Purchasing Divison
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Request for Quotation
09 — Construction

Proc Folder: 677503

Doc Description: Addendum 3 - Construction of Boat access on Lower Elk River

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2020-02-19	2020-02-27 13:30:00	CRFQ 0310 DNR2000000007	4

RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Name, Address and Telephone Number:

FOR INFORMATION CONTACT THE BUYER

Guy Nisbet
(304) 558-2596
guy.l.nisbet@wv.gov

Signature X **FEIN #** **DATE**

All offers subject to all terms and conditions contained in this solicitation

FORM ID : WV-PRC-CRFQ-001

ADDITIONAL INFORMATION:

Addendum

Addendum No.03 issued to publish and distribute the attached information to the vendor community.

****

Request for Quotation
(Construction Services - Kanawha County, Lower Elk River (5) Boating Access Site Project)

In accordance with WV Code 5A-3 and WV Code 5-22, The West Virginia Purchasing Division is soliciting bids on behalf of the Agency The WV. Division of Natural Resources (WV DNR) to establish a one-time construction contract for five (5) Boating Access sites located on the lower Elk River in Kanawha County, West Virginia (Big Chimney, Blue Creek, Clendenin-North, Coonskin, and Clendenin-South) per the specifications, terms and conditions that are a part of this solicitation and reference herein.

INVOICE TO	SHIP TO
DIVISION OF NATURAL RESOURCES PARKS & RECREATION-PEM SECTION 324 4TH AVE SOUTH CHARLESTON WV25305 US	STATE OF WEST VIRGINIA JOBSITE - SEE SPECIFICATIONS No City WV 99999 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Marine construction services	0.00000			

Comm Code	Manufacturer	Specification	Model #
72141200			

Extended Description :

Construction of five (5) new boat access ramps along the Lower Elk River. Revised Exhibit A Pricing Page dated: 02/14/2020 per Addendum No.02

SOLICITATION NUMBER: CRFQ 0313 DNR2000000007
Addendum Number: No.03

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

[ ] Modify bid opening date and time

[✓] Modify specifications of product or service being sought

[✓] Attachment of vendor questions and responses

[ ] Attachment of pre-bid sign-in sheet

[ ] Correction of error

[ ] Other

Description of Modification to Solicitation:

Addendum issued to publish and distribute the attached documentation to the vendor community.

1. Vendor Submitted Question and Agency Response
2. PDF REVISED Drawings Sheets (19 pages) PDF version upload to VSS for vendors ability to view and print.

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.

2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

CRFQ DNR 0310 DNR2000000007

Kanawha County Lower Elk River Five (5) Boat Access Ramps Project
Vendor submitted Questions and Agency Responses

Some clarification on the fence and gates. Please see below. Your response will be appreciated.

Q.1. They show both a steel external roller gate and an aluminum internal roller gate – major money difference in the two.

A. The gate shall be aluminum.

Q.2. Also. As the gates are located – slide gates will be difficult- the gate & operator would have to be on the outside of the fence- non secure side. Is this correc?

