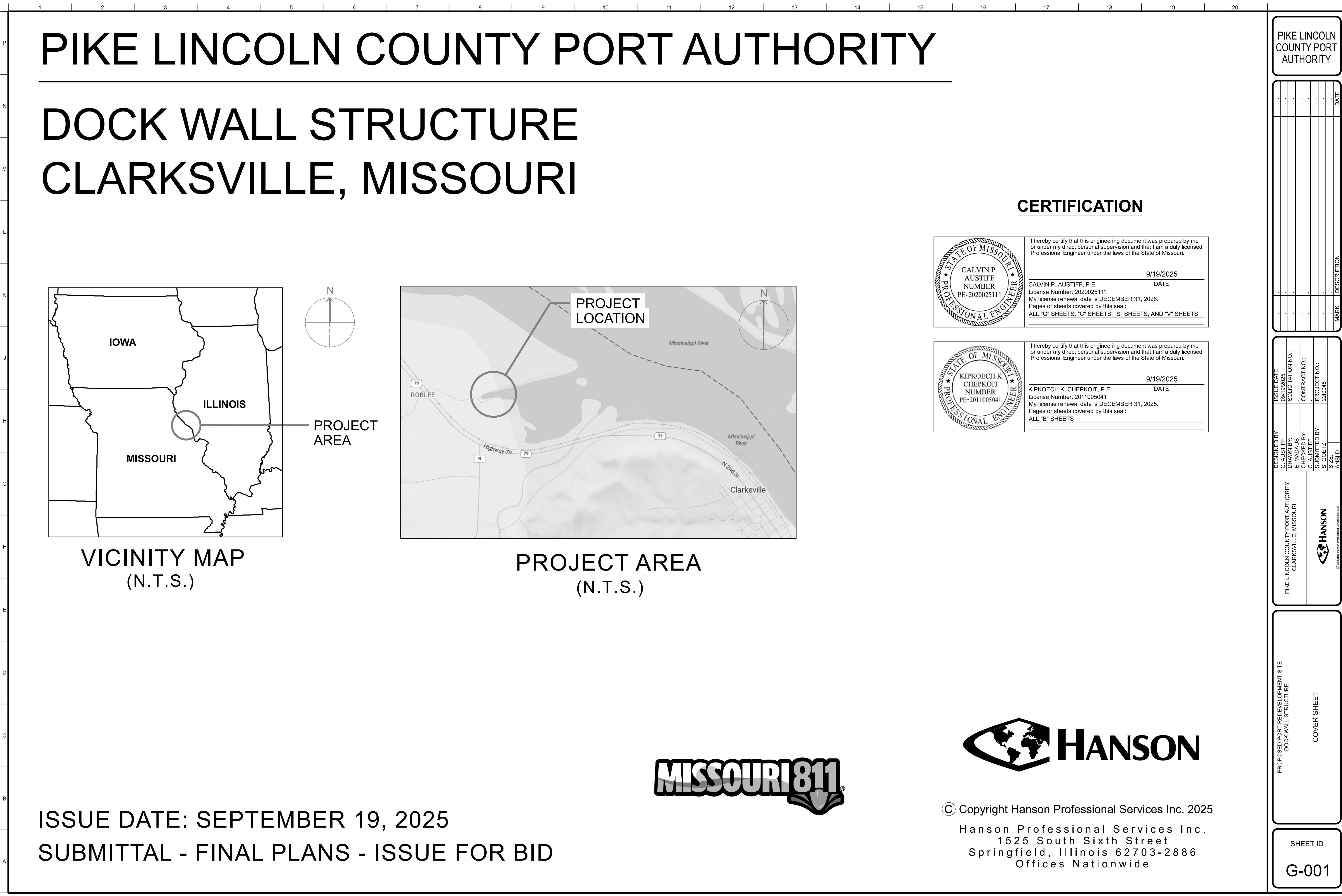
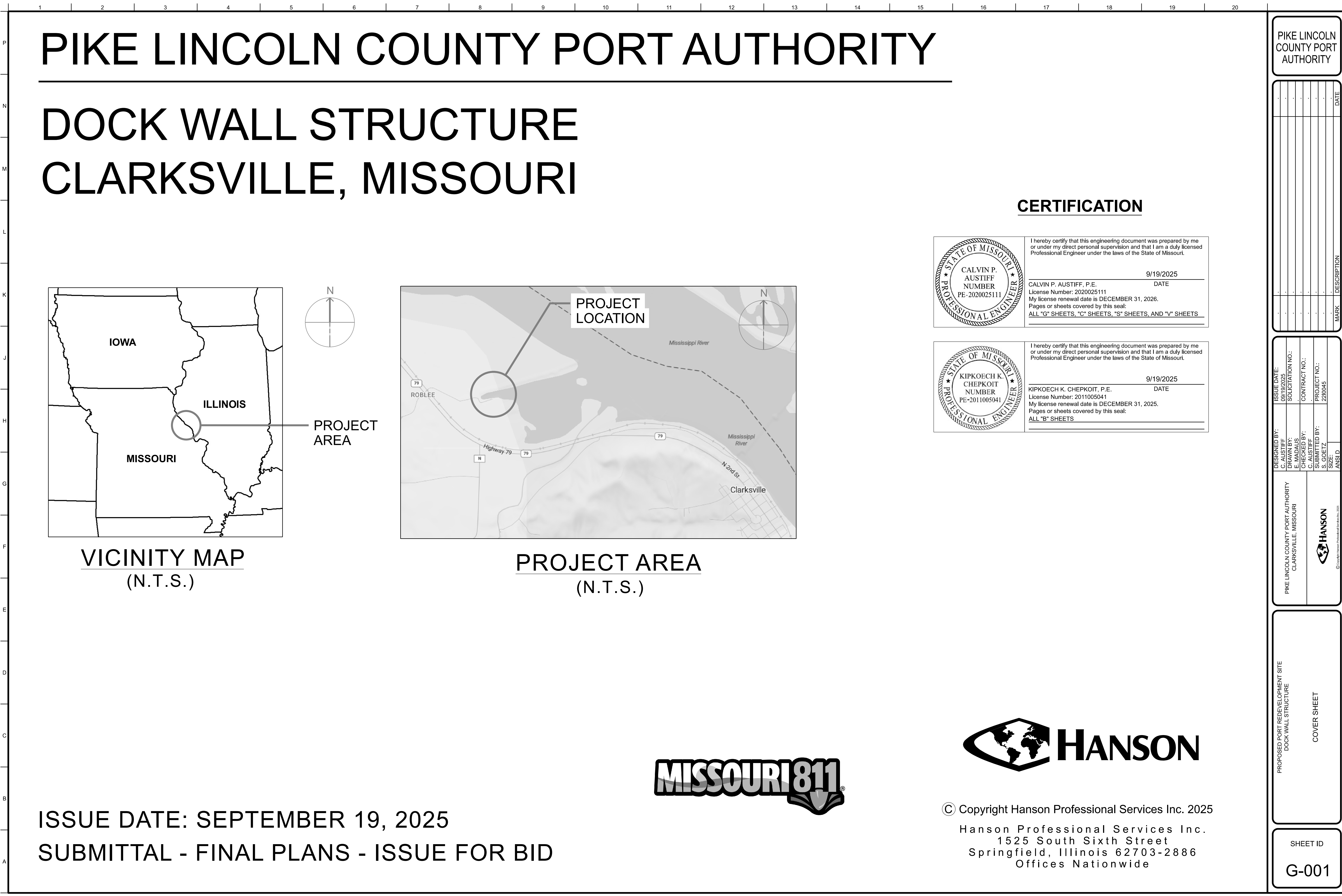
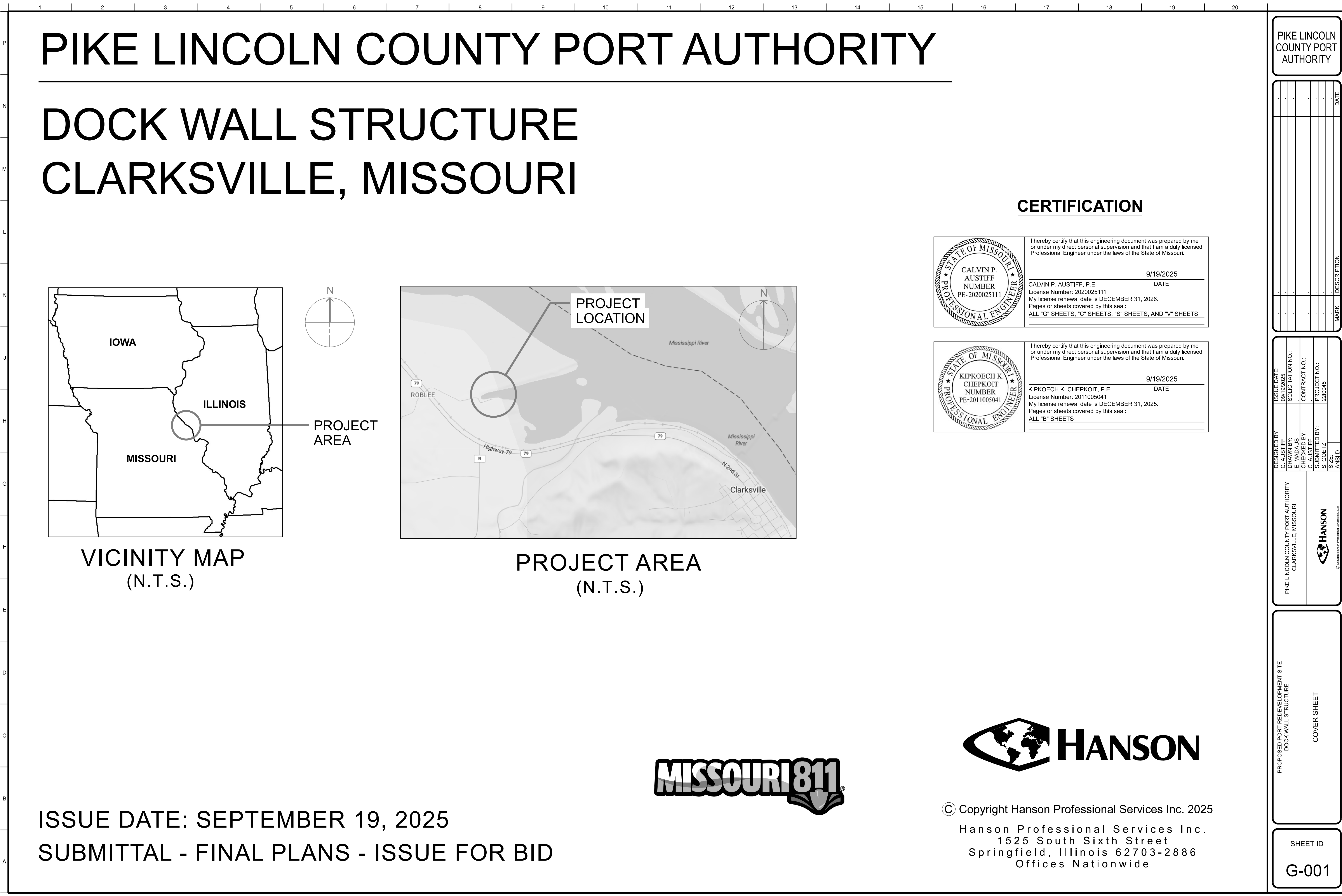
