

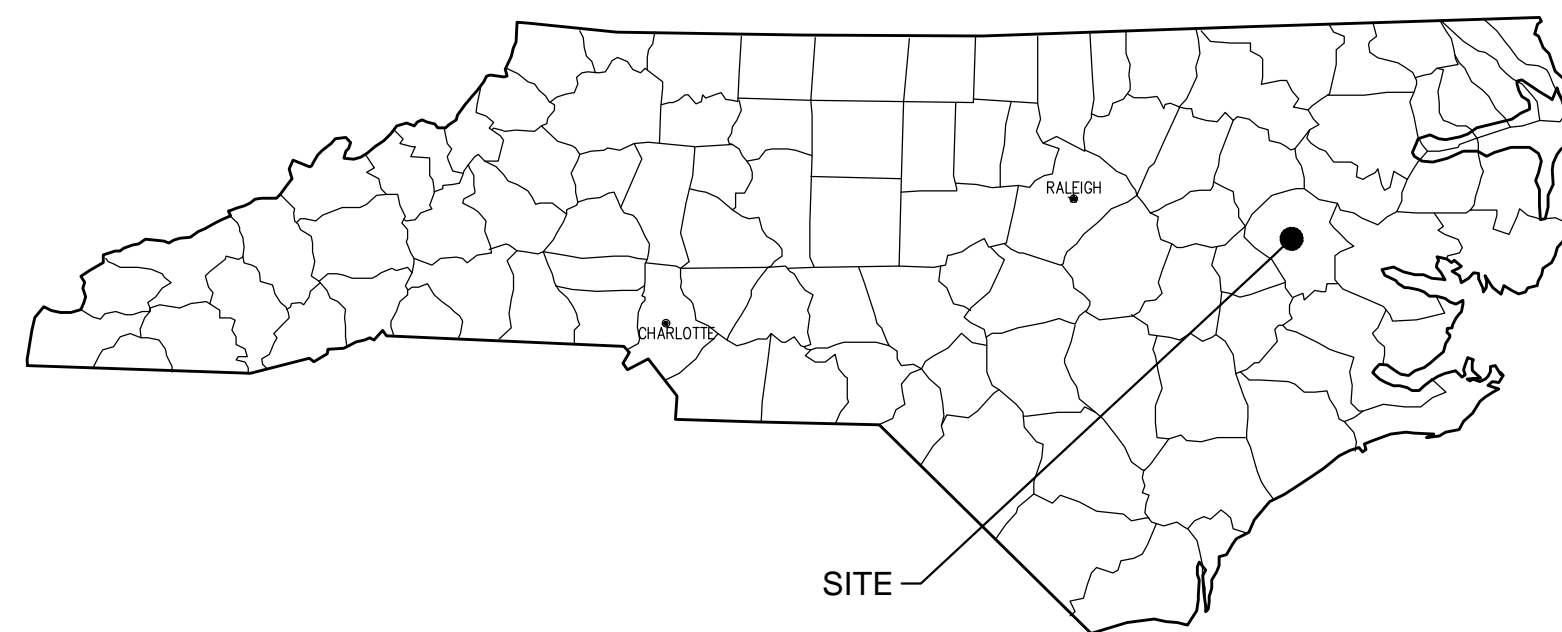
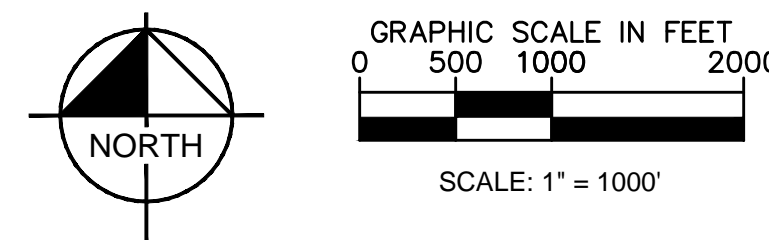
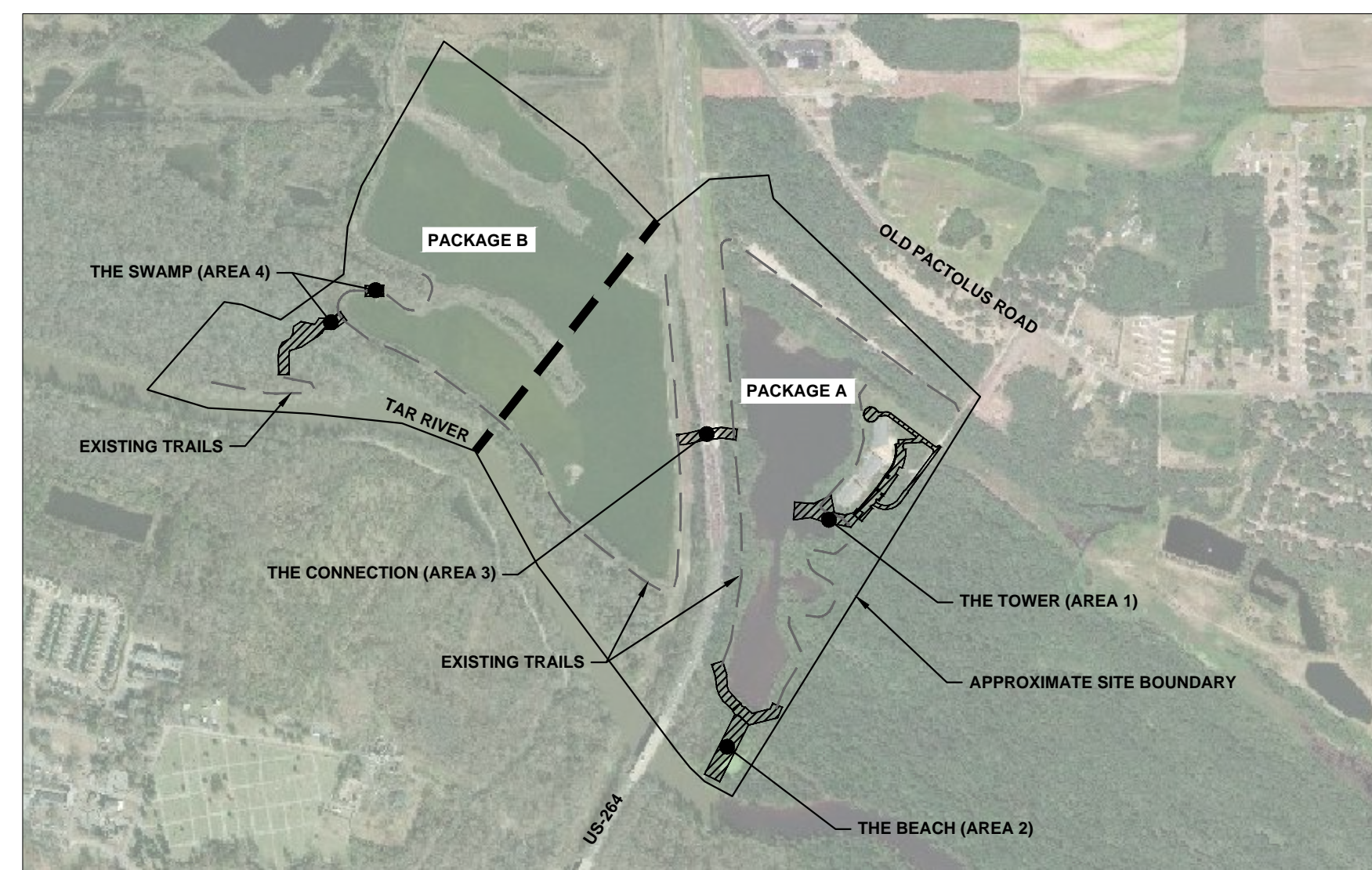
CONSTRUCTION DOCUMENTS FOR WILDWOOD PARK - TOWER AND TRAILS

BID PACKAGE B2

CITY OF GREENVILLE
RECREATION & PARKS DEPARTMENT
2000 CEDAR LANE
GREENVILLE, NC 27858
PITT COUNTY

OVERALL SITE DATA	
MUNICIPALITY:	CITY OF GREENVILLE
OWNER:	CITY OF GREENVILLE, PO BOX 7207 GREENVILLE, NC 27835
LAND USE CLASSIFICATION:	(6) RECREATIONAL/ENTERTAINMENT
TOTAL PARCEL ACREAGE:	566 ACRES
TOTAL SITE ACREAGE:	283 ACRES
PROPOSED TOWER GROSS FLOOR AREA:	1,023 SF (0.02 ACRES)
PROPOSED TOWER HEIGHT:	120 FEET (12 STORIES)
TOTAL PARKING:	N/A
TOTAL ACCESSIBLE PARKING:	N/A
TOTAL AREA DISTURBED:	1.83 ACRES
EXISTING IMPERVIOUS AREA:	134,600 SF (3.09 ACRES)
PROPOSED IMPERVIOUS AREA:	22,652 SF (0.52 ACRES)
TOTAL IMPERVIOUS AREA:	157,252 SF (3.61 ACRES)
WATERSHED:	JOHNSON MILL/PARKERS CREEK /TAR-PAMLICO WATERSHED

PARCEL DATA					
PARCEL	1	2	3	4	5
NCPIN:	4698725454	4698536478	4698436559	4698432018	4698635909
PARCEL NUMBER:	086710	022504	035488	024274	028993
OWNER:	CITY OF GREENVILLE	CITY OF GREENVILLE	CITY OF GREENVILLE	CITY OF GREENVILLE	CITY OF GREENVILLE
PHYSICAL ADDRESS:	3450 BLUE HERON DR	0 NE GREENVILLE BV	0 OLD PACTOLUS RD	0 OLD PACTOLUS RD	1000 MUMFORD RD
LEGAL DESCRIPTION:	PHILLIP E. CARROLL	BOYD	TRIPP	RED BANKS (PITT #37)	RIVER PARK NORTH
MAP/BLOCK/LOT	4698-15-72-5454.000	4698-15-53-6478.000	4698-14-43-6559.000	4698-14-43-2018.000	4698-15-63-5909.000
DEED REFERENCE	DB. 4012 PG. 124	DB. 4049 PG. 261	DB. 4049 PG. 261	DB. 4049 PG. 261	NOT FOUND
CURRENT ZONING	HEAVY COMMERCIAL	OFFICE-RESIDENTIAL	OFFICE-RESIDENTIAL	OFFICE-RESIDENTIAL	INDUSTRY
CENSUS TRACT:	900	800	800	800	800
PARCEL ACREAGE:	101	137	28	7	293
APPROXIMATE IMPERVIOUS AREA:	3.09 AC	0.00 AC	0.00 AC	0.00 AC	0.00 AC



PROJECT DESIGN TEAM

OWNER/DEVELOPER

CITY OF GREENVILLE
GREENVILLE RECREATION & PARKS DEPARTMENT
2000 CEDAR LANE
GREENVILLE, NC 27858
PHONE: (252) 329-4242
CONTACT: MARK NOTTINGHAM, AICP
EMAIL: MNOTTINGHAM@GREENVILLENC.GOV

SURVEYOR

RIVERS & ASSOCIATES, INC.
107 EAST SECOND STREET
GREENVILLE, NC 27858
PHONE: (252) 752-4135
CONTACT: PATRICK HARTMAN, P.L.S.
EMAIL: PHARTMAN@RIVERSANDASSOCIATES.COM

LANDSCAPE ARCHITECT

KIMLEY-HORN & ASSOCIATES, INC
421 FAYETTEVILLE STREET
SUITE 600
RALEIGH, NC 27601
PHONE: (919) 653-2928
CONTACT: BRANDON WHITE, PLA, ASLA
EMAIL: BRANDON.WHITE@KIMLEY-HORN.COM

GEOTECHNICAL ENGINEER

FALCON ENGINEERING, INC.
1210 TRINITY ROAD, SUITE 110
CARY, NC 27513
PHONE: (919) 302-9758
CONTACT: JEREMY R. HAMM, P.E.
EMAIL: JHAMM@FALCONENGINEERS.COM

CIVIL ENGINEER

KIMLEY-HORN & ASSOCIATES, INC
421 FAYETTEVILLE STREET
SUITE 600
RALEIGH, NC 27601
PHONE: (919) 653-2990
CONTACT: JOHN KUZENSKI, P.E.
EMAIL: JOHN.KUZENSKI@KIMLEY-HORN.COM

STRUCTURAL ENGINEER

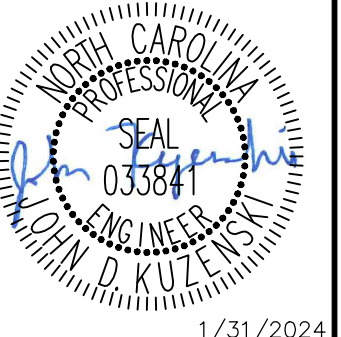
KIMLEY-HORN & ASSOCIATES, INC
421 FAYETTEVILLE STREET
SUITE 600
RALEIGH, NC 27601
PHONE: (919) 653-2990
CONTACT: MITCH MAGEE, P.E.
EMAIL: MITCH.MAGEE@KIMLEY-HORN.COM

ARCHITECT

IN SITU STUDIO
704 N PERSON STREET
RALEIGH, NC 27604
PHONE: (919) 387-3949
CONTACT: MATTHEW GRIFFITH, AIA
EMAIL: MATT@INSITUSTUDIO.US

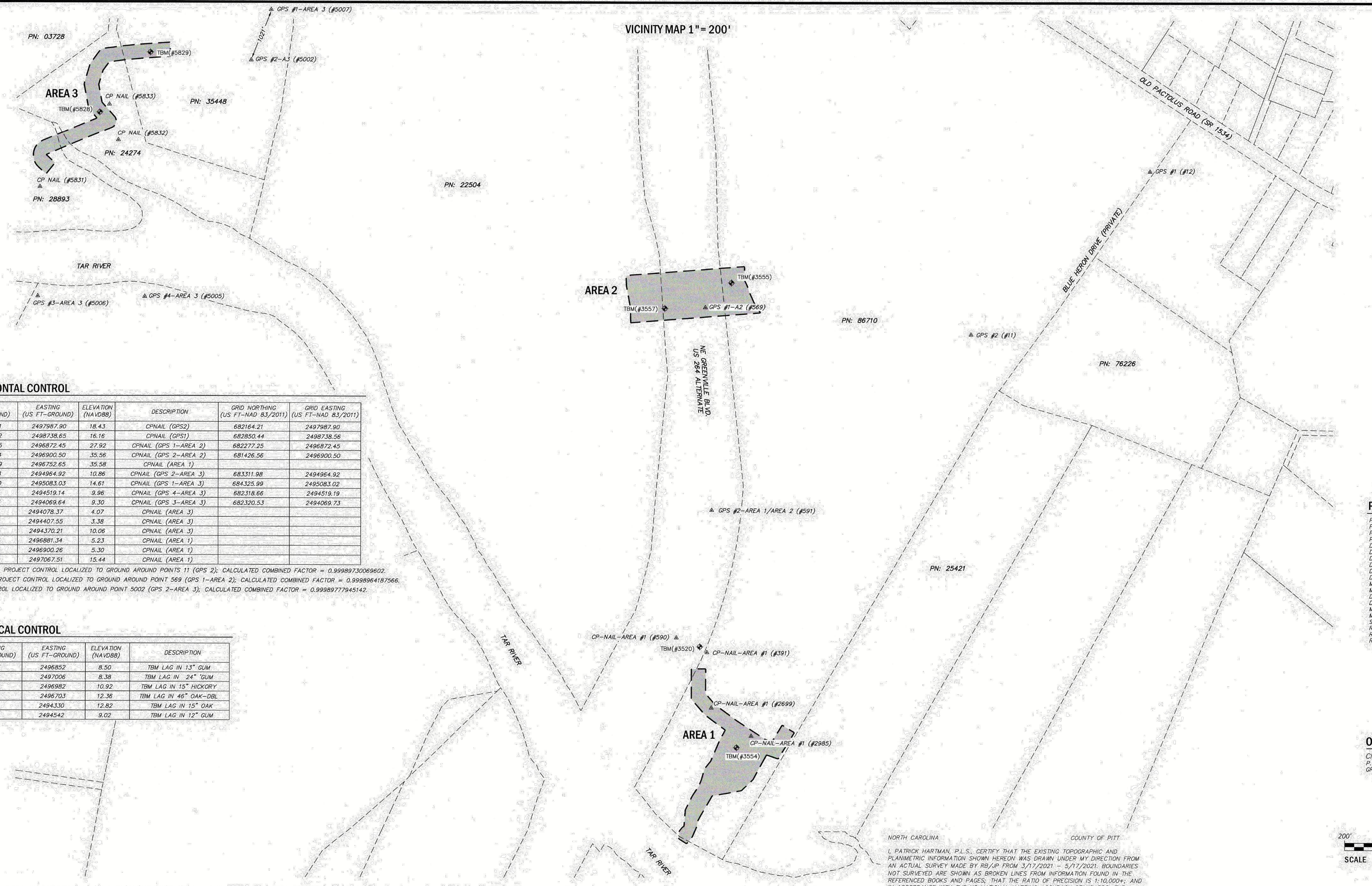
SHEET LIST TABLE - BID PACKAGE B2	
SHEET NUMBER	SHEET TITLE
C0.0	COVER SHEET
C0.1	GENERAL NOTES
C1.0	EXISTING CONDITIONS
C2.0.B	OVERALL DEMOLITION AND EROSION CONTROL PLAN
C2.1.B	DEMOLITION AND PH 1 EROSION CONTROL PLAN - THE SWAMP
C2.2.B	DEMOLITION AND PH 1 EROSION CONTROL PLAN - THE SWAMP
C3.0.B	OVERALL SITE PLAN
C3.1.B	PLAN AND PROFILE - THE SWAMP (AREA 4)
C3.2.B	PLAN AND PROFILE - THE SWAMP (AREA 4)
C3.3.B	PLAN AND PROFILE - THE SWAMP (AREA 4)
C4.0.B	SIDEWALK DETAILS
C4.1.B	EROSION CONTROL DETAILS
C4.2.B	EROSION CONTROL DETAILS
S.01.B	BRIDGE GENERAL NOTES
S.02.B	BRIDGE GENERAL NOTES
S.03.B	STRUCTURE LOCATIONS
S.04.B	PLAN AND PROFILE - THE SWAMP (AREA 4)
S.05.B	PLAN AND PROFILE - THE SWAMP (AREA 4)
S.06.B	PLAN AND PROFILE - THE SWAMP (AREA 4)
S.07.B	PLAN AND PROFILE - THE SWAMP (AREA 4)
S.08.B	PLAN AND PROFILE - THE SWAMP (AREA 4)
S.09.B	TIMBER BOARDWALK DETAILS
S.10.B	TIMBER BOARDWALK FRAMING DETAILS
S.11.B	TIMBER BOARDWALK BRACING DETAILS
S.15.B	OBSERVATION DECK DETAILS
S.16.B	OBSERVATION DECK DETAILS
S.17.B	OBSERVATION DECK DETAILS
S.18.B	OBSERVATION DECK DETAILS
S.19.B	OBSERVATION DECK DETAILS
S.20.B	STRUCTURAL STANDARD NOTES

City of Greenville Site Plan Approval	
Date _____	
<input type="checkbox"/> Approved	<input type="checkbox"/> Approved as Noted
Zoning	Engineering
Surveyor/Floodplain	Inspections
Fire/Rescue	GUC electric
GUC water/sewer	GUC gas
NCDOT	Vegetation
Traffic Services	Notes
*Site plan approval ONLY. Engineer/Architect/Surveyor shall be responsible for adequacy of design, errors or omissions in the plans. All plans shall meet all specifications, standards and applicable regulations.	



No.	REVISIONS	DATE	BY
8	IFC PACKAGE B2	5/17/24	ADC
7	ISSUED FOR CONSTRUCTION	1/31/24	DAW
6	CITY OF GREENVILLE - TRC - 3RD SUBMITTAL	12/01/22	ASA
5	ISSUED FOR BID	8/02/22	ASA

VICINITY MAP 1" = 200'



SURVEY HORIZONTAL CONTROL

POINT	NORTHING (US FT-GROUND)	EASTING (US FT-GROUND)	ELEVATION (NAVD88)	DESCRIPTION	GRID NORTHING (US FT-NAD 83/2011)	GRID EASTING (US FT-NAD 83/2011)
11	682164.21	2497987.90	18.43	CPNAIL (GPS2)	682164.21	2497987.90
12	682850.52	2498738.65	16.16	CPNAIL (GPS1)	682850.44	2498738.56
569	682277.25	2496872.45	27.92	CPNAIL (GPS 1-AREA 2)	682277.25	2496872.45
591	681426.44	2496900.50	35.56	CPNAIL (GPS 2-AREA 2)	681426.56	2496900.50
590	680889.89	2496752.65	35.58	CPNAIL (AREA 1)		
5002	683311.98	2494964.92	10.86	CPNAIL (GPS 2-AREA 3)	683311.98	2494964.92
5007	684326.10	2495083.03	14.61	CPNAIL (GPS 1-AREA 3)	684325.99	2495083.02
5005	682318.55	2494519.14	9.96	CPNAIL (GPS 4-AREA 3)	682318.66	2494519.19
5006	682320.43	2494069.64	9.30	CPNAIL (GPS 3-AREA 3)	682320.53	2494069.73
5831	682778.99	2494078.37	4.07	CPNAIL (AREA 3)		
5832	682974.90	2494407.55	3.38	CPNAIL (AREA 3)		
5833	683125.88	2494370.21	10.06	CPNAIL (AREA 3)		
391	680828.47	2496881.34	5.23	CPNAIL (AREA 1)		
2699	680597.25	2496900.26	5.30	CPNAIL (AREA 1)		
2885	680479.72	2497067.51	15.44	CPNAIL (AREA 1)		

ORIGINAL SHELTER AREA PROJECT CONTROL LOCALIZED TO GROUND AROUND POINT 11 (GPS 2); CALCULATED COMBINED FACTOR = 0.99989730069602.
 AREA 1 AND AREA 2 PROJECT CONTROL LOCALIZED TO GROUND AROUND POINT 569 (GPS 1-AREA 2); CALCULATED COMBINED FACTOR = 0.9998964187566.
 AREA 3 PROJECT CONTROL LOCALIZED TO GROUND AROUND POINT 5002 (GPS 2-AREA 3); CALCULATED COMBINED FACTOR = 0.9998977945142.

SURVEY VERTICAL CONTROL

POINT	NORTHING (US FT-GROUND)	EASTING (US FT-GROUND)	ELEVATION (NAVD88)	DESCRIPTION
3520	680853	2496852	8.50	TBM LAG IN 13" GUM
3554	680431	2497006	8.38	TBM LAG IN 24" GUM
3555	682382	2496982	10.92	TBM LAG IN 15" HICKORY
3557	682273	2496703	12.36	TBM LAG IN 46" OAK-DBL
5828	683093	2494330	12.82	TBM LAG IN 15" OAK
5829	683344	2494542	9.02	TBM LAG IN 12" GUM

NOTES

- ALL DISTANCES ARE HORIZONTAL GROUND MEASUREMENTS.
- NO POINTS SET UNLESS OTHERWISE INDICATED.
- THESE PROPERTIES ARE LOCATED WITHIN FEMA FLOODWAY AND A "ZONE AE" (AREAS DETERMINED TO BE INSIDE THE 1% ANNUAL CHANCE FLOODPLAIN), AS DETERMINED FROM FIRM MAP NUMBER 3720468800K, EFFECTIVE JULY 7, 2014. BASE FLOOD ELEVATIONS = 21.5 - 20.4 FEET +/- (NAVD88)
- ELEVATIONS AND CONTOURS SHOWN ARE BASED ON NAVD88 DATUM. VERTICAL CONTROL ESTABLISHED FROM MULTIPLE NCGS RTN OBSERVATIONS (CLASS C). CONTOURS BELOW THE WATER SURFACE, IN RIPRAP AREA, AND LOW AREAS ALONG THE TAR RIVER (DUE TO INCONSISTENT TERRAIN FEATURES) MAY EXCEED THE 1/2" ALLOWABLE ERROR.
- THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE COMMITMENT REPORT. RIVERS AND ASSOCIATES DOES NOT CLAIM THAT ALL MATTERS OF RECORD WHICH MAY OR MAY NOT AFFECT THIS PROPERTY ARE SHOWN HEREON.
- PROPERTY SUBJECT TO ANY AND ALL EASEMENTS, RIGHTS OF WAY, RESTRICTIVE COVENANTS WHICH MAY BE OF RECORD.
- UTILITIES: UNDERGROUND UTILITIES PLOTTED FROM PRIOR SURVEYS AND MAPS PROVIDED BY OTHERS AS NOTED. ACTUAL LOCATIONS MAY VARY. OTHER UTILITIES MAY EXIST. SURVEYOR CANNOT PROVIDE ACCURACY OF UNDERGROUND UTILITIES. CONTRACTOR SHOULD CONTACT NCB11 AT 1-800-832-4949 TO HAVE UNDERGROUND UTILITIES LOCATED PRIOR TO EXCAVATING OR TRENCHING. NOB11 TICKETS: NO TICKETS WERE REQUESTED.
- UTILITIES: THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN ARE COMPRISED OF ALL SUCH UTILITIES IN THE AREA OF SURVEY EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE SURVEYOR DOES HEREBY CERTIFY THAT ALL UTILITIES ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY UNCOVERED AND LOCATED ANY UNDERGROUND UTILITIES.
- PIPE INVERTS SHOWN HEREON WERE OBTAINED WITHOUT CONFINED SPACE ENTRY BY THE MOST PRACTICAL METHODS AVAILABLE TO THE SURVEYOR.
- WETLANDS WERE DELINEATED BY KIMLEY HORN'S ENVIRONMENTAL SPECIALIST ON 4/16/2021. RIPARIAN BUFFER LOCATION IS SURVEYOR'S INTERPRETATION OF INFORMATION PROVIDED BY THE CITY OF GREENVILLE. THE LOCATION MAY CHANGE BASED ON ENVIRONMENTAL SPECIALIST'S SITE DETERMINATION.

SHEET INDEX

#	DESCRIPTION
1	COVER/NOTES/SURVEY VICINITY LOCATION
2	AREA 2 - TOPOGRAPHIC SURVEY/SPOT ELEVATIONS
3	AREA 1 - TOPOGRAPHIC SURVEY/SPOT ELEVATIONS
4	AREA 3 - TOPOGRAPHIC SURVEY/SPOT ELEVATIONS

NORTH CAROLINA COUNTY OF PITT

I, PATRICK HARTMAN, P.L.S., CERTIFY THAT THE EXISTING TOPOGRAPHIC AND PLANIMETRIC INFORMATION SHOWN HEREON WAS DRAWN UNDER MY DIRECTION FROM AN ACTUAL SURVEY MADE BY RB/JP FROM 3/17/2021 - 5/17/2021. BOUNDARIES NOT SURVEYED ARE SHOWN AS BROKEN LINES FROM INFORMATION FOUND IN THE REFERENCED BOOKS AND PAGES; THAT THE RATIO OF PRECISION IS 1:10,000+; AND IN ACCORDANCE WITH THE US NATIONAL MAPPING ACCURACY STANDARDS, THE MAXIMUM VERTICAL ERROR IS NOT GREATER THAN ONE HALF THE CONTOUR INTERVAL EXCEPT AS NOTED (SEE NOTE 4); AND HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED AT THE SITE BY NCGS RTN SOLUTION.

1) CLASS OF SURVEY: CLASS A (HORZ.) CLASS C (VERT.)
 2) POSITIONAL ACCURACY: 2 CM(HORZ.)
 3) TYPE OF GPS FIELD PROCEDURE: NCGS RTN
 4) DATE OF SURVEY WORK: 3/17/2021-05/17/2021
 5) DATUM/EPOCH: NAD83/2011
 6) PUBLISHED CONTROL/FIXED CONTROL: NCGS RTN OR AS NOTED
 7) GEOID MODEL: 2012B
 8) COMBINED GRID FACTOR: AS NOTED
 9) UNITS: US SURVEY FEET

WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 17TH DAY OF MAY, 2021

PROFESSIONAL LAND SURVEYOR LICENSE NO. L-4262

REFERENCES:

- P.N. 35488
- P.N. 24274
- P.N. 22504
- P.N. 86710
- D.B. 3663 PG. 527
- D.B. 4049 PG. 261
- D.B. Q41 PG. 206
- D.B. Z39 PG. 161
- D.B. W39 PG. 460
- D.B. 340 PG. 337
- M.B. 22 PG. 25
- M.B. 24 PG. 125
- D.B. M 43 PG. 384
- D.B. 696 PG. 437
- M.B. 60 PG. 174
- M.B. 37 PG. 5
- STATE HIGHWAY PLAN 6.8017568
- RIVERS DRAWING W-1520
- RIVERS DRAWING W-2682
- RIVERS DRAWING W-2731

OWNER

CITY OF GREENVILLE
 P.O. BOX 7207
 GREENVILLE, NC 27804



REVISIONS:

Professional Land Surveyor Seal for Patrick Hartman, License No. L-4262, State of North Carolina. Includes signature and date 5/17/21.

Rivers & Associates, Inc.
 NC License: F-0334
 107 East Second Street
 Greenville, NC 27858
 (252) 752-4155

Engineers
 Planners
 Surveyors
 Landscape Architects

TOPOGRAPHIC SURVEY FOR
KIMLEY-HORN & CITY OF GREENVILLE
 OF
**A PORTION OF THE FUTURE
 WILDWOOD PARK**
 CITY OF GREENVILLE, PACTOLUS TOWNSHIP, PITT COUNTY, NC

SURVEY RB/JP DRAFT PH/MS	SCALE 1" = 200'	DRAWING NO. W-3927	PROJECT NO. 2021019	SHEET 1 OF 4
DESIGN	CHECK PWI			

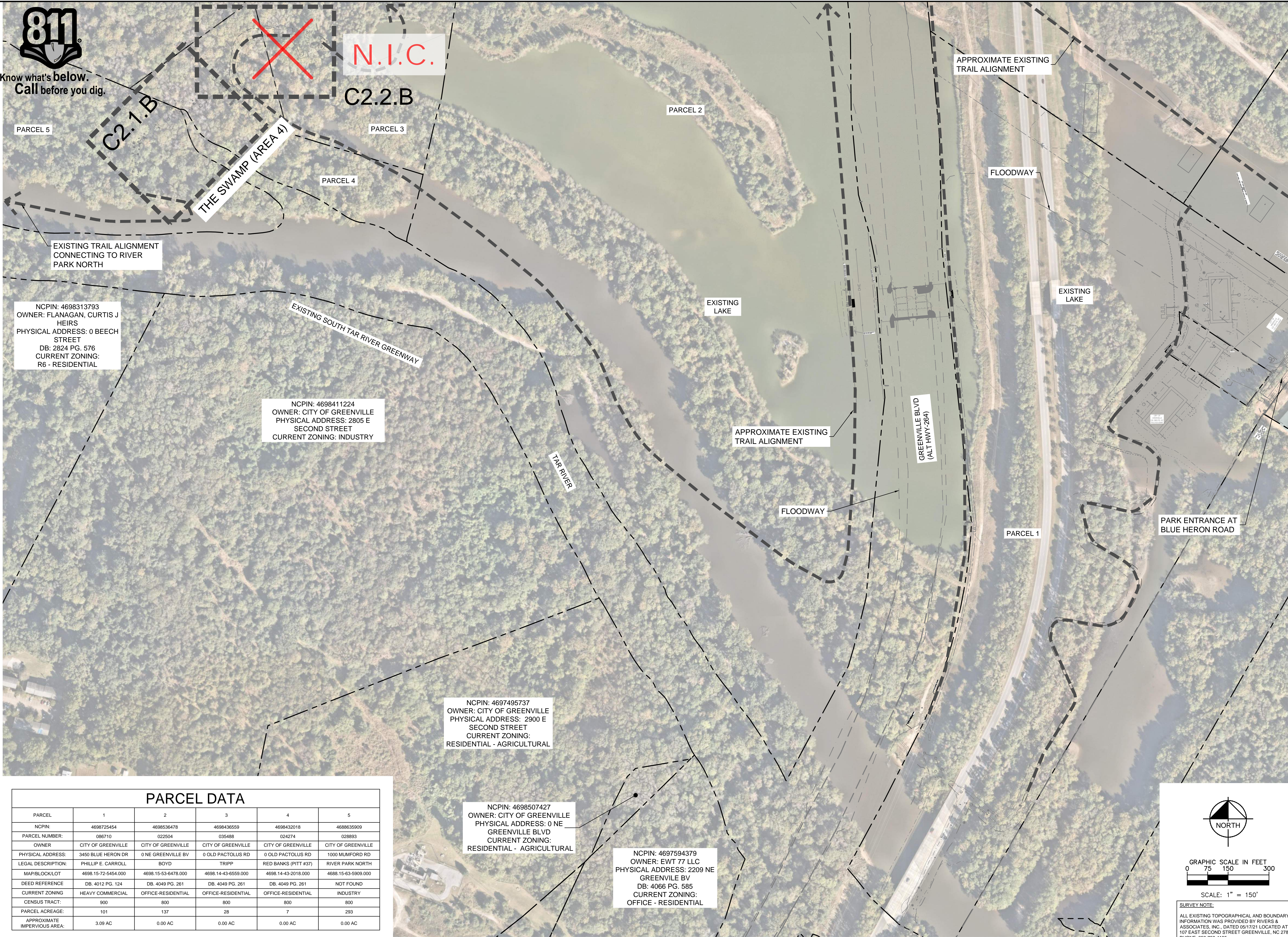
EXISTING CONDITIONS

C1.0

This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



Know what's below.
Call before you dig.



PARCEL 5

C2.1.B

THE SWAMP (AREA 4)

N.I.C.

