KLINGNER & ASSOCIATES, P. C.
Engineers • Architects • Surveyors

www.klingner.com

February 15, 2021

Howard-Cooper County Regional Port Authority
Kendall Kircher & John Sponagule
609 Main Street
Boonville, MO 65233

BIDDING ADDENDUM 02

For work titled:
Wharf Dock Replacement Project

Boonville, MO
Project Number: 20-0330

TO ALL BIDDERS

GENERAL NOTES

This addendum is issued for the purpose of clarifying the intent of the contract documents or for making necessary corrections, deletions, and/or additions to the documents on all items of discrepancy raised up to the time of the issuance of this addendum.

Each bidder is hereby instructed and authorized to incorporate into his proposal the instructions contained in this addendum. This addendum forms a part of the bidding and contract documents and modifies the original bidding documents, dated January 25, 2021 . Acknowledge receipt of this addendum in space provided on Bid Form. FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.

This addendum consists of eighteen (18) – 8 1/2" x 11" pages including this cover sheet and six (6) - 22" x 34" sheets.

PROJECT MANUAL

1. 004200 Bid Proposal, 11	**REPLACE** Section 004200 Bid Proposal with the enclosed replacement section - notable changes include - **ADD** "Base Bid" clarification to Schedule of Values and lump sum price lines**.** **REPLACE** the following Base Bid Steel Pipe Piles Quantity of "160" with "240". **REPLACE** the following Base Bid Rip-Rap Protection Quantity of "311" with "211". **ADD** Alternate Bid #1 Schedule of Values table, alternate bid #1 lump sum price line totals, and Owner's rights statement.
2. 008500 Index of Drawings	**ADD** sheet "C101.ALT". **ADD** sheet "S001.ALT". **ADD** sheet "S101.ALT". **ADD** sheet "S301.ALT".

	ADD sheet “S302.ALT”. **ADD** sheet “S501.ALT”.
3. 011100 Summary of Work, 1.2, D, 1	**REPLACE** the following “<u>Wharf Dock Replacement:</u>” with “<u>Base Bid – Wharf Dock Replacement:</u>”. **REPLACE** the following “a. Install frontage and tieback sheet piling (selective demolition, as needed) b. Install walers, tie rods, and tie-back sheet piling (selective demolition, as needed)” with “a. Install frontage and tieback sheet piling (selective demolition, as needed) with elevation of top of sheet pile at 587.00. b. Install walers (HP12x53), tie rods (#24 and #14, Grade 75), and tie-back sheet piling (selective demolition, as needed)” **ADD** <u>Alternate Bid #1 - Wharf Dock Replacement:</u> h. Install frontage and tieback sheet piling (selective demolition, as needed) with elevation of top of sheet pile at 592.00. i. Install walers (HP12x63), tie rods (#28 and #18, Grade 80), and tie-back sheet piling (selective demolition, as needed) j. Install pipe pilings at upstream and downstream corners and in the middle of the sheet pile dock structure with detailed connections. k. Backfill behind sheet piling utilizing imported fill, as specified. l. Install aggregate surface course, as specified. m. Install flanking riprap protection on upstream and downstream slopes. n. Remove from the site and properly dispose of deleterious material, old sheet piling, leftover materials, etc.
4. 051200 Structural Steel Framing, 2.2, A	**REPLACE** the following “Threaded Bar: ASTM A615, Grade 75” with “Threaded Bar: Base Bid: ASTM A615, Grade 75 and Alternate Bid: ASTM A615, Grade 80”

DRAWINGS

5. C101 Wharf Dock Site and Grading Plan	**ADD** C101.ALT Wharf Dock Site and Grading Plan.
6. S001 Structural Notes	**ADD** S001.ALT Structural Notes.
7. S101 Wharf Dock Structural Plan	**ADD** S101.ALT Wharf Dock Structural Plan.
8. S301 Wharf Dock Structural Elevations	**ADD** S301.ALT Wharf Dock Structural Elevations.

9. S302 Wharf Dock Structural Sections	**ADD** S302.ALT Wharf Dock Structural Sections.
10. S501 Wharf Dock Structural Details	**ADD** S501.ALT Wharf Dock Structural Details.

ATTACHMENTS

Section 004200 Bid Proposal - (6 pgs., 8.5 X 11)
Section 008500 Index of Drawings – (1 pg., 8.5 X 11)
Section 011100 Summary of Work – (3 pgs., 8.5 X 11)
Section 051200 Structural Steel Framing – (4 pgs., 8.5 X 11)
Bidder Clarifications – (1 pg., 8.5 X 11)
Plan set with addendum items marked on the sheets noted in the document above. – (6 pgs., 22 X 34)

All other terms and conditions of the Project Manual and Drawings shall remain unchanged.

END OF ADDENDUM 02

RETURN WITH BID

SECTION 004200

BID PROPOSAL

TO: **Howard-Cooper County Regional Port Authority** Hereinafter Called "OWNER"

PROPOSAL OF: _____
(Name and Address of Bidder)

_____

FOR **Wharf Dock Replacement Project**

1. The plans for the proposed improvement are those prepared by KLINGNER & ASSOCIATES, P.C., ENGINEERS/ARCHITECTS, 616 NORTH 24TH STREET, QUINCY, IL 62301.

2. In submitting this proposal, the undersigned declares that the only persons or parties interested in the proposal as principals are those named herein; and that the proposal is made without collusion with any other person, firm, or corporation.

3. The undersigned further declares that the Bidding and Contract Documents, and the following Addenda, receipt of all which is hereby acknowledged,

Addendum No.	Addendum Date

have been carefully examined, the site(s) of the proposed work inspected in detail and the undersigned is familiar with all local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal waives all right to plead any misunderstanding regarding the same.

4. The undersigned further understands and agrees, if this proposal is accepted, to furnish and provide all necessary machinery, tools, apparatus and other means of construction, and to do all of the work and to install all of the materials specified in the contract, in the manner and at the time prescribed, and in accordance with the requirements therein set forth.

5. The undersigned further understands and agrees that payment will be made on a **Lump Sum** bid basis for the work specified herein.

6. The undersigned further agrees to the fullest extent permitted by law, to waive any claim it has or may have against the OWNER, the Architect/Engineer, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any bid; wavier of any requirements under the Bid Documents; or the Contract Documents; acceptance or rejection of any bids; and award of the Contract.

7. The undersigned further agrees that the OWNER may at any time during the progress of the work covered by this contract order other work or materials incidental thereto and that all such work and materials as do not appear in the proposal or contract as a specific item and which are not included under the bid price for other items in this contract, shall be performed as extra work, in accordance with ARTICLE 11 of the General Conditions.

RETURN WITH BID

8. The undersigned further agrees to execute a contract for this work and present the same to the OWNER within fifteen (15) days after the date of notice of the award of the contract to him.

9. The undersigned further agrees to execute and present within fifteen (15) days after the date of Notice of the Award, a performance and payment Bond or other specified Security, satisfactory to and in the form prescribed by the OWNER, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.

10. The undersigned further agrees to begin work not later than ten (10) days after the execution and approval of the contract and performance and payment Bonds or specified Securities, unless otherwise provided, and to prosecute the work in such manner and with sufficient materials, equipment, and labor as will ensure its completion within the time limit specified herein, it being understood and agreed that the completion within the time limit is an essential part of the contract. The undersigned agrees to complete the work on or before **June 15, 2021**, unless additional time shall be granted by the OWNER in accordance with the provisions of the specifications. In case of failure to complete the work within the time named herein or within such extra time as may have been allowed by extensions, the undersigned agrees that the OWNER shall withhold, from such sums as may be due under the terms of this contract, the costs set forth in the specifications, which costs shall be considered and treated not as a penalty but as damages due the OWNER from the undersigned by reason of inconvenience to the public, added cost of engineering, and other items which have caused an expenditure of public funds resulting from the failure of the undersigned to complete the work within the time specified in the contract.

11. Accompanying this proposal is a bid bond, bank cashier's check, or certified check, in the penal sum of five percent (5%) of the total bid price, as provided in paragraph 8.0 (Bid Security) of the Instructions to Bidders, made payable to the City Treasurer of Quincy, Illinois. The amount of the bid deposit is:

$_____DOLLARS ($_____)

Words Figures

If this proposal is accepted and the undersigned shall fail to execute a contract and performance and payment Bond or other specified Security as required herein, it is hereby agreed that the amount of the bid deposit shall become the property of the OWNER, and shall be considered as payment of damages due to delay and other causes suffered by the OWNER because of the failure to execute said contract and contract bond; otherwise said check or draft, or bidder's bond substituted in lieu thereof shall be returned to the undersigned.

ATTACH BANK CASHIER'S CHECK, OR

CERTIFIED CHECK HERE - OR

INCLUDE BID BOND WITHIN PROPOSAL

FORM

RETURN WITH BID

Base Bid Schedule of Values

No.	Item Description	Quantity	Unit	Unit Price	Total Cost
1	Selective Demolition	1	LS		
2	Sheet Pile	151	TON		
3	Tie-Rod	14,524	LB		
4	Waler	252	FT		
5	Steel Pipe Piles	240	FT		
6	Site Fill (Compacted Aggregate)	2,450	CY		
7	Sheet Pile Drainage Items	14	EA		
8	Rip-Rap Protection	211	CY		
9	Mobilization/Demobilization	1	LS		
			Total Lump Sum Bid		

*For purposes only of additions or deducts from the Contract, from approved Change Orders, and for the purpose of estimating periodic percent complete of the project for submitted bills by the Contractor. The Bidder IS required to complete the "Schedule of Values." The quantities provided are estimates by the Engineer. The Contractor shall use their own calculations in verifying for their bid. The total should equal the Lump Sum Price. If there are discrepancies of the total of all unit prices and the lump sum bid price, the lump sum bid price will control.

BASE BID - Wharf Dock Replacement

The undersigned Contractor hereby proposes to furnish all labor, materials as noted, tools, machinery and equipment necessary to complete the Work in accordance with the Contract Documents for the following

BASE BID LUMP SUM PRICE:

$_____DOLLARS ($_____)

Words Figures

RETURN WITH BID

Alternate Bid #1 Schedule of Values

No.	Item Description	Quantity	Unit	Unit Price	Total Cost
1	Selective Demolition	1	LS		
2	Sheet Pile	160	TON		
3	Tie-Rod	21,313	LB		
4	Waler	267	FT		
5	Steel Pipe Piles	255	FT		
6	Site Fill (Compacted Aggregate)	4,600	CY		
7	Sheet Pile Drainage Items	14	EA		
8	Rip-Rap Protection	280	CY		
9	Mobilization/Demobilization	1	LS		
			Total Lump Sum Bid		

*For purposes only of additions or deducts from the Contract, from approved Change Orders, and for the purpose of estimating periodic percent complete of the project for submitted bills by the Contractor. The Bidder IS required to complete the "Schedule of Values." The quantities provided are estimates by the Engineer. The Contractor shall use their own calculations in verifying for their bid. The total should equal the Lump Sum Price. If there are discrepancies of the total of all unit prices and the lump sum bid price, the lump sum bid price will control.

