the structures. Appendix A provides a full list of specific components that were inspected. Photography from the date of inspection is included as an electronic attachment via Appendix C. Recommendations for repair are included in Section 3.

2 Summary of Observed Existing Conditions

The Clearwater Police Department (PD) dock serves as a platform for marine-based emergency response, supporting both law-enforcement and fire-rescue activities. The facility consists of a primary, marginal deck structure with three finger piers, forming three boat slips. Two of the slips are equipped with boat-lift systems utilizing motor-and-pulley assemblies, while the third slip includes a hydraulically operated deck-lift. Lift slip 1 is designated for the fire-response vessel and is rated for a fully loaded lifting capacity of approximately 25,000 lbs. Lift slip 2 supports a police vessel with an operational capacity of approximately 15,000 lbs. Lift slip 3 is currently non-operational but is designated for a second police vessel similar to Lift 2 (Figure 1).

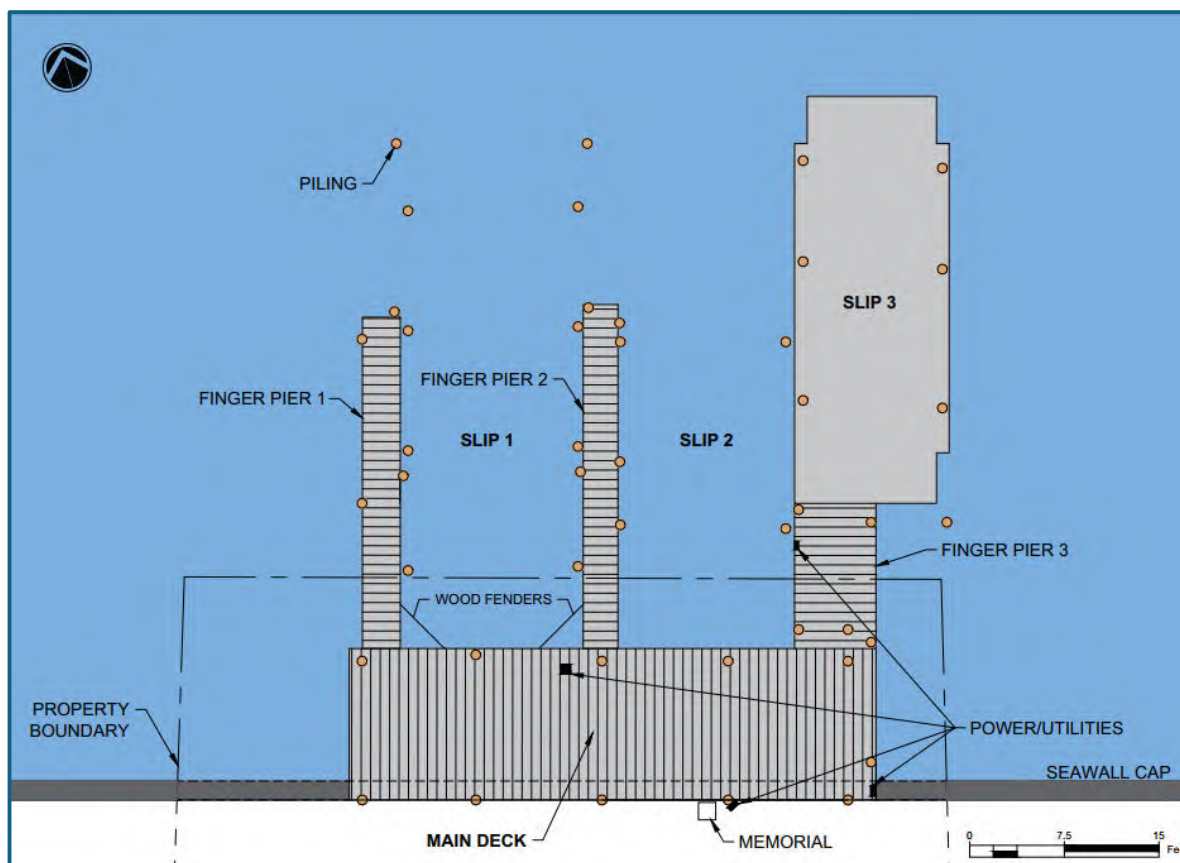


Figure 1: Dock Layout

2.1 Facility Iterations

The facility was initially constructed in 1976 and has been continuously operated as a key component of the City’s emergency services program. The dock’s structural configuration has changed throughout its lifecycle. Multi-year aerial imagery analysis confirms the following for the prior 15-year lifecycle:

- 2010–2012: Installation of lift slip 3 including hydraulic lift.
- 2018: Modification of Slip 1 to accommodate a fire vessel. Upgrades included supplementary pilings and stabilization for finger piers one and two.
- 2024: Suspension of use for the Slip 3 hydraulic lift, due to mechanical failure and structural damage following hurricane Helene.

The current structure reflects a series of incremental improvements and maintenance repairs rather than a unified design. The resulting facility includes a mix of elements which vary in age and function.

The dock is core asset of emergency response infrastructure for the City. Maintenance activities are managed by the City’s Marine and Aviation Department. Inspection events have coincided with major improvements and periodic inspections conducted by the FDEP to ensure compliance with an existing state sovereign submerged lands lease. Copies of available maintenance records and inspections are available in Appendix E.

2.2 Current Dock Conditions

The existing condition of the Clearwater PD dock can be summarized as inadequate for its purpose. Spot repairs have extended the life and function of the dock, but storm damage experienced during the 2024 season has jeopardized operational reliability of the facility. Staff are currently operating the facility in a reduced capacity with due caution.

Field observations were performed in accordance with the ASCE/COPRI Manual of Practice 130 “*Waterfront Facilities Inspections and Assessment*” (Committee et al. 2025). The standard of practice defines the following grading system for observed damages for component inspection:

Damage Rating	
NI	Not Inspected
ND	No Defects
MN	Minor
MD	Moderate
MJ	Major
SV	Severe

Table 1: Damage Ratings based on ASCE Waterfront Facilities Inspection and Assessment Manual

A total of 69 components were reviewed, of which 40 were graded at Moderate (MD) condition or below, indicating at least moderate deterioration or loss of function. Three components are assigned a “Severe” (SV) damage rating, including two of the three lift slips. Appendix A presents a detailed listing of all components that were assessed. Appendix B is a scaled graphic of the waterside components of the dock including location of each inspection point and accompanying photo, which are provided in Appendix C.

Condition Totals	
ND	11
MN	18
MD	20
MJ	17
SV	3

Table 2: Summary of Conditions

2.4 Common Observations

Analysis of inspection results revealed several thematic observations, as described below with representative photos. This section is supported by the specific inspection documentation provided in Appendix A, B and C.

- **Splitting and Cracking:** Repeated wet and dry cycles have degraded the dock's timber members, reducing their structural density and causing deep splits and cracks. Maximal forcing during extreme weather events are likely to have accelerated damage. See figure 2 below.
- **Oxidative Corrosion (rust):** Exposure to the marine environment has triggered widespread oxidation of metal hardware and components. Corrosive damage to electrical compounds is widespread. Observed severity ranges from surface pitting to component seizure. Given proximity to the Gulf and Clearwater Pass, above-water components likely encounter aerosolized sea spray (salt air) on a regular basis. Storm events lead to direct spray and even full submersion. See figure 3 below.
- **Dry Rot:** High-moisture conditions have promoted fungal growth, leading to degradations on timber structures. This reduces the load-bearing capacity of the wooden components. Dry rot is an anticipated wear with wood members in the marine environments. See figure 4 below.
- **Instability:** Various stressors—including wave action, wind energy, and vessel impacts—have compromised the dock's rigidity. Evidence includes leaning pilings and movement in finger piers under minimal loads. The loading conditions which cause gradual instability are exacerbated in extreme weather events. See figure 5 below.

- **Biofouling:** Accumulation of algae, oysters, mussels, and tunicates are present at varying levels on all pilings, both on bare and wrapped piles. This increases the impact of stressors such as waves by increasing the surface area and their forcing against the member. These organisms also accelerate timber degradation. Marine growth is common for this region. See figure 6 below.

 Clearwater PD Dock Inspection Representative Photograph Log FIRST LINE COASTAL		
Client: City of Clearwater	Site Location: Clearwater PD	Project No: 23-10.06
Figure 2		
Date: 12/03/2025		
Defect Type: Splitting		
Issue: Splitting is primarily caused by the cycle of repeated saltwater exposure and drying, causing a breakdown in the wood fibers. Maximal loading can cause extensive cracking, especially near hardware penetrations like this pile along Lift Slip 2.		

Client: City of Clearwater	Site Location: Clearwater PD	Project No: 23-10.06
Figure 3		
Date: 12/03/2025		
Defect Type: Rust/Corrosion		
Issue: Rust and corrosion is a common issue around water and is caused by oxidation within the metals. Direct exposure to salt water from splashing or submersion often leads to current leaks in electrical components like this lift motor at Lift Slip 2.		

Client: City of Clearwater	Site Location: Clearwater PD	Project No: 23-10.06
Figure 4		
Date: 12/03/2025		
Defect Type: Dry Rot		
Issue: Dry rot presents itself in moisture rich environments, like a piling on a dock, where fungi eat away at the wood. Preventative measures may include pile caps, coatings and wraps.		

Client: City of Clearwater	Site Location: Clearwater PD	Project No: 23-10.06
Figure 5		
Date: 12/03/2025		
Defect Type: Instability		
Issue: General dock instability is noted at several primary facility elements. Finger pier 1 is notably unstable under minimal loads (like walking). Likely sources of damage include lateral loading, collision, and surge loading during storm events.		

Client: City of Clearwater	Site Location: Clearwater PD	Project No: 23-10.06
Figure 6		
Date: 12/03/2025		
Defect Type: Biofouling		
Issue: Growth is inevitable in a marine environment. A common and effective preventative measure is a piling wrap. Occasional removal by scraping accessible pilings is advisable to extend pile life and reduce potential vessel damage.		

Client: City of Clearwater	Site Location: Clearwater PD	Project No: 23-10.06
Figure 7		
Date: 12/03/2025		
Defect Type: Hardware Damage		
Issue: Lateral load forcing is apparent at several locations and is likely the cause of wind and wave action during storm events. Deflection of hardware connections in the direction of wave forces are evident at Lift Slip 1.		

