



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207-8175

July 28, 2023

Regulatory Division
North Permits Branch
Jacksonville Permits Section

PUBLIC NOTICE

Permit Application No. SAJ-2017-01315 (SP-TMM)

TO WHOM IT MAY CONCERN: The Jacksonville District of the U.S. Army Corps of Engineers (Corps) has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403) as described below:

APPLICANT: City of Flagler Beach
Attention: Michael Abels
P.O. Box 70
Flagler Beach, Florida 32136

WATERWAY AND LOCATION: The proposed work would affect waters associated with the Atlantic Ocean. The project site is located at 215 South Ocean Shore Boulevard, in Section 12, Township 12 South, Range 31 East, Flagler Beach, Flagler County, Florida.

Directions to the site are as follows: From Interstate (I) 95, travel east on State Road 100 East/East Moody Boulevard to Ocean Shore Boulevard/A1A. Travel south on Ocean Shore Boulevard/A1A for 0.09 mile and the project site is located on the left at 215 South Ocean Shore Boulevard/A1A.

APPROXIMATE CENTRAL COORDINATES: Latitude 29.479974°
Longitude -81.126280°

PROJECT PURPOSE:

Basic: The basic project purpose is replacement and expansion of an existing fishing pier.

Overall: The overall project purpose is replacement and expansion of the existing dilapidated Flagler Beach Fishing Pier, to include construction of a temporary trestle to support construction of the pier.

EXISTING CONDITIONS: The project area encompasses nearshore ocean water with a depth ranging from 0-feet to 25-feet and the substrate is primarily composed of unconsolidated soft bottom (sand). The nearest inlet, Matanzas Inlet is approximately 18.6 miles north, thus there is no estuarine or riverine habitat in the vicinity of the action area. Previous studies, including side-scan surveys conducted in 2011 and 2019,

indicated that there were no submerged aquatic vegetation or hardbottom/reef resources within the proposed project footprint on those survey dates (CEG 2020). Furthermore, according to the National Oceanic and Atmospheric Association Essential Fish Habitat mapper, the nearest hardbottom habitat is approximately 6 nautical miles to the southeast of the project area. Two habitats managed by the South Atlantic Fisheries Management Council (SAFMC) were identified as essential fish habitat within in the project area: soft bottom (subtidal, intertidal non-vegetated flats) and water column (oceanside waters, from the surf to the shelf break zone). No HAPCs occur within the project area.

PROPOSED WORK: The applicant seeks authorization for the following:

1. To work in a water of the United States (open, tidal water) to remove the existing pier. The demolition would include removal of the remaining 7,760-square-foot area of timber pier with extraction of 108 timber piles. More specifically, 388-feet by 20-feet-wide of existing pier would be removed. The existing timber pier will be removed primarily using land-based equipment operating from the temporary construction trestle. The timber from the historical pier be collected as part of the demolition for future reuse. Therefore, care will be taken to carefully cut and remove all existing planks, handrails, joists, caps, braces, piles and any other timber elements during demolition. These items will then be transported to an upland storage location for sorting and distribution. Timber and metal connectors that will not be repurposed or recycled will be removed to an upland location and disposed of appropriately. The contractor will make every effort to remove all of the piles in their entirety with a pile extractor / vibratory hammer. If the piles break during removal, the contractor will have to cut the remaining pile at the mudline. A barge with crane and/or a support vessel for divers may also be needed to remove existing debris on the seafloor that could affect installation of the new concrete piles or if the piles need to be cut at the mudline.

2. To work in a water of the United States (open, tidal water) to construct a 33,000-square-foot temporary construction trestle on the south side of the proposed new pier footprint. More specifically, the trestle would be 1,100-foot-long by 30-foot-wide that would include installation of 116 plumb piles that would be 24-inches-wide and made of steel pipe installed by vibratory hammer and/or impact hammer and/or jetting and installation of 116 batter piles HP 14x73 made of steel installed by vibratory hammer and/or jetting, a steel super structure, which includes caps, girders, and joists, and installation of timber decking with an elevation of approximately 28-feet NAVD88. No more than 5 piles would be installed per day. The temporary construction trestle will be entirely removed once construction of the new pier is complete, which is expected to take approximately 24 days. The temporary trestle would be 30-feet-wide by 170.27-feet to 202.69-feet-long (due to the angle) for the portion of the structure located landward of the mean high water line (reference Sheet S-100). The pile installation related to the trestle would take approximately 50-54 days. The portion of the temporary trestle above the mean high water line is not under jurisdiction of the Corps; however, the impacts would be reviewed under the National Environmental Policy Act, Endangered Species Act, and under the National Historic Preservation Act.

The actual temporary construction trestle materials will be determined according to the contractor's preferences. Therefore, alternative to installing the steel pipe piles and steel HP piles as identified above, 116 24-inch square concrete piles may instead be installed by impact hammer and/or jetting. This proposed method of pile installation would take approximately 54 days.

3. To work in a water of the United States (open, tidal water) to construct a new 20,840-square-foot pier. More specifically, the pier would be 715-feet-long by 25-feet-wide from the mean high water line with a 20-foot-long by 32-feet-wide T-head. The T-head would be at 28-feet NAVD88. The proposed action would restore the pier to its historical length of 828 feet - established by the existing submerged lands lease - by retaining and repairing 82.5 feet of existing timber pier and replacing the waterward 715 linear feet of pier. The pier would include installation of 116 piles comprised of 24-inch-square prestressed concrete installed by impact hammer or jetting and no more than 4 piles would be installed per day. The pier would include construction concrete decking and timber breakaway deck panels. The pier would also include Americans with Disabilities (ADA) accessibility features which includes a 5% (1H:20L) slope to the new pier deck elevation and ADA handrails, installation of a firewater system, fish cleaning stations and trash receptacles, benches, shade structures, and marine turtle-friendly lighting.

Additional work not authorized by any permit, but reviewed under NEPA, ESA, and Section 106 would include work landward of the mean high water line to repair the remaining 113-linear-feet of pier. The repairs would include installation of structural pile jackets, repair of pile caps, stringers and bracing, and replacement of connection hardware and tie-downs.

Upon completion, the Flagler Beach Fishing Pier would be accessible to visitors and anglers both day and night. The pier would be open throughout the year. Estimated usage would vary daily and seasonally; however, recent records estimate 200 to 250 average daily visitors throughout the year. The applicant estimates between 250 to 300 anglers (not including other visitors) using the pier per day during peak season. The pier would have an attendant during operational hours, and the pier would include observation areas and fish cleaning stations.

AVOIDANCE AND MINIMIZATION INFORMATION – The applicant has provided the following information in support of efforts to avoid and/or minimize impacts to the aquatic environment:

“No wetlands or submerged aquatic resources are located within or adjacent to the project area and no adverse impacts to wetlands or other submerged aquatic resources are proposed.” Additionally, the applicant provided proposed Conservation Measures to minimize potential effects on EFH and federally managed species, as provided in paragraph 1 in the Endangered Species Section found below.

COMPENSATORY MITIGATION – The applicant has provided the following explanation why compensatory mitigation should not be required:

“No wetlands or submerged aquatic resources are located within or adjacent to the project area and no adverse impacts to wetlands or other submerged aquatic resources are proposed. Therefore, no compensatory mitigation is proposed.”

CULTURAL RESOURCES:

The Corps is aware of recorded historic resources within or adjacent to the permit area and is evaluating the undertaking for effects to historic properties as required under Section 106 of the National Historic Preservation Act. This public notice serves to inform the public of the proposed undertaking and invites comments including those from local, State, and Federal government Agencies with respect to historic resources. Our final determination relative to historic resource impacts may be subject to additional coordination with the State Historic Preservation Officer, those federally recognized tribes with concerns in Florida and the Permit Area, and other interested parties.

ENDANGERED SPECIES:

The U.S. Army Corps of Engineers (Corps) has determined the proposed fishing pier may affect swimming sea turtles swimming (Green (*Chelonia mydas*), Kemp’s Ridley (*Lepidochelys kempii*), Leatherback (*Dermochelys coriacea*), Loggerhead (*Caretta caretta*), Hawksbill (*Eretmochelys imbricata*), and Loggerhead Sea Turtle Neritic Habitat Unit LOGG-N-15), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), Shortnose sturgeon (*Acipenser brevirostrum*), Smalltooth Sawfish (*Pristis pectinata*), Giant Manta Ray (*Manta birostris*), Scalloped Hammerhead Shark (*Sphyrna lewini*), Oceanic White Tip Shark (*Carcharhinus longimanus*), North Atlantic Right Whale (*Eubalaena glacialis*), and North Atlantic Right Whale Critical Habitat Unit 2. The Corps will request initiation of formal consultation with the National Marine Fisheries Service pursuant to Section 7 of the Endangered Species Act by separate letter.

The U.S. Army Corps of Engineers (Corps) has determined the project may affect but is not likely to adversely affect on nesting sea turtles (Green (*Chelonia mydas*), Kemp’s Ridley (*Lepidochelys kempii*), Leatherback (*Dermochelys coriacea*), Loggerhead (*Caretta caretta*), Hawksbill (*Eretmochelys imbricata*), Piping Plover (*Charadrius melodus*), Rufa Red Knot (*Calidris canutus rufa*) related to the proposed upland temporary trestle. The Corps will request United States Fish and Wildlife Service’s concurrence with this determination pursuant to Section 7 of the Endangered Species Act by separate letter.

The Corps has determined the proposed project may affect, but is not likely to adversely affect the West Indian Manatee (*Trichechus manatus*). The work proposed would result in the installation of a fishing pier with piles; however, the manatees would have space to swim through. Indirect effects could occur due to fishing or entanglement. The Corps would condition any permit to require monofilament recycling bins and educational signs. Utilizing this information, the Corps evaluated potential effects to the West Indian

manatee using United States Fish and Wildlife Service's (USFWS) *Manatee Key Florida*, April 2013 resulted in the sequence A > B > C > G > N > O > P5 > *may affect, not likely to adversely affect*. However, due to the proposal to utilize steel piles to be installed by impact hammer, the Corps also evaluated potential effects to the West Indian Manatee using the May 13, 2019 Manatee Key addendum. The applicant would utilize a dedicated manatee observer, with all work being stopped if a manatee is observed within 1,000 feet, no work shall occur outside of daylight hours, and no more than 5 piles/day would be installed. Therefore, the Corps determined that the proposed work would be a may affect, not likely to adversely affect, based on the Manatee Key. The USFWS previously indicated that they concur with determinations of *may affect, not likely to adversely affect* based on that key; and, that no additional consultation is required; however, the West Indian manatee would be included in the informal USFWS consultation for the proposed work.

The Corps has determined the proposed project may affect, but is not likely to adversely affect the Wood Stork (*Mycteria americana*). The project site is within the 13-mile United States Fish and Wildlife Service (USFWS) North Florida core foraging area for a Wood Stork nesting colony. The Corps evaluated potential effects to Wood Stork using *The Corps of Engineers, Jacksonville District, U.S. Fish and Wildlife Service, Jacksonville Ecological Services Field Office and State of Florida Effect Determination Key for the Wood Stork in Central and North Peninsular Florida, September 2008*. Use of this key resulted in the sequential determination A > B > no effect, as the project would not impact suitable foraging habitat. The USFWS previously indicated that they concur with determinations of *not likely to adversely affect* based on that key; and, that no additional consultation is required.

The Corps has determined the proposed project may affect, but is not likely to adversely affect the eastern indigo snake (*Drymarchon corais couperi*). The Corps utilized the *Eastern Indigo Snake Programmatic Effect Determination Key* January 25, 2010, addendum August 13, 2013, which resulted in the sequence A > B > C > not likely to adversely affect as there are no gopher tortoise burrows, holes, cavities or other refugia where a snake could be buried or trapped or injured during project activities. The USFWS previously indicated that they concur with determinations of *not likely to adversely affect* based on that key; and, that no additional consultation is required.

On 15 March 2023, the Corps executed a RAR report from the National Regulatory Viewer. The RAR did not indicate that the site is utilized by, or contains habitat critical to, any federally listed threatened or endangered species, other than those mentioned above. The Corps also reviewed geospatial data and other available information. The Corps has not received or discovered any information that the project site is utilized by, or contains habitat critical to, any federally listed, threatened, or endangered species, other than those mentioned above.

ESSENTIAL FISH HABITAT (EFH): This notice initiates consultation with the National Marine Fisheries Service on EFH as required by the Magnuson-Stevens Fishery

Conservation and Management Act 1996. The proposal would impact approximately 1.08 acres of open, tidal water utilized by various life stages of windowpane flounder, coastal migratory pelagics, bull shark, spinner shark, lemon shark, sailfish, sandbar shark, great hammerhead shark, scalloped hammerhead shark, tiger shark, white shark, blacktip shark (Atlantic stock), blacknose shark (Atlantic stock), Atlantic Sharpnose shark, bonnethead shark, finetooth shark, sand tiger shark, bluefish, Atlantic butterfish, and summer flounder. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or Federally managed fisheries in the Atlantic Highly Migratory Species Council, and Gulf Atlantic Fisheries Management Council. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

NAVIGATION: The proposed structure is not located in the vicinity of a federal navigation channel.

SECTION 408: The applicant will not require permission under Section 14 of the Rivers and Harbors Act (33 USC 408) because the activity, in whole or in part, would not alter, occupy, or use a Corps Civil Works project.

NOTE: This public notice is being issued based on information furnished by the applicant. This information has not been verified or evaluated to ensure compliance with laws and regulation governing the regulatory program. The jurisdictional line has been verified by Corps personnel.

COMMENTS regarding the potential authorization of the work proposed should be submitted in writing to the attention of the District Engineer through the Jacksonville Permits Section, 701 San Marco Boulevard, Jacksonville, Florida 32207 within 30 days from the date of this notice.

The decision whether to issue or deny this permit application will be based on the information received from this public notice and the evaluation of the probable impact to the associated wetlands. This is based on an analysis of the applicant's avoidance and minimization efforts for the project, as well as the compensatory mitigation proposed.

QUESTIONS concerning this application should be directed to the project manager, Terri M. Mashour, in writing at the Jacksonville Permits Section, 701 San Marco Boulevard, Jacksonville, Florida 32207; by electronic mail at Terri.M.Mashour@usace.army.mil; or, by telephone at (904) 251-9179.

IMPACT ON NATURAL RESOURCES: Coordination with U.S. Fish and Wildlife Service, Environmental Protection Agency (EPA), the National Marine Fisheries Services, and other Federal, State, and local agencies, environmental groups, and concerned citizens generally yields pertinent environmental information that is instrumental in determining the impact the proposed action will have on the natural resources of the area.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including cumulative impacts thereof; among these are conservation, economics, esthetics, general environmental concerns, wetlands, historical properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food, and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people.

Evaluation of the impact of the activity on the public interest will also include application of the guidelines promulgated by the Administrator, EPA, under authority of Section 404(b) of the Clean Water Act or the criteria established under authority of Section 102(a) of the Marine Protection Research and Sanctuaries Act of 1972.

The US Army Corps of Engineers (Corps) is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other Interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this determination, comments are used to assess impacts to endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

WATER QUALITY CERTIFICATION: Water Quality Certification may be required from the St. Johns River Water Management District.

COASTAL ZONE MANAGEMENT CONSISTENCY: In Florida, the State approval constitutes compliance with the approved Coastal Zone Management Plan. In Puerto Rico, a Coastal Zone Management Consistency Concurrence is required from the Puerto Rico Planning Board. In the Virgin Islands, the Department of Planning and Natural Resources permit constitutes compliance with the Coastal Zone Management Plan.

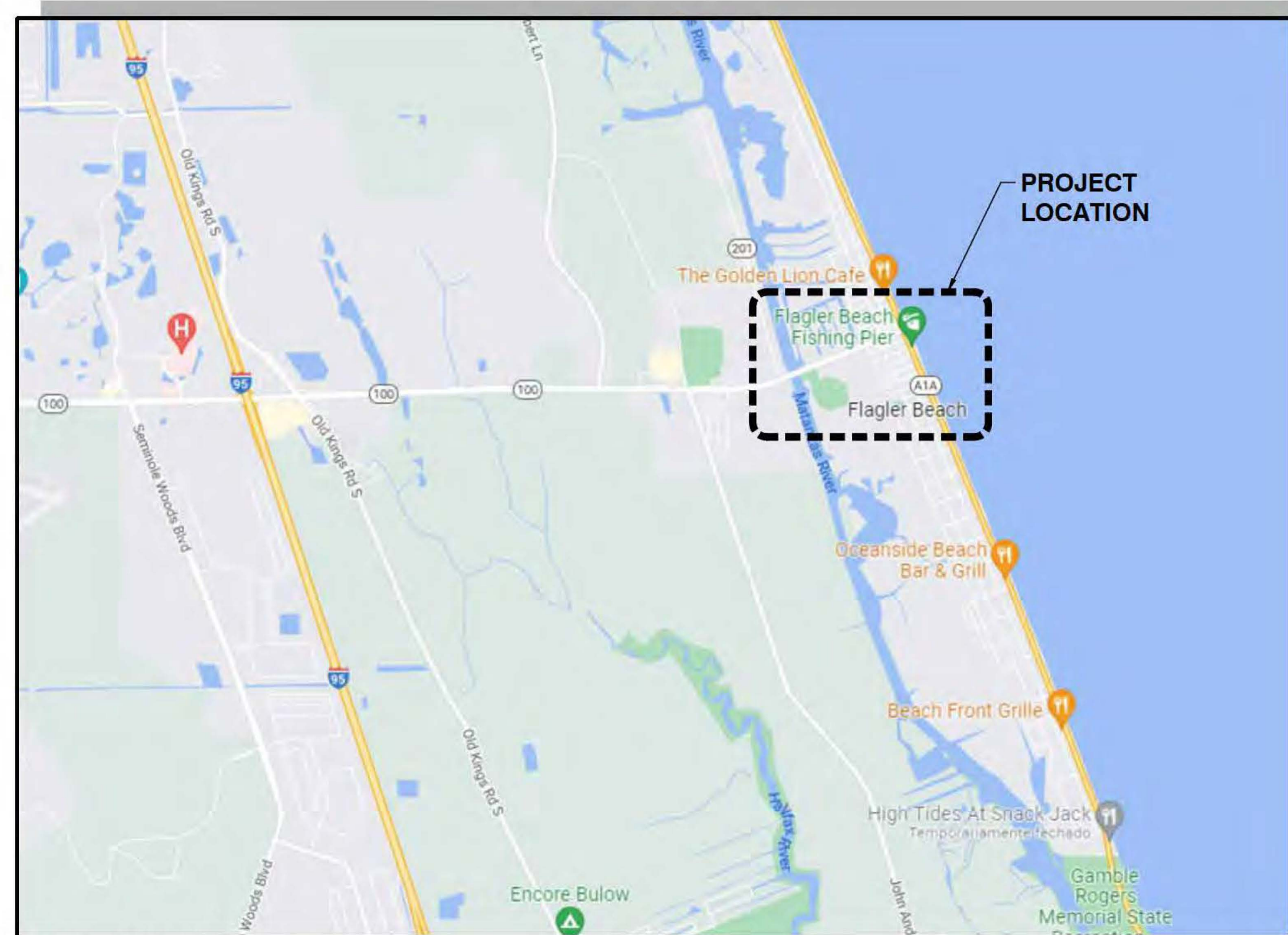
REQUEST FOR PUBLIC HEARING: Any person may request a public hearing. The request must be submitted in writing to the District Engineer within the designated comment period of the notice and must state the specific reasons for requesting the public hearing.