ALTERNATE BID #1 - Wharf Dock Replacement with 5FT Wall Height Increase

The undersigned Contractor hereby proposes to furnish all labor, materials, tools, machinery and equipment necessary to complete the Work in accordance with the Contract Documents for the following

ALTERNATIVE BID #1 LUMP SUM PRICE:

$_____DOLLARS ($_____)

Words Figures

The Owner reserves the right to accept either the Base Bid or the Alternate Bid #1 or to reject all bids.

RETURN WITH BID

BIDDING SIGNATURE & CERTIFICATION FORM

Failure to complete this notarized certification will result in the bid not being read at the bid opening and thereby rejected.

****
*

(If an individual) Signature of Bidder _____(SEAL)

Business Address _____

_____

****

(If a co-partnership)

Firm Name _____

Signed by _____(SEAL)

Business Address _____

_____

(Insert Names and _____

Addresses of all _____

Members of the _____

Co-Partnership _____

****
****

Bidding Signature and Certification Form (Cont'd.)

(If a Corporation)

Corporate Name _____

(Corporate (SEAL) Signed by _____

Business Address _____

_____

(Insert Names of _____President

Officers) _____Secretary

_____Treasurer

****
*

RETURN WITH BID

SIGNED and SWORN to before me

this _____day of _____, 20_____.
(NOTARY

SEAL)

_____
Notary Public

END OF SECTION 004200

SECTION 008500
INDEX OF DRAWINGS

1.1 SUMMARY

Drawing Number	Date	Title
G001	Issued: 01/25/21	Cover Sheet
C101	Issued: 01/25/21 Revised: 02/09/21	Wharf Dock Site and Grading Plan
C101.ALT	Issued: 01/25/21 Revised: 02/09/21 Revised: 02/12/21	Wharf Dock Site and Grading Plan
S001	Issued: 01/25/21 Revised: 02/09/21	Structural Notes
S001.ALT	Issued: 01/25/21 Revised: 02/09/21 Revised: 02/12/21	Structural Notes
S101	Issued: 01/25/21 Revised: 02/09/21	Wharf Dock Structural Plan
S101.ALT	Issued: 01/25/21 Revised: 02/09/21 Revised: 02/12/21	Wharf Dock Structural Plan
S301	Issued: 01/25/21 Revised: 02/09/21	Wharf Dock Structural Elevations
S301.ALT	Issued: 01/25/21 Revised: 02/09/21 Revised: 02/12/21	Wharf Dock Structural Elevations
S302	Issued: 01/25/21 Revised: 02/09/21	Wharf Dock Structural Sections
S302.ALT	Issued: 01/25/21 Revised: 02/09/21 Revised: 02/12/21	Wharf Dock Structural Sections
S501	Issued: 01/25/21 Revised: 02/09/21	Wharf Dock Structural Details
S501.ALT	Issued: 01/25/21 Revised: 02/09/21 Revised: 02/12/21	Wharf Dock Structural Details

END OF SECTION 008500

SECTION 011100
SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Work covered by the Contract Documents.
2. Work under other contracts.
3. Use of premises.
4. Owner's occupancy requirements.
5. Specification formats and conventions.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: Howard-Cooper County Regional Port Authority – Wharf Dock Replacement Project

1. Project Location: Boonville, Missouri

B. Owner: Howard-Cooper County Regional Port Authority

1. Owner's Representative: Kendall Kircher, President & John Sponaugle, Secretary

C. Engineer/Architect: Klingner & Associates, P.C., 616 N. 24th Street, Quincy, Illinois 62301/217-223-3670.

D. The Work consists of the following:

1. The Work includes: The Howard-Cooper County Regional Port Authority is proposing to replace the existing sheet pile dock structure by installing a new sheet pile dock in front of the existing. Selective demolition will be necessary to allow for the new tie-back system to be installed.

<u>Base Bid - Wharf Dock Replacement</u>:

a. Install frontage and tieback sheet piling (selective demolition, as needed) with elevation of top of sheet pile at 587.00.
b. Install walers (HP12x53), tie rods (#24 and #14, Grade 75), and tie-back sheet piling (selective demolition, as needed)
c. Install pipe pilings at upstream and downstream corners and in the middle of the sheet pile dock structure with detailed connections.
d. Backfill behind sheet piling utilizing imported fill, as specified.
e. Install aggregate surface course, as specified.
f. Install flanking riprap protection on upstream and downstream slopes.
g. Remove from the site and properly dispose of deleterious material, old sheet piling, leftover materials, etc.

Alternate Bid #1 - Wharf Dock Replacement:

h. Install frontage and tieback sheet piling (selective demolition, as needed) with elevation of top of sheet pile at 592.00.
i. Install walers (HP12x63), tie rods (#28 and #18, Grade 80), and tie-back sheet piling (selective demolition, as needed)
j. Install pipe pilings at upstream and downstream corners and in the middle of the sheet pile dock structure with detailed connections.
k. Backfill behind sheet piling utilizing imported fill, as specified.
l. Install aggregate surface course, as specified.
m. Install flanking riprap protection on upstream and downstream slopes.
n. Remove from the site and properly dispose of deleterious material, old sheet piling, leftover materials, etc.

E. Project will be constructed under a single or multiple prime contract(s).

F. The Project shall be completed by June 15, 2021 with the Notice to Proceed anticipated to be issued prior to February 26, 2021.

G. A work plan shall be developed and submitted to the Engineer / Owner for review at a minimum of 48 hours in advance to the commencement of work by the Contractor. Said work plan shall include the anticipated construction sequence, schedule, and equipment to be utilized at a minimum.

1.3 WORK UNDER OTHER CONTRACTS

A. General: Contractor shall work to prevent conflicts in site access, blocking drives, and/or hindering the Owner, Neighbors, and/or other Contractors from accessing the site.

1.4 USE OF PREMISES

A. General: Contractor shall have full use of premises for construction operations, including use of Project site, during construction period. Contractor's use of premises is limited only by Owner's right to perform work or to retain other contractors on portions of Project.

1.5 SPECIFICATION FORMATS AND CONVENTIONS

A. Specification Format: The Specifications are organized into Divisions and Sections using the 48-division format and CSI/CSC's "MasterFormat" numbering system.

1. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.

B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.

2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

    a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011100

SECTION 051200
STRUCTURAL STEEL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Structural shapes.
2. Structural pipe.
3. Structural plates and bars.
4. Bolts, connectors, and anchors.

1.2 SUBMITTALS

A. Shop Drawings: Indicate sizes, spacing, and locations of structural members, openings, connections, cambers, loads, and welded connections.

B. Manufacturer's Mill Certificate: Certify products meet or exceed specified requirements.

C. Mill Test Reports: Submit indicating structural strength, destructive and non-destructive test analysis.

D. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification within previous 12 months.

1.3 QUALITY ASSURANCE

A. Perform Work in accordance with the following:

1. Structural Steel: AISC 303 and AISC 360.

1.4 QUALIFICATIONS

A. Fabricator: Company specializing in performing Work of this section with minimum 10 years documented experience.

B. Erector: Company specializing in performing Work of this section with minimum 5 years documented experience.

C. Welders and Welding Procedures: AWS D1.1 qualified within previous 12 months.

1.5 REFERENCES

A. Specified references, or cited portions thereof, current at date of bidding documents unless otherwise specified, govern the work.

B. American Institute of Steel Construction (AISC):

1. Specification for the Design, Fabrication and Erection of Structural steel for Buildings.

C. American Society for Testing and Materials (ASTM)

D. American Welding Society (AWS): D1-l – Code for Welding in Building Construction.

1.6 DELIVERY, STORAGE AND HANDLING

A. Protection:

1. Deliver products to site.
2. Store structural steel members at the project site above ground on platforms, skids or other supports.
3. Store materials in a manner that will not distort the final condition.
4. Store other materials in a weather-tight and dry place, until ready for use in the work.
5. Store packaged materials in their original unbroken package or container.

PART 2 - PRODUCTS

2.1 STRUCTURAL STEEL

A. Structural HP-Shapes: ASTM A572, Grade 50.

B. Structural Pipe Piles: ASTM A252, Grade 3 Modified (Fy = 50KSI).

C. Structural Plates and Bars: ASTM A572, Grade 50.

2.2 THREADED BAR, BOLTS, AND CONNECTORS

A. Threaded Bar: Base Bid: ASTM A615, Grade 75 and Alternate Bid: ASTM A615, Grade 80

1. Finish: Hot dipped galvanized.

B. Threaded Bar Nuts/Connectors: ASTM A108/A576

1. Finish: Hot dipped galvanized.

C. Hardened/Round Beveled Washers: ASTM F436, circular.

1. Finish: Hot dipped galvanized.

D. Structural Bolts: Heavy hex, structural type.

1. ASTM A325; Type 1, hot dipped galvanized.

E. Structural Nuts: ASTM A563 heavy hex type.

1. Finish: Hot dipped galvanized.

2.3 WELDING MATERIALS

A. Welding Materials: AWS D1.1; type required for materials being welded.

2.4 FABRICATION

A. Continuously seal joined members by continuous welds**.**

B. Fabricate connections for threaded bar, nut, and washer connectors.

2.5 FINISHES

A. Hot dipped galvanize steel as indicated on drawings per ASTM A123.

B. Hot dipped galvanizing for threaded bar and connectors per ASTM A123, A153, and close coordination with thread bar and connector supplier.

2.6 ACCESSORIES

A. Shop Primer: SSPC Paint 15, Type 1, red oxide.

B. Touch-Up Primer: Match shop primer.

C. Touch-Up Primer for HP and Plate Galvanized Surfaces: SSPC Paint 20 Type II Organic.

1. Perform galvanized surface touch-up per ASTM A780.

D. Touch-Up galvanization for threaded bar and connectors shall be coordinated with the supplier.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify members are set in correct locations and arrangements with correct exposure for steel attachment.

3.2 PREPARATION

A. Furnish templates for installation of sheet piling, walers, and tie-back system, where applicable.

3.3 ERECTION

A. Allow for erection loads, and for sufficient temporary bracing to maintain structure safe, plumb, and in alignment until completion of erection and installation of permanent bracing.

B. Field weld components and shear connectors indicated on Drawings**.**

C. Field connect members with threaded fasteners; torque to required resistance, tighten to snug tight for bearing type connections.

D. Do not field cut or alter structural members without approval of Engineer.

E. After erection, touch up welds and abrasions to match shop finishes.

3.4 FIELD QUALITY CONTROL

A. The contractor shall engage a qualified testing and inspecting agency to perform field special structural inspections and testing in accordance with the applicable International Building Code and to submit reports.