Client: City of Clearwater	Site Location: Clearwater PD	Project No: 23-10.06
Figure 8		
Date: 12/03/2025		
Defect Type: Mechanical Failure		
Issue: Mechanical failure has been encountered at several locations. Lift Slip 3 was removed from service following hurricane Helene and rests in a state of disrepair. The longevity of electrical components at the facility are of particular concern, as they have encountered varying levels of seawater intrusion during storms.		

2.5 2024 Storm Conditions

Hurricane Helene tracked northward through the eastern Gulf of Mexico from September 24–27, 2024. Although the center remained approximately 100 miles offshore from the Clearwater region, its massive wind field generated record-breaking storm surge along Florida’s west coast, reaching a peak level of 7.58 ft NAVD88 at Clearwater Beach. Peak wind gusts recorded at Clearwater Beach reached 63 knots.

Hurricane Milton made landfall, about 48 miles SSE of the site, at Siesta Key on October 9, 2024, as a Category 3 hurricane. The NOAA Clearwater Station recorded a peak water level of approximately 2.25 ft NAVD88. Peak wind gusts recorded at Clearwater Beach reached 78 knots. Hurricane Milton notably impacted the area just 14 days after the passage of Helene. Figures 9 and 10 below represent the tracks that the two storms followed.

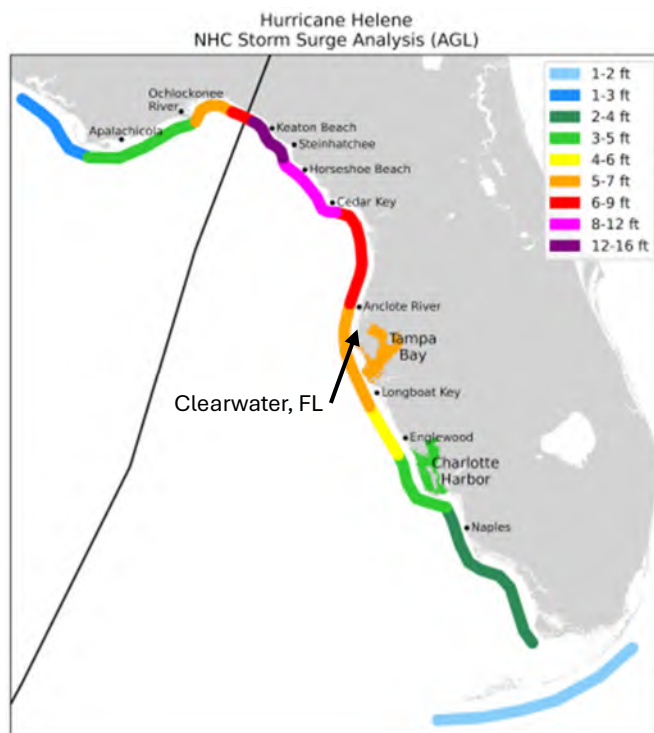


Figure 9: Hurricane Helene Track



Figure 10: Hurricane Milton Track

Water level data from NOAA's Clearwater Beach Station #8726724 is presented in figure 11 below. The station is located about 0.8 miles from the PD Dock.

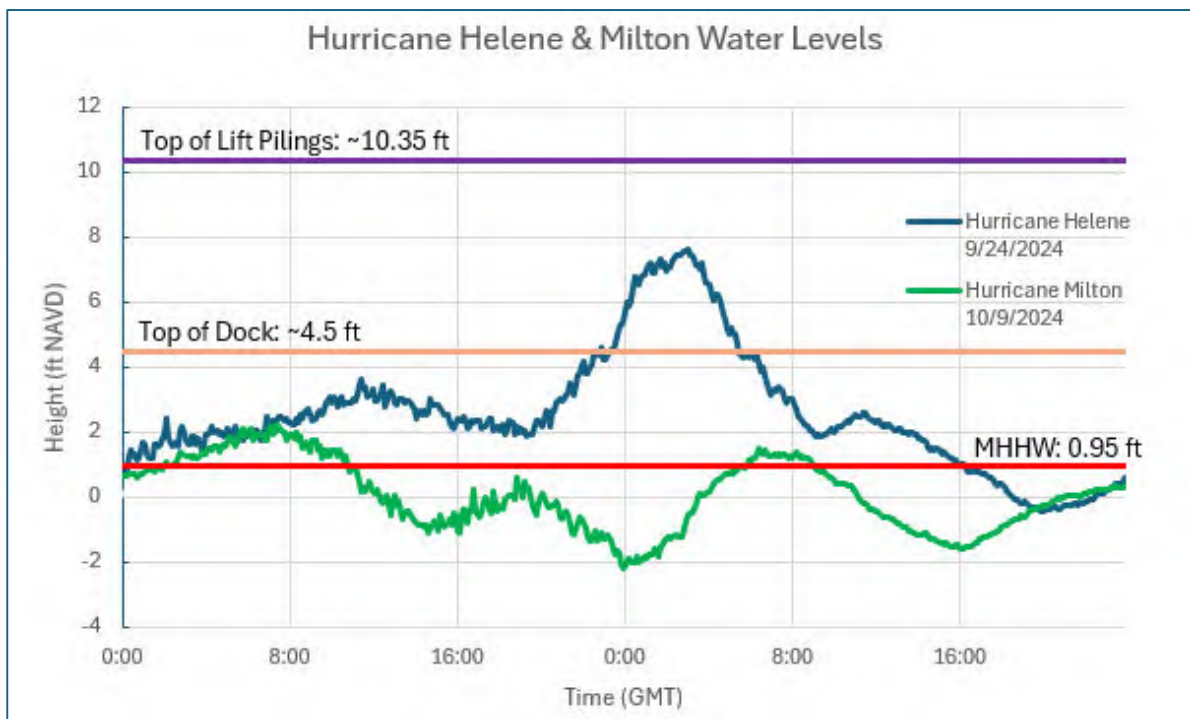


Figure 11: Hurricane Water Levels

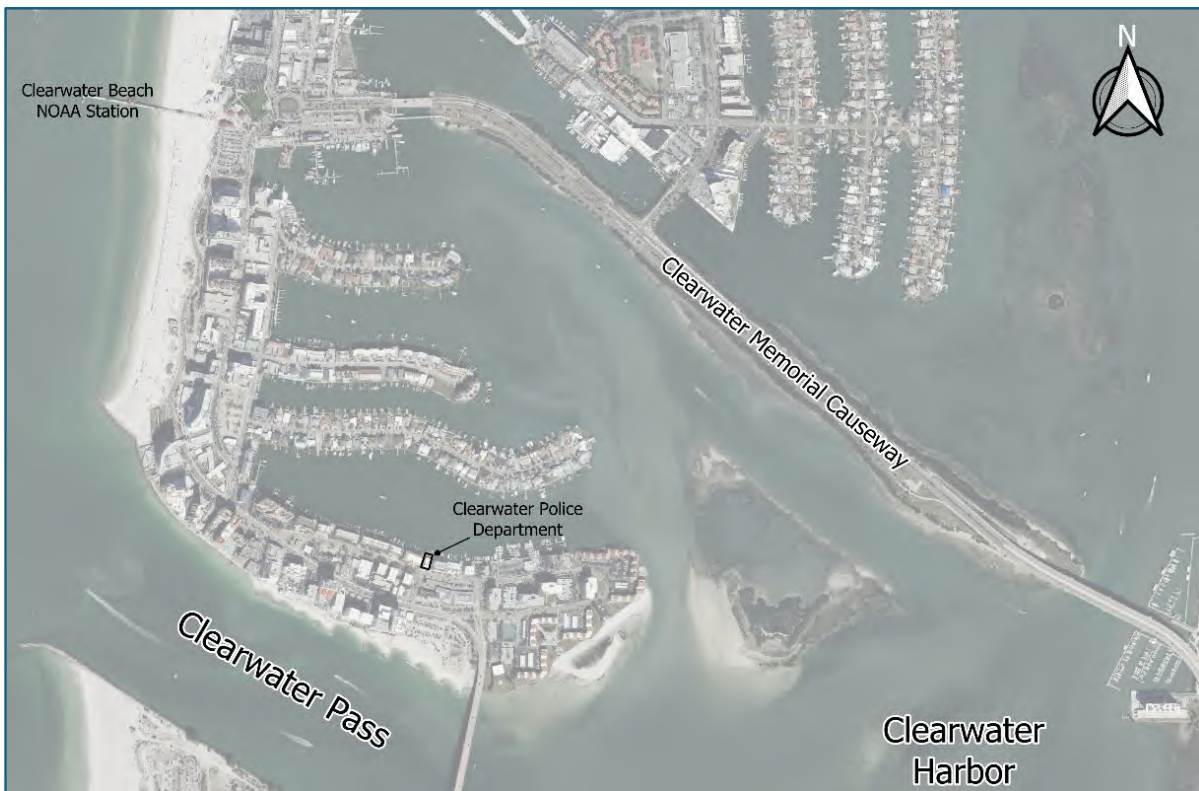


Figure 12: Regional Map

Wind direction and velocity were also measured at the Clearwater Beach station. Direction and velocity at the PD Dock are represented in the figures below.