C2.2.B

PARCEL 3

PARCEL 4

PARCEL 2

EXISTING LAKE

EXISTING LAKE

APPROXIMATE EXISTING TRAIL ALIGNMENT

FLOODWAY

APPROXIMATE EXISTING TRAIL ALIGNMENT

FLOODWAY

GREENVILLE BLVD
(ALT HWY 264)

PARCEL 1

PARK ENTRANCE AT
BLUE HERON ROAD

NCPIN: 4698313793
OWNER: FLANAGAN, CURTIS J
HEIRS
PHYSICAL ADDRESS: 0 BEECH
STREET
DB: 2824 PG. 576
CURRENT ZONING:
R6 - RESIDENTIAL

NCPIN: 4698411224
OWNER: CITY OF GREENVILLE
PHYSICAL ADDRESS: 2805 E
SECOND STREET
CURRENT ZONING: INDUSTRY

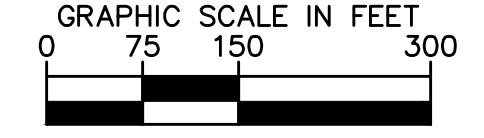
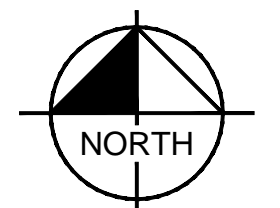
NCPIN: 4697495737
OWNER: CITY OF GREENVILLE
PHYSICAL ADDRESS: 2900 E
SECOND STREET
CURRENT ZONING:
RESIDENTIAL - AGRICULTURAL

NCPIN: 4698507427
OWNER: CITY OF GREENVILLE
PHYSICAL ADDRESS: 0 NE
GREENVILLE BLVD
CURRENT ZONING:
RESIDENTIAL - AGRICULTURAL

NCPIN: 4697594379
OWNER: EWT 77 LLC
PHYSICAL ADDRESS: 2209 NE
GREENVILLE BV
DB: 4066 PG. 585
CURRENT ZONING:
OFFICE - RESIDENTIAL

PARCEL DATA

PARCEL	1	2	3	4	5
NCPIN:	4698725454	4698536478	4698436559	4698432018	4688635909
PARCEL NUMBER:	086710	022504	035488	024274	028893
OWNER:	CITY OF GREENVILLE	CITY OF GREENVILLE	CITY OF GREENVILLE	CITY OF GREENVILLE	CITY OF GREENVILLE
PHYSICAL ADDRESS:	3450 BLUE HERON DR	0 NE GREENVILLE BV	0 OLD PACTOLUS RD	0 OLD PACTOLUS RD	1000 MUMFORD RD
LEGAL DESCRIPTION:	PHILLIP E. CARROLL	BOYD	TRIPP	RED BANKS (PITT #37)	RIVER PARK NORTH
MAP/BLOCK/LOT	4698.15-72-5454.000	4698.15-53-6478.000	4698.14-43-6559.000	4698.14-43-2018.000	4688.15-63-5909.000
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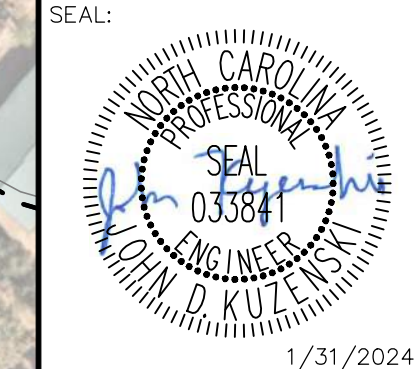


SCALE: 1" = 150'

SURVEY NOTE:
ALL EXISTING TOPOGRAPHICAL AND BOUNDARY INFORMATION WAS PROVIDED BY RIVERS & ASSOCIATES, INC. DATED 05/17/21 LOCATED AT 107 EAST SECOND STREET GREENVILLE, NC 27688 PHONE: 252-752-4135.

No.	REVISIONS	DATE
8	IFC PACKAGE B2	5/17/24
7	ISSUED FOR CONSTRUCTION	1/31/24
6	CITY OF GREENVILLE - TRC - 3RD SUBMITTAL	12/01/22
5	ISSUED FOR BID	8/02/22

Kimley >>> Horn
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
421 FAYETTEVILLE STREET, SUITE 600, RALEIGH, NC 27601
PHONE: 919-677-2000 FAX: 919-677-2050
WWW.KIMLEY-HORN.COM



KHA PROJECT	012654010
DATE	1/31/2024
SCALE	AS SHOWN
DESIGNED BY	MRC
DRAWN BY	ASA
CHECKED BY	JDK

**OVERALL
DEMOLITION AND
EROSION CONTROL
PLAN**

WILDWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE

GREENVILLE NC
SHEET NUMBER
C2.0.B



Know what's below.
Call before you dig.

LIMITS OF DISTURBANCE NOTE:

CONTRACTOR SHALL ESTABLISH LIMITS OF DISTURBANCE AT A MINIMUM OF (FIFTY) 50'-0" INTERVALS. LIMITS OF ALIGNMENT STAKINGS SHALL BE VERIFIED BY ENGINEER AND/OR LANDSCAPE ARCHITECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. LIMITS SHALL BE CLEARLY MARKED IN THE FIELD AND SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF CONSTRUCTION.

PHASE 1 CONSTRUCTION SEQUENCE

THE FOLLOWING PHASE 1 CONSTRUCTION SEQUENCE IS FURNISHED AS A GENERAL GUIDE FOR PREPARATION OF A SEQUENCE OF CONSTRUCTION EVENTS.

- OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM NCDCE.
- SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH NCDCE EROSION CONTROL INSPECTOR TO DISCUSS EROSION CONTROL MEASURES.
- CONTRACTOR TO INSTALL SILT FENCE, TREE PROTECTION FENCE, AND OTHER EROSION CONTROL MEASURES AS SHOWN ON PLANS. CONTRACTOR TO CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES.
- INSTALL TEMPORARY CONSTRUCTION ACCESS ROADS AND TURN AROUND AREAS AND TEMPORARY STREAM CROSSING TO PROVIDE ACCESS TO CONSTRUCTION SITE AREAS. CONTRACTOR TO CLEAR ONLY AS NECESSARY TO INSTALL THESE MEASURES.
- CONTRACTOR TO ACCESS BRIDGE AND CULVERT LOCATIONS USING PROPOSED PATH FOOTPRINT. USE MUD MATS IN WETLAND AREAS AND OTHER LOW AREAS TO LIMIT IMPACTS.
- CALL FOR ON-SITE INSPECTION BY INSPECTOR ONCE ALL EROSION CONTROL MEASURES ARE INSTALLED.
- UPON APPROVAL AND RECEIPT OF USACE NATIONWIDE PERMIT #14 AND NCDWR GENERAL WATER QUALITY CERTIFICATION #4135, CLEARING AND DEMOLITION MAY BEGIN. MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY. EROSION CONTROL MEASURES SHALL BE RESTORED TO ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO 50% OF DESIGN DEPTH.
- INSPECT AND REPAIR EROSION CONTROL MEASURES AFTER EVERY RAINFALL EVENT OF 1/2" OR GREATER OR EVERY SEVEN (7) CALENDAR DAYS.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NCDCE EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U.S. DEPARTMENT OF AGRICULTURE, AND CITY OF GREENVILLE EROSION CONTROL ORDINANCE.

NOTES

- REFER TO THIS SHEET AND GENERAL NOTES SHEET C0.1 FOR GENERAL EROSION CONTROL NOTES AND MAINTENANCE AND SEEDBED PREPARATION AND SEEDING SCHEDULE.
- THIS PROJECT HAS COMBINED INFORMATION FROM PREVIOUS PHASING PLANS TO PROVIDE CONTEXT. REFER TO PLANS BY RIVERS & ASSOCIATES WITH THE ADVENTURE PARK PROJECT. ALL INFORMATION WHICH DOES NOT EXIST IN THE FIELD TODAY, BUT HAS BEEN DEPICTED AS 'EXISTING CONDITIONS' HEREIN SHALL BE BROUGHT TO THE ENGINEER OR LANDSCAPE ARCHITECT'S ATTENTION PRIOR TO CONSTRUCTION.
- SEE ENVIRONMENTAL PERMITS PACKAGE FOR EXTENTS OF ALL ENVIRONMENTAL IMPACTS AND REPORTS. REPORT INCLUDES OPEN WATER, WETLAND, AND BUFFER IMPACTS, TEMPORARY AND PERMANENT.

LEGEND

	CONTOURS		R	RADIUS
	DEPRESSED CONTOUR		A	ARC LENGTH
	BOUNDARY LINE		B	CHORD BEARING
	RIGHT OF WAY (R/W)		C	CHORD LENGTH
	STORM DRAINAGE		NPF	NO POINT FOUND
	GS PARCEL LINE		EIP	EXISTING IRON PIPE
	TOE OF BANK (DITCH)		EIR	EXISTING IRON REBAR
	TOP OF BANK (DITCH)		PVC	POLY-VINYL CHLORIDE
	CENTERLINE OF DITCH		PVCT	PVC TRUSS PIPE
	FENCE		DI	DRAINAGE INLET
	OHE		ORN	ORNAMENTAL TREE
	EASEMENT LINE		CP	CONCRETE PIPE
	WATER LINE (WL)		P.N.	PARCEL NUMBER
	SANITARY SEWER LINE (SS)		M.B.	MAP BOOK
	GAS LINE		D.B.	DEED BOOK
	UNDERGROUND COMMUNICATION		PG.	PAGE
	WOODS LINE		EL.	ELEVATION
	BUILDING		INV.	INVERT
	JOINT ROADWAY EASEMENT		TYP.	TYPICAL
	SANITARY SEWER EASEMENT		CONC.	CONCRETE
	DRAINAGE EASEMENT		CR	CRUSHED ROCK
	UTILITY EASEMENT		BC	BACK OF CURB
	ELECTRIC EASEMENT			
	CONCRETE			
	ASPHALT			
	RIPRAP			

DEMOLITION AND EROSION CONTROL LEGEND

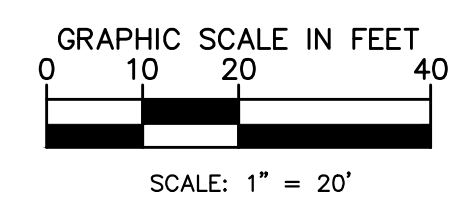
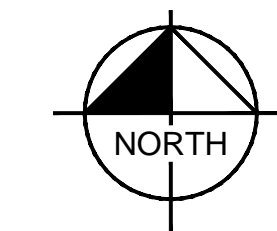
	PROPERTY LINE
	LIMITS OF DISTURBANCE
	DEMOLISH SITE ITEM
	SILT FENCE
	TREE PROTECTION FENCE
	DEMOLISH SITE ITEM/TREE TO BE REMOVED
	CONCRETE WASHOUT STATION
	NATURAL TRAIL TO BE REMOVED
	PERMANENT WETLAND DISTURBANCE
	TEMPORARY WETLAND DISTURBANCE
	TEMPORARY/PERMANENT OPEN WATER DISTURBANCE (SEE NOTE #3)
	SPOIL PILE TO BE REMOVED
	TEMPORARY HEAVY DUTY GRAVEL CONSTRUCTION ACCESS
	20' FIRE ACCESS DRIVE

BORINGS

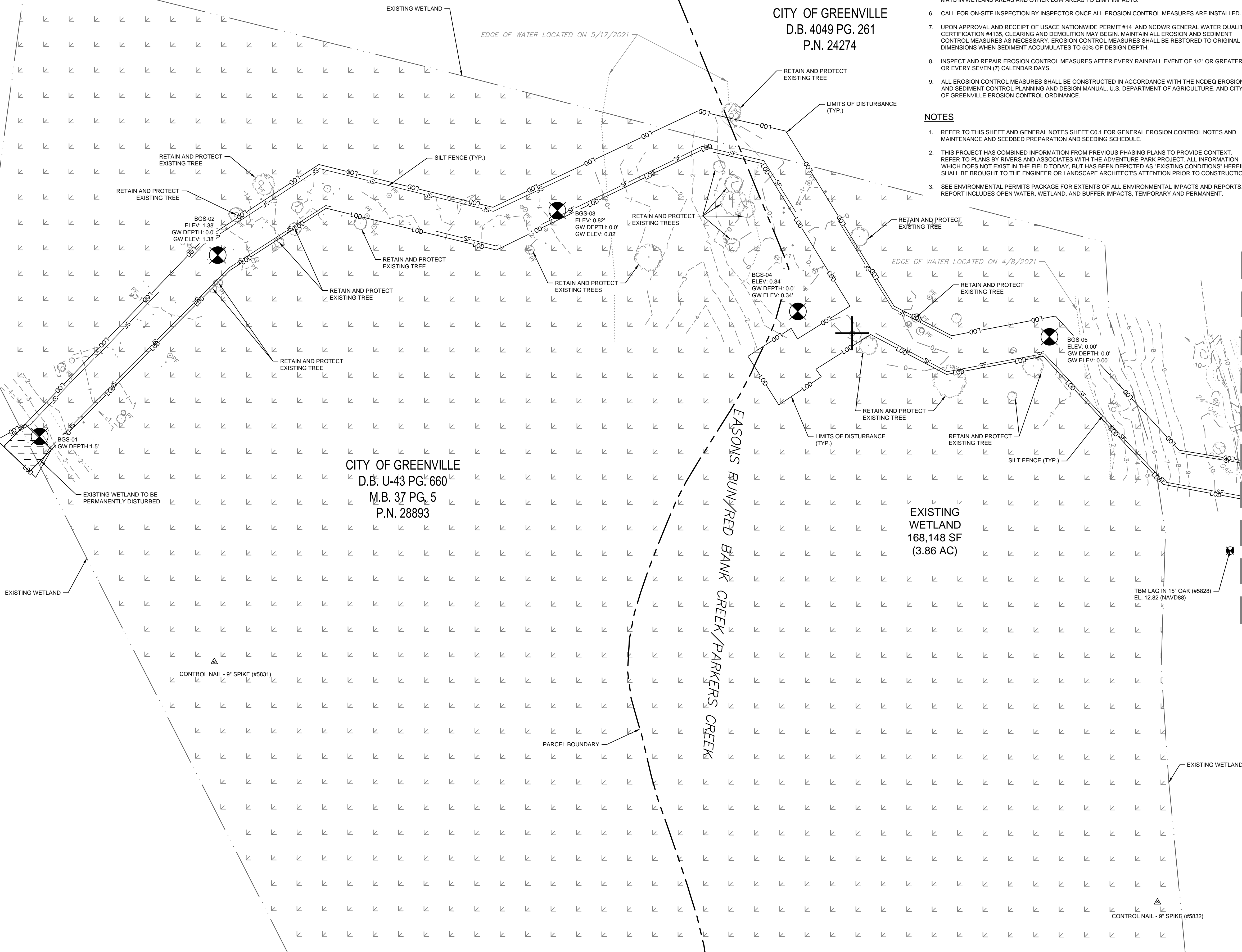
Description	Northing	Easting
BGS-01	682792.95	2493966.99
BGS-02	682892.95	2493965.96
BGS-03	683000.02	2494048.00
BGS-04	683039.01	2494143.00
BGS-05	683102.00	2494220.00
BGS-06	683134.01	2494399.00
BT-01	680328.00	2496924.00
BW-01	680778.00	2496865.01
BW-02	680688.98	2496877.96
BW-03	680537.96	2497117.98
BW-04	680538.00	2497235.95
CT-01	682368.01	2496810.98
EB-01	680591.02	2496938.96
TB-01	681864.00	2497416.99
TB-02	681879.00	2497532.00
WB-01	683318.01	2494539.98

NOTES:
 BGS - BLACK GUM SWAMP
 WB - WESTERN BRIDGE
 CT - CONNECTOR TRAIL
 TB - TOWER BRIDGE
 BW - BOARDWALK
 EB - EAST BRIDGE
 BT - BEACH TRAIL

SURVEY NOTE:
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CITY OF GREENVILLE
D.B. 4049 PG. 261
P.N. 24274

CITY OF GREENVILLE
D.B. U-43 PG. 660
M.B. 37 PG. 5
P.N. 28893

EXISTING WETLAND
168,148 SF
(3.86 AC)

No.	REVISIONS	DATE	BY
8	IFC PACKAGE B2	5/17/24	ADC
7	ISSUED FOR CONSTRUCTION	1/31/24	DAW
6	CITY OF GREENVILLE - TRC - 3RD SUBMITTAL	12/01/22	ASA
5	ISSUED FOR BID	8/02/22	ASA

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 PHONE: 919-677-2000 FAX: 919-677-2050
 WWW.KIMLEY-HORN.COM

- 0102

SEAL:

KHA PROJECT: 012654010
 DATE: 1/31/2024
 SCALE: AS SHOWN
 DESIGNED BY: MRC
 DRAWN BY: ASA
 CHECKED BY: JDK

**DEMOLITION AND PH 1
EROSION CONTROL PLAN -
THE SWAMP**

WILWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE

GREENVILLE, NC

SHEET NUMBER
C2.1.B

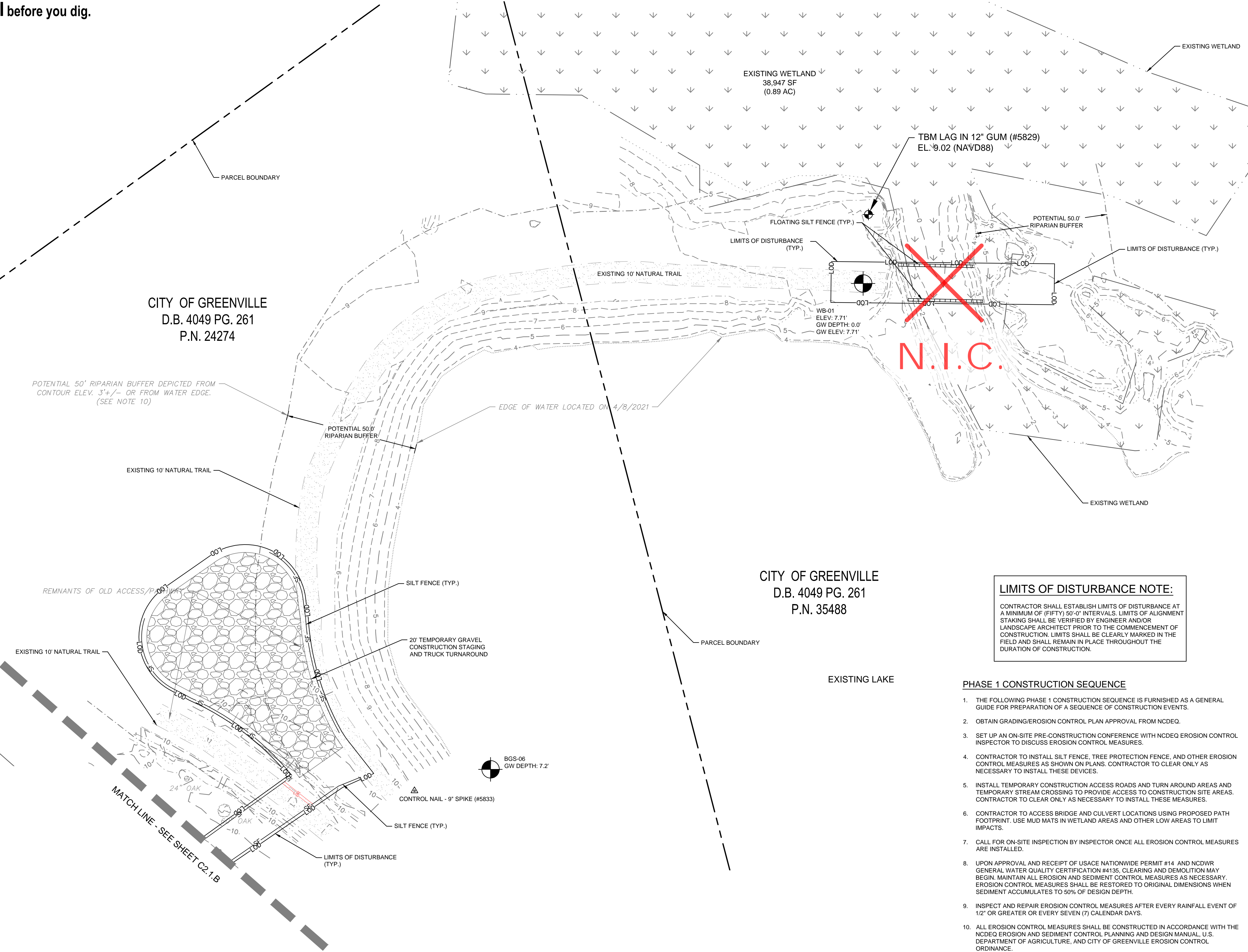


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CITY OF GREENVILLE
D.B. 4049 PG. 261
P.N. 24274

CITY OF GREENVILLE
D.B. 4049 PG. 261
P.N. 35488



LEGEND

	CONTOURS	R	RADIUS
	DEPRESSED CONTOUR	A	ARC LENGTH
	BOUNDARY LINE	B	CHORD BEARING
	RIGHT OF WAY (R/W)	C	CHORD LENGTH
	STORM DRAINAGE	NPF	NO POINT FOUND
	GS PARCEL LINE	EIP	EXISTING IRON PIPE
	TOE OF BANK (DITCH)	EIR	EXISTING IRON REBAR
	TOP OF BANK (DITCH)	PVC	POLY-VINYL CHLORIDE
	CENTERLINE OF DITCH	PVCT	PVC TRUSS PIPE
	FENCE	DI	DRAINAGE INLET
	OVERHEAD ELECTRIC LINE	ORN	ORNAMENTAL TREE
	EASEMENT LINE	CP	CONCRETE PIPE
	WATER LINE (WL)	P.W.	PARCEL NUMBER
	SANITARY SEWER LINE (SS)	M.B.	MAP BOOK
	GAS LINE	D.B.	DEED BOOK
	UNDERGROUND COMMUNICATION	PG.	PAGE
	WOODS LINE	EL.	ELEVATION
	BUILDING	INV.	INVERT
	JOINT ROADWAY EASEMENT	TYP.	TYPICAL
	SANITARY SEWER EASEMENT	CONC.	CONCRETE
	DRAINAGE EASEMENT		
	UTILITY EASEMENT		
	ELECTRIC EASEMENT		
	CONCRETE		
	ASPHALT		
	RIPRAP		
	FIRE HYDRANT		
	WATER VALVE		
	LIGHT POLE		
	METAL POST		
	CLEAN OUT		
	TEMPORARY BENCHMARK		
	GAS METER		
	CREPE MYRTLE TREE		
	BRADFORD PEAR TREE		
	CORRUGATED METAL PIPE		
	TELEPHONE PEDESTAL		
	GPS CONTROL POINT		
	CHAIN LINK FENCE WITH BARBED WIRE		
	SANITARY SEWER MANHOLE (MHSS)		
	SANITARY SEWER CARSONITE MARKER		
	CATCH BASIN AT BACK OF CURB		
	ACRYLONITRILE BUTADIENE STYRENE		

DEMOLITION AND EROSION CONTROL LEGEND

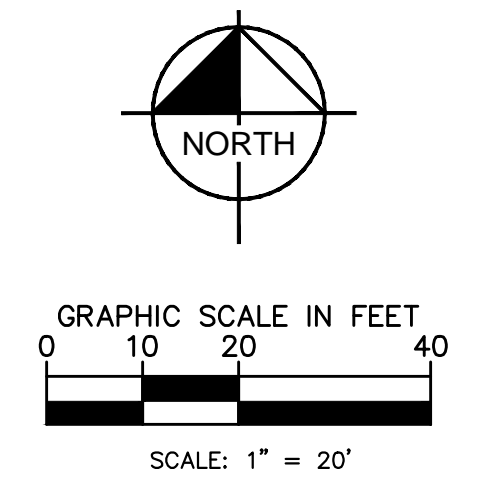
	PROPERTY LINE
	LIMITS OF DISTURBANCE
	DEMOLISH SITE ITEM
	SILT FENCE
	FLOATING SILT FENCE, TYPE 1 FOR OPEN WATER APPLICATIONS AS NEEDED
	TREE PROTECTION FENCE
	DEMOLISH SITE ITEM/TREE TO BE REMOVED
	CONCRETE WASHOUT STATION
	NATURAL TRAIL TO BE REMOVED
	PERMANENT WETLAND DISTURBANCE
	TEMPORARY WETLAND DISTURBANCE
	TEMPORARY/PERMANENT OPEN WATER DISTURBANCE (SEE NOTE #3)
	SPOIL PILE TO BE REMOVED
	TEMPORARY HEAVY DUTY GRAVEL CONSTRUCTION ACCESS
	20' FIRE ACCESS DRIVE

LIMITS OF DISTURBANCE NOTE:
CONTRACTOR SHALL ESTABLISH LIMITS OF DISTURBANCE AT A MINIMUM OF (FIFTY) 50' INTERVALS. LIMITS OF ALIGNMENT STAKING SHALL BE VERIFIED BY ENGINEER AND/OR LANDSCAPE ARCHITECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. LIMITS SHALL BE CLEARLY MARKED IN THE FIELD AND SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF CONSTRUCTION.

- ### PHASE 1 CONSTRUCTION SEQUENCE
1. THE FOLLOWING PHASE 1 CONSTRUCTION SEQUENCE IS FURNISHED AS A GENERAL GUIDE FOR PREPARATION OF A SEQUENCE OF CONSTRUCTION EVENTS.
 2. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM NCDEQ.
 3. SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH NCDEQ EROSION CONTROL INSPECTOR TO DISCUSS EROSION CONTROL MEASURES.
 4. CONTRACTOR TO INSTALL SILT FENCE, TREE PROTECTION FENCE, AND OTHER EROSION CONTROL MEASURES AS SHOWN ON PLANS. CONTRACTOR TO CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES.
 5. INSTALL TEMPORARY CONSTRUCTION ACCESS ROADS AND TURN AROUND AREAS AND TEMPORARY STREAM CROSSING TO PROVIDE ACCESS TO CONSTRUCTION SITE AREAS. CONTRACTOR TO CLEAR ONLY AS NECESSARY TO INSTALL THESE MEASURES.
 6. CONTRACTOR TO ACCESS BRIDGE AND CULVERT LOCATIONS USING PROPOSED PATH FOOTPRINT. USE MUD MATS IN WETLAND AREAS AND OTHER LOW AREAS TO LIMIT IMPACTS.
 7. CALL FOR ON-SITE INSPECTION BY INSPECTOR ONCE ALL EROSION CONTROL MEASURES ARE INSTALLED.
 8. UPON APPROVAL AND RECEIPT OF USACE NATIONWIDE PERMIT #14 AND NCDWR GENERAL WATER QUALITY CERTIFICATION #433, CLEARING AND DEMOLITION MAY BEGIN. MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY. EROSION CONTROL MEASURES SHALL BE RESTORED TO ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO 50% OF DESIGN DEPTH.
 9. INSPECT AND REPAIR EROSION CONTROL MEASURES AFTER EVERY RAINFALL EVENT OF 1/2" OR GREATER OR EVERY SEVEN (7) CALENDAR DAYS.
 10. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U.S. DEPARTMENT OF AGRICULTURE, AND CITY OF GREENVILLE EROSION CONTROL ORDINANCE.

BORINGS

Description	Northing	Easting
BGS-01	682792.95	2493966.99
BGS-02	682892.95	2493965.96
BGS-03	683000.02	2494048.00
BGS-04	683039.01	2494143.00
BGS-05	683102.00	2494220.00
BGS-06	683134.01	2494399.00
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CT-01	682368.01	2496810.98
EB-01	680591.02	2496938.96
TB-01	681864.00	2497416.99
TB-02	681879.00	2497532.00
WB-01	683318.01	2494539.98



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8	IFC PACKAGE B2	5/17/24	ADC
7	ISSUED FOR CONSTRUCTION	1/31/24	DAW
6	CITY OF GREENVILLE - TRC - 3RD SUBMITTAL	12/01/22	ASA
5	ISSUED FOR BID	8/02/22	ASA
			BY
			DATE
			REVISIONS
			No.

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#F-0102

SEALED:

KHA PROJECT: 012654010
DATE: 1/31/2024
SCALE: AS SHOWN
DESIGNED BY: MRC
DRAWN BY: ASA
CHECKED BY: JDK

1/31/2024

**DEMOLITION AND PH 1
EROSION CONTROL PLAN -
THE SWAMP**

WILDWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE

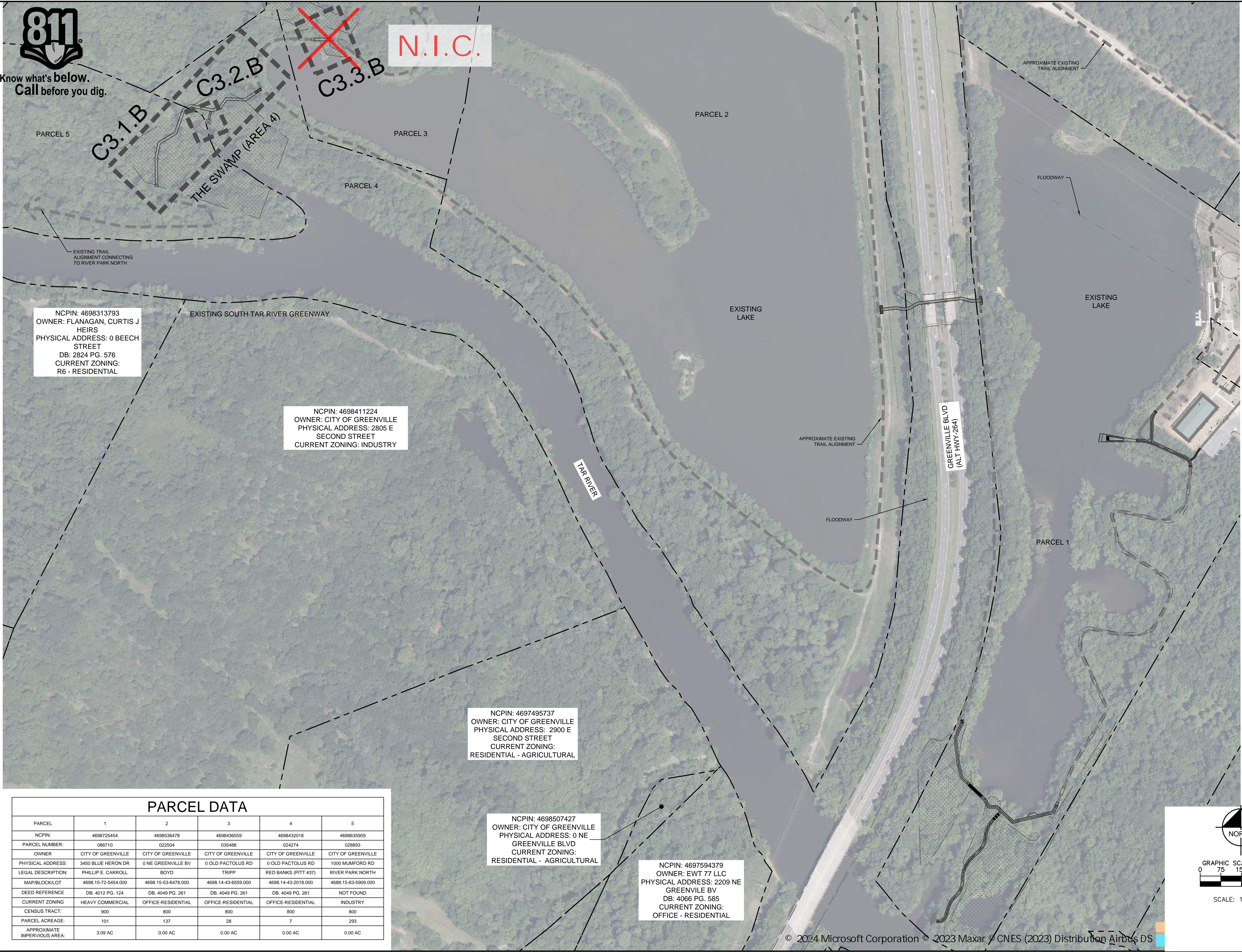
GREENVILLE, NC

SHEET NUMBER
C2.2.B

Plotted By: Cullinon, Alex. Sheet: SHEL:WILDWOOD PARK - OBSERVATION TOWER AND TRAILS - BID PACKAGE B - LAYOUT: C3.0.B OVERALL SITE PLAN. May 15, 2024. D3:05:09pm. \\kimley-horn.com\CL_RALI\GAL\LEVA\012654010 - Wildwood Park - Walkway Tower Planning Phase\FIG_CAD Files\PlanSheets\Bid Package B\B2\C3.0 OVERALL SITE PLAN.dwg. This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



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NCPIN: 4698313793
 OWNER: FLANAGAN, CURTIS J HEIRS
 PHYSICAL ADDRESS: 0 BEECH STREET
 DB: 2824 PG. 576
 CURRENT ZONING: R6 - RESIDENTIAL

NCPIN: 4698411224
 OWNER: CITY OF GREENVILLE
 PHYSICAL ADDRESS: 2805 E SECOND STREET
 CURRENT ZONING: INDUSTRY

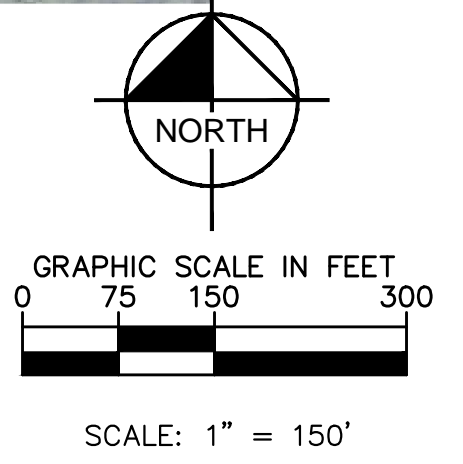
NCPIN: 4697495737
 OWNER: CITY OF GREENVILLE
 PHYSICAL ADDRESS: 2900 E SECOND STREET
 CURRENT ZONING: RESIDENTIAL - AGRICULTURAL

NCPIN: 4698507427
 OWNER: CITY OF GREENVILLE
 PHYSICAL ADDRESS: 0 NE GREENVILLE BLVD
 CURRENT ZONING: RESIDENTIAL - AGRICULTURAL

NCPIN: 4697594379
 OWNER: EWT 77 LLC
 PHYSICAL ADDRESS: 2209 NE GREENVILLE BV
 DB: 4066 PG. 585
 CURRENT ZONING: OFFICE - RESIDENTIAL

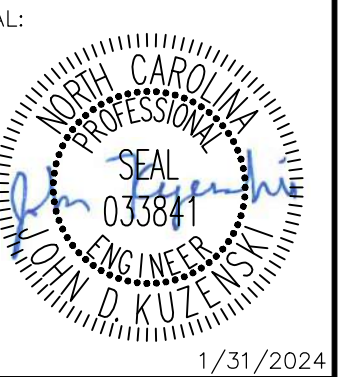
PARCEL DATA

PARCEL	1	2	3	4	5
NCPIN:	4698725454	4698536478	4698436559	4698432018	4688635909
PARCEL NUMBER:	086710	022504	035488	024274	028893
OWNER:	CITY OF GREENVILLE	CITY OF GREENVILLE	CITY OF GREENVILLE	CITY OF GREENVILLE	CITY OF GREENVILLE
PHYSICAL ADDRESS:	3450 BLUE HERON DR	0 NE GREENVILLE BV	0 OLD PACTOLUS RD	0 OLD PACTOLUS RD	1000 MUMFORD RD
LEGAL DESCRIPTION:	PHILLIP E. CARROLL	BOYD	TRIPP	RED BANKS (PITT #37)	RIVER PARK NORTH
MAP/BLOCK/LOT	4698.15-72-5454.000	4698.15-53-6478.000	4698.14-43-6559.000	4698.14-43-2018.000	4688.15-63-5909.000
DEED REFERENCE:	DB. 4012 PG. 124	DB. 4049 PG. 261	DB. 4049 PG. 261	DB. 4049 PG. 261	NOT FOUND
CURRENT ZONING:	HEAVY COMMERCIAL	OFFICE-RESIDENTIAL	OFFICE-RESIDENTIAL	OFFICE-RESIDENTIAL	INDUSTRY
CENSUS TRACT:	900	800	800	800	800
PARCEL ACREAGE:	101	137	28	7	293
APPROXIMATE IMPERVIOUS AREA:	3.09 AC	0.00 AC	0.00 AC	0.00 AC	0.00 AC



No.	REVISIONS	DATE
8	IFC PACKAGE B2	5/17/24
7	ISSUED FOR CONSTRUCTION	1/31/24
6	CITY OF GREENVILLE - TRC - 3RD SUBMITTAL	12/01/22
5	ISSUED FOR BID	8/02/22

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 WWW.KIMLEY-HORN.COM
 #F-0102