B. Welding:

1. Certify welders and conduct inspections and tests as required. Record types and locations of defects found in work. Record work required and performed to correct deficiencies.
2. Visually inspect all welds.

C. Correct defective welds.

D. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or corrective work.

END OF SECTION 051200

KLINGNER
& ASSOCIATES, P. C.
Engineers • Architects • Surveyors

616 N. 24th Street • Quincy, IL 62301 • voice 217.223.3670 • fax 217.223.3603

February 15, 2021

All Bidders on Howard-Cooper County Regional Port Authority Wharf Dock Replacement Project

RE: Contractor Clarifications

Dear Bidders:

Clarifications to Contractor questions are below.

Contractor Clarifications

1. ***Question:*** "In the drawing it calls out a DF-30 kevel, however in detail 6 it appears to be a DF-497. Can you confirm which was intended?"
    a. ***Response:*** The DF-30 Kevel, or an approved equivalent, was intended to be installed for the project.

GENERAL NOTES

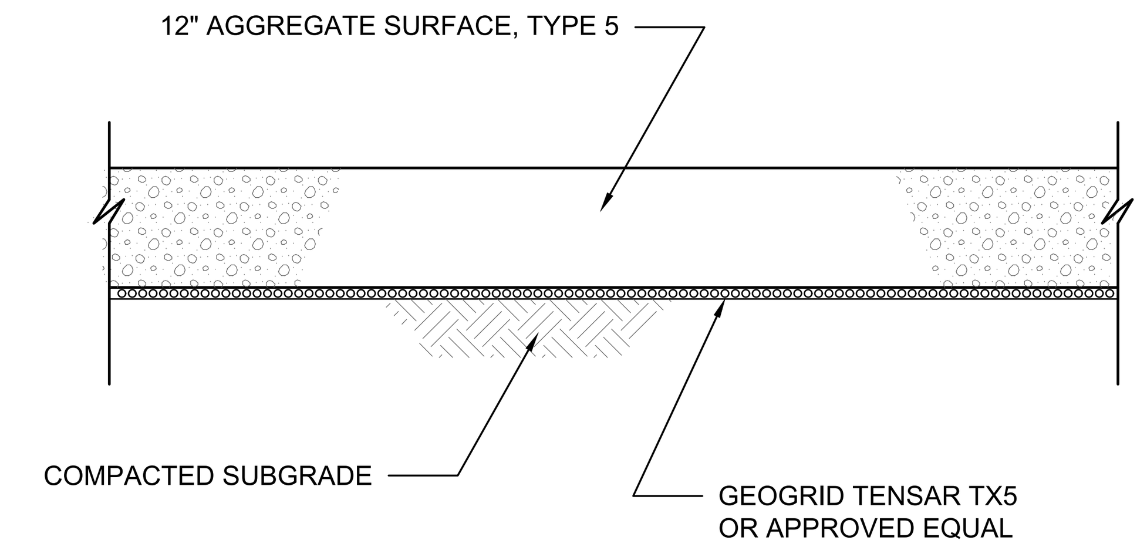
1. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
2. ANY DISCREPANCIES BETWEEN SPECIFICATIONS, DRAWINGS, AND/OR SITE CONDITIONS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
3. ALL AREAS DESIGNATED TO REMAIN UNDISTURBED SHALL BE PROTECTED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING THE LOCATION OF ALL PROPOSED IMPROVEMENTS, INCLUDING ROUGH AND FINISHED ELEVATIONS AND ALL OTHER PROPOSED IMPROVEMENTS INDICATED ON THE DRAWINGS.
5. THE CONTRACTOR SHALL VERIFY THAT ALL APPLICABLE LOCAL, STATE, & FEDERAL CODES ARE FOLLOWED. ALL APPLICABLE LOCAL AND STATE NOTIFICATIONS AND PERMITS SHALL BE ACQUIRED PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND SERVICES REQUIRED DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL REFERENCE POINTS, BENCHMARKS, MONUMENTS, STAKES, AND PROPERTY CORNERS DURING CONSTRUCTION. REPLACEMENT OF LOST REFERENCE POINTS SHALL BE AT THE CONTRACTOR'S EXPENSE.
8. REMOVE ALL STRUCTURES, FOUNDATIONS, WALLS, PAVEMENTS, AND ALL OTHER ITEMS IN CONFLICT WITH PROPOSED IMPROVEMENTS IN ACCORDANCE WITH THE SPECIFICATIONS.
9. REFERENCES TO "STANDARD SPECIFICATIONS" SHALL MEAN THE MISSOURI DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", LATEST ADDITION.
10. THE MEANS OF THE WORK AND THE SAFETY OF THE CONTRACTOR'S EMPLOYEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. NO WORK SHALL BE PERFORMED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT OWNER APPROVAL.
12. SITE CLEAN-UP SHALL BE PERFORMED ON A DAILY BASIS. SIDEWALKS, PARKING LOTS, ROADWAYS, AND THE PROJECT SITE SHALL BE KEPT CLEAN AT ALL TIMES. CONTROL DUST IN AND AROUND ALL WORK AND STAGING AREAS. THE CONTRACTOR SHALL PREVENT CONSTRUCTION DEBRIS AND OTHER FOREIGN OBJECTS FROM FALLING IN THE WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTAINMENT AND REMOVAL OF ALL WASTE, SCRAP, DELETERIOUS AND HAZARDOUS MATERIALS USED OR PRODUCED DURING THE CONSTRUCTION PROCESS.
13. ALL OPEN EXCAVATIONS SHALL BE PROTECTED.
14. MAINTAIN POSITIVE DRAINAGE ON THE SITE THROUGHOUT THE PROJECT DURATION.
15. IF A DISCREPANCY IN THE SPOT ELEVATIONS IS NOTED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTING. IF THERE IS A DISCREPANCY BETWEEN THE SPOT ELEVATIONS AND CONTOURS, THE CONTOURS SHALL GOVERN.
16. CONTRACTOR TO CONFIRM PROPERTY LINE LOCATIONS WITH OWNER PRIOR TO START OF CONSTRUCTION.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF SILT AND EROSION DURING CONSTRUCTION. CONTRACTOR SHALL CREATE AN EROSION CONTROL PLAN AND EMPLOY BEST MANAGEMENT PRACTICES IN THE PREVENTION OF EROSION AND SILT LEAVING THE PROJECT SITE.

SITE DATA

RIVER MILE:	196.5
ZERO GAGE:	ELEV. 565.58 (NAVD'88)
LOW POOL:	-0.88' (ELEV. 564.70)
NORMAL POOL:	10.12' (ELEV. 575.70)

FLOOD CATEGORIES

ACTION STAGE:	18' (ELEV. 583.58)
MODERATE FLOOD STAGE:	30' (ELEV. 595.58)
MAJOR FLOOD STAGE:	34' (ELEV. 599.58)
FLOOD OF RECORD:	37.10' (ELEV. 602.68)
FLOOD VELOCITY:	8.5 FT/S (ESTIMATED)



1 AGGREGATE PAVING DETAIL
N.T.S.

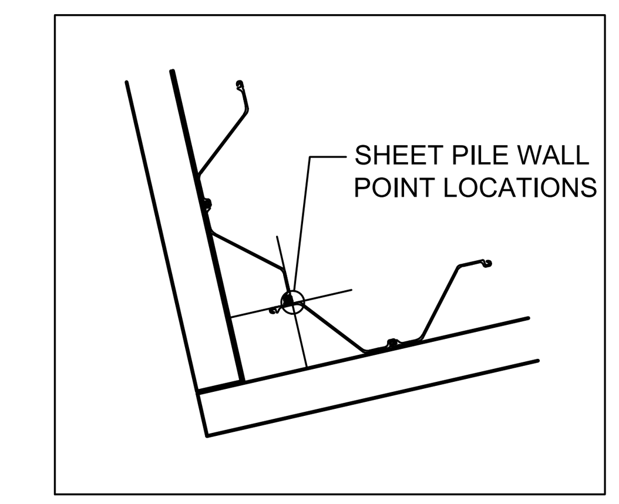
LEGEND

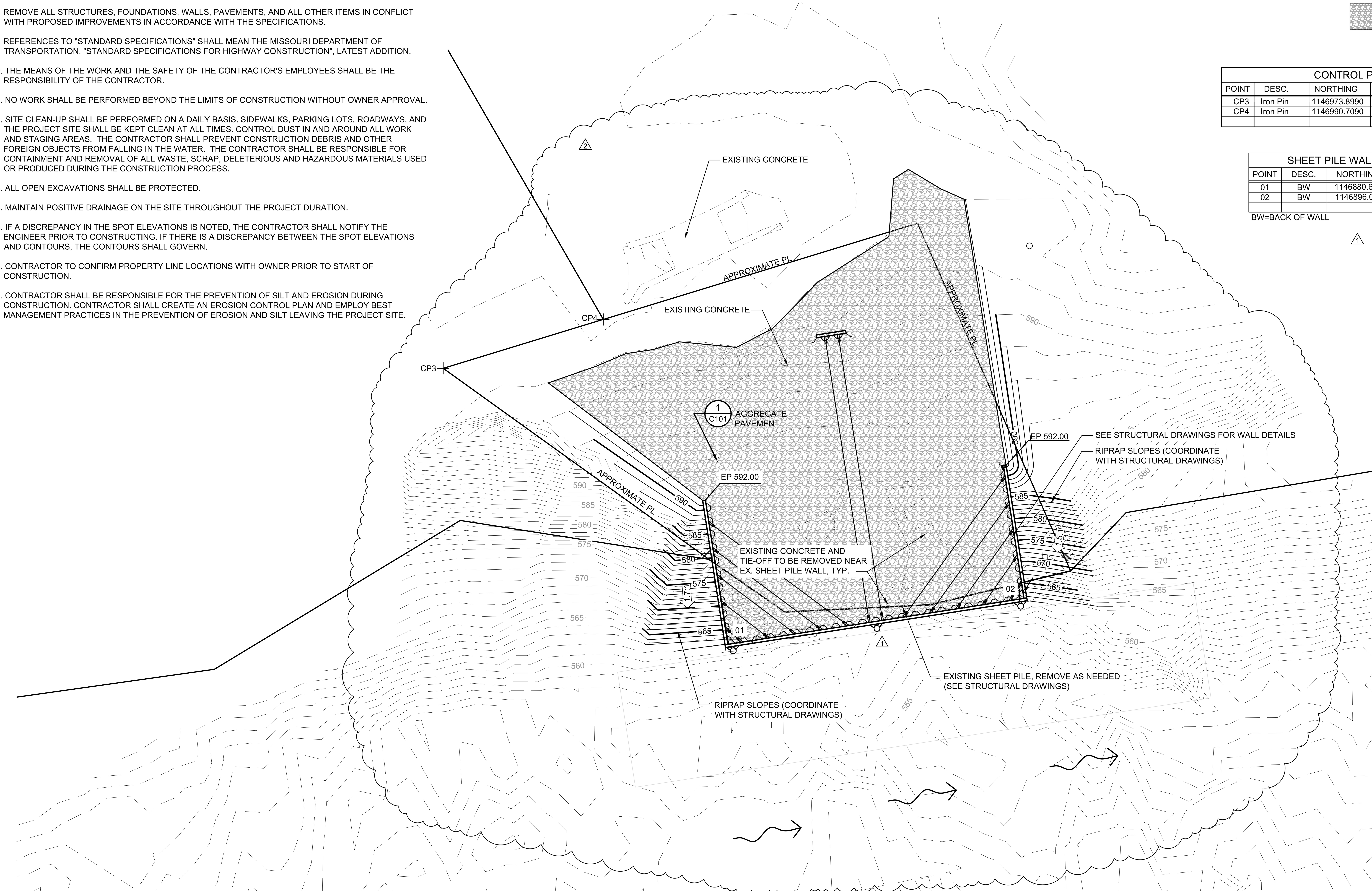
EXISTING	PROPOSED	
		PROPERTY LINE
		CONSTRUCTION LIMITS
		STREAM
		STRUCTURE
		EDGE OF PAVEMENT
		SUMMIT / HIGH POINT
601	601	CONTOURS
600	600	INDEX CONTOURS
		DIRECTION OF DRAINAGE
+600.00	600.00	SPOT ELEVATION
		AGGREGATE PAVEMENT (DETAIL 1/C101)