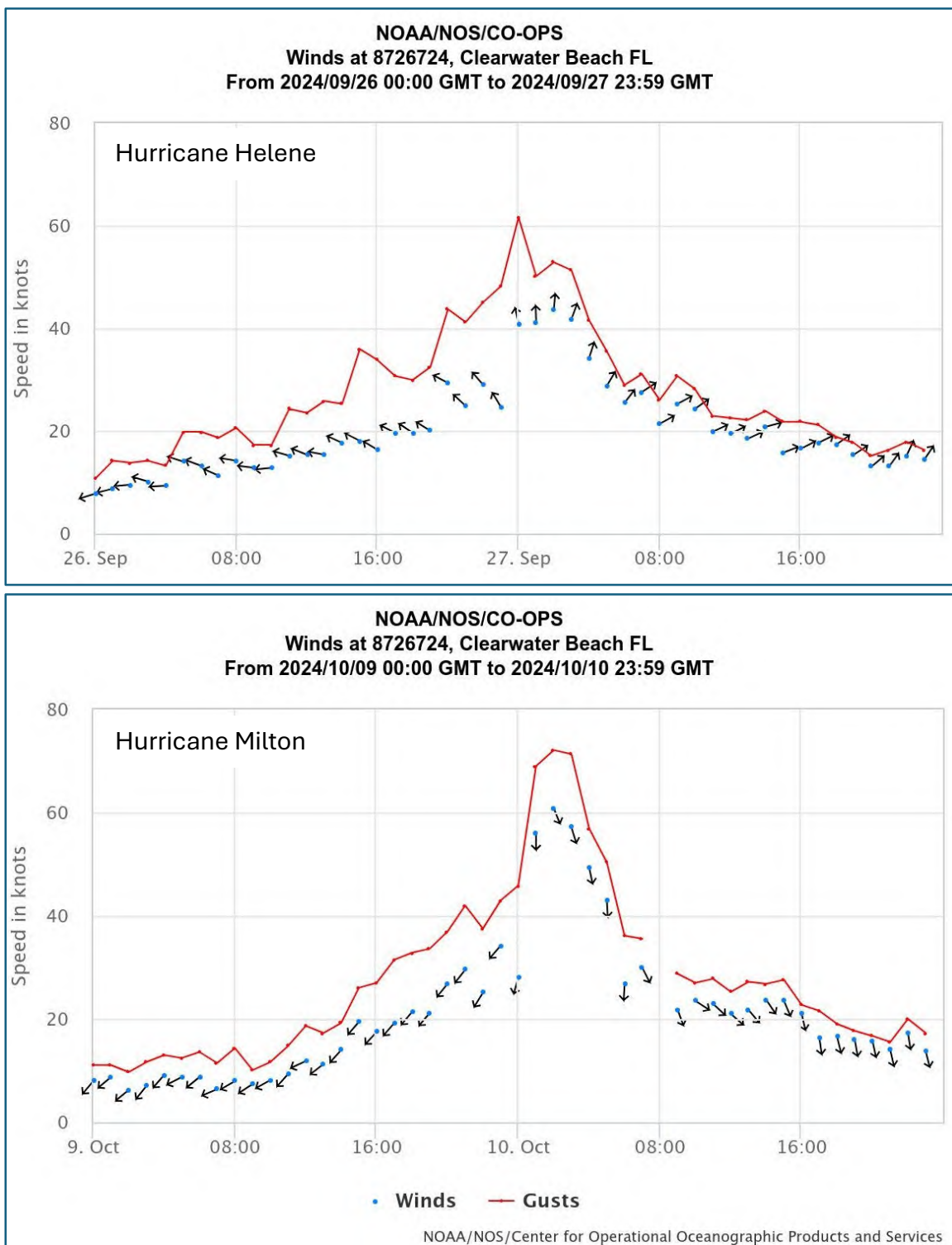


Figure 13: Hurricanes Helene and Milton Wind Velocity and Direction (NOAA)



Figure 14: Max wind speeds and direction relevant to the PD Dock

2.6 Observed Storm Impacts

Extreme storm events impose significant stress on dock structures. The combination of elevated wind speeds, increased water levels, and wave action creates conditions that result in both immediate damage and long-term structural impacts. High winds apply lateral loads to components primarily engineered for vertical forces. Storm-driven waves introduce hydrodynamic forces in the horizontal plane as well as uplift forces which are contrary to the design orientation of static-resistant elements. Additionally, splashing and full submersion expose materials and mechanisms (mechanical and electrical) intended to remain dry to seawater, compromising their integrity.

The Clearwater PD Dock lies within a FEMA-designated “AE-10” flood zone. AE zones are designated as high-risk zones for a 1% annual storm analysis, and the dock has a Base Flood Elevation of 10 feet NAVD 88. The dock is also located water-ward of the Limit of Moderate Wave Action (LIMWA), indicating that wave heights of 1.5 to 3.0 feet should be expected during the 1% storm.

During Hurricane Helene, the PD Dock was fully submerged with about 6.6 ft of water above normally-dry components. Peak wind gusts from a South-by-southwest direction coincided with max surge levels. Wave conditions at the dock were not observed during the storm but were likely in the 1 ft range.

Conditions at the PD Dock during Milton included a water level of around 1.23 ft above normally dry ground during storm approach, followed by a reverse surge during offshore wind stages. Max wind speed occurred with a northerly wind direction, which coincide with maximum wind fetch direction for the PD Dock. Wind direction transitioned to SW once the eye passed the Clearwater area. Localized increases in water level from wind setup were not measured but likely occurred. Wave conditions at the dock were not observed during the storm but likely included 2-3 ft waves with a short period.

Staff at the Clearwater Police Station reported the following immediate impacts from Hurricanes Helene and Milton:

- Fire boat lifted onto the main deck
- Damage to and failure of lift slip 3
- Instability along finger piers 1 & 2
- Instability along the main deck
- Loose and damaged decking
- Submersion of electrical systems



Figure 15: Post Storm (Helene) Imagery of Fire Vessel on Dock (NOAA NGS Emergency Response Imagery, 10/01/2024)

3 Storm Damage Assessment

One of the objectives of the assessment for the City was to determine what damage at the facility was likely the result of Hurricanes Helene and Milton. When conducting a post event inspection, general observations of long-term or pre-existing deterioration are ignored. Certain conditions like marine growth, timber deterioration from environmental exposure, and anticipated wear are not attributable to a specific event.

In contrast, hurricanes bring special conditions of concern including lateral wind loads, flooding, wave forces, collision, surge loading, sea spray and splashing. Accordingly, areas of focus for the post-event evaluation at the site include (but are not limited to) damages associated with breakage, displacement, separation, wracking, instability, abnormal wear, loss of function, saltwater intrusion, and corrosion of normally dry components.

Table 3 below summarizes conditions of concern for a typical dock structure during tropical events. Matrix cells highlighted in grey indicate impacts which are likely and observed to be caused by hurricane conditions at the Clearwater PD Dock:

Sub-Component	Approx. Relevant Elevation (NAVD 88)	Potential Conditions of Concern					
		Additional Forcing			Environmental		
		Lateral (Wind)	Vertical / Surge (Wave)	Impact (Collision)	Submersion	Splashing	Spray
Main Deck & Finger Piers							
Piles	4.5 ft	X		X	X	X	X
Joists and framing	3.8 ft	X	X	X	X	X	X
Hardware	3.8 ft	X	X	X	X	X	X
Decking	4.5 ft		X	X	X	X	X
Lift Slips							
Piles	10.4 ft	X	X	X			
Hardware	10.4 ft	X	X	X			
Lift framing	10.4 ft	X	X	X			
Vessel cradle	5.0 ft	X	X	X	X	X	X
Lift motors	10.4 ft				X	X	X
Ancillary Components	5.0 ft	X	X	X	X	X	X
Power/Utilities							
Shore power pedestals	4.5 ft				X	X	X
Junction boxes	7.5 ft				X	X	X
Water supply	3.5 ft	X	X	X	X	X	X
Seawall							
Concrete wall	3.9 ft		X	X	X	X	
Concrete cap	3.9 ft		X	X	X	X	
Backfill	3.9 ft		X		X	X	

X	Potential Concern
X	Observed or Likely Impacts

Table 3: Potential Storm Impacts by Component

A previous baseline structural inspection of the PD dock was not available for a detailed comparison of pre and post storm conditions for each component. In lieu of baseline inspection data, the environmental conditions presented in Section 2.5 provide necessary context to opine on likely impacts from the storms. Information gathered via staff interviews, construction and maintenance records, and other data sources supplement the contextual basis for attributing the likely cause of damage for the various elements.

The post-event rating system outlined in ASCE/COPRI Manual of Practice 130 “*Waterfront Facilities Inspections and Assessment*” (Committee et al. 2025) was adopted for the assessment and is outlined in the Table 4 below.

Post Event Rating System	
Rating	Description
A	No significant event-induced damage
B	Minor to moderate event-induced damage; low priority repairs
C	Moderate to major event-induced damage; necessary repairs by priority
D	Major event-induced damage or failure; urgent attention

Table 4: Post Event Rating System based on ASCE Manual

As discussed above, the assessment considered nine primary facility components. Table 5 provides an assessment summary by primary component with additional context provided for each to follow. Appendix A presents individual component detail, summarized by element.

Facility Post Event Ratings	
Component	Rating
Main Deck	C
Finger Pier 1	C
Finger Pier 2	B
Finger Pier 3	A
Lift Slip 1	D
Lift Slip 2	C
Lift Slip 3	D
Power/Utilities	B
Seawall	A

**C and D ratings are considered moderate and major damages with higher priority. A “D” rating is the worst grade available in the ASCE scale.*

Table 5: Facility Post Event Ratings based on ASCE Manual

Main Deck – Evidence of lifting and cracking were observed during inspection. The deck also experienced collision and surge loading during Helene when the Fire Boat was floated onto it. Surface undulation and piling penetration of the planer deck surface indicates localized subsidence. Overall stability of the deck is moderate without signs of imminent failure.

Finger Pier 1 – Post storm, the pier exhibits significant lateral instability. Evidence of impacts from movement of the Fire Boat are apparent. Pile splits and imminent failure of a cross member are present. Decking has been temporarily repaired but remains uneven. Overall stability of the pier is poor, but without signs of imminent failure.

Finger Pier 2 – Post storm, the pier exhibits signs of moderate lateral instability. Evidence of impacts from the Fire Boat displacement is noted in pile splits at hardware locations. Impacts to decking are present. Some splitting of joists is present. Overall stability is moderate without signs of imminent failure.

Finger Pier 3 – Storm related damage was limited to lifted decking at this pier. No major storm impacts were observed. While some restoration is advisable, the pier presents with fair stability.

Lift Slip 1 – Post storm, the lift has remained in operation. Movement of the Fire Boat during Helene has caused notable shifting of the western lift beam and deflection of mounting brackets. Minor shifting was also noted on the eastern beam. The flywheel cover is missing from a lift motor. Electrical components were exposed to seawater. The users of the slip report adequate operation with good stability. The risk rating for the deflected mounting beam brackets assigns a Very High priority to repair.