KHA PROJECT: 012654010
 DATE: 1/31/2024
 SCALE: AS SHOWN
 DESIGNED BY: MRC
 DRAWN BY: ASA
 CHECKED BY: JDK
 1/31/2024

OVERALL SITE PLAN

WILDWOOD PARK -
 TOWER AND TRAILS
 BID PACKAGE B
 PREPARED FOR
 CITY OF GREENVILLE

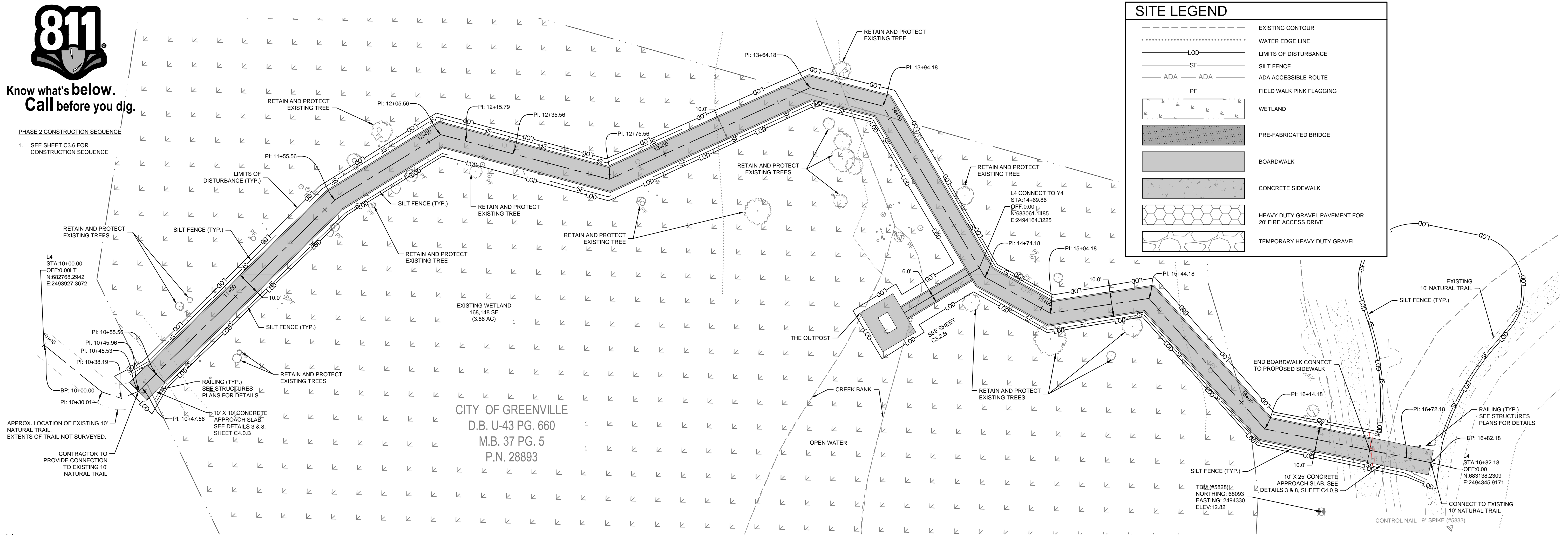
SHEET NUMBER
C3.0.B



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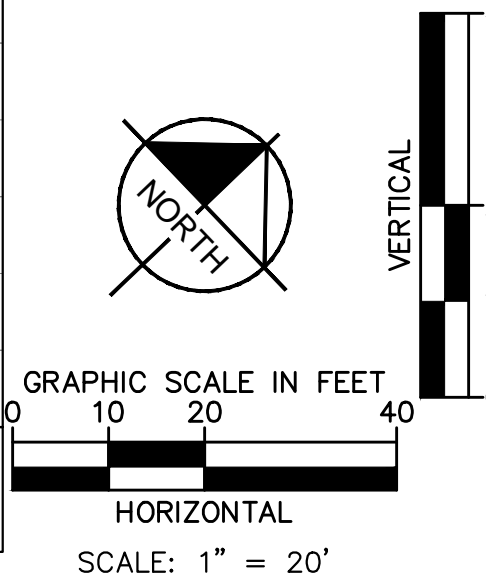
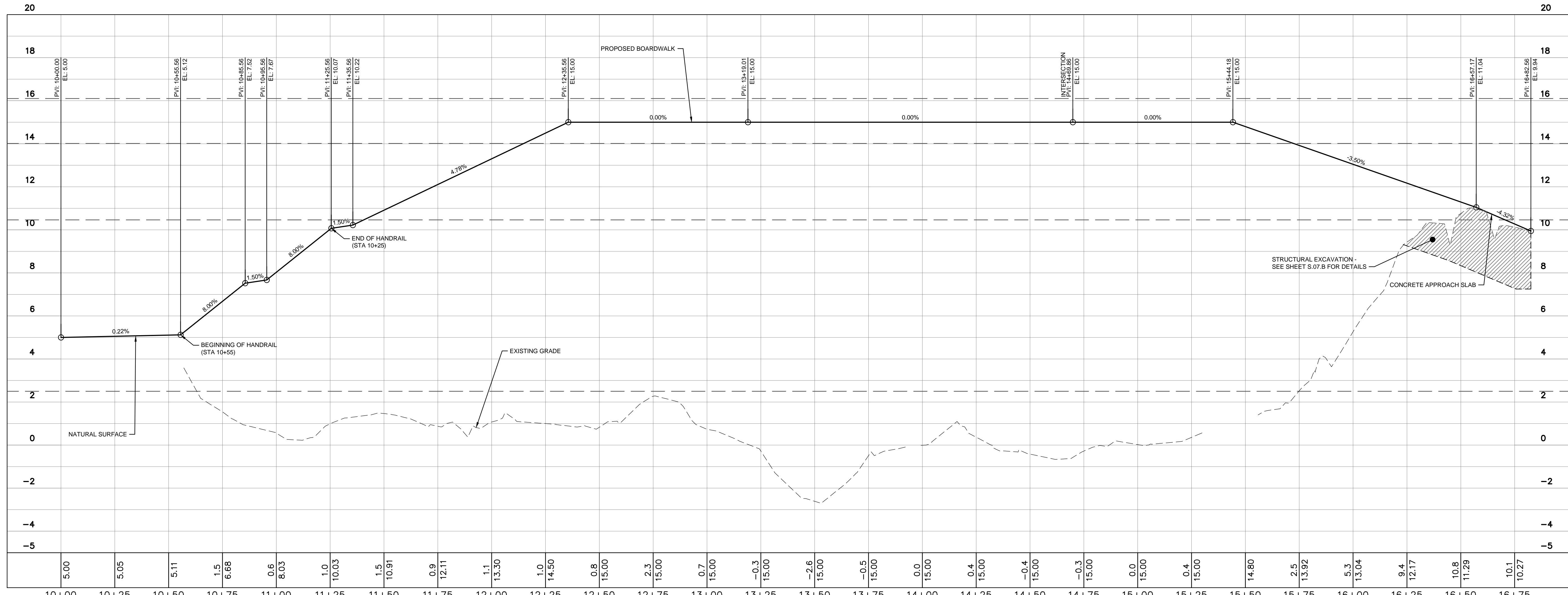
PHASE 2 CONSTRUCTION SEQUENCE

1. SEE SHEET C3.6 FOR CONSTRUCTION SEQUENCE



SITE LEGEND	
	EXISTING CONTOUR
	WATER EDGE LINE
	LIMITS OF DISTURBANCE
	SILT FENCE
	ADA ACCESSIBLE ROUTE
	FIELD WALK PINK FLAGGING
	WETLAND
	PRE-FABRICATED BRIDGE
	BOARDWALK
	CONCRETE SIDEWALK
	HEAVY DUTY GRAVEL PAVEMENT FOR 20' FIRE ACCESS DRIVE
	TEMPORARY HEAVY DUTY GRAVEL

CITY OF GREENVILLE
D.B. U-43 PG. 660
M.B. 37 PG. 5
P.N. 28893



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NO.	REVISIONS	DATE
8	IFC PACKAGE B2	5/17/24
7	ISSUED FOR CONSTRUCTION	1/31/24
6	CITY OF GREENVILLE - TRC - 3RD SUBMITTAL	12/01/22
5	ISSUED FOR BID	8/02/22

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#F-0102



KHA PROJECT	012654010
DATE	1/31/2024
SCALE	AS SHOWN
DESIGNED BY	MRC
DRAWN BY	ASA
CHECKED BY	JDK

**PLAN AND PROFILE -
THE SWAMP (AREA 4)**

WILDWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE

GREENVILLE, NC
SHEET NUMBER
C3.1.B



Know what's below.
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Plotted by: cadwin, kha - Sheet Set: WILWOOD PARK - OBSERVATION TOWER AND TRAILS - BID PACKAGE B - LAYOUT C3.2.B PLAN AND PROFILE - THE SWAMP (AREA 4) May 15, 2024 03:05:41pm. Kimley-Horn.com \\G:\DALLAS\LEAD\12654010_012654010_012654010.dwg - User: cadwin - Project: WILWOOD PARK - OBSERVATION TOWER AND TRAILS - BID PACKAGE B - LAYOUT C3.2.B PLAN AND PROFILE - THE SWAMP (AREA 4) May 15, 2024 03:05:41pm. This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

SITE LEGEND	
	EXISTING CONTOUR
	WATER EDGE LINE
	LIMITS OF DISTURBANCE
	SILT FENCE
	ADA ACCESSIBLE ROUTE
	FIELD WALK PINK FLAGGING
	WETLAND
	PRE-FABRICATED BRIDGE
	BOARDWALK
	CONCRETE SIDEWALK
	HEAVY DUTY GRAVEL PAVEMENT FOR 20' FIRE ACCESS DRIVE
	TEMPORARY HEAVY DUTY GRAVEL

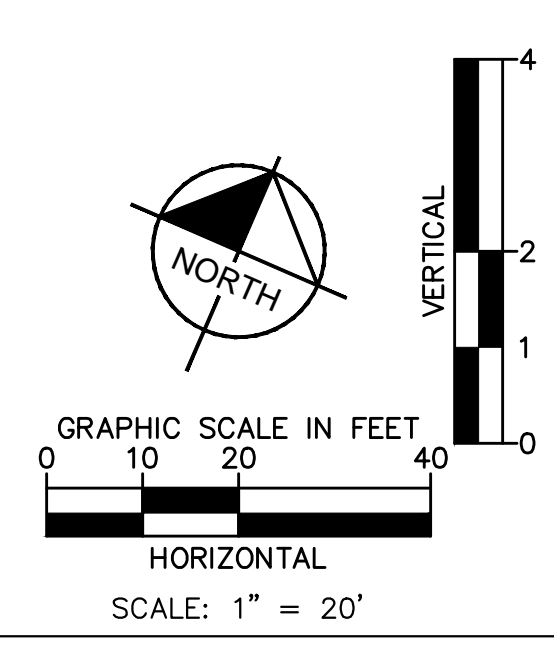
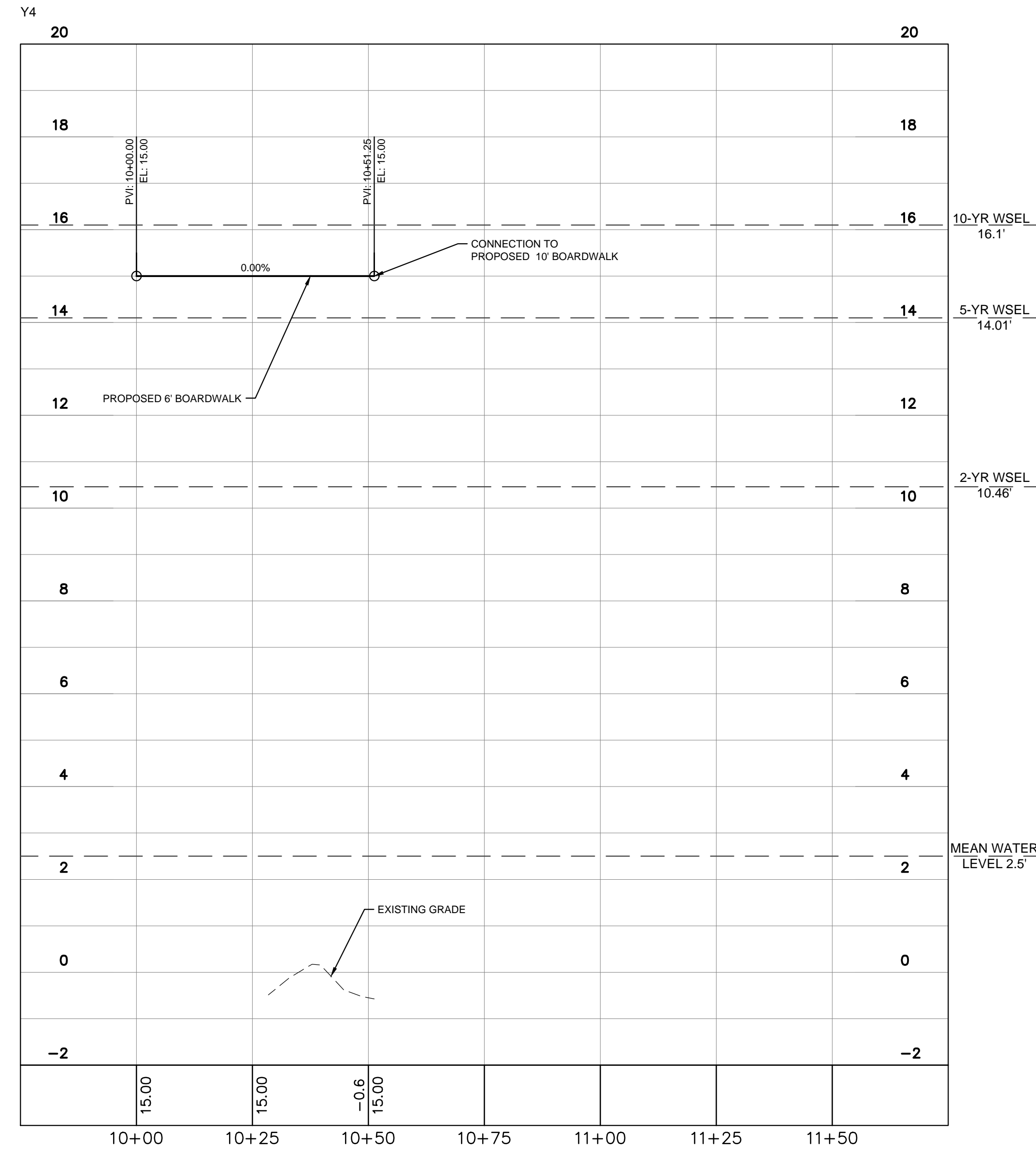
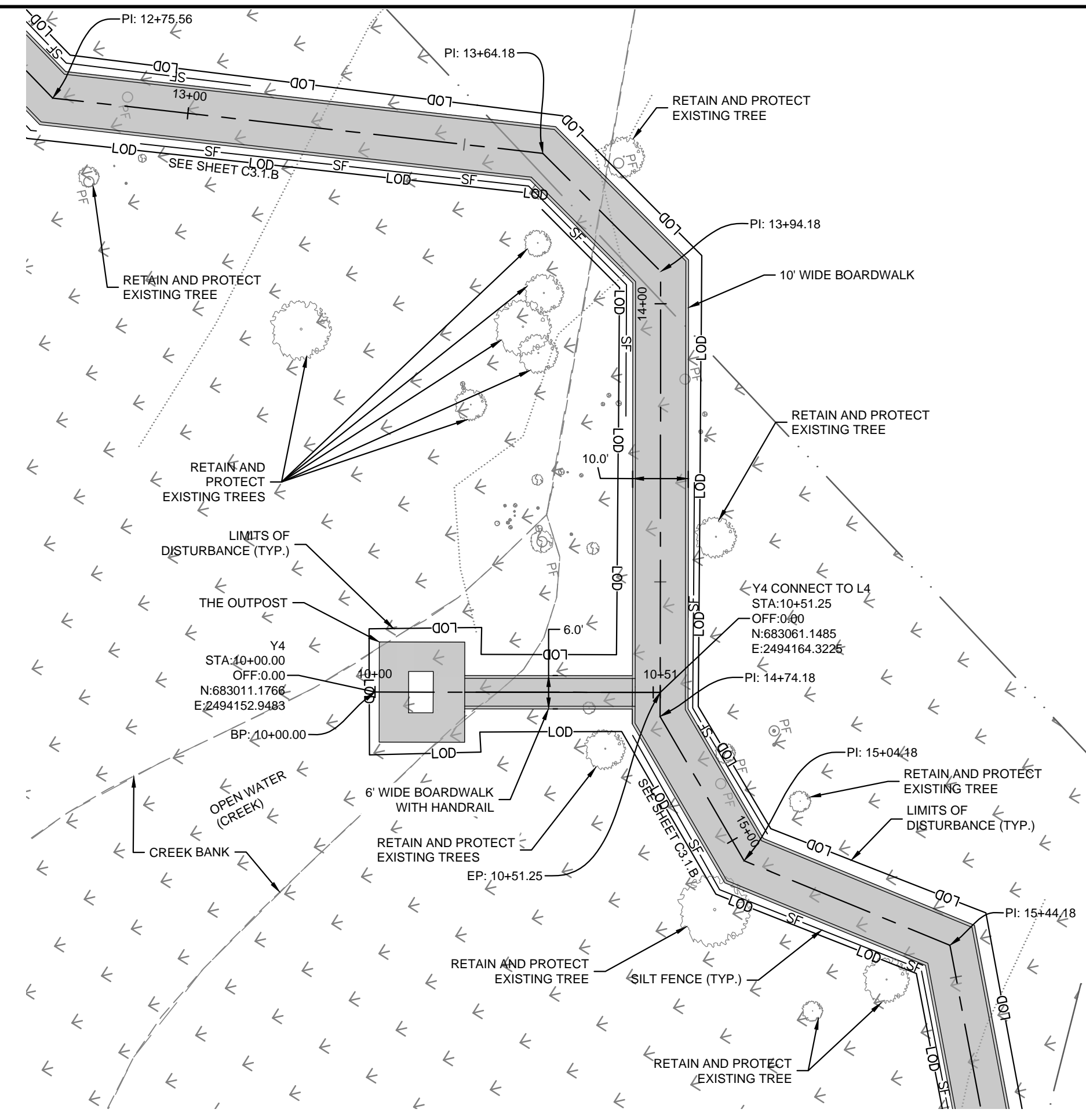
PHASE 2 CONSTRUCTION SEQUENCE

THE FOLLOWING PHASE 2 CONSTRUCTION SEQUENCE IS FURNISHED AS A GENERAL GUIDE FOR PREPARATION OF A SEQUENCE OF CONSTRUCTION EVENTS.

- BEGIN MASS GRADING OF PROPOSED SIDEWALKS AND TRAILS. MAINTAIN EROSION CONTROL DEVICES AS NEEDED.
- CONSTRUCT BOARDWALKS, PRE-FABRICATED BRIDGES, AND PROPOSED SIDEWALKS AS SHOWN ON PLANS.
- WHILE IMPROVEMENTS ARE BEING INSTALLED, CONTRACTOR IS TO STABILIZE ALL DISTURBED AREAS AND STREAM BANK SLOPES USING EROSION CONTROL MATTING, SEEDING, AND MULCH TO MAINTAIN A DENSE VEGETATIVE COVER.
- UPON RECEIPT OF BUILDING PERMIT, CONSTRUCT OBSERVATION TOWER AS SHOWN ON ARCHITECTURAL PLANS. CONTRACTOR TO PROVIDE CONSTRUCTION SEQUENCE FOR CRANE ACCESS AND OPERATIONS AND MATERIAL LAY-DOWN AREA.
- INSPECT AND REPAIR EROSION CONTROL MEASURE AFTER EVERY RAINFALL EVENT OF 1/2" OR GREATER OR EVERY SEVEN (7) CALENDAR DAYS.
- REMOVE TEMPORARY CONSTRUCTION ACCESSES UPON PROJECT COMPLETION.
- WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL NCDEQ INSPECTORS FOR INSPECTIONS.
- REMOVE TEMPORARY EROSION CONTROL MEASURES AND SEED OR STABILIZE ANY RESULTING BARE AREAS.
- WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY NCDEQ INSPECTOR.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U.S. DEPARTMENT OF AGRICULTURE, AND CITY OF GREENVILLE EROSION CONTROL ORDINANCE.

NOTES

- REFER TO THIS SHEET, EROSION CONTROL DETAILS SHEETS AND GENERAL NOTES SHEET FOR GENERAL EROSION CONTROL NOTES AND MAINTENANCE AND SEEDBED PREPARATION AND SEEDING SCHEDULE.



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8	IFC PACKAGE B2	5/17/24	ADC
7	ISSUED FOR CONSTRUCTION	1/31/24	DAW
6	CITY OF GREENVILLE - TRC - 3RD SUBMITTAL	12/01/22	ASA
5	ISSUED FOR BID	8/02/22	ASA

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SEAL:

KHA PROJECT: 012654010
DATE: 1/31/2024
SCALE: AS SHOWN
DESIGNED BY: MRG
DRAWN BY: ASA
CHECKED BY: JDK

**PLAN AND PROFILE -
THE SWAMP (AREA 4)**

WILWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE

SHEET NUMBER
C3.2.B



Know what's below.
Call before you dig.

SITE LEGEND	
	EXISTING CONTOUR
	WATER EDGE LINE
	LOD
	LIMITS OF DISTURBANCE
	SF
	SILT FENCE
	ADA ACCESSIBLE ROUTE
	FIELD WALK PINK FLAGGING
	WETLAND
	PRE-FABRICATED BRIDGE
	BOARDWALK
	CONCRETE SIDEWALK
	HEAVY DUTY GRAVEL PAVEMENT FOR 20' FIRE ACCESS DRIVE
	TEMPORARY HEAVY DUTY GRAVEL

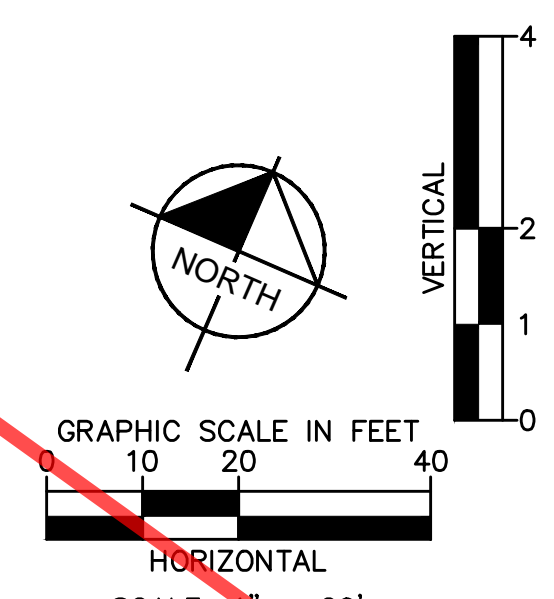
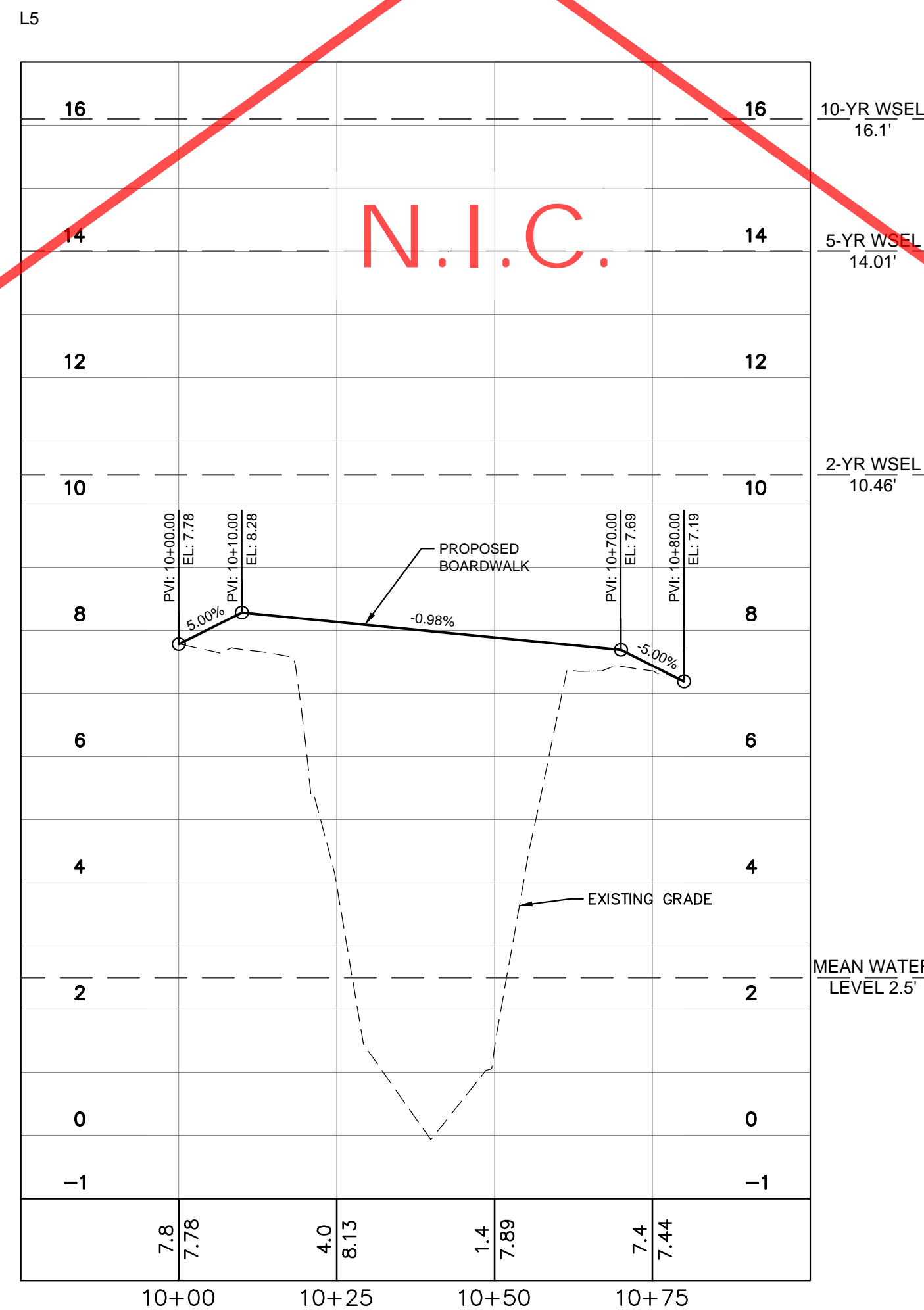
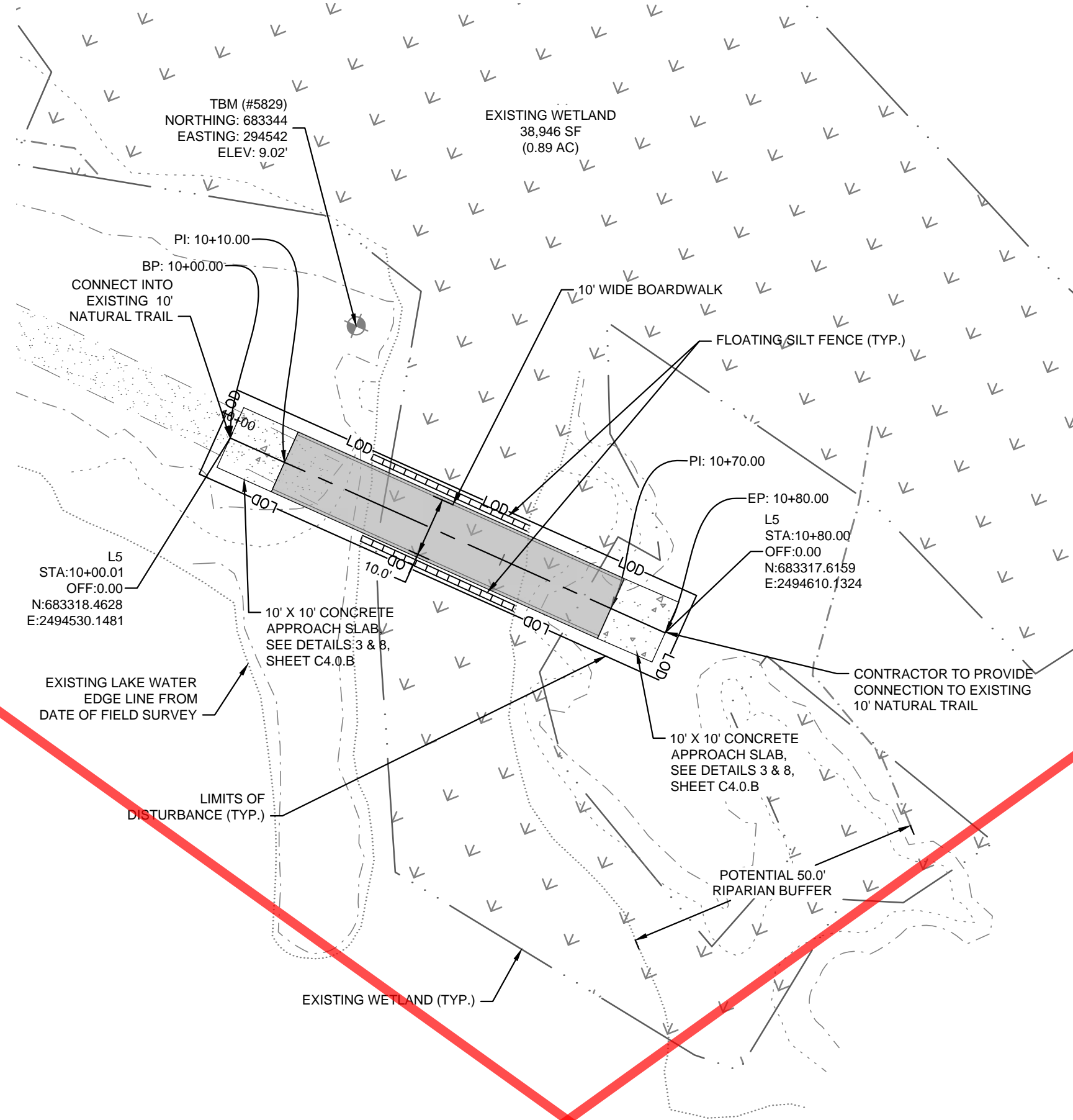
PHASE 2 CONSTRUCTION SEQUENCE

THE FOLLOWING PHASE 2 CONSTRUCTION SEQUENCE IS FURNISHED AS A GENERAL GUIDE FOR PREPARATION OF A SEQUENCE OF CONSTRUCTION EVENTS.

- BEGIN MASS GRADING OF PROPOSED SIDEWALKS AND TRAILS. MAINTAIN EROSION CONTROL DEVICES AS NEEDED.
- CONSTRUCT BOARDWALKS, PRE-FABRICATED BRIDGES, AND PROPOSED SIDEWALKS AS SHOWN ON PLANS.
- WHILE IMPROVEMENTS ARE BEING INSTALLED, CONTRACTOR IS TO STABILIZE ALL DISTURBED AREAS AND STREAM BANK SLOPES USING EROSION CONTROL MATTING, SEEDING, AND MULCH TO MAINTAIN A DENSE VEGETATIVE COVER.
- UPON RECEIPT OF BUILDING PERMIT, CONSTRUCT OBSERVATION TOWER AS SHOWN ON ARCHITECTURAL PLANS. CONTRACTOR TO PROVIDE CONSTRUCTION SEQUENCE FOR CRANE ACCESS AND OPERATIONS AND MATERIAL LAY-DOWN AREA.
- INSPECT AND REPAIR EROSION CONTROL MEASURE AFTER EVERY RAINFALL EVENT OF 1/2" OR GREATER OR EVERY SEVEN (7) CALENDAR DAYS.
- REMOVE TEMPORARY CONSTRUCTION ACCESSES UPON PROJECT COMPLETION.
- WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL NCDEQ INSPECTORS FOR INSPECTIONS.
- REMOVE TEMPORARY EROSION CONTROL MEASURES AND SEED OR STABILIZE ANY RESULTING BARE AREAS.
- WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY NCDEQ INSPECTOR.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U.S. DEPARTMENT OF AGRICULTURE, AND CITY OF GREENVILLE EROSION CONTROL ORDINANCE.

NOTES

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DESIGNED BY	MRC
DRAWN BY	ASA
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**PLAN AND PROFILE -
THE SWAMP (AREA 4)**

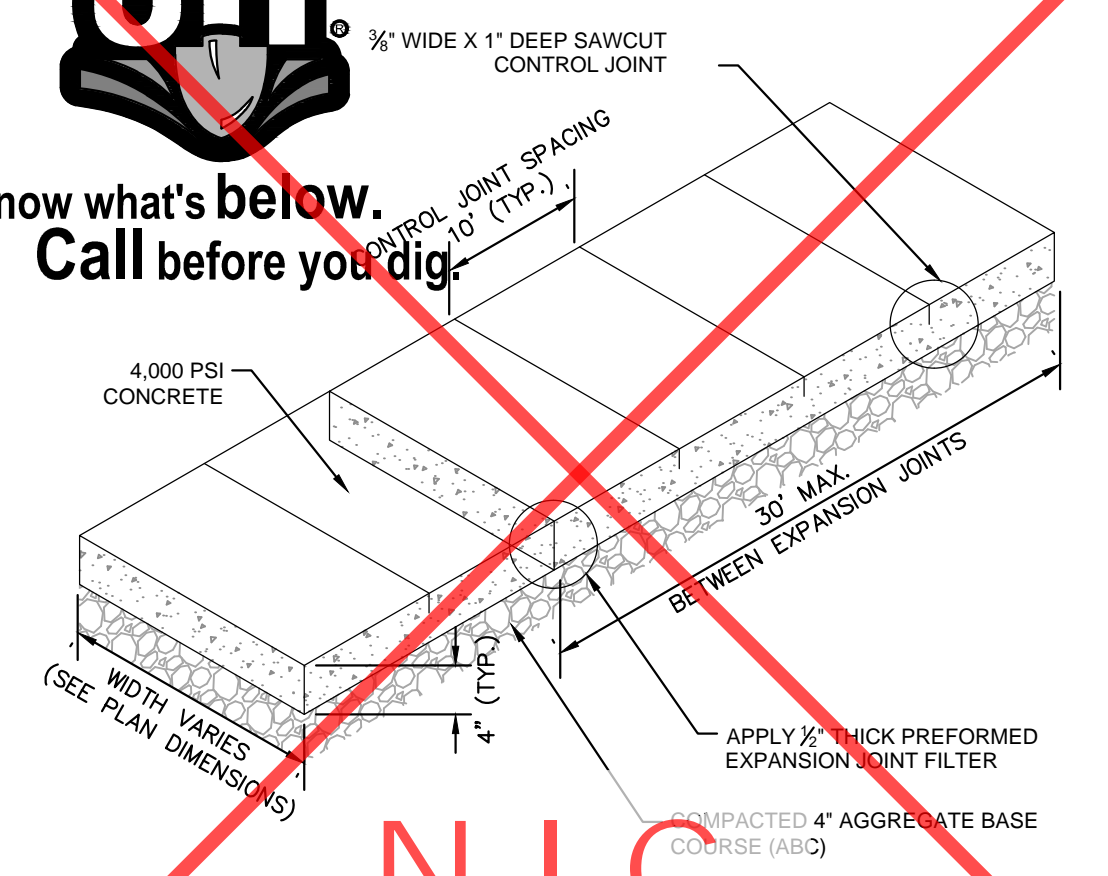
**WILWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE**

GREENVILLE NC
SHEET NUMBER
C3.3.B

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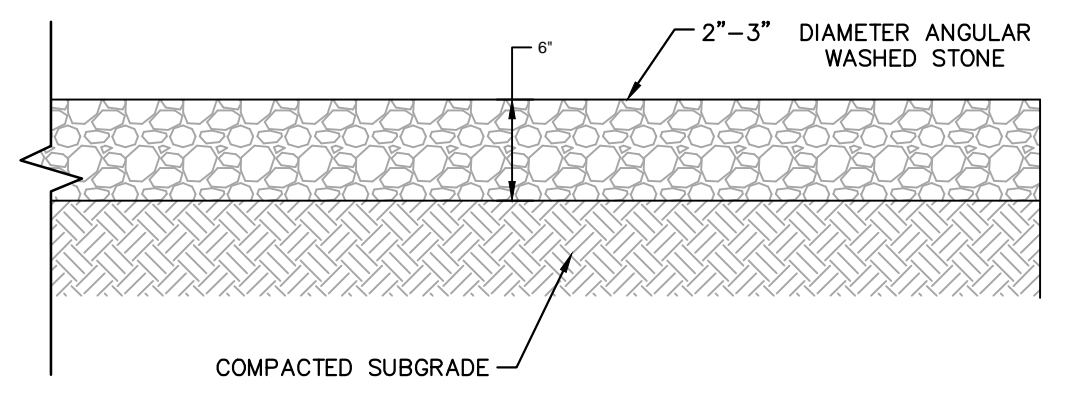


N.I.C.

