

# **#4 BRIDGE FISHING PIER CEDAR KEY, FLORIDA**

## **INSPECTION REPORT**



Prepared for:  
**Locklear & Associates, Inc.**  
210 SW 4<sup>th</sup> Avenue  
Gainesville, Florida 32601

July 23, 2025  
CEC File No. 25.907



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ATTACHMENTS

- Attachment 1 – Renovation Specifications and Record Drawing
- Attachment 2 – Inspection Exhibit

## 1. INTRODUCTION

The #4 Bridge Fishing Pier is located at 11311 Southwest 153<sup>rd</sup> Court, Cedar Key, in Levy County Florida. Situated at the north end of Havens Island, east of State Road 24 the County-owned facility includes a fishing pier and a single-lane boat ramp with two boarding piers. See Figure 1 Project Location.

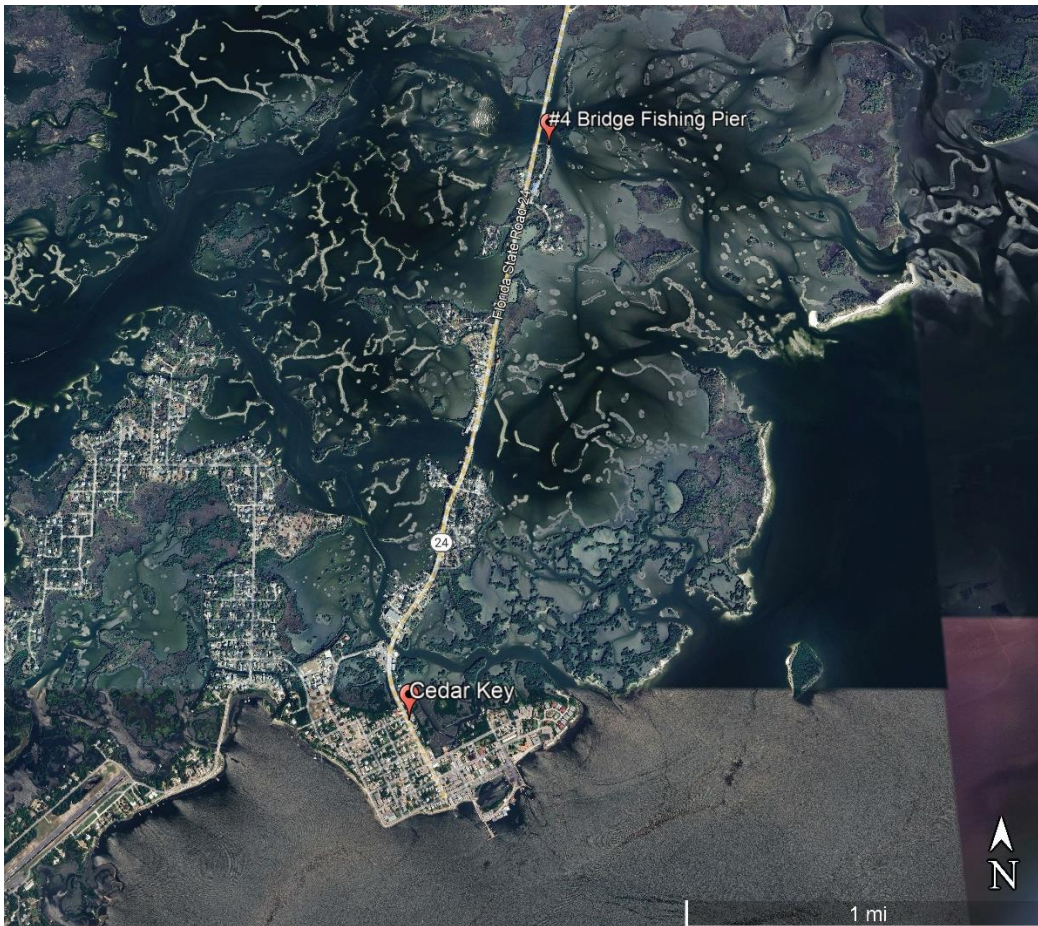


Figure 1. Project Location (Google Earth Image January 2025)

In September 2024, Hurricane Helene made landfall as a category 4 hurricane in the Big Bend region of Florida, approximately 10 miles southwest of Perry. According to the National Hurricane Center Tropical Cyclone Report for Hurricane Helene, the storm was the strongest landfalling hurricane to strike the region since reliable recordkeeping began around 1900. Approximately 70 miles southeast of the landfall location, Cedar Key saw devastating storm surge, sustained winds up to 65 mph and significant rainfall. A water level of 9.30 feet above mean higher high water (10.84 feet NAVD88) was recorded by the National Ocean Service (NOS) tide gauge at Cedar Key. This measurement is the highest recorded water level since the station started reporting in 1914. The area surrounding Cedar Key experienced a storm surge inundation of 8 to 12 feet above ground level.

Following the storm, County staff closed the fishing pier for safety concerns from storm damage. In May 2025, Locklear & Associates, Inc. (Locklear) tasked Coastal Engineering Consultants, Inc. (CEC) to inspect the fishing pier for safety, assess the structural integrity, and develop repair/replacement recommendations. The inspection did not include an evaluation for compliance with the Americans with Disabilities Act (ADA).

## **2. INSPECTION PROCEDURES**

CEC performed an inspection of the fishing pier on June 17 and 18, 2025. The inspection team consisted of two professional engineers and an engineering intern. While on-site CEC met with representatives from the County and Locklear to discuss the condition of the fishing pier.

All accessible elements were visually and/or tacitly inspected above and below the water with sufficient detail to detect obvious major damage or deterioration, overstress, severe corrosion or extensive biological impacts. When necessary, marine growth was removed from structural elements for a more thorough assessment. No destructive testing was performed. Observed conditions were documented and photographed.

## **3. STRUCTURE HISTORY**

Because of the limited availability of historic records and documentation on the pier, aerial photographs were reviewed. The following is a summary:

- Historic aerials first depict the structure in 1944. At this time the structure was a vehicular bridge connecting the mainland to Havens Island. A railroad trestle was visible, west of the vehicular bridge and within the alignment of the modern-day State Road 24 bridge. It is important to note that the railway serviced Cedar Key from 1861 to 1932. As such, it is reasonable to believe the vehicular bridge existed for a period prior to the railway suspending operations to Cedar Key.
- The 1974 aerial depicts construction had commenced on the modern-day State Road 24 bridge within the historic railroad trestle alignment.
- By 1979 construction of the modern-day State Road 24 bridge was complete. The northern half of the historic vehicular bridge was removed, and the structure converted to a pier approximately 260 feet in length.
- Between 1983 and 1989, the pier was shortened by removing approximately 50 feet from the seaward end. The reason for shorting the pier is unknown, however it is worth noting Hurricane Elena battered Cedar Key in 1985. Storm surge was reportedly 8 to 9 feet. It is plausible that the pier sustained damage, and the seaward section was removed.

- The 2006 aerial depicts a new asphalt overlay across the pier surface and upland parking area. These observations are consistent with records from the County's last renovation project conducted between 2005 and 2006. The project scope included replacing existing damaged piles, repairing or replacing damaged pile caps, stringers, handrails and other members as necessary to return the structure to a safe usable condition. The exact extent of the repair/replacement work is not known. Renovation Specifications dated November 14, 2005, and a Record Drawing dated August 30, 2007, are included in Attachment 1 for reference.

#### 4. DESCRIPTION

Previously a timber vehicular bridge, the fishing pier is approximately 210 feet long and 21 feet wide. Attachment 2 includes the Inspection Exhibit depicting bent numbering and pile labeling in plan view and a typical cross section.