Lift Slip 2 – Post storm, electric lift motors are experiencing advanced levels of corrosion. The western lift motor was replaced in 2025 and the eastern motor is in poor condition. The corrosion is potentially related to stray current, which is a common result of saltwater exposure. Control boxes and electrical components were inundated with seawater during Helene. With consideration to the operational impacts of a loss of use for the Police Boat Lift, a risk rate of High is appropriate for priority repair.

Lift Slip 3 – The lift was taken out of service following Helene and is non-operational. The hydraulic control box was fully submerged during Helene. Efforts to secure the lift have been unsuccessful due to failure of the hydraulic system, leaving an uneven platform that is non-operational and hazardous to users. Movement of the eastern pulley and lift housing was notable with deflection of mounting brackets and is likely attributable to wind loading during Milton. With consideration to the operational impacts of a loss of use for the Police Boat Lift, a risk rating of Very High is appropriate for priority repair.

Electrical/Utilities - Electrical and water service components have remained operational post-hurricanes. Full submersion, splashing, or seawater spray were experienced for all components. Observations of persistent corrosion in and around electrical connections are indicative of accelerated deterioration. Water service lines appear unaffected by the storms. Service is currently operational, but future issues are expected.

Seawall – The seawall did not experience any event related damage. Minor damage observations are indicative of general deterioration and not attributable to the storm events.

4 Recommended Repairs

The Clearwater PD dock has been through several generations of repair and some of the elements are reaching the end of their serviceable life due to wear and tear. The two hurricanes have, however exacerbated the condition of some of these elements and, in many cases advanced what would be considered “operable” to “in need of repair” or “inoperable” earlier than anticipated. Conditions experienced during the storms have compromised many of the structural elements and have transitioned several maintenance category items into a critical repair status. Lift Slips 1 and 3 experienced major storm damage and Lift Slip 2 experienced moderate damage. The operational status of all three lifts is critically compromised. Considering the dock is utilized for emergency services, we recommend proceeding with a full reconstruction of the dock and associated systems.

Selective Repairs: Repairs which are necessary and specifically due to the passing of Hurricanes Helene and Milton are provided in Table 6. The table is provided as a menu of individual repair costs for only those elements selected. Additional costs for mobilization, engineering, permitting and administrative work should be expected to vary depending which combination of elements are selected for repair. The total cost for performing all recommended repairs individually and/or incrementally is estimated at approximately \$382,650.

Table 6 – Selective Individual Repairs to Existing	
Repair Element	Estimated Cost
Mobilization	<i>Varies</i>
Replace western half of main deck	\$ 50,830
Replace Finger Piers 1 and 2	\$ 29,210
Replace Lift 1	\$ 53,494
Repair Lift 2	\$ 20,000
Replace Lift 3	\$ 37,107
Replace damaged pilings	\$ 10,000
Replace all decking	\$ 15,000
Replace all electrical	\$ 35,000
Replace hardware below the surge level	\$ 10,000
Design and Permitting	<i>Varies</i>
Oversight and Administrative	<i>Varies</i>

Table 6: Storm Damage – Individual Repairs Cost Estimate

Selective Mitigations: Several features are recommended to mitigate damages from potential future storms. These mitigative elements are provided in Table 7 and include estimated costs. The total cost for implementing all recommended mitigations individually and/or incrementally is estimated at approximately \$102,500. Combined with the estimated costs for individual repairs, the total estimated repair plus mitigation cost is \$485,150.

Table 7 - Mitigative Options (Upgrade Existing)	
Mitigative Element	Estimated Cost
Install flow-through decking	\$ 8,000
Install removable electrical pedestals	\$ 5,000
Elevate electrical control boxes	\$ 8,000
Replace older generation pilings	\$ 10,000
Raise decking level	\$ 30,000
Install cross-bracing	\$ 10,275
Install storm restraint system on lifts	\$ 21,125
Design and Permitting	<i>Varies</i>
Oversight and Administrative	<i>Varies</i>

Table 7: Mitigative Features Cost Estimate

Facility Reconstruction: Given the amount and scale of necessary repairs required, a total facility reconstruction was evaluated. A proposed conceptual design for the dock reconstruction is provided in Appendix D. The total cost to re-build the entire dock in a single event, with all recommended mitigative improvements is estimated at approximately \$431,055. A summary of estimated costs for the Facility Reconstruction option is provided in Table 8 below.

The rebuild option provides an estimated project cost savings of \$54,095. Efficiencies in construction timeline, reduced contractor risk, increased competition and economies-of-scale are strong contributors to the cost savings for this option. The rebuild option is also expected to yield extended longevity and mitigative benefit compared to the selective repair option. Considering the increased performance at reduced cost the Facility Reconstruction alternative is recommended for implementation.

Table 8 - Demo & Rebuild New (Concept Design w. Mods)	
Line Item	Estimated Cost
Mobilization	\$ 25,000.00
Demo Existing Dock	\$ 12,275.00
Construct New Dock - Main Deck, Piers 1 & 2	\$ 71,950.00
Construct Lifts 1, 2, & 3	\$ 94,190.00
Renew Electrical	\$ 38,000.00
Install Stairs and Railings	\$ 21,650.00
Ancillary Elements	\$ 31,590.00
Subtotal - Rebuild In-Kind	\$ 294,655.00
Mitigative Element	Estimated Cost
Upgrade to flow-through decking	\$ 8,000
Upgrade to removable electrical pedestals	<i>incl.</i>
Elevate electrical control boxes	<i>incl.</i>
Replace older generation pilings	<i>incl.</i>
Raise decking level	<i>incl.</i>
Install cross-bracing	\$ 10,275
Install storm restraint system on lifts	\$ 21,125
Subtotal - Optional Mitigative Upgrades	\$ 39,400
Engineering, Permitting, Administration	Estimated Cost
Estimated Design and Permit Fee	\$ 53,000
Estimated Oversight and Administrative	\$ 44,000
Subtotal - Engineering, Permitting, Administration	\$ 97,000
Subtotal - Proposed Construction Cost	\$ 334,055
Grand Total - Rebuild with Mitigations	\$ 431,055.00

Table 8: Mitigative Features Cost Estimate

5 Conclusions

The Clearwater Police Department dock has reached a stage where continued operation without intervention poses increasing structural, mechanical, and operational risks. The effects of Hurricanes Helene and Milton caused direct impacts and accelerated deterioration across critical components including pilings, hardware, and lift systems. The extent of repairs required to restore operational capacity to pre-storm levels will require rebuild of many existing components. Considering the scale of necessary repair, a total rebuild of the facility, along with select storm mitigation features, should be strongly considered to ensure operational reliability for emergency services. A total project cost of \$431,055 is estimated at this stage of conceptual design. A reasonable contingency to accommodate unforeseen changes and cost escalations at this stage is 20%, yielding a total recommended project budget of \$517,266.

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Appendix A

Tabular Data of Inspection Sites

Clearwater PD Field Observation			
Inspection Date: 12/03/2025 & 12/04/2025		Inspectors: Jake Pierson and Tim Patschorke	
Component ID	Defect Type	Condition	Notes
Main Deck			
MD	C, RC	MD	excessive screw holes, undulation, cracking, piling pushing up decking, loose planks, misc. rusty hardware, joists dry and cracking
West Railing	RC, C, MB	MD	rusting hardware, cracking, borer, loose
East Railing	RC, C	MD	rusty hardware, cracking
P01	S, D	MJ	no cap
P02	P, RC	MJ	penciling, rusty hardware, moderate growth, no wrap
P12	S, RC	MD	cap rusty and loose, loose thru bolt
P13	C, RC	MJ	minor cracking, rusty hardware, no wrap
P14	S, D, RC	MD	cap rusty and loose, hardware rusty but secure
P15	RC, H, C	MD	rusty hardware, old holes, cracking, no wrap
P27	S, D, RC	MD	cap rusty and loose, hardware rusty but secure
P28	RC	MJ	rusty crossmember hardware, moderate growth, no wrap, P28-P37 crossmember shot
P36	S, D	MJ	mounted water line, no cap
P37	RC, DT	MJ	rusty hardware, P37-P28 crossmember shot, moderate growth, no wrap
P39		MN	minor growth on wrap
Finger Pier 1			
FP01	RC, U, S	MJ	excessive screw holes, undulation, misc. rusty hardware, rusty cleats, joists dry and splitting, wobbly
P03	S, R, RC	MJ	splitting, rotting, rusty hardware, moderate growth, no wrap
P04	S, RC	MD	splitting, rusty hardware, major growth, no wrap
P06	RC, SL	MD	minor splitting, no wrap, moderate growth, rusty hardware, P6-P3 crossmember is shot, minor splintering
P09	S, RC	MJ	splitting, rusty hardware, no wrap, moderate growth, split down to thru bolt

Condition Totals	
ND	11
MN	18
MD	20
MJ	17
SV	3

Defect Types			
R	Rot	B	Broken
RC	Rust/Corrosion	S	Splitting
C	Cracks	D	Dry Rot
L	Settlement/Lean	P	Penciling
FF	Fastener Failure	SP	Spalling
LO	Loose	SL	Splintering
CW	Cable Wear	DT	Deterioration
EH	Electrical Hazard	EG	Excessive Growth
MB	Marine Borer		

Condition Types	
NI	Not Inspected
ND	No Defect
MN	Minor
MD	Moderate
MJ	Major
SV	Severe