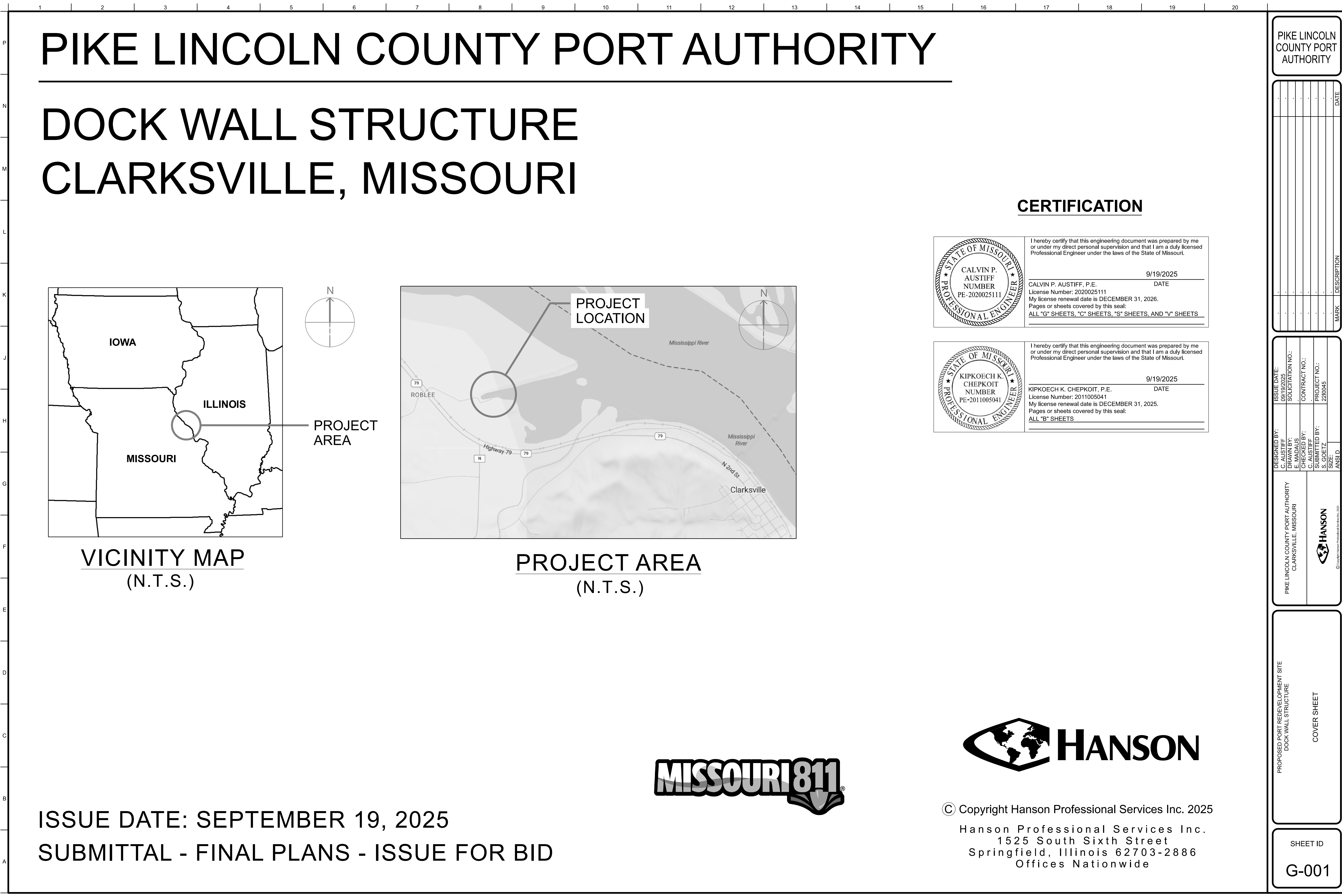
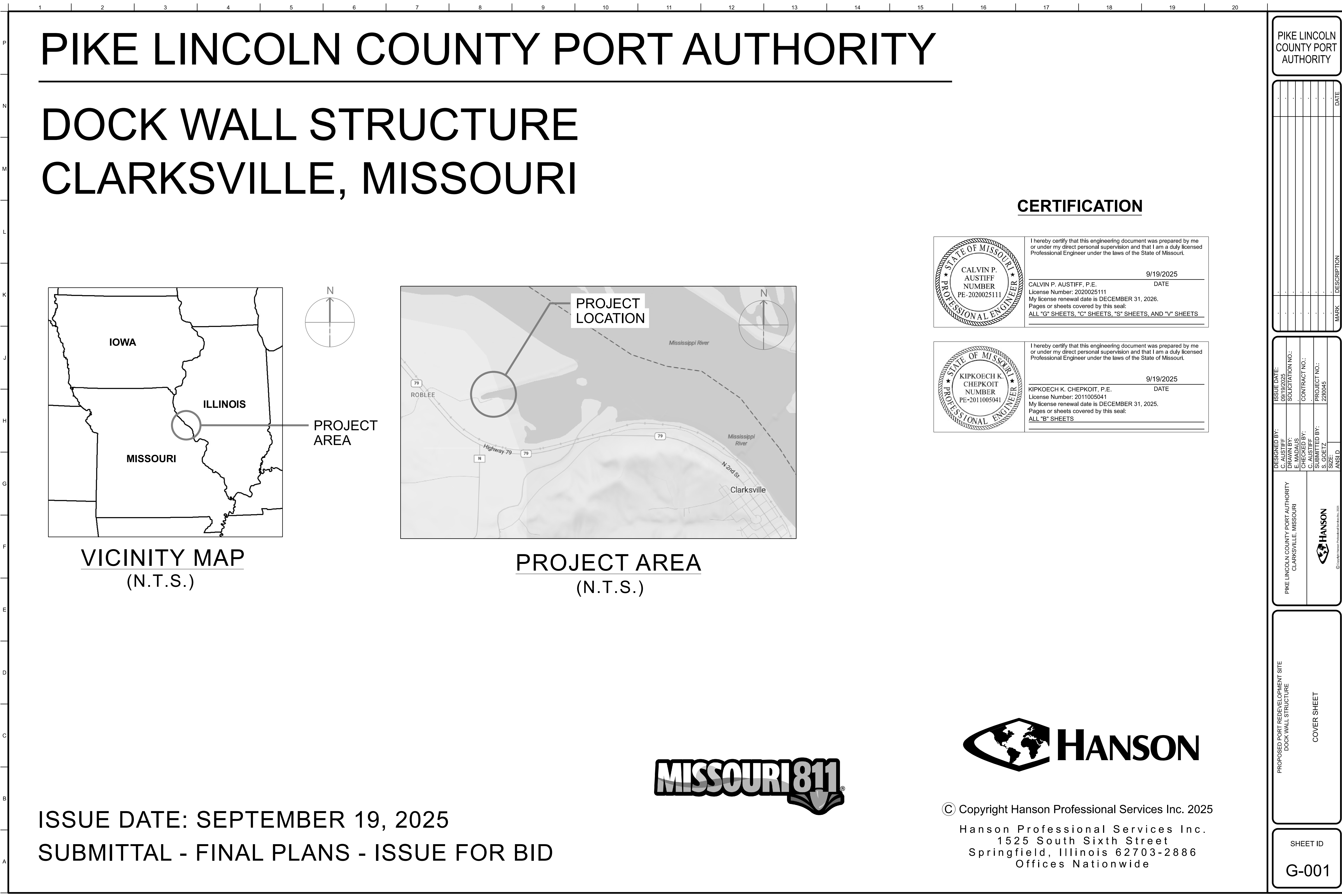