CITY OF FLAGLER BEACH FISHING PIER

FISHING PIER REPLACEMENT

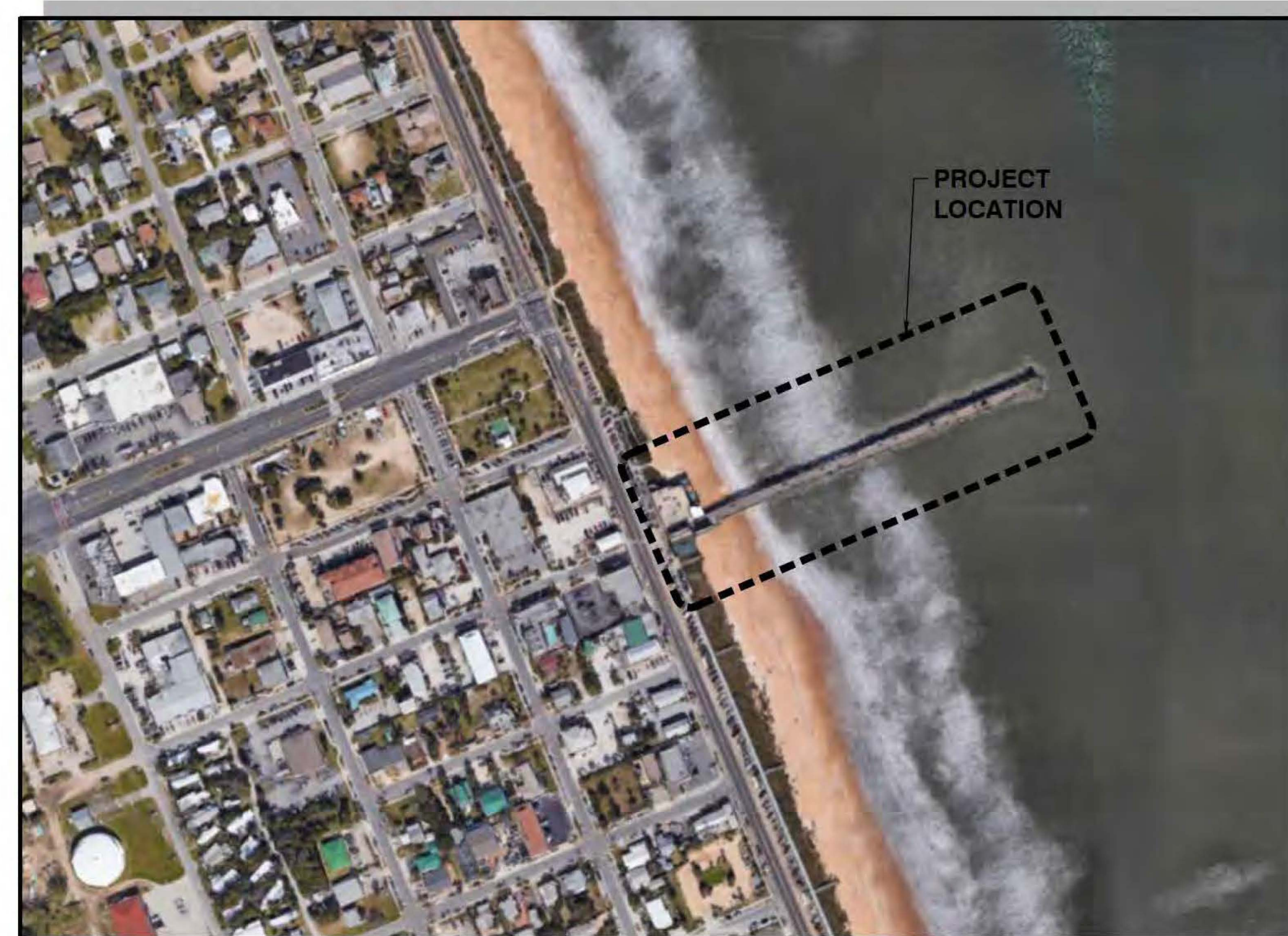
FLAGLER BEACH, FLORIDA

PROJECT LOCATION:
 105 S 2nd St, Flagler Beach, FL 32136
 SECTION 12, TOWNSHIP 12S, RANGE 31E



SOURCE: GOOGLE MAPS (2022)

VICINITY MAP
 SCALE: NTS



SOURCE: GOOGLE MAPS (2022)

LOCATION PLAN
 SCALE: NTS



Mark	Description	Date	Appr

FLAGLER BEACH
 FISHING PIER REPLACEMENT

COVER SHEET

501 E. KENNEDY BLVD. SUITE 1910 TAMPA, FL 33602 813-258-8818 moffatt & nichol	Designed by: V. BENZECRY Drawn by: HJP Reviewed by: G. PERDOMO Submitted by: G. PERDOMO MOFFATT & NICHOL	Date: 2023-05-10 MAN Project No. 190739 Drawing code: Drawing Scale: Plot scale: 1" = 10' (SHEET)
ENGINEER OF RECORD: NAME: BRIAN SHAW FL REGISTRATION NO. 84768		

SEAL

REV 1 ISSUED 2023-07-26
 PERMIT DRAWINGS
 ISSUED: 2023-05-10
 NOT TO BE USED FOR CONSTRUCTION

Sheet
 Reference No.
G-001
 INDEX: 1 OF 33

File: Q:\17A\190739\20 CAD\1_Active\pier replacement - permit\190739-G-001; Plotted: 7/28/2023 3:52 PM by PEREZ, HERMES; Saved: 7/11/2023 8:21 AM by LGARRIDO

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7	V-103	EXISTING CONDITIONS - BATHYMETRIC SURVEY
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28	ED101	ELECTRICAL DEMOLITION SITE PLAN
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33	E-601	SINGLE LINE DIAGRAM



Rev.	Date	Description

<p>FLAGLER BEACH FISHING PIER REPLACEMENT</p>	<p>DRAWING INDEX</p>
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<p>501 E. KENNEDY BLVD. SUITE 1910 TAMPA, FL 33602 813-259-8818</p>	Date: 2023-05-10 Main Project No.: 190739	Drawing code:	Drawing Scale: 1:1 (0 SHEET)
	Designed by: V. BENZECRY Drawn by: HJP Checked by: BES Reviewed by: G. PERDOMO Submitted by: G. PERDOMO Moffatt & Nichol	Engineer of Record: Name: BRIAN SHAW FL Registration No. 84768	Permitted by: PEREZ, HERMES Saved: 4/28/2023 4:58 PM by HPEREZ

SEAL

REV 1 ISSUED 2023-07-26
 PERMIT DRAWINGS
 ISSUED: 2023-05-10
 NOT TO BE USED FOR CONSTRUCTION

Sheet Reference No.
G-002
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GENERAL NOTES

- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THESE DRAWINGS, PROJECT SPECIFICATIONS, PROJECT NOTES AND FDOT STANDARD SPECIFICATIONS WHEN REFERENCED. FDOT STANDARD SPECIFICATIONS ARE REFERENCED FOR MATERIAL SPECIFICATIONS AND CONSTRUCTION METHODS UNDER DIVISION II "CONSTRUCTION DETAILS". DIVISION I "GENERAL REQUIREMENTS AND COVENANTS" OF THE FDOT STANDARD SPECIFICATIONS DOES NOT APPLY. THE CONTRACT WITH THE OWNER SHALL GOVERN OVER FDOT SPECIFICATIONS. MEANS OF MEASUREMENT AND PAYMENT SHALL BE AS STIPULATED BY THE OWNER AND THE CONTRACT. FDOT STANDARD SPECIFICATIONS REFER TO THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATION FOR ROADWAY AND BRIDGE CONSTRUCTION", 2022 EDITION AND ALL SUPPLEMENTAL SPECIFICATIONS.
- SITE VERIFICATION: PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL CHECK THE DRAWINGS AGAINST THE SITE CONDITIONS AND NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES IN DIMENSIONS OR SITE CONDITIONS. THE CONTRACTOR SHALL NOT BEGIN CONSTRUCTION IN ANY SUCH AFFECTED AREA UNTIL THE DISCREPANCY HAS BEEN RESOLVED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
- ALL SAFETY REGULATIONS ARE TO BE STRICTLY FOLLOWED.
- METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIAL ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL, ON A DAILY BASIS, REMOVE FROM THE SITE ANY EXCAVATED MATERIAL OR DEBRIS. DISPOSAL OF THE MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL DEBRIS SHALL BE DISPOSED OF IN A PERMITTED SANITARY LANDFILL.
- THE CONTRACTOR SHALL PLACE CONSTRUCTION DEBRIS CONTROL DEVICES, BOOMS, TARPULINS, FLOATS, STAGING, AND OTHER DEVICES AS NECESSARY TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING THE WATER AND AIR BORNE MATERIALS FROM LEAVING THE IMMEDIATE VICINITY OF THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP OF ANY MATERIALS DEPOSITED OUTSIDE THE WORK AREA OR IN THE WATER. SEE PERMIT CONDITIONS.
- THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE LOCAL ENVIRONMENTAL PROTECTION STANDARDS, LAWS, AND REGULATIONS.
- CONTRACTOR SHALL LOCATE ALL UTILITIES IN THE AREA OF CONSTRUCTION PRIOR TO COMMENCING WITH CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL CONFLICTS WITH EXISTING UTILITIES PRIOR TO COMMENCING WITH WORK IN THE CONFLICT AREA.
- CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID FOR THE PROJECT.
- CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY AND DRAWINGS OF COMPLETED WORK TO THE ENGINEER.
- ANY DAMAGE TO STATE, COUNTY, OR LOCAL ROADS CAUSED BY THE CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY AND/OR LOCAL AUTHORITY.
- THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL PERMIT CONDITIONS AND REPORTING REQUIREMENTS.
- UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO ORIGINAL CONDITION TO MATCH ADJACENT GRADES AND SHALL REPLACE ANY DISTURBED PAVED OR GRASSED AREAS IN KIND.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY, SECURITY AND PROTECTION OF PERSONNEL, EQUIPMENT, CONSTRUCTION, AND ADJACENT FACILITIES FOR THE DURATION OF THIS CONTRACT. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL PREPARE AND CONFORM TO A PROJECT SPECIFIC HEALTH AND SAFETY PLAN. THE HEALTH AND SAFETY PLAN SHALL INCLUDE APPLICABLE GUIDELINES AND REGULATIONS SET FORTH IN CURRENT OSHA AND FLORIDA STATUTES WITH SPECIFIC ATTENTION TO FLORIDA TRENCH SAFETY ACT AND OSHA TRENCH EXCAVATION SAFETY STANDARDS. THE ENGINEER OF RECORD AND OWNER WILL NOT BE RESPONSIBLE FOR JOB SITE SAFETY PROCEDURES.
- ALL TEMPORARY UTILITIES NECESSARY FOR CONSTRUCTION SHALL BE PROVIDED AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE EROSION CONTROL/ SEDIMENTATION BARRIERS (HAY BALES, SILTATION CURTAINS AND FLOATING TURBIDITY SCREENS) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS, AND WATERWAYS. IF, IN THE OPINION OF THE CITY AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE BEING TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR VEHICULAR TRAFFIC, THE CONTRACTOR SHALL REMOVE AND CLEAN SAID EARTH FROM TRAVEL WAYS TO THE SATISFACTION OF THE CITY AND/OR OTHER AUTHORITIES.

- CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA TO OBTAIN LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO PERFORMING EXCAVATIONS.
- THE CONTRACTOR SHALL CONSIDER AND PLAN FOR, ON A DAILY BASIS, THE EFFECT OF TIDAL FLUCTUATION IN THE EXECUTION OF THE WORK.
- IF CONSTRUCTION IS EXPECTED TO BE PERFORMED FROM A BARGE, THE CONTRACTOR SHALL CONDUCT OPERATIONS SO AS TO NOT INTERFERE WITH OR BE DETRIMENTAL TO VESSEL TRAFFIC DURING THE COURSE OF THE WORK AND SHALL PLAN FOR EFFECTS OF PASSING VESSELS.
- SCALE BARS ARE INTENDED FOR REFERENCE ONLY. ALL DIMENSIONS NECESSARY FOR CONSTRUCTION SHALL BE TAKEN FROM DIMENSION ANNOTATION AND NOT SCALED DIRECTLY FROM DRAWINGS.

SURVEY NOTES

- ELEVATIONS SHOWN HEREIN REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- HORIZONTAL CONTROL REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD83), STATE PLANE COORDINATE SYSTEM, FLORIDA NORTH ZONE, IN FEET.
- UNDERGROUND UTILITIES, FOUNDATIONS AND/OR OTHER IMPROVEMENTS HAVE NOT BEEN LOCATED EXCEPT THOSE SHOWN ON THESE DRAWINGS.
- THE FOLLOWING TIDAL DATUM RELATIONSHIP IS BASE ON NOAA STATION 8720218 MAYPORT (BAR PILOTS DOCK), FL:

VERTICAL DATUM RELATIONSHIP	
DATUM	ELEV
MHHW	+1.96 FEET
MHW	+1.70 FEET
NAVD88	0.00 FEET
MSL	-0.52 FEET
MLW	-2.84 FEET
MLLW	-2.99 FEET

- HYDROGRAPHIC SURVEY BY MORGAN & EKLUND INC., DATED OCTOBER 26, 2022 AND IS ONLY INDICATIVE OF THE CONDITIONS EXISTING AT THAT TIME.
- TOPOGRAPHIC SURVEY BY SOUTHEASTERN SURVEYING AND MAPPING CORPORATION DATED OCTOBER 18TH, 2022 AND IS ONLY INDICATIVE OF THE CONDITIONS EXISTING AT THAT TIME.

DEMOLITION NOTES

- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO STRICTLY CONTAIN THE DEMOLITION WITHIN THE LIMITS OF THE REQUIRED CONSTRUCTION AND AVOID ANY DAMAGE TO THE EXISTING STRUCTURE TO REMAIN.
- PRIOR TO GENERAL DEMOLITION, THE CONTRACTOR SHALL SAWCUT WHERE NOTED OR OTHERWISE PROVIDE A SMOOTH, CLEAN, PARALLEL FULL DEPTH BREAK FROM ALL CONNECTING LINKS TO THE REMAINING STRUCTURE.
- ANY DAMAGE INCURRED IN EXECUTION OF THIS CONTRACT TO ANY PART OF THE PROPERTY/STRUCTURE NOT SPECIFICALLY DESIGNATED FOR DEMOLITION SHALL BE REPAIRED, REPLACED, AND/OR RECONSTRUCTED BY THE CONTRACTOR TO ITS ORIGINAL CONDITION AS DIRECTED BY THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
- ALL DEMOLISHED MATERIAL, EXCEPT AS NOTED OTHERWISE, BECOMES THE PROPERTY OF, AND SHALL BE COMPLETELY REMOVED AND DISPOSED OF BY THE CONTRACTOR. THE REMOVAL, HANDLING, AND DISPOSAL OF ALL DEMOLITION MATERIALS SHALL BE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH THE MATERIALS TO BE DISPOSED OF AND ALL GOVERNING AGENCY REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE TO CONTROL FUGITIVE DUST ORIGINATING FROM THE PROJECT SITE DURING CONSTRUCTION BY WATERING OR OTHER METHODS AS REQUIRED.
- ALL SURVEY MONUMENTS WITHIN LIMITS OF CONSTRUCTION SHALL BE PROTECTED.
- ALL CONCRETE SHALL BE ASSUMED TO BE STEEL REINFORCED, UON.
- TIMBER PILES SHALL BE ASSUMED TO BE TREATED. TREATED TIMBER SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

- CONTRACTOR SHALL LOCATE ALL UTILITIES IN THE PROJECT AREA. RELOCATION OR REMOVAL OF UTILITIES TO BE COORDINATED WITH THE OWNER OR ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

ENVIRONMENTAL NOTES

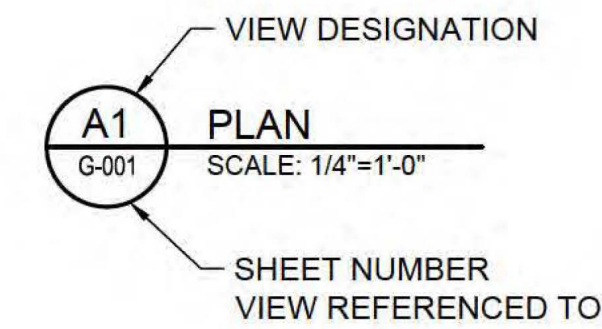
- DURING WATERSIDE CONSTRUCTION, THE CONTRACTOR SHALL MONITOR THE TURBIDITY LEVELS TO ENSURE THAT STATE WATER QUALITY STANDARDS ARE MAINTAINED AND CONSTRUCTION METHODS ARE IN ACCORDANCE WITH THE PERMITS.
- CONTRACTOR SHALL ADHERE TO THE FFWCC STANDARD MANATEE CONDITIONS, AND NOAA FISHERIES PROTECTED SPECIES CONSTRUCTION CONDITIONS FOR IN-WATER WORK.
- LIMIT CONSTRUCTION ACTIVITIES TO DAYLIGHT HOURS ONLY; NO EARLIER THAN 8:00 A.M. AND NO LATER THAN 6:00 P.M.

ABBREVIATIONS

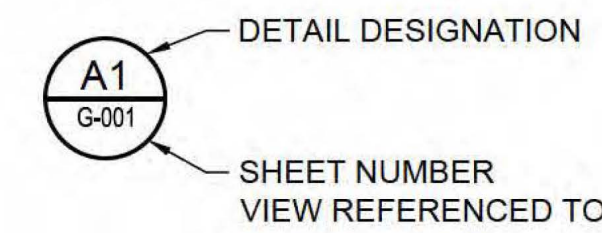
- CIP = CAST IN PLACE
- CONC = CONCRETE
- DBL = DOUBLE
- EA = EACH
- EL = ELEVATION
- EMBED = EMBEDMENT
- EQ = EQUAL
- FDOT = FLORIDA DEPARTMENT OF TRANSPORTATION
- FFWCC = FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
- GALV = GALVANIZED
- LG = LONG
- MAX = MAXIMUM
- MHW = MEAN HIGH WATER
- MHHW = MEAN HIGHER HIGH WATER
- MIN = MINIMUM
- MLW = MEAN LOW WATER
- MLLW = MEAN LOWER LOW WATER
- MSL = MEAN SEA LEVEL
- NAD = NORTH AMERICAN DATUM
- NAVD = NORTH AMERICAN VERTICAL DATUM 88
- NIC = NOT IN CONTRACT
- NOAA = NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION
- SPA = SPACES
- SS = STAINLESS STEEL
- TYP = TYPICAL
- UON = UNLESS OTHERWISE NOTED
- ⋄ = CENTERLINE
- ' = MINUTES OR FEET
- " = INCHES
- & = AND
- ° = DEGREE
- ± = PLUS OR MINUS
- ∅ = DIAMETER
- ⌈ = PLATE

LEGEND

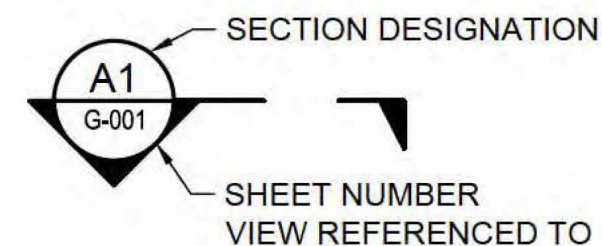
- (0 00) = CONTOUR
- MHW = MHW LINE



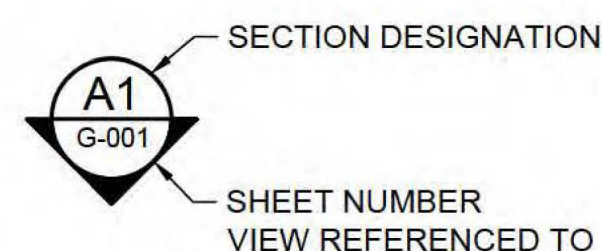
VIEW TITLE



DETAIL CALLOUT



SECTION CALLOUT



ELEVATION VIEW



No.	Description	Date	Appr.