SIDEWALK
N.T.S. KHA DETAIL NO: 02.103.R02 **01**

- CONSTRUCTION SPECIFICATIONS:**
- CLEAR THE AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
 - PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.
 - USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.

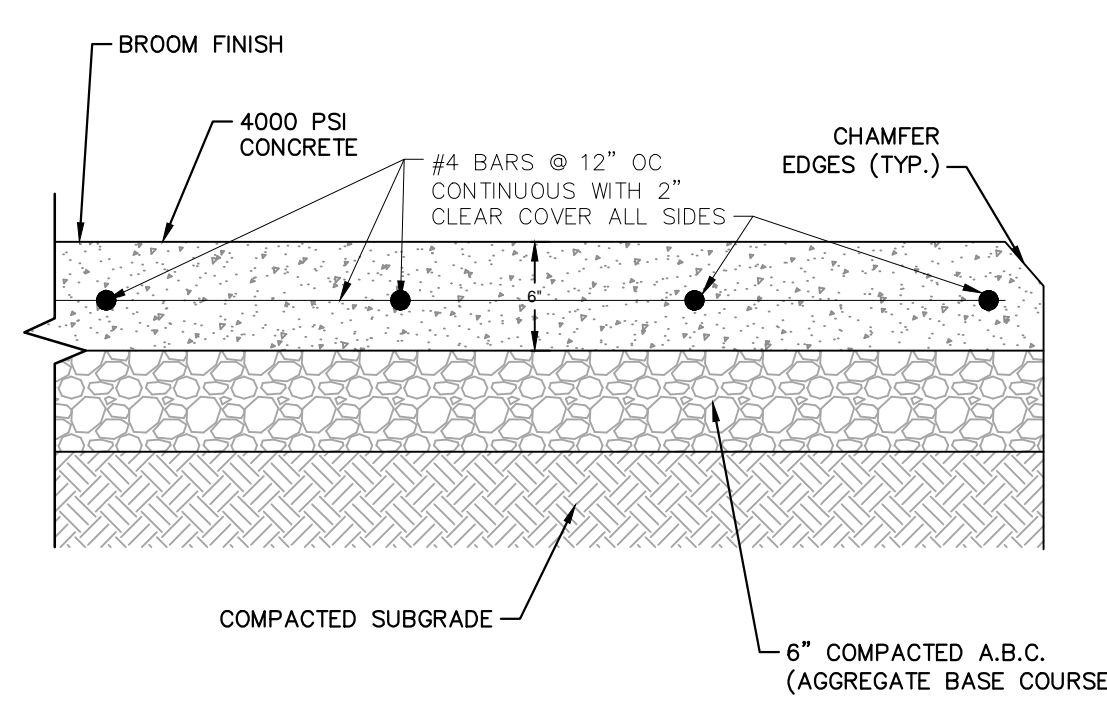
MAINTENANCE NOTES:
MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.



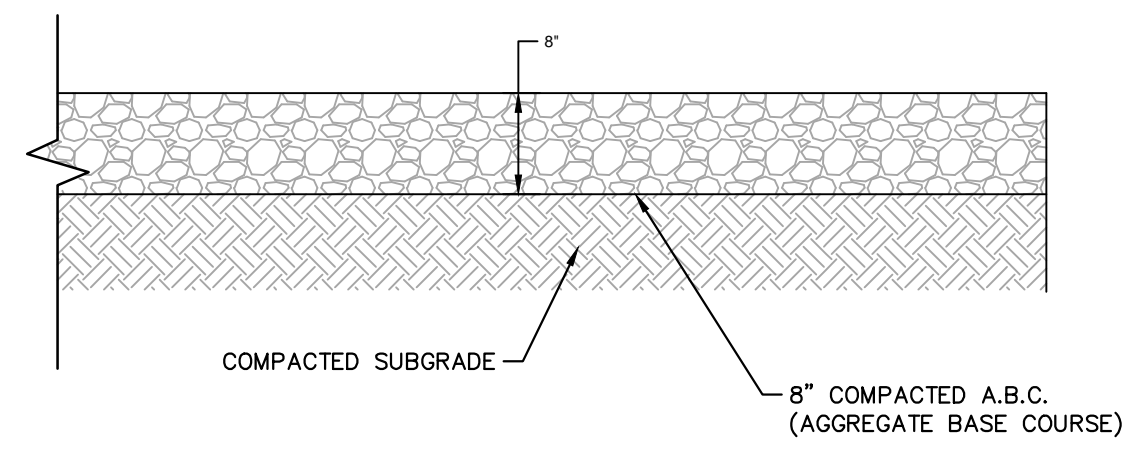
TEMPORARY GRAVEL SECTION FOR CONSTRUCTION ACCESS AND TURNAROUNDS
N.T.S. KHA DETAIL NO: **07**

NOTES

- MAXIMUM JOINT SPACING IS 10 FEET IN ALL DIRECTIONS. SAW JOINTS SHOULD BE CUT TO A DEPTH OF AT LEAST 1/4 THE THICKNESS OF THE CONCRETE.
- PAVEMENT SECTION MUST MEET THE CRITERIA GIVEN IN THE SITE SOIL REPORT
- ALL PAVEMENT MATERIAL SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) SPECIFICATIONS.

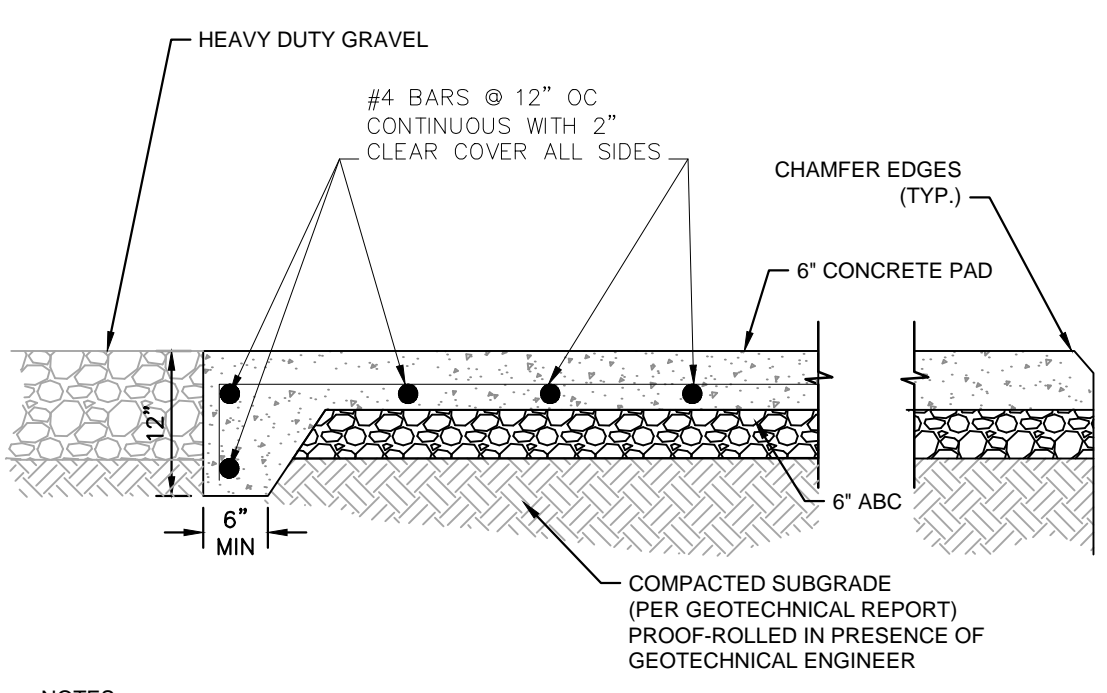


HEAVY DUTY CONCRETE SIDEWALK SECTION
N.T.S. KHA DETAIL NO: **03**



NOTE: USE HEAVY DUTY GRAVEL PAVEMENT FOR PERMANENT FIRE ACCESS DRIVE TO FUTURE OBSERVATION TOWER

HEAVY DUTY GRAVEL PAVEMENT
N.T.S. KHA DETAIL NO: **05**



- NOTES**
- EXPANSION JOINTS AT BUILDINGS OR IMMOVABLE OBJECTS.
 - CONTROL JOINTS 10' O.C.
 - EXPANSION JOINTS 30' O.C. (MAX)

HEAVY DUTY SIDEWALK CONNECTION TO HEAVY DUTY GRAVEL DETAIL
N.T.S. KHA DETAIL NO: 02.107.R01 **08**

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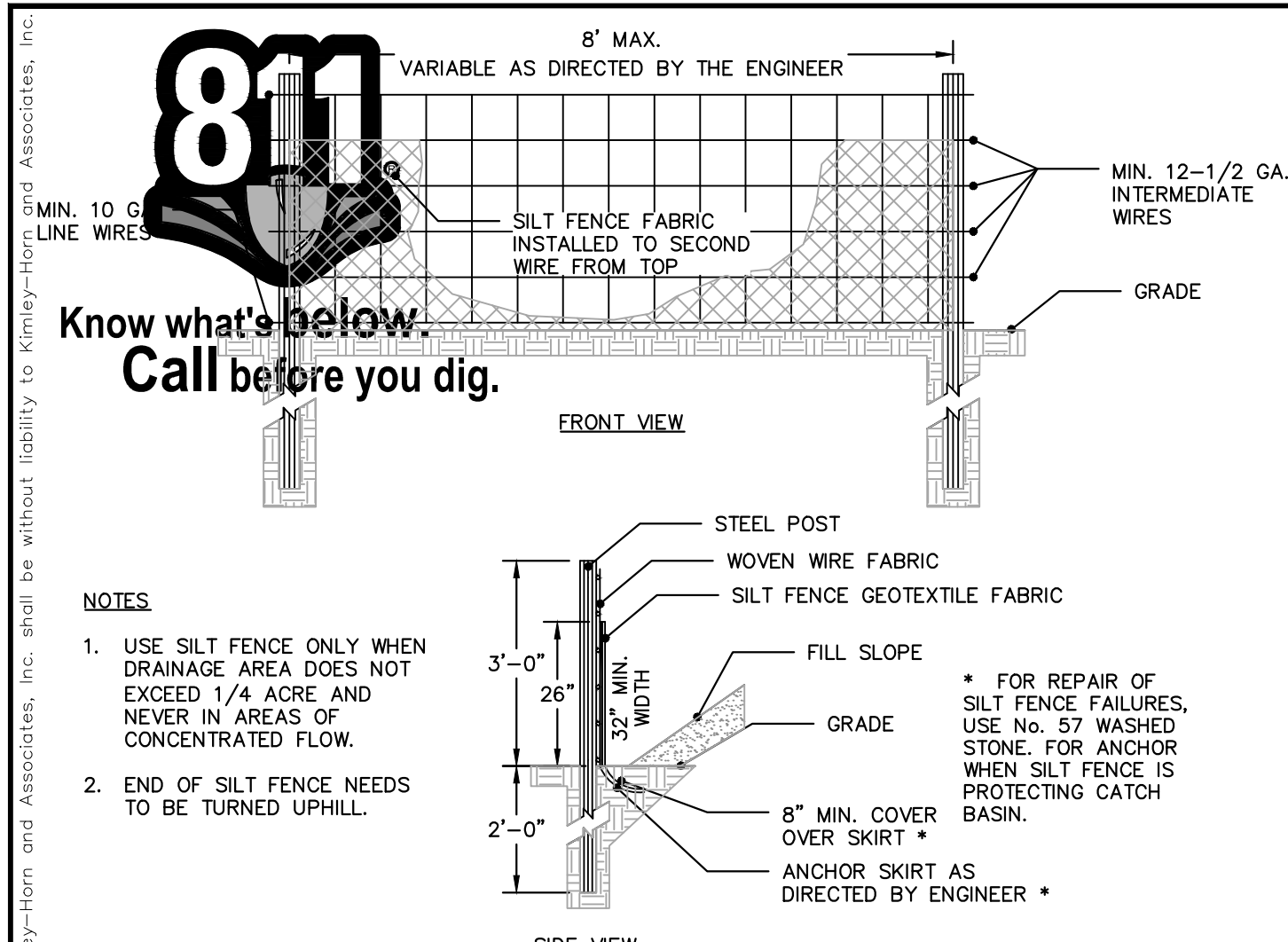
SIDEWALK DETAILS

WILLOW PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE
GREENVILLE NC

SHEET NUMBER
C4.0.B

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TEMPORARY SILT FENCE
N.T.S.

CONSTRUCTION SPECIFICATIONS

MATERIALS

- USE A SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461. SYNTHETIC FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 TO 120 F.
- ENSURE THAT POSTS FOR SEDIMENT FENCES ARE 1.25 LB/LINEAR FT MINIMUM STEEL WITH A MINIMUM LENGTH OF 5 FEET. MAKE SURE THAT STEEL POSTS HAVE PROJECTIONS TO FACILITATE FASTENING THE FABRIC.
- FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE FENCE WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.

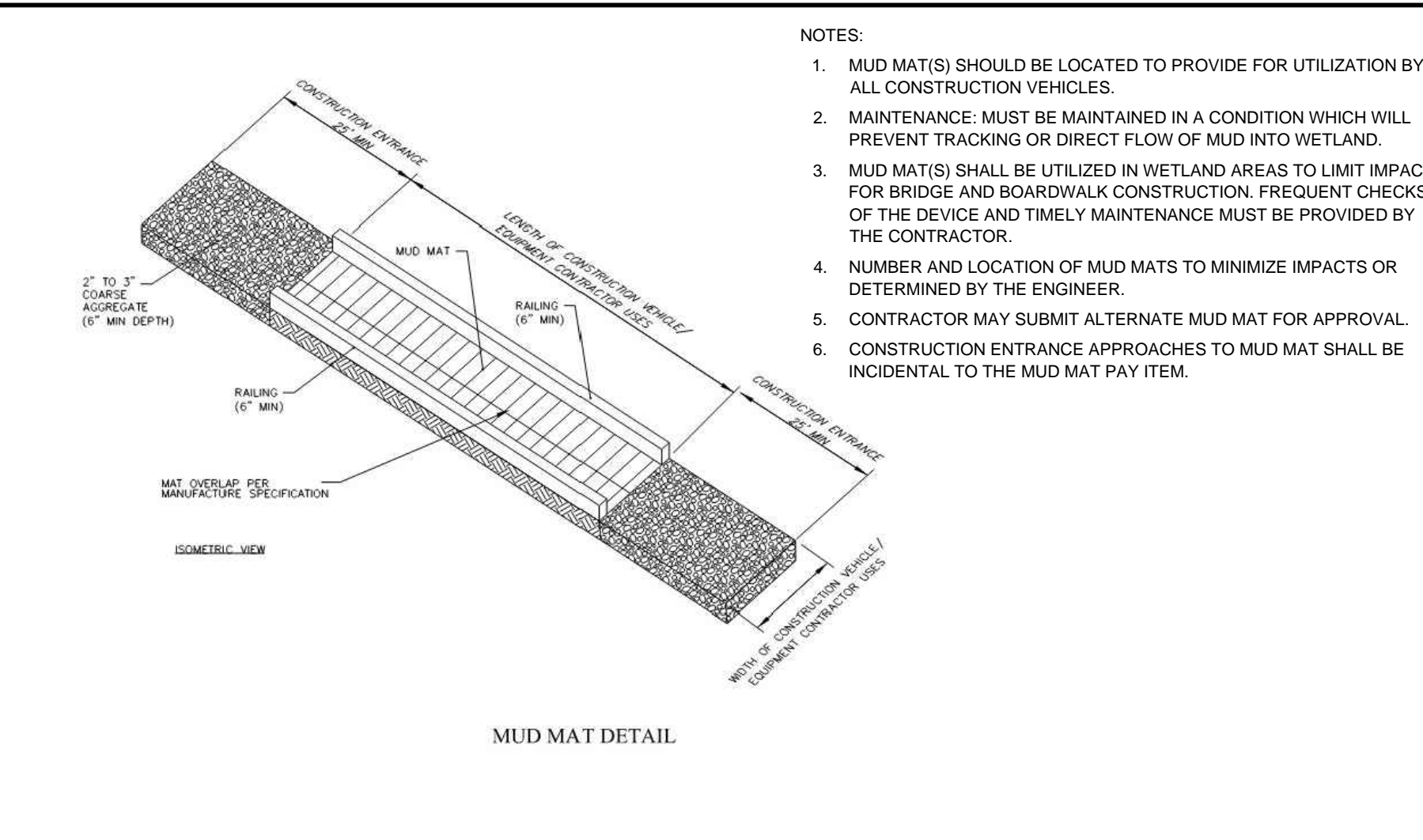
CONSTRUCTION

- CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS.
- ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED 24 INCHES ABOVE THE GROUND SURFACE. (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.)
- CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL CUT TO LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER CLOTH ONLY AT A SUPPORT POST WITH A 4 FEET MINIMUM OVERLAP TO THE NEXT POST.
- SUPPORT STANDARD STRENGTH FILTER FABRIC BY WIRE MESH SUPPORT TO THE BOTTOM OF THE TRENCH. FASTEN THE WIRE REINFORCEMENT, THEN FABRIC ON THE UPSLOPE SIDE OF THE FENCE POST. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM 50 POUND TENSILE STRENGTH.
- WHEN A WIRE MESH SUPPORT FENCE IS USED, SPACE POSTS A MAXIMUM OF 8 FEET APART. SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24 INCHES.
- EXTRA STRENGTH FILTER FABRIC WITH 6 FEET POST SPACING DOES NOT REQUIRE WIRE MESH SUPPORT FENCE. SECURELY FASTEN THE FILTER FABRIC DIRECTLY TO POSTS. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM 50 POUND TENSILE STRENGTH.
- EXCAVATE A TRENCH APPROXIMATELY 4 INCHES WIDE AND 8 INCHES DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
- PLACE 12 INCHES OF THE FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
- BACKFILL THE TRENCH WITH SOIL PLACED OVER THE FILTER FABRIC AND COMPACT. THOROUGH COMPACTION OF THE BACKFILL IS CRITICAL TO SILT FENCE PERFORMANCE.
- DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.

MAINTENANCE

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

KHA DETAIL NO: 01.302.R02 **01**

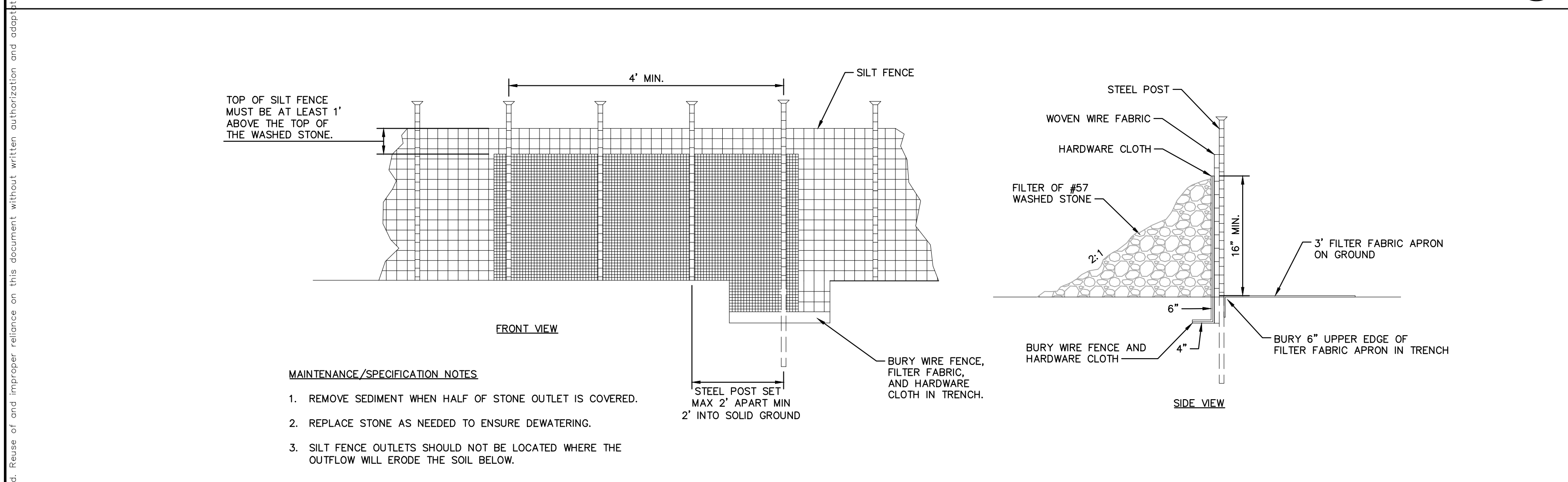


MUDMAT DETAIL
N.T.S.

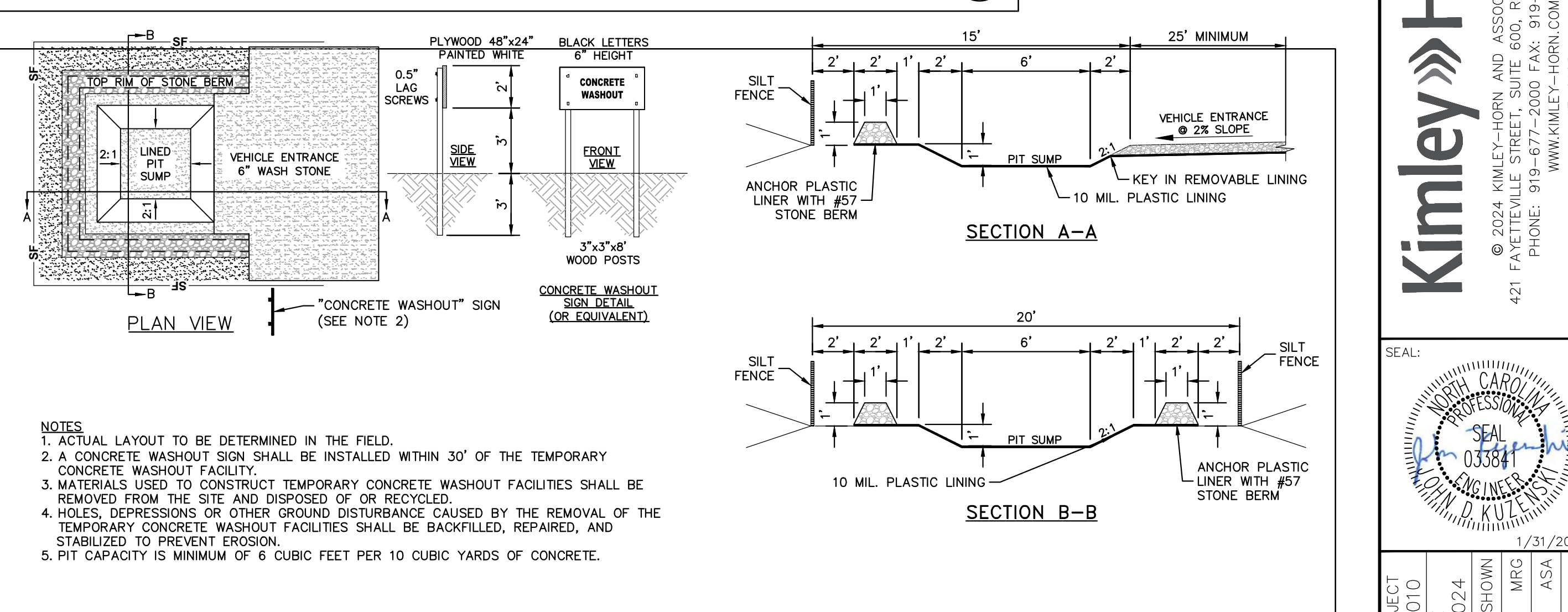
NOTES:

- MUD MAT(S) SHOULD BE LOCATED TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
- MAINTENANCE: MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD INTO WETLAND.
- MUD MAT(S) SHALL BE UTILIZED IN WETLAND AREAS TO LIMIT IMPACTS FOR BRIDGE AND BOARDWALK CONSTRUCTION. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED BY THE CONTRACTOR.
- NUMBER AND LOCATION OF MUD MATS TO MINIMIZE IMPACTS OR DETERMINED BY THE ENGINEER.
- CONTRACTOR MAY SUBMIT ALTERNATE MUD MAT FOR APPROVAL.
- CONSTRUCTION ENTRANCE APPROACHES TO MUD MAT SHALL BE INCIDENTAL TO THE MUD MAT PAY ITEM.

02



SILT FENCE OUTLET
N.T.S.



CONCRETE WASHOUT STATION
N.T.S.

KHA DETAIL NO: 01.303.R02 **03**

04

SEDIMENTATION AND EROSION CONTROL

EROSION CONTROL GUIDE

ANY EROSION CONTROL DEVICES OR METHODS SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES - EROSION AND SEDIMENTATION CONTROL PANNING AND DESIGN MANUAL AND ALL AMENDMENTS. THE EROSION CONTROL DEVICES AND METHODS THAT FOLLOW ARE SUPPLEMENTAL TO THE STATE MANUAL. OTHER DEVICES & METHODS NOT INCLUDED IN THE STATE MANUAL, MAY BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.

EROSION CONTROL NOTES:

- Scheduling of a preconstruction conference with the Engineering Division is required prior to initiating land disturbing activities. For scheduling please call (252) 329-4467. A 24-hour notice is required. No person may initiate a land disturbing activity before notifying the City of the date of the land disturbing activity.
- No land disturbing activity beyond that required to install appropriate erosion control may proceed until erosion control measures are inspected and approved by the City.
- Seeding and mulching or otherwise providing ground cover devices or structures sufficient to restrain erosion for all exposed slopes is required within 21 working days of completing any phase of grading.
- Contractor shall inspect and maintain all erosion control devices on a weekly basis and after each major storm event. Failure to maintain erosion control devices may result in an issuance of stop work order or civil penalties up to \$5,000 per day of violation. Sites utilizing sediment traps must also specify a maximum depth of sediment prior to clean out.
- The City Engineer reserves the right to require additional erosion control measures should the plan or its implementation prove to be inadequate.
- Acceptance and approval of this plan is conditioned upon your compliance with Federal and State water quality laws, regulations and rules. In addition, local City and County ordinances or rules may also apply to this land disturbing activity. Approval by the City does not supersede any other permit or approval.

A. Please be advised of the rules to protect and maintain existing buffers along watercourses in the Neuse and Tar River basins. These rules are enforced by the Division of Water Quality (DWQ). Direct any questions about the applicability of these rules to your project to the regional water quality supervisor, Washington Regional Office at (252) 946-6481.

PUBLIC WORKS DEPARTMENT
1500 Beatty Street
Greenville, North Carolina 27834

CITY OF GREENVILLE, N.C.
USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY

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No. 1 Date 9/16/11 Description APPROVAL

Scale: not to scale Sheet # 1 of 3 Detail # 310.01

SEEDING AND MULCHING:

The kinds of seeds and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be stated below. During periods of overlapping dates, the kind of seed to be used shall be determined. All rates are in pounds per acre.

All Roadway Areas

March 1 - August 31	September 1 - February 28
50# Tall Fescue	50# Tall Fescue
10# Centipede	10# Centipede
25# Bermudagrass (hulled)	35# Bermudagrass (hulled)
500# Fertilizer	500# Fertilizer
4000# Limestone	4000# Limestone

Water and Borrow Locations

March 1 - August 31	September 1 - February 28
75# Tall Fescue	75# Tall Fescue
25# Bermudagrass (hulled)	35# Bermudagrass (hulled)
500# Fertilizer	500# Fertilizer
4000# Limestone	4000# Limestone

Note: 50# of Bahiagrass may be substituted for either Centipede or Bermudagrass only upon Engineer's request.

Approved Tall Fescue Cultivars

2nd Millennium	Chipper	Focus	Masterpiece	Quest	Titan Ltd.
Avengeer	Coronado	Grande II	Matador	Rebel Exoda	Titanium
Barlexas	Coyote	Greenkeeper	Matador GT	Rebel Sentry	Tomchawk
Barlexas II	Davinci	Creystone	Millennium	Regiment II	Tacer
Barrera	Dynasty	Inferno	Montauk	Rembrandt	Trooper
Barrington	Dominion	Justice	Mustang 3	Rendition	Turbo
Biltmore	Duster	Jaguar 3	Olympic Gold	Scorpion	Ultimate
Bingo	Endeavor	Kalahari	Padre	Shelby	Watchdog
Bravo	Escalade	Kentucky 31	Paraiso	Signia	Wolfpack
Cayenne	Falcon II, III, IV & V	Kitty Hawk	Picasso	Silverstar	
Chapel Hill	Fidelity	Kitty Hawk 2000	Piedmont	Southern Choice II	
Chesapeake	Finesse II	Lexington	Pure Gold	Stetson	
Constitution	Firebird	Magellan	Prospect	Tarheel	

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No. 1 Date 9/16/11 Description APPROVAL

Scale: not to scale Sheet # 2 of 3 Detail # 310.01

On cut and fill slopes 2:1 or steeper Centipede shall be applied at a rate of 5 pounds per acre and add 20# of Sericea Lespedeza from January 1 - December 31.

Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

All areas seeded and mulched shall be tacked with asphalt. Crimping of straw in lieu of asphalt tack shall not be allowed on projects.

CRIMPING STRAW MULCH:

Crimping shall be required on projects adjacent to any section of roadway where traffic is to be maintained or allowed during construction. In areas within six feet of the edge of pavement, straw is to be applied and then crimped. After the crimping operation is complete, an additional application of straw shall be applied and immediately tacked with a sufficient amount of undiluted emulsified asphalt.

Straw mulch shall be sufficient length and quality to withstand the crimping operation.

Crimping equipment including power source shall be subject to the approval of the Engineer providing that maximum spacing of crimper blades shall not exceed 8'.

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No. 1 Date 9/16/11 Description APPROVAL

Scale: not to scale Sheet # 3 of 3 Detail # 310.01

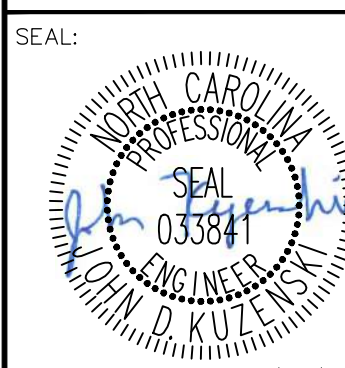
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KHA PROJECT 012654010
DATE 1/31/2024
SCALE AS SHOWN
DRAWN BY MRC
CHECKED BY ASK
JDK

EROSION CONTROL DETAILS

WILWOOD PARK - TOWER AND TRAILS BID PACKAGE B PREPARED FOR CITY OF GREENVILLE

GREENVILLE

SHEET NUMBER **C4.1.B**

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

SECTION A: GROUND STABILIZATION

TEMPORARY STABILIZATION

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HOW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed -7 days for slopes greater than 50' in length and with slopes steeper than 4:1
(d) Slopes 3:1 to 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HOW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HOW Zones -10 days for Falls Lake Watershed unless there is zero slope

PERMANENT STABILIZATION

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> Temporary grass seed covered with straw or other mulch and tackifiers Hydroseeding Roll-on erosion control products with or without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting 	<ul style="list-style-type: none"> Permanent grass seed covered with straw or other mulch and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding Straw or other permanent plantings covered with mulch and evenly distributed ground cover sufficient to resist erosion Structural methods such as concrete, asphalt or retaining walls Roll-on erosion control products with grass seed

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fluids, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide stacking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of slope.
- Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

ON-SITE CONCRETE WASHOUT STRUCTURE WITH LINER

CONCRETE WASHOUTS

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle, settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. Activities during a storm event of equal or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual daily rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero". The gauging may use another rain-measuring device approved by the Division.
(2) E&S Measures	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measures, 6. Identification of the measures were operating properly, 7. Name of the person performing the inspection, 8. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 9. Indication of visible sediment leaving the site, 10. Description, evidence, and date of corrective actions taken, 11. An explanation as to the actions taken to correct future releases.
(3) Stormwater discharge outlets (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the discharge outlets inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken, 7. An explanation as to the actions taken to correct future releases.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the perimeter inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken, 7. An explanation as to the actions taken to correct future releases.
(5) Streams or wetlands outside or off-site (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the stream or wetland inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken, 7. An explanation as to the actions taken to correct future releases.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&S measures, clearing and grubbing, installation of storm drainage facilities, completion of all land disturbing activity, construction or redevelopment, permanent ground cover), 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

SECTION B: RECORDKEEPING

2. Additional Documentation

In addition to the E&S Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This general permit as well as the certificate of coverage, after it is received.
- Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

SECTION C: REPORTING

Occurrences that must be reported

Permittees shall report the following occurrences:

- Visible sediment deposition in a stream or wetland.
- Oil spills if:
 - They are 25 gallons or more,
 - They are less than 25 gallons but cannot be cleaned up within 24 hours,
 - They cause sheen on surface waters (regardless of volume), or
 - They are within 100 feet of surface waters (regardless of volume).
- Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143.215.85.
- Anticipated bypasses and unanticipated bypasses.
- Noncompliance with the conditions of this permit that may endanger health or the environment.

Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence

Reporting Timeframes (After Discovery) and Other Requirements

- Visible sediment deposition in a stream or wetland
 - Within 24 hours, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.
 - If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
- Oil spills and release of hazardous substances per item 1(b) above
 - Anticipated bypasses (40 CFR 122.41(m)(3))
 - Report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
 - Unanticipated bypasses (40 CFR 122.41(m)(3))
 - Within 24 hours, an oral or electronic notification.
 - Noncompliance with the conditions of this permit that may endanger health or the environment (40 CFR 122.41(i)(7))
 - Within 24 hours, an oral or electronic notification.
 - Within 7 calendar days, a report that contains a description of the noncompliance, and its causes, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. (40 CFR 122.41(i)(6)).
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(3) Stormwater discharge outlets (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the discharge outlets inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken, 7. An explanation as to the actions taken to correct future releases.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the perimeter inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken, 7. An explanation as to the actions taken to correct future releases.
(5) Streams or wetlands outside or off-site (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the stream or wetland inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken, 7. An explanation as to the actions taken to correct future releases.
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Occurrence

Reporting Timeframes (After Discovery) and Other Requirements

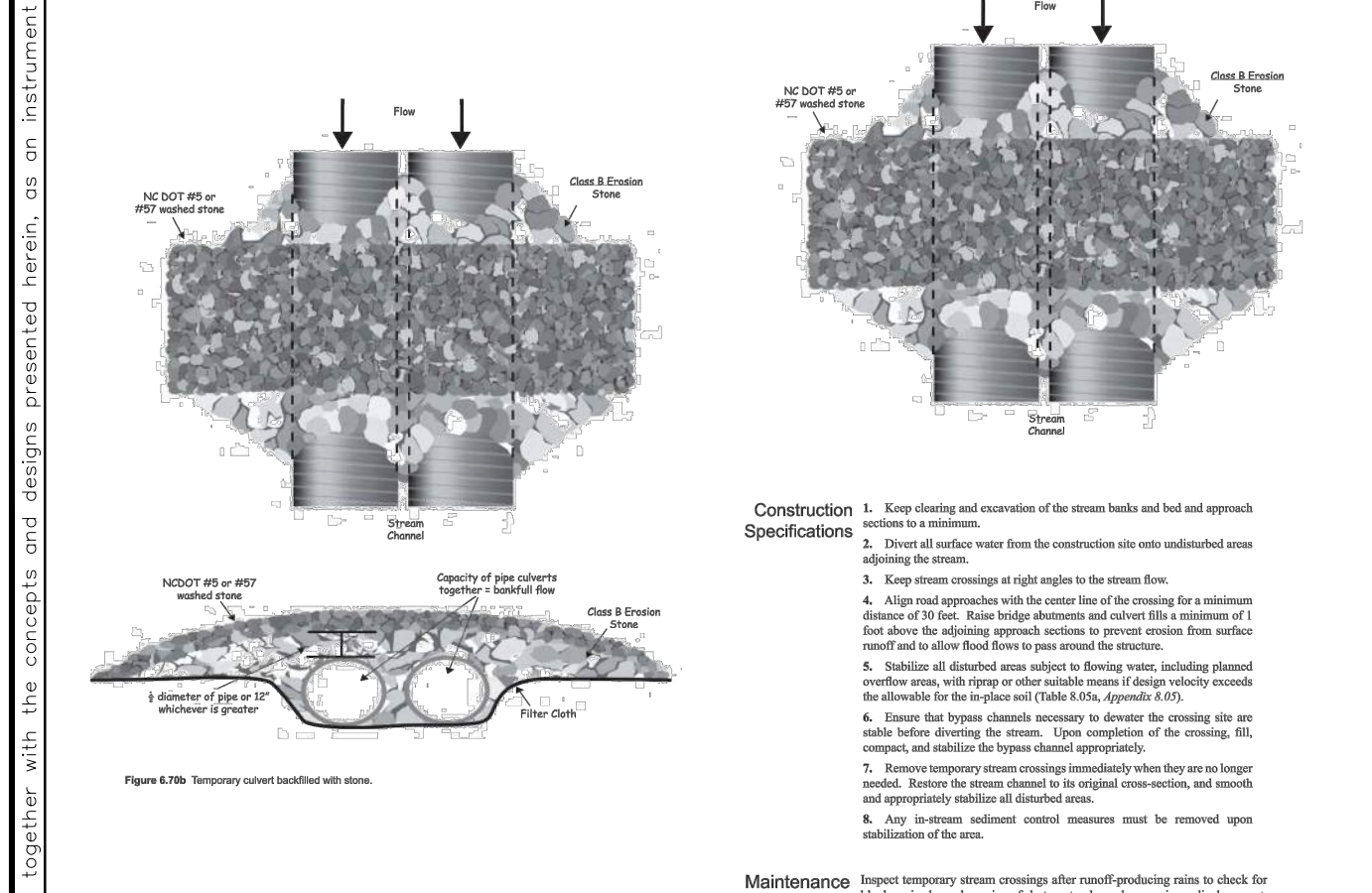
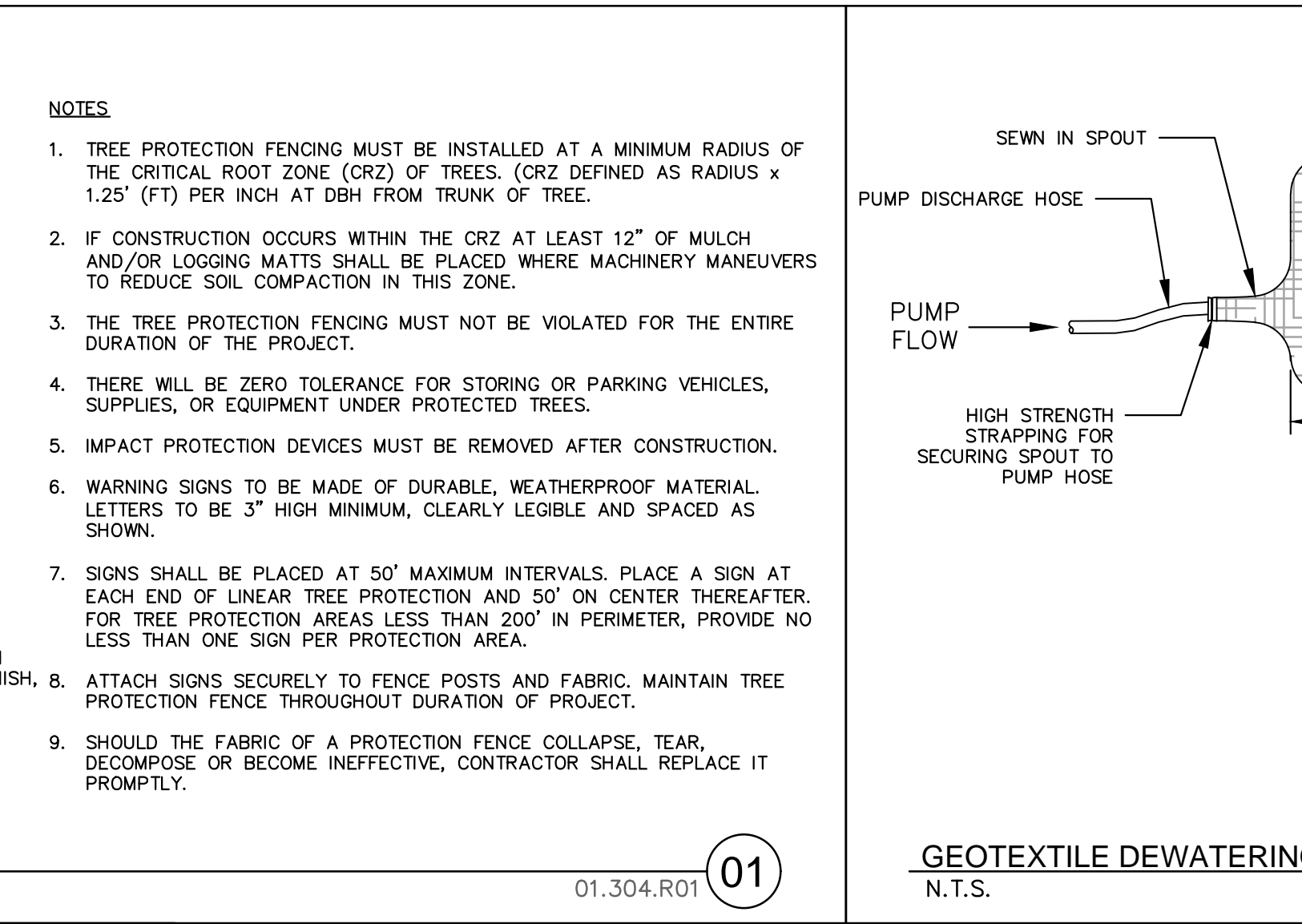
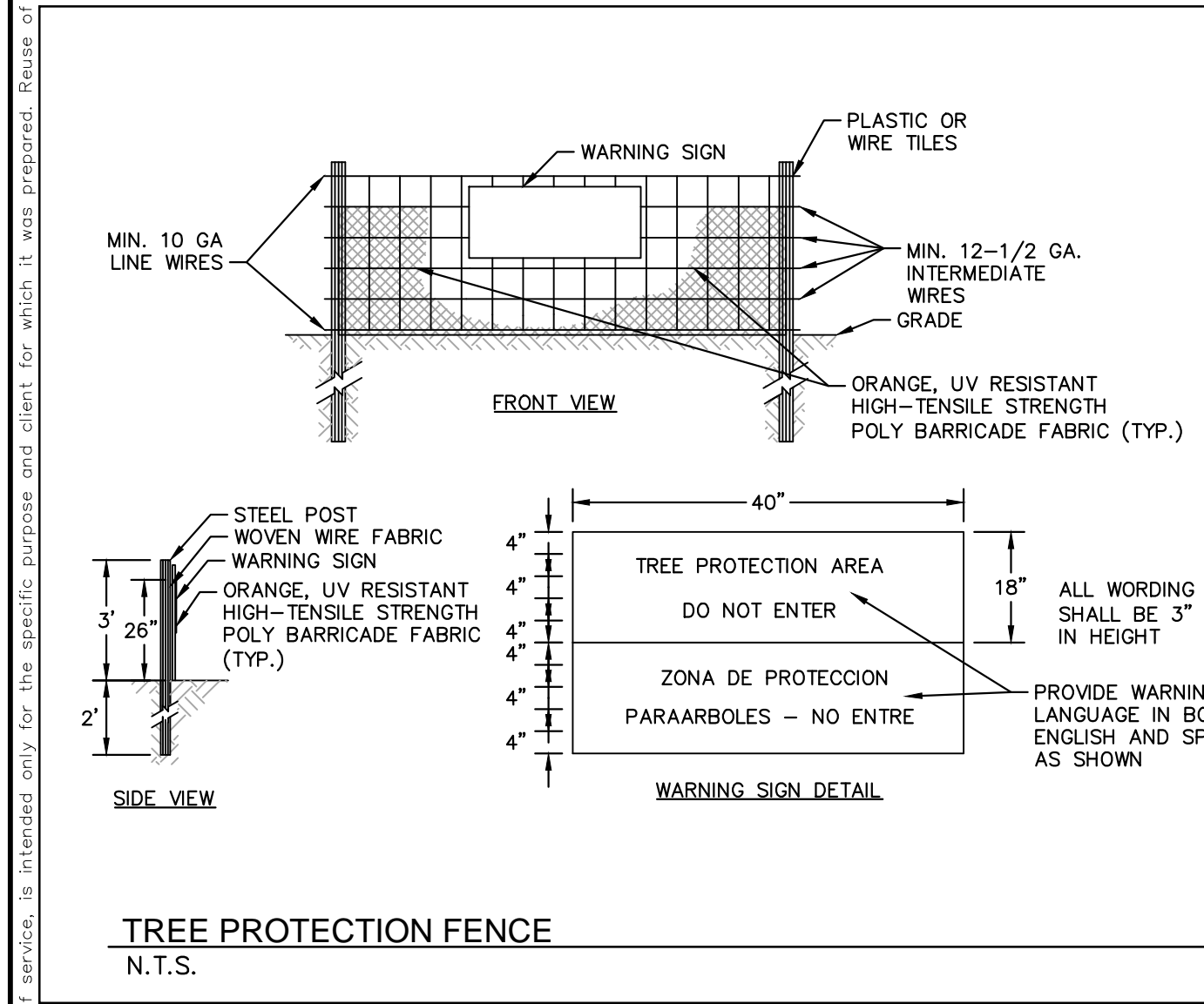
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- Oil spills and release of hazardous substances per item 1(b) above
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 - Report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
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 - Within 24 hours, an oral or electronic notification.
 - Within 7 calendar days, a report that contains a description of the noncompliance, and its causes, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. (40 CFR 122.41(i)(6)).
 - Division staff may waive the requirement for a written report on a case-by-case basis.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



MAINTENANCE NOTES:

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED AND MAINTAINED DAILY AND AFTER EACH RAINFALL GREATER THAN 0.5 INCHES. ANY SEDIMENT THAT HAS BEEN TRANSPORTED BEYOND THE PROJECT LIMITS SHALL BE REMOVED. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

CONSTRUCTION ENTRANCE:

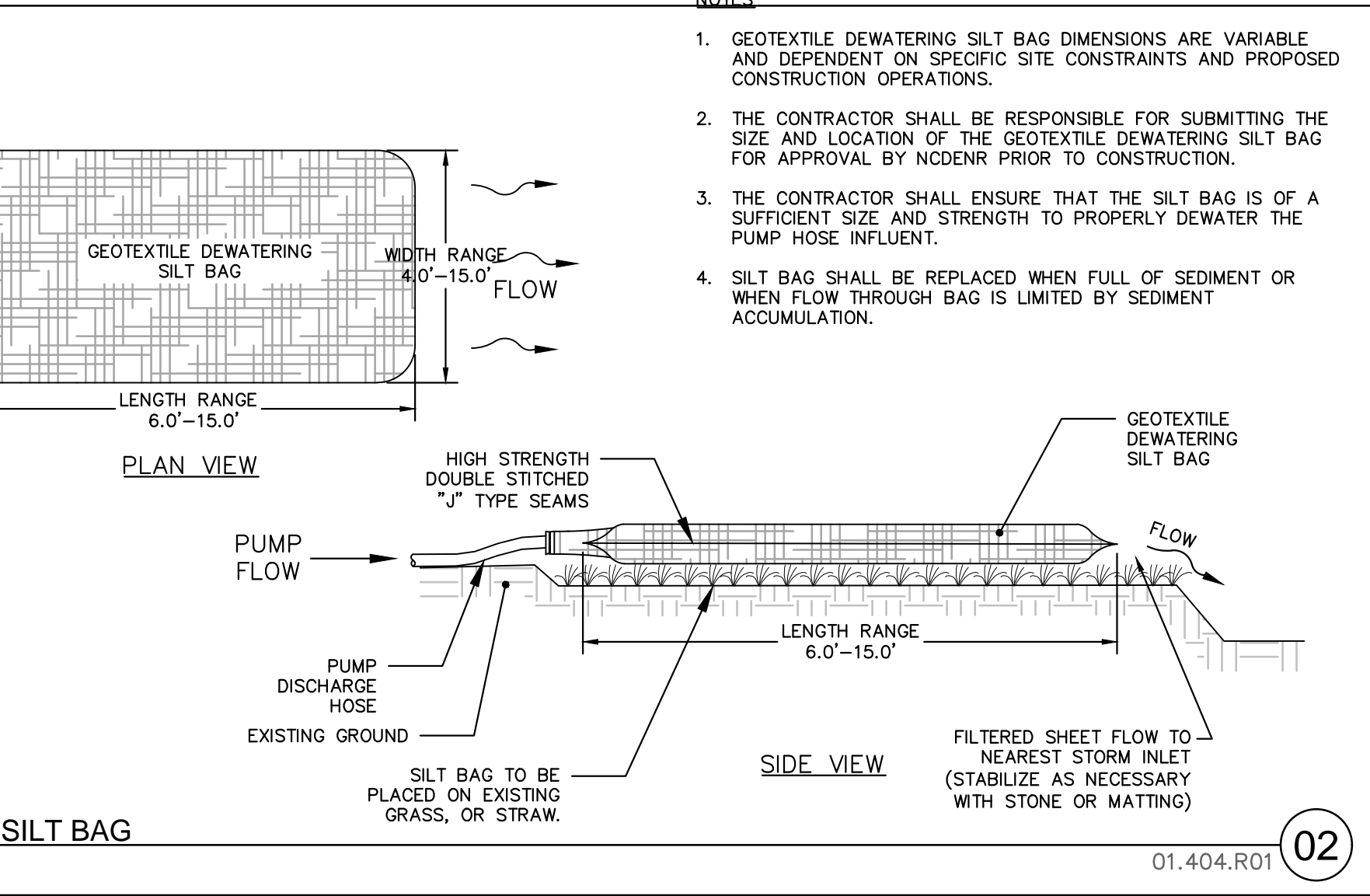
INSPECT CONSTRUCTION ROADS AND PARKING AREAS PERIODICALLY FOR CONDITION OF SURFACE. TOP DRESS WITH NEW GRAVEL AS NEEDED. CHECK ROAD DITCHES AND OTHER SEEDED AREAS FOR EROSION AND SEDIMENTATION AFTER RUNOFF-PRODUCING RAINS. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION. SEDIMENT PRODUCING AREAS SHOULD BE TREATED IMMEDIATELY.

SILT FENCE:

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT IMMEDIATELY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

SILT FENCE GRAVEL OUTLET:

INSPECT SEDIMENT FENCE GRAVEL OUTLETS AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN. ANY RIP RAP DISPLACED MUST BE REPLACED IMMEDIATELY.



SELF MONITORING AND INSPECTION NOTIFICATION

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS BECAME EFFECTIVE OCTOBER 1, 2010. TO SIMPLIFY DOCUMENTATION OF SELF-INSPECTION REPORTS AND NPDES SELF-MONITORING REPORTS, A COMBINED FORM IS NOW AVAILABLE. THE NEW FORM WAS DEVELOPED TO SATISFY THE REQUIREMENTS OF THE SEDIMENTATION POLLUTION CONTROL ACT AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. NCG 010000. BEGINNING AUGUST 1, 2013, THE DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES IS RESPONSIBLE FOR ADMINISTERING BOTH THE SPCA AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. NCG 010000. THE COMBINED FORM SHOULD MAKE IT EASIER TO COMPLY WITH SELF-INSPECTION REQUIREMENTS. THE COMBINED SELF-MONITORING FORM IS AVAILABLE AS A PDF AND WORD DOCUMENT FROM THE LAND QUALITY WEB SITE.

https://files.nc.gov/ncdeq/Energy%20Mineral%20and%20Land%20Resources/Stormwater/NCG010000_Final_Permit_2019_04_01.pdf

IF YOU HAVE QUESTIONS, PLEASE CONTACT THE LAND QUALITY SECTION AT NCDEQ REGIONAL OFFICE.



Know what's below.
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CABLE STRANDS FOR PEDESTRIAN RAILS AT OBSERVATION DECK

- CABLE STRANDS SHALL BE 1/8" DIAMETER 1x19 TYPE 316 STAINLESS STEEL.
- END ANCHORAGES SHALL BE AS SHOWN ON THE PLANS AND SHALL BE ANCHORED ON BACK SIDE OF POST.
- CABLES SHALL BE TENSIONED USING TURNBUCKLE ASSEMBLY. TENSION CABLES TO A MAXIMUM LOAD OF 50 POUNDS. INITIAL TENSION SHALL PREVENT SAGGING UNDER SELF WEIGHT OF CABLE.
- BARRIER CABLES THAT PASS THROUGH A HOLE IN THEIR ANCHORAGE SHALL HAVE THE HOLE SEALED TO PREVENT WATER FROM FOLLOWING THE PATH OF THE BARRIER CABLE TO THE ANCHORAGE.
- INSTALL TOP RAIL, RUB RAIL, AND SIDE RAIL PRIOR TO INSTALLATION OF CABLES.
- TOP RAIL, RUB RAIL AND SIDE RAIL SHALL SPAN A MINIMUM OF TWO RAIL POSTS SPACINGS.
- CONTACT ENGINEER IF RAIL POST EXPERIENCES EXCESSIVE DEFLECTION DURING CABLE INSTALLATION.

FOUNDATIONS

- FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.
- PILES FOR FOUNDATION TYPES NO. 1, 2, 4 AND 6 ARE DESIGNED FOR A FACTORED RESISTANCE OF 5 TONS PER PILE.
- DRIVE PILES FOR FOUNDATION TYPES NO. 1, 2, 4 AND 6 TO A REQUIRED DRIVING RESISTANCE OF 8.5 TONS PER PILE.
- PILES FOR FOUNDATION TYPES NO. 3 AND 5 ARE DESIGNED FOR A FACTORED RESISTANCE OF 6.5 TONS PER PILE.
- DRIVE PILES FOR FOUNDATION TYPES NO. 3 AND 5 TO A REQUIRED DRIVING RESISTANCE OF 11 TONS PER PILE.
- STEEL PILE POINTS ARE REQUIRED FOR TIMBER PILES FOR FOUNDATION TYPES 2 THROUGH 6.
- INSTALL PILES FOR FOUNDATION TYPES NO. 2, 4, AND 6 TO A TIP ELEVATION NO HIGHER THAN 10 FEET BELOW EXISTING GROUND SURFACE.
- INSTALL PILES FOR FOUNDATION TYPES NO. 3 AND 5 TO A TIP ELEVATION NO HIGHER THAN 12 FEET BELOW EXISTING GROUND SURFACE.
- IF NECESSARY, PREDRILL PILE LOCATIONS FOR FOUNDATION TYPES 2 THROUGH 6 TO AN ELEVATION NO LOWER THAN THE "TIP NO HIGHER THAN" ELEVATIONS IN NOTES 9 THROUGH 11 WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 8 INCHES. FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

TOTAL BILL OF MATERIALS				
	TIMBER BOARDWALK ₁	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	BID ALTERNATIVE #2 - FRP BOARDWALK ₄
	LUMP SUM	TONS	S.Y.	LUMP SUM
STRUCTURE #2 (-L4- STA. 10+45.56 - STA. 11+55.56)	LUMP SUM	25	15	LUMP SUM
STRUCTURE #2 (-L4- STA. 11+55.56 - STA. 15+74.18)	LUMP SUM			LUMP SUM
STRUCTURE #2 (-L4- STA. 15+74.18 - STA. 16+84.18)	LUMP SUM	20	15	LUMP SUM
STRUCTURE #2 (OBSERVATION DECK @ -Y4-)	LUMP SUM			LUMP SUM
STRUCTURE #3 (TIMBER BOARDWALK @ -L5-)	LUMP SUM	10	30	LUMP SUM

N.I.C.

- LUMP SUM PAY ITEMS FOR TIMBER BOARDWALK SHALL INCLUDE LABOR, MATERIALS, EQUIPMENT, DELIVERY AND OTHER INCIDENTALS AS NECESSARY FOR THE TIMBER BOARDWALK, APPROACH RAILING, PEDESTRIAN RAILINGS, PILE PREDRILLING, STEEL PILE POINTS, PILE DRIVE SETUP, PILE TESTING (WHERE REQUIRED) DEWATERING, ETC.
- LUMP SUM PAYMENT FOR FRP BOARDWALK SHALL INCLUDE ALL ENGINEERING, LABOR, MATERIALS, EQUIPMENT, DELIVERY, AND OTHER INCIDENTALS NECESSARY FOR THE FRP BOARDWALK, TIMBER DECKING, TIMBER PEDESTRIAN RAILING, APPROACH RAILINGS, PILE PREDRILLING, STEEL PILE POINTS, PILE DRIVE SETUP, PILE TESTING (WHERE REQUIRED), DEWATERING, EPOXY PROTECTIVE COATING, ETC.

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8	IFC PACKAGE B2	5/17/24	ADC
7	ISSUED FOR CONSTRUCTION	1/31/24	DAW
6	CITY OF GREENVILLE - TRC - 3RD SUBMITTAL	12/01/22	ASA
5	ISSUED FOR BID	8/02/22	ASA
No.	REVISIONS	DATE	BY

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KHA PROJECT	012654010
DATE	1/31/2024
SCALE	AS SHOWN
DESIGNED BY	BMK
DRAWN BY	JKM
CHECKED BY	MDM

BRIDGE GENERAL NOTES

WILDWOOD PARK - TOWER AND TRAILS BID PACKAGE B PREPARED FOR CITY OF GREENVILLE GREENVILLE NC

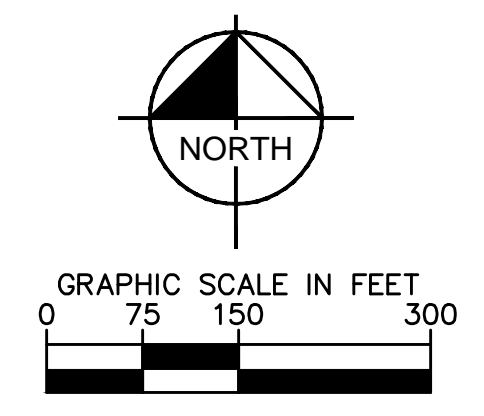
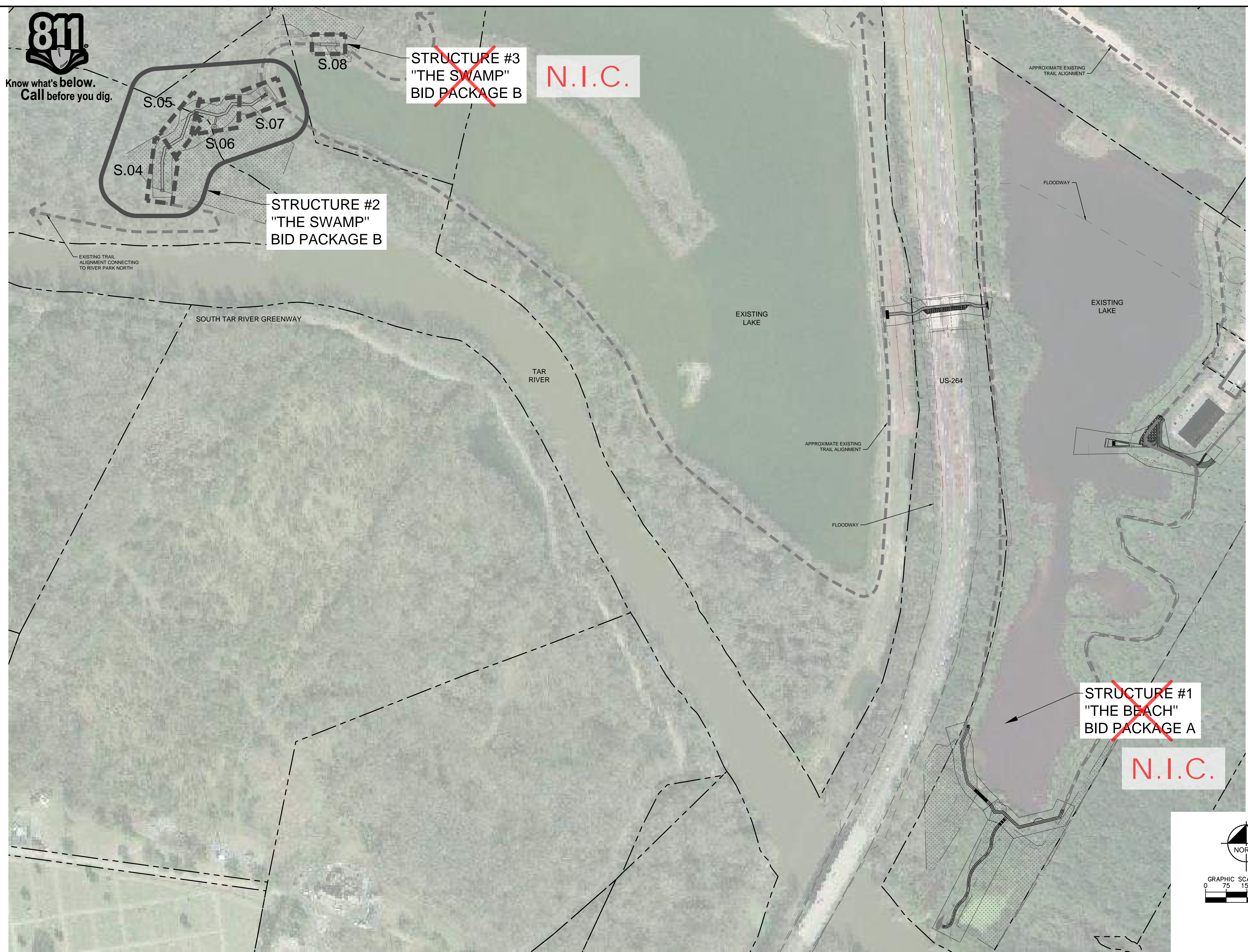
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SHEET NUMBER
S.02.B

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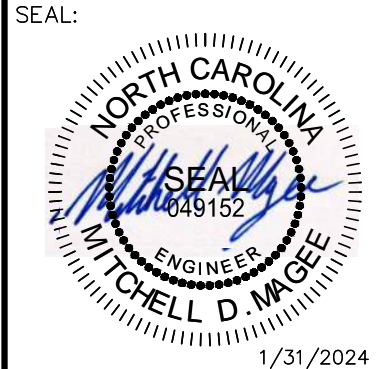


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No.	REVISIONS	DATE	BY
8	IFC PACKAGE B	5/17/24	ADC
7	ISSUED FOR CONSTRUCTION	1/31/24	DAW
6	CITY OF GREENVILLE - TRC - 3RD SUBMITTAL	12/01/22	ASA
5	ISSUED FOR BID	8/02/22	ASA

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SCALE	AS SHOWN
DESIGNED BY	BWK
DRAWN BY	JJK
CHECKED BY	MDW

STRUCTURE LOCATIONS

WILDWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE
GREENVILLE NC

SHEET NUMBER
S.03.B

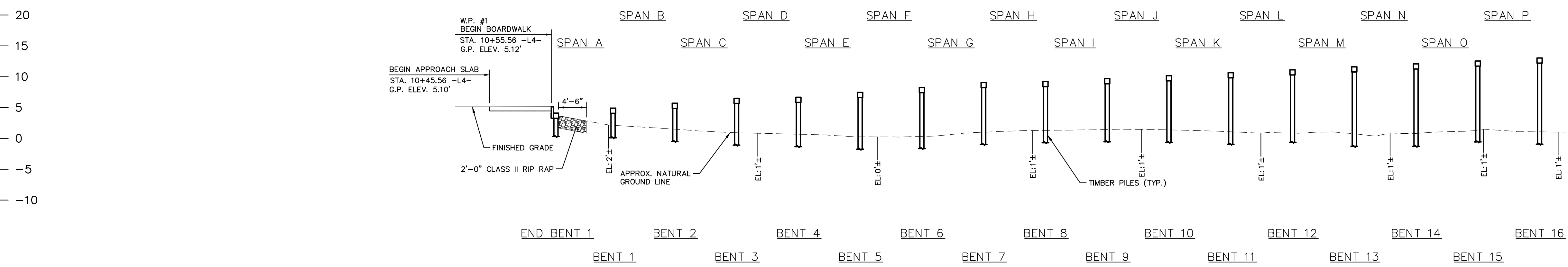
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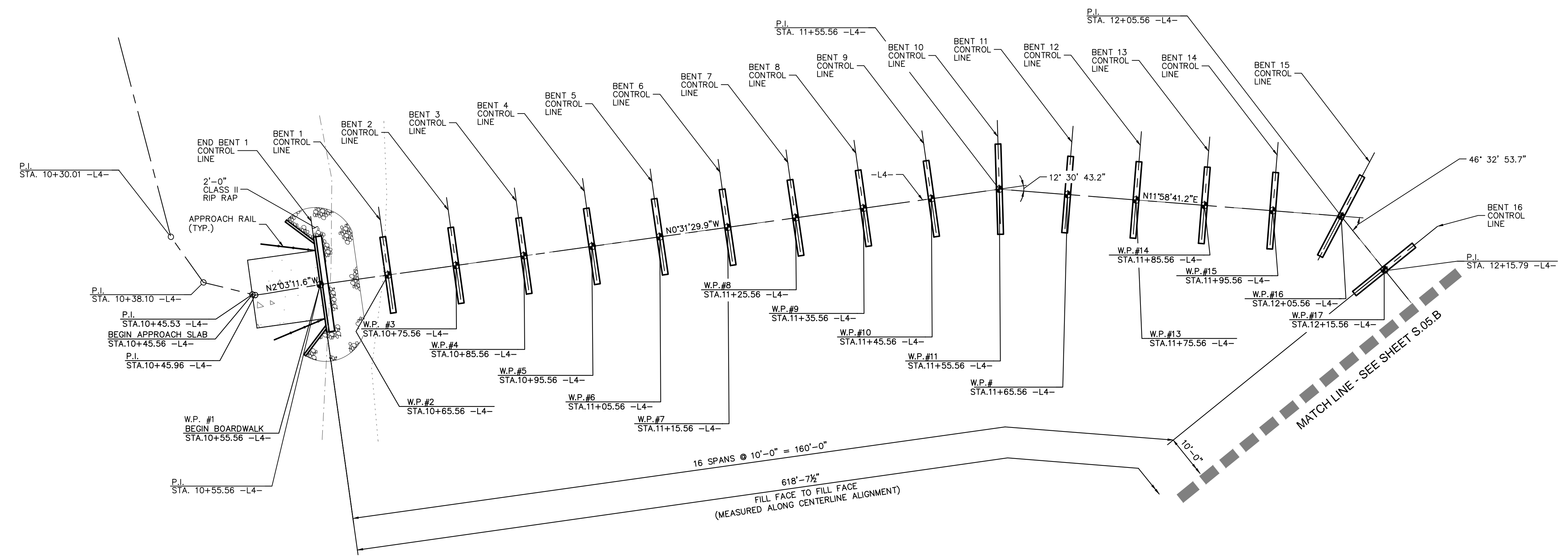
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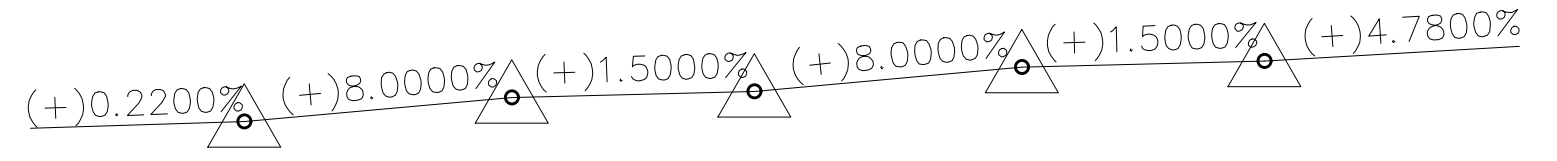
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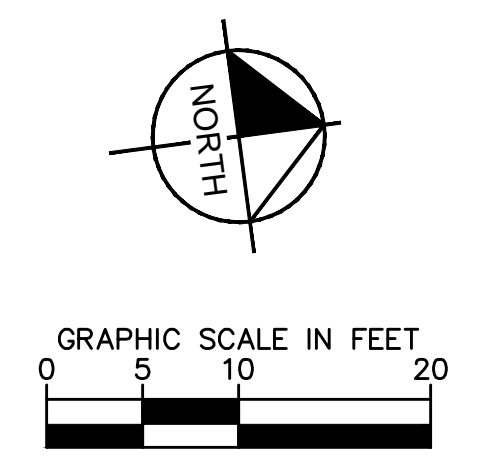
SECTION ALONG -L4-
(SECTIONS @ BENTS AND END BENTS ARE @ RIGHT ANGLES)
(LONGITUDINAL BRACING NOT SHOWN FOR CLARITY)



PLAN
(PILES NOT SHOWN IN PLAN VIEW)



PVI STA.	EL.	V.C.	PVI STA.	EL.	V.C.	PVI STA.	EL.	V.C.	PVI STA.	EL.	V.C.	PVI STA.	EL.	V.C.
10+55.56 -L4-	5.12'	0'	10+85.56 -L4-	7.52'	0'	10+95.56 -L4-	7.67'	0'	11.25.56 -L4-	10.07'	0'	11+35.56 -L4-	10.22'	0'



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7	ISSUED FOR CONSTRUCTION	1/31/24	DAW
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5	ISSUED FOR BID	8/02/22	ASA

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KHA PROJECT	012654010
DATE	1/31/2024
SCALE	AS SHOWN
DESIGNED BY	BMK
DRAWN BY	JJK
CHECKED BY	MDM

PLAN AND PROFILE -
THE SWAMP (AREA 4)
(STRUCTURE #2)

WILDWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE

GREENVILLE NC
SHEET NUMBER
S.04.B

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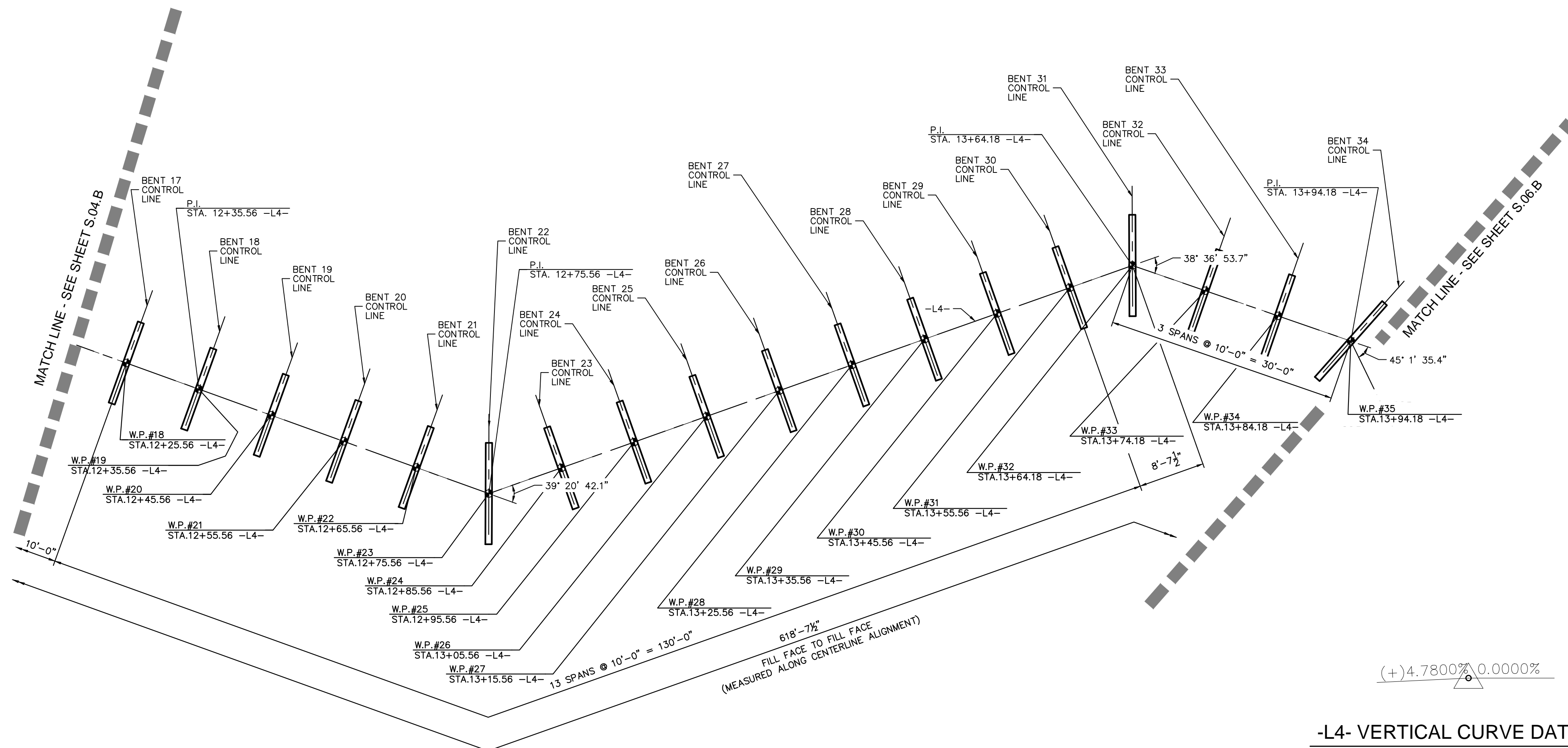
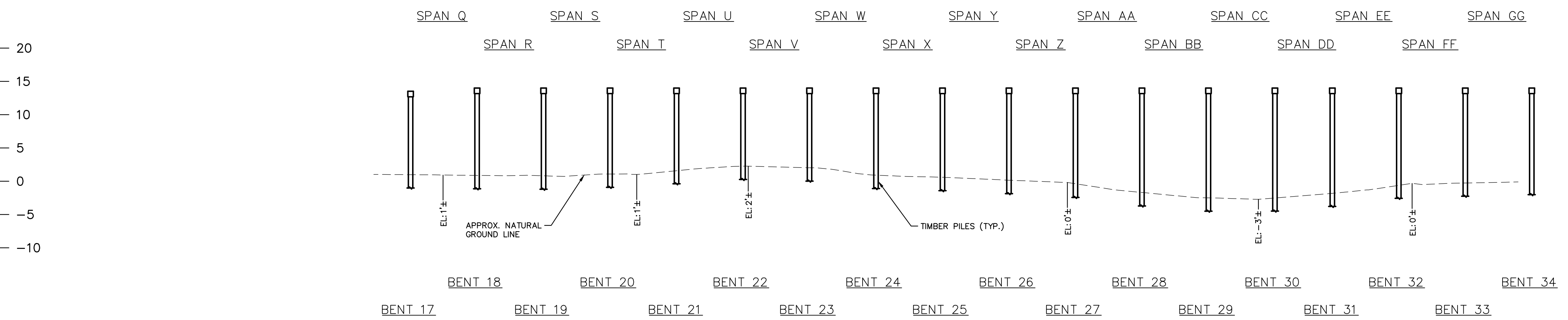


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13+00

14+00



No.	REVISIONS	DATE	BY
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7	ISSUED FOR CONSTRUCTION	1/31/24	DAW
6	CITY OF GREENVILLE - TRC - 3RD SUBMITTAL	12/01/22	ASA
5	ISSUED FOR BID	8/02/22	ASA

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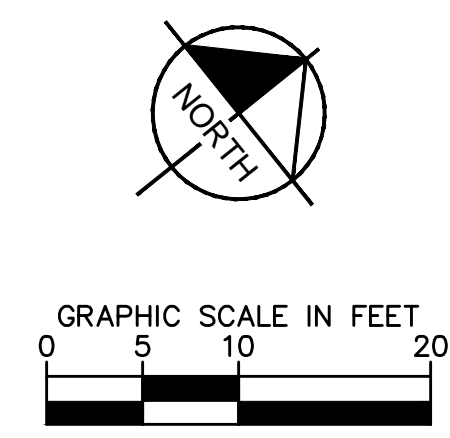
KHA PROJECT	012654010
DATE	1/31/2024
SCALE	AS SHOWN
DESIGNED BY	BMK
DRAWN BY	JJK
CHECKED BY	MDM

PLAN AND PROFILE -
THE SWAMP (AREA 4)
(STRUCTURE #2)

WILDWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE

GREENVILLE NC
SHEET NUMBER
S.05.B

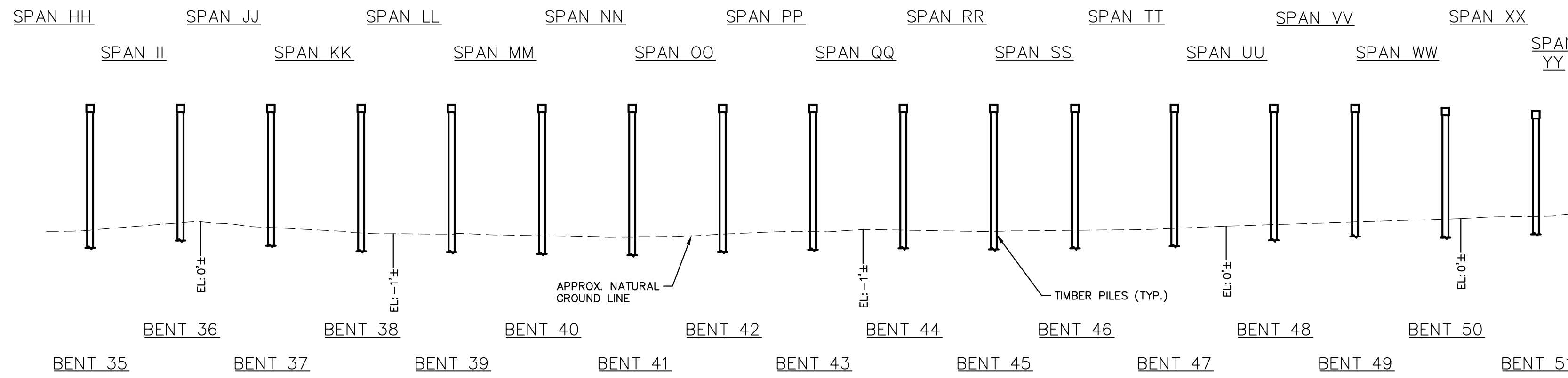
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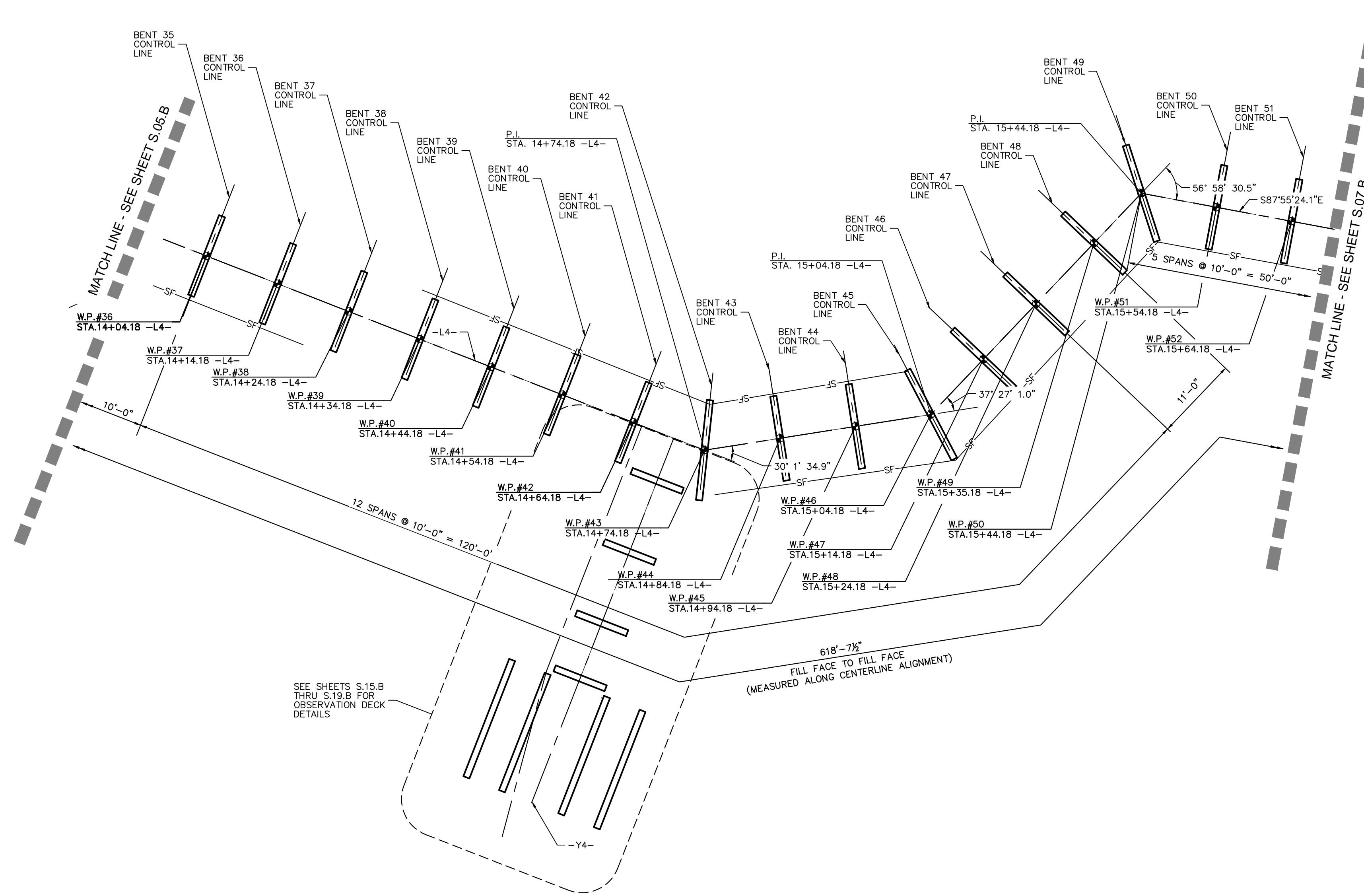
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14+00 15+00

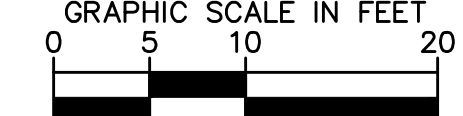
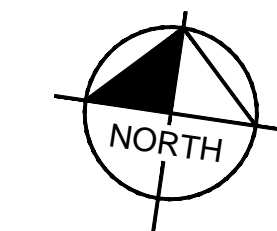


SECTION ALONG -L4-
(SECTIONS @ BENTS AND END BENTS ARE @ RIGHT ANGLES)
(LONGITUDINAL BRACING NOT SHOWN FOR CLARITY)

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EL. = 15.00'
V.C. = 0'



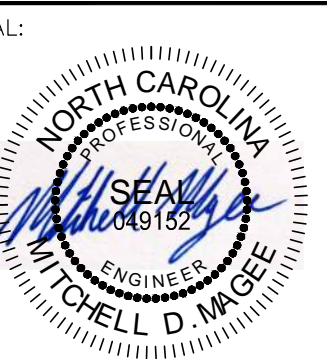
PLAN
(PILES NOT SHOWN IN PLAN VIEW)



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7	ISSUED FOR CONSTRUCTION	1/31/24	DAW
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5	ISSUED FOR BID	8/02/22	ASA
No.	REVISIONS	DATE	BY

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KHA PROJECT	012654010	DATE	1/31/2024	SCALE	AS SHOWN	DESIGNED BY	BMK	DRAWN BY	JJK	CHECKED BY	MDM	DATE	5/31/2024
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PLAN AND PROFILE -
THE SWAMP (AREA 4)
(STRUCTURE #2)

WILDWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE

SHEET NUMBER
S.06.B

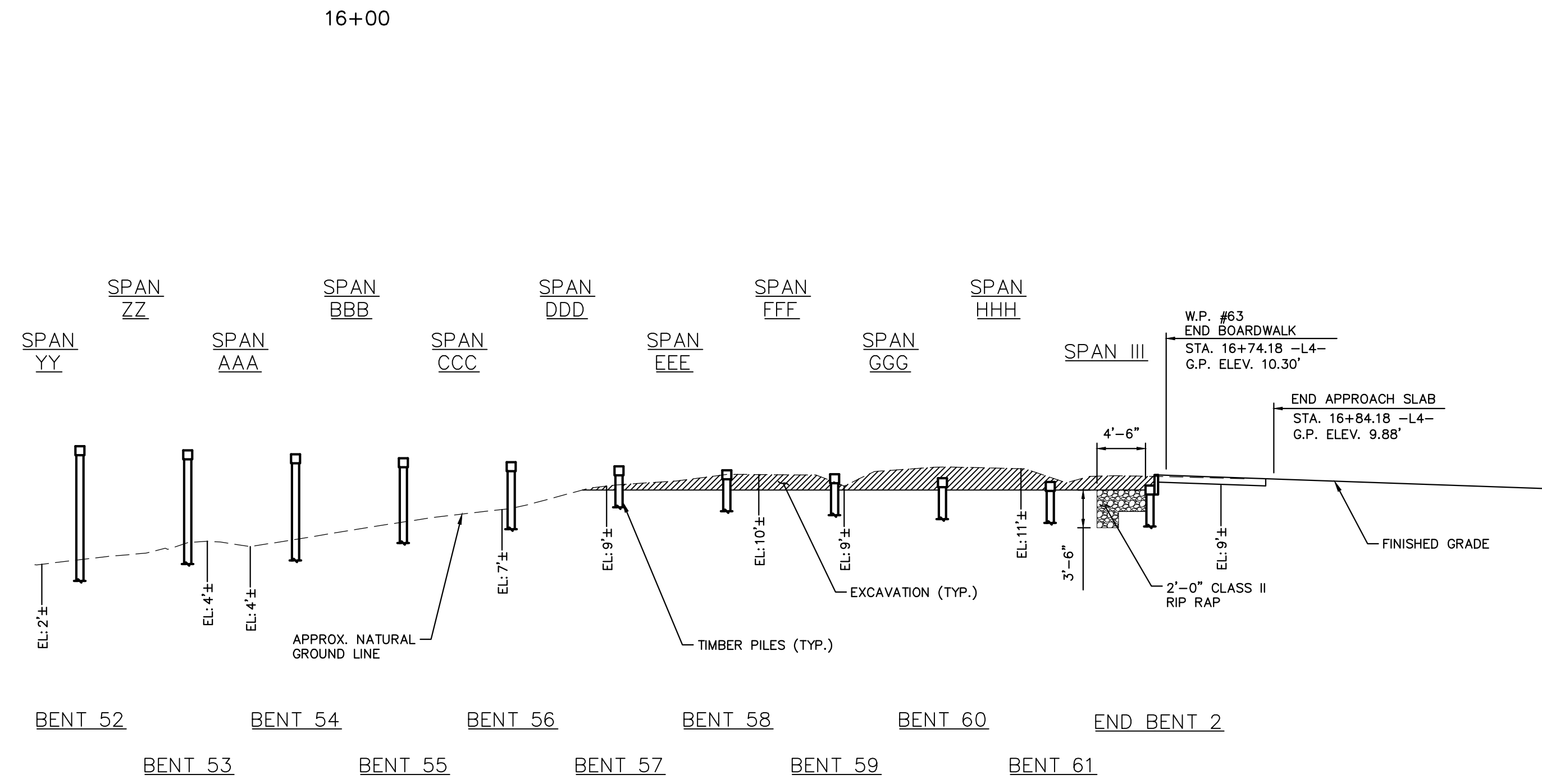
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20
15
10
5
0
-5
-10

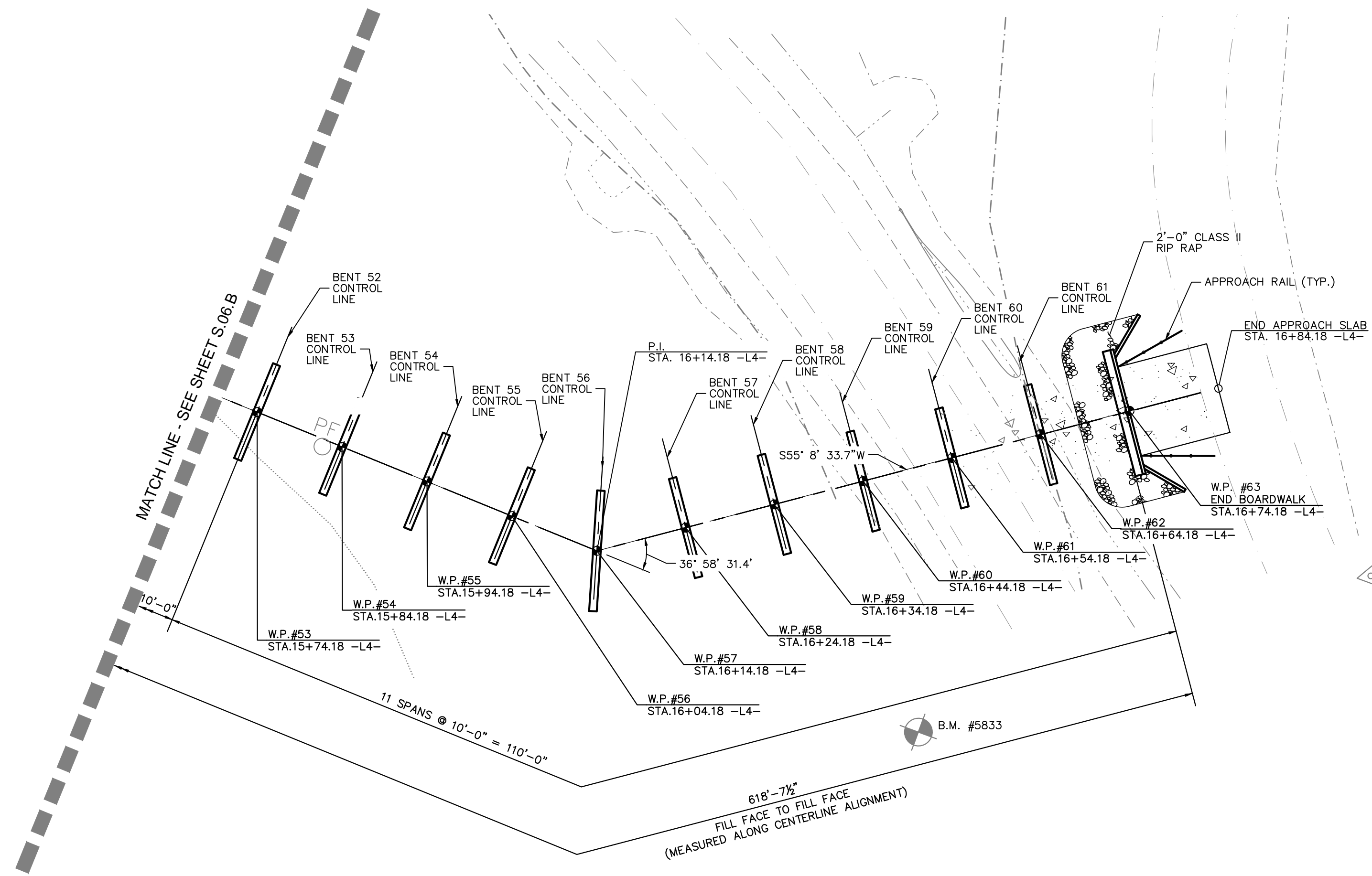


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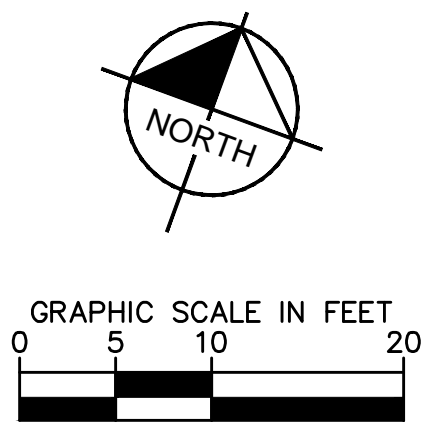
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EL. = 11.14'
V.C. = 0'



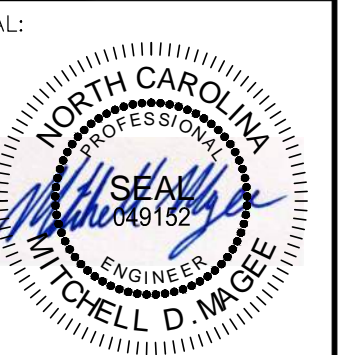
PLAN
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7	ISSUED FOR CONSTRUCTION	1/31/24	DAW
6	CITY OF GREENVILLE - TRC - 3RD SUBMITTAL	12/01/22	ASA
5	ISSUED FOR BID	8/02/22	ASA

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PLAN AND PROFILE -
THE SWAMP (AREA 4)
(STRUCTURE #2)

WILDWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE
GREENVILLE NC

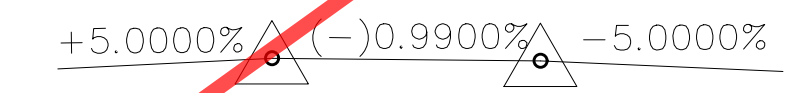
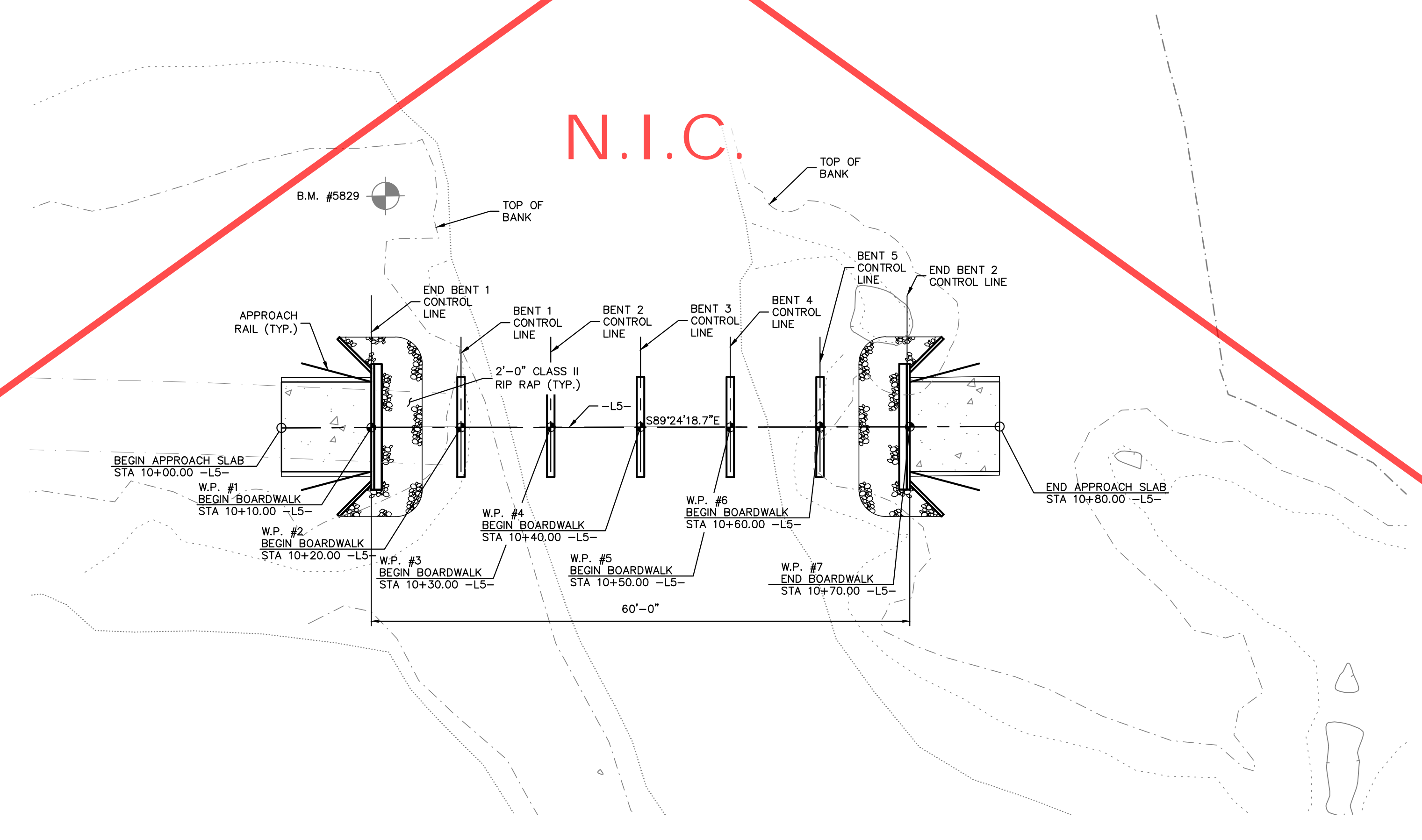
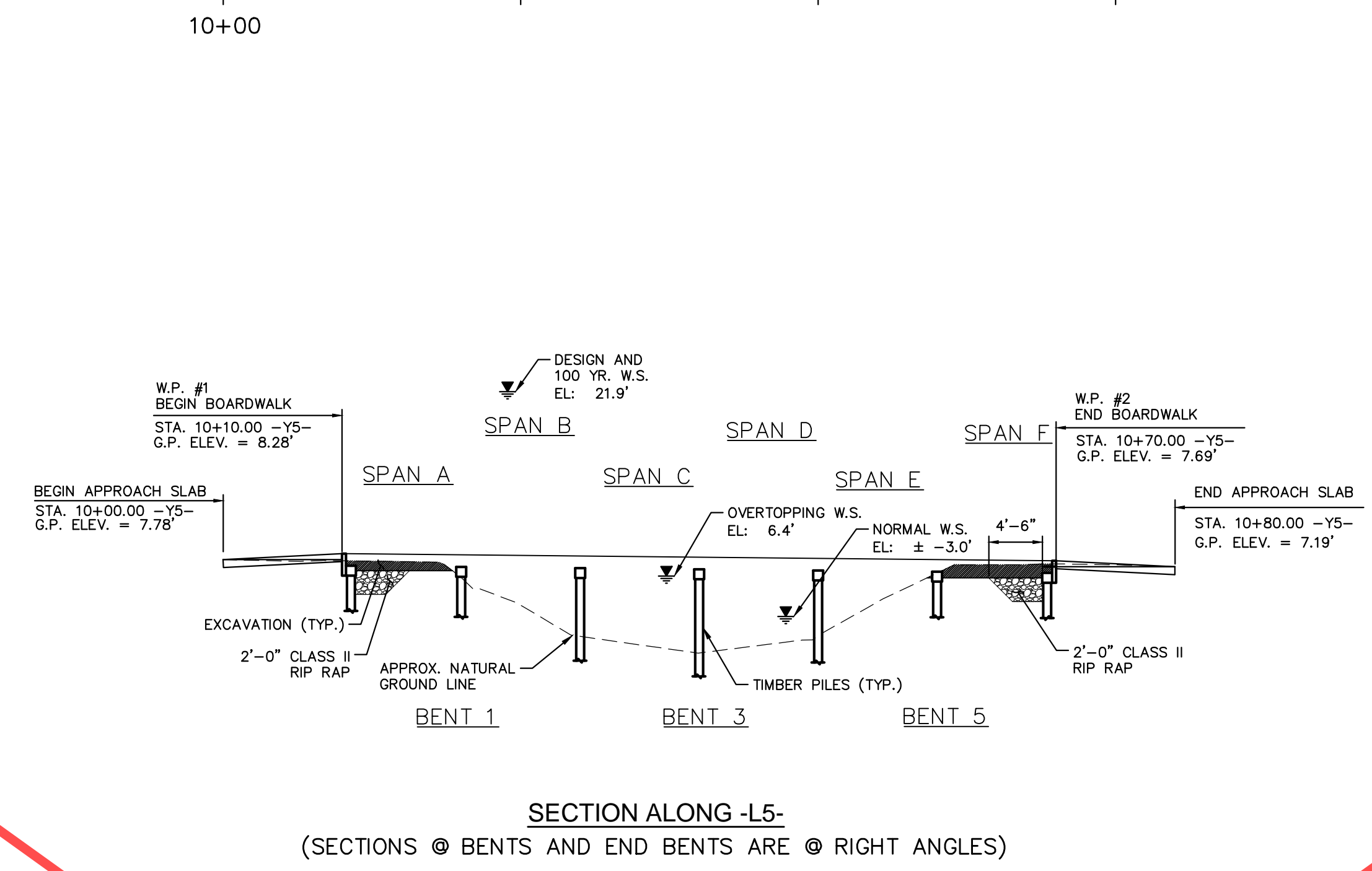
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S.07.B



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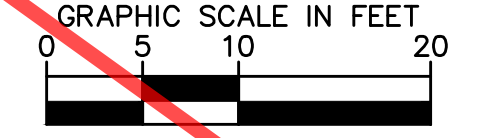
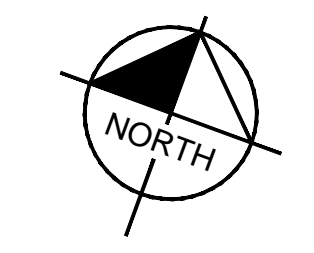
20
15
10
5
0
-5
-10



-L5- VERTICAL CURVE DATA

PVI STA. = 10+10.00 -L5- PVI STA. = 10+70.00 -L5-
 EL. = 8.28' EL. = 7.69'
 V.C. = 0' V.C. = 0'

PLAN
(PILES NOT SHOWN IN PLAN VIEW)



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8	IFC PACKAGE B2	5/17/24	ADC
7	ISSUED FOR CONSTRUCTION	1/31/24	DAW
6	CITY OF GREENVILLE - TRC - 3RD SUBMITTAL	12/01/22	ASA
5	ISSUED FOR BID	8/02/22	ASA

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KHA PROJECT	012654010
DATE	1/31/2024
SCALE	AS SHOWN
DESIGNED BY	BMK
DRAWN BY	JK
CHECKED BY	MDM

**PLAN AND PROFILE -
 THE SWAMP (AREA 4)
 (STRUCTURE #3)**

WILDWOOD PARK -
 TOWER AND TRAILS
 BID PACKAGE B
 PREPARED FOR
 CITY OF GREENVILLE
 GREENVILLE, NC

SHEET NUMBER
S.08.B

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Plotted By: Cullinan, Alex Sheet: Wildwood Park - Observation Tower and Trails - Bid Package B - Layout: S.09.B Timber Boardwalk Details May 15, 2024 03:08:29pm \\kimley-horn.com\CL_RAIL\LD\VA\012654010_Wildwood_Park_Walkways_Tower_Walkways_Bid_Package_B\B2A.S09B

NOTES

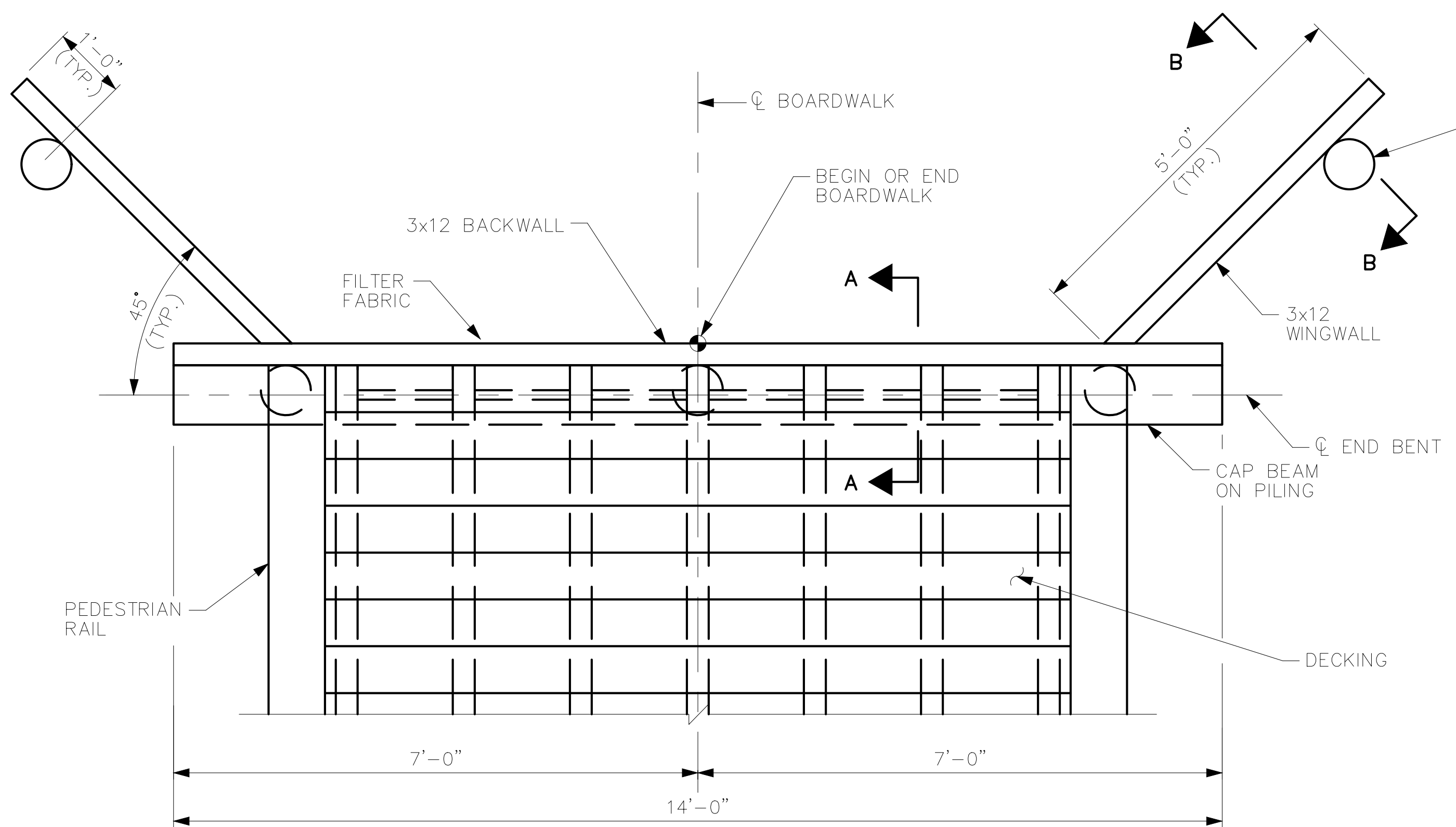
- STRINGER TO CAP BEAM CLIP SHALL BE:
1. SIMPSON STRONG TIE LTS12
 2. USP TIE RT4
 3. OR APPROVED EQUAL
- CAP BEAM TO PILING STRAP SHALL BE:
1. SIMPSON MSTA12 FLAT STRAP
 2. USP MSTA12 FLAT STRAP
 3. OR APPROVED EQUAL

TIMBER PILES SHALL HAVE MINIMUM TIP DIAMETER OF 8"

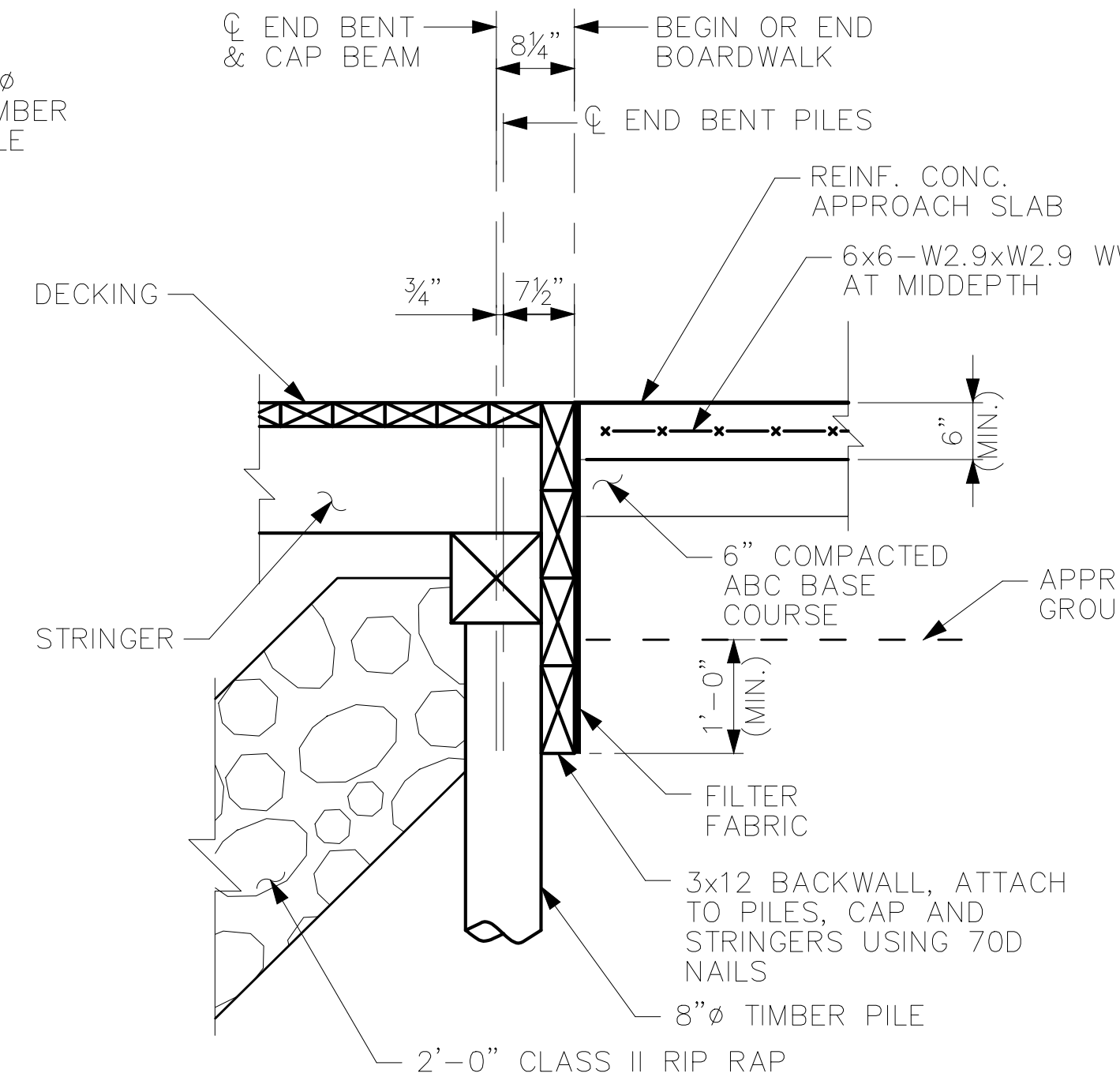
STRINGERS MAY BE SPACED AS NECESSARY WITHOUT EXCEEDING DECKING SPAN OF 1'-4".