*Photo documentation available in electronic file

Lift 1/Slip 1			
Wood Fenders		MD	moderate growth
L01W	RC, DT	SV	Moderate shifting cross beam and deflection of mounting brackets. rusty hardware, rust on electrical conduit, mild growth, deteriorating bunks, motor bracket rusted to near failure
L01E	RC	MJ	Minor shifting cross beam and deflection of mounting brackets. rusty hardware, rust on electrical conduit, mild growth, deteriorating bunks, motor bracket rusted to near failure
L01 Electrical		ND	electrical lines in good condition, minor sun damage
P05	R, S, CH	MD	rubbing from lines, top starting to rot, minor splitting, minor growth on wrap
P07	EG	MN	minor growth on wrap, wrap slightly beat up
P08		MN	major growth on wrap, slightly torn wrap
P10		ND	moderate growth on wrap
P11		MN	moderate growth on wrap, torn wrap, no cap
P16	C	MN	minor cracking/dry on top, moderate growth on wrap
P18	R	MD	minor growth on wrap, top getting soft/rot/mold
P19	EG	MD	major growth on wrap, grew through the wrap
P21		MN	minor wrap damage, minor growth on wrap, minor denting
P22		MN	minor wrap damage, moderate growth on wrap
Finger Pier 2			
FP02	S, LO	MD	undulation, loose planks, joists dry and splitting
P17	RC, C	MJ	rusty hardware, no wrap, moderate growth, dry/cracking
P20	C, RC	MJ	major cracking, rusted out hardware, major growth
P24	MB, RC, S	MJ	no wrap, minor growth, boring/holes, P24-P17 crossmember shot and rusted hardware, splitting where crossmember bolted on
P26	RC, S	MJ	rusted hardware (shot), splitting down to thru bolt, no wrap, minor growth
Lift 2/Slip 2			
L02W	RC	MJ	pulley shaft bent, mild growth on crossbeams, minor hardware rust, rusted hole above P25
L02E	RC	MJ	excessive rust on motor with potential current leak. Rusting hardware, minor cable rust, pulley shaft rust
L02 Electrical		ND	electrical lines in good condition, minor sun damage
P23	LO, S, RC, A	MD	no wrap, major growth, loose lift hardware, splitting where lift mounted, rusting hardware, minor abrasion damage
P25	MB, RC, S, SL, R	MJ	boring, rusty hardware, splitting between thru bolts, splintering, top starting to rot, no wrap, minor growth
P30	H, RC, S	MD	holes, rusted bolt going to nowhere, no wrap, minor growth, dry/splitting where lift mounted, rusty lift hardware
P33	C, SL	MD	no wrap, minor growth, cracking down piling, splintering at waterline

Condition Totals	
ND	11
MN	18
MD	20
MJ	17
SV	3

Defect Types			
R	Rot	B	Broken
RC	Rust/Corrosion	S	Splitting
C	Cracks	D	Dry Rot
L	Settlement/Lean	P	Penciling
FF	Fastener Failure	SP	Spalling
LO	Loose	SL	Splintering
CW	Cable Wear	DT	Deterioration
EH	Electrical Hazard	EG	Excessive Growth
MB	Marine Borer		

Condition Types	
NI	Not Inspected
ND	No Defect
MN	Minor
MD	Moderate
MJ	Major
SV	Severe

Finger Pier 3			
FP03	RC, DT	MD	rusting hardware, moderate deterioration of joists (age), rusty shore power box hardware
P29	RC	MN	moderate growth on wrap, crossmember hardware rusting
P31		MN	wrap peeling, moderate/major growth on wrap
P38	RC	MN	minor growth on wrap, rusty crossbeam hardware
P40	RC, DT	MD	P40, P38, P29 crossbeams in bad shape and rusty hardware, major growth on wrap
P41	EG	MN	wrap starting to come off, major growth on wrap
Lift 3/Slip 3			
L03W	RC, L, R	SV	extremely rusted hydraulic connections, leaning platform, corrosion on lower rollers, rotting bunks
L03E	RC, L, R	SV	extremely rusted hydraulic connections, leaning platform, corrosion on lower rollers, rotting bunks
L03 Electrical	RC	MN	electrical lines in good condition, minor sun damage, rusty hardware
P32		ND	minor growth on wrap
P34		ND	minor growth on wrap
P35	DT	MN	wrap starting to deteriorate, minor/moderate growth on wrap
P42	S	MN	top starting to get dry/splitting, no wrap, moderate/major growth
P43		ND	minor growth on wrap
P44		ND	moderate growth on wrap
P45		ND	minor growth on wrap
Under Dock			
MD	RC	MN	wood in decent shape, conduits in good shape, misc. rusty hardware
FP01	RC	MN	wood in decent shape, conduits in good shape, misc. rusty hardware
FP02	RC	MN	wood in decent shape, conduits in good shape, misc. rusty hardware
FP03	RC	MN	wood in decent shape, conduits in good shape, misc. rusty hardware
Seawall	SP	ND	minor spalling and growth
SAV Invest W		ND	no grass, red macro algae (rooted)
SAV Invest E		ND	nothing
L03	RC	MD	corrosion on rollers and connections

Condition Totals	
ND	11
MN	18
MD	20
MJ	17
SV	3

Defect Types			
R	Rot	B	Broken
RC	Rust/Corrosion	S	Splitting
C	Cracks	D	Dry Rot
L	Settlement/Lean	P	Penciling
FF	Fastener Failure	SP	Spalling
LO	Loose	SL	Splintering
CW	Cable Wear	DT	Deterioration
EH	Electrical Hazard	EG	Excessive Growth
MB	Marine Borer		

Condition Types	
NI	Not Inspected
ND	No Defect
MN	Minor
MD	Moderate
MJ	Major
SV	Severe

Appendix B

Existing Dock Configuration

CLEARWATER PD DOCK INSPECTION

EXISTING CONDITIONS DRAWINGS
CLEARWATER POLICE DEPARTMENT

JANUARY 2026



CLEARWATER PD
700 BAYWAY BLVD #24
CLEARWATER, FL 33767
(727) 462-6370

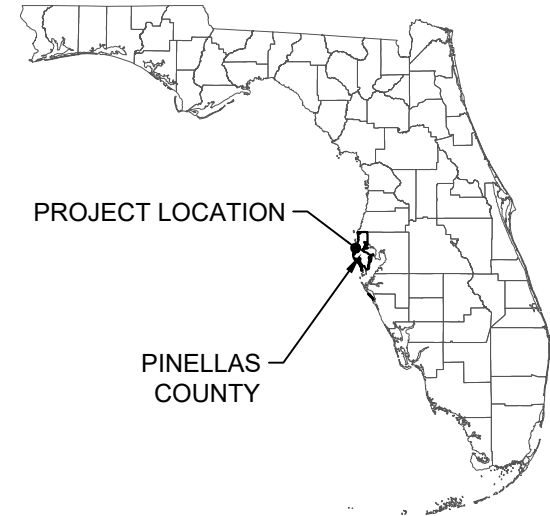
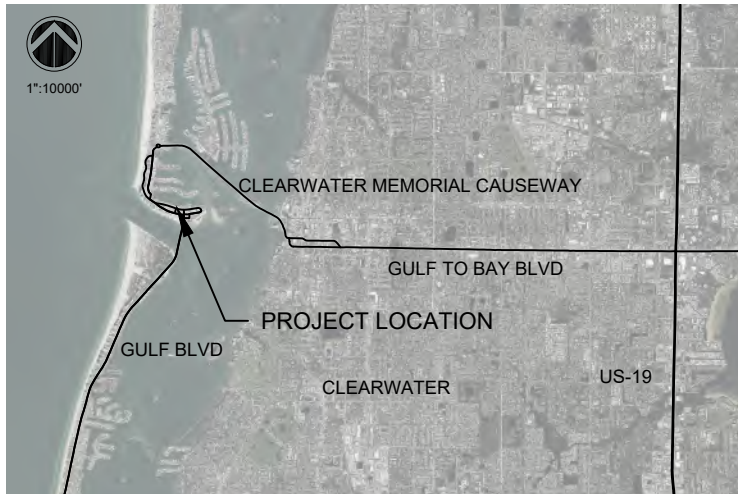