CONTROL POINTS				
POINT	DESC.	NORTHING	EASTING	ELEVATION
CP3	Iron Pin	1146973.8990	1570946.6130	591.57
CP4	Iron Pin	1146990.7090	1571001.5240	592.11

SHEET PILE WALL POINTS			
POINT	DESC.	NORTHING	EASTING
01	BW	1146880.6550	1571045.4580
02	BW	1146896.0220	1571144.4610

BW=BACK OF WALL





Know what's **below.**
Call before you dig.

NOTE

UTILITY INFORMATION IS FOR THE CONVENIENCE OF THE CONTRACTOR. BEFORE CONSTRUCTION BEGINS THE CONTRACTOR SHALL CONTACT MISSOURI ONE CALL SYSTEM, INC. AT 811 OR 1-800-344-7483 AND THE INDIVIDUAL UTILITIES NOT INCLUDED IN THIS SYSTEM FOR THE LOCATION OF ALL EXISTING UTILITIES.

N

0 20' 40'
SCALE: 1" = 20'

BENCHMARK:

60d NAIL IN LIGHT POLE IN CENTER OF TURN AROUND - ELEV 597.38

KLINGNER & ASSOCIATES, P.C.
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Quincy, Illinois
616 North 24th Street
217.223.3670
www.klingner.com
Galesburg, IL Burlington, IA Pella, IA
Davenport, IA Hannibal, MO Columbia, MO

REVISION HISTORY			
MARK	DESCRIPTION	DATE	APPR
1	SHEET PILE WALL ROTATION, ADDITIONAL PIPE PILE, AND RIP-RAP DELETE AT TOE	02/09/21	AMB
2	SHEET PILE WALL HEIGHT ALTERNATIVE	02/12/21	AMB

Klingner & Associates, P.C.
Missouri State Certificate of Authority
No. E-000866

STATE OF MISSOURI
GAVIN H. RISLEY
NUMBER
PE-2013025031
PROFESSIONAL ENGINEER

WHARF DOCK REPLACEMENT PROJECT

HOWARD-COOPER COUNTY REGIONAL PORT AUTHORITY BOONVILLE, MO

Non-Reduced Sheet Size: 22" x 34"

Full sized plans have been prepared using standard scales. Reduced size plans may not conform to standard scales.

DESIGNED DCD/AMB	DRAWN DCD
FIELD ECB/MWJ	FIELD BOOK M93/28
CHECKED DCD	CHECK DATE 01/14/2021

SHEET TITLE

WHARF DOCK SITE & GRADING PLAN

PROJECT NO.
20-0330

DRAWING ISSUED DATE:
01/25/2021

SHEET
C101.ALT

DESIGN CRITERIA

1. U.S. ARMY CORPS OF ENGINEERS: EM-1110-2-2504, 1994

2. AASHTO LRFD BRIDGE DESIGN SPECIFICATION, 8TH ED., 2017

3. INTERNATIONAL BUILDING CODE 2018

DESIGN LOADS:

1. AS PER DESIGN CRITERIA ABOVE

2. WHARF DOCK
   2.1. SURCHARGE: 400 PSF

EXISTING WORK

1. EXISTING CONDITIONS SHOWN OR NOTED ON THE DRAWINGS WERE OBTAINED FROM FIELD MEASUREMENTS OR WERE ASSUMED. IF CONDITIONS OTHER THAN THOSE SHOWN EXIST, IMMEDIATELY NOTIFY THE E.O.R. BEFORE PROCEEDING WITH THE THE WORK AT THAT LOCATION. IF CONDITIONS OTHER THAN THOSE SHOWN EXIST, ALTERNATE METHODS OF CONSTRUCTION MAY NEED TO BE USED.

2. WHERE SPECIFICALLY NOTED ON THE DRAWINGS THAT EXISTING CONDITIONS TO BE VERIFIED, NOTIFY THE E.O.R. IN WRITING OF THE FINDINGS. VERIFICATIONS SHALL TAKE PLACE PRIOR TO PREPARATION OF SHOP DRAWINGS AND SHOP DRAWINGS SHALL SHOW ALL FIELD VERIFIED EXISTING CONDITIONS. MODIFICATIONS TO DETAILS MAY BE REQUIRED SHOULD ACTUAL CONDITION SIGNIFICANTLY DIFFER FROM THOSE PRESUMED. ANY REQUIRED MODIFICATIONS WILL BE MADE DURING THE REVIEW OF THE SHOP DRAWINGS.

3. USE APPROPRIATE CONSTRUCTION METHODS AND EQUIPMENT AS NECESSARY TO SUPPORT EXISTING STRUCTURES AND TO AVOID OVER STRESSING THE EXISTING STRUCTURES.

ABBREVIATIONS

&	AND	HORIZ. (H)	HORIZONTAL
A.B.	ANCHOR BOLT	H.S.B.	HIGH STRENGTH BOLT
ALT.	ALTERNATE	HT.	HEIGHT
ARCH.	ARCHITECT	I.F.	INSIDE FACE
ARCH'L.	ARCHITECTURAL	I.D.	INSIDE DIAMETER
@	AT	JST.	JOIST
B.O.F.	BOTTOM OF FOOTING	KB	KNEE BRACE
BLDG.	BUILDING	L.B.	LAG BOLT
BLK.	BLOCK	LG.	LONG
BM.	BEAM	L.L.	LIVE LOAD
B.N.	BOUNDARY NAIL	LLH	LONG LEG HORIZONTAL
B.O.	BOTTOM OF	LLV	LONG LEG VERTICAL
BTM.	BOTTOM	LONGIT.	LONGITUDINAL
BRG.	BEARING	L.P.	LOW POINT
BRDG.	BRIDGING	L.W.C.	LIGHT WEIGHT CONCRETE
BT.	BENT	MAS.	MASONRY
C.B.	CARRIAGE BOLT	MAX.	MAXIMUM
C.J.	CONSTRUCTION JOINT	MECH.	MECHANICAL
CL. (℄)	CENTERLINE	MIN.	MINIMUM
CLR.	CLEAR	N.I.C.	NOT IN CONTRACT
CMU	CONCRETE MASONRY UNIT	NO. (#)	NUMBER
COL.	COLUMN	N.T.S.	NOT TO SCALE
COLS.	COLUMNS	O.C.	ON CENTER
CONC.	CONCRETE	O.F.	OUTSIDE FACE
CONT.	CONTINUOUS	O.H.	OPPOSITE HAND
COORD.	COORDINATE	OPNG.	OPENING
CSK.	COUNTERSINK	OVHD.	OVERHEAD
CTR.	CENTER	PL (℄)	PLATE
d	PENNEY (NAILS)	PLY.	PLYWOOD
DBL.	DOUBLE	P.S.F.	POUNDS PER SQUARE FOOT
D.F.L.	DOUGLAS FIR LARCH	P.S.I.	POUNDS PER SQUARE INCH
DIA (Ø)	DIAMETER	P.T.	PRESSURE TREATED
DIAPH.	DIAPHRAGM	P.T.S	POST TENSION SLAB
D.L.	DEAD LOAD	REINF.	REINFORCING
do.	DITTO	R.O.	ROUGH OPENING
dp.	DEEP	SCH.	SCHEDULE
DWG.	DRAWING	SHT.	SHEET
DWLS.	DOWELS	SIM.	SIMILAR
EA.	EACH	SIMP.	SIMPSON CONNECTOR
EA. END	EACH END	SPC'G.	SPACING
EA. SIDE	EACH SIDE	STAGG.	STAGGERED
E.B.	EXPANSION BOLT	STD.	STANDARD
ELEV.	ELEVATION	STIFF.	STIFFENER
E.F.	EACH FACE	STR.	STRUCTURAL
E.N.	EDGE NAIL	THK.	THICK
E.W.	EACH WAY	THRU.	THROUGH
EX.	EXISTING	T. & B.	TOP & BOTTOM
F.B.	FLAT BAR	T.N.	TOE NAIL
FDN.	FOUNDATION	T.O.	TOP OF
FIN.	FINISHED	T.O.B.	TOP OF BEAM
FLR.	FLOOR	T.O.F.	TOP OF FOOTING
F.N.	FIELD NAILING	T.O.G.	TOP OF GIRT
F.O.C.	FACE OF CONCRETE	T.O.M.	TOP OF MASONRY
F.O.M.	FACE OF MASONRY	T.O.S.	TOP OF STEEL
F.O.S.	FACE OF STUDS	T.O.W.	TOP OF WALL
FTG.	FOOTING	TRANSV.	TRANSVERSE
F.V.	FIELD VERIFY	T.SL.	TOP OF SLAB
GA.	GAUGE	TYP.	TYPICAL
GALV.	GALVANIZED	U.O.N.	UNLESS OTHERWISE NOTED
G.C.	GENERAL CONTRACTOR	VERT. (V)	VERTICAL
GLB.	GLUE-LAMINATED BEAM	W/	WITH
HDR.	HEADER	WD.	WOOD
HGR.	HANGER	W.W.F.	WELDED WIRE FABRIC

GENERAL

1. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER IT IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND INSURE THE SAFETY OF THE CONSTRUCTION PERSONNEL, PUBLIC, AND ADJACENT PROPERTIES. THIS INCLUDES THE ADDITION OF WHATEVER TEMPORARY OR PERMANENT SHORING, BRACING, NEEDLING, UNDERPINNING, OR SHEET PILING, ETC. THAT MAY BE NECESSARY TO BRACE NEW CONSTRUCTION, SO THAT THE STRUCTURE IS BRACED FOR WIND, GRAVITY, CONSTRUCTION LOADS, ETC. TEMPORARY SUPPORTS SHALL BE MAINTAINED IN PLACE UNTIL PERMANENT SUPPORTS AND/OR SHORING AND BRACING ARE INSTALLED.