Sixty 12-inch diameter timber piles arranged in 15 pile bents support the structure. Outboard piles are generally battered. Piles in Bents 1 and 2 are treated with creosote preservative. Piles in Bents 3 through 15 are treated with a chromated copper arsenate (CCA) preservative. No branding stamps were identified to confirm the age of the piles.

Typical pile bents are constructed of four 12-inch diameter timber piles with a 12-inch square x 22.5-foot-long timber pile cap and spaced 15 feet on centers. Galvanized drift pins anchor the pile caps to the piles. Eleven 6 x 12 stringers span from bent to bent. Stringers overlap at each bent and are secured together with galvanized pins. Stringers are toe nailed to the pile cap and secured with galvanized drift pins. Original pile caps and stringers are treated with creosote preservative. Replaced members are treated with CCA preservative.

Decking primarily consists of 2 x 4 creosote treated timber lumber oriented horizontally and installed tightly without gaps. Galvanized lag bolts secure the decking to the stringers. The deck is topped with a 3-inch-thick asphalt overlay.

The railing consists of three horizontal 2 x 6 timber rails and one 2 x 6 synthetic top rail supported by 4 x 6 timber stanchions. Stanchions are spaced every 5 feet and secured to the stringers and pile caps with galvanized through bolts. Four-foot sections of top rail are lowered to allow ADA accessibility every 15 feet. Rails are fastened to the stanchions with a combination of galvanized through bolts and screws.

The timber backwall at Bent 1 is constructed with multiple layers of horizontal timbers of varying sizes. Below the pier the backwall is supported laterally by the piles within Bent 1. East of the pier the backwall is supported laterally by two freestanding 8-inch diameter timber piles and by the piles supporting the boarding pier.

## 5. OBSERVED INSPECTED CONDITIONS

The fishing pier was inspected between June 17 and 18, 2025. General observations are summarized below. Representative photos are included as part of this report. This report documents the conditions of the structure at the time of inspection.

### *Piles*

- Bents 1 and 2 were the original creosote treated piles and exhibited significant fungal decay. Marine borer attack caused up to 90 percent loss of section.
- Bents 3 through 15 were replaced in 2006. Piles exhibited minor fungal decay and sounded punky when struck with an inspection hammer indicating internal decay. No loss of section was observed. Multiple piles were shimmed below pile cap.
- Bent 6 had five piles.
- An additional pile was installed north of Pile 8D and was cut off approximately 18 inches above the mean high-water line.
- Pile 14C was not installed directly under the pile cap. Additional blocking was secured to the pile top to support the pile cap.
- Pile wrap was not installed on any piles.

### *Pile Caps*

- All pile caps appeared to be original.
- Pile caps exhibited varying levels of fungal decay.
- Multiple pile caps exhibited signs of advanced fungal decay including softening and deterioration of the timber as observed by interior voids and loss of section.

### *Stringers*

- Stringers exhibited varying levels of fungal decay.
- Multiple stringers exhibited signs of advanced fungal decay including softening and deterioration of the timber as observed by interior voids and loss of section.
- Additional stringers were installed to “sister” original stringers.
- Sistered stringers were typically not properly installed to bear on pile cap and support the decking above.

### *Cross Bracing*

- Bents 5, 8, 11, and 14 had one 4 x 12 creosote cross brace per side.
- Cross bracing extended across the three outboard piles. Member was secured to each pile with one galvanized through bolt.
- Timber appeared to be salvaged.
- Marine borer attack present on timber extending below the mean low water line.
- Galvanized through bolts exhibited moderate corrosion.

### *Decking*

- Timber decking appeared to be original and exhibited varying levels of fungal decay.

- At Bents 3 through 5, original timber decking had been removed during pile replacement process and salvaged 4 x 12 timbers installed.
- At Bents 6 through 15, original timber decking had been removed during the pile replacement process and new 4 x 12 timbers installed.
- Several areas of timber decking exhibited signs of advanced fungal decay including softening and deterioration of the timber as observed by interior voids and loss of section resulting in failure of timber and unsupported asphalt.
- Asphalt overlay failed in two areas between Bents 1 and 3. Voids in asphalt measure up to 24 inches by 24 inches.
- Numerous transverse cracks in asphalt overlay. Cracks open up to 1/8-inch wide.
- Elevation of asphalt overlay varies as much as 0.6-foot transversely and 1-foot longitudinally.

### *Railing*

- Horizontal rails exhibited weathering with small to moderate checks. Timber was often not straight or flush with stanchions due to warping.
- Several horizontal rails were missing or not secured properly.
- Many galvanized through bolts missing and subsequently replaced with screws. Remaining galvanized through bolts exhibited moderate to severe corrosion.
- Synthetic top rail was weathered. Synthetic material was degraded and soft.
- Sixteen stanchions were supported by an additional angle bracket securing the stanchion to the timber deck. Brackets varied in size and material.

### *Backwall*

- Backwall constructed of varying sized timber.
- Timber in backwall exhibited varying levels of fungal decay.
- Multiple members exhibited signs of advanced fungal decay including softening and deterioration of the timber as observed by interior voids and loss of section.
- Additional layers of timber were installed immediately behind Bent 1 to address the deterioration of the outboard members.
- Cracking of asphalt landward of Bent 1 indicative of subsidence due to loss of material from behind the backwall.
- Eastern section of backwall does not extend to mudline leaving a gap of approximately 6 inches.

### *Utilities*

- Three conduits extended from the uplands along the western side of the pier to a pump enclosure at Bent 7.
- Two 4.5-inch diameter conduit and one 2-inch diameter conduit (labeled with “220 Volts”) were secured to outboard side of rail.

### *Fire Suppression*

- No fire suppression was observed on the pier or on the upland.

## 6. STRUCTURAL CONDITION ASSESSMENT

The structure was found to be in poor condition. Aerial photography indicates the structure is over 90 years old. Originally designed as a vehicular bridge, the structure has adequately handled pedestrian loads for the last 50 years as a fishing pier. Nearly a century of exposure in the harsh marine environment has resulted in significant deterioration.

Most of the timber used to construct the pier is original and treated with a creosote preservative. Creosote was used to protect against termites, fungi and other pests that cause decay. First used in the 1830's, creosote was widely used through the mid-1900's but slowly phased out in the 1970's and 1980's over concerns of environmental impacts and health issues. Marine borer attack on the original piles, and fungal decay observed on the pile caps, stringers and timber decking indicates the preservative protecting the timber piles is no longer performing effectively.

Timber replaced during the 2006 renovation is treated with a CCA preservative. CCA preservative is used to protect timber against insects and fungal decay and is more environmentally safe than creosote. While no significant marine borer attack was observed on the nearly 20-year-old timber CCA treated piles, fungal decay was present. Wrapping the piles with polyethylene sheeting, from above the waterline to below the mudline, will eliminate borer attack, however it will not deter fungal decay above water.

Regardless of the preservative used, prolonged exposure to moisture and the marine environment has resulted in significant decay of the timber. Fastener penetrations have allowed moisture to penetrate the untreated heartwood leading to fungal decay. Further, extensive cracking of the asphalt overlay allows moisture to access the timber members below. The asphalt overlay traps moisture against the timber and limits evaporation, exacerbating the rate of decay. This is evidenced by failure of the timber deck in multiple areas. The underside of the decking may appear intact however the decay is present in the heartwood of the timber. Moisture trapped between the asphalt and decking accelerates the deterioration and may not be apparent from the structure underside.

Varying levels of fungal decay are evident on nearly all the timber members. Deterioration of the timber is expected to accelerate exponentially.

Hurricane Helene undoubtedly damaged the structure, however there is insufficient data to assign damages from this storm versus previous storm events and general deterioration.

## 7. RECOMMENDATIONS

While repairing the structure may be feasible, it is not recommended because of the widespread timber deterioration. Any repair will be costly and temporary in nature. The labor and material cost to treat the deteriorating timber with a preservative or fungicide would provide minimal extension of the service life and is not economically practical.