FLAGLER BEACH
FISHING PIER REPLACEMENT

GENERAL NOTES

501 E. KENNEDY BLVD. SUITE 1910 TAMPA, FL 33602 813-259-8818 moffatt & nichol	DESIGNED BY: V. BENZECRY DRAWN BY: HJP CHECKED BY: BES REVIEWED BY: G. PERDOMO SUBMITTED BY: G. PERDOMO MOFFATT & NICHOL	DATE: 2023-05-10 MAN PROJECT NO.: 190739 DRAWING CODE: DRAWING SCALE: 1:1 (0 SHEET) PLOT SCALE:
ENGINEER OF RECORD: NAME: BRIAN SHAW FL REGISTRATION NO. 84768		

SEAL

REV 1 ISSUED 2023-07-26
PERMIT DRAWINGS
 ISSUED: 2023-05-10
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Sheet Reference No.
G-003
 INDEX: 3 OF 33

File: Q:\1\190739\20 CAD\1_Active\pier replacement - permit\190739-G-003 - Plot\ec: 7/26/2023 3:52 PM by PEREZ, HERMES - Saved: 4/14/2023 9:25 AM by HGARCIA



Rev.	Date	Appr.	Description

**FLAGLER BEACH
FISHING PIER REPLACEMENT
GENERAL PLAN
ARRANGEMENT PLAN**

Designed by: V. BENZECRY	Date: 2023-05-10	MAN Project No. 190739	Drawing code:	Drawing Scale: 1"=60'
Drawn by: HJP	Checked by: BES	Submitted by: G. PERDOMO	Submitted by: G. PERDOMO	Post scale: 1"=10' (SHEET)
Reviewed by: G. PERDOMO	Reviewed by: MOFFATT & NICHOL	Permitted by: PEREZ, HERMES		

501 E. KENNEDY BLVD.
SUITE 1910
TAMPA, FL 33602
813-259-8818

moffatt & nichol

ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768

SEAL

Sheet
Reference No.
G-101
INDEX: 4 OF 33



PROPERTY OWNERS TABLE		
IDENTIFIER NO.	PARCEL NO.	OWNER
01	12-12-31-4500-00720-0300	CITY OF FLAGLER BEACH
02	12-12-31-4500-00720-0320	VRE FLAGLER BEACH LLC
03	12-12-31-4500-00720-0310	CITY OF FLAGLER BEACH
04	12-12-31-4500-00710-0270	CITY OF FLAGLER BEACH
05	12-12-31-4500-00710-0290	CITY OF FLAGLER BEACH
06	12-12-31-4500-00700-0250	CITY OF FLAGLER BEACH
07	12-12-31-4500-00690-0220	CITY OF FLAGLER BEACH
08	12-12-31-4500-00690-0230	SUN PARTNERS LLC
09	12-12-31-4500-00680-0200	CITY OF FLAGLER BEACH

ESTIMATED QUANTITIES	
ORIGINAL PIER LENGTH	828 FT
PROPOSED PIER LENGTH	828 FT
ORIGINAL PIER AREA	16,800 SF
TOTAL PROPOSED PIER AREA	20,840 SF

LEGEND

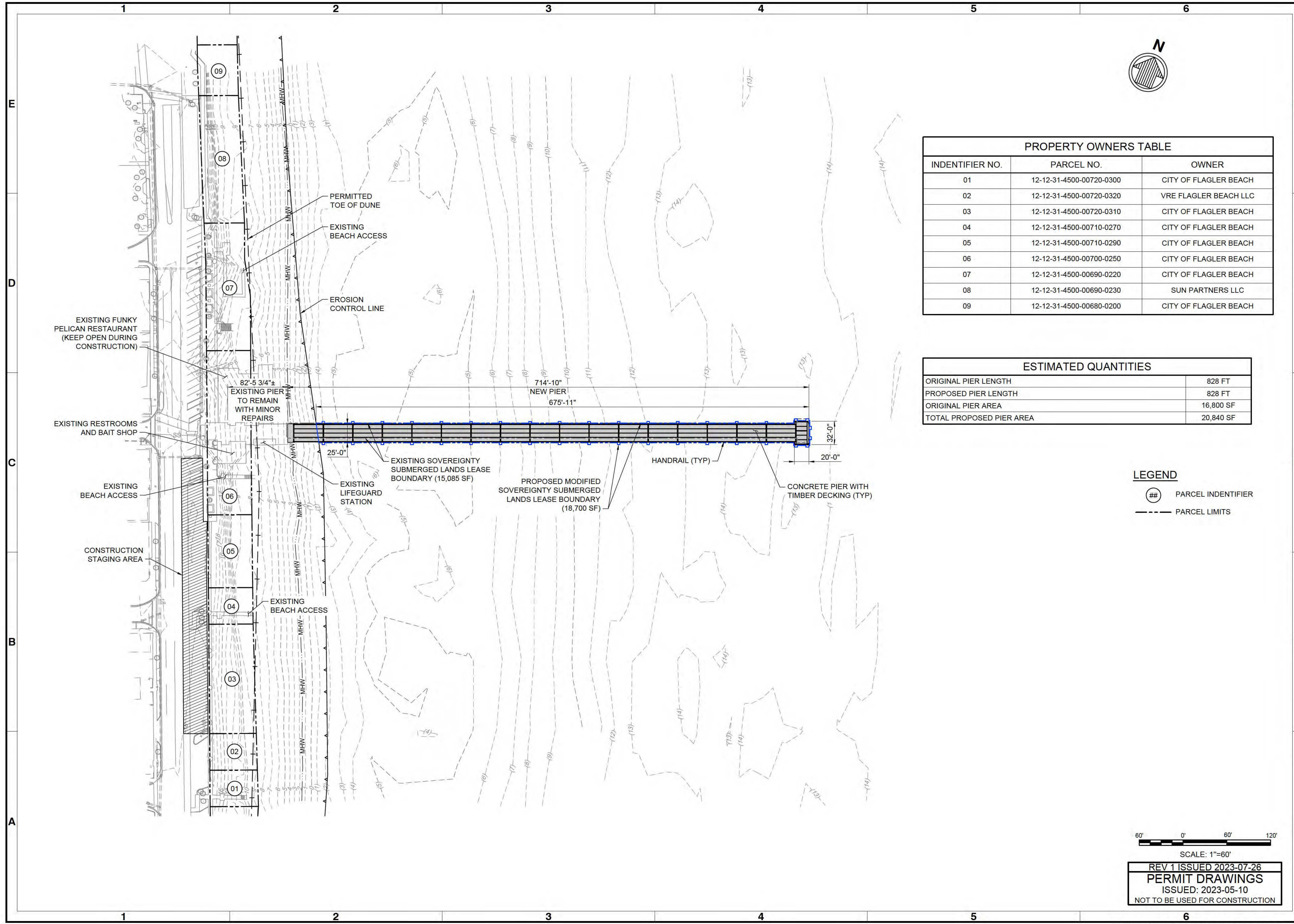
PARCEL IDENTIFIER

--- PARCEL LIMITS

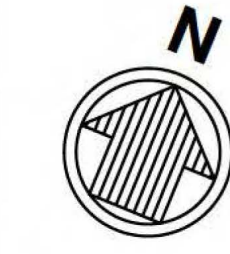
60' 0' 60' 120'

SCALE: 1"=60'

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ISSUED: 2023-05-10
NOT TO BE USED FOR CONSTRUCTION



DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



SURVEY CONTROL				
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
500	1870719.34	615830.85	18.13	NAIL & DISK SSMCTRAV-ADJ
501	1871221.23	615659.84	17.01	5/8" IRON ROD SSMCTRAV-ADJ
502	1870523.70	615964.35	18.45	5/8" IRON ROD SSMCTRAV-ADJ
503	1870852.82	616085.43	17.66	NAIL & DISK SSMCTRAV-ADJ
504	1871006.15	615699.09	18.12	IRON ROD
505	1870855.56	615826.41	17.38	NAIL & DISK SSMCTRAV-ADJ



Rev.	Date	Appr.

FLAGLER BEACH
FISHING PIER REPLACEMENT

EXISTING CONDITIONS PLAN

Rev.	Date	Description

501 E. KENNEDY BLVD.
SUITE 1910
TAMPA, FL 33602
813-258-8818

moffatt & nichol

ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768



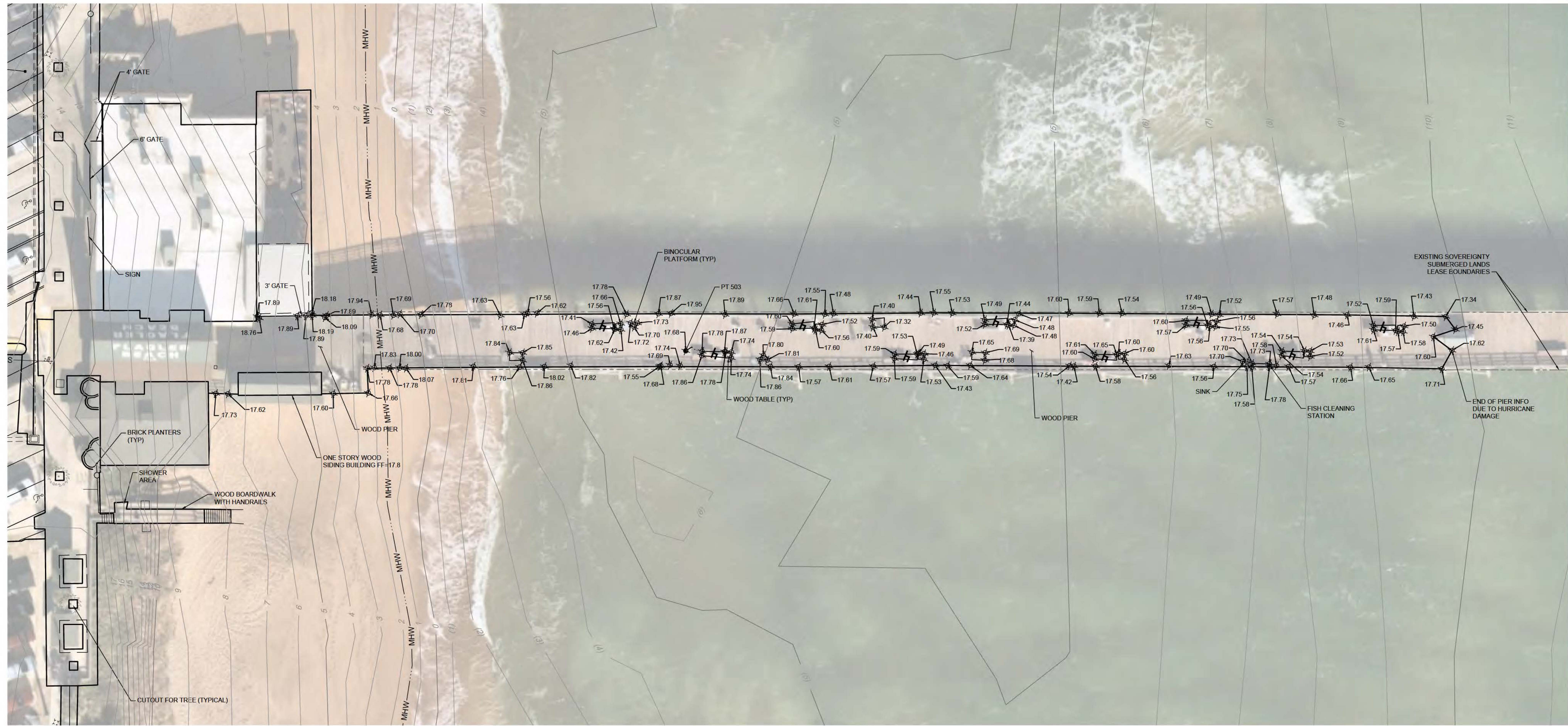
REV 1 ISSUED 2023-07-26
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SEAL

Sheet Reference No.
V-101
INDEX: 5 OF 33

File: Q:\1A\190729\20 CADD\Aerial_pier_replacement_perm1190729-V-101_Plot.pdf: 7/26/2023 3:53 PM by PEREZ. HERMES : Saved: 4/14/2023 9:34 AM by HIGARCIA

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



Mark	Description	Date	Appr.

**FLAGLER BEACH
FISHING PIER REPLACEMENT**

**EXISTING CONDITIONS -
TOPOGRAPHIC SURVEY**

Designed by: V. BENZECRY	Date: 2023-05-10	MAN Project No: 190739
Dwn by: HJP	Drawn by: BES	Drawing code:
Reviewed by: G. PERDOMO	Submitted by: G. PERDOMO	Drawing Scale: 1"=20'
MOTTATT & NICHOL		Plot scale: 1"=10' (SHEET)

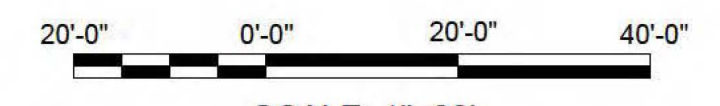
501 E. KENNEDY BLVD,
SUITE 1910
TAMPA, FL 33602
813-258-8818

mottatt & nichol

ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768

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Sheet Reference No.
V-102
INDEX: 6 OF 33



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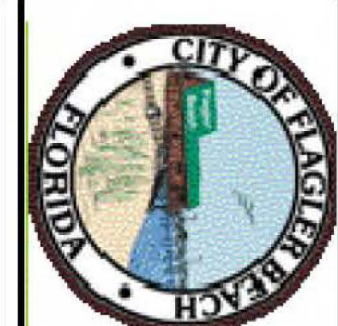
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

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SCALE: 1"=50'

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 PERMIT DRAWINGS
 ISSUED: 2023-05-10
 NOT TO BE USED FOR CONSTRUCTION

INDEX: 7 OF 33 Sheet Reference No: V-103	 moffatt & nichol 501 E. KENNEDY BLVD, SUITE 1910 TAMPA, FL 33602 813-258-8818	Designed by: V. BENZECRY Date: 2023-05-10 Dwn by: HJP Ckd by: BES M&N Project No. 190739 Drawing code:	Reviewed by: G. PERDOMO Submitted by: G. PERDOMO MOFFATT & NICHOL Drawing Scale: Plot scale: 1:1 (D SHEET)	FLAGLER BEACH FISHING PIER REPLACEMENT EXISTING CONDITIONS - BATHYMETRIC SURVEY	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Mark</th> <th>Description</th> <th>Date</th> <th>Appr.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Mark	Description	Date	Appr.																					
Mark	Description	Date	Appr.																											

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

DESIGN CRITERIA

1. FISHING PIER:
 - A. UNIFORM LIVE LOAD..... 100 PSF
 - B. CONCENTRATED LIVE LOAD..... 400 LB POINT LOAD
 - C. MAXIMUM DEFLECTION..... L/240
 - D. WIND LOAD.....135 MPH, 3-SEC GUST
2. DESIGN CODES AND STANDARDS:
 - A. FLORIDA BUILDING CODE (2022).
 - B. AMERICAN SOCIETY OF CIVIL ENGINEERS - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-16).
 - C. AMERICAN CONCRETE INSTITUTE - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-19).
 - D. NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS 2018).
 - E. AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL, 16TH EDITION.
 - F. AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE (AWS D1.1 - 2010).

CONCRETE AND REINFORCING STEEL

1. ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 301 AND 318 UNLESS OTHERWISE NOTED.
2. ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF).
3. ALL DETAILING, FABRICATION, AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO THE ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, ACI 315.
4. MINIMUM CONCRETE COVER FOR REINFORCING BARS SHALL BE 3" UNLESS OTHERWISE NOTED.
5. LAP SPLICES SHALL BE MINIMUM CLASS "B" LAP SPLICES IN ACCORDANCE WITH ACI 318.
6. WELDING OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE - REINFORCING STEEL" (AWS D1.4).
7. REINFORCEMENT HOOKS AND BENDS SHALL BE STANDARD HOOKS CONFORMING TO THE PROVISIONS OF THE AMERICAN CONCRETE INSTITUTE (ACI 318-19), UON.
8. MATERIALS SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED:
 - A. CONCRETE STRENGTH **28 DAY**
 - CAST-IN-PLACE CONCRETE (UON) 5500 PSI (MIN, FDOT CLASS IV)
 - NON-SHRINK GROUT 8000 PSI
 - PRECAST CONCRETE 5500 PSI (MIN, FDOT CLASS IV)
 - PRESTRESSED CONCRETE 6000 PSI (MIN)
 - B. REINFORCING STEEL SHALL HAVE THE FOLLOWING CHARACTERISTICS:
 - REINFORCING STEEL ASTM A 615, GRADE 60
 - REINFORCING STEEL TO BE WELDED ASTM A 706, GRADE 60
9. ALL CEMENT SHALL CONFORM TO ASTM C 150, TYPE II FOR AN EXTREMELY AGGRESSIVE ENVIRONMENT, WITH SLAG OR FLY ASH, MAXIMUM W/C RATIO IS 0.41.
10. CONCRETE SHALL INCLUDE CORROSION INHIBITOR.
11. CONTRACTOR SHALL REPAIR ALL SURFACE BLEMISHES IN CONCRETE WITHIN 24 HOURS AFTER FORM REMOVAL.
12. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED EDGES AND CORNERS, UON.

STRUCTURAL AND MISCELLANEOUS STEEL

1. ALL STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS. ALL WELDING SHALL CONFORM TO AWS D1.1.
2. STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED:
 - A. MISC. PLATES, BARS, AND SHAPES..... ASTM A 572, GR 50
 - B. TIMBER CONNECTION HARDWARE ASTM F593 STAINLESS, TYPE 316L
3. ALL NON-STAINLESS STEEL SHAPES, PLATES, OTHER FABRICATIONS, AND ALL NON-STAINLESS HARDWARE SHALL BE GALVANIZED BY THE HOT-DIPPED PROCESS IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A 123 AND/OR A 153, AS APPLICABLE, AFTER FABRICATION, UNLESS OTHERWISE NOTED.
4. FIELD TREAT DAMAGED GALVANIZED FINISH WITH TWO COATS OF HIGH ZINC DUST OXIDE PAINT. COLD GALVANIZING COMPOUNDS OR APPROVED EQUAL CONFORMING TO THE REQUIREMENTS OF ASTM A 780. IN ADDITION, ALL EXPOSED THREADED SURFACES SHALL BE PAINTED WITH TWO COATS OF HIGH ZINC DUST OXIDE PAINT AFTER INSTALLATION OF UNIT. SPRAY TYPE COLD GALVANIZING COMPOUNDS SHALL NOT BE USED.

TIMBER CONSTRUCTION:

1. ALL TIMBER CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION, THE AMERICAN WOOD COUNCIL, AND NDS.
2. TIMBER RELATED MATERIALS SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED:
 - A. TIMBER DECKING SP DENSE STANDARD (S4S)
 - B. CONNECTION HARDWARE ASTM F593, TYPE 316L STAINLESS STEEL
3. WHEN CONNECTING HARDWARE IS SHOWN ON THE DRAWINGS, THE TYPE, SIZE, SPACING, AND ALIGNMENT ARE CRITICAL AND MUST BE MAINTAINED. DO NOT UNDERCUT WOOD. CONNECTIONS SHALL PULL AND HOLD MEMBERS BEING JOINED INTO CLOSE CONTACT.
4. WASHERS SHALL BE CIRCULAR FLAT SMOOTH AND SHALL CONFORM TO ANSI B18.22.1. STAINLESS. USE DOCK WASHERS OR OGEE WASHERS WHERE INDICATED OR REQUIRED.
5. CHECK ALL BOLTS BY BURRING THE THREADS AFTER THE NUTS HAVE BEEN FINALLY TIGHTENED. RECOAT EXPOSED PORTION OF BOLT WITH TWO COATS OF HIGH ZINC DUST OXIDE PAINT.
6. BORE HOLES FOR THRU BOLTS WITH A BIT 1/16 INCH LARGER IN DIAMETER THAN THE SHANK OF THE BOLT.