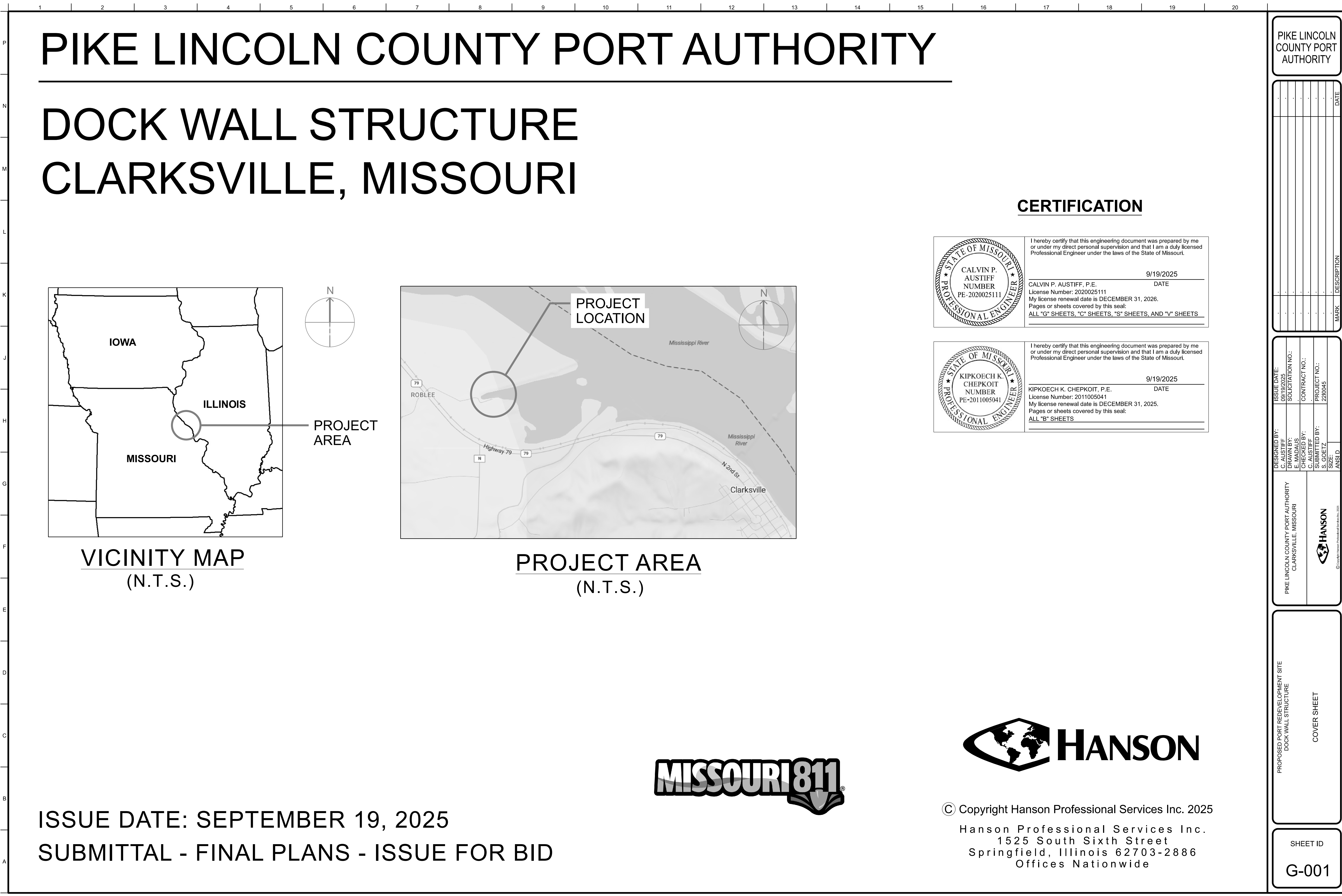
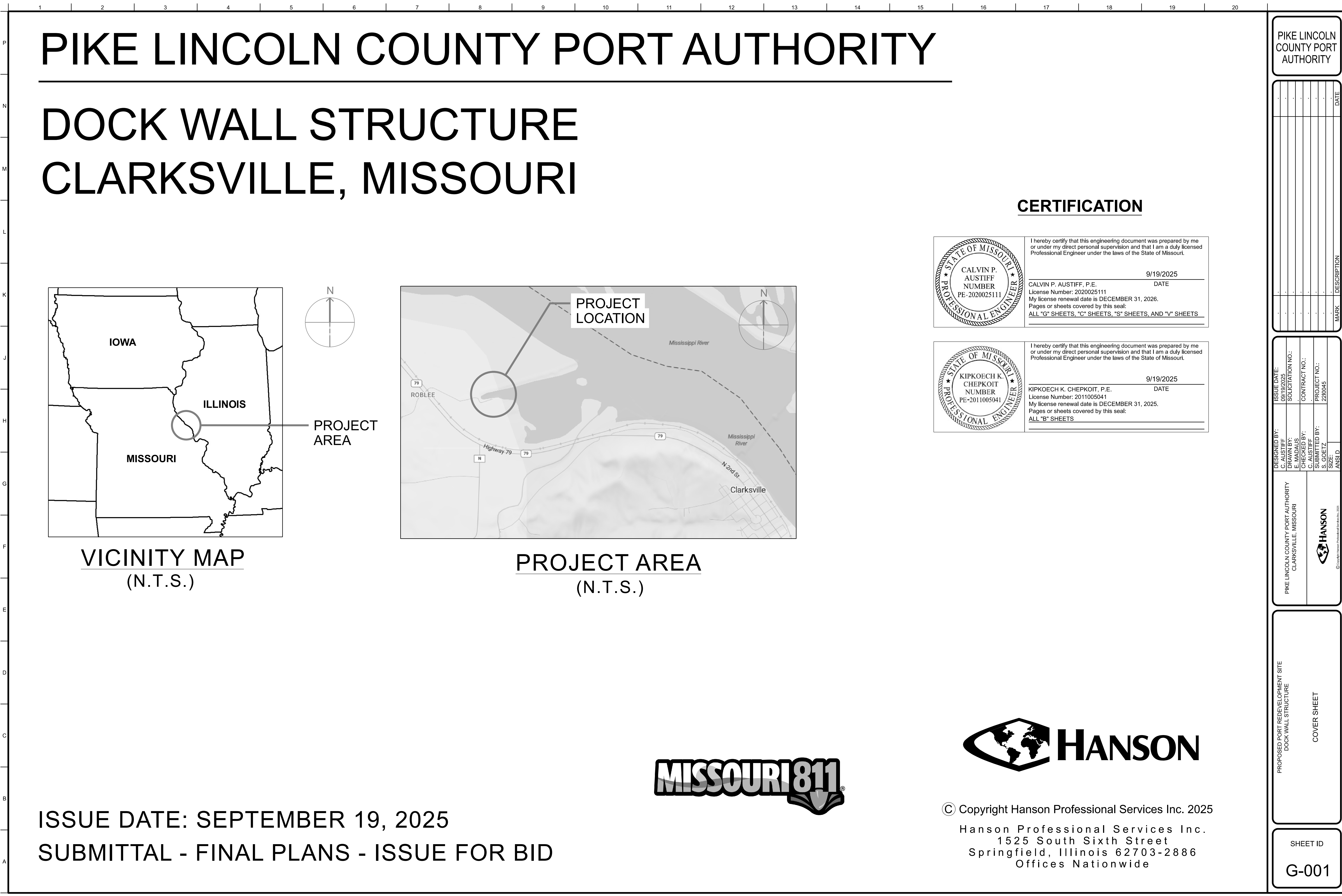
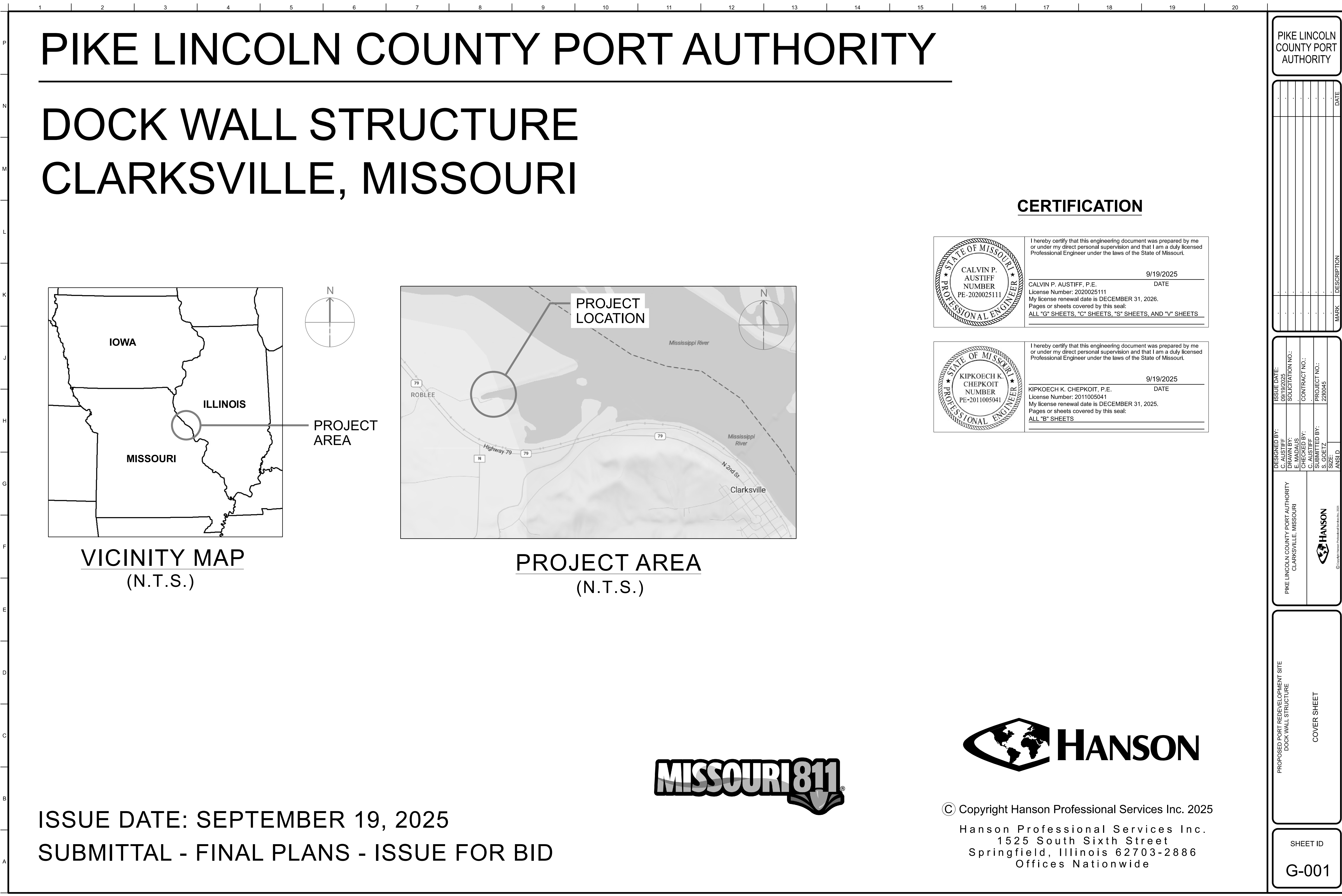