Alternatively, the superstructure could be removed and replaced utilizing the piles installed in 2006. Using the existing piles is not practical nor recommended. The labor cost to precisely remove the superstructure without damaging the existing piles would likely approach or exceed the cost for complete demolition. This alternative utilizes 20-year old piles already experiencing fungal decay and that would require repair/replacement in the near future.

Full replacement of the fishing pier is recommended. The public should be precluded from accessing the fishing pier until the replacement is completed. Consideration should be given to the following items as it relates to replacing the structure:

- Typical back bay fishing pier deck widths vary between 6 and 12 feet. Reducing the deck width from the existing 21 feet would provide cost savings while remaining functional for public use.
- Decking on timber pier structures typically utilize pressure treated or synthetic boards. The asphalt overlay is not necessary and even if properly maintained may increase moisture retention in the underlying timber. No overlay would reduce the moisture retention by improving air circulation and evaporation.
- If the desired replacement structure design increases the structure footprint or piling count, additional permitting may be required in lieu of the previously obtained Emergency Permits.
- Permitting should be initiated prior to the demolition of the pier. If the County seeks to demolish the structure prior to permitting a replacement, discussions should be held with FDEP and USACE staff to determine potential implications to the permitting process.
- Replacing the timber backwall with vinyl sheet piles will greatly reduce maintenance issues associated with the asphalt approach subsiding and erosion/scour of the exposed shoreline.

For budgeting purposes an order of magnitude construction budget for replacement is \$930,000. The budget assumes the proposed fishing pier is timber construction, 210 feet long and 10 feet wide, and utilizes an 8-foot pile bent spacing, synthetic decking, and conventional railing. The budget is inclusive of contractor mobilization/demobilization, demolition and removal of the existing fishing pier, repairs to the backwall, environmental protection measures, and a 20 percent contingency.

CEC understands the importance of the fishing pier to the Cedar Key community and County and the difficulty associated with funding a project of this magnitude. As such, we recommend that the County consider State and Federal competitive grant processes as it relates to securing funding for the project. CEC has successfully assisted multiple municipalities apply for and receive grant funding to cover design, permitting and/or construction costs. Fishing piers are eligible for funding under FWC's Florida Boating Improvement Program (FBIP). It is recommended the County confirm eligibility and requirements with the FBIP Program Administrator. If needed, we offer our services to assist with the applications and administration of appropriate grant(s) for the #4 Bridge Fishing Pier replacement.

We appreciate the opportunity to be of service. If you have any questions, please do not hesitate to call me at (239) 643-2324.

Please let us know if you have any questions.

Sincerely,  
COASTAL ENGINEERING CONSULTANTS, INC

A handwritten signature in black ink, appearing to read 'Grady Timmins', written in a cursive style.

Grady Timmins, P.E.  
Managing Engineer

## 8. INSPECTION PHOTOGRAPHS



**Photo 1:** View looking north at asphalt approach of fishing pier. Pier closed.



**Photo 2:** View looking north. Note transverse cracks in asphalt overlay and lowered rail sections.



**Photo 3:** View looking east. Note transverse cracks in asphalt overlay and lowered rail sections.



**Photo 4:** Failed timber deck and asphalt overlay. Note steel bracket supporting stanchion at bottom right.



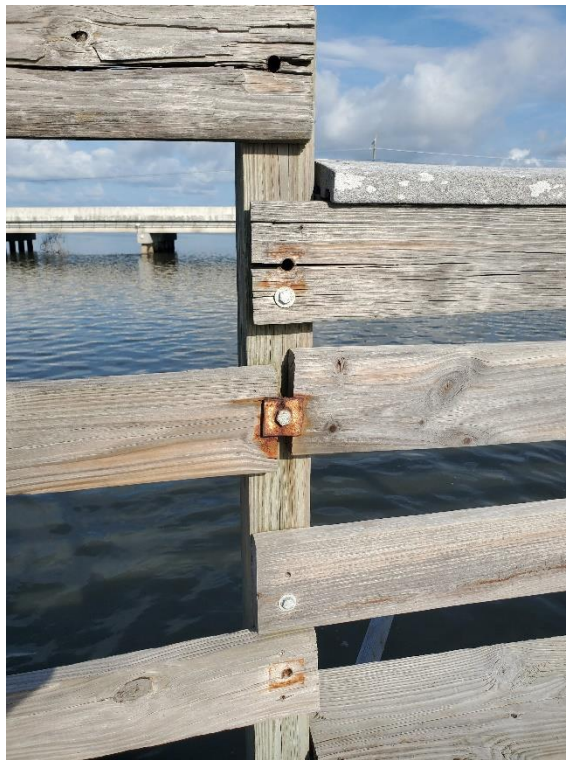
**Photo 5:** Deteriorated timber deck and failed asphalt overlay. Note void in center of 6x12 stinger (right). Moisture accessed interior heartwood through fasteners securing timber decking to stinger.



**Photo 6:** Deteriorated timber deck and failed asphalt overlay.



**Photo 7:** Typical conditions of railing timber and fasteners. Note checks and corroding fasteners.



**Photo 8:** Typical conditions of railing timber and fasteners. Note checks and abandoned fastener holes in timber rails along with mix-matched and corroding fasteners.



**Photo 9:** Three conduit secured to outboard side of western rail. Gray conduit on right labeled as “220 Volts”.



**Photo 10:** Pump enclosure at Bent 7 where conduits terminate.



**Photo 11:** Bent 10. Original timber decking removed and replaced with four CCA treated 4 x 12 members when piles were replaced. Note transverse cracks in asphalt overlay.



**Photo 12:** Bent 14. View comparing original 2 x 4 timber decking and CCA treated 4 x 12 members. Note large void in stringer from fungal decay.



**Photo 13:** Typical CCA treated pile. Note pile not fully engaged with pile cap and large void in end of stringer (upper right). See below images.



**Photo 14 (L) and 15 (R):** Void at end of stringer resulting from deterioration accommodating 10-inch inspection hammer handle.



**Photo 16:** Original 2 x 4 timber decking exhibiting significant checks and shakes. CCA treated 4 x 12 exhibiting significant void due to fungal decay. Note longitudinal check in face of stringer.



**Photo 17:** Underside of pile caps typically had dark circular stain indicative of creosote from original pile suggesting that the pile cap is original.



**Photo 18:** Timber decking deteriorated exposing asphalt overlay.



**Photo 19:** Timber decking failed due to deterioration.



**Photo 20:** Bent 15. Internal voids within pile cap resulting from fungal decay.



**Photo 21:** Significant void within stringer resulting from fungal decay.



**Photo 22:** Pile 2C exhibiting significant loss of section due to marine borer attack. Pile is original.



**Photo 23 (L) and 24 (R):** Pile 1A exhibiting significant loss of section. Inside of pile is completely deteriorated resulting in a 10-inch diameter void. Pile is original.



**Photo 25:** View looking east at backwall. Note multiple layers of timber and the outboard timber exhibiting loss of section caused by marine borer attack.



**Photo 26:** View looking west at backwall. Note multiple layers of timber and the outboard timber exhibiting loss of section caused by marine borer attack.



**Photo 27:** Timber along eastern side of backwall does not extend to mudline resulting in loss of backfill.



**Photo 28:** Timber along eastern side of backwall does not extend to mudline resulting in loss of backfill. Note boarding pier piles provide lateral support to backwall timber.