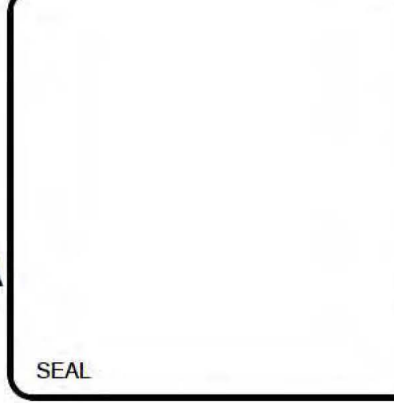
Rev.	Date	Description

FLAGLER BEACH FISHING PIER REPLACEMENT	STRUCTURAL NOTES
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Date: 2023-05-10 MAN Project No. 190739	Drawing code:	Drawing Scale: 1" = 10' (SHEET)
Designed by: V. BENZECRY Dwn by: HJP Ckd by: BES Reviewed by: G. PERDOMO Submitted by: G. PERDOMO, MOFFATT & NICHOL	Permit No.:	Permit Date: 3/10/2023 2:23 PM by JARZA

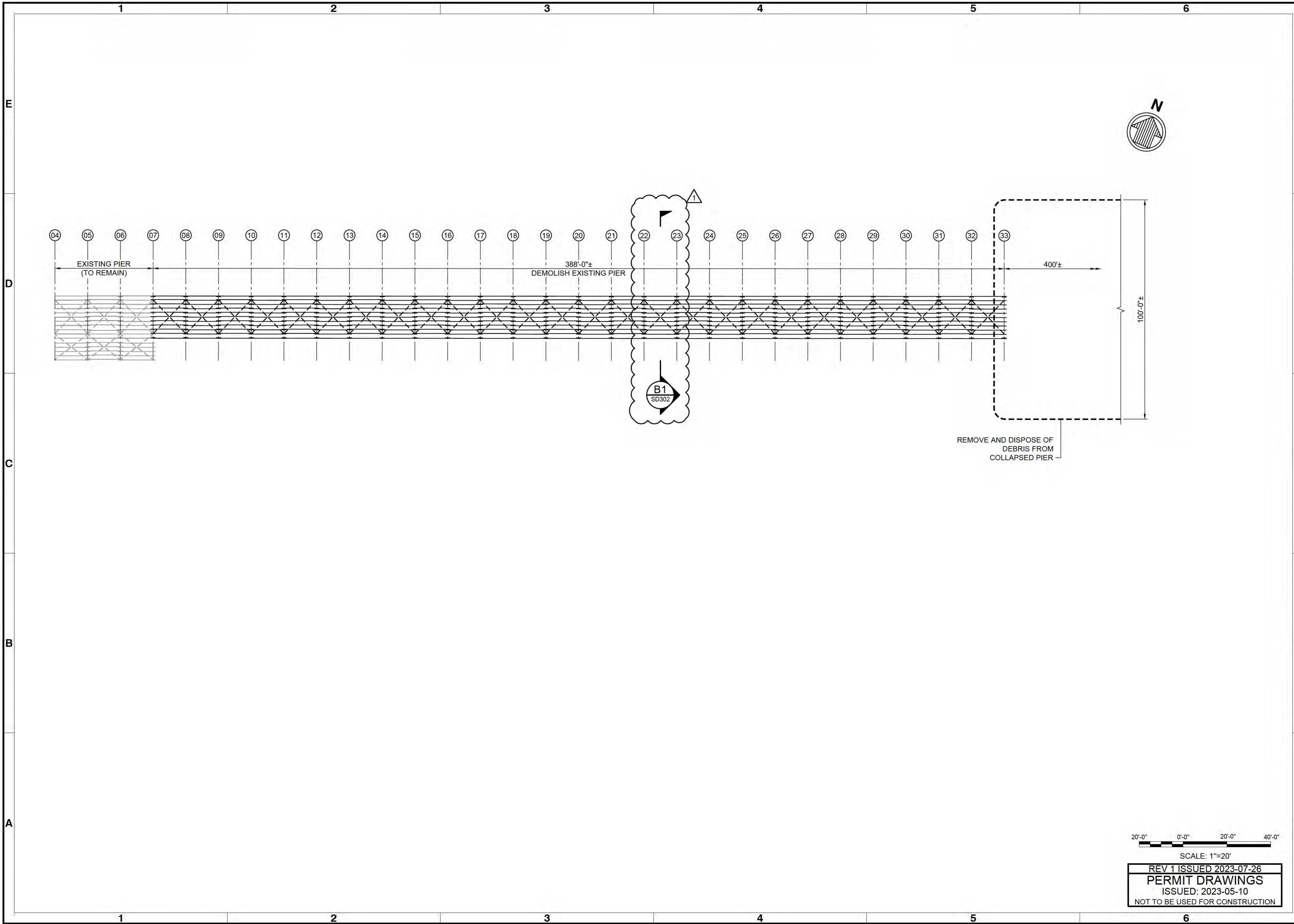
501 E. KENNEDY BLVD., SUITE 1910 TAMPA, FL 33602 813-259-8818

ENGINEER OF RECORD:
 NAME: BRIAN SHAW
 FL REGISTRATION NO. 84768



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Sheet Reference No.
S-001
 INDEX: 8 OF 33



Mark	Description	Date	Appr
1	AS SHOWN	2023-07-26	GP

**FLAGLER BEACH
FISHING PIER REPLACEMENT
DEMOLITION PLAN**

Designed by: V. BENZECRY	Date: 2023-05-10	Rev.
Drawn by: HJP	M&N Project No. 190739	
Checked by: BES	Drawing code:	
Reviewed by: G. PERDOMO	Drawing Scale:	Plot scale: 1"=10' (SHEET)
Submitted by: G. PERDOMO	Moffatt & Nichol	

501 E. KENNEDY BLVD.
 SUITE 1910
 TAMPA, FL 33602
 813-259-8818
moffatt & nichol
 ENGINEER OF RECORD:
 NAME: BRIAN SHAW
 FL REGISTRATION NO. 84768

Sheet Reference No.
SD101
 INDEX: 9 OF 33

20'-0" 0'-0" 20'-0" 40'-0"
 SCALE: 1"=20'
REV 1 ISSUED 2023-07-26
PERMIT DRAWINGS
 ISSUED: 2023-05-10
 NOT TO BE USED FOR CONSTRUCTION

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Rev.	Date	Description
1	2023-07-26	AS SHOWN

**FLAGLER BEACH
FISHING PIER REPLACEMENT
DEMOLITION & TEMPORARY TRESTLE
TYPICAL SECTION**

Designed by: V. BENZECRY	Drawn by: HJP	Reviewed by: G. PERDOMO	Submitted by: G. PERDOMO
Date: 2023-05-10	MAN Project No. 190739	Drawing code:	Drawing Scale: 1:1 (0 SHEET)

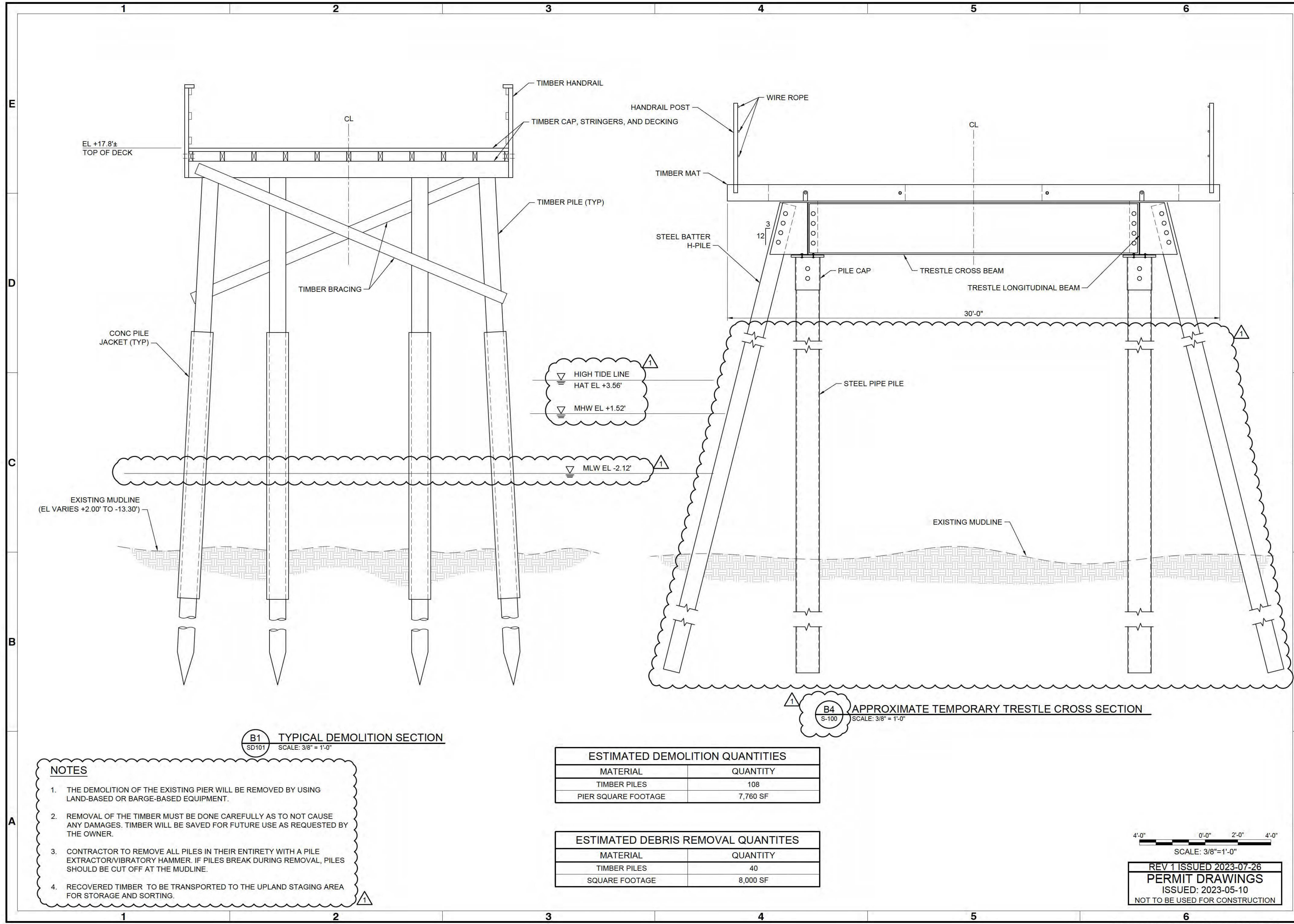
501 E. KENNEDY BLVD.
SUITE 1910
TAMPA, FL 33602
813-258-8818

moftatt & nichol

ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768

SEAL

Sheet Reference No.
SD302
INDEX: 10 OF 33



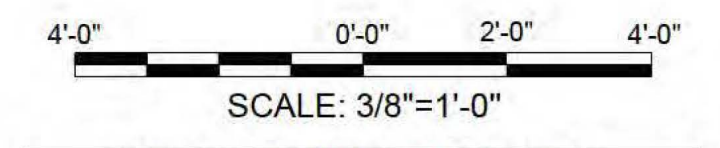
B1 TYPICAL DEMOLITION SECTION
SD101 SCALE: 3/8" = 1'-0"

B4 APPROXIMATE TEMPORARY TRESTLE CROSS SECTION
S-100 SCALE: 3/8" = 1'-0"

- NOTES**
- THE DEMOLITION OF THE EXISTING PIER WILL BE REMOVED BY USING LAND-BASED OR BARGE-BASED EQUIPMENT.
 - REMOVAL OF THE TIMBER MUST BE DONE CAREFULLY AS TO NOT CAUSE ANY DAMAGES. TIMBER WILL BE SAVED FOR FUTURE USE AS REQUESTED BY THE OWNER.
 - CONTRACTOR TO REMOVE ALL PILES IN THEIR ENTIRETY WITH A PILE EXTRACTOR/VIBRATORY HAMMER. IF PILES BREAK DURING REMOVAL, PILES SHOULD BE CUT OFF AT THE MUDLINE.
 - RECOVERED TIMBER TO BE TRANSPORTED TO THE UPLAND STAGING AREA FOR STORAGE AND SORTING.

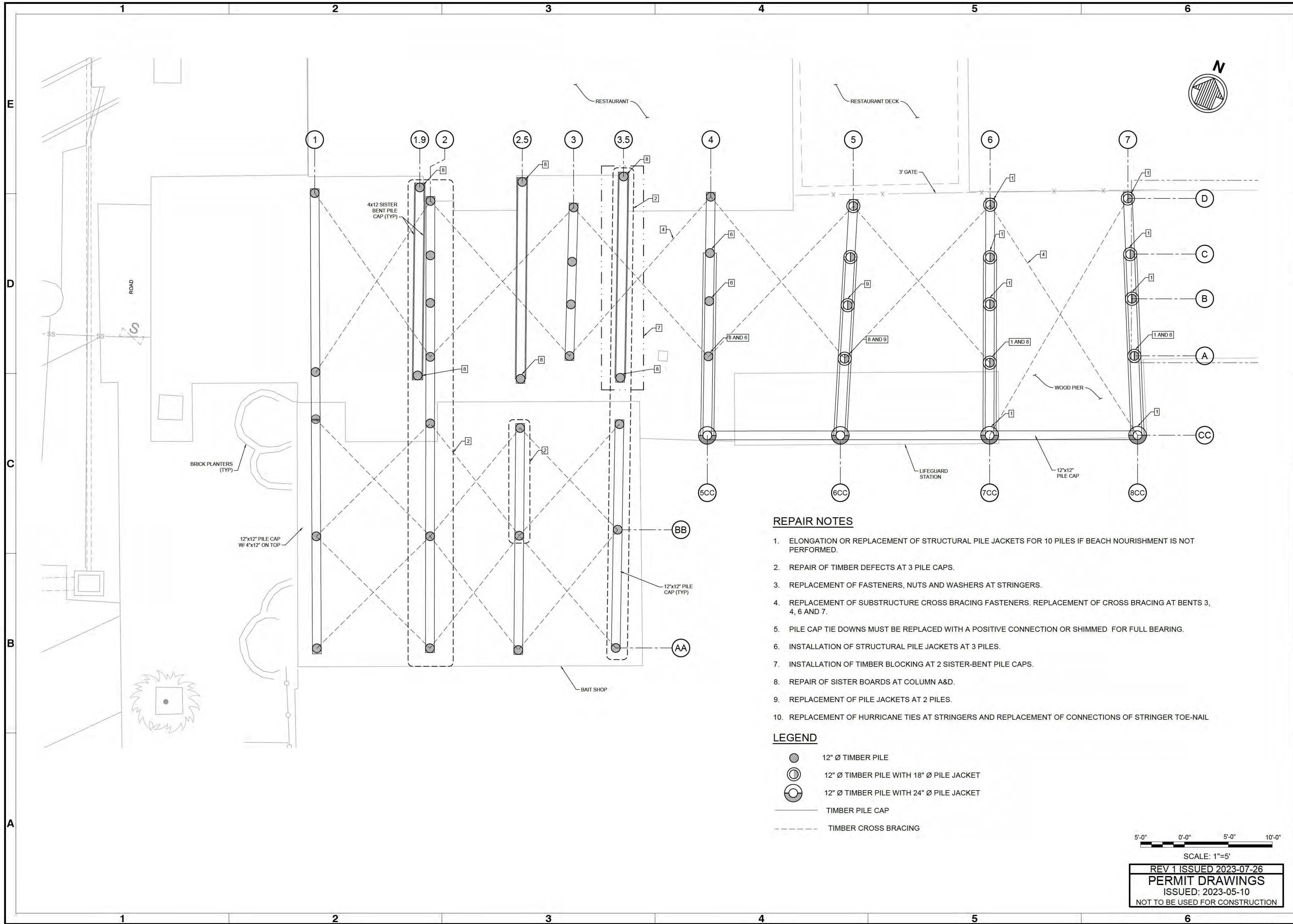
ESTIMATED DEMOLITION QUANTITIES	
MATERIAL	QUANTITY
TIMBER PILES	108
PIER SQUARE FOOTAGE	7,760 SF

ESTIMATED DEBRIS REMOVAL QUANTITIES	
MATERIAL	QUANTITY
TIMBER PILES	40
SQUARE FOOTAGE	8,000 SF



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ISSUED: 2023-05-10
NOT TO BE USED FOR CONSTRUCTION

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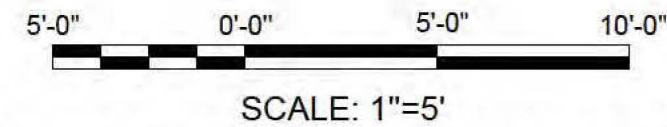


REPAIR NOTES

1. ELONGATION OR REPLACEMENT OF STRUCTURAL PILE JACKETS FOR 10 PILES IF BEACH NOURISHMENT IS NOT PERFORMED.
2. REPAIR OF TIMBER DEFECTS AT 3 PILE CAPS.
3. REPLACEMENT OF FASTENERS, NUTS AND WASHERS AT STRINGERS.
4. REPLACEMENT OF SUBSTRUCTURE CROSS BRACING FASTENERS. REPLACEMENT OF CROSS BRACING AT BENTS 3, 4, 6 AND 7.
5. PILE CAP TIE DOWNS MUST BE REPLACED WITH A POSITIVE CONNECTION OR SHIMMED FOR FULL BEARING.
6. INSTALLATION OF STRUCTURAL PILE JACKETS AT 3 PILES.
7. INSTALLATION OF TIMBER BLOCKING AT 2 SISTER-BENT PILE CAPS.
8. REPAIR OF SISTER BOARDS AT COLUMN A&D.
9. REPLACEMENT OF PILE JACKETS AT 2 PILES.
10. REPLACEMENT OF HURRICANE TIES AT STRINGERS AND REPLACEMENT OF CONNECTIONS OF STRINGER TOE-NAIL

LEGEND

- 12" Ø TIMBER PILE
- 12" Ø TIMBER PILE WITH 18" Ø PILE JACKET
- 12" Ø TIMBER PILE WITH 24" Ø PILE JACKET
- TIMBER PILE CAP
- TIMBER CROSS BRACING



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Rev.	Date	Description

**FLAGLER BEACH
 FISHING PIER REPLACEMENT**

PIER REPAIRS PLAN

Designed by: V. BENZECRY	Drawn by: HJP	Reviewed by: G. PERDOMO	Submitted by: G. PERDOMO
Date: 2023-05-10	MAN Project No. 190739	Drawing code: 	Drawing Scale: 1"=10' (SHEET)

501 E. KENNEDY BLVD.,
 SUITE 1910
 TAMPA, FL 33602
 813-259-8818

moffatt & nichol

ENGINEER OF RECORD:
 NAME: BRIAN SHAW
 FL REGISTRATION NO. 84768

SEAL

Sheet Reference No.
SR101
 INDEX: 11 OF 33

File: Q17A1190739120 CADD1_Pier replacement - permit190739-SR101 ; Plotted: 7/26/2023 9:54 PM by PEREZ, HERMES ; Saved: 4/14/2023 10:01 AM by HGARCIA



Rev.	Date	Description
1	2023-07-26	AS SHOWN

**FLAGLER BEACH
FISHING PIER REPLACEMENT
TEMPORARY TRESTLE
LAYOUT**

Designed by: V. BENZECRY	Date: 2023-05-10
Drawn by: HJP	MAN Project No. 190739
Reviewed by: G. PERDOMO	Drawing code:
Submitted by: G. PERDOMO	Drawing Scale: 1"=10' (SHEET)

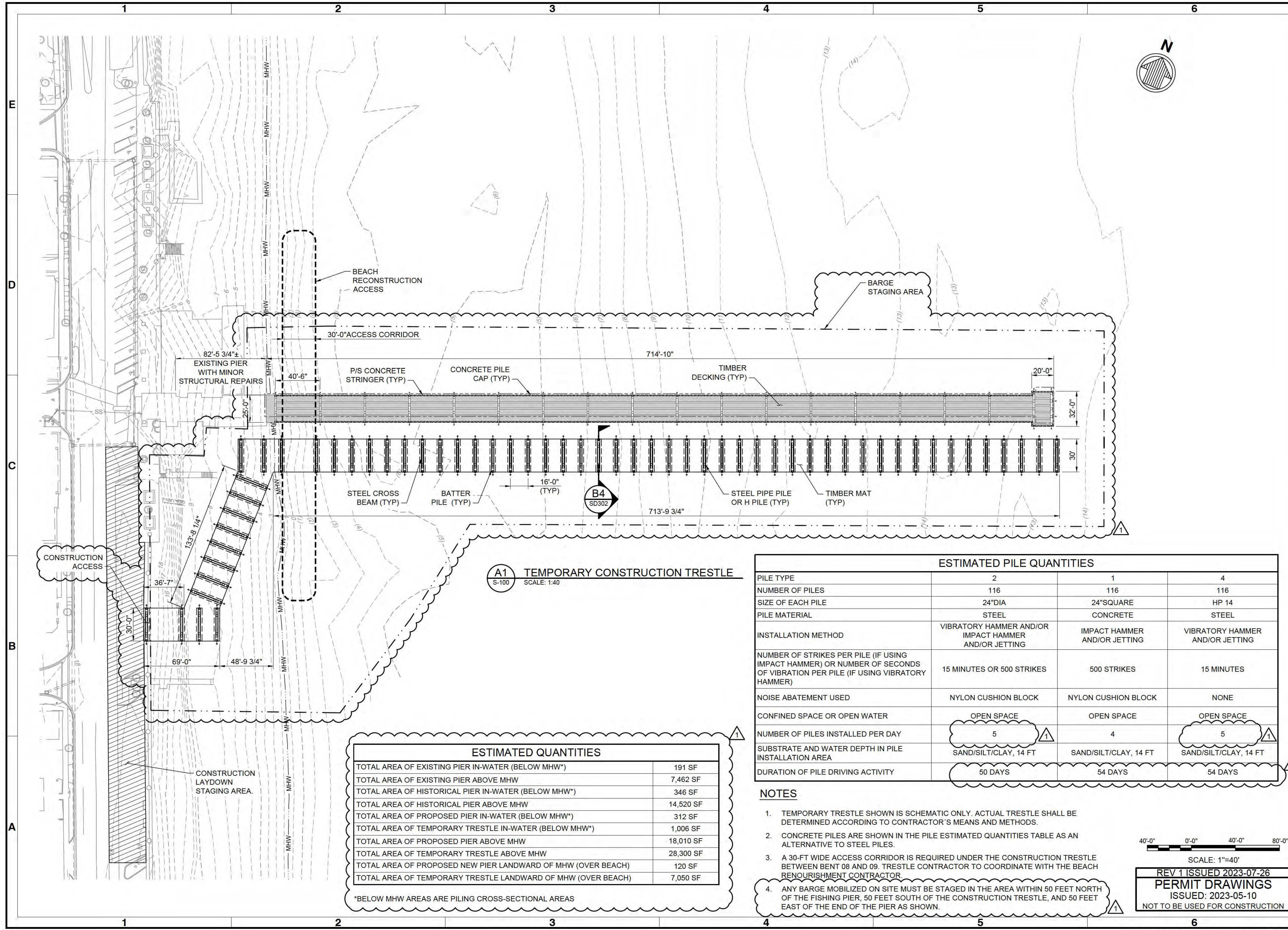
501 E. KENNEDY BLVD.
SUITE 1910
TAMPA, FL 33602
813-258-8818