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SB-505	STRUCTURAL DETAILS

STANDARD ABBREVIATIONS

USACE	ARMY CORPS OF ENGINEERS	NWL	NATURAL WATER LINE
BOT	BOTTOM	NAVD	NORTH AMERICAN VERTICAL DATUM
CL	CENTERLINE	NTS	NOT TO SCALE
CJ	CONSTRUCTION JOINT	O.C.	ON CENTER
COR	CONTRACTING OFFICER'S REPRESENTATIVE	POB	POINT OF BEGINNING
COE	CORPS OF ENGINEERS	POE	POINT OF END
DIA	DIAMETER	POT	POINT ON TANGENT
EA	EACH	PCF	POUNDS PER CUBIC FOOT
EL.	ELEVATION	PSF	POUNDS PER SQUARE FOOT
ELEV	ELEVATION	REQ'D	REQUIRED
EJ	EXPANSION JOINT	SHT	SHEET
EXIST	EXISTING	SSP	STEEL SHEET PILE
HWL	HIGH WATER ELEVATION	STA	STATION
H	HORIZONTAL	T/	TOP OF
K	KIP (1,000 POUNDS)	TYP	TYPICAL
KSI	KIPS PER SQUARE INCH	U.N.O.	UNLESS NOTED OTHERWISE
LWD	LOW WATER DATUM	VIF	VERIFY IN FIELD
MAX	MAXIMUM	V	VERTICAL
MIN	MINIMUM	W/	WITH
MODOT	MISSOURI DEPARTMENT OF TRANSPORTATION	WL	WORK LIMIT
N	NORTH	WP	WORK POINT
NGVD	NATIONAL GEODETIC VERTICAL DATUM		

PIKE LINCOLN COUNTY PORT AUTHORITY

DESIGNED BY: C. AUSTIFF	ISSUE DATE: 09/19/2025	PIKE LINCOLN COUNTY PORT AUTHORITY CLARKSVILLE, MISSOURI	HANSON © Copyright Hanson Professional Services Inc. 2025
DRAWN BY: C. AUSTIFF	SOLICITATION NO.:		
CHECKED BY: C. AUSTIFF	CONTRACT NO.:		
SUBMITTED BY: S. GOETZ	PROJECT NO.: 220045		
SIZE: ANSI D			

PROPOSED PORT REDEVELOPMENT SITE
DOCK WALL STRUCTURE

SHEET INDEX

SHEET ID
G-002

FINAL PLANS - ISSUE FOR BID

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GENERAL NOTES:

DESIGN CRITERIA:

1. DESIGN CODES:
EM 1110-2-2104, "STRENGTH DESIGN OF REINFORCED CONCRETE HYDRAULIC STRUCTURES"
ETL 1110-2-584, "DESIGN OF HYDRAULIC STEEL STRUCTURES"
EM 1110-2-2504, "DESIGN OF SHEET PILE WALLS"
AMERICAN SOCIETY OF CIVIL ENGINEERS, ASCE 7-16.
AISC STEEL CONSTRUCTION MANUAL, 15TH EDITION.
ACI 318-14, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY.

2. DESIGN LOADS:
DEAD LOAD: MATERIAL SELF WEIGHT
CRANE LIVE LOAD: 600 PSF UNIFORM VERTICAL SURCHARGE (USUAL)
CLEAT BOLLARD LOAD = 10 TON MAXIMUM (UNUSUAL)

3. WIND LOAD: RISK CATEGORY II
BASIC WIND SPEED: 107 MPH (ULTIMATE)
WIND EXPOSURE: C
HORIZONTAL WIND LOAD: 30 PSF

4. SEISMIC LOAD: RISK CATEGORY II
Ie = 1.00 (SEISMIC IMPORTANCE FACTOR)
Ss = 0.196 (0.2 SECOND MCE SPECTRAL ACCELERATION)
S1 = 0.104 (1.0 SECOND MCE SPECTRAL ACCELERATION)
Site Class E
Sds = 0.313g
Sd1 = 0.291g
SEISMIC DESIGN CATEGORY D
EQUIVALENT LATERAL FORCE PROCEDURE

5. SUBSURFACE INVESTIGATION INFORMATION IS PROVIDED ON SHEETS B-701 TO B-703. THE INFORMATION IS CONSIDERED REPRESENTATIVE OF THE CONDITIONS AT THE TEST LOCATIONS SHOWN ON SHEET B-101. THE STRATA BOUNDARIES BETWEEN SOIL AND ROCK STRATA MAY BE GRADUAL OR ABRUPT TRANSITIONS, AND CAN BE EXPECTED TO VARY IN DEPTH, ELEVATION, AND/OR THICKNESS AWAY FROM THE TEST LOCATIONS. THE DRILLING LOGS CAN BE USED TO INFORM CONTRACTORS IN CONJUNCTION WITH THE APPROPRIATE LEVELS OF ENGINEERING JUDGEMENT AND EXPERIENCE. DUE TO THE NATURE, POTENTIAL VARIABILITY, AND EXTENT OF THE SITE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND EXECUTE ADDITIONAL SUBSURFACE INVESTIGATIONS THAT ENSURE CONSTRUCTED WORK MEETS THE CONTRACT REQUIREMENTS.

EARTHWORK:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY, MONITORING, AND PROTECTION OF ALL TEMPORARY EXCAVATIONS REQUIRED TO COMPLETE THE WORK. COMPLY WITH ALL APPLICABLE OSHA REQUIREMENTS FOR TEMPORARY EXCAVATIONS.

2. ANY REQUIRED TEMPORARY SHORING OR SHEETING SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN, INSTALL, MONITOR, MAINTAIN, AND REMOVE.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING GROUNDWATER FLOWING TOWARD OR INTO EXCAVATIONS TO PREVENT SLOUGHING OF EXCAVATION SLOPES AND WALLS, BOILS, UPLIFT, AND HEAVE IN THE EXCAVATION AND TO ELIMINATE INTERFERENCE WITH ORDERLY PROGRESS OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM FOR THE COLLECTION AND DISPOSAL OF SURFACE AND SUBSURFACE WATER ENCOUNTERED DURING CONSTRUCTION.

4. THE CONTRACTOR IS REQUIRED TO PREVENT DAMAGE TO EXISTING FEATURES TO REMAIN AND PROPOSED WORK DUE TO INEFFECTIVE DRAINAGE, INEFFECTIVE DEWATERING, AND HEAVY LOADS AND EQUIPMENT BY IMPLEMENTING PRECAUTIONARY PROTECTION MEASURES. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY DEFECTS OR DAMAGE DUE TO IMPROPER PROTECTION AT THE CONTRACTOR'S EXPENSE.