**ATTACHMENT 1**

**Renovation Specifications and Record Drawing**

**NUMBER 4 CHANNEL  
FISHING PIER RENOVATION  
Cedar Key, Levy County, Florida**

Prepared for:

Levy County Board of County Commissioners  
P.O. Drawer 310  
Bronson, FL 32621  
(352) 486-5218

Prepared by:

Mills Engineering Company  
P.O. Box 778  
Bronson, FL 32621  
(352) 486-2872  
EB/LB 2583

  
Philip E. Chancey, P.E.  
Florida Cert. No. 39424

11-14-05

Date

# NUMBER 4 CHANNEL FISHING PIER

## RENOVATION SPECIFICATIONS

### Scope of Work:

The Number 4 channel fishing pier has been closed to use due to deterioration of the piles which support the structure. The Scope of this project includes replacing the existing damaged piles, repairing or replacing damaged pile caps, stringers, handrails and other members as necessary to return the structure to a safe usable condition. The method of performing the work is at the discretion of the Contractor. The following specifications relate to materials and standards of construction. Alternate materials and standards may be submitted to the Owner for review and possible approval.

### General Specifications:

Unless otherwise indicated all construction shall be in conformance with the Florida Department of Transportation "Standard Specifications for Road and Bridge Construction" 2004 or latest edition as modified by the Contract Special Provisions.

### Timber Piles:

Timber piles shall be Southern Yellow Pine peeled and treated. Minimum length shall be 30' with a minimum butt diameter of 12".

Pile treatment shall be with CCA and shall be in accordance with AWPA Standards. Minimum retention of treating agent shall be 2.5# per cubic foot of timber.

Piles shall conform to the following Reference Standards:

American Society for Testing of Materials (ASTM)

ASTM D25 Specification for round timber piles

American Wood Preservers Association (AWPA)

AWPA C3. Piles - Preservative Treatment by Pressure Processes

AWPA C18. Standard for Pressure treated Material in Marine Construction

AWPA M4. Standard for the Care of Preservative Treated Wood Products

#### Equipment Review-

The Contractor shall provide a list of the methods and equipment proposed for use in driving the piles. The Engineer will review the submittal and determine if the proposed methods and equipment are approved for the installation. However, the adequacy of the equipment, accessories and methods of pursuing the work shall remain the responsibility of the Contractor. In the event that the Contractor is not able to perform the work in a timely, acceptable manner he shall, at his own expense, replace the equipment in use with alternate driving equipment which will yield acceptable results.

#### Site Conditions-

The project site is within public right of way adjacent to a frequently used boat ramp. The Contractor shall make every reasonable effort to accommodate access and use of the ramp by the public during construction.

#### **TELEPHONE CABLES, WATER LINES AND OTHER UTILITIES MAY EXIST WITHIN THE CONSTRUCTION SITE.**

The Contractor shall be responsible for ascertaining the location of all existing utilities prior to commencing construction. The Contractor may propose alternate construction techniques if the danger of damaging existing utilities is deemed unacceptable. Damage to existing utilities shall be repaired at the contractors expense as soon as possible following discovery of the damage.

#### Pile Installation-

Piles may be driven by the methods described as acceptable in Section 455 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2004 or latest edition. The use of water jets will not be permitted for this project.

#### Installation Tolerances-

Deviation from plumb and angle of batter: 1/4 inch per foot of length, but not to exceed 3 inches overall.

Piles not meeting ASTM D25 requirements will be rejected. Remove such piles from the site and replace with sound piles. Piles broken under driving stresses shall be extracted and removed from the site. Timber piles damaged by driving shall be removed from the site and disposed of in a manner consistent with applicable environmental regulations.

### Drive Shoes-

Drive shoes will be required on all timber piles. The tip of the pile shall be properly shaped to fit the shoe which shall be secured to the pile in accordance with the shoe manufacturers recommendations.

### Minimum Penetration-

Piles are to be driven to practical refusal or to the greatest depth possible consistent with their overall length and required top elevation. Minimum penetration for all piles shall be 15 feet. Practical Refusal is defined as requiring 20 blows per inch of penetration.

### Construction timber:

Pile caps and Stringers shall be Southern Yellow Pine of the nominal size described on the plans. Preservative treatment shall be CCA in accordance with AWWA Standards with a minimum retention of 2.5# preservative per cubic foot of finished material.

Decking, rail stanchions, toe rails, mid-rails and top rails shall be Southern Yellow Pine of the nominal size described on the plans. Preservative treatment shall be CCA in accordance with AWWA Standards with a minimum retention of 0.4# preservative per cubic foot of finished material.

Cap rails shall be Trex Composite recycled plastic lumber product as manufactured by Trex Company, Inc., or approved equivalent material.

### Fasteners:

All bolts shall be of the diameter shown in the plans and of sufficient length to provide for assembly. All bolted timber connections shall be in conformance with Section 470 of the Florida Department of Transportation "Standard Specifications for Road and Bridge Construction" 2004 or latest edition.

All 1/2" bolts shall be Joslyn J87 series hot dipped galvanized or approved equal. All 5/8" bolts shown on the drawings shall be Joslyn J88 series hot dipped galvanized or approved equal. All 1/2" and 5/8" fasteners shall be equipped with appropriately sized hot dipped galvanized cast flat washers (Joslyn Catalog No. P56 or approved equal) on both ends.

Upon completion of the installation, check all nuts for tightness.

**Handicapped Accessibility:**

The completed pier shall conform to the handicapped accessibility standards presented in the United States Access Board "accessible fishing piers and platforms" summary of accessibility guidelines for recreational facilities.

# MILLS ENGINEERING COMPANY

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*Engineering - Land Surveying*

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P. O. Box 778 - Bronson, Florida 32621-0778  
604 East Hathaway Avenue  
PHONE (352) 486-2872 - FAX (352) 486-2498

## MEMORANDUM

November 29, 2005

To: All Bidders

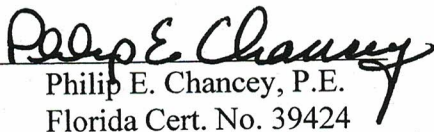
From: Philip E. Chancey, P.E.

Re: Channel No. 4 fishing pier renovation

On November 29, 2005 J.W. Boyd Construction Company, Inc. requested that they be provided the minimum design load applicable for the completed pier structure.

**The Minimum Acceptable Design Load is 50# PSF dead load plus 100# PSF live load.**

If you have any questions regarding this please do not hesitate to contact us.

  
Philip E. Chancey, P.E.  
Florida Cert. No. 39424

11-29-05

date

# MILLS ENGINEERING COMPANY

*Engineering - Land Surveying*

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P. O. Box 778 - Bronson, Florida 32621-0778  
604 East Hathaway Avenue  
PHONE (352) 486-2872 - FAX (352) 486-2498  
EB / LB 0002583

**Date :** November 23, 2005

**To:** All Bidders


**Project:** Levy County Channel Number 4 Fishing Pier Renovation

## ADDENDUM No. 1

This addendum permits pre-punching or jetting of pile holes to obtain the minimum specified depth of installation and specifies methods of construction which will not be acceptable for pile installation.