2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENFORCE ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.

3. THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION FOR THE PROJECT IN A MANNER AND SEQUENCE THAT ARE BASED ON ACCEPTED INDUSTRY STANDARDS THAT RECOGNIZE THE INTERACTION OF THE COMPONENTS THAT COMPRISE THE STRUCTURE, WITHOUT CAUSING DISTRESS, UNANTICIPATED MOVEMENTS OR IRREGULAR LOAD PATHS AS A RESULT OF THE CONSTRUCTION MEANS AND METHODS EMPLOYED.

4. CONSTRUCTION LOADS SHALL NOT EXCEED DESIGN LOADS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DESIGN REQUIRED TO SUPPORT CONSTRUCTION EQUIPMENT USED IN CONSTRUCTING THIS PROJECT. SHORING AND RESHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.

5. ALL CONTRACTORS ARE REQUIRED TO EXAMINE THE DRAWINGS AND SPECIFICATIONS CAREFULLY, VISIT THE SITE AND FULLY INFORM THEMSELVES AS TO ALL EXISTING CONDITIONS AND LIMITATIONS, PRIOR TO AGREEING TO PERFORM THE WORK. FAILURE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND LIMITATIONS WILL IN NO WAY RELIEVE THE CONTRACTOR FROM FURNISHING ANY MATERIALS OR PERFORMING ANY WORK IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.

6. DETAILS LABELED "TYPICAL DETAILS" ON DRAWINGS APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFIC DETAILS. SUCH DETAILS APPLY WHETHER OR NOT DETAILS ARE REFERENCED AT EACH LOCATION. NOTIFY ENGINEER FOR CLARIFICATION REGARDING APPLICABILITY OF "TYPICAL DETAILS".

7. WORK THESE DRAWINGS WITH CIVIL DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

8. DO NOT SCALE DRAWINGS.

9. SHOULD ANY OF THE GENERAL NOTES CONFLICT WITH ANY DETAILS OR INSTRUCTIONS ON PLANS, OR IN THE SPECIFICATIONS, THE STRICTEST PROVISION SHALL GOVERN.

10. SHOP DRAWINGS AND SUBMITTALS:

   A. THESE DRAWINGS SHALL BE CHECKED AND COORDINATED WITH OTHER MATERIALS AND CONTRACTS BY THE GENERAL CONTRACTOR AND SHOP DRAWINGS AND SUBMITTALS SHALL BEAR THE CONTRACTOR'S REVIEW STAMP WITH THE CHECKER'S INITIALS BEFORE BEING SUBMITTED TO THE ARCHITECT OR ENGINEER FOR APPROVAL.

   B. WHEN THE FABRICATOR HAS BEEN AUTHORIZED TO USE THE ENGINEER'S DRAWINGS AS ERECTION DRAWINGS, THE FABRICATOR MUST REMOVE ALL TITLE BLOCKS, PROFESSIONAL SEALS AND ANY OTHER REFERENCE TO THE ENGINEER FROM THAT ERECTION DRAWING. THE FABRICATOR'S NAME AND TITLE SHALL BE PLACED ON THE ERECTION DRAWING.

   C. WHERE DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION COULD AFFECT THE NEW CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE FIELD MEASUREMENTS IN TIME FOR THEIR INCORPORATION IN THE SHOP DRAWINGS.

SOILS

1. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE SURVEY AND THE GEOTECHNICAL INVESTIGATION REPORT BY GEOTECHNICS DATED JANUARY 07, 2021, BEFORE STARTING CONSTRUCTION.

2. A SOILS TESTING LABORATORY SHALL BE RETAINED BY THE CONTRACTOR FOR PROJECT CONSTRUCTION REVIEW TO ENSURE CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS DURING THE EXCAVATION, BACK FILL, AND FOUNDATION PHASES OF THE PROJECT.

3. ALL FILL MATERIAL SHALL BE FREE OF ORGANIC CONTAMINATIONS AND OTHER DELETERIOUS MATTER.

4. NOTIFY STRUCTURAL ENGINEER OF ANY UNUSUAL SOIL CONDITIONS THAT ARE IN VARIANCE WITH THE GEOTECHNICAL REPORT.

STRUCTURAL STEEL

1. DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC SPECIFICATIONS AND STANDARD CODE OF PRACTICE FOR THE YEAR REFERENCED IN THE BUILDING CODE NOTED, EXCEPT AS MODIFIED BY THESE NOTES AND THE PROJECT SPECIFICATIONS.

2. STEEL SHALL CONFORM TO THE FOLLOWING GRADES UNLESS OTHERWISE NOTED:
   A. SHEET PILING - ASTM A572 (Fy = 60 KSI)
   B. PLATES - ASTM A572 (Fy = 50 KSI)
   C. PIPE PILES - ASTM A252 GRADE 3 MODIFIED (Fy = 50 KSI)
   D. W-SHAPES - ASTM A992 (Fy = 50 KSI)
   E. HP-SHAPES - ASTM A572 (Fy = 50 KSI)
   F. THREADED BAR - ASTM A615 (Fy = 80 KSI)
   G. WASHERS - ASTM F436
   H. THREADED BAR NUTS/CONNECTORS - ASTM A108/A576
   I. WELDING ELECTRODES - E70XX
   J. BOLTS - ASTM A325-N (¾" MIN. DIA.)

3. STEEL FABRICATION AND ERECTION SHALL FOLLOW OSHA REQUIREMENTS.

4. ALL WELDING SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE", AWS D1.1, LATEST EDITION.

5. SPLICING OF STRUCTURAL MEMBERS WHERE NOT DETAILED ON THE DRAWINGS IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

6. CUTS, HOLES, COPING, ETC. REQUIRED FOR WORK OF OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS AND MADE IN THE SHOP. CUTS OR BURNING OF HOLES IN THE STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED, UNLESS SPECIFICALLY APPROVED IN EACH CASE BY THE ENGINEER.

7. THE MINIMUM PLATE THICKNESS SHALL BE 3/8", UNLESS OTHERWISE NOTED.

8. THE MINIMUM WELD SIZE SHALL BE 1/4", UNLESS OTHERWISE NOTED.

9. GALVANIZE STRUCTURAL MEMBERS AS NOTED IN DRAWINGS AND SPECIFICATIONS.

10. PILING (SHEET AND PIPE):

   A. CONTRACTOR SHALL RECORD AND REPORT DAILY PILE DRIVING LOGS TO INDICATE EACH PILE LOCATION, SIZE, WATERLINE ELEVATION, ESTIMATED WATER DEPTH, FINAL EMBEDMENT DEPTH, CUTOFF ELEVATION, EQUIPMENT AND METHOD EMPLOYED FOR DRIVING AND ANY OTHER PERTINENT DATA REGARDING THE DRIVING OPERATIONS.

   B. CONTRACTOR SHALL VERIFY, RECORD, AND REPORT FINAL PILE LOCATIONS AND ELEVATIONS WITH A SURVEY.

   C. EACH PIPE PILE SHALL HAVE A MAXIMUM OF ONE (1) SHOP SPLICE OR (1) FIELD SPLICE, AT THE CONTRACTOR'S DISCRETION. SPLICES SHALL BE PROVIDED USING PREFABRICATED SPLICING COMPONENTS.

   D. SHEET PILING SHALL BE PROVIDED AND INSTALLED IN FULL LENGTHS AS NOTED ON THE DRAWINGS.

SPECIAL STRUCTURAL INSPECTIONS

1. CONTRACTOR WILL ENGAGE A QUALIFIED INSPECTING AGENCY TO PERFORM FIELD SPECIAL INSPECTIONS IN ACCORDANCE WITH THE APPLICABLE INTERNATIONAL BUILDING CODE AND TO SUBMIT THE REQUIRED REPORTS. REPORTS SHALL BE FURNISHED TO THE OWNER, ENGINEER OF RECORD, AND THE CONTRACTOR.

2. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING THAT THE STRUCTURAL WORK WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.

3. SPECIAL INSPECTIONS SHALL CONFORM TO CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE, IBC, 2018.
   SPECIAL INSPECTIONS INCLUDE:
      A. STEEL CONSTRUCTION - SECTION 1705.2
      B. SOILS - SECTION 1705.6
   SEE TABLES FOR INSPECTION REQUIREMENTS. SHEET PILE INSPECTIONS SHALL BE PERFORMED PER THE ACCOMPANYING TABLE.

4. THE CONTRACTOR SHALL PROVIDE ACCESS FOR SPECIAL INSPECTION AS NEEDED. CONTRACTOR SHALL PROVIDE A MANLIFT AND OPERATOR TO ASSIST THE SPECIAL INSPECTOR TO ACCESS ITEMS TO BE INSPECTED.

SPECIAL INSPECTIONS - STEEL TABLE

ITEM	VERIFICATION AND INSPECTION	INSPECTION FREQUENCY
High Strength Bolts	Verify identification markings conform to ASTM standards specified in the Construction Documents.	Periodic
	Verify Bearing-Type Connections bolts, nuts, washers, paint, installation, and tightening conform to their respective standards.	Periodic
Welds	Verify Welder and Welding Inspector Qualifications and verify use of proper WPS's	Periodic
	Verify identification markings of Weld Filler Materials for field installed welds conform with AWS Specifications and the Construction Documents.	Periodic
	Inspection of field installed Single Pass fillet welds not greater than 5/16".	Periodic
	Inspection of field installed Complete and Partial Joint Penetration groove welds and single or multipass fillet welds greater than 5/16".	Periodic
Structural Steel Framing (Walers)	Verify identification markings conform to ASTM standards specified in the Construction Documents.	Periodic
	Inspection of Steel Framing for compliance with Construction Documents for member sizes and locations, bracing, stiffeners, and connections in accordance with the quality assurance inspection requirements of AISC 360.	Periodic

SPECIAL INSPECTIONS - SOILS TABLE

ITEM	VERIFICATION AND INSPECTION	INSPECTION FREQUENCY
Materials	Perform classification and testing of compacted fill materials.	Periodic
	Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill in accordance with the Geotechnical Report.	Continuous
Sampling and Testing	Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	Periodic

SPECIAL INSPECTIONS - SHEET PILE TABLE

ITEM	VERIFICATION AND INSPECTION	INSPECTION FREQUENCY
Materials	Verify element materials, sizes, and lengths comply with the requirements.	Periodic
Equipment	Inspect driving operations and maintain complete and accurate records for each element.	Periodic
Installation	Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, record tip and butt elevations and document any damage to element. Review contractors daily logs for conformance with construction documents.	Periodic

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REVISION HISTORY

MARK	DESCRIPTION	DATE	APPR
1	SHEET PILE WALL ROTATION, ADDITIONAL PIPE PILE, AND RIP-RAP DELETE AT TOE	02/09/21	AMB
2	SHEET PILE WALL HEIGHT ALTERNATIVE	02/12/21	AMB

Klingner & Associates, P.C.
Missouri State Certificate of Authority
No. E-000866

STATE OF MISSOURI
ALAN M. BALZER
NUMBER PE-2010038874
PROFESSIONAL ENGINEER
01/25/2021

WHARF DOCK REPLACEMENT PROJECT

HOWARD-COOPER COUNTY REGIONAL PORT AUTHORITY
BOONVILLE, MO

Non-Reduced Sheet Size: 22" x 34"
Full sized plans have been prepared using standard scales. Reduced size plans may not conform to standard scales.