FIRST LINE
COASTAL

FIRST LINE COASTAL
8586 POTTER PARK DRIVE
SARASOTA, FL 34238
(941) 320-0241

ENGINEER

FIRST LINE COASTAL
WILLIAM K. JONES, PE
PE39523



PROJECT LOCATION

PINELLAS
COUNTY

SHEET INDEX

SHEET NUMBERS

01
02
03

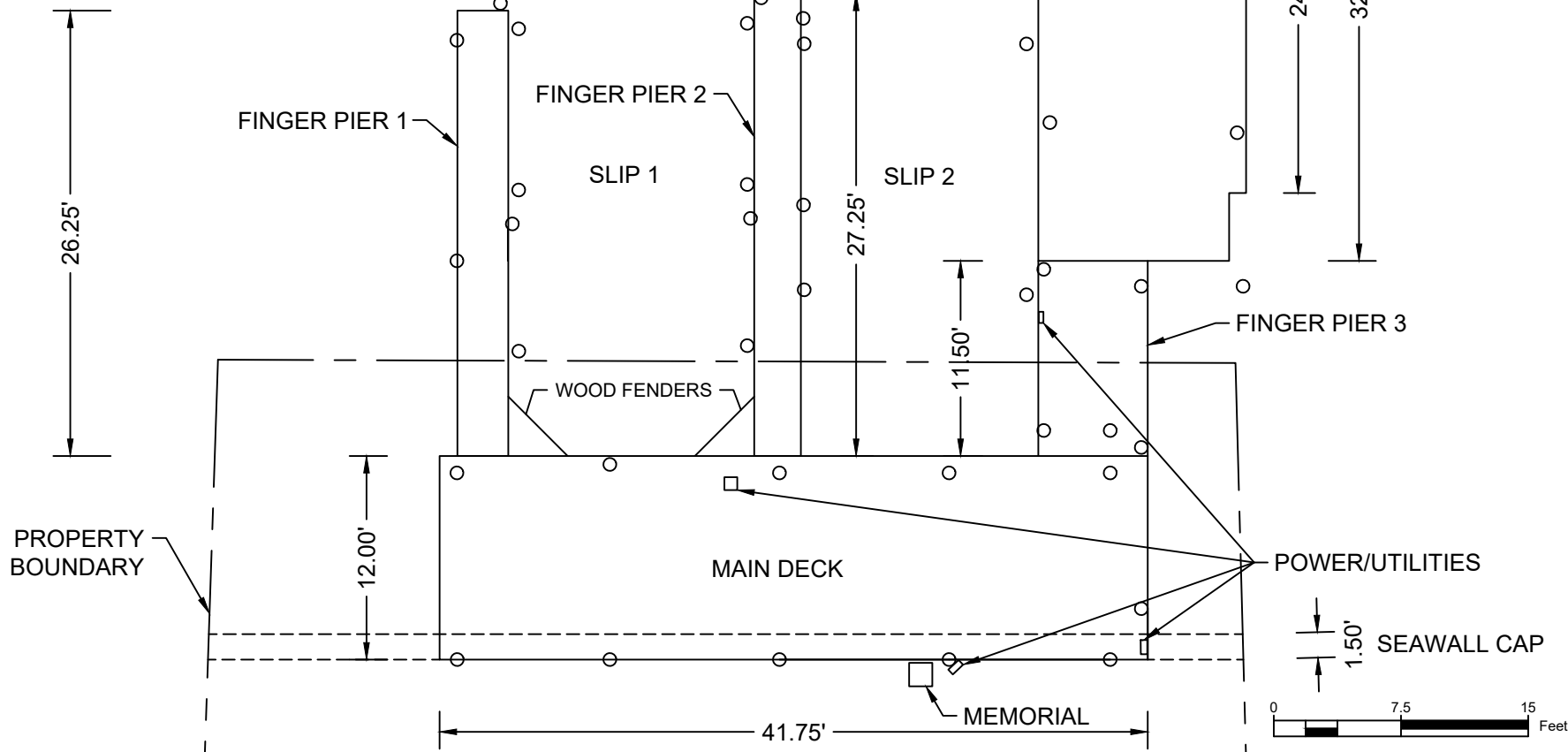
SHEET TITLE

DOCK OVERVIEW
PILING DETAIL
ELEVATION DATA

DATE: _____
ENGINEER OF RECORD: _____
PROFESSIONAL ENGINEERING NO.: _____
NOT VALID FOR CONSTRUCTION
UNLESS SIGNED IN THIS BLOCK
PROJECT NUMBER: 24-18.01



PILING (TYP.)
SEE DETAIL ON SHEET 2



NOTES:

1. MEASUREMENTS AND DATA COLLECTED BY FIRST LINE COASTAL ON 12/3/2025 AND 12/4/2025.
2. PROPERTY BOUNDARY BASED ON PROPERTY APPRAISER.



FIRST LINE
COASTAL

NOT FOR CONSTRUCTION

ENGINEER OF RECORD

CITY OF CLEARWATER

CLEARWATER POLICE DEPARTMENT
DOCK INSPECTION

DOCK OVERVIEW AND EXISTING CONDITIONS

CLIENT

JOB NO. 23-10.06

DRAWN: TMP

DESIGN: TMP

CHECKED: JLP

APPROVED: MBS

SHEET

01

ORIGINAL ISSUED DATE: 12/1/2025



FIRST LINE
COASTAL

NOT FOR CONSTRUCTION

ENGINEER OF RECORD

CITY OF CLEARWATER

CLEARWATER POLICE DEPARTMENT
DOCK INSPECTION

EXISTING CONDITIONS PILING DETAIL

CLIENT

JOB NO. 23-10.06

DRAWN

TMP

DESIGN

TMP

CHECKED

JLP

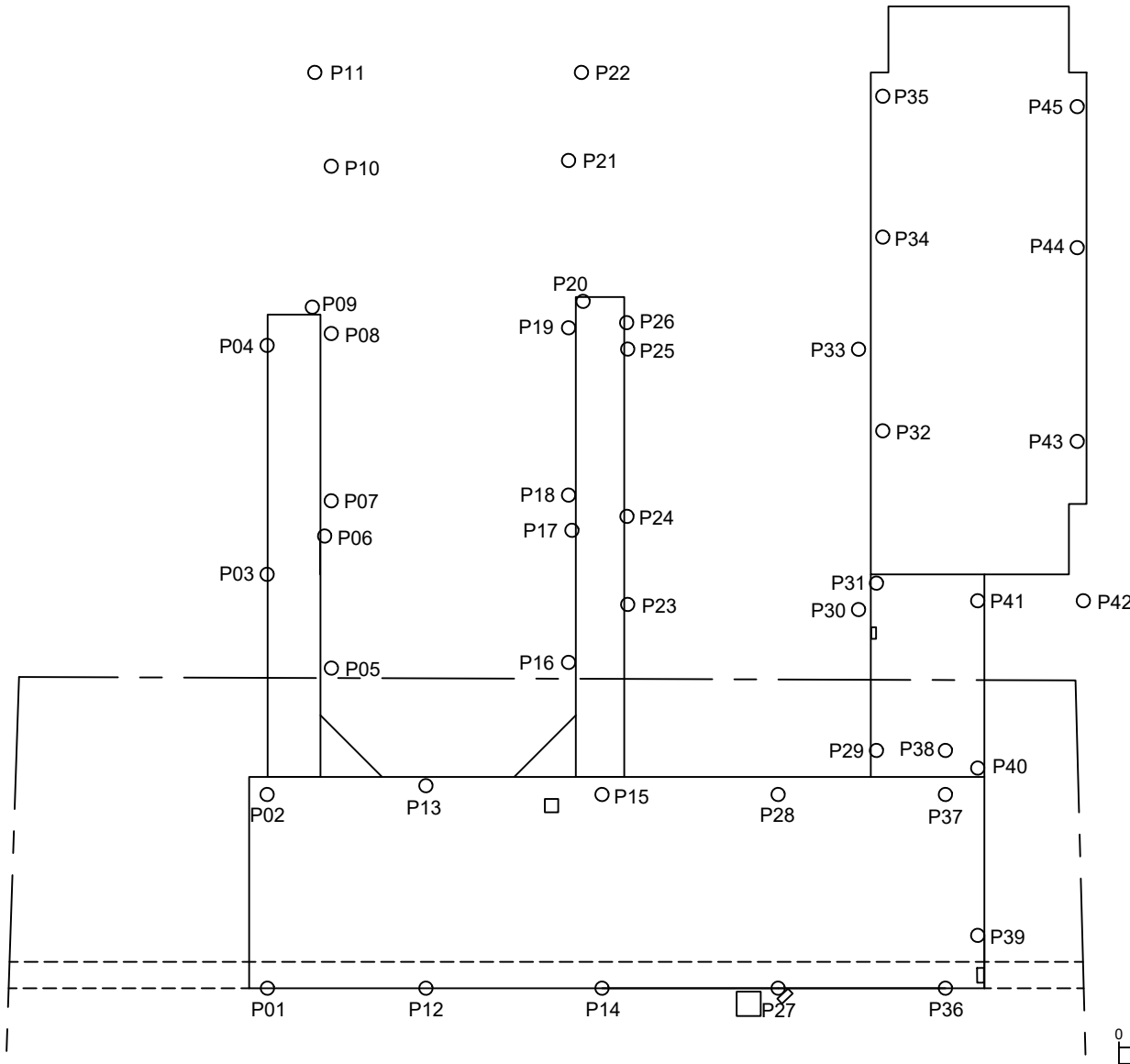
APPROVED

MBS

SHEET

02

ORIGINAL ISSUED DATE : 12/12/2025



NOTES:

1. MEASUREMENTS AND DATA COLLECTED BY FIRST LINE COASTAL ON 12/3/2025 AND 12/4/2025.
2. PILINGS 16, 23, 27, AND 30 HAVE POWER/LIFT CONTROLS/UTILITIES ATTACHED TO THEM.
3. LIFT 1 IS SUPPORTED BY PILINGS 7, 8, 10, 18, 19, AND 21.
4. LIFT 2 IS SUPPORTED BY PILINGS 23, 25, 30, AND 33.
5. LIFT 3 IS SUPPORTED BY PILINGS 32, 34, 35, 43, 44, AND 45.