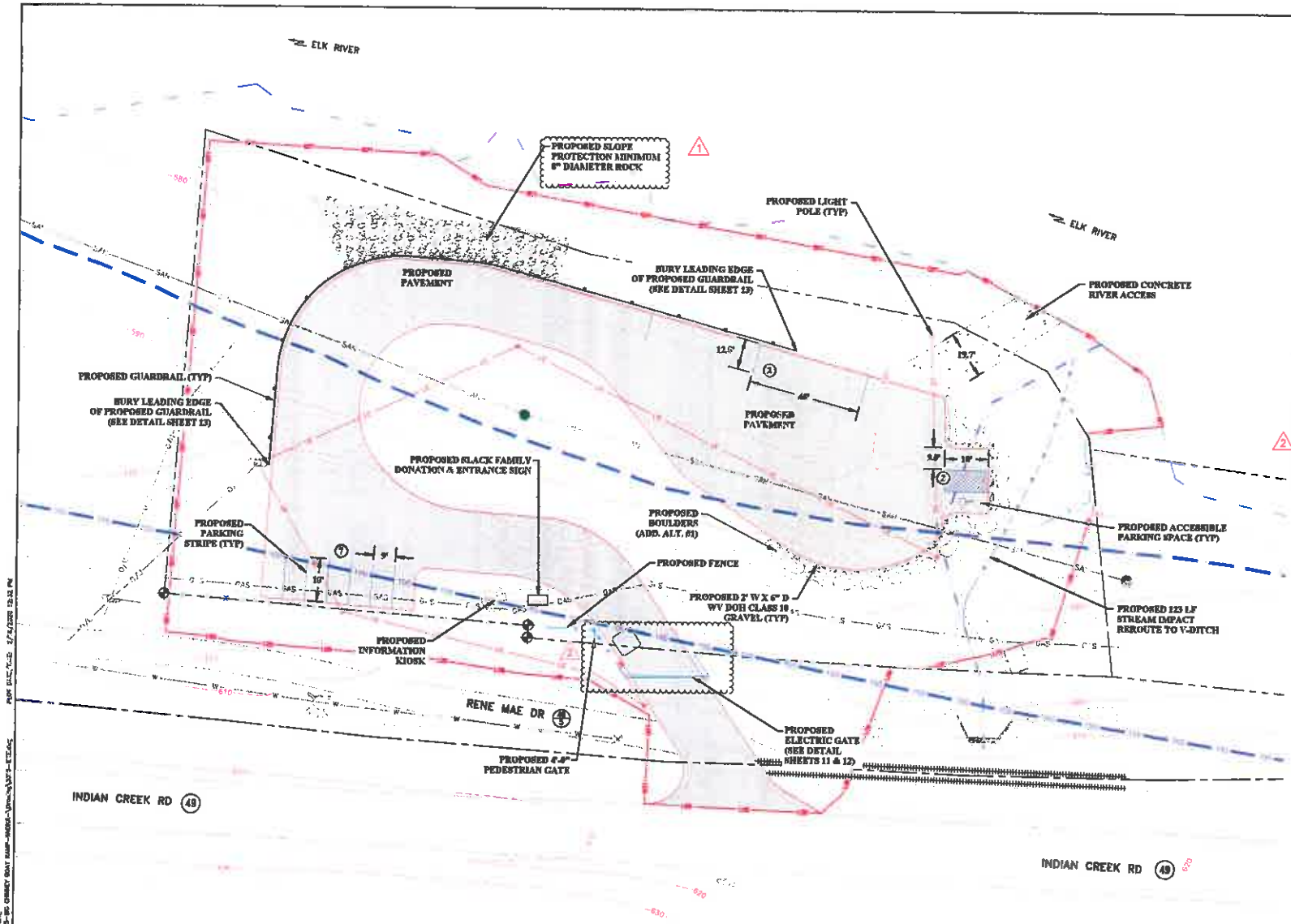
A. The operating motor and system will be located on the interior side of the gate.

Q.3.The gate in the open position will slid out in to open space, not along the normal fence line. Is this correct?

A. The gate will slide open and not along the fence line.

Q.4. What will command the gates to open?

A A note has been added to Big Chimney Sheet 4, Blue Creek Sheet 4 and Clendenin South Sheet 4 about the gate operations.



PLAN LEGEND

- EXISTING CONTOURS
- EXISTING PROPERTY LINE
- EXISTING RAILROAD CENTER LINE
- EXISTING PAVEMENT
- EXISTING CONCRETE
- EXISTING GRAVEL
- EXISTING GUARDRAIL
- EXISTING EDGE OF RIVERBANK / SLOPE
- EXISTING RAILROAD
- EXISTING RIVER EDGE
- EXISTING WATER LINE
- EXISTING OVERHEAD UTILITY
- EXISTING UNDERGROUND GAS
- EXISTING SURVEY MARKER
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- PROPOSED CONTOURS
- PROPOSED EDGE OF PAVEMENT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED PAVEMENT MARKING
- PROPOSED GUARDRAIL
- PROPOSED FENCE
- PROPOSED GRAVEL
- PROPOSED LIMIT OF DISTURBANCE
- FLOODWAY EXTENTS
- 100 YEAR FLOODPLAIN
- PROPOSED LIGHT POLE
- PROPOSED DITCH

PLAN NOTES

1. CONTOUR INTERVAL IS 2 FT.
2. ADDITIVE ALTERNATE #1: PROPOSED BOULDERS ARE TO BE APPROXIMATELY 3' WIDE AND 4' HIGH. THE BOULDERS ARE TO BE PLACED NO MORE THAN 3' APART.
3. GATE SHALL BE OF THE AUTOMATIC CLOSING TYPE AND CLOSE FROM DUSK UNTIL DAWN.
4. WHEN GATE IS CLOSED, THERE SHALL BE ACCESSIBILITY FOR EMERGENCY VEHICLES.
5. GATE SHALL ALLOW PERSONS REMAINING INSIDE GATE ONCE IT IS SHUT TO OPEN FOR EXIT.