DESIGNED	DRAWN
AMB	AMB
FIELD	FIELD BOOK
-	-
CHECKED	CHECK DATE
KTH	01/14/2021

SHEET TITLE

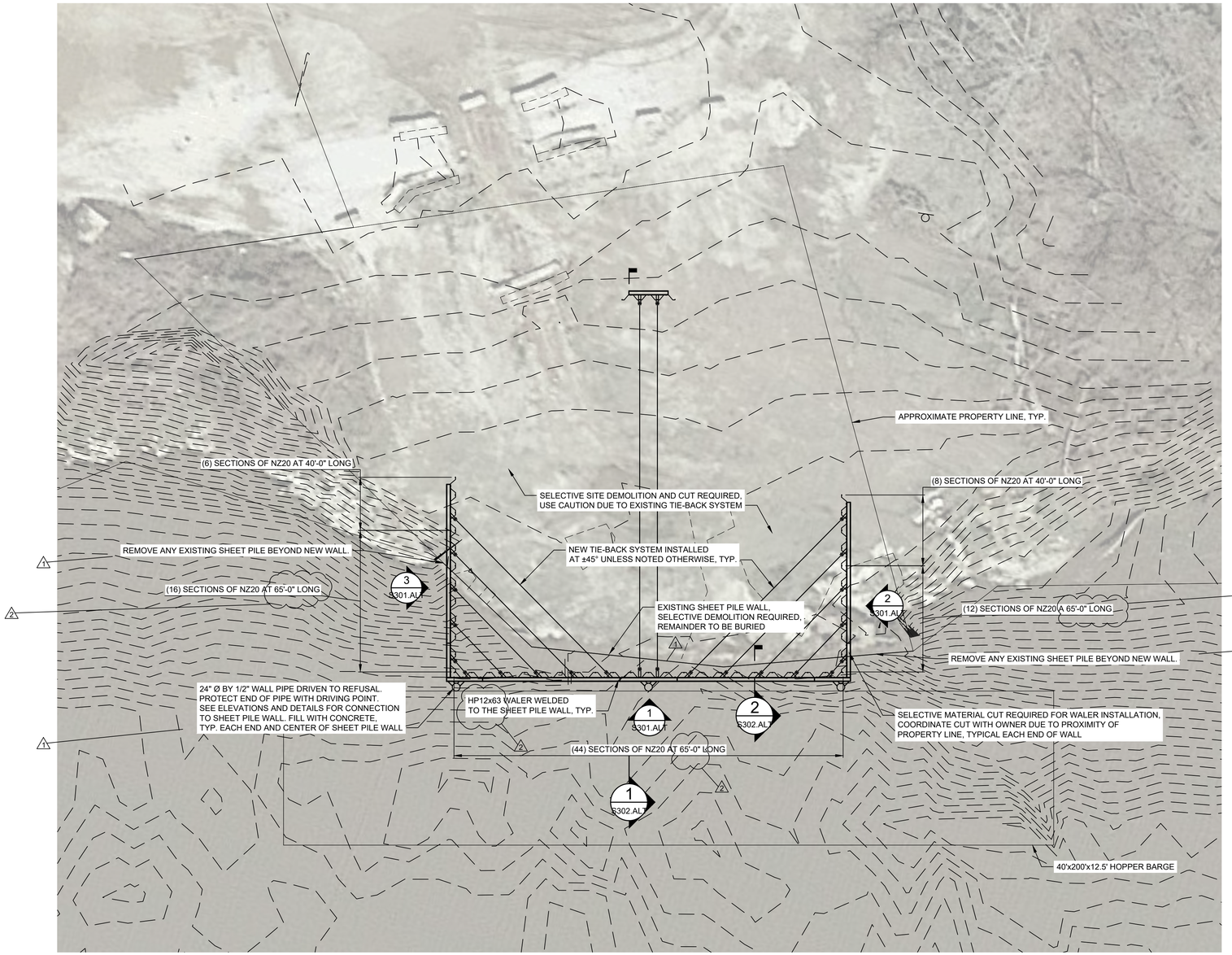
STRUCTURAL NOTES

PROJECT NO.
20-0330

DRAWING ISSUED DATE:
01/25/2021

SHEET

S001.ALT



STRUCTURAL SITE PLAN

1/16" = 1'-0"

NOTES:
1. PROPOSED GRADES ARE NOT SHOWN FOR CLARITY, COORDINATE WITH CIVIL DRAWINGS.
2. EXISTING TIE-BACK SYSTEM PRESENT. CONTRACTOR TO USE CAUTION WHEN INSTALLING NEW TIE-BACK SYSTEM AND AVOID EXISTING SYSTEM.
3. PROPERTY LINES ARE APPROXIMATE. CONTRACTOR TO CONFIRM PROPERTY LINE LOCATIONS WITH OWNER PRIOR TO START OF CONSTRUCTION.

N

0 8' 16' 32'

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

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STATE OF MISSOURI
ALAN M. BALZER
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PROFESSIONAL ENGINEER
01/25/2021

WHARF DOCK REPLACEMENT PROJECT

HOWARD-COOPER COUNTY REGIONAL PORT AUTHORITY
BOONVILLE, MO

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DESIGNED	DRAWN
AMB	AMB
FIELD	FIELD BOOK
-	-
CHECKED	CHECK DATE
KTH	01/14/2021