NOT FOR CONSTRUCTION

ENGINEER OF RECORD

CITY OF CLEARWATER

CLEARWATER POLICE DEPARTMENT
DOCK INSPECTION

EXISTING CONDITIONS ELEVATION DATA

CUSTOMER

JOB NO. 23-10.06

DRAWN

TMP

DESIGN

TMP

CHECKED

JLP

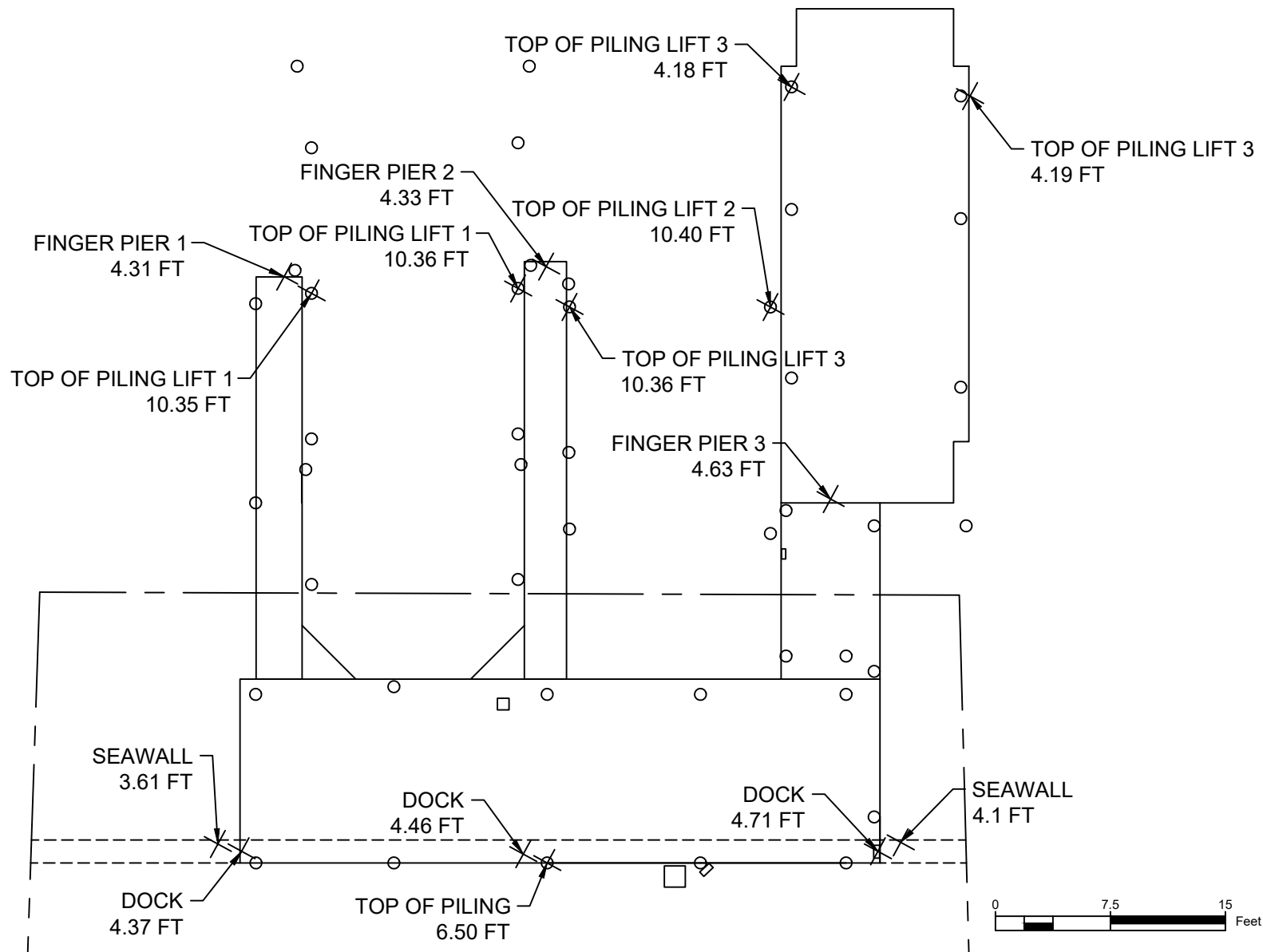
APPROVED

MBS

SHEET

03

ORIGINAL ISSUED DATE : 12/12/2025



NOTES:

1. SURVEY DATA COLLECTED BY FIRST LINE COASTAL ON 12/4/2025 IN REFERENCE TO NAVD 88.

Appendix C

Photo Library

Electronically Submitted on 05/12/2026

Link to digital appendices: [Link](#)

Appendix D

Proposed Reconstruction - Conceptual Deign

CLEARWATER PD DOCK REPLACEMENT

CONCEPTUAL DESIGN
PINELLAS COUNTY, FL

MAY 2026



CITY OF CLEARWATER
100 SOUTH MYRTLE AVE.
CLEARWATER, FL 33756
(727) 562-4750

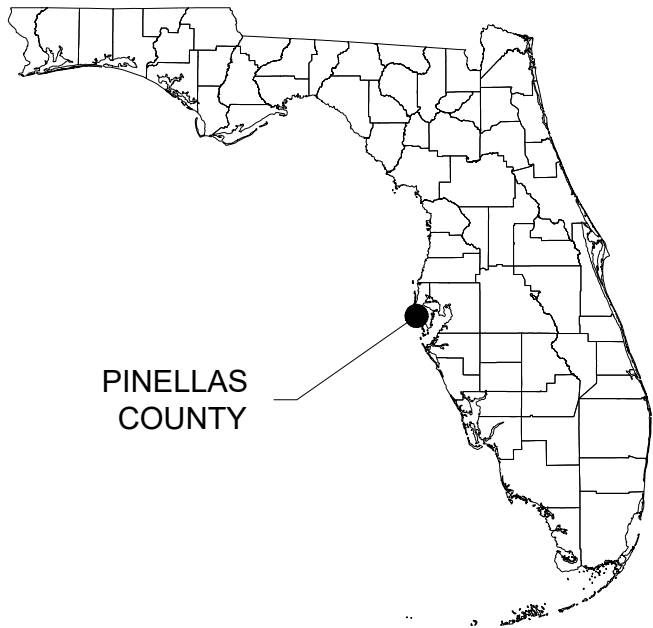


FIRST LINE
COASTAL

FIRST LINE COASTAL
8586 POTTER PARK DRIVE
SARASOTA, FL 34238
(941)320-0241

ENGINEER

FIRST LINE COASTAL
WILLIAM K. JONES, PE
PE39523



PINELLAS
COUNTY

SHEET INDEX

<u>SHEET NUMBERS</u>	<u>SHEET TITLE</u>
C-101	DOCK DESIGN CONCEPT 01
C-102	DOCK DESIGN CONCEPT 01 - LAND LEASE
C-103	DOCK DESIGN - TYPICAL SECTION

ENGINEER OF RECORD:
PROFESSIONAL ENGINEERING NO.:

DATE:

NOT VALID FOR CONSTRUCTION
UNLESS SIGNED IN THIS BLOCK

PROJECT NUMBER: 24-10.00

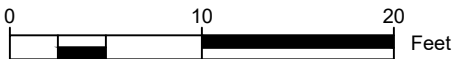
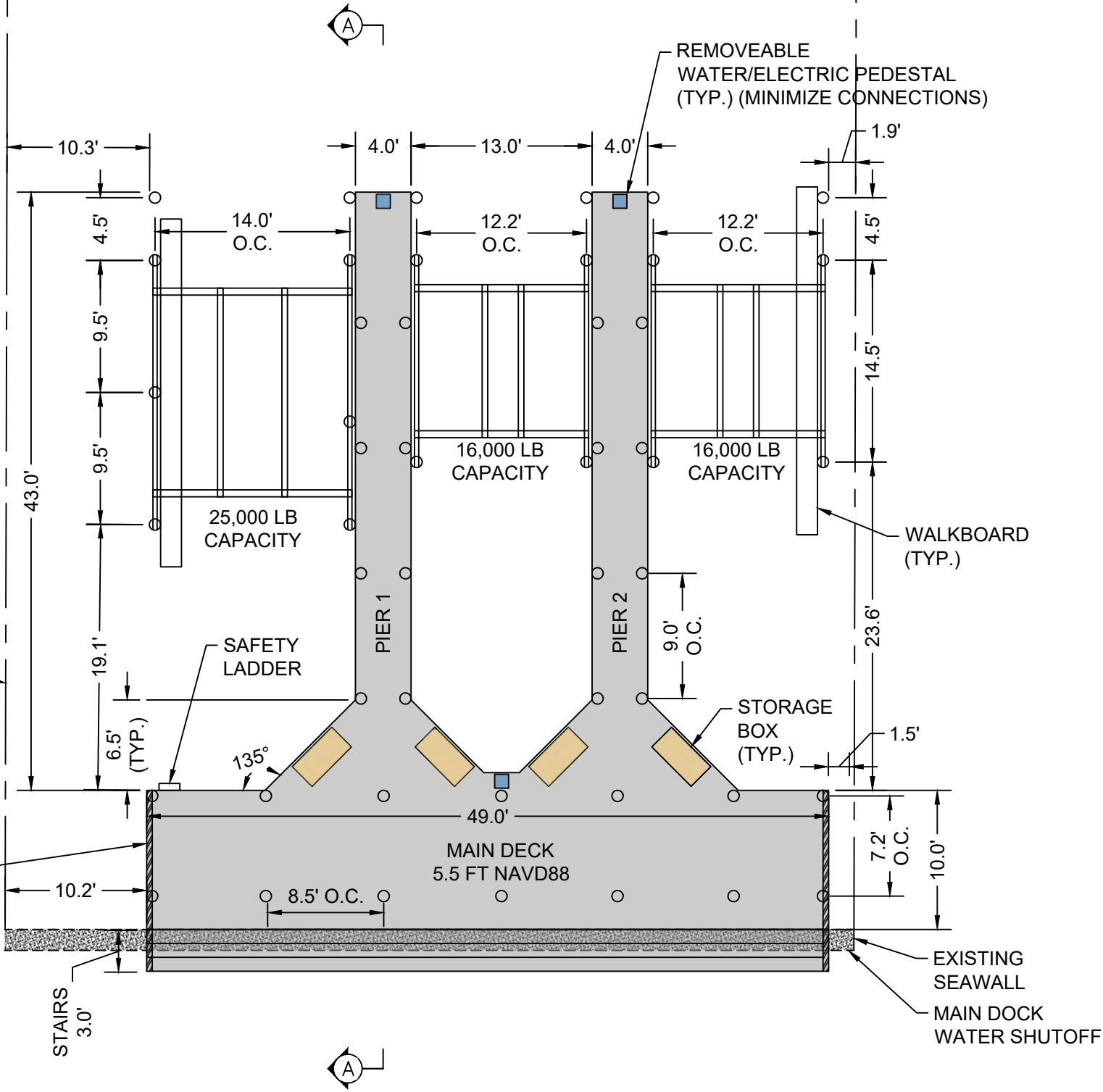
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Drawing Name: C:\Users\Jake Pierson\firstlinecoastal.com\Projects - 23-10-06 Clearwater PD Dock Inspection\05 Design\CAD\Conceptual Design\CLEARWATER PD dock_Concept Design_Base Line.dwg
May 08, 2026 - 9:24am

ITEM	QUANTITY	UNITS
DOCK SURFACE AREA	920	SQFT
STAIR SURFACE AREA	150	SQFT
FLOW THROUGH DECKING	1070	SQFT
DOCK PILINGS	34	NO.
LIFT PILINGS	16	NO.
THREE RAIL RAILING	26	LF
25,000 LB LIFT WITH HIGH SPEED MOTORS	1	NO.
16,000 LB LIFT WITH HIGH SPEED MOTORS	2	NO.
HDPE PILE WRAPS	50	NO.
4' X 2' STORAGE BOXES	4	NO.
REMOVABLE WATER/ELECTRIC PEDESTAL	3	NO.
SAFETY LIGHTING AT 10' SPACING	22	NO.
NO MOORING SIGNS	2	NO.
ELECTRICAL HAZARD SIGNS	3	NO.

PROPERTY/RIPARIAN LINE

42" THREE RAIL RAILING (TYP.)