5. ALL EXCESS OR UNSUITABLE EXCAVATED MATERIAL, INCLUDING ROCK AND BOULDERS, THAT CANNOT BE USED IN PROPOSED WORK SHALL BE DISPOSED OF OFF PORT AUTHORITY PROPERTY IN AREAS SECURED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS IN THE DISPOSAL OF EXCESS OR UNSUITABLE MATERIAL. EXCAVATED MATERIAL SHALL NOT BE DUMPED INTO ANY RIVER OR STREAM.

6. THE CONTRACTOR SHALL PERFORM ALL REQUIRED EXCAVATION WORK IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND IN ACCORDANCE WITH SECTION 206 OF THE 2025 MODOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

7. THE CONTRACTOR SHALL PERFORM ALL REQUIRED BACKFILL PLACEMENT AND COMPACTION WORK IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND IN ACCORDANCE WITH DIVISION 200 OF THE 2025 MODOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

NOTES

1. PERFORM ALL WORK WITHIN THE SPECIFIED WORK LIMITS

2. FIELD VERIFY LOCATION OF UTILITIES OR FEATURES THAT CONFLICT WITH OR ARE IN POTENTIAL CONFLICT WITH THE WORK. MAINTAIN ADEQUATE DISTANCE FROM UTILITIES OR OTHER FEATURES.

3. COORDINATE LAND-BASED STORAGE AND HANDLING AREAS WITH THE PIKE-LINCOLN COUNTY PORT AUTHORITY.

4. CONTACT MISSOURI 811 FOR UTILITY LOCATE REQUESTS.

CONCRETE:

1. STANDARDS
A. CRSI HANDBOOK (10TH EDITION)

2. ALL DETAILING, FABRICATION AND ERECTION FOR REINFORCING BARS AND THEIR SUPPORT IN THE FORMS WITH ACCESSORIES MUST FOLLOW THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES". (ACI 315, LATEST EDITION) AND CRSI "MANUAL OF STANDARD PRACTICE" (LATEST EDITION).

3. MINIMUM CONCRETE COVER, UNLESS NOTED OTHERWISE:
A. UNFORMED SURFACE IN CONTACT WITH THE GROUND: 4"
B. FORMED OR SCREEEDED :
EQUAL TO OR GREATER THAN 24" THICK: 4"
GREATER THAN 12" AND LESS THAN 24" THICK: 3"
EQUAL TO OR LESS THAN 12" THICK: IN ACCORDANCE WITH ACI 318

4. CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH AND DENSITY, IN ACCORDANCE WITH THE FOLLOWING:

	STRENGTH	DENSITY
	PSI	PCF
ALL CONCRETE U.N.O.	5000	145

5. CONCRETE REINFORCEMENT Fy = 60 KSI (ASTM A615, GR. 60) (ALL REINFORCEMENT SHALL BE EPOXY COATED U.N.O.)

6. LAP ALL BARS AS FOLLOWS U.N.O (CLASS B), FOR EPOXY COATED BARS, PROVIDE 1.3 TIMES THE INDICATED LAP LENGTH. FOR TOP BARS, PROVIDE AN ADDITIONAL 1.3 TIMES THE INDICATED LAP LENGTH:

#3 = 1'- 6"	#4 = 2'- 0"	#5 = 2'- 6"
#6 = 2'- 11"	#7 = 4'- 3"	#8 = 4'- 11"
#9 = 5'- 6"	#10 = 6'- 2"	#11 = 6'- 10"

7. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" U.N.O.

8. ALL EMBEDDED ITEMS SHALL BE PROPERLY PLACED, ACCURATELY POSITIONED, AND MAINTAINED SECURELY IN PLACE PRIOR TO AND DURING CONCRETE PLACEMENT.

9. ALL REINFORCING BARS USED FOR CONSTRUCTION SHALL BE CLEANED AND FREE OF GREASE AND SCALING RUST.

10. ALL FORMWORK AND SHORING OF FORMWORK SHALL BE DESIGNED BY THE CONTRACTOR.

STEEL SHEET PILE:

1. SHEET PILE SIZE: PZC-28, OR APPROVED EQUIVALENT.

2. STEEL SHEET PILE SHALL BE GRADE ASTM A572 GR. 60, Fy = 60 KSI.

3. ALL SHEET PILE INSTALLATION SHALL BE OBSERVED BY THE GEOTECHNICAL ENGINEER OR DESIGNATED REPRESENTATIVE WHO SHALL BE RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE DRIVEN PILE.

4. SHEET PILE SHALL BE DRIVEN PLUMB AND STRAIGHT. SEE CONTRACT SPECIFICATIONS FOR TOLERANCES

5. SEE CONTRACT DRAWINGS AND SPECIFICATIONS FOR SHEET PILE TESTING REQUIREMENTS.

STRUCTURAL STEEL:

1. STRUCTURAL STEEL FABRICATION AND ERECTION SHALL COMPLY WITH THE LRFD AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCUTRAL STEEL BUILDINGS (LATEST EDITION).

2. STEEL SHALL CONFORM TO THE FOLLOWING GRADES (U.N.O.):

ALL ANGLE, BASE PLATES, CONN. PLATES	ASTM A572, GR. 50, Fy = 50 KSI
WELDING ELECTRODES	E70XX
BOLTS	A325, TYPE 3
ANCHOR BOLTS	F1554, GR. 105
ROLLED SHAPES	ASTM A572, GR. 50, Fy = 50 KSI

3. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE AISC CODE EXCEPT AS MODIFIED IN THESE NOTES AND IN THE CONTRACT SPECIFICATIONS.

4. ALL CONNECTION BASE PLATES SHALL BE SET ON STEEL SHIMS TO TRUE LEVEL LINE. GENERAL CONTRACTOR SHALL RAM A NON-SHRINK GROUT SOLIDLY UNDER ENTIRE BASE PLATE AREA. PROVIDE 1" MINIMUM DEPTH NON-SHRINK GROUT BELOW PLATES (U.N.O.).

5. CONNECTIONS SHALL BE AS DETAILED ON THE CONTRACT DRAWINGS AND IN THE APPROVED SHOP DRAWINGS. MISCELLANEOUS CONNECTIONS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE OMITTED OR AMBIGUOUS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

6. ALL WELDING SHALL BE IN ACCORDANCE WITH THE 2020 EDITION OF THE "AWS D1.1" SPECIFICATIONS BY CERTIFIED WELDERS. ALL WELDS SHALL BE MADE WITH E70XX ELECTRODES UNLESS NOTED OTHERWISE.

STEEL TIE-ROD:

1. MATERIAL PROPERTIES:
TIE-RODS (FULLY THREADED): ASTM A615, GR. 100

STEEL LADDERS:

1. MATERIAL PROPERTIES:
RUNGS AND GRAB RAILS: ASTM A36, Fy = 36 KSI

MISCELLANEOUS:

1. NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.

2. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON THE EXISTING STRUCTURE AND MONITORING THE EXISTING STRUCTURE FOR LOCAL AND GLOBAL STABILITY THROUGHOUT ALL CONSTRUCTION OPERATIONS. REFER TO THE CONTRACT SPECIFICATIONS.

3. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES, REFER TO THE CONTRACT SPECIFICATIONS.

4. DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS.

5. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE OMISSIONS, CONTRADICTIONS OR AMBIGUITIES, IN THE PLANS AND THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. WRITTEN INTERPRETATION OF THE ALLEGED OMISSION, CONTRADICTION OR AMBIGUITY WILL BE MADE BY THE ENGINEER. DO NOT PROCEED WITH THE WORK UNTIL WRITTEN INTERPRETATION IS PROVIDED BY THE ENGINEER.

6. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, COORDINATES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER OF ANY DISCREPANCY IMMEDIATELY.

7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SITE SAFETY AND ALL ACCIDENTS WHICH RESULT IN DEATH, PERSONAL INJURY OR DAMAGE TO PROPERTY ARISING OUT OF OR IN CONNECTION WITH THE PERFORMANCE OF THE WORK, WHETHER ADJACENT TO OR AT THE SITE.

8. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING PUBLIC ACCESS TO THE CONSTRUCTION SITE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL UTILIZE TEMPORARY SIGNAGE, BARRICADES, AND OTHER METHODS DEEMED APPROPRIATE BY THE CONTRACTOR TO PREVENT THE PUBLIC FROM ACCESSING THE CONSTRUCTION SITE.

9. ALL SECTIONS, DETAILS AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS OTHERWISE SHOWN.

10. ALL ASTM DESIGNATIONS SHALL BE THE LATEST UNLESS OTHERWISE NOTED.

11. FOLLOW ALL GOVERNING REGULATIONS AND OBTAIN ANY NECESSARY PERMIT IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.

12. THE CONTRACTOR SHALL CONTACT THE CLIENT AGENCY TO COORDINATE LOCATION OF ALL PRIVATE UTILITIES PRIOR TO PERFORMING ANY EXCAVATION WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR LOCATING ALL UTILITIES ON THE PROJECT SITE. LOCATION OF ALL UTILITIES, PUBLIC AND PRIVATE, SHALL BE COMPLETED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE CLIENT AGENCY.