SHEET TITLE

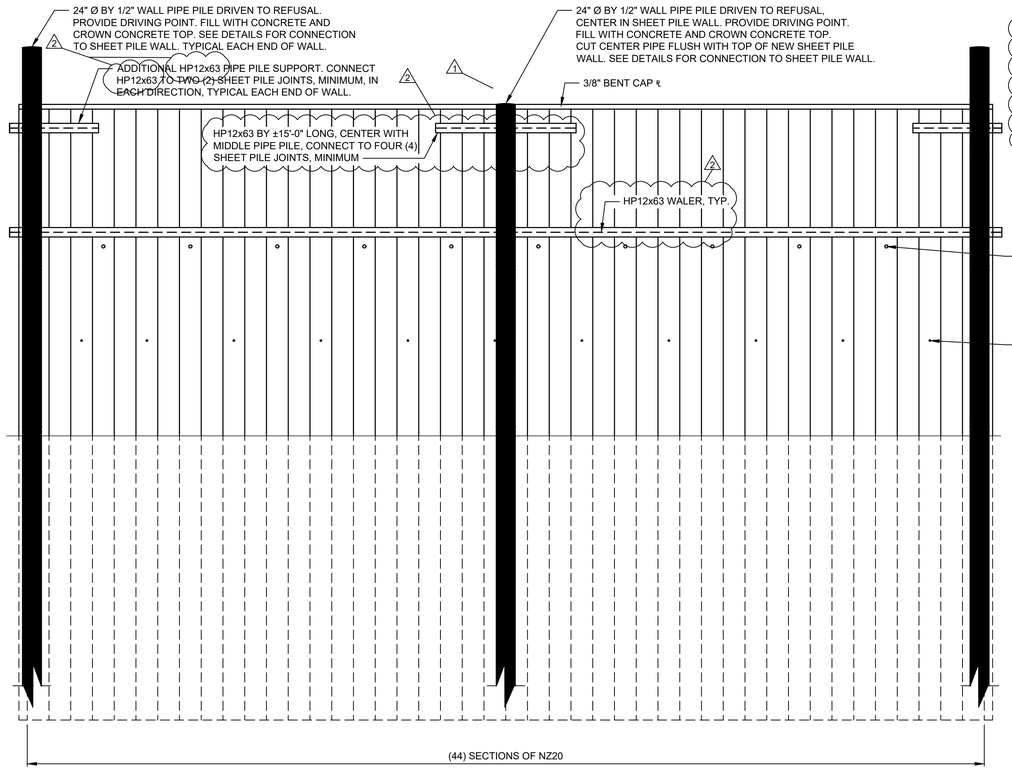
WHARF DOCK STRUCTURAL PLAN

PROJECT NO. 20-0330

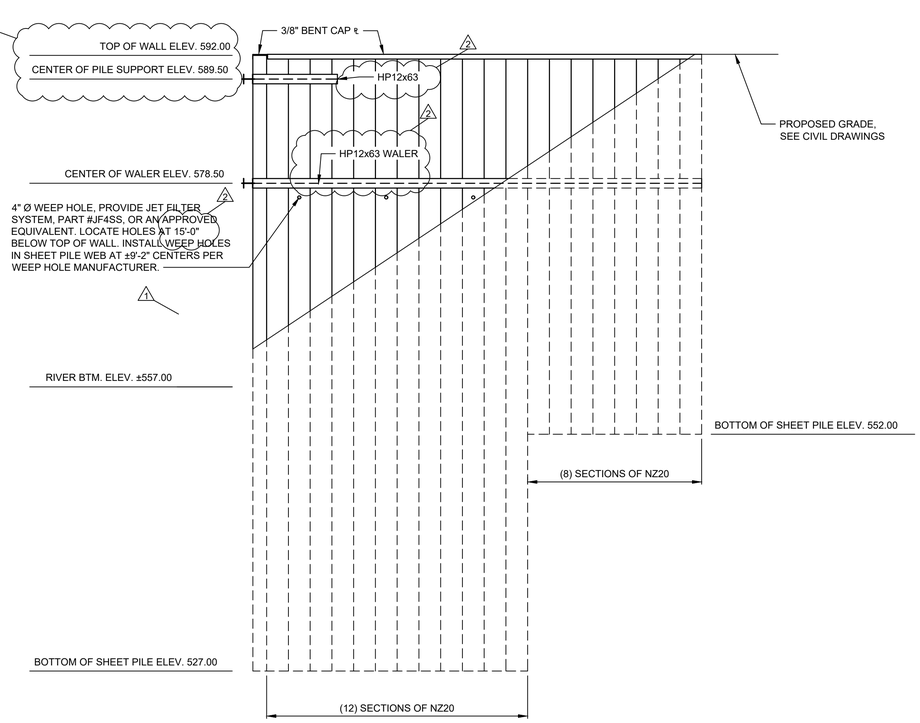
DRAWING ISSUED DATE: 01/25/2021

SHEET

S101.ALT

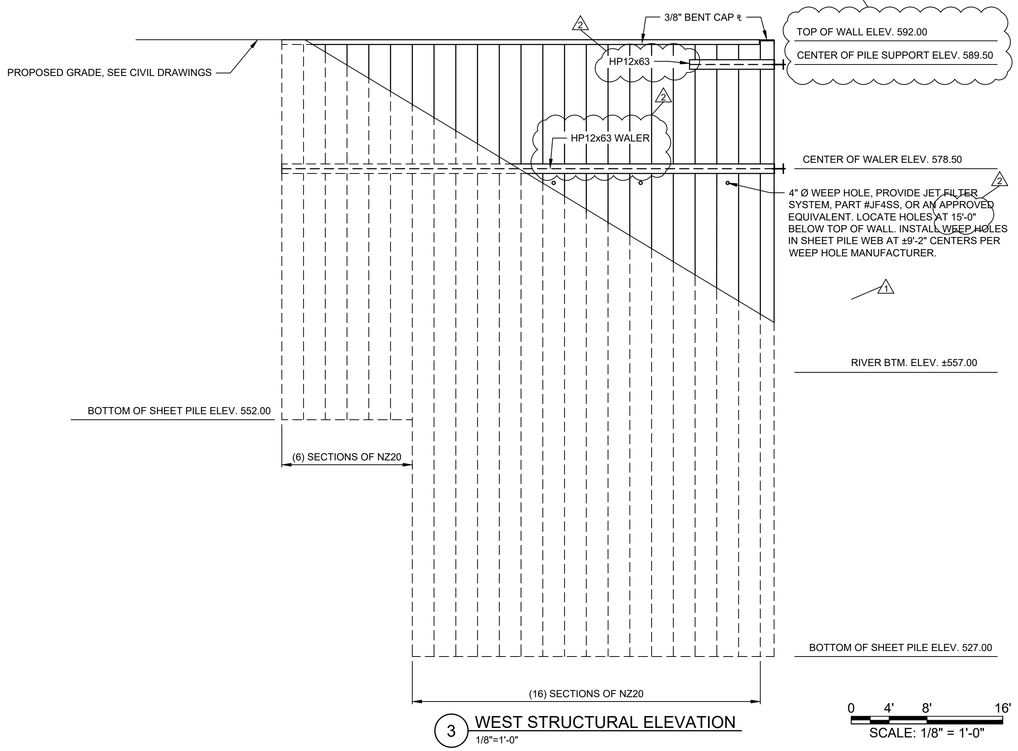


1 FRONTAGE WALL ELEVATION
1/8" = 1'-0"



2 EAST STRUCTURAL ELEVATION
1/8"=1'-0"

WEEP HOLE NOTES:
1. INSTALL 1/2" TO 3/4" CLEAN AGGREGATE INSTALLED MINIMUM 30" IN ALL DIRECTIONS BEYOND ALL WEEP HOLES.
2. PERFORATED STEEL TO HAVE A MAXIMUM OF 1/4" OPENINGS.



3 WEST STRUCTURAL ELEVATION
1/8"=1'-0"

0 4' 8' 16'
SCALE: 1/8" = 1'-0"

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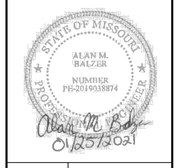

WHARF DOCK REPLACEMENT PROJECT

HOWARD-COOPER COUNTY REGIONAL PORT AUTHORITY
BOONVILLE, MO

Non-Reduced Sheet Size: 22" x 34"
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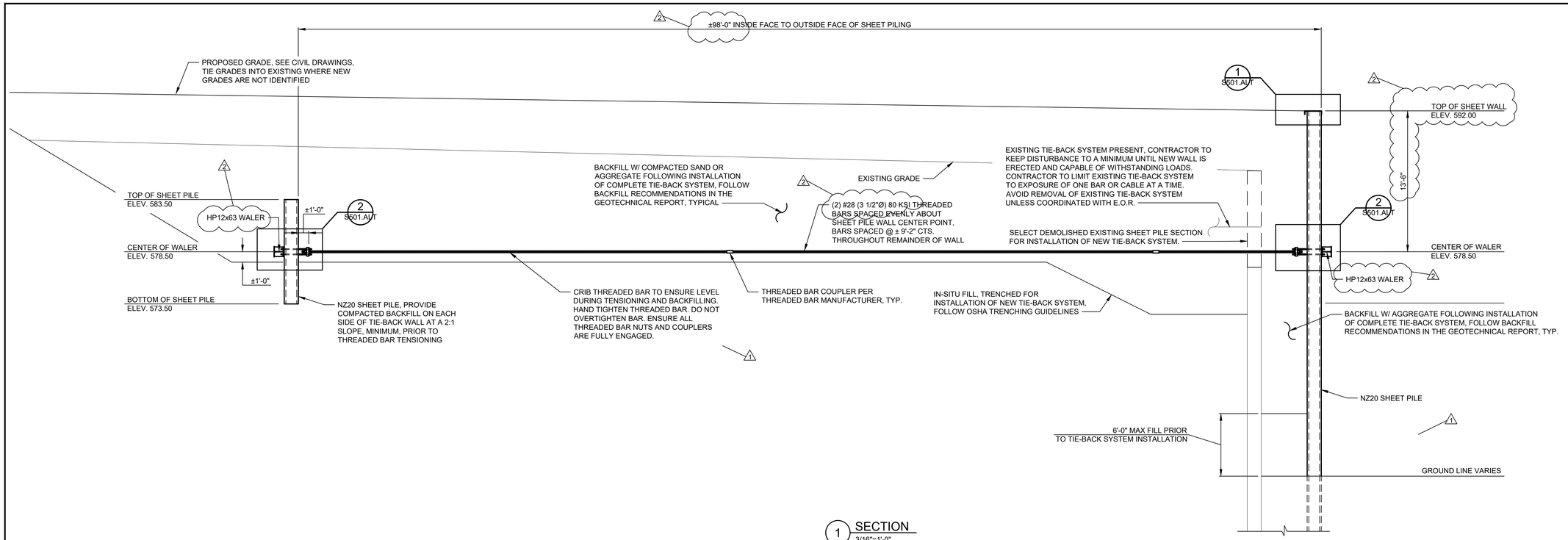
DESIGNED	DRAWN
AMB	AMB
FIELD	FIELD BOOK
-	-
CHECKED	CHECK DATE
KTH	01/14/2021

SHEET TITLE
WHARF DOCK STRUCTURAL ELEVATIONS

PROJECT NO.
20-0330

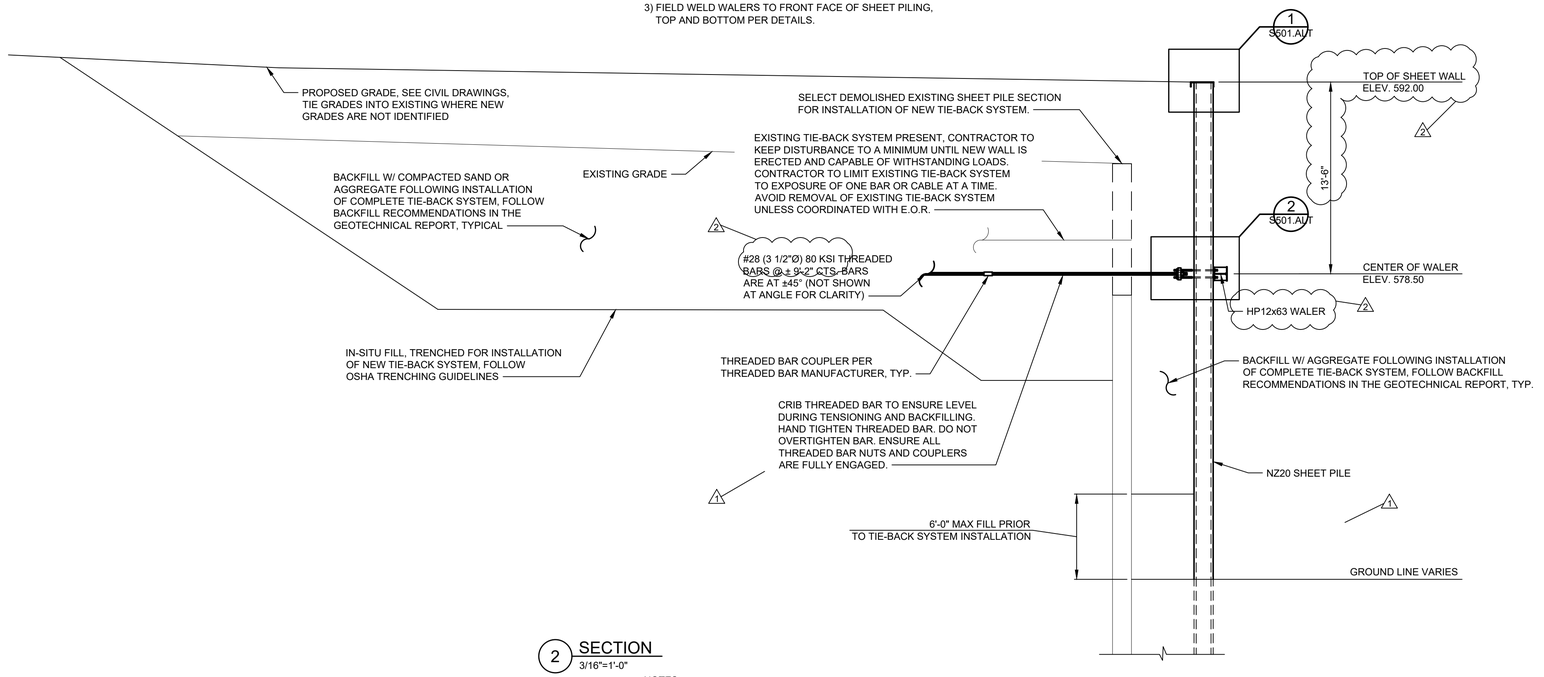
DRAWING ISSUED DATE:
01/25/2021

SHEET
S301.ALT



1 SECTION
3/16"=1'-0"

NOTES:
1) GALVANIZE ALL WALERS, THREADED BARS, COUPLERS, NUTS, AND WASHERS.
2) PROVIDE 1" Ø WEEP HOLES IN CENTER OF WEB IN ALL WALERS AT 4'-0" MAX CENTERS.
3) FIELD WELD WALERS TO FRONT FACE OF SHEET PILING, TOP AND BOTTOM PER DETAILS.