FOR ANY INDIVIDUAL JOIST SPANS EXCEEDING 10'-0", TWO (2) 3x12 JOISTS SISTERED TOGETHER SHALL BE REQUIRED.

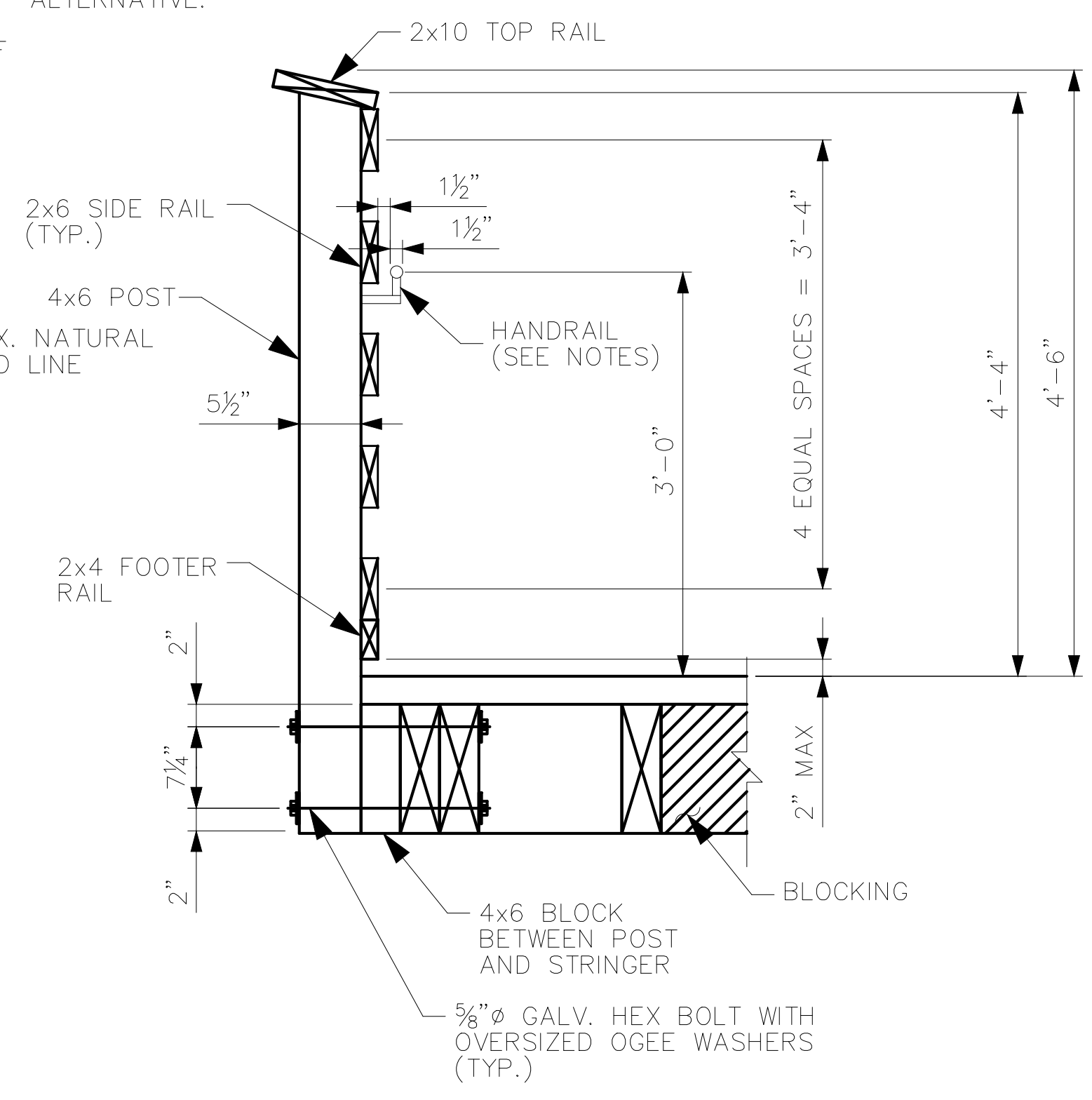
HANDRAIL IS REQUIRED AT SECTIONS OF BOARDWALK WHERE GRADE IS EQUAL TO OR GREATER THAN 5%. HANDRAIL SHALL COMPLY WITH GOVERNING ADA GUIDELINES. HANDRAIL SHALL BE GALVANIZED STEEL OR AN APPROVED ALTERNATIVE.



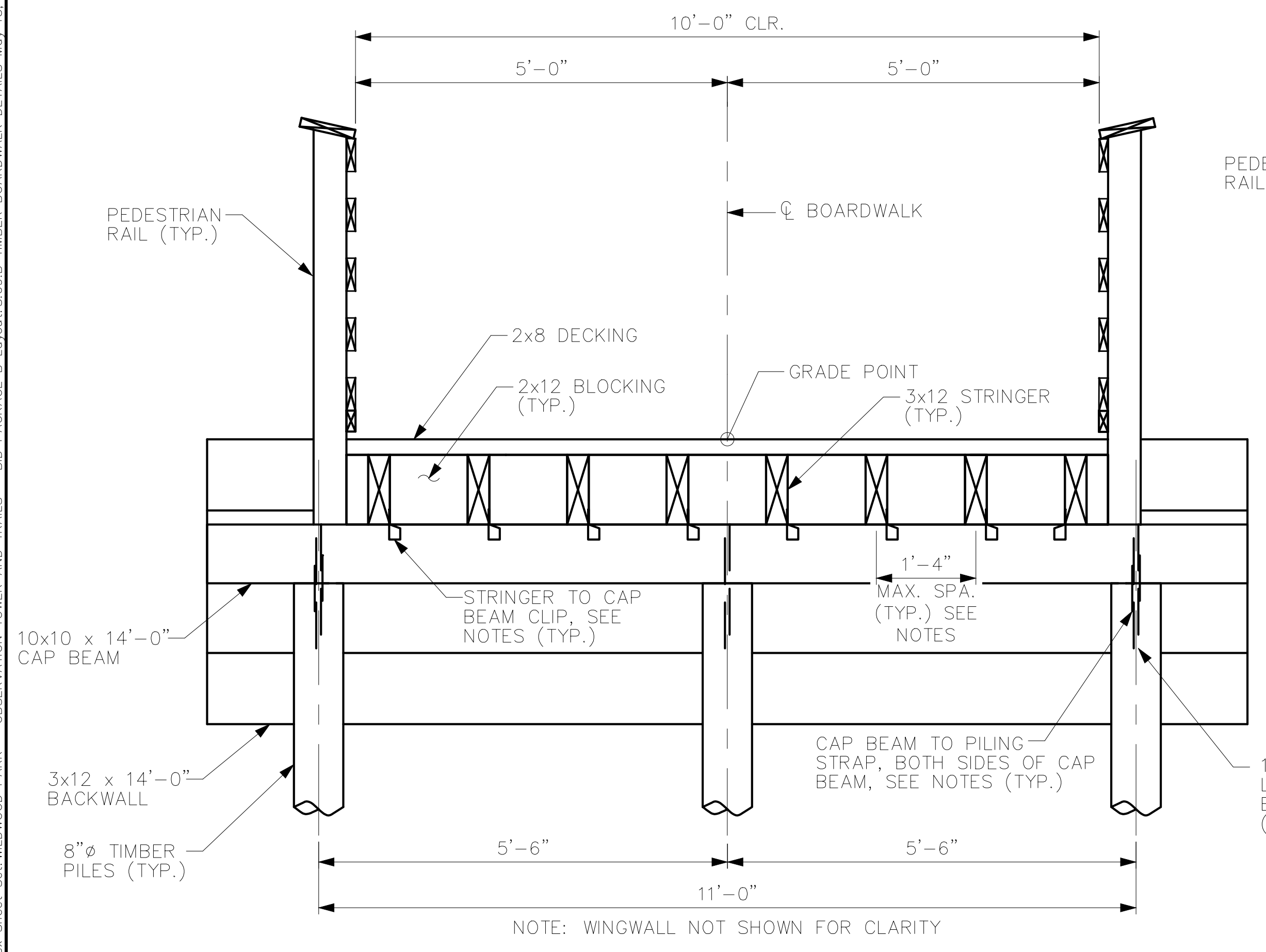
TIMBER BOARDWALK END BENT PLAN



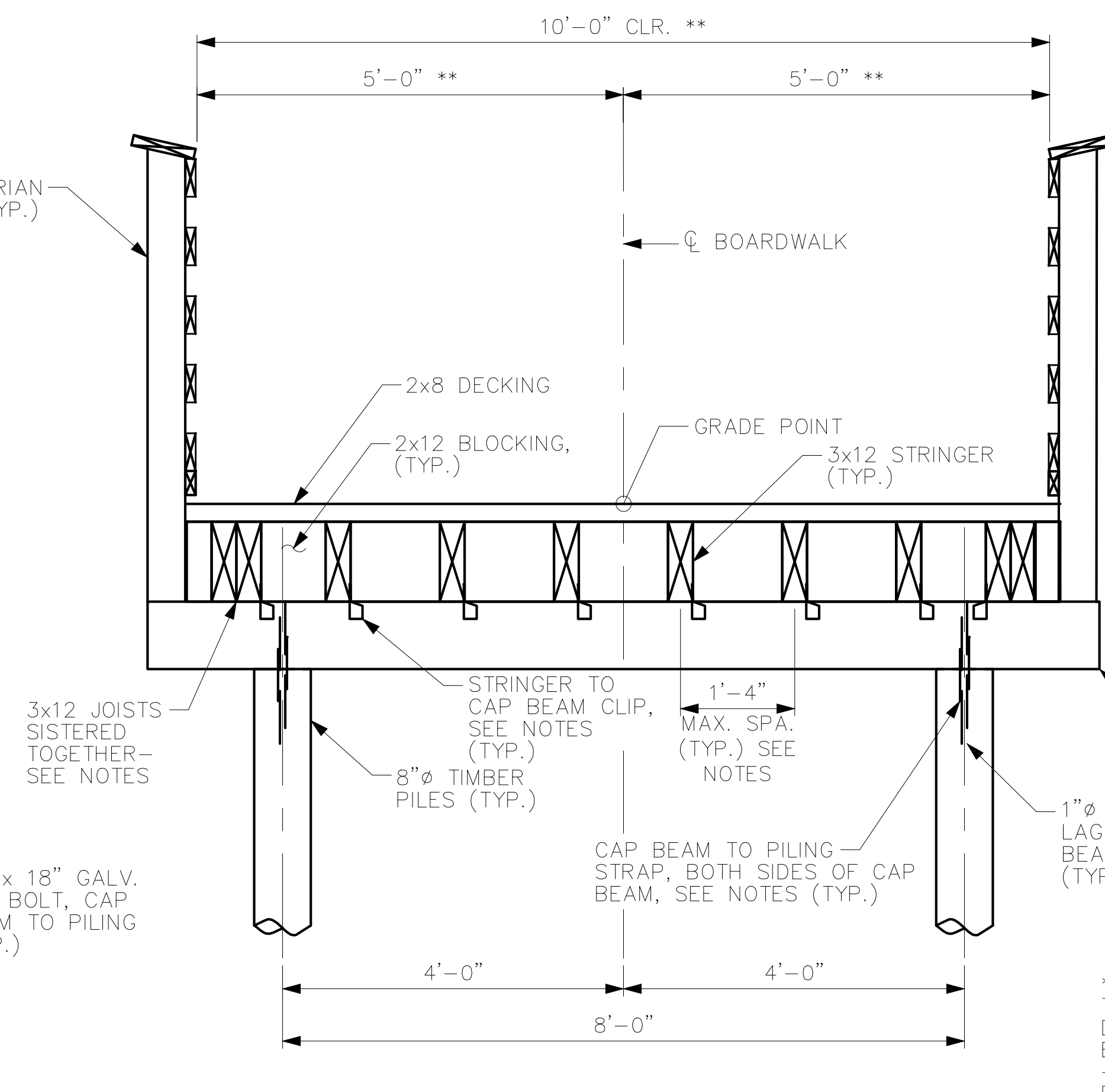
SECTION A-A
(RAILING NOT SHOWN FOR CLARITY)



PEDESTRIAN RAIL DETAIL



TIMBER BOARDWALK END BENT ELEVATION



TIMBER BOARDWALK BENT ELEVATION

** DIMENSIONS VARY FOR BENTS LOCATED AT BOARDWALK TURNS. CAP BEAM SIZE INCREASES TO 10x10x13'-2". CLEAR DISTANCE BETWEEN RAILINGS VARIES FOR THESE LOCATIONS BUT SHALL NOT BE LESS THAN 10'-0".

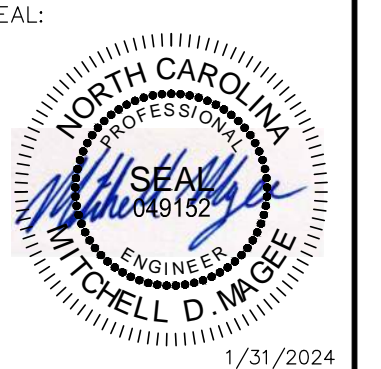
-L2- BENTS AT TURNS: BENT 6, BENT 8, BENT 15, BENT 21, BENT 28, BENT 31, BENT 34, BENT 43, BENT 59.

-L4- BENTS AT TURNS: BENT 10, BENT 15, BENT 22, BENT 31, BENT 34, BENT 42, BENT 45, BENT 49, BENT 56.

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7	ISSUED FOR CONSTRUCTION	1/31/24	DAW
8	IFC PACKAGE B2	5/17/24	ADC

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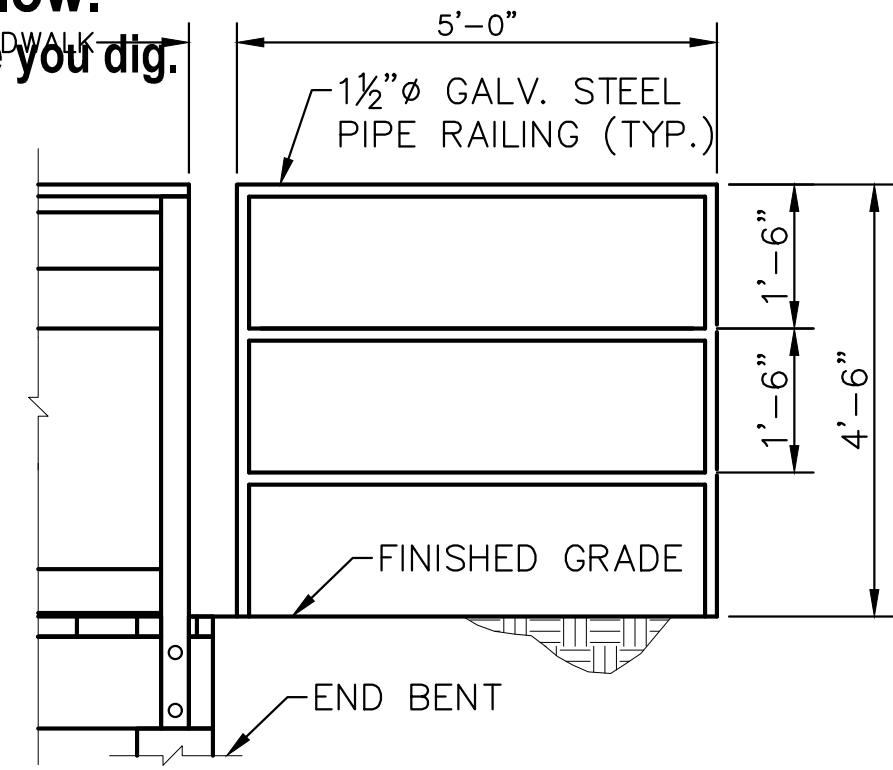
KHA PROJECT	012654010
DATE	1/31/2024
SCALE	AS SHOWN
DESIGNED BY	BMK
DRAWN BY	JJK
CHECKED BY	MDM

TIMBER BOARDWALK DETAILS

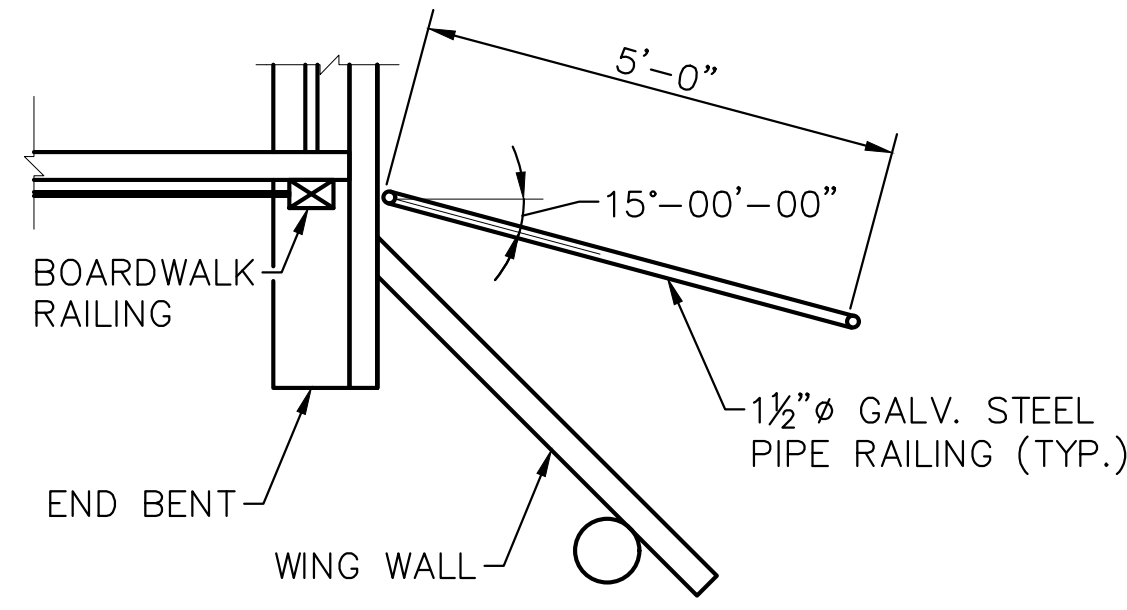
WILDWOOD PARK - TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE
GREENVILLE, NC
SHEET NUMBER
S.09.B



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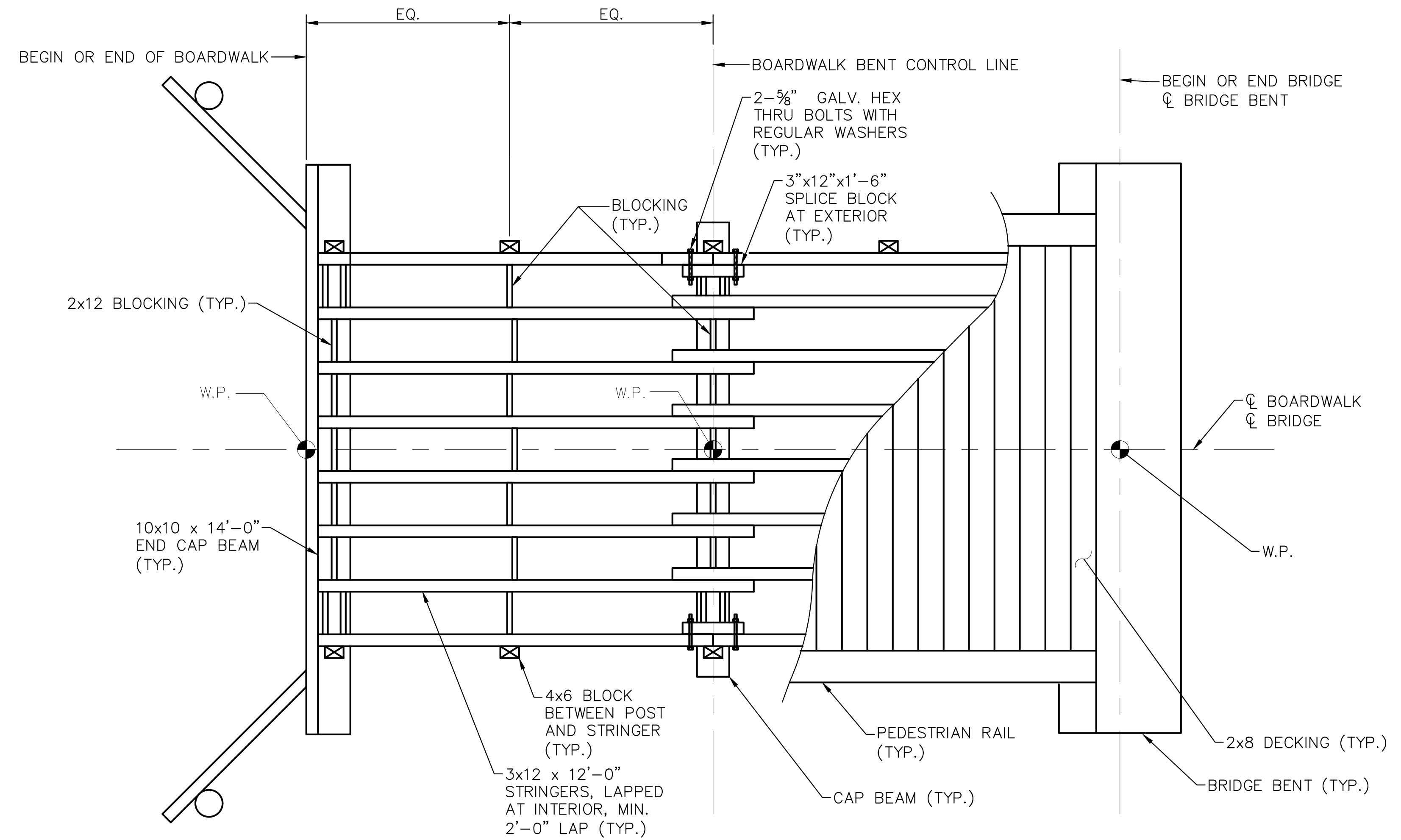


ELEVATION

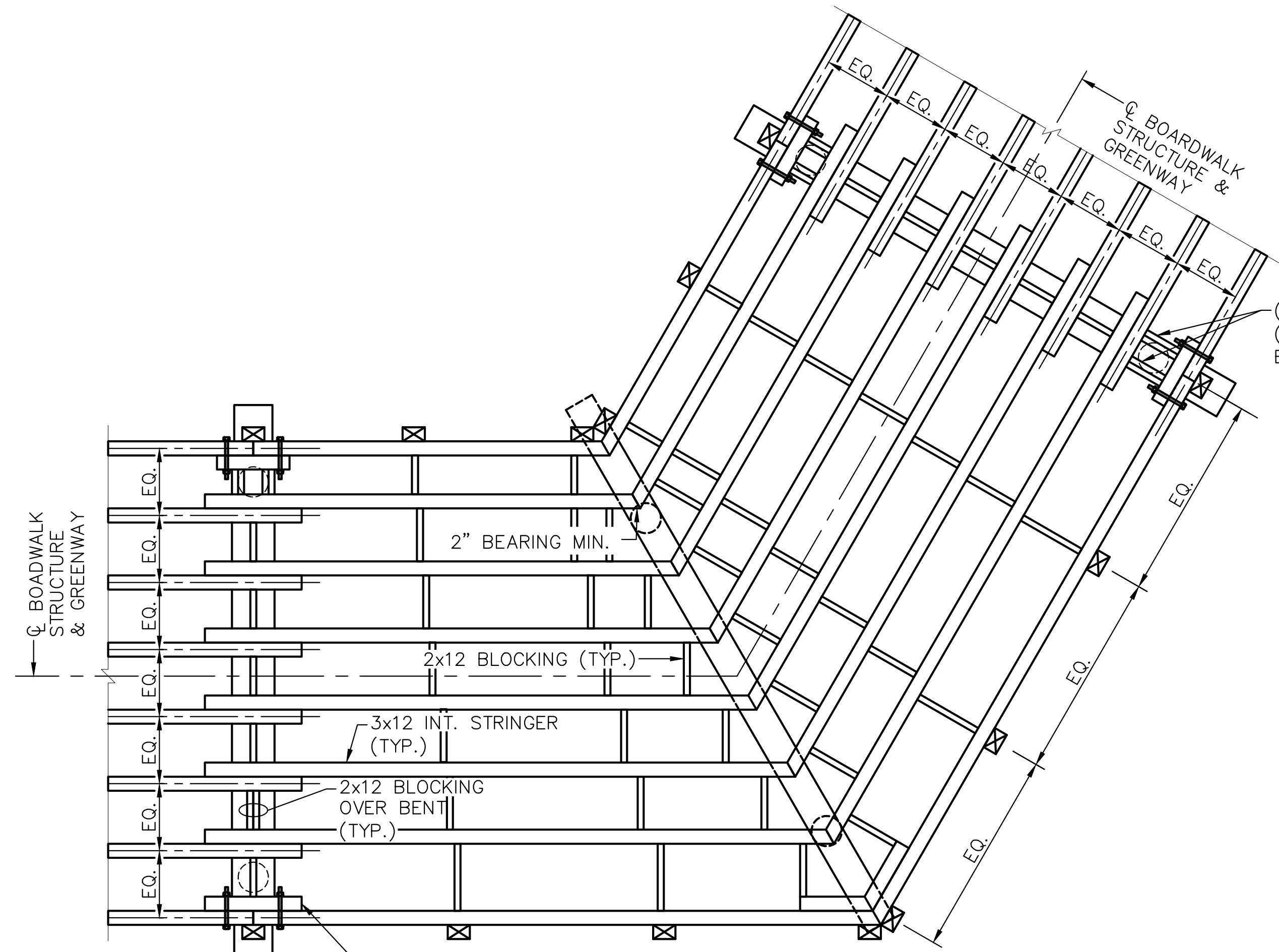


PLAN

TYPICAL APPROACH RAIL

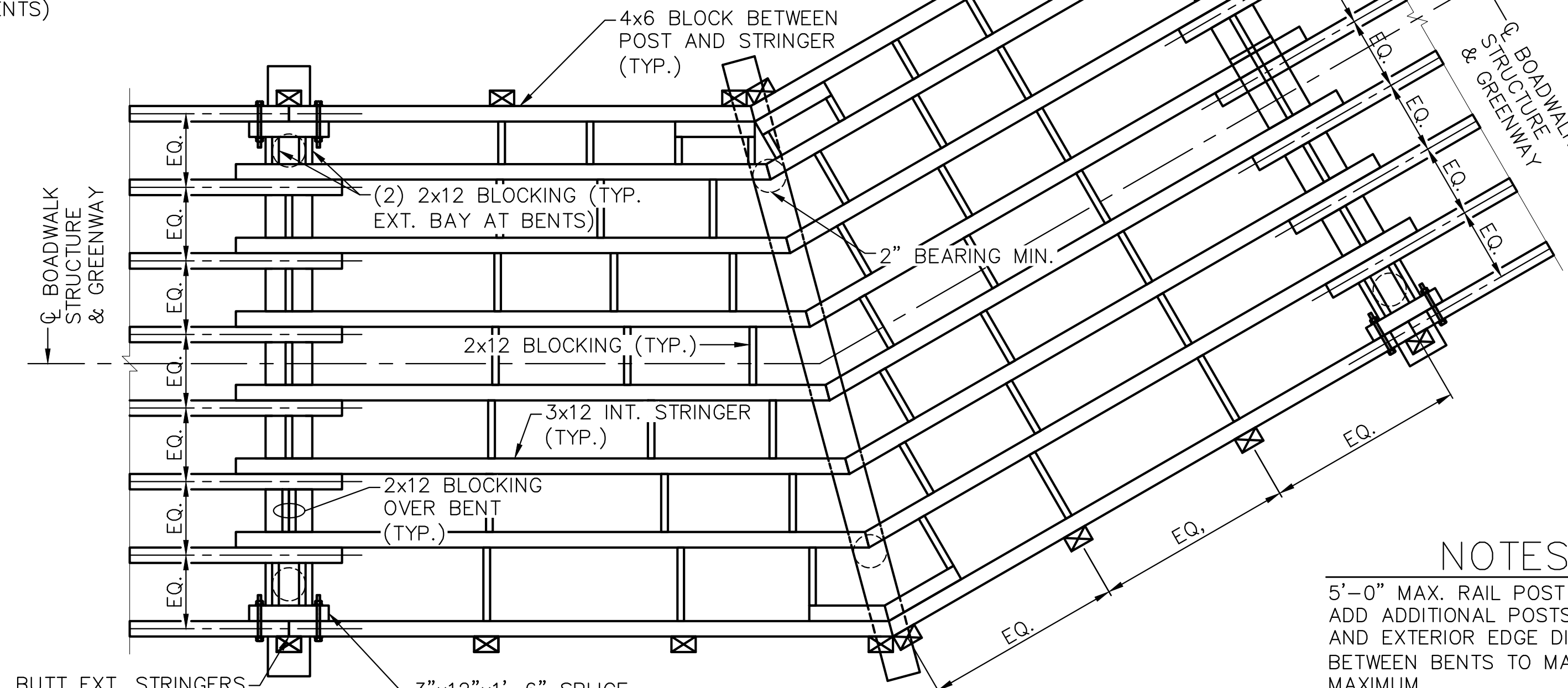


TIMBER BOARDWALK DECK FRAMING PLAN



FRAMING AT >30° TURN

NOTE:
WHERE INDIVIDUAL JOIST SPANS EXCEED 10'-0",
TWO (2) 3x12 JOISTS SISTERED TOGETHER SHALL
BE REQUIRED.



FRAMING AT <30° TURN

NOTE:
WHERE INDIVIDUAL JOIST SPANS EXCEED 10'-0",
TWO (2) 3x12 JOISTS SISTERED TOGETHER SHALL
BE REQUIRED.

NOTES
5'-0" MAX. RAIL POST SPACING.
ADD ADDITIONAL POSTS FOR SPANS
AND EXTERIOR EDGE DISTANCES
BETWEEN BENTS TO MAINTAIN 5'-0"
MAXIMUM.