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ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768

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Sheet Reference No.
S-100
INDEX: 12 OF 33



A1 TEMPORARY CONSTRUCTION TRESTLE
S-100 SCALE: 1:40

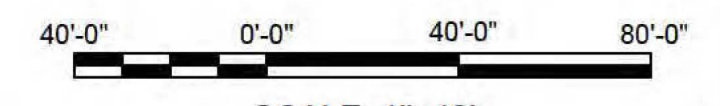
TOTAL AREA OF EXISTING PIER IN-WATER (BELOW MHW*)	191 SF
TOTAL AREA OF EXISTING PIER ABOVE MHW	7,462 SF
TOTAL AREA OF HISTORICAL PIER IN-WATER (BELOW MHW*)	346 SF
TOTAL AREA OF HISTORICAL PIER ABOVE MHW	14,520 SF
TOTAL AREA OF PROPOSED PIER IN-WATER (BELOW MHW*)	312 SF
TOTAL AREA OF PROPOSED PIER ABOVE MHW	18,010 SF
TOTAL AREA OF TEMPORARY TRESTLE ABOVE MHW	28,300 SF
TOTAL AREA OF PROPOSED NEW PIER LANDWARD OF MHW (OVER BEACH)	120 SF
TOTAL AREA OF TEMPORARY TRESTLE LANDWARD OF MHW (OVER BEACH)	7,050 SF

*BELOW MHW AREAS ARE PILING CROSS-SECTIONAL AREAS

PILE TYPE	2	1	4
NUMBER OF PILES	116	116	116
SIZE OF EACH PILE	24"DIA	24"SQUARE	HP 14
PILE MATERIAL	STEEL	CONCRETE	STEEL
INSTALLATION METHOD	VIBRATORY HAMMER AND/OR IMPACT HAMMER AND/OR JETTING	IMPACT HAMMER AND/OR JETTING	VIBRATORY HAMMER AND/OR JETTING
NUMBER OF STRIKES PER PILE (IF USING IMPACT HAMMER) OR NUMBER OF SECONDS OF VIBRATION PER PILE (IF USING VIBRATORY HAMMER)	15 MINUTES OR 500 STRIKES	500 STRIKES	15 MINUTES
NOISE ABATEMENT USED	NYLON CUSHION BLOCK	NYLON CUSHION BLOCK	NONE
CONFINED SPACE OR OPEN WATER	OPEN SPACE	OPEN SPACE	OPEN SPACE
NUMBER OF PILES INSTALLED PER DAY	5	4	5
SUBSTRATE AND WATER DEPTH IN PILE INSTALLATION AREA	SAND/SILT/CLAY, 14 FT	SAND/SILT/CLAY, 14 FT	SAND/SILT/CLAY, 14 FT
DURATION OF PILE DRIVING ACTIVITY	50 DAYS	54 DAYS	54 DAYS

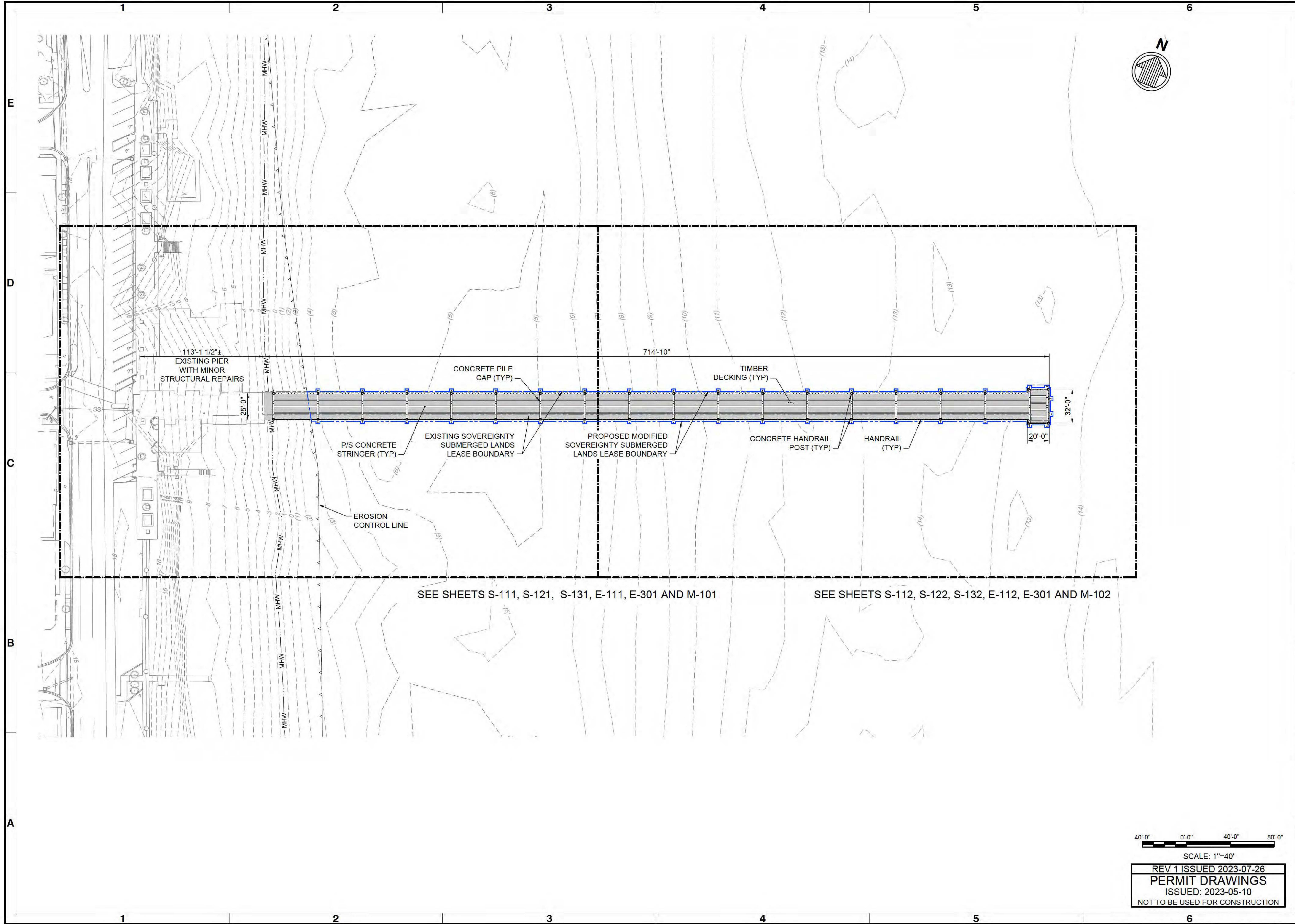
NOTES

- TEMPORARY TRESTLE SHOWN IS SCHEMATIC ONLY. ACTUAL TRESTLE SHALL BE DETERMINED ACCORDING TO CONTRACTOR'S MEANS AND METHODS.
- CONCRETE PILES ARE SHOWN IN THE PILE ESTIMATED QUANTITIES TABLE AS AN ALTERNATIVE TO STEEL PILES.
- A 30'-0" WIDE ACCESS CORRIDOR IS REQUIRED UNDER THE CONSTRUCTION TRESTLE BETWEEN BENT 08 AND 09. TRESTLE CONTRACTOR TO COORDINATE WITH THE BEACH RENOURISHMENT CONTRACTOR.
- ANY BARGE MOBILIZED ON SITE MUST BE STAGED IN THE AREA WITHIN 50 FEET NORTH OF THE FISHING PIER, 50 FEET SOUTH OF THE CONSTRUCTION TRESTLE, AND 50 FEET EAST OF THE END OF THE PIER AS SHOWN.



SCALE: 1"=40'

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113'-1 1/2" ±
EXISTING PIER
WITH MINOR
STRUCTURAL REPAIRS

714'-10"

CONCRETE PILE
CAP (TYP)

TIMBER
DECKING (TYP)

P/S CONCRETE
STRINGER (TYP)

EXISTING SOVEREIGNTY
SUBMERGED LANDS
LEASE BOUNDARY

PROPOSED MODIFIED
SOVEREIGNTY SUBMERGED
LANDS LEASE BOUNDARY

CONCRETE HANDRAIL
POST (TYP)

HANDRAIL
(TYP)

EROSION
CONTROL LINE

SEE SHEETS S-111, S-121, S-131, E-111, E-301 AND M-101

SEE SHEETS S-112, S-122, S-132, E-112, E-301 AND M-102

40'-0" 0'-0" 40'-0" 80'-0"
SCALE: 1"=40'

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Mark	Description	Date	GP
1	AS SHOWN	2023-07-26	GP

FLAGLER BEACH
FISHING PIER REPLACEMENT

STRUCTURAL KEY PLAN

Rev.	Date	Designed by	Drawn by	Reviewed by	Submitted by	Project No.	Drawing Code	Drawing Scale	Plot Scale
	2023-05-10	V. BENZECRY	HJP	G. PERDOMO	G. PERDOMO	MAN Project No. 190739	BES	1:1 (0 SHEET)	1:1 (0 SHEET)

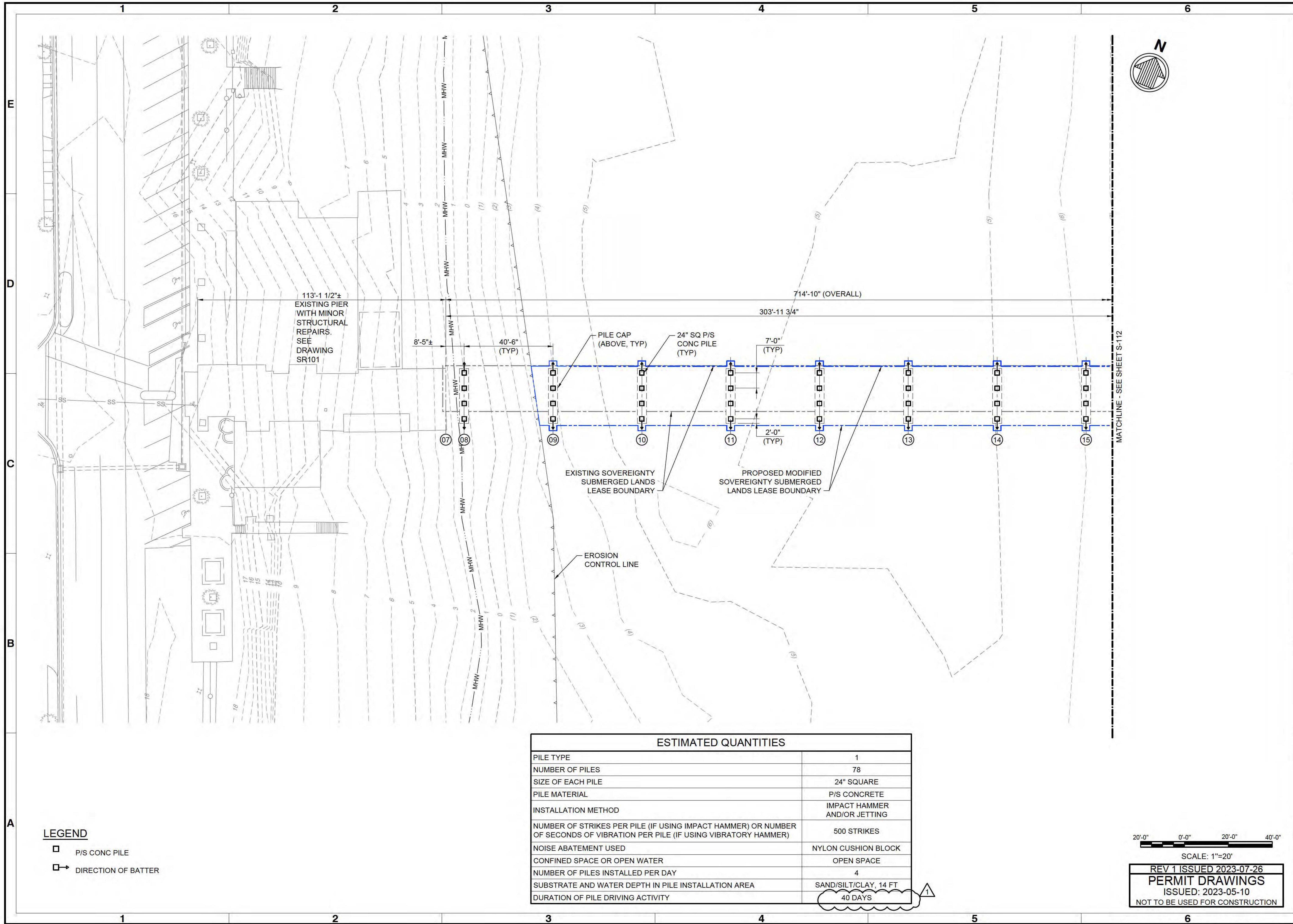
501 E. KENNEDY BLVD.
SUITE 1910
TAMPA, FL 33602
813-259-8818

moffatt & nichol

ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768

SEAL

Sheet
Reference No.
S-101
INDEX: 13 OF 33



LEGEND

- P/S CONC PILE
- DIRECTION OF BATTER

ESTIMATED QUANTITIES	
PILE TYPE	1
NUMBER OF PILES	78
SIZE OF EACH PILE	24" SQUARE
PILE MATERIAL	P/S CONCRETE
INSTALLATION METHOD	IMPACT HAMMER AND/OR JETTING
NUMBER OF STRIKES PER PILE (IF USING IMPACT HAMMER) OR NUMBER OF SECONDS OF VIBRATION PER PILE (IF USING VIBRATORY HAMMER)	500 STRIKES
NOISE ABATEMENT USED	NYLON CUSHION BLOCK
CONFINED SPACE OR OPEN WATER	OPEN SPACE
NUMBER OF PILES INSTALLED PER DAY	4
SUBSTRATE AND WATER DEPTH IN PILE INSTALLATION AREA	SAND/SILT/CLAY, 14 FT
DURATION OF PILE DRIVING ACTIVITY	40 DAYS

20'-0" 0'-0" 20'-0" 40'-0"

SCALE: 1"=20'

REV 1 ISSUED 2023-07-26

PERMIT DRAWINGS

ISSUED: 2023-05-10

NOT TO BE USED FOR CONSTRUCTION



Mark	Description	Date	GP
1	AS SHOWN	2023-07-26	GP

FLAGLER BEACH
FISHING PIER REPLACEMENT

STRUCTURAL PILE PLAN
(1 OF 2)

Rev.	Date	Designed by	Drawn by	Reviewed by	Submitted by	Plot scale
	2023-05-10	V. BENZECRY	HJP	G. PERDOMO	G. PERDOMO	1"=10' (SHEET)
			BES		MOFFATT & NICHOL	

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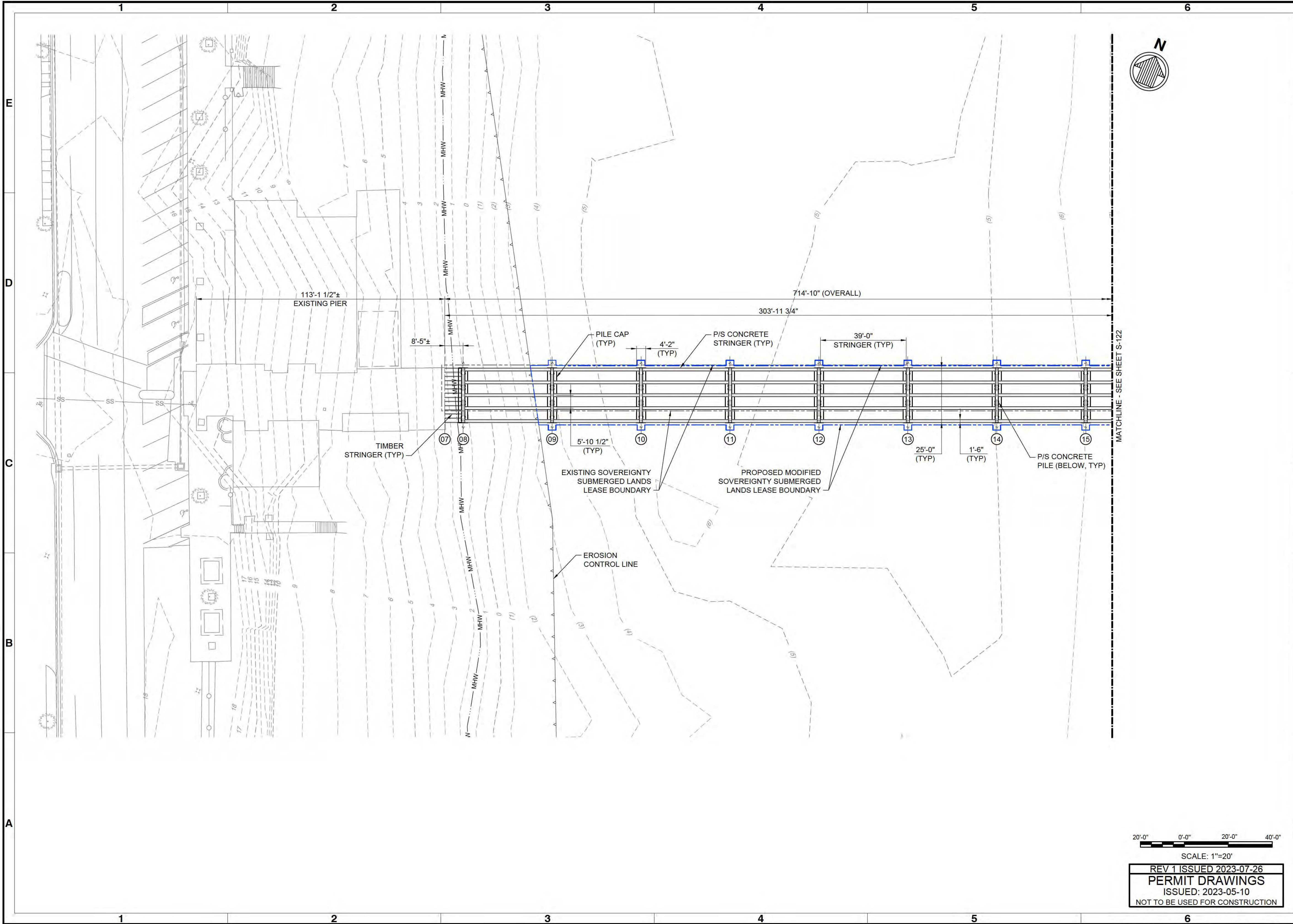
ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768