13. COORDINATE ALL STORAGE AND HANDLING AREAS WITH THE CLIENT AGENCY.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL CONSTRUCTION DEBRIS AND WASTE FROM THE PROJECT SITE. COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR HAULING AND DISPOSING OF CONSTRUCTION DEBRIS AND WASTE.

15. WHERE NOT OTHERWISE SPECIFIED WITHIN THE CONTRACT SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM THE REQUIRED WORK AND ANY INCIDENTAL WORK NECESSARY TO COMPLETE THE WORK IN ACCORDANCE WITH THE 2025 MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT) STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

16. SUBMITTALS PREPARED BY SUPPLIERS AND SUBCONTRACTORS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTING TO THE ENGINEER. ENGINEER'S REVIEW SHALL BE FOR SIZES AND GENERAL CONFORMANCE WITH INFORMATION GIVEN IN CONSTRUCTION DOCUMENTS ONLY. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW. BASED ON SUCH REVIEWS, ACTIONS WILL BE NOTED FOR EACH SUBMITTAL AS LISTED BELOW:

NO EXCEPTIONS TAKEN: FABRICATION, MANUFACTURING OR CONSTRUCTION MAY PROCEED ON THE BASIS THAT THE SUBMITTAL IS IN CONFORMANCE WITH THE DESIGN CONCEPT AND THE CONTRACT DOCUMENTS.

FURNISH AS CORRECTED: FABRICATION, MANUFACTURING OR CONSTRUCTION MAY PROCEED AFTER MAKING THE NOTED CORRECTIONS TO SATISFY COMPLIANCE WITH THE DESIGN CONCEPT AND/OR THE CONTRACT DOCUMENTS.

REVISE AND RESUBMIT: NO FABRICATION, MANUFACTURING OR CONSTRUCTION MAY PROCEED. RESUBMIT FOR REVIEW AFTER REQUESTED REVISIONS ARE MADE.

SUBMIT SPECIFIED ITEM: NO FABRICATION, MANUFACTURING OR CONSTRUCTION MAY PROCEED. SUBMIT SPECIFIED ITEM TO ENGINEER FOR REVIEW.

REJECTED-SEE REMARKS: NO FABRICATION, MANUFACTURING OR CONSTRUCTION MAY OCCUR FOR REASONS STATED IN "REMARKS".

PIKE LINCOLN COUNTY PORT AUTHORITY

ISSUE DATE:
09/15/2025

DESIGNED BY:
C. AUSTIFF

DRAWN BY:
C. AUSTIFF

CHECKED BY:
C. AUSTIFF

SUBMITTED BY:
S. GOETZ

SIZE:
ANSI D

SOLICITATION NO.:

CONTRACT NO.:

PROJECT NO.:

PIKE LINCOLN COUNTY PORT AUTHORITY
CLARKSVILLE, MISSOURI

HANSON

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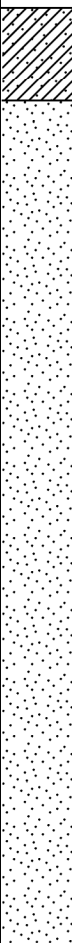
PROPOSED PORT REDEVELOPMENT SITE
DOCK WALL STRUCTURE

GENERAL NOTES

SHEET ID

G-003

FINAL PLANS - ISSUE FOR BID

Project No. 2210045		LOG OF BOREHOLE NO. B-07				Sheet 2 of 2					
CLIENT Pike Lincoln County Port Authority			ENGINEER/GEOLOGIST BK								
SITE Pike County, MO			PROJECT Multimodal River Port Facility Redevelopment								
N 1291222.969 E 698027.1289			GRAPHIC LOG	DEPTH (ft)	SAMPLES		TESTS		ADDITIONAL DATA REMARKS		
					BLOWS/in N - VALUE Rqd	TYPE NUMBER	RECOVERED (in) LTH SMPLD (in)	MOISTURE, %		DRY DENSITY (lb/ft ³)	CU (sf) FAILURE TYPE
(continued) Sandy CLAY (CLS): Gray, sand pockets, very soft. (continued)				26							
26.5 SAND (SP): Gray, fine grained, trace medium grained sand, medium dense.				28	9-9-8 N=17	SS- 9	15/18 83%				
- no medium grained sand				30							
				32							
				34	6-8-11 N=19	SS- 10	13/18 72%				
				36							
				38	11-11-21 N=32	SS- 11	12/18 67%				
- grayish brown, little medium grained sand, dense				40							
40.0 E.O.B. Hammer Energy =											
416.4											
WATER LEVEL OBSERVATIONS							STARTED 11/21/2022		FINISHED 11/21/2022		
WL 8.5 - DD							DRILL CO. Geotechnology		DRILL RIG CME-55		
							DRILLER Nick Gonzalez		ASST DRILLER Shay Conrad		
							LOGGED BY Beya Kazadi		APPROVED Kip Chepkol		

PROPOSED PORT REDEVELOPMENT SITE DOCK WALL STRUCTURE	GEOTECHNICAL BORING LOGS	 HANSON © 2014 Wright Engineering, Professional Services Inc., 2015 PIKE LINCOLN COUNTY PORT AUTHORITY CLARKSVILLE, MISSOURI
DESIGNED BY:		ISSUE DATE:
DRAWN BY:		SOLICITATION NO.:
CHECKED BY:		CONTRACT NO.:
SUBMITTED BY:		PROJECT NO.:
SCALE:		DATE:
ANSI D		MARK

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Project No. 2210045

LOG OF BOREHOLE NO. B-08

Sheet 1 of 2

CLIENT

Pike Lincoln County Port Authority

ENGINEER/GEOLOGIST

BK

SITE

Pike County, MO

PROJECT

Multimodal River Port Facility Redevelopment

N 1291288.477 E 698200.6564

GRAPHIC LOG

DEPTH (ft)

BLOWS/6in
N-VALUE
ROD

TYPE
NUMBER

RECOVERED (ft)
LTH SMPLED (in)

MOISTURE, %

DRY DENSITY
(lb/ft³)

Qu (tsf)
FAILURE TYPE

LL (%)

PL (%)

ADDITIONAL
DATA
REMARKS

Surface Elevation: 458.2 ft Datum: NAVD 88

0.5 TOPSOIL: Dark brown, clayey silt with roots. 457.7

1.5 SAND (SP): Brown, medium to very fine grained, loose to dense. 456.7

- very loose

11.0 SAND (SP): Mottled gray to dark gray, coarse to fine grained, trace to little gravel (< 1-inch), loose to medium dense. 447.2

Continued Next Page

WATER LEVEL OBSERVATIONS

WL 9.0 - DD

STARTED 11/22/2022

FINISHED 11/22/2022

DRILL CO. Geotechnology

DRILL RIG CME-55

DRILLER Nick Gonzalez

ASST DRILLER Shay Conrad

LOGGED BY kkc

APPROVED Kip Chepkoiit

Project No. 2210045

LOG OF BOREHOLE NO. B-08

Sheet 2 of 2

CLIENT

Pike Lincoln County Port Authority

ENGINEER/GEOLOGIST

BK

SITE

Pike County, MO

PROJECT

Multimodal River Port Facility Redevelopment

N 1291288.477 E 698200.6564

GRAPHIC LOG

DEPTH (ft)

BLOWS/6in
N-VALUE
ROD

TYPE
NUMBER

RECOVERED (ft)
LTH SMPLED (in)

MOISTURE, %

DRY DENSITY
(lb/ft³)

Qu (tsf)
FAILURE TYPE

LL (%)

PL (%)

ADDITIONAL
DATA
REMARKS

(continued)

26.0 CLAY (CL): Dark gray, some silt, medium plastic, stiff. 432.2

28 2-3-8 N=11

29.5 SAND (SP): Mottled dark gray, fine to very fine grained, trace to little silt, medium dense. 428.7

30 SS- 9 9/18 50% 31 P 2 65 21

34 5-5-9 N=14

36 SS- 10 15/18 83%

38 6-11-13 N=24

38 SS- 11 18/18 100%

40.0 E.O.B. Hammer Energy = 418.2

WATER LEVEL OBSERVATIONS

WL 9.0 - DD

STARTED 11/22/2022

FINISHED 11/22/2022

DRILL CO. Geotechnology

DRILL RIG CME-55

DRILLER Nick Gonzalez

ASST DRILLER Shay Conrad

LOGGED BY kkc

APPROVED Kip Chepkoiit

PIKE LINCOLN COUNTY PORT AUTHORITY

CLARKSVILLE, MISSOURI

DESIGNED BY: B. KAZADI

DRAWN BY: B. KAZADI

CHECKED BY: C. AUSTIEFF

SUBMITTED BY: S. GOETZ

SIZE: ANS/D

ISSUE DATE: 09/19/2025

SOLICITATION NO.:

CONTRACT NO.:

PROJECT NO.: 2210045

PIKE LINCOLN COUNTY PORT AUTHORITY

CLARKSVILLE, MISSOURI

DESIGNED BY: B. KAZADI

DRAWN BY: B. KAZADI

CHECKED BY: C. AUSTIEFF

SUBMITTED BY: S. GOETZ

SIZE: ANS/D

ISSUE DATE: 09/19/2025

SOLICITATION NO.:

CONTRACT NO.:

PROJECT NO.: 2210045

PROPOSED PORT REDEVELOPMENT SITE

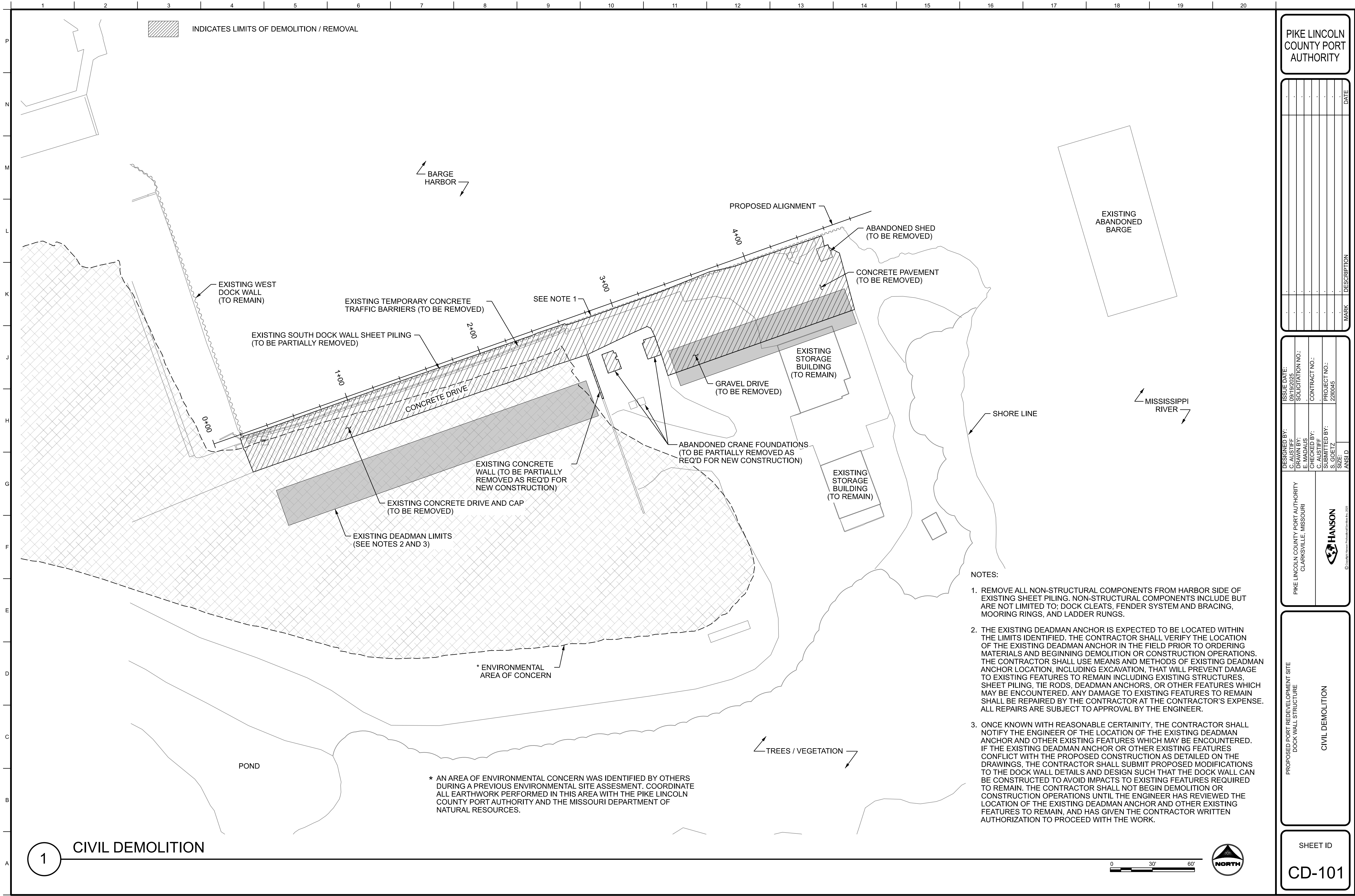
DOCK WALL STRUCTURE

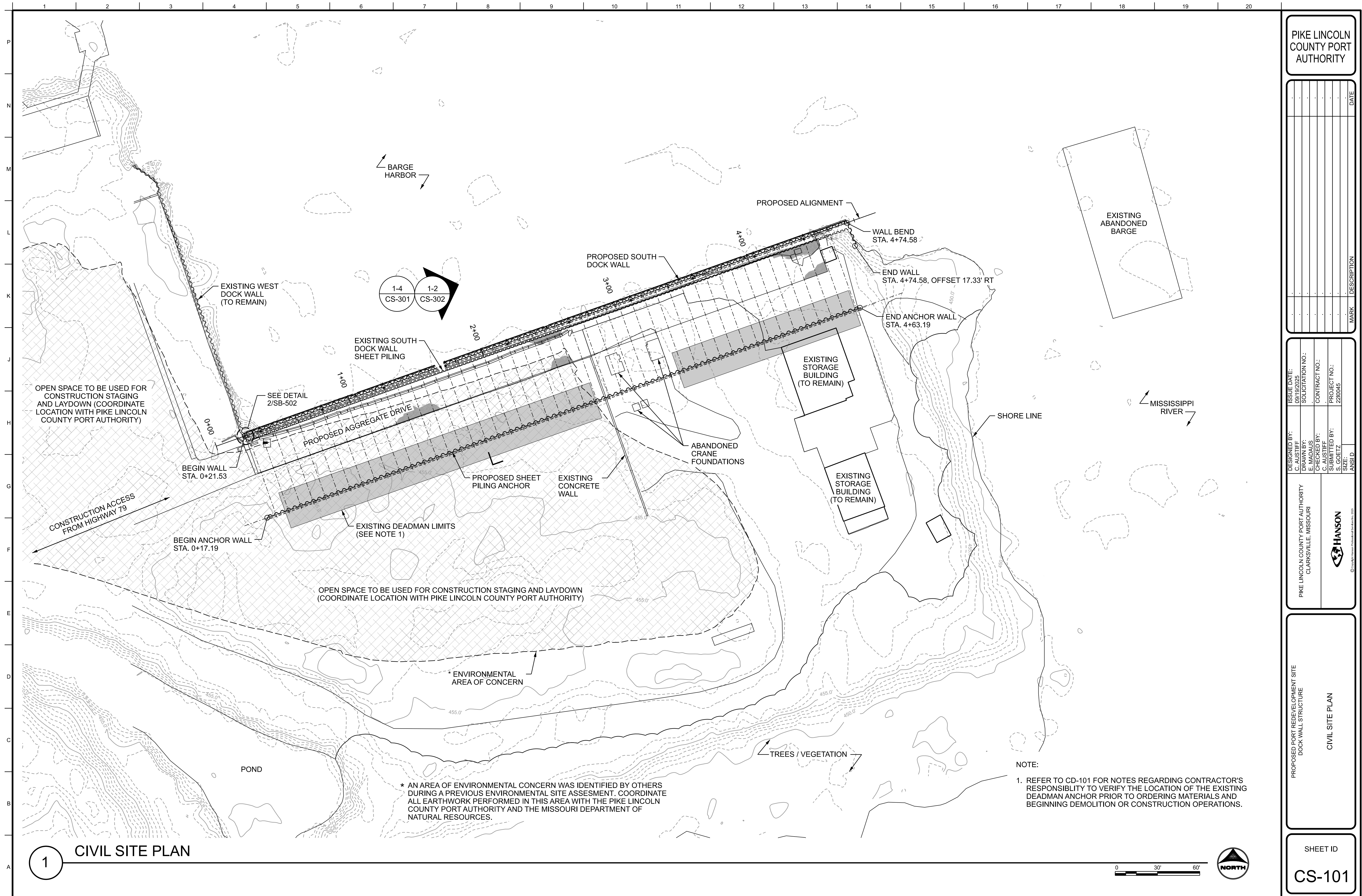
GEOTECHNICAL BORING LOGS

SHEET ID

B-703

FINAL PLANS - ISSUE FOR BID



[illegible]

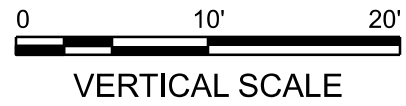
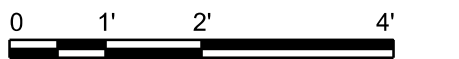
	DESIGNED BY:	ISSUE DATE:
	DRAWN BY:	DATE:
	E. MADALA	SOLICITATION NO.:
	C. AUSTIFF	CONTRACT NO.:
	SUBMITTED BY:	PROJECT NO.:
	S. GOETZ	220045
	SIZE:	
	ANSI D	