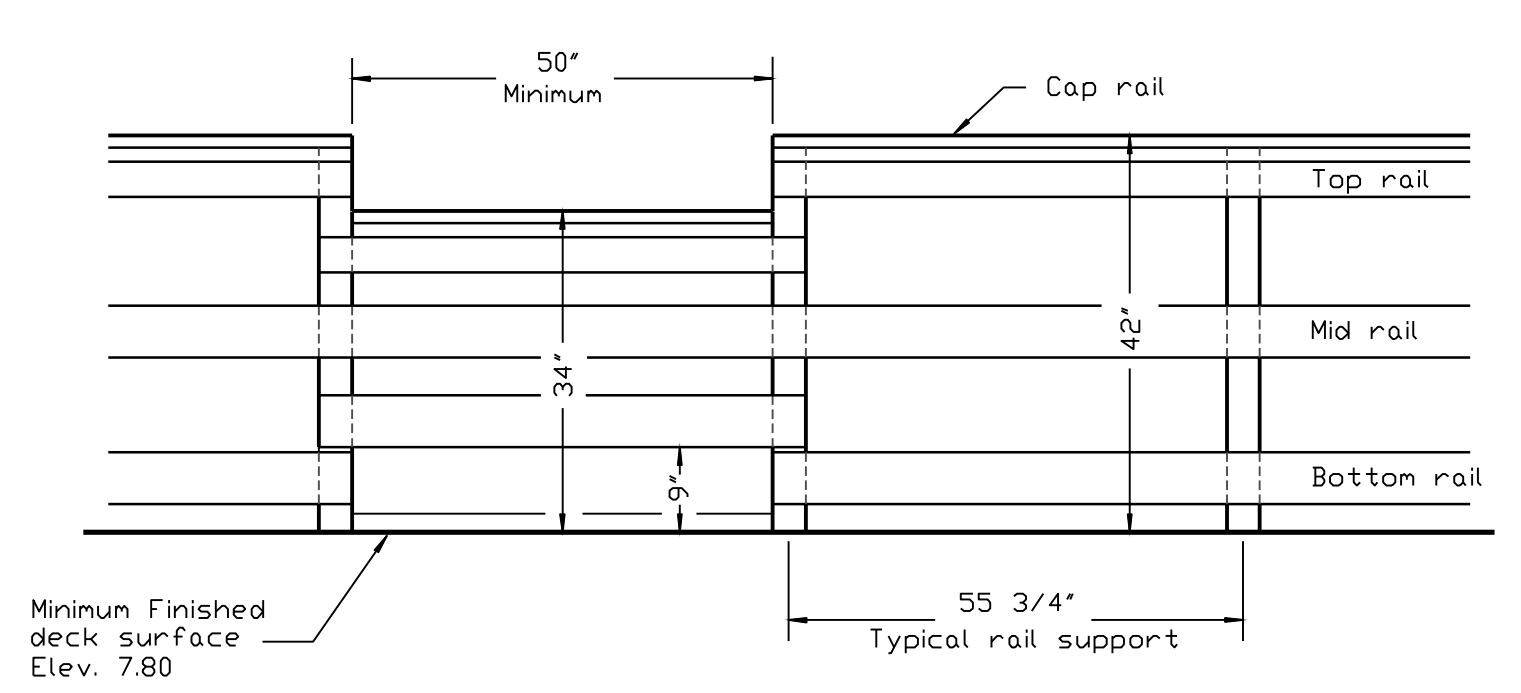
1. Guide holes for pile installation may be jetted or pre-punched to facilitate reaching the required minimum depth of penetration. If utilized, the jetted or pre-punched hole shall not exceed fifteen (15) feet in depth below the mud line. Piles shall then be driven to provide a safe minimum load of twenty tons (40,000#). Calculation of the safe load shall be based upon the driving method employed and the *Engineering News* formulas.
2. It is not the intent of these Specifications to allow piles to be driven adjacent to the existing pile caps and then be pulled laterally into place and secured. This practice would induce loads into the structure for which provision has not been made and is not acceptable.

Item 2 of this addendum does not prohibit the installation of crutch bents to support the existing pile caps. Individuals proposing to utilize crutch bents shall submit a signed and sealed structural analysis of the design for approval prior to beginning work.