SEAL

Sheet Reference No.
S-111

INDEX: 14 OF 33

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SCALE: 1"=20'
 REV 1 ISSUED 2023-07-26
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FLAGLER BEACH
 FISHING PIER REPLACEMENT
 STRUCTURAL FRAMING PLAN (1 OF 2)

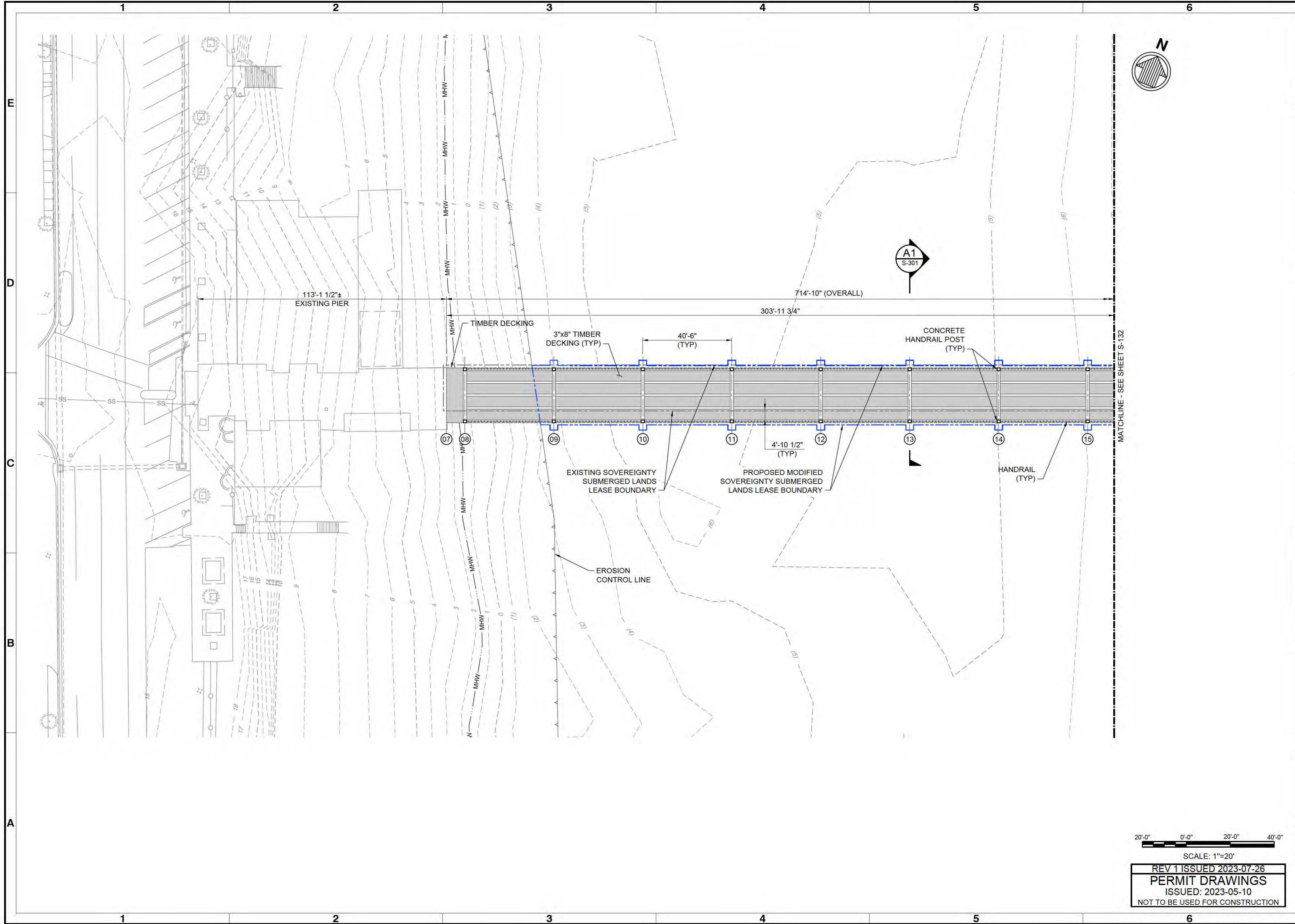
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	2023-05-10	V. BENZECRY	HJP	G. PERDOMO	G. PERDOMO	MAN Project No. 190739			1"=10' (SHEET)

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 ENGINEER OF RECORD:
 NAME: BRIAN SHAW
 FL REGISTRATION NO. 84768

SEAL

Sheet Reference No.
S-121
 INDEX: 16 OF 33

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FLAGLER BEACH
FISHING PIER REPLACEMENT

STRUCTURAL DECK PLAN
(1 OF 2)

Rev.	Date	Designed by	Checked by	Reviewed by	Submitted by	Drawing No.	Drawing Code	Drawing Scale	Plot Scale
	2023-05-10	V. BENZECRY	BES	G. PERDOMO	G. PERDOMO	190739		1:1 (0 SHEET)	

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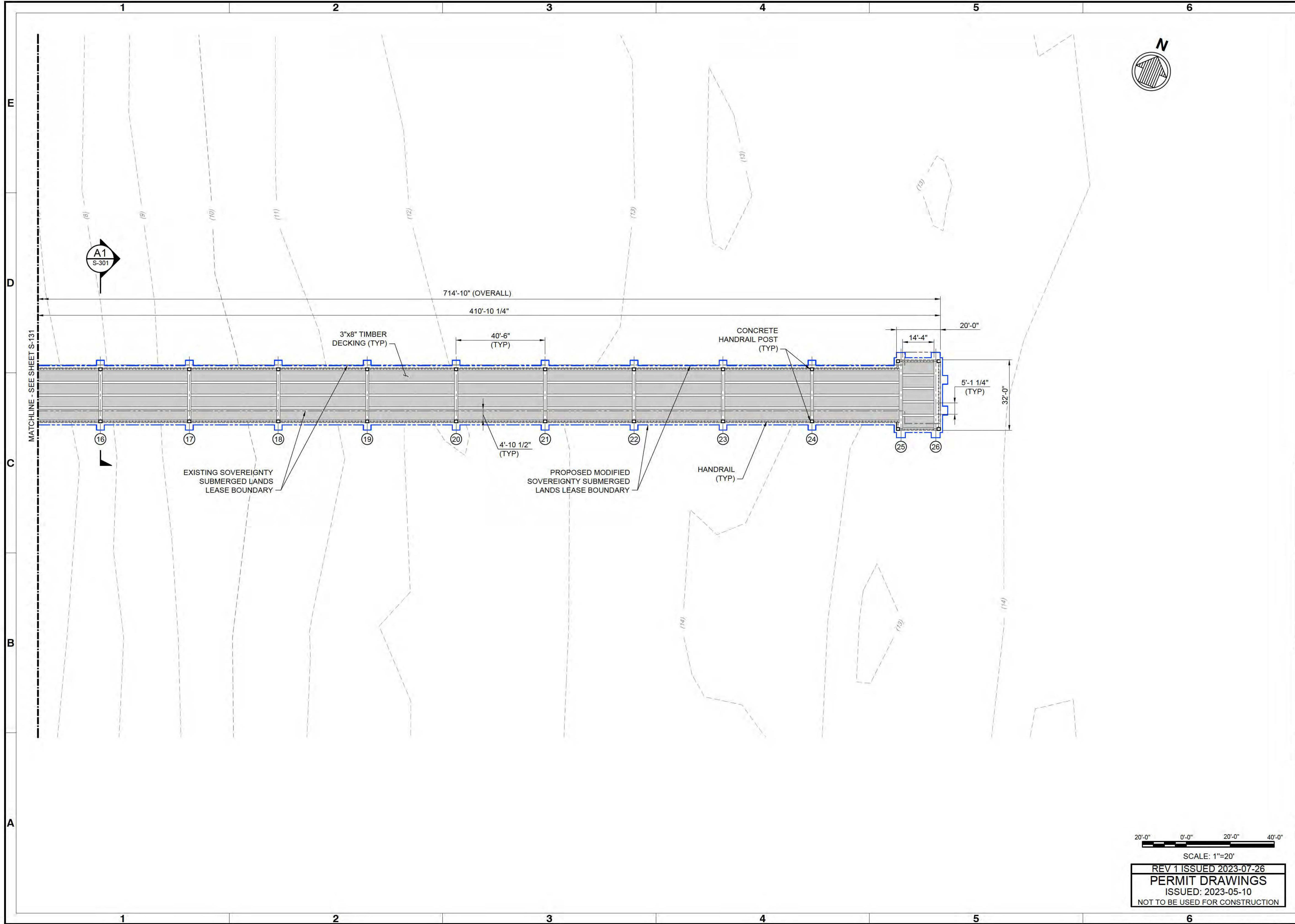
moffatt & nichol

ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768

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Sheet Reference No.
S-131
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20'-0" 0'-0" 20'-0" 40'-0"
SCALE: 1"=20'
REV 1 ISSUED 2023-07-26
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ISSUED: 2023-05-10
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**FLAGLER BEACH
FISHING PIER REPLACEMENT
STRUCTURAL DECK PLAN
(2 OF 2)**

Date: 2023-05-10 MAN Project No. 190739 Drawing code:	Date: 2023-05-10 MAN Project No. 190739 Drawing code:
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501 E. KENNEDY BLVD.
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 ENGINEER OF RECORD:
 NAME: BRIAN SHAW
 FL REGISTRATION NO. 84768

SEAL

Sheet Reference No.
S-132
 INDEX: 19 OF 33

SCALE: 1"=20'
 REV 1 ISSUED 2023-07-26
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 ISSUED: 2023-05-10
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Rev.	Date	Description
1	2023-07-26	AS SHOWN

**FLAGLER BEACH
FISHING PIER REPLACEMENT
STRUCTURAL ELEVATION**

Designed by: V. BENZECRY	Date: 2023-05-10	MAN Project No. 190739
Dwn by: HJP	Drawn by: BES	Drawing code:
Reviewed by: G. PERDOMO	Submitted by: G. PERDOMO	Drawing Scale: 1" = 10' (SHEET)
Moffatt & Nichol		

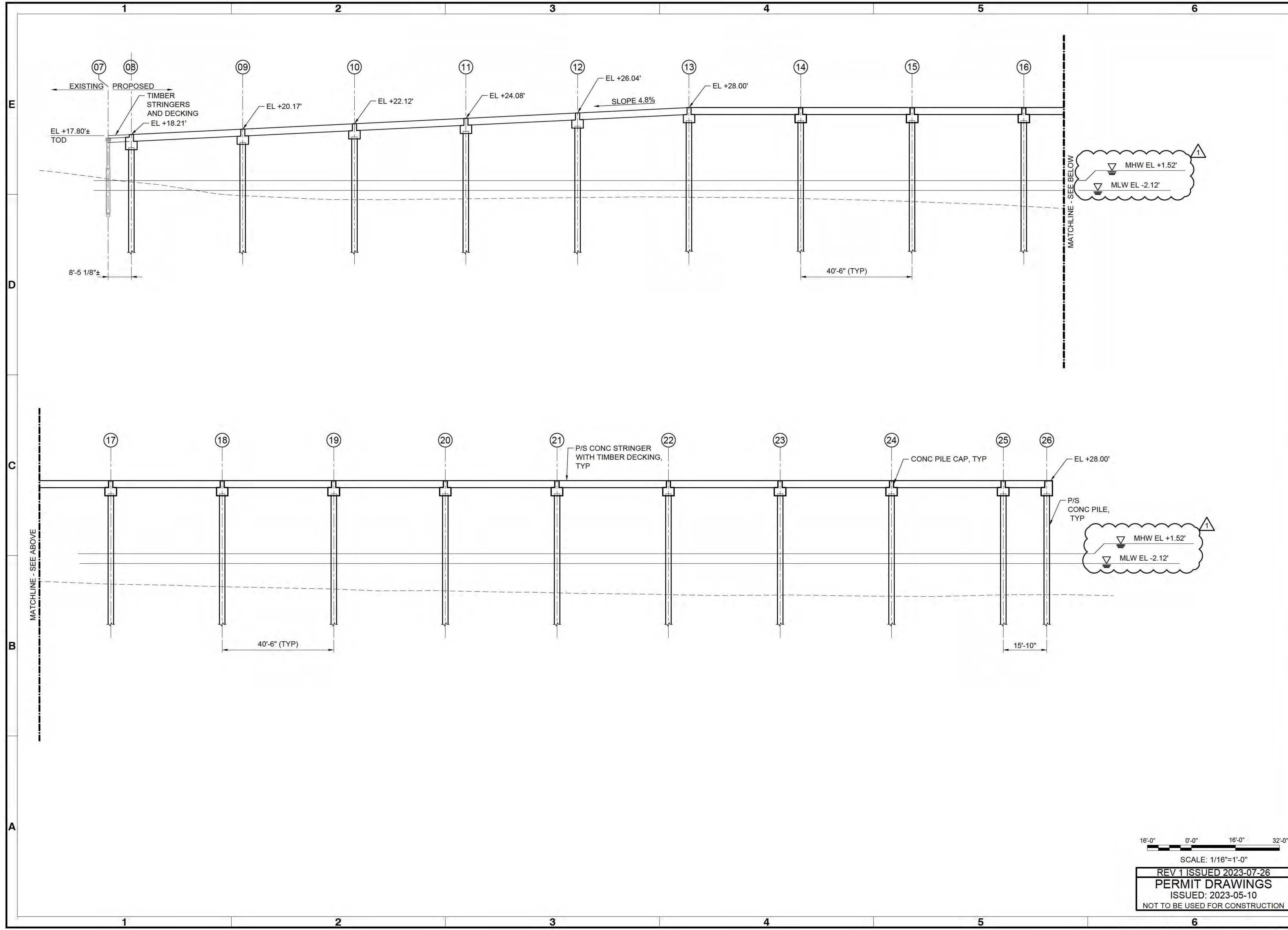
501 E. KENNEDY BLVD.
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ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768

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Sheet Reference No.
S-201
INDEX: 20 OF 33



16'-0" 0'-0" 16'-0" 32'-0"
SCALE: 1/16"=1'-0"

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Rev.	Date	Description
1	2023-07-26	AS SHOWN

FLAGLER BEACH
FISHING PIER REPLACEMENT

TYPICAL SECTION

Designed by: V. BENZECRY	Date: 2023-05-10	MAN Project No. 190739	Drawing code:	Drawing Scale: 1:1 (0 SHEET)
Dwn by: HJP	By: BES			
Reviewed by: G. PERDOMO	Submitted by: G. PERDOMO			
MOFFATT & NICHOL				

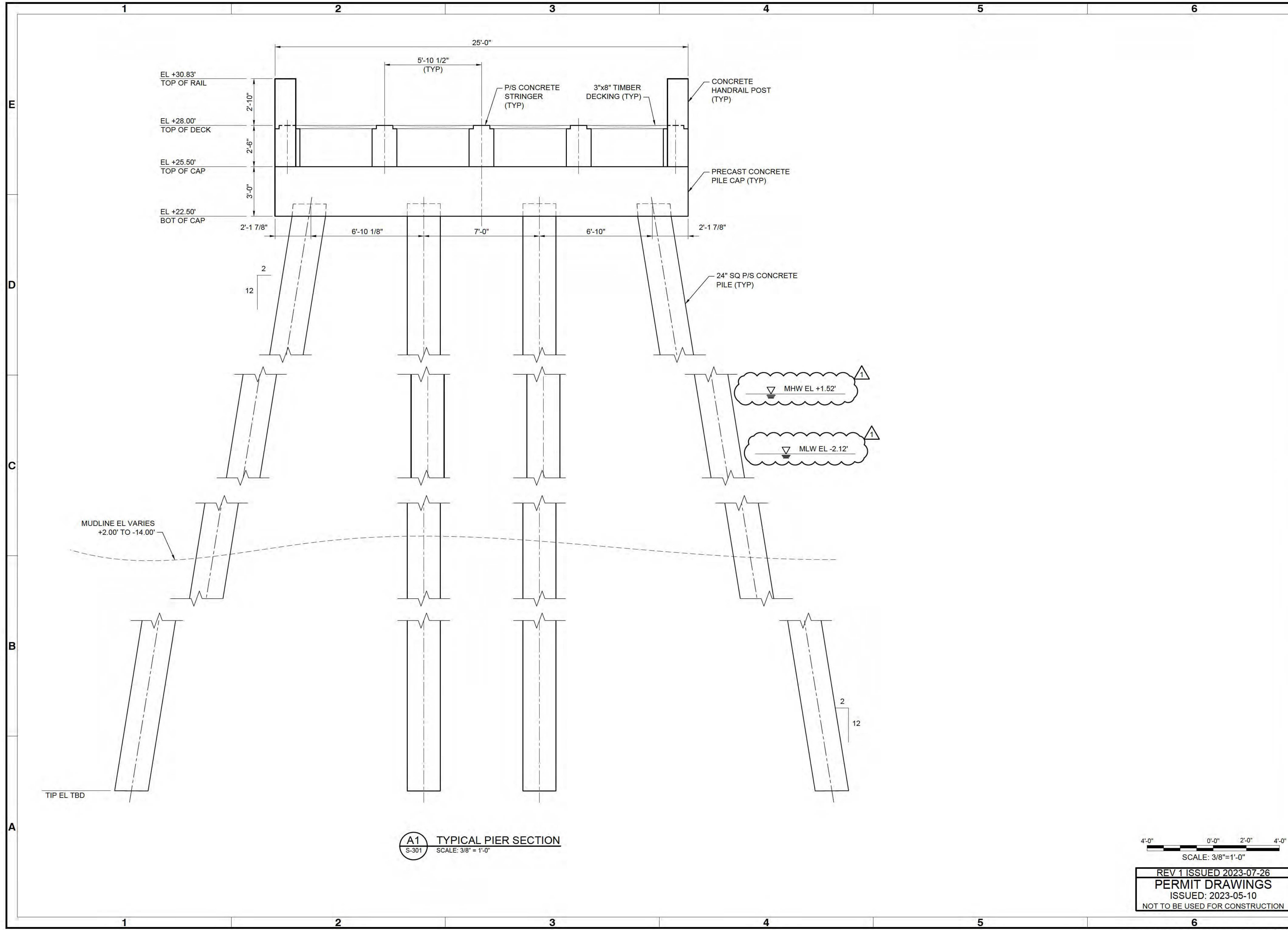
501 E. KENNEDY BLVD.
SUITE 1910
TAMPA, FL 33602
813-259-8818

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ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768

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Sheet Reference No.
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INDEX: 21 OF 33



4'-0" 0'-0" 2'-0" 4'-0"
SCALE: 3/8"=1'-0"

REV 1 ISSUED 2023-07-26
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ISSUED: 2023-05-10
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A1 TYPICAL PIER SECTION
S-301 SCALE: 3/8"=1'-0"