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NO.	BY	DATE	DESCRIPTION
1	DRK	8/13/2020	REVISED SLOPE PROTECTION NOTE
2	DRK	8/18/2020	REVISED GATE LOCATIONS AND ADDED NOTE

SCALE: AS SHOWN
DESIGNED: DRK
DRAWN: DRK
CHECKED: DRK
APPROVED: DRK
SURVEY DATE:
FIELD BK. NO.
MAP BOOK NO.

THRASHER
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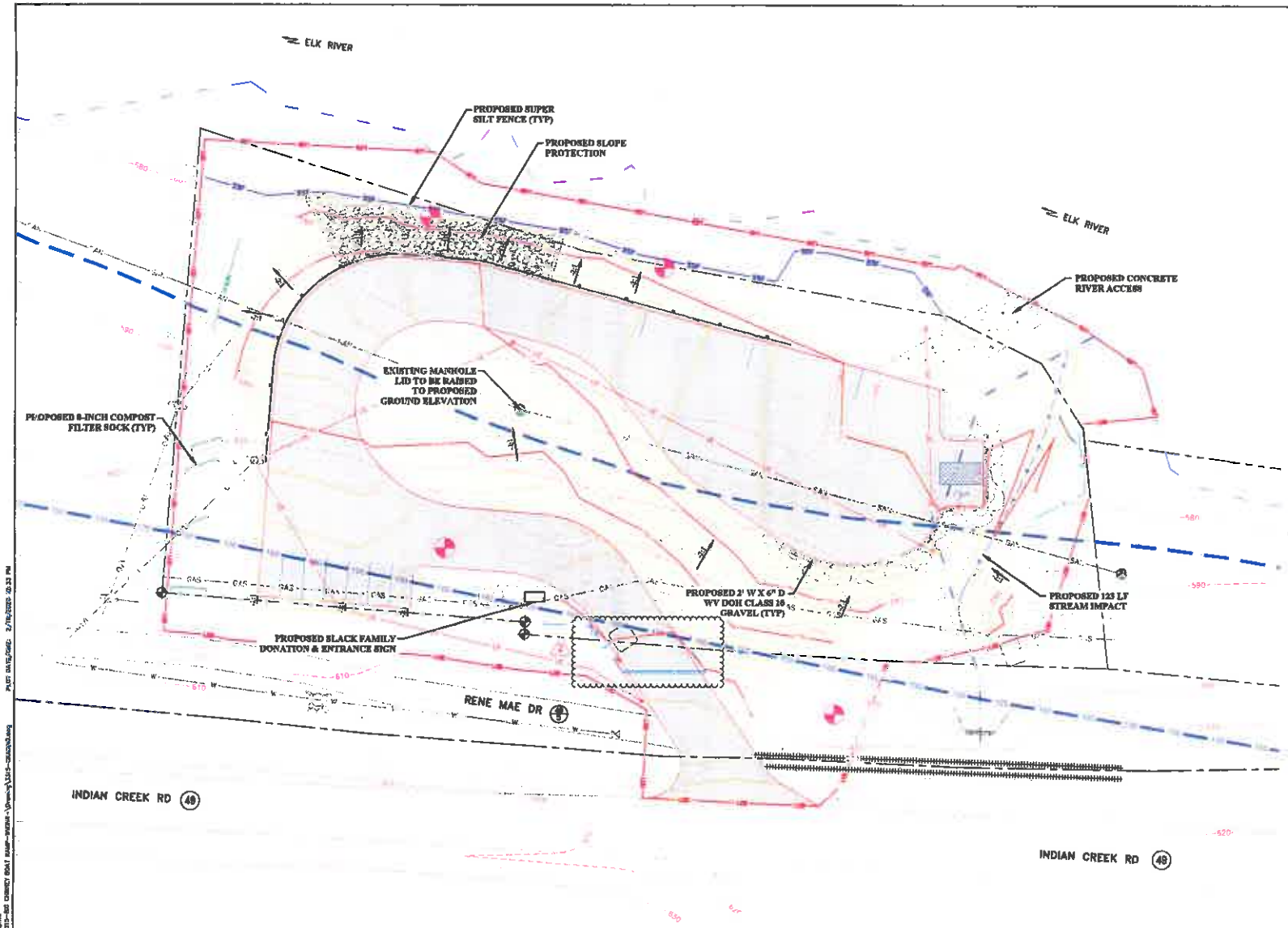
PHASE No.
CONTRACT No.
PROJECT No. 1-01-030-3315