PIKE LINCOLN COUNTY PORT AUTHORITY
CLARKSVILLE, MISSOURI

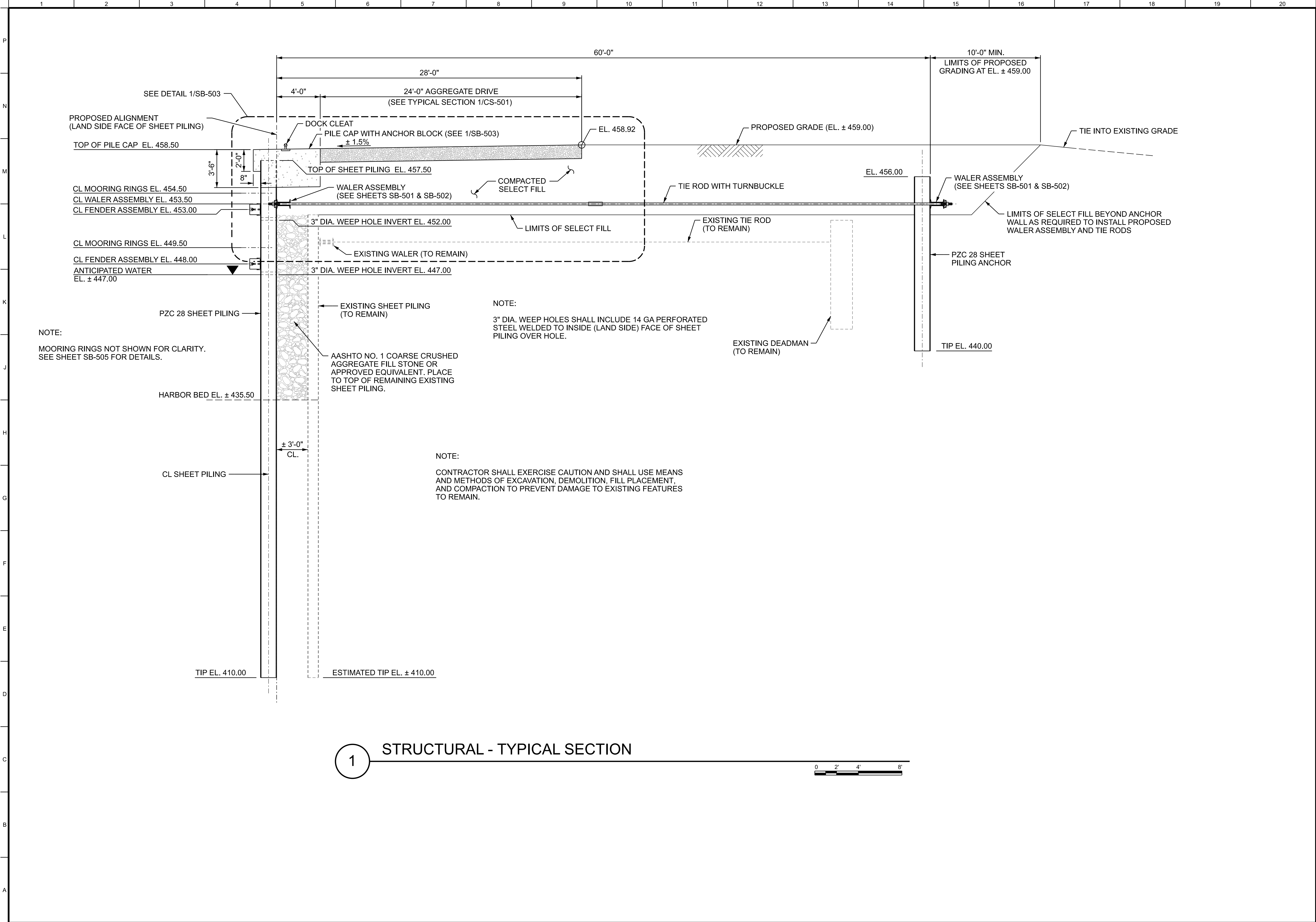
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PROPOSED PORT REDEVELOPMENT SITE
DOCK WALL STRUCTURE

SHEET ID
CS-101



CS-501



PIKE LINCOLN
COUNTY PORT
AUTHORITY

DATE	
MARK	
DESCRIPTION	

DESIGNED BY: C. AUSTIFF	ISSUE DATE: 09/19/2025
DRAWN BY: C. AUSTIFF	SOLICITATION NO.:
CHECKED BY: C. AUSTIFF	CONTRACT NO.:
SUBMITTED BY: S. GOETZ	PROJECT NO.:
SIZE: ANSI D	2210045

PIKE LINCOLN COUNTY PORT AUTHORITY
CLARKSVILLE, MISSOURI

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PROPOSED PORT REDEVELOPMENT SITE
DOCK WALL STRUCTURE

STRUCTURAL TYPICAL SECTION

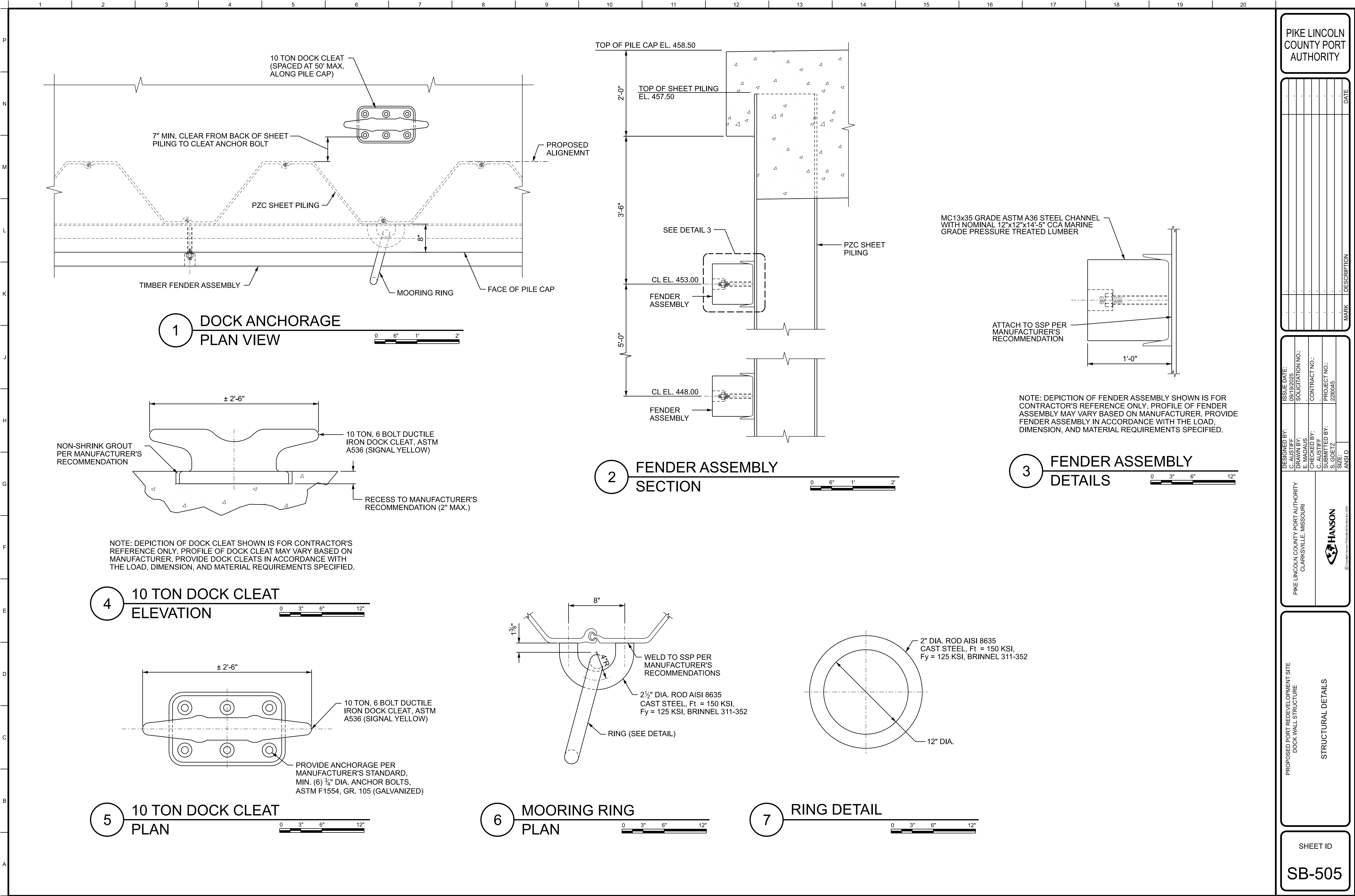
SHEET ID
SB-301

FINAL PLANS - ISSUE FOR BID



SHEET ID

SB-502



PIKE LINCOLN COUNTY PORT AUTHORITY	
DATE	
DESCRIPTION	
MARK	
ISSUE DATE:	09/19/2025
DESIGNED BY:	C. AUSTIFF
DRAWN BY:	C. AUSTIFF
CHECKED BY:	C. AUSTIFF
SUBMITTED BY:	S. GOETZ
SIZE:	ANSI D
SOLICITATION NO.:	
CONTRACT NO.:	
PROJECT NO.:	220045
PIKE LINCOLN COUNTY PORT AUTHORITY CLARKSVILLE, MISSOURI	
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PROPOSED PORT REDEVELOPMENT SITE DOCK WALL STRUCTURE	
STRUCTURAL DETAILS	
SHEET ID	
SB-505	