MECHANICAL GENERAL NOTES

1. INSTALLATION OF PLUMBING SYSTEMS, INCLUDING COORDINATION WITH OTHER TRADES, SHALL COMPLY WITH THE LOCAL WATER, FIRE, AND OTHER AHJ STANDARDS AND REGULATIONS. PRIOR APPROVAL OF AND NOTICE TO PROCEED WITH THE TIE-INS TO EXISTING UTILITIES ARE REQUIRED BY THE LOCAL AHJ FOR THE WATER, FIRE, WATER AND SEWER SYSTEMS. AUTHORIZED REPRESENTATIVE SHALL WITNESS TIE-IN, AS REQUIRED.
2. FIREWATER SYSTEM AND PIPING MATERIAL SHALL BE IN COMPLIANCE WITH NFPA 14, NFPA 307, FLORIDA FIRE PREVENTION CODE, AND REQUIREMENTS OF AUTHORITY HAVING JURISDICTION. ALL MATERIALS SHALL BE UL LISTED WHERE AVAILABLE.
3. THE MARINA FIRE WATER SYSTEM SHALL BE A CLASS 1 DRY STANDPIPE SYSTEM, PER NFPA 14. THE STANDPIPE SYSTEM SHALL BE CAPABLE OF SUPPLYING A FLOW OF 500 GPM.
4. ALL PIPING SHALL FOLLOW THE GENERAL ARRANGEMENT SHOWN. PIPING SHALL BE RUN AS INDICATED, CARE BEING TAKEN TO AVOID INTERFERENCE WITH OTHER PIPING, CONDUIT, OR EQUIPMENT. THE LOCATION OF PIPING TO BE RUN ON THE DOCK SHALL BE COORDINATED WITH ELECTRICAL CONDUITS SPECIFIED. BEFORE JOINTING AND ERECTION OF PIPING, THOROUGHLY CLEAN INTERIORS OF PIPE AND COMPONENTS. MAINTAIN CLEANLINESS BY CLOSURE OF PIPE OPENINGS WITH CAPS OR PLUGS.
5. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED BUILDING/TRADE PERMITS AND PROVIDE ALL REQUIRED TESTING.
6. THE CONTRACTOR SHALL ENSURE SUFFICIENT PIPE FLEXIBILITY AND ANCHORAGE IS PROVIDED FOR ALL LINES FOR THERMAL EXPANSION AND CONTRACTION, AND PRESSURE. THE DOCK STRUCTURE AND COMPONENTS SHALL ACCOMMODATE THE PIPING LAYOUT REQUIREMENTS SUCH THAT THE PIPE SHALL NOT BECOME OVERSTRESSED. THE PIPING SHALL BE PROPERLY SUPPORTED AND ANCHORED.
7. CONTRACTOR SHALL INSPECT MATERIALS DELIVERED TO SITE FOR DAMAGE. UNLOAD AND STORE WITH MINIMUM HANDLING. STORE MATERIALS ON SITE IN ENCLOSURES OR UNDER PROTECTIVE COVERING. STORE PLASTIC PIPING UNDER COVER OUT OF DIRECT SUNLIGHT. DO NOT STORE MATERIALS DIRECTLY ON THE GROUND. KEEP INSIDE OF PIPES, FITTINGS AND EQUIPMENT FREE OF DIRT AND DEBRIS. HANDLE PIPE, FITTINGS, VALVES, AND OTHER ACCESSORIES IN SUCH MANNER AS TO ENSURE DELIVERY TO THE INSTALLATION LOCATION IN A SOUND UNDAMAGED CONDITION.
8. ALL POTABLE WATER, FIRE WATER, AND OTHER MATERIALS (PIPE, VALVES, ETC.) SHALL BE FURNISHED BY THE CONTRACTOR. ALL SUCH MATERIALS SHALL BE NEW, MEET DISTRICT, COUNTY, WATER, UTILITY COMPANY AND OTHER AHJ SPECIFICATION REQUIREMENTS FOR EACH ITEM. PRIOR TO INSTALLATION, MATERIALS MUST BE APPROVED IN WRITING BY THE ENGINEER AND AHJ.
9. SHOULD THERE BE A CONFLICT BETWEEN THESE GENERAL NOTES, CONTRACT DRAWINGS, AND/OR CONTRACT DOCUMENTS, THE MOST RESTRICTIVE INTERPRETATION SHALL PREVAIL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING FROM THE ENGINEER ANY CLARIFICATION OR INTERPRETATION OF GENERAL NOTES, CONTRACT DRAWINGS, AND/OR SPECIFICATIONS IN WRITING AND IN ADVANCE OF THE BEGINNING OF CONSTRUCTION
10. LOCATIONS OF UTILITIES, PUBLIC AND/OR PRIVATE, ARE APPROXIMATE ONLY, AND THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD. IT IS POSSIBLE THAT SOME EXISTING FACILITIES ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING ALL EXISTING UTILITIES RELEVANT TO PROJECT CONSTRUCTION LOCATED AND MARKED PRIOR TO THE BEGINNING OF CONSTRUCTION.
11. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO PROTECT EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. SHOULD SPECIAL EQUIPMENT BE REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR SHALL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FOR FURNISHING SPECIAL EQUIPMENT SHALL BE INCLUDED IN THE BID FOR CONSTRUCTION.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AFFECTED UTILITY OWNERS PRIOR TO SUBMITTING A BID TO COORDINATE SCHEDULING OF WORK FOR THE PROJECT. THE CONTRACTOR SHALL RECEIVE NO ADDITIONAL COMPENSATION FOR ANY DELAYS OR INCONVENIENCE CAUSED BY NECESSARY UTILITY COMPANY ADJUSTMENTS TO THE PROJECT SCHEDULE.



Rev.	Date	MAN Project No.	Drawing code	Drawing Scale	Plot scale
	2023-05-10	190739		1:1 (0 SHEET)	

**FLAGLER BEACH
FISHING PIER REPLACEMENT**

MECHANICAL NOTES

Designed by: K. GADDONE	Drawn by: HJP	Checked by: KG	Reviewed by: G. PERDOMO	Submitted by: G. PERDOMO MOFFATT & NICHOL
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813-258-8818

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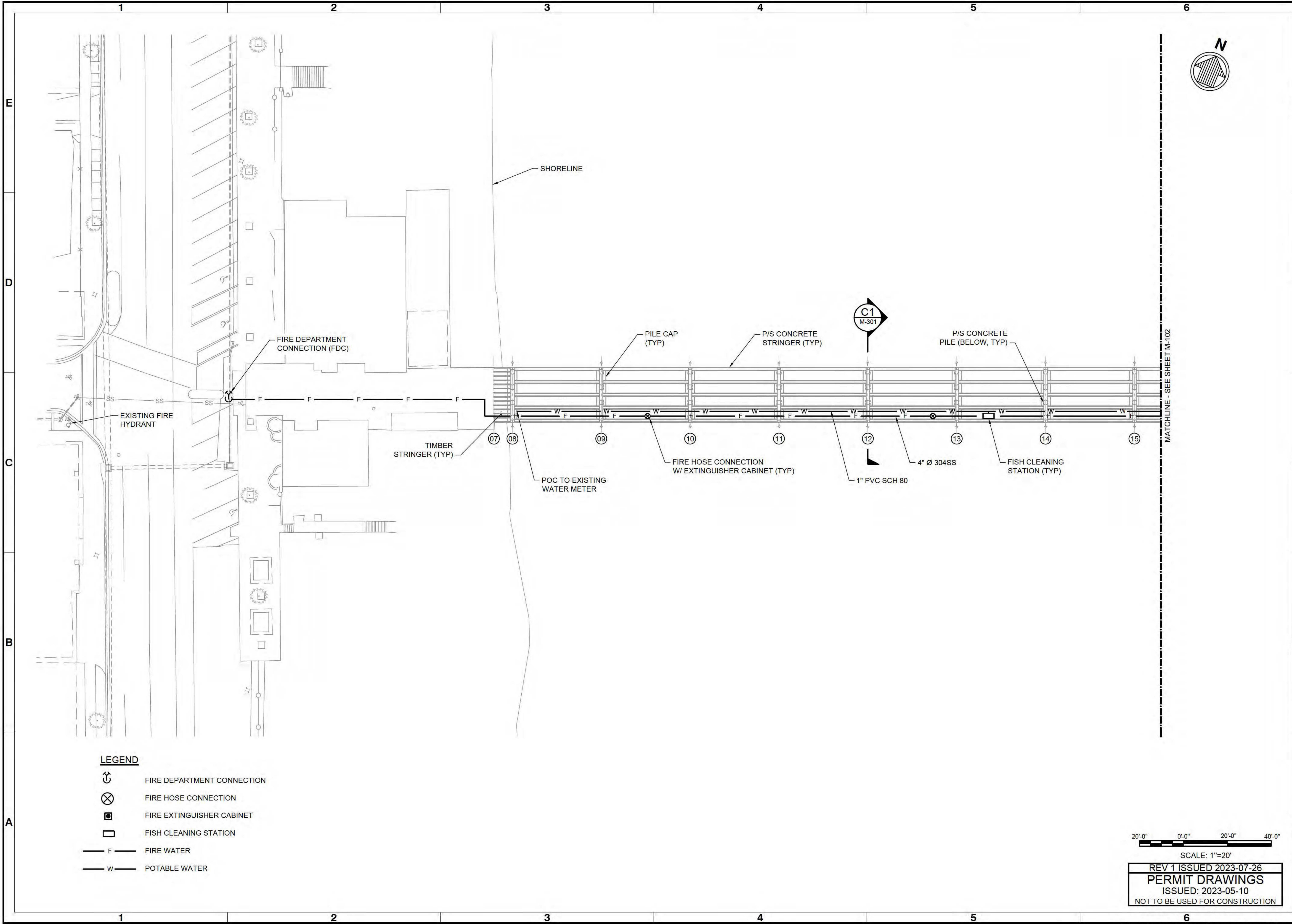
ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768

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


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Sheet Reference No.
M-001
 INDEX: 22 OF 33

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LEGEND

-  FIRE DEPARTMENT CONNECTION
-  FIRE HOSE CONNECTION
-  FIRE EXTINGUISHER CABINET
-  FISH CLEANING STATION
-  FIRE WATER
-  POTABLE WATER



Mark	Description	Date	Appr.

**FLAGLER BEACH
FISHING PIER REPLACEMENT
MECHANICAL PLAN (1 OF 2)**

Designed by: K. GADDONE	Date: 2023-05-10	MAN Project No. 190739	Rev.
Dwn by: HJP	Drawn by: KG	Drawing code:	
Reviewed by: G. PERDOMO	Submitted by: G. PERDOMO	Drawing Scale: 1" = 10' (SHEET)	
Submitted by: MOFFATT & NICHOL			

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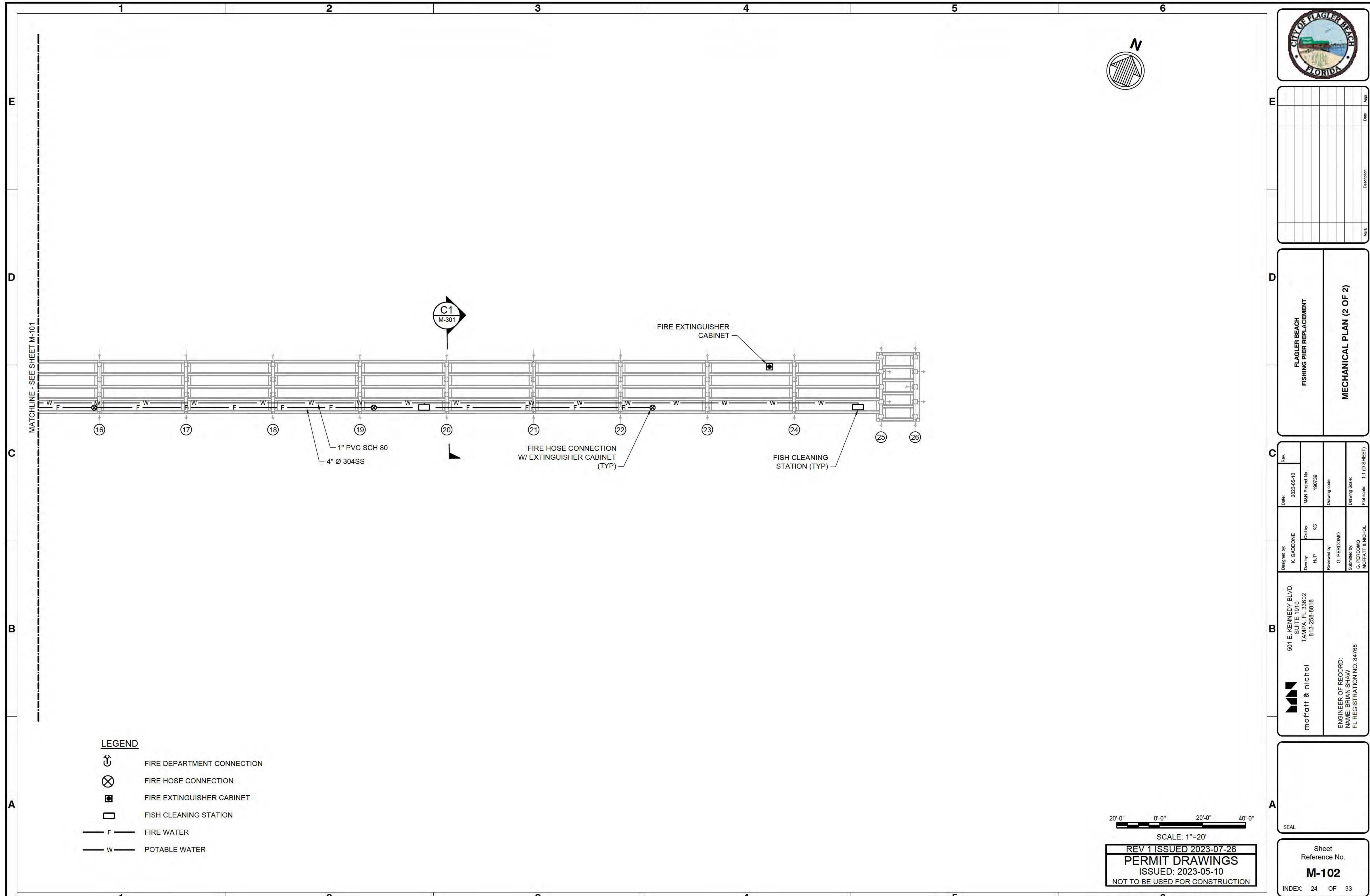
ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768

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Sheet Reference No.
M-101
INDEX: 23 OF 33

20'-0" 0'-0" 20'-0" 40'-0"
SCALE: 1"=20'
REV 1 ISSUED 2023-07-26
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**FLAGLER BEACH
FISHING PIER REPLACEMENT**

MECHANICAL PLAN (2 OF 2)

Designed by: K. GADDONE	Date: 2023-05-10	M&N Project No. 190739	Drawing code:	Drawing Scale: 1"=20' (0 SHEET)
	Drawn by: HJP			
501 E. KENNEDY BLVD. SUITE 1910 TAMPA, FL 33602 813-258-5818		ENGINEER OF RECORD: NAME: BRIAN SHAW FL REGISTRATION NO. 84768		
moftatt & nichol				
PERMITTED BY: PEREZ, HERMES ; Saved: 4/28/2023 4:22 PM by: HPEREZ				

Sheet Reference No.
M-102
 INDEX: 24 OF 33



No.	Date	Description	Mark

**FLAGLER BEACH
FISHING PIER REPLACEMENT**

SECTION - PIER UTILITIES

Designed by: K. GADDONE	Date: 2023-05-10	MAN Project No. 190739
Dwn by: HJP	Drawn by: KG	Drawing code:
Reviewed by: G. PERDOMO	Submitted by: G. PERDOMO	Drawing Scale: 1" = 10 SHEET
Moffatt & Nichol		Plot scale: 4/28/2023 2:48 PM by HPEREZ

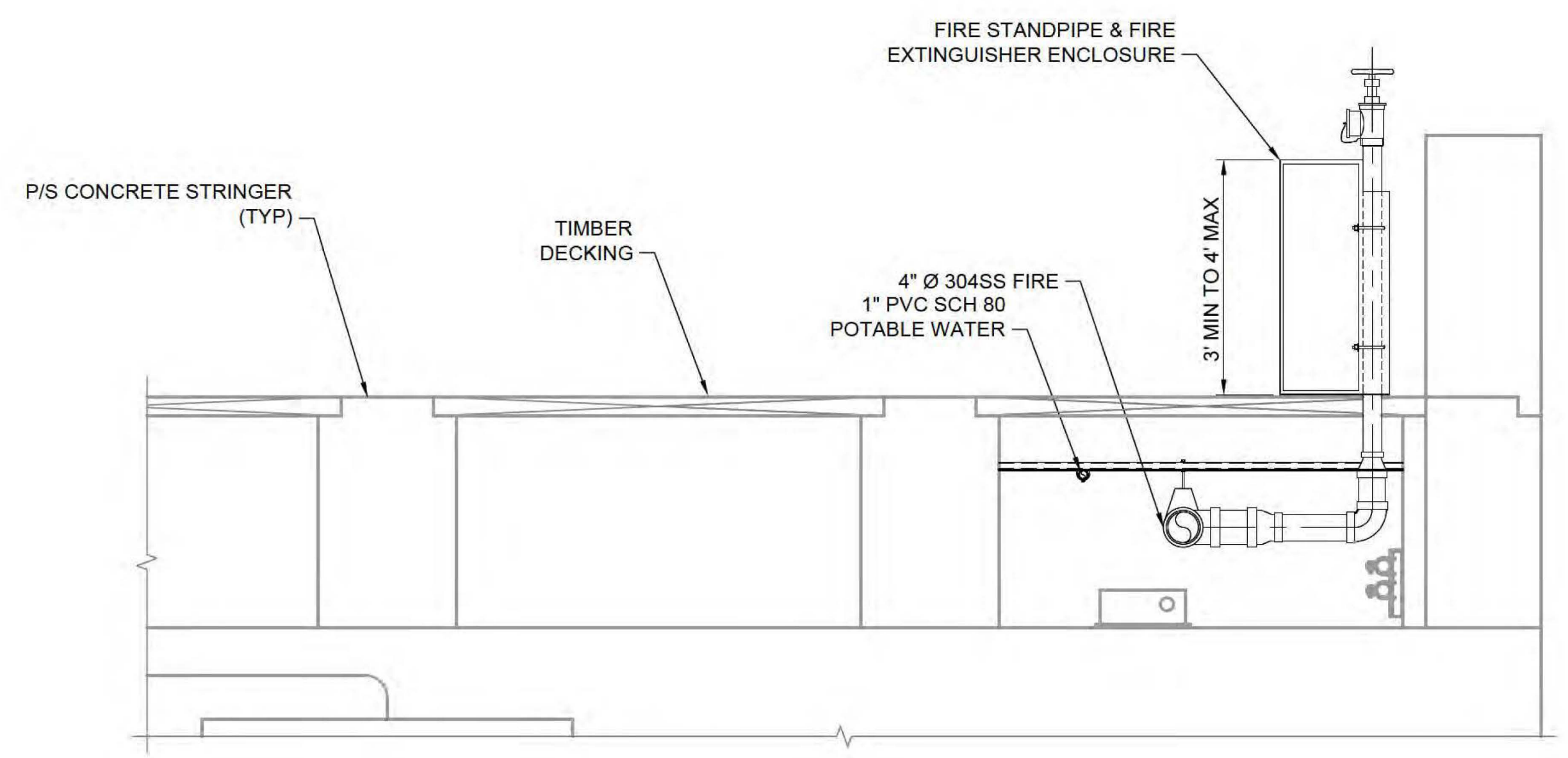
501 E. KENNEDY BLVD,
SUITE 1910
TAMPA, FL 33602
813-259-5818

moffatt & nichol

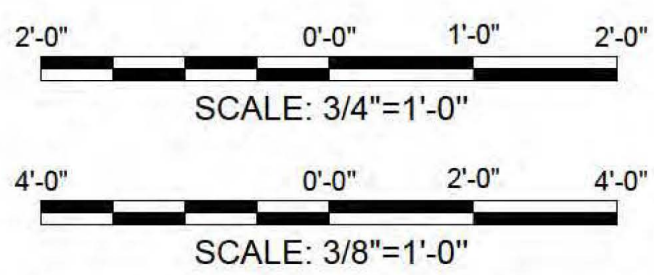
ENGINEER OF RECORD:
NAME: BRIAN SHAW
FL REGISTRATION NO. 84768

SEAL

Sheet Reference No.
M-301
INDEX: 25 OF 33



C1 SECTION - PIER UTILITIES
M-301 SCALE: 3/4"=1'-0"