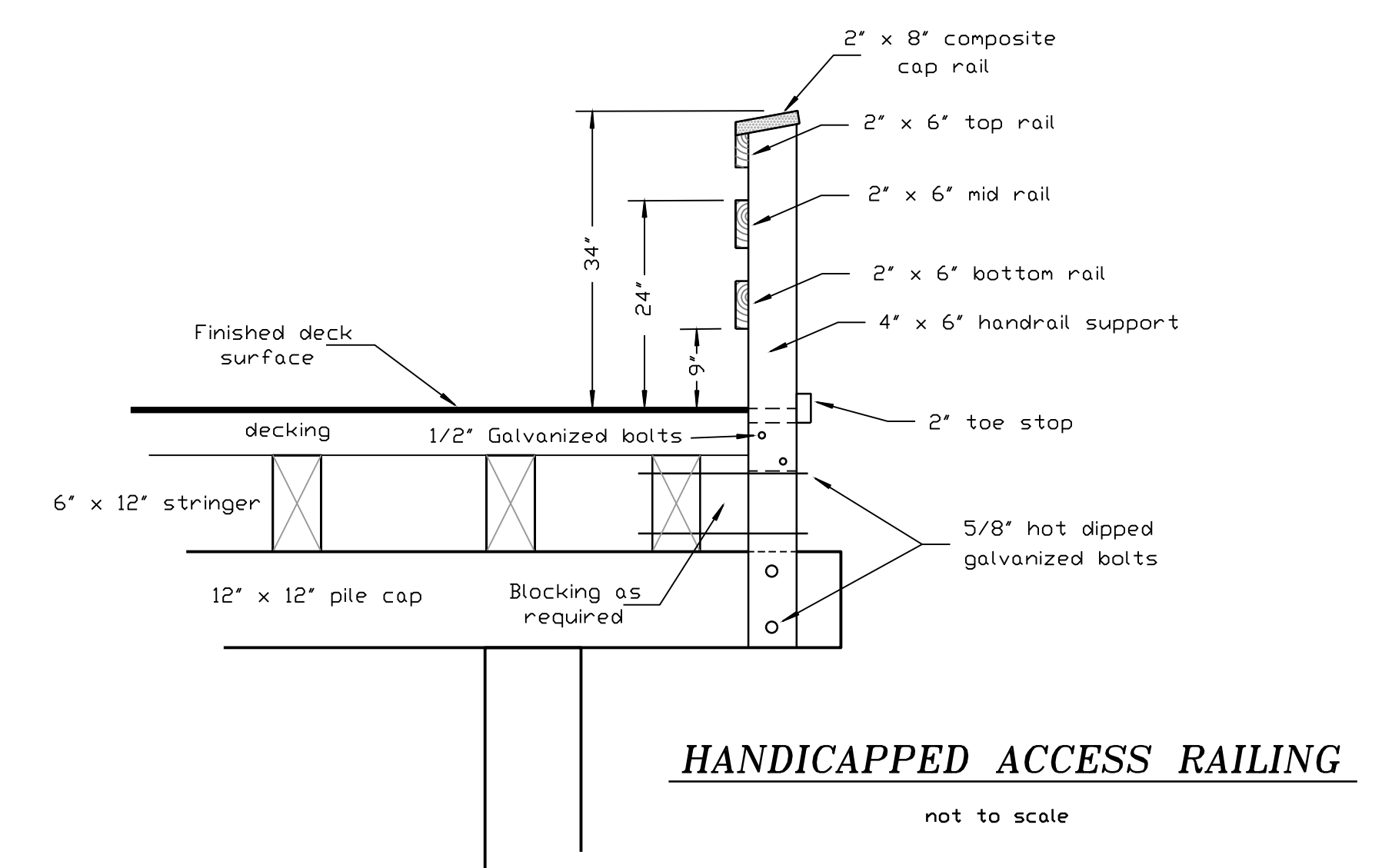
  
Philip E. Chancey, P.E.  
Florida Cert, No. 39424

11-23-05

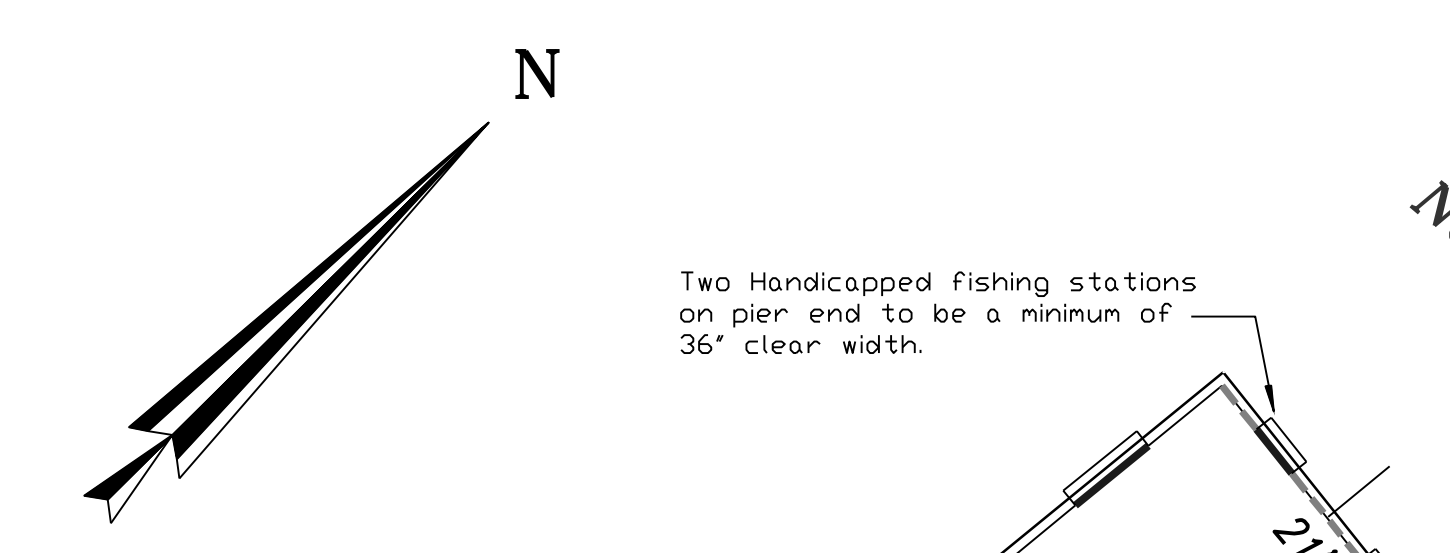
date



**HANDICAPPED FISHING STATION**  
not to scale

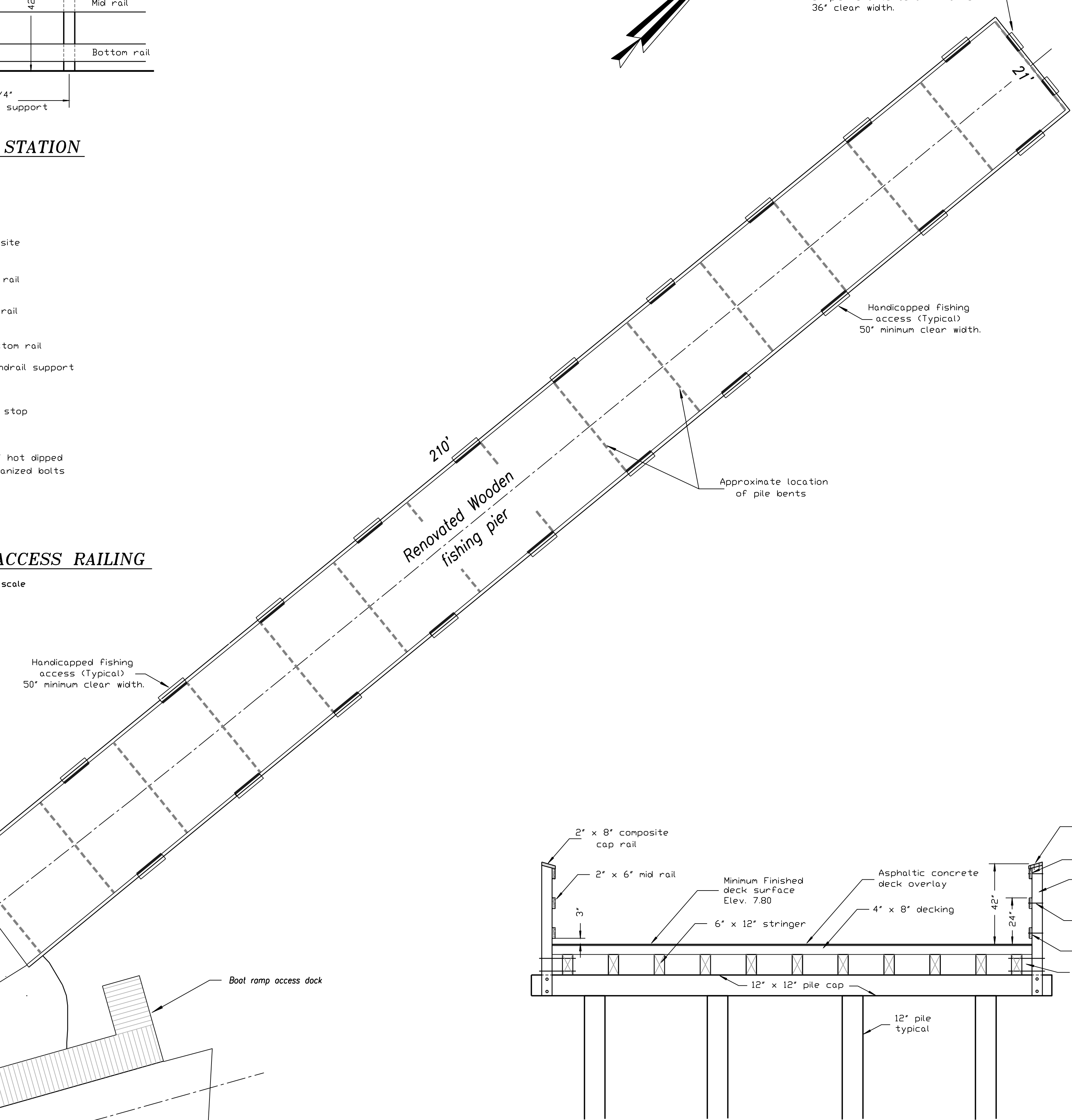


**HANDICAPPED ACCESS RAILING**  
not to scale



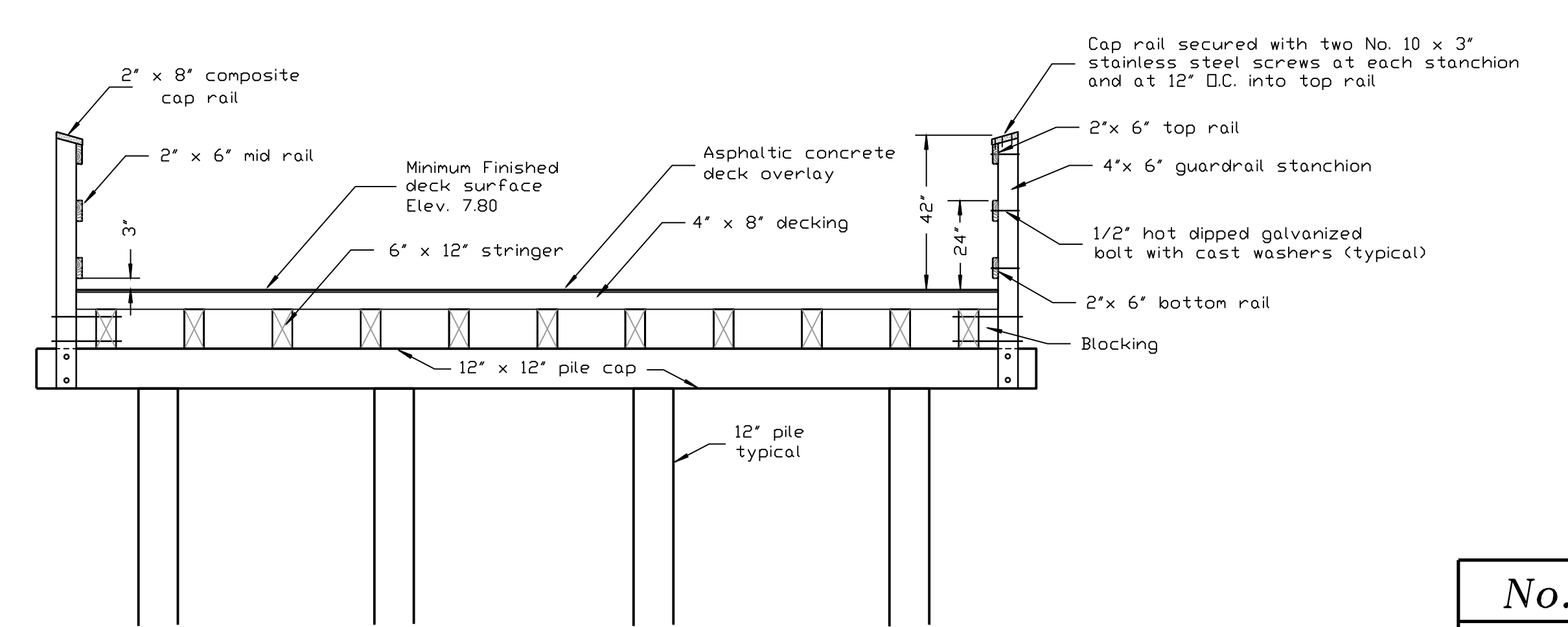
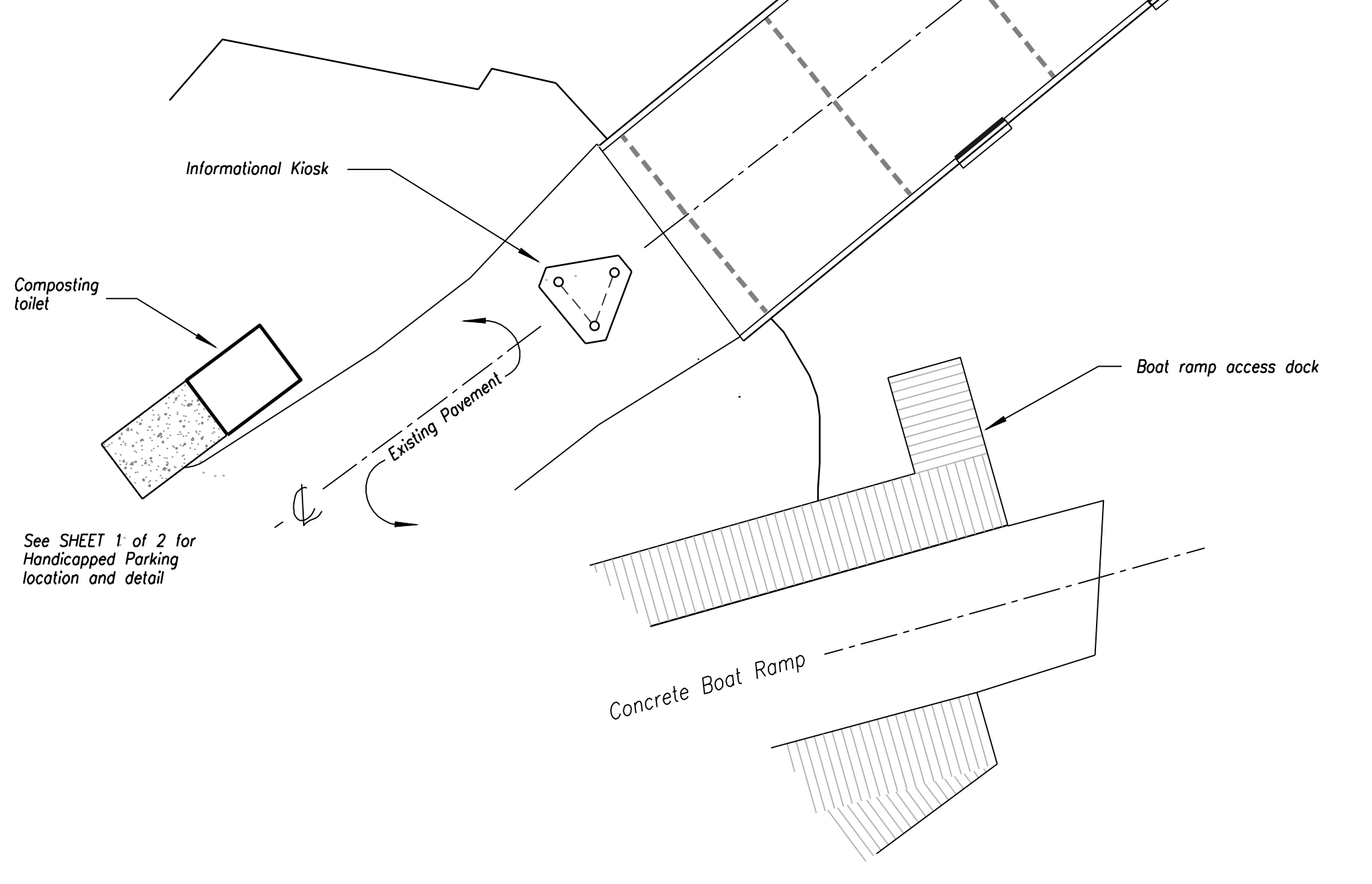
Gulf of Mexico  
No. 4 Channel

Two Handicapped fishing stations on pier end to be a minimum of 36" clear width.



**NOTES:**

- Existing piles of bents 1 and 2 were accepted for use. Piles in bents 3 through 15 have been replaced.
- Pile caps, stringers and decking found to be in sound serviceable condition have been allowed to remain.
- Handicapped markings and space design is in accordance with the current ADA Standards for Accessible Design.
- The pier surface was previously an asphaltic concrete overlay of the wood decking. The Contractor has chosen to overlay the entire deck following completion of the renovation.
- The cap rail is a reinforced recycled wood fiber product as manufactured by U.S. Plastic Lumber, Ltd., or an approved equal.



**TYPICAL PIER SECTION**  
not to scale

Project Liaison Agent  
Matt Weldon, Asst. Dir.  
Levy County  
Parks and Recreation Dept.

Date

Philip E. Chancey, P.E.  
Florida Cert. No. 39424

Date

**Record Drawing**

**No. 4 Channel Fishing Pier**

for the  
**Levy County Board of County Commissioners**  
in  
Section 20, Township 15 South, Range 13 East  
Levy County, Florida