2 SECTION
3/16"=1'-0"

NOTES:
1) GALVANIZE ALL WALERS, THREADED BARS, COUPLERS, NUTS, AND WASHERS.
2) PROVIDE 1" Ø WEEP HOLES IN CENTER OF WEB IN ALL WALERS AT 4'-0" MAX CENTERS.
3) FIELD WELD WALERS TO FRONT FACE OF SHEET PILING, TOP AND BOTTOM PER DETAILS

0 5' 10'
SCALE: 3/16" = 1'-0"

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
www.klingner.com
Galesburg, IL Burlington, IA Pella, IA
Davenport, IA Hannibal, MO Columbia, MO
Quincy, Illinois
616 North 24th Street
217.223.3670

REVISION HISTORY

MARK	DESCRIPTION	DATE	APPR
1	SHEET PILE WALL ROTATION, ADDITIONAL PIPE PILE, AND RIP-RAP DELETE AT TOE	02/09/21	AMB
2	SHEET PILE WALL HEIGHT ALTERNATIVE	02/12/21	AMB

Klingner & Associates, P.C.
Missouri State Certificate of Authority
No. E-000866

WHARF DOCK REPLACEMENT PROJECT

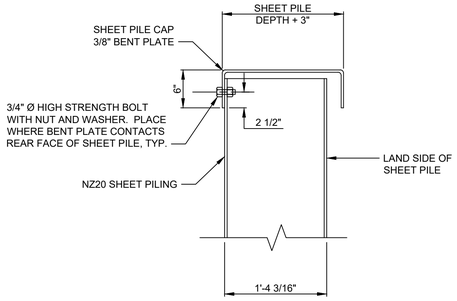
HOWARD-COOPER COUNTY REGIONAL PORT AUTHORITY
BOONVILLE, MO

Non-Reduced Sheet Size: 22" x 34"
Full sized plans have been prepared using standard scales. Reduced size plans may not conform to standard scales.

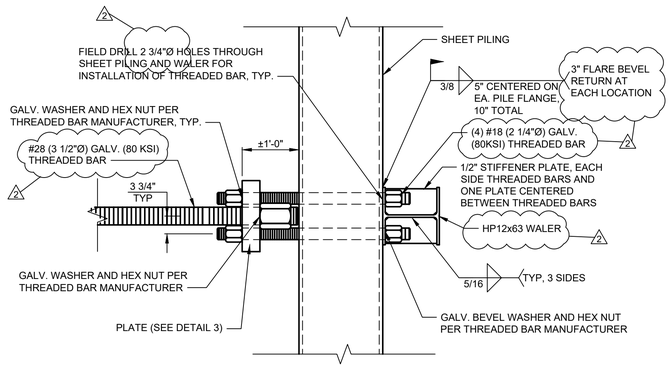
DESIGNED	DRAWN
AMB	AMB
FIELD	FIELD BOOK
CHECKED	CHECK DATE
KTH	01/14/2021

SHEET TITLE
WHARF DOCK STRUCTURAL SECTIONS

PROJECT NO. 20-0330
DRAWING ISSUED DATE: 01/25/2021
SHEET
S302.ALT

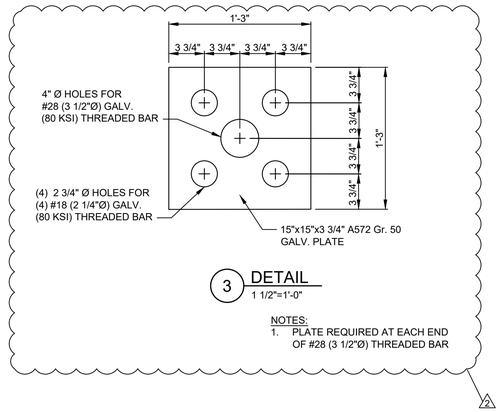


1 DETAIL
1"=1'-0"



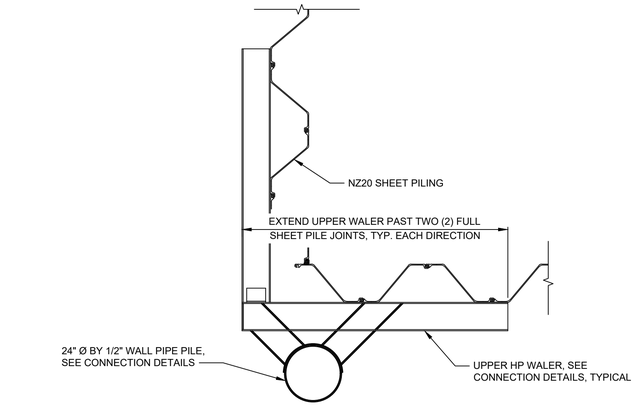
2 DETAIL
3/4"=1'-0"

NOTES:
1. THREADED BARS ARE SHOWN PERPENDICULAR TO WALL FOR CLARITY. BARS WILL REQUIRE BEVELED WASHERS TO ENSURE THE BARS ARE PARALLEL TO EACH OTHER AND PERPENDICULAR TO THE PLATE.



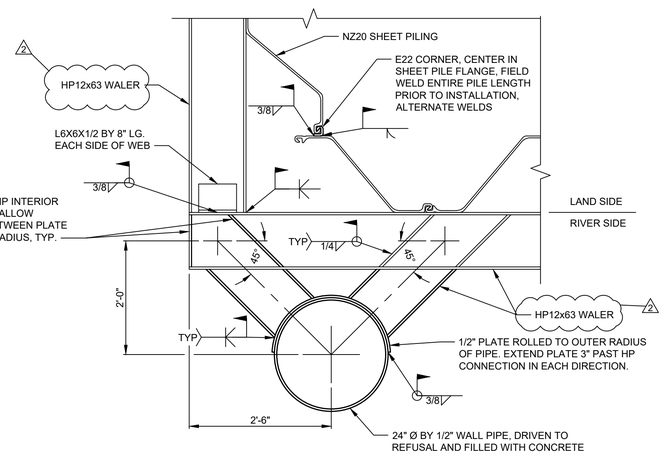
3 DETAIL
1 1/2"=1'-0"

NOTES:
1. PLATE REQUIRED AT EACH END OF #28 (3 1/2"Ø) THREADED BAR



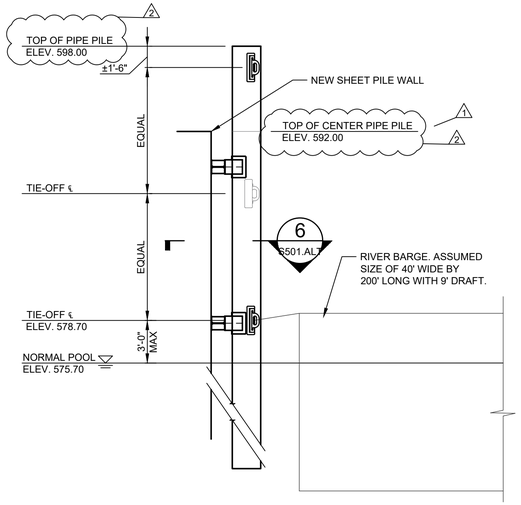
4 TYPICAL CORNER CONNECTION DETAIL (ELEV. 584.50)
3/8"=1'-0"

NOTE:
1. ALL CONNECTIONS ARE NOT NOTED OR SHOWN FOR CLARITY, SEE DETAIL 5/S501.ALT.



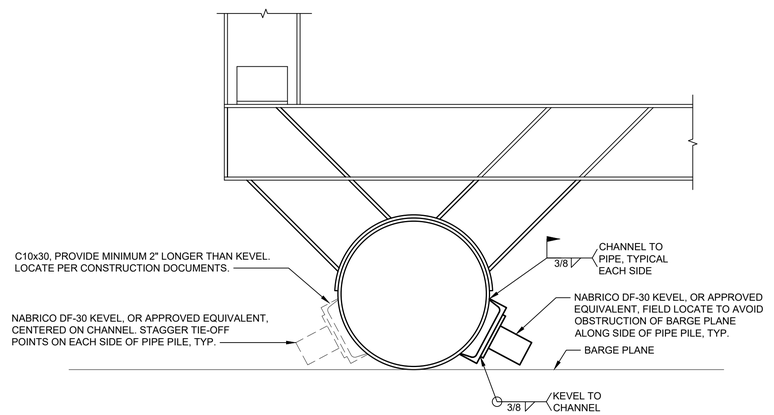
5 TYPICAL CORNER CONNECTION DETAIL (ELEV. 578.50)
3/4"=1'-0"

NOTE:
1. CENTER PIPE PILE CONNECTION IS SIMILAR.



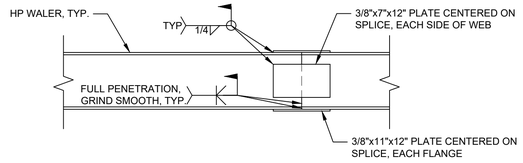
6 TYPICAL PIPE PILE ELEVATION
N.T.S.

NOTES:
1. CENTER PIPE PILE WILL BE CONNECTED TO THE SHEET PILE WALL SIMILAR TO THE END PIPE PILES AT BOTH ELEVATIONS.
2. CENTER PIPE PILE WILL NOT BE INSTALLED WITH TIE-OFFS.



7 TIE-OFF CONNECTION DETAIL
1" = 1'-0"

NOTE:
1. TOTAL OF SIX (6) KEVELS WITH CHANNEL CONNECTIONS.



8 TYPICAL WALER SPLICE
3/4"=1'-0"

NOTE:
1. SPLICE LOCATION AND QUANTITY IS AT THE DISCRETION OF THE CONTRACTOR.

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

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

0 6" 1' 2'
SCALE: 1" = 1'-0"

0 3" 6" 1'
SCALE: 1 1/2" = 1'-0"

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Missouri State Certificate of Authority
No. E-000866

STATE OF MISSOURI
ALAN M. BALZER
NUMBER PE-2010038874
PROFESSIONAL ENGINEER
01/25/2021

WHARF DOCK REPLACEMENT PROJECT
HOWARD-COOPER COUNTY REGIONAL PORT AUTHORITY
BOONVILLE, MO

Non-Reduced Sheet Size: 22" x 34"
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DESIGNED	DRAWN
AMB	AMB
FIELD	FIELD BOOK
-	-
CHECKED	CHECK DATE
KTH	01/14/2021

SHEET TITLE
WHARF DOCK STRUCTURAL DETAILS

PROJECT NO.
20-0330
DRAWING ISSUED DATE:
01/25/2021
SHEET
S501.ALT