REV 1 ISSUED 2023-07-26
PERMIT DRAWINGS
ISSUED: 2023-05-10
NOT TO BE USED FOR CONSTRUCTION

ELECTRICAL GENERAL NOTES

- UNLESS SPECIFICALLY NOTED TO BE EXISTING, ALL WORK AND MATERIAL SHOWN ARE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, EQUIPMENT, APPURTENANCES, SERVICES AND SUPERVISION FOR A COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE DRAWING. ALL MATERIAL AND EQUIPMENT SHALL BE WORKED INTO A COMPLETE, CONVENIENT, AND ECONOMICAL SYSTEM OR SYSTEMS. ALL APPARATUS, PARTS, MATERIAL, AND ACCESSORIES WHICH ARE NECESSARY TO ACCOMPLISH THIS RESULT SHALL BE PROVIDED AND SHALL INCLUDE OTHER EQUIPMENT SELECTIONS TO MEET THE PARAMETERS INDICATED. MANUFACTURER'S INSTRUCTIONS, WRITTEN OR OTHERWISE, SHALL BE FOLLOWED UNLESS SUPERSEDED HERE IN. ALL ITEMS SHOWN ARE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR UNLESS SPECIFICALLY INDICATED OTHERWISE. ALL ACCOMPLISHED RESULTS SHALL BE PROVIDED AT NO ADDITIONAL COST OR TIME TO THE OWNER AND NO ADDITIONAL COST TO THE CONTRACT AMOUNT INCLUDING ALL HARDWARE WIRING, AND MISCELLANEOUS ITEMS AS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
- PROVIDE IS DEFINED TO MEAN THAT THE CONTRACTOR SHALL FURNISH, INSTALL, ADJUST, TEST AND INTEGRATE INTO A COMPLETE SYSTEM THE ITEM INDICATED. INCLUDING ALL HARDWARE WIRING, AND MISCELLANEOUS ITEMS AS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
- THE CONTRACTOR SHALL CLOSELY STUDY THE CONSTRUCTION SEQUENCE AND NOTES AS OUTLINED. SLIGHT DEVIATIONS FROM CONFINED WORK SPACES MAY BE NECESSARY TO FULLY COMPLETE A CONSTRUCTION AREA AS OUTLINED ON THAT SHEET. THE DEVIATIONS SHALL BE HELD TO A MINIMUM AND SHALL BE FULLY COORDINATED WITH THE OWNER. ALL SUCH DEVIATIONS SHALL BE MADE WITH NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF/HERSELF WITH THE EXISTING CONDITIONS. DURING THE VISIT AND/OR DURING CONSTRUCTION, IF ANY CONFLICTS ARISE IN BETWEEN EXISTING CONDITIONS AND NEW WORK, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SKETCHES TO THE ENGINEER OF RECORD ON THE CORRECTIVE MEASURES OF THE CONFLICT PRIOR TO THE WORK BEING PERFORMED. THE ENGINEER SHALL PROVIDE RECOMMENDATIONS BACK TO THE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXECUTE THE SKETCHES WITH RECOMMENDATIONS, TO INCLUDE LABOR AND MATERIALS AT NO ADDITIONAL COST TIME TO THE OWNER AND NO ADDITIONAL COST TO THE CONTRACT AMOUNT.
- CONDUIT ROUTINGS SHALL NOT INTERFERE WITH NEW OR EXISTING EQUIPMENT, PIPING, CONDUIT OR WORK AND SHALL NOT OBSTRUCT ACCESS TO ANY EQUIPMENT.
- A SEPARATE EQUIPMENT GROUND CONDUCTOR SHALL BE INSTALLED WITH CIRCUITS. THE EQUIPMENT GROUND CONDUCTOR SHALL BE CONNECTED TO ALL DEVICES AND EQUIPMENT SUCH THAT REMOVAL OF ANY DEVICE OR EQUIPMENT CANNOT INTERRUPT THE CONTINUITY OF THE EQUIPMENT GROUNDING CONDUCTOR TO AND FROM OTHER DEVICES OR EQUIPMENT.
- THE CONTRACTOR SHALL VERIFY LOCATION, SIZE, AND LOAD OF ALL EQUIPMENT BEING FURNISHED BY THE OTHERS BEFORE ROUGHING IN OF ANY CONDUIT. WHERE LOCATIONS OF EQUIPMENT ARE INSTALLED OTHER THAN INDICATED OR EQUIPMENT OF HIGHER OR LOWER LOADS IS INSTALLED, THE SIZE OF STARTERS, CIRCUITRY, PROTECTIVE DEVICES, AND ACCESSORIES SHALL BE ADJUSTED ACCORDINGLY AT NO ADDITIONAL COST TO THE OWNER.
- WIRE AND CONDUIT FOR EQUIPMENT LOADS SHALL BE CONTINUOUS IN SIZE AND COUNT FROM THE SOURCE TO THE FINAL CONNECTION. SIZE AND COUNT SHALL BE AS INDICATED ON THE CIRCUIT HOMERUN, UNLESS OTHERWISE NOTED.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL POWER WIRING, CONDUIT, AND ASSOCIATED APPURTENANCE FOR EQUIPMENT PROVIDED BY OTHERS AND OTHER CONTRACTORS, UNLESS OTHERWISE NOTED.
- THE ELECTRICAL CONTRACTOR SHALL EXAMINE THE CONTRACT DOCUMENTS AS A WHOLE. THE ELECTRICAL CONTRACTOR SHALL PROVIDE STARTERS, CIRCUITRY, PROTECTIVE DEVICES, AND ASSOCIATED APPURTENANCES FOR ALL EQUIPMENT REQUIRING POWER THAT IS NOT INDICATED ON THE ELECTRICAL DRAWINGS BUT INDICATED IN THE CONTRACT DOCUMENTS. THIS WORK SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- PROVIDE SINGLE POINT GFCI RECEPTACLES. GFCI RECEPTACLES SHALL NOT BE WIRED FOR FEED THRU PROTECTION OF DOWNSTREAM RECEPTACLES.
- PROVIDE GFCI AND GFEP CIRCUIT BREAKERS WHERE INDICATED.
- PROVIDE SHUNT-TRIP CIRCUIT BREAKERS WHERE INDICATED.
- PROVIDE GFCI RECEPTACLES WITHIN 6 FEET OF WATER SOURCES AND THE LIKE. WHERE CONDITIONS DO NOT ALLOW THE INSTALLATION OF GFCI RECEPTACLES, PROVIDE GFCI CIRCUIT BREAKERS.
- PROVIDE TYPE WRITTEN DIRECTORIES IN PANELBOARDS COMPLETE WITH LOAD TYPE, AND LOCATIONS.
- MOUNTING HEIGHTS OF LIGHTING FIXTURES ARE AS SCHEDULED OR INDICATED ON DRAWINGS WHERE JOB CONDITIONS REQUIRE MOUNTING HEIGHTS DIFFERENT FROM THOSE SHOWN (SPECIFICALLY IN MECHANICAL ROOMS AND PLATFORM AREAS) TO AVOID PIPES, EQUIPMENT, STRUCTURAL FEATURES, DUCTWORK, OR OTHER SUCH CONDITIONS, SUCH AS CHANGE IN MOUNTING HEIGHT, SHALL BE DIRECTED OR REQUIRED WITHOUT ADDITIONAL COST TO THE OWNER.
- MOUNTING HEIGHTS SHALL BE TO THE CENTER OF THE DEVICE INDICATED, UNLESS OTHERWISE NOTED. MOUNTING HEIGHTS OF DEVICES SHALL BE INSTALLED PER THE DRAWINGS AND IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADA-AG).
- ELECTRICAL EQUIPMENT/DEVICES SHALL BE MOUNTED 18" MIN.ABOVE PIER DECK, UON.

- WHEREVER A NEW TO EXISTING CONNECTION IS REQUIRED, PROVIDE EXTENSION RINGS, SPLICES, WIRE, CONDUIT FITTINGS, AND ASSOCIATED APPURTENANCES. PERFORM ALL CUTTING AND PATCHING AS REQUIRED TO MAKE THE CONNECTIONS.
- PROVIDE A #12 (MIN.) COPPER TRACER WIRE WITH INSULATION THAT IS NOT WHITE, GRAY, OR GREEN IN COLOR IN ALL NEW SPARE CONDUITS. THE TRACER WIRE MAY ALSO SERVE AS THE PULL CORD.
- PAINT ALL SURFACE MOUNTED CONDUITS TO MATCH ADJACENT SURFACES, UNLESS OTHERWISE NOTED.
- THE TERM "CONDUIT" AS USED ON THIS PROJECT DOES NOT IMPLY A QUANTITY OF ONE SINGLE CONDUIT - IT COULD ALSO MEAN MORE THAN ONE CONDUIT. SEE PLANS FOR CONDUIT QUANTITIES.
- PROVIDE SCHEDULE 80 WHERE PVC CONDUIT IS PERMITTED AND EXPOSED, INCLUDING UNDER PIERS, RAMPS, AND DOCKS.

DEMOLITION

- DRAWINGS ARE BASED ON EXISTING PLANS AND NON-DESTRUCTIVE FIELD INVESTIGATIONS. THE CONTRACTOR SHALL VISIT THE EXISTING SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS. THE CONTRACTOR SHALL EXAMINE RELATED DRAWINGS TO AVOID CONFLICTS.
- PROVIDE ELECTRICAL DEMOLITION WORK AS INDICATED AND AS NECESSARY TO INSTALL NEW WORK. ELECTRICAL CONTRACTOR SHALL REROUTE AND RECONNECT ANY CIRCUITS THAT WILL REMAIN IN USE BUT INTERFERES WITH NEW CONSTRUCTION.
- MATERIAL BEING REMOVED UNDER DEMOLITION (AND NOT TO BE RELOCATED) SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED COMPLETELY FROM THE SITE, UON.
- CONTRACTOR SHALL EXERCISE CARE IN REMOVING DEMOLITION ITEMS AND SHALL REPAIR OR REPLACE AT THEIR COST ANY DAMAGE CAUSED TO EXISTING CONSTRUCTION AND EQUIPMENT TO REMAIN.
- CONTRACTOR SHALL REMOVE STARTERS, DISCONNECT SWITCHES AND ASSOCIATED WIRE AND CONDUIT FOR EQUIPMENT TO BE REMOVED OR RELOCATED BY OTHERS.
- EQUIPMENT AND DEVICES TO BE REMOVED AND NOT REINSTALLED SHALL HAVE ALL JUNCTION BOXES, WIRE, CONDUIT AND ASSOCIATED APPURTENANCES REMOVED BACK TO THE LAST LIVE JUNCTION BOX, PANELBOARD OR SOURCE.
- WHERE PANELBOARDS ARE REMOVED, REMOVE WIRE AND CONDUIT FOR ABANDONED CIRCUITS.

CCTV & AUDIO SYSTEM

- THE CCTV/AUDIO SYSTEM DRAWINGS DESCRIBE BASIS-OF-DESIGN ACCOMMODATIONS FOR AUDIO & VIDEO SYSTEMS INCLUDING BUT NOT LIMITED TO: POWER, DATA, RACEWAYS AND MOUNTING REQUIREMENTS.
- THE CCTV & AUDIO SYSTEMS SHOWN IN THE DRAWINGS WILL BE PROVIDED AND INSTALLED BY A CCTV/AUDIO SYSTEMS TRADE CONTRACTOR SPECIALIZING IN THESE SYSTEMS. IT IS THE RESPONSIBILITY OF THE CCTV/AUDIO SYSTEMS CONTRACTOR TO COORDINATE THE INSTALLATION WORK WITH ALL OTHER TRADES WORKING ON THIS PROJECT.
- VERIFY ALL CONDUIT & RACEWAY PATHS.
- VERIFY ALL DEVICE LOCATIONS WITH OWNER.
- IF ADDITIONAL EQUIPMENT IS REQUIRED FOR A COMPLETE SYSTEM, NOTIFY OWNER/ENGINEER OF COST IMPLICATIONS AND GET APPROVAL BEFORE PROCEEDING.

GROUNDING

- ALL GROUND RODS SURROUNDING FPL TRANSFORMERS SHALL BE 3/4"x20' COPPER CLAD STEEL.
- GROUND RODS IN OTHER AREAS SHALL BE 3/4"x10'.
- WHERE MORE THAN ONE ROD SERVES ANY ITEM OF EQUIPMENT PROVIDE AN INSPECTION BOX ON ONE ROD FOR EACH ITEM OF EQUIPMENT.
- PROVIDE EXOTHERMIC WELDS OR BURNDY HYGROUND COMPRESSIONS CONNECTORS FOR ALL GROUND ROD CONNECTIONS.

DESIGN FLOOD ELEVATION

- BASE FLOOD ELEVATION (BFE) IS DETERMINED BY FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) NATIONAL FLOOD INSURANCE PROGRAM AND AMERICAN SOCIETY OF ENGINEERS (ASCE) 24-14.
- THE BFE IS SET TO 11.00' (NAVD). BFE BASED UPON FEMA NATIONAL FLOOD INSURANCE MAP: JUNE 2018 - AP #12035C0232E.
- THE DESIGN FLOOD ELEVATION (DFE) IS SET TO +22.50' (NAVD) PER ASCE 24-14 , WHICH EXCEEDS THE REQUIREMENTS FOR FLOOD DESIGN CLASS 3.
- CONTRACTOR SHALL KEEP ALL ELECTRICAL EQUIPMENT AT OR ABOVE THE DESIGN FLOOD ELEVATION (DFE).



Mark	Description	Date	Appr.

**FLAGLER BEACH
FISHING PIER REPLACEMENT**

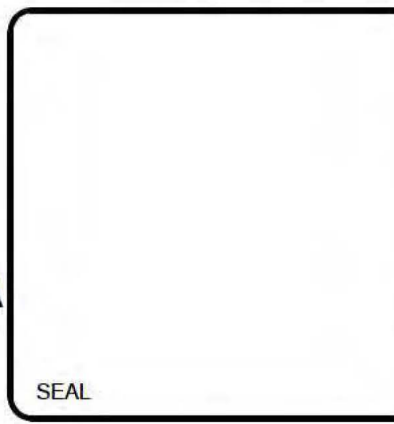
ELECTRICAL NOTES

Designed by: DSGN	Date: 2023-05-10	Rev.
Dwn by: DRFT	MAN Project No. 190739	
Chd by: CHKR	Drawing code:	
Reviewed by: G. PERDOMO	Drawing Scale: 1:1 (0 SHEET)	
Submitted by: G. PERDOMO	Plot scale:	
MOFFATT & NICHOL		

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PERMIT DRAWINGS
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File: Q:\1\190739\20 CADD\ Active\ Pier replacement - permit\190739-E-001 - Plot.dwg : 7/26/2023 3:58 PM by PEREZ, HERMES : Saved: 7/26/2023 3:03 PM by HPEREZ

ABBREVIATIONS

ALL ABBREVIATIONS ARE NOT NECESSARILY USED

1P	SINGLE POLE, OR AS INDICATED	KCMIL	THOUSAND CIRCULAR MILS
2P	TWO POLE, OR AS INDICATED	KWH	KILOWATT HOUR
3P	THREE POLE, OR AS INDICATED	KV	KILOVOLT
A	AMPERES	KVA	KILOVOLT AMPERE
AC	ALTERNATING CURRENT	KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	LC	LANDSIDE CONTRACTOR
AIC	AMPERES INTERRUPTING CAPACITY	LTG	LIGHTING
AM	AMPERAGE METER/AMMETER	mA	MILLIAMP
AWG	AMERICAN WIRE GAGE	MCB/MB	MAIN CIRCUIT BREAKER
C, CND	CONDUIT	MECH	MECHANICAL
CATV	CABLE TELEVISION	MLO	MAIN LUG ONLY
CB	CIRCUIT BREAKER	N/A	NOT APPLICABLE (N/A)
CIP	CAST IN PLACE	NEUT	NEUTRAL WIRE
CKT	CIRCUIT	NEC	NATIONAL ELECTRICAL CODE
CO	CONDUIT ONLY	NIC	NOT IN CONTRACT
COMM	COMMUNICATIONS	NTS	NOT TO SCALE
CONC	CONCRETE	OC	ON CENTER
CT	CURRENT TRANSFORMER	P	POLE
DC	DIRECT CURRENT	PB	PULL BOX
DIA	DIAMETER	PC	PHOTOCELL
DWG	DRAWING	PHØ	PHASE
EC	EMPTY CONDUIT	PNL, PNBD	PANEL, PANELBOARD
EL, ELEV	ELEVATION	PVC	POLYVINYL CHLORIDE
ELEC	ELECTRIC/ELECTRICAL	PVMT	PAVEMENT
EX, EXIST	EXISTING	RECEPT	RECEPTACLE
FHC	FIRE HOSE CABINET	SC	SHORT CIRCUIT
FO	FIBER OPTIC	SCH	SCHEDULE
FVNR	FULL VOLTAGE NON-REVERSING	SPD	SURGE PROTECTION DEVICE
FVR	FULL VOLTAGE REVERSING	SS	STAINLESS STEEL
G, GND	GROUND	ST	SHUNT TRIP
GF	GROUND FAULT	SWBD	SWITCHBOARD
GFEP	GROUND FAULT EQUIPMENT PROTECTION	TBD	TO BE DETERMINED
GFI, GFCI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
GFP	GROUND FAULT PROTECTION	UL	UNDERWRITERS LABORATORIES
HOA	HAND OFF AUTO SELECTOR SWITCH	UON	UNLESS OTHERWISE NOTED
HP	HORSE POWER	V	VOLT
HTR	HEATER	VIF	VERIFY IN FIELD
Hz	HERTZ, CYCLES PER SECOND	VERT	VERTICAL
INST	INSTRUMENT, INSTRUMENTATION	W	WATT
IT	INFORMATION TECHNOLOGY	WP	WEATHER PROOF
JBOX	JUNCTION BOX	XFMR	TRANSFORMER

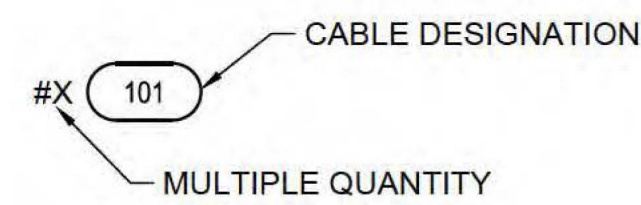
ELECTRICAL LEGEND

ALL SYMBOLS ARE NOT NECESSARILY USED

	E	ELECTRICAL CONDUIT		ELECTRICAL DEMOLITION
	E	EXISTING ELECTRICAL CONDUIT		GROUND WIRE
	UE	UNDERGROUND ELECTRICAL CONDUIT		EXOTHERMIC CONNECTION
	UE	EXISTING UNDERGROUND ELECTRICAL CONDUIT		GROUND ROD
	UC	UNDERGROUND COMMUNICATION CONDUIT (COMM)		PULL BOX OR HANDHOLE AS NOTED
	C	COMMUNICATION CONDUIT		DEMOLITION LIMITS
	M	METER		EQUIPMENT AS NOTED
		CURRENT TRANSFORMER		NEW TO EXISTING CONNECTION
		SURGE PROTECTION DEVICE		KEY NOTE SYMBOL
		MOTOR/PUMP (# INDICATES HP)		LIMITS OF DEMOLITION
		GFCI DUPLEX RECEPTACLE, IN-USE WEATHERPROOF ENCLOSURE AS NOTED		GROUND ELECTRODE
		PANELBOARD, AS IDENTIFIED		METER ENCLOSURE
		GROUND FAULT PROTECTION RELAY, SHUNT TRIP CIRCUIT BREAKERS IN PEDESTALS CONTROLLED BY GROUND FAULT PROTECTION RELAY		CONDUIT STUB-OUT OR STUB-UP AND CAP, AS NOTED
		PIER LIGHTING SWITCH		MARINE SUBSTATION
		LIGHT FIXTURE TAG SYMBOL; LETTER CORRESPONDS TO LIGHT FIXTURE SCHEDULE, SEE E-601		CIRCUIT BREAKER
				CCTV DIGITAL RECORDER
				CCTV CAMERA IN ENVIRONMENTAL ENCLOSURE (F - FIXED, PTZ = PAN-TILT-ZOOM)
				AUDIO SPEAKER

CABLE NUMBER CALLOUT

- DESIGNATION FOR CABLE NUMBERS ARE TO DEFINE CABLE AND CONDUIT SIZE OF CIRCUIT.
- REFER TO CABLE SCHEDULES TO DEFINE TERMINATION POINTS, CONDUIT, AND WIRE SIZE OF ALL CABLE NUMBERS.
- REFER TO PANEL SCHEDULES FOR ADDITIONAL CLARIFICATION OF CABLE SCHEDULE TERMINATION POINTS.



Rev.	Date	Description

**FLAGLER BEACH
FISHING PIER REPLACEMENT**

**ELECTRICAL LEGEND &
ABBREVIATIONS**

Designed by: DSGN	Date: 2023-05-10	MAN Project No. 190739	Rev.
Dwn by: DRFT	Chk by: CHKR	Drawing code:	
Reviewed by: G. PERDOMO	Submitted by: G. PERDOMO	Drawing Scale: 1:1 (0 SHEET)	
501 E. KENNEDY BLVD. SUITE 1910 TAMPA, FL 33602 813-258-8818		moffatt & nichol	
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SEAL

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