NO MOORING SIGNS INSTALLED ON DECK CAP



FIRST LINE
COASTAL

REVISION BY	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		

ENGINEER OF RECORD:

NOT FOR CONSTRUCTION

DATE:

CITY OF CLEARWATER

CELLARWATER POLICE STATION DOCK REPLACEMENT

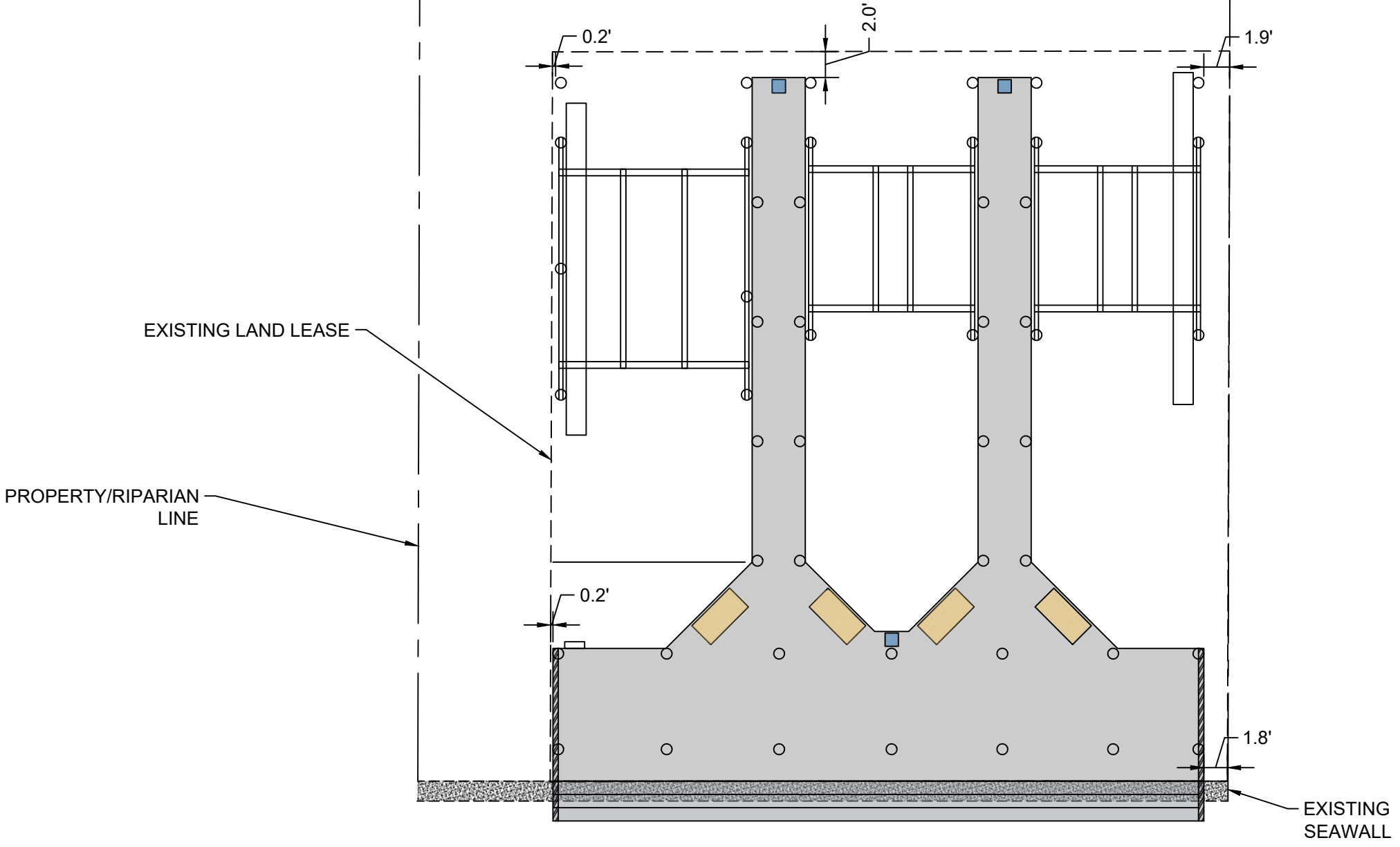
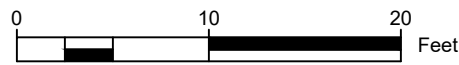
DOCK DESIGN 01

JOB NO.:	23-10-06
DRAWN:	JLP
DESIGN:	WKJ
CHECKED:	MBS
APPROVED:	WKJ

SHEET
C-101

CONCEPTUAL DESIGN

User Name: Jake Pierson
Drawing Name: C:\Users\Jake Pierson\firstlinecoastal.com\Projects - 23-10-06 Clearwater PD Dock Inspection\05 Design\CAD\Conceptual Design\Clearwater PD dock_Concept Design_Base Line\work_20260402.dwg May 08, 2026 - 9:24am



REVISION BY	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		

ENGINEER OF RECORD:	DATE:
NOT FOR CONSTRUCTION	

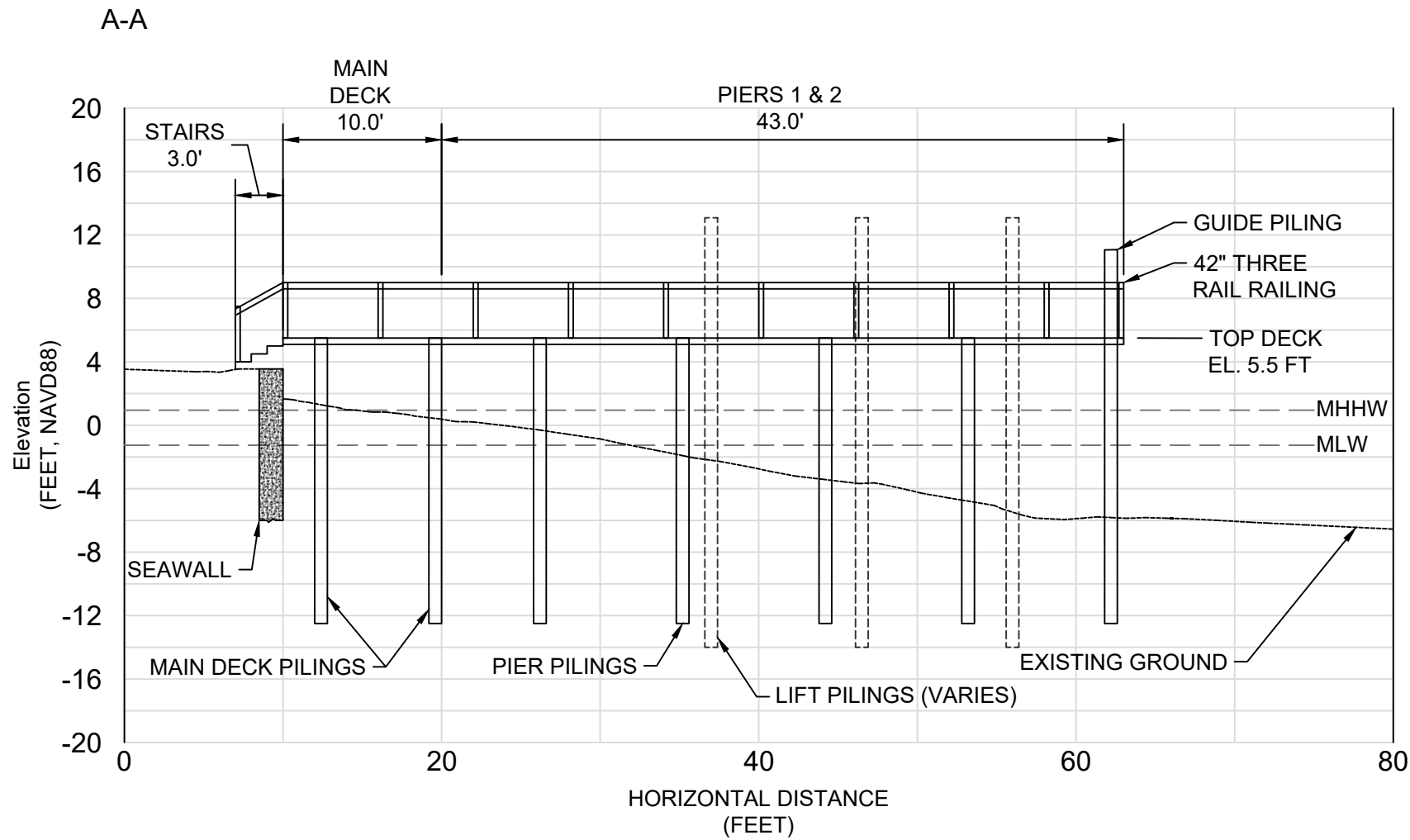
CITY OF CLEARWATER
PROJECT CLEARWATER POLICE STATION DOCK REPLACEMENT
TITLE DOCK DESIGN 01 - LAND LEASE

JOB NO.:	23-10-06
DRAWN:	JLP
DESIGN:	WKJ
CHECKED:	MBS
APPROVED:	WKJ

SHEET
C-102

CONCEPTUAL DESIGN

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May 08, 2026 - 9:24am



TOP OF DOCK PILINGS	5.3 FT, NAVD88
MINIMUM DOCK PILING IMBEDMENT	6.0 FT
MINIMUM LIFT/MOORING PILING IMBEDMENT	10.0 FT
TOP OF LIFT PILINGS	12.5 FT, NAVD88
TOP OF GUIDE PILINGS	10.5 FT, NAVD89

NOTES:

- EXISTING GROUND SURVEY PROVIDED BY NOAA, 2022 TOPOBATHY LIDAR.
- DOCK TO BE CONSTRUCTED ENTIRELY OF STAINLESS STEEL HARDWARE AND FASTENERS.
- PILE WRAPS TO BE INSTALLED ON ALL PILINGS FROM THE MUDLINE TO 2.0 FT ABOVE MHW.
- ALL PILES EXTENDING ABOVE THE MAIN DECK REQUIRE PILE CAPS WHERE POSSIBLE.



FIRST LINE
COASTAL

REVISION BY	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		

ENGINEER OF RECORD:	DATE:
NOT FOR CONSTRUCTION	

CITY OF CLEARWATER

CELARWATER POLICE STATION DOCK REPLACEMENT

DOCK DESIGN - TYPICAL SECTION

JOB NO.:	23-10-06
DRAWN:	JLP
DESIGN:	WKJ
CHECKED:	MBS
APPROVED:	WKJ

SHEET
C-103

CONCEPTUAL DESIGN

Appendix E

Historical Records and Permits

Records and Permits sourced from DEP ERP Information Portal

Link to digital appendices: [Link](#)

Appendix F

Maintenance Records

Link to digital appendices: [Link](#)