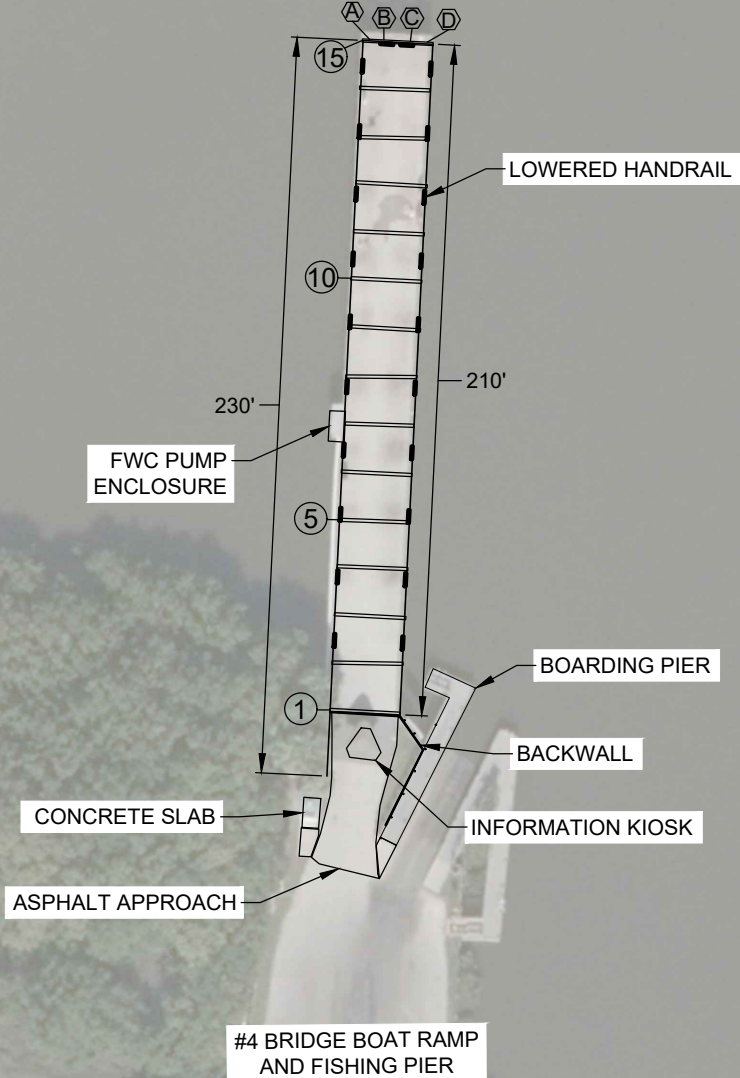
**MILLS ENGINEERING COMPANY**  
ENGINEERING - LAND SURVEYING  
P.O. BOX 778 • 604 EAST HATHAWAY AVENUE  
BRONSON, FLORIDA 32621 - PHONE: (352) 486-2872  
EB#0002583 - LB#0002583

DATE: August 30, 2007	PROJECT NO.: 2004132
DRAWN BY: PC	SHEET 2 OF 2

**ATTACHMENT 2**

**Inspection Exhibit**

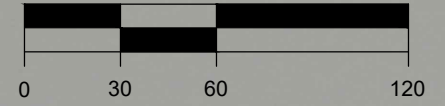
SR-24



**LEGEND**

- Ⓝ = BENT NUMBER
- Ⓐ = PILE ROW

MUDLINE ELEVATION (FT-NAVD88)		
BENT NO.	PILE	
	A	D
1	4.0	1.0
2	0.4	-0.2
3	-0.8	-1.6
4	-1.7	-4.8
5	-6.6	-8.6
6	-8.9	-9.7
7	-8.9	-8.8
8	-8.9	-9.7
9	-10.1	-9.0
10	-9.5	-9.1
11	-10.4	-9.2
12	-10.5	-9.0
13	-10.1	-8.5
14	-9.0	-7.6
15	-7.7	-6.7



SHEET 1

**COASTAL ENGINEERING CONSULTANTS INC.**  
 Serving Coastal Communities Since 1977  
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COASTAL & MARINE ENGINEERING  
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 SURVEY AND MAPPING  
 ENGINEERING: CA 2464  
 SURVEYING: LB 2464

PHONE: (239)643-2324  
 FAX: (239)643-1143  
 www.coastalengineering.com  
 E-Mail: info@cecifi.com

CLIENT: **LOCKLEAR & ASSOCIATES INC.**

TITLE: **#4 BRIDGE FISHING PIER INSPECTION EXHIBIT PLAN VIEW**

DATE: 7/22/2025 SCALE: 1"=60'

DRAWN: TTM F.B.

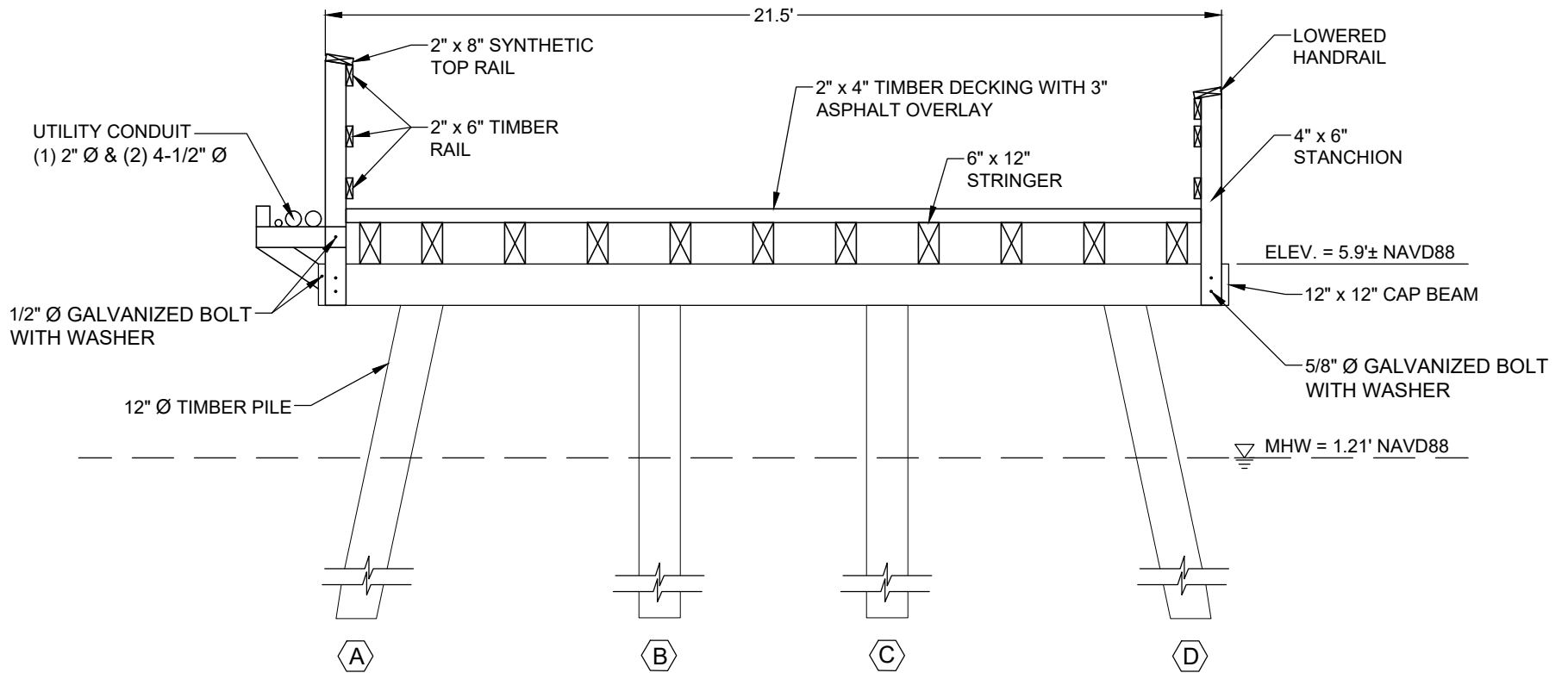
CHECKED: GVT PG.

SEC. TWP. RNG.

ACAD NO. 25907-Cedar-Key-Inspection-Exhibit

REF. NO. 25.907

NO.	DATE	BY	REVISION DESCRIPTION



**TYPICAL PIER SECTION**

SCALE: 1" = 4'

NOTE: PILE BATTER ANGLE VARIES.

SHEET 2  
FILE NO.: NSP-2

**COASTAL ENGINEERING CONSULTANTS INC.**  
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CLIENT: **LOCKLEAR & ASSOCIATES INC.**

TITLE: **#4 BRIDGE FISHING PIER  
 INSPECTION EXHIBIT  
 TYPICAL PIER SECTION**

DATE:	7/22/2025	SCALE:	AS NOTED				
DRAWN:	TTM	F.B.					
CHECKED:	GVT	PG.					
SEC.	TWP.	RNG.					
ACAD NO.	25907-Cedar-Key-Inspection-Exhibit						
REF. NO.	25.907	NO.	DATE	BY	REVISION DESCRIPTION		