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TIMBER BOARDWALK
FRAMING DETAILS

WILDWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE
NC

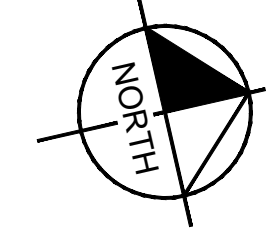
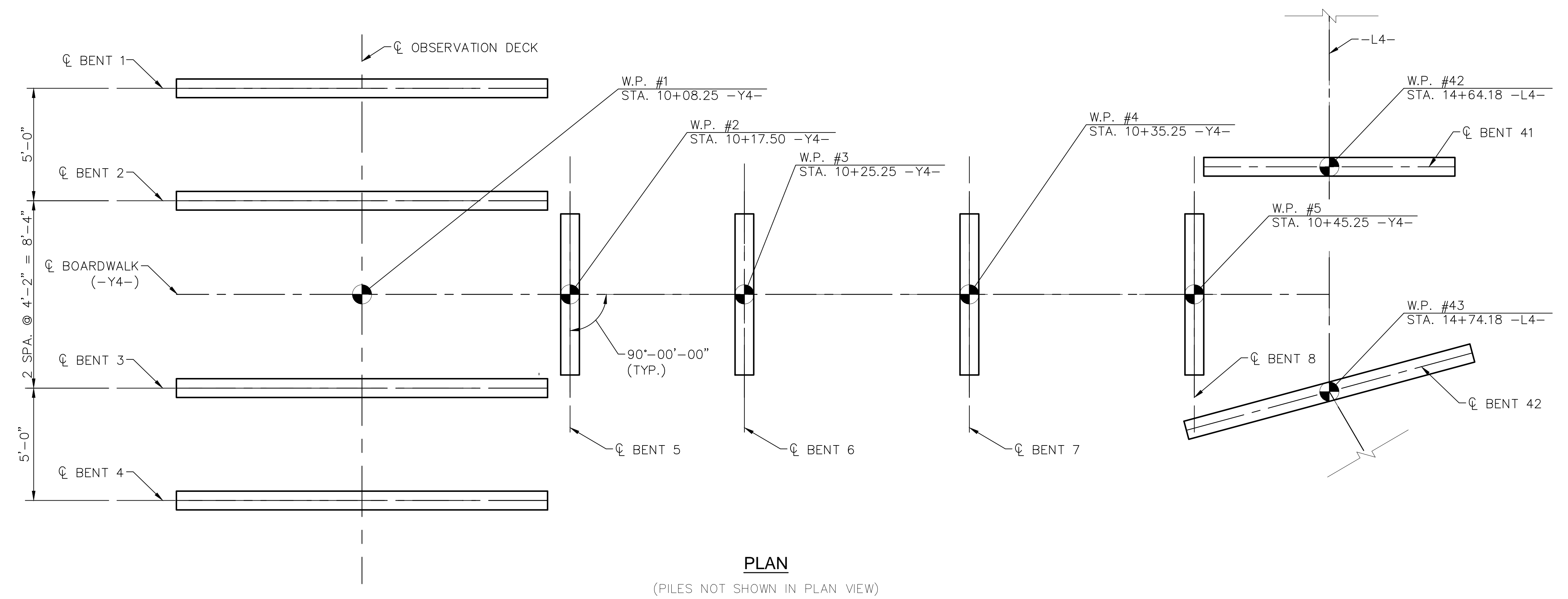
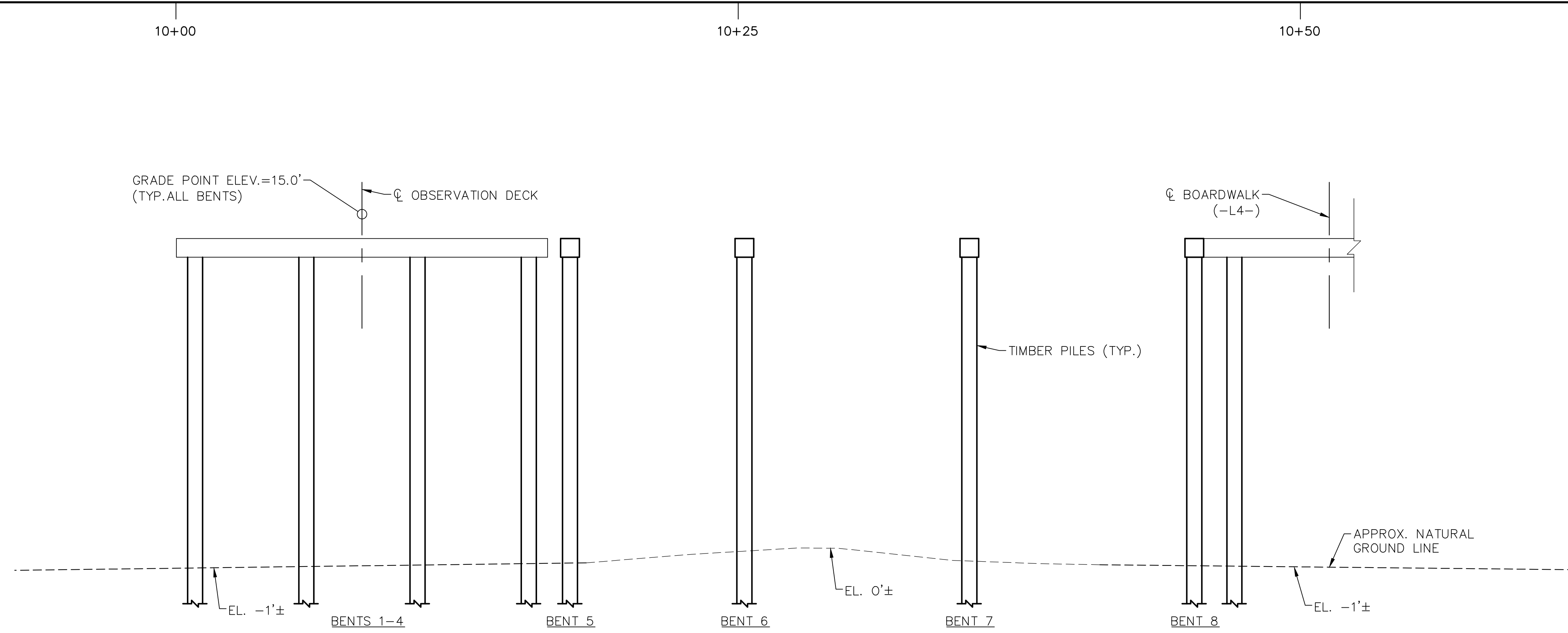
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DRAWN BY	JJK
CHECKED BY	MDM

**OBSERVATION DECK
DETAILS**

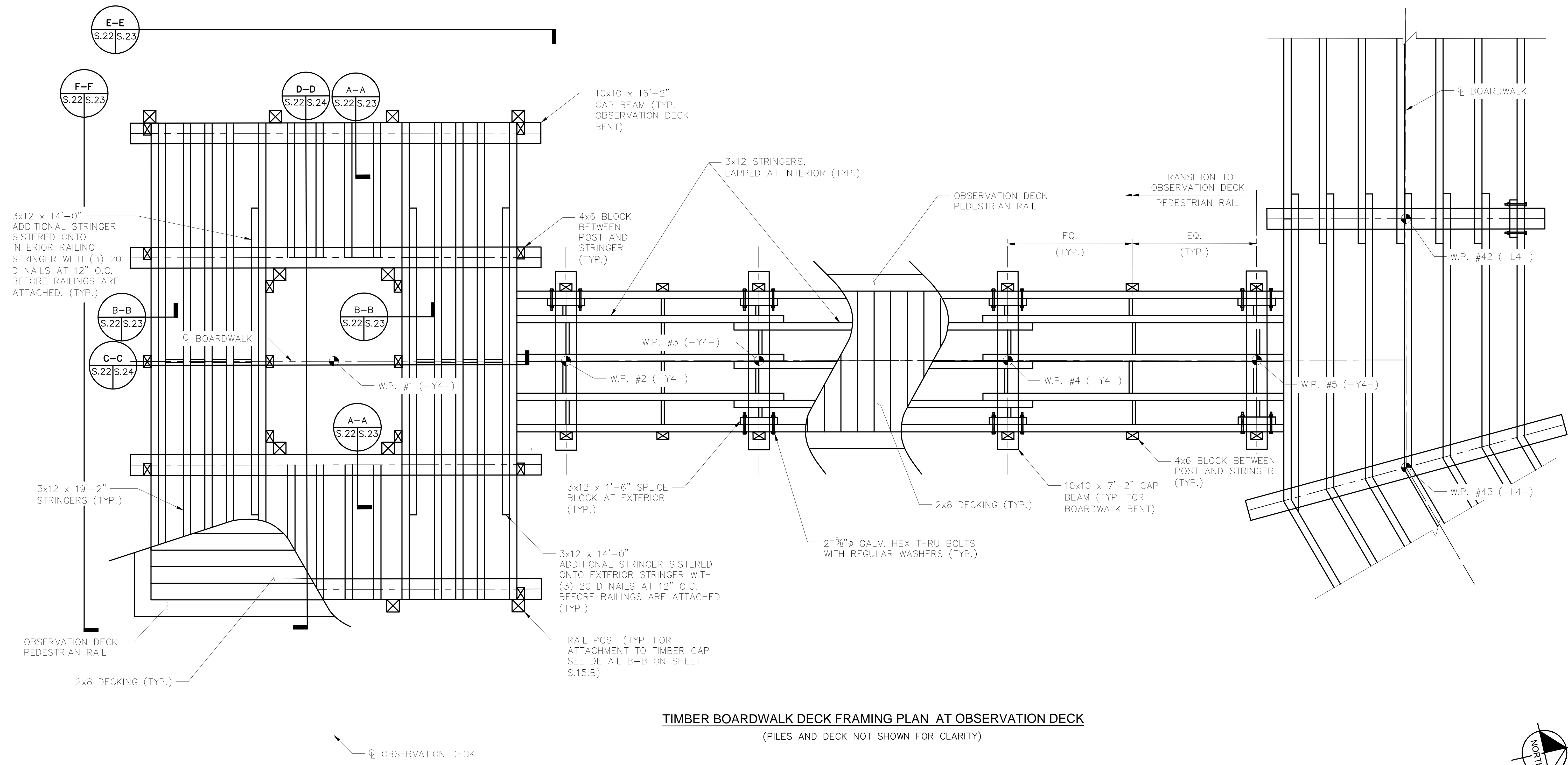
WILDWOOD PARK -
TOWER AND TRAILS
BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE

GREENVILLE NC
SHEET NUMBER
S.15.B

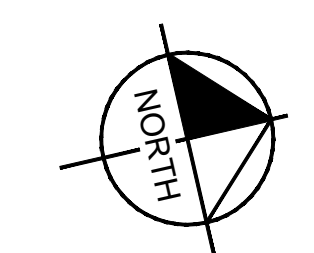


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TIMBER BOARDWALK DECK FRAMING PLAN AT OBSERVATION DECK
(PILES AND DECK NOT SHOWN FOR CLARITY)



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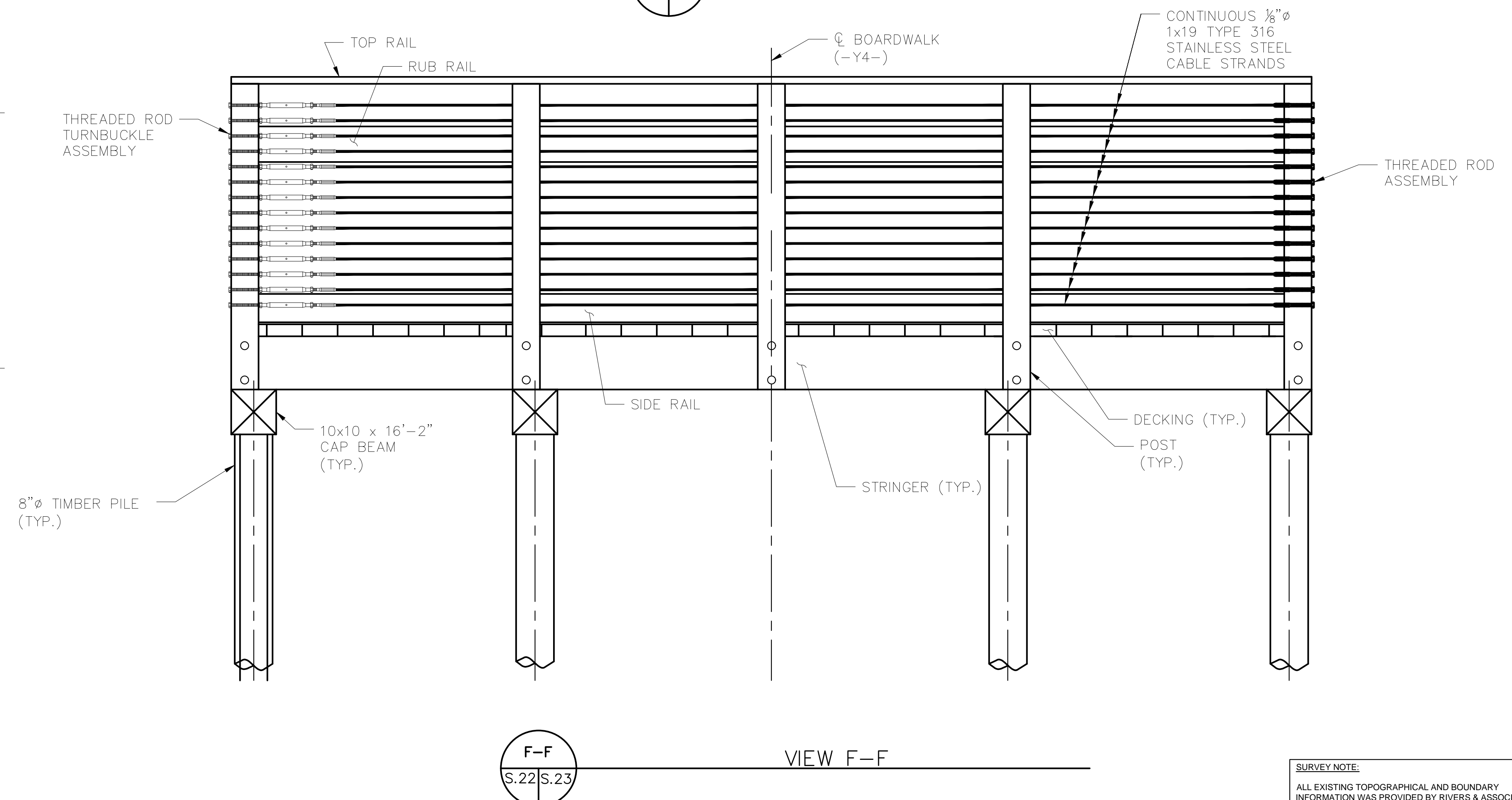
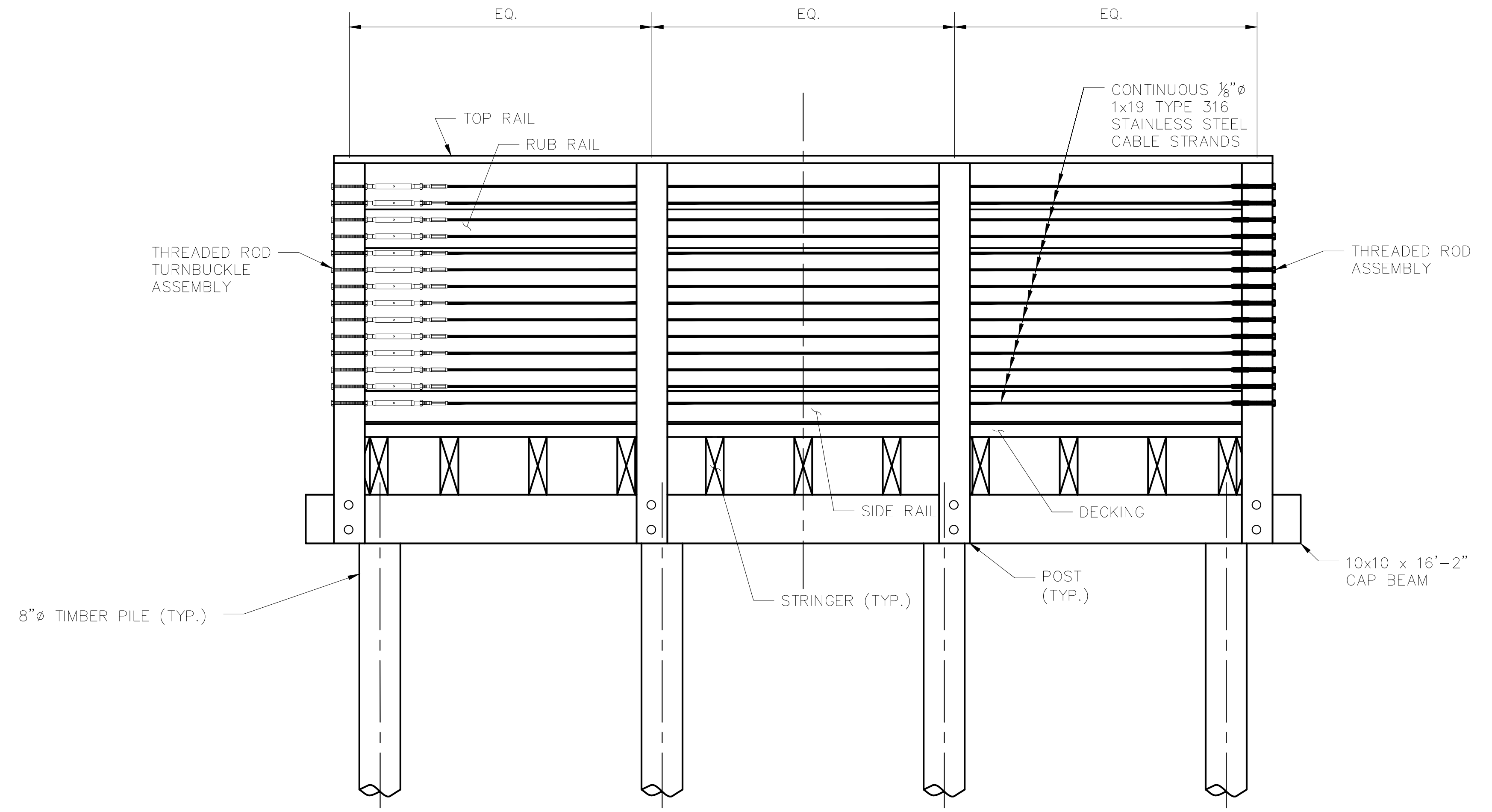
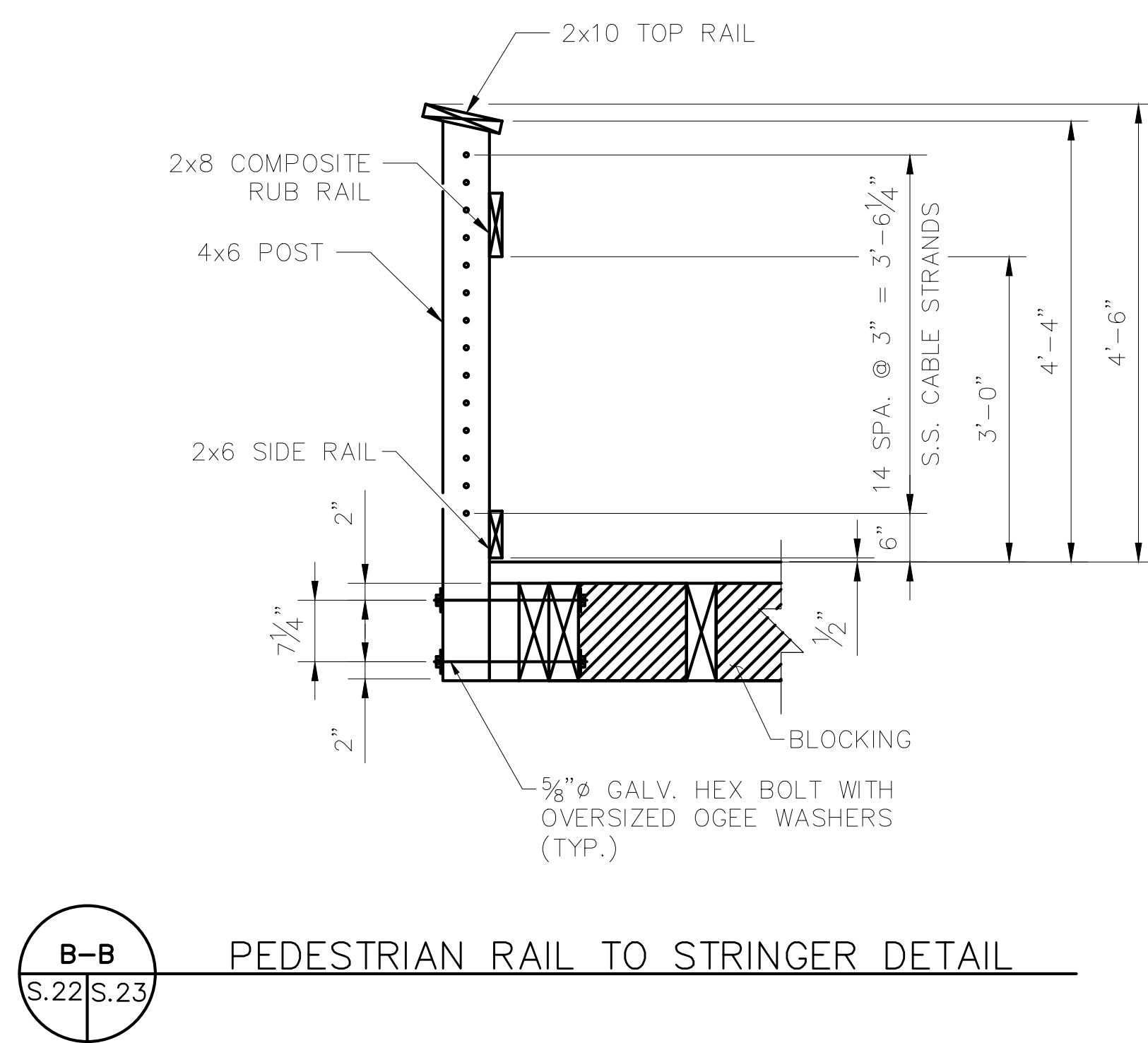
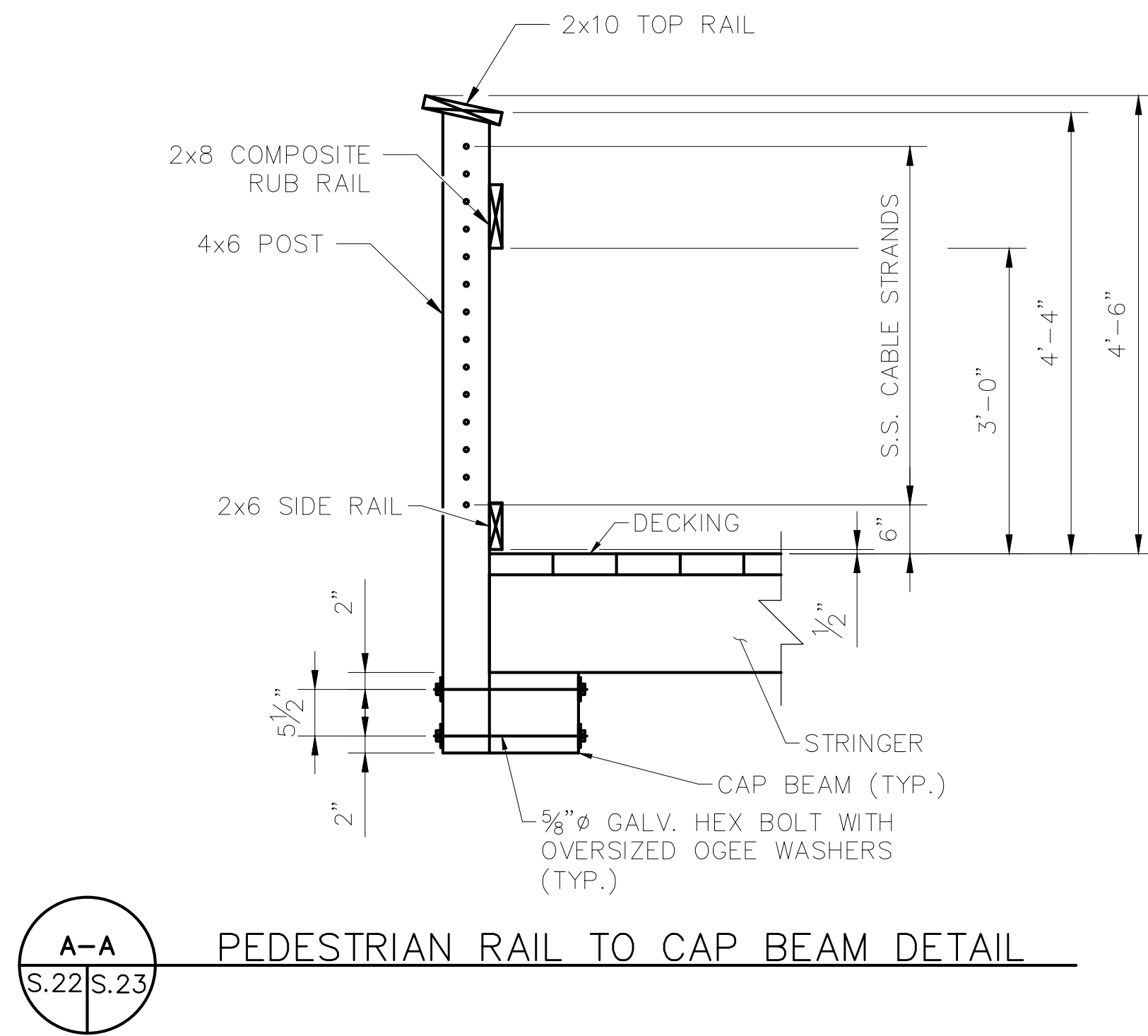
**OBSERVATION DECK
DETAILS**

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BID PACKAGE B
PREPARED FOR
CITY OF GREENVILLE

GREENVILLE NC
SHEET NUMBER
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OBSERVATION DECK DETAILS

WILDWOOD PARK - TOWER AND TRAILS
BID PACKAGE B
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CITY OF GREENVILLE
GREENVILLE NC

SHEET NUMBER
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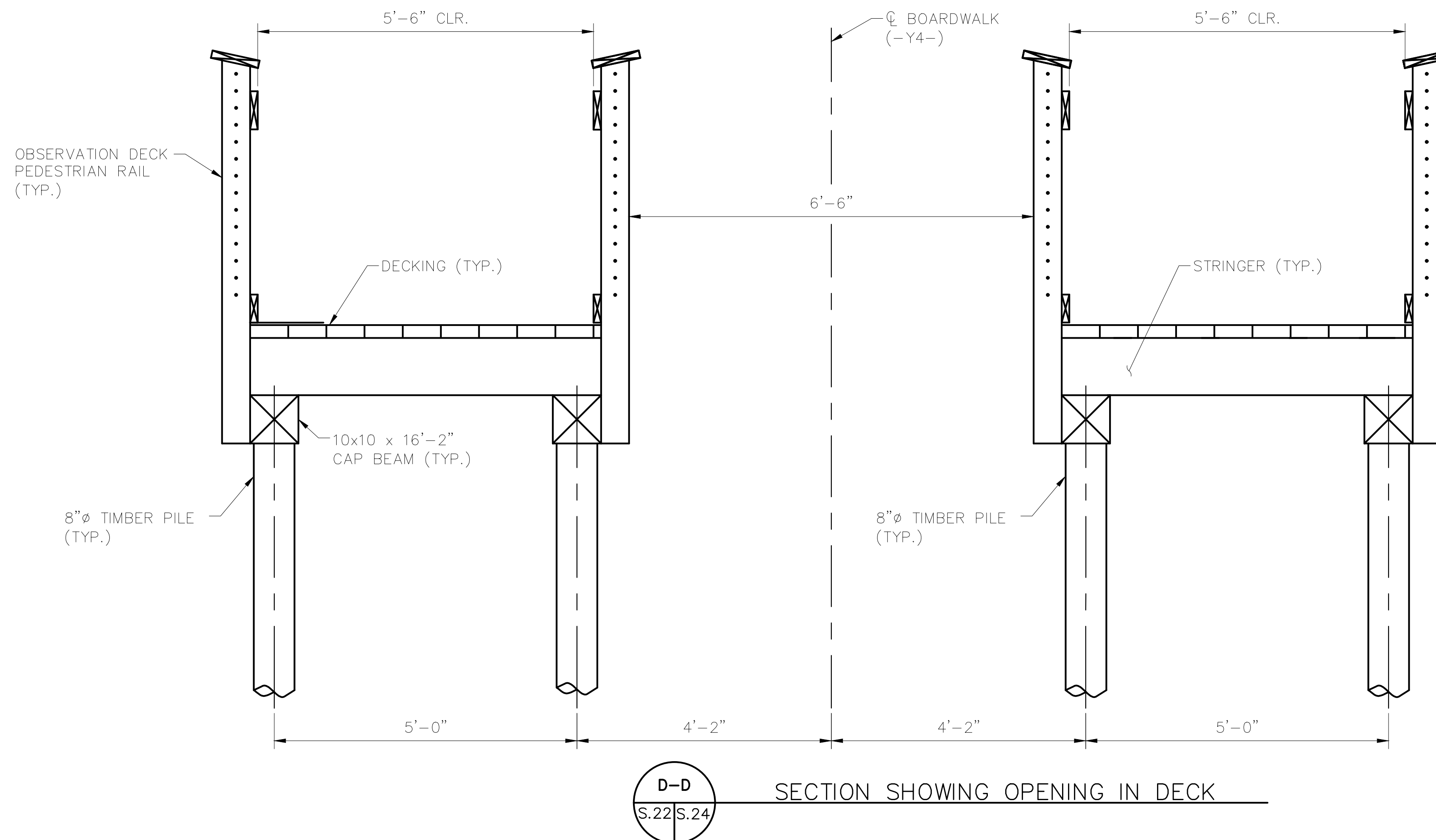
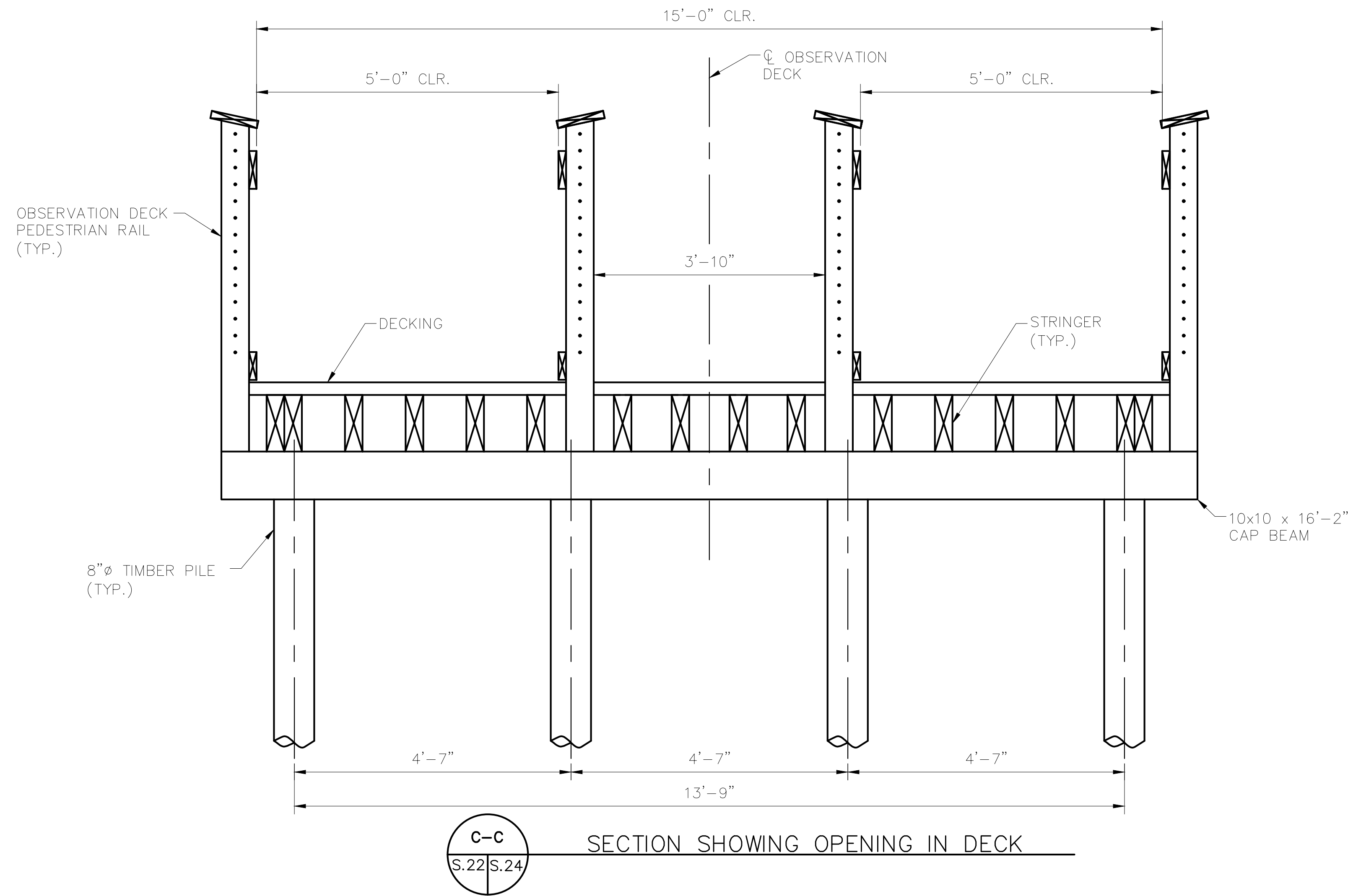
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OBSERVATION DECK DETAILS

WILDWOOD PARK - TOWER AND TRAILS
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DESIGN DATA:

SPECIFICATIONS - - - - - A.A.S.H.T.O. (CURRENT)
LIVE LOAD - - - - - SEE PLANS
IMPACT ALLOWANCE - - - - - SEE A.A.S.H.T.O.
STRESS IN EXTREME FIBER OF
STRUCTURAL STEEL - AASHTO M270 GRADE 36 - - - 20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W - - - 27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50 - - - 27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION - GRADE 60 - - - - 24,000 LBS. PER SQ. IN
CONCRETE IN COMPRESSION - - - - - 1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR - - - - - SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR UNTREATED
EXTREME FIBER STRESS - - - - 1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER - - 375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH - - - - - 30 LBS. PER CU. FT. (MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2018 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED 3/4" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1 1/2" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A 1/4" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A 1/4" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

STANDARD NOTES

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.

ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7/8"Ø SHEAR STUDS FOR THE 3/4"Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7/8"Ø STUDS FOR 4 - 3/4"Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7/8"Ø STUDS ALONG THE BEAM AS SHOWN FOR 3/4"Ø STUDS BASED ON THE RATIO OF 3 - 7/8"Ø STUDS FOR 4 - 3/4"Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 3/16" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS " BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1/8" INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINIS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.

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Table with project details: KHA PROJECT 012654010, DATE 1/31/2024, SCALE AS SHOWN, DESIGNED BY BMK, DRAWN BY JJK, CHECKED BY MDW.

STRUCTURAL STANDARD NOTES

WILDWOOD PARK - TOWER AND TRAILS BID PACKAGE B PREPARED FOR CITY OF GREENVILLE

SHEET NUMBER S.20.B

SURVEY NOTE: ALL EXISTING TOPOGRAPHICAL AND BOUNDARY INFORMATION WAS PROVIDED BY RIVERS & ASSOCIATES, INC. 107 EAST SECOND STREET GREENVILLE, NC 27858 PHONE: 252-752-4135 DATED 05/17/21.