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
BIG CHIMNEY
OVERALL SITE PLAN

SHEET No. 4

LAYOUT: TWG OVERALL SITE
DWG FILE: N:\300-3315-BIG CHIMNEY BOAT RAMP-MODEL\Dwg\3315-ET.dwg
PLOT DATE/TIME: 8/14/2020 12:32 PM



PLAN LEGEND

- EXISTING CONTOURS
- EXISTING PROPERTY LINE
- EXISTING RAILROAD CENTER LINE
- EXISTING PAVEMENT
- EXISTING CONCRETE
- EXISTING GRAVEL
- EXISTING GUARDRAIL
- EXISTING RAILROAD
- EXISTING EDGE OF RIVERBANK / SLOPE
- EXISTING RIVER EDGE
- EXISTING WATER LINE
- EXISTING OVERHEAD UTILITY
- EXISTING UNDERGROUND GAS
- EXISTING SURVEY MARKER
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- PROPOSED CONTOURS
- PROPOSED EDGE OF PAVEMENT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED PAVEMENT MARKING
- PROPOSED FENCE
- PROPOSED GRAVEL
- PROPOSED LIMIT OF DISTURBANCE
- FLOODWAY EXTENTS
- 100 YEAR FLOODPLAIN
- PROPOSED LIGHT POLE
- PROPOSED DITCH
- 8-INCH COMPOST FILTER SOCK
- SUPER SILT FENCE
- EXISTING BORE LOCATION

PLAN NOTES

1. CONTOUR INTERVAL IS 2 FT.
2. PROPOSED LIMIT OF DISTURBANCE = 1.49 AC.
3. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE ON SITE.
4. SITE IS GRADED TO FINISHED GRADE.
5. CONTRACTOR SHALL CLEAN OUT SEDIMENT BEHIND COMPOST FILTER SOCK ONCE IT IS 1/3 THE HEIGHT TO THE SOCK.
6. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR AT A MINIMUM EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES PER 24 HOUR PERIOD. ANY REQUIRED REPAIRS OR MAINTENANCE SHOULD BE MADE IMMEDIATELY.

EARTHWORK SUMMARY

TOTAL CUT	1,651 CY
TOTAL FILL	7,159 CY
TOTAL TOPSOIL	1,366 CY
ASSUMED TOPSOIL THICKNESS	6 IN
PAVEMENT SECTION	1,041 CY
NET	5,815 CY (FILL REQUIRED)

N

20 0 20 40

SCALE (FEET)

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NO.	BY	DATE	DESCRIPTION
3		3/18/2020	REVISED DATE LOCATIONS

SCALE: AS SHOWN
DRAWN: DATE
CHECKED: DATE
APPROVED: DATE
SURVEY DATE:
SURVEY BY:
FIELD BOOK NO.:

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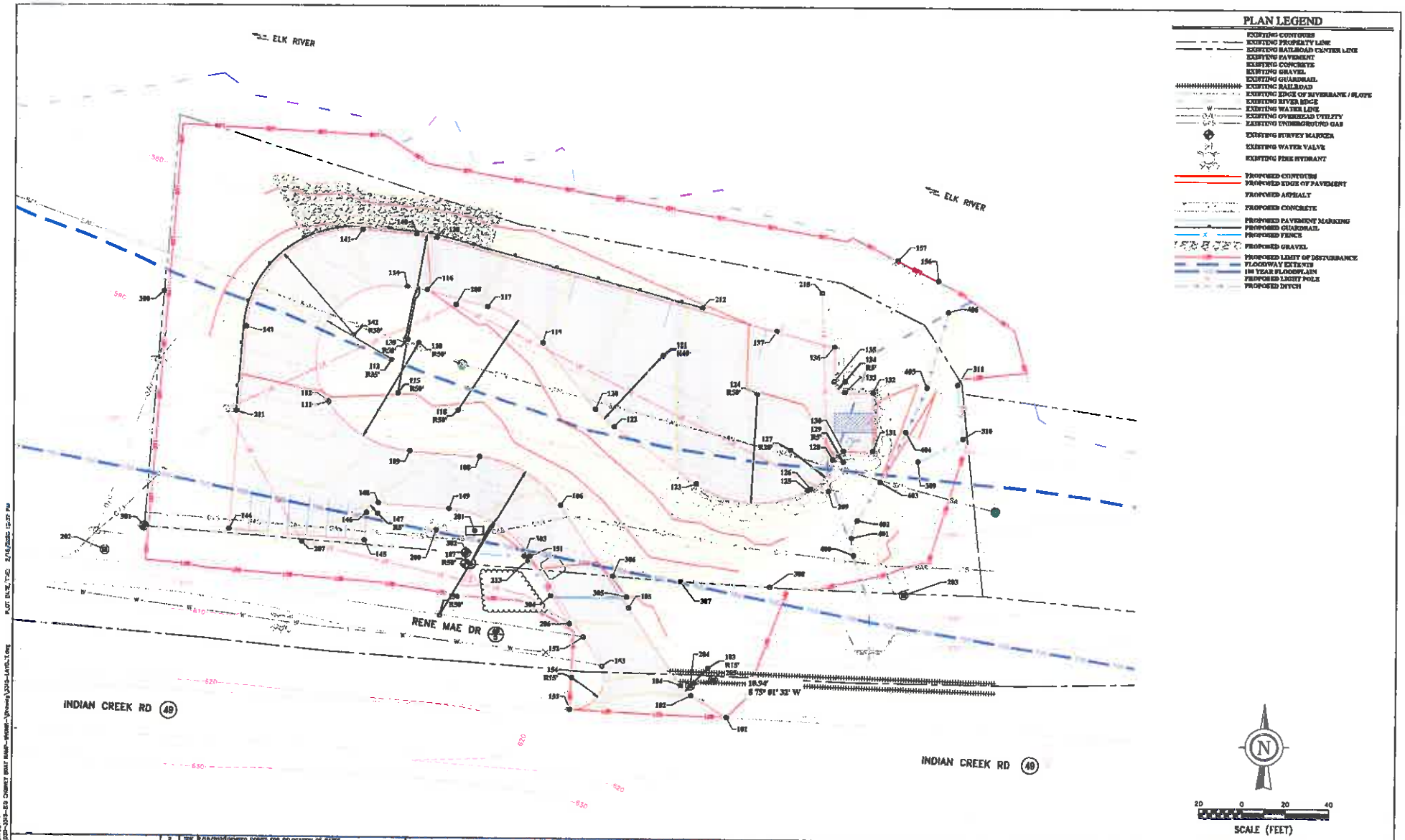
PHASE No.
CONTRACT No.
PROJECT No. 1-01-030-3316

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
BIG CHIMNEY
GRADING PLAN

SHEET No. 5

LAYOUT TAB: 5A-GRADING
CAD FILE: R:\2017-315-BIG CHIMNEY BOAT RAMP-NEW\-1\Drawing\1315-GRADING.dwg
PLOT DATE/TIME: 3/18/2020 10:33 PM

7



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NO.	BY	DATE	DESCRIPTION
2	SBK	2/16/2022	REVISED POINTS FOR RELOCATION OF GATES

SCALE: AS SHOWN
DRAWN: DATE:
CHECKED: DATE:
APPROVED: DATE:
SURVEY DATE:
SURVEY BY:
FIELD BOOK No.:

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PHASE No.
CONTRACT No.
PROJECT No. 1-01-030-3315

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
BIG CHIMNEY
LAYOUT PLAN

SHEET No. 5B

LAYOUT TAB: LAYOUT-1
CAD FILE: R:\003-3315-03 CHIMNEY BOAT RAMP-BIGMAN-\Drawing\3315-LAYO-1.dwg
PLOT DATE/TIME: 2/16/2022 12:27 PM

Point Table				
Point #	Northing	Easting	Elevation	Raw Description
101	511356.0450	1815384.5950	617.669	TIE TO EXISTING PAVEMENT
102	511366.0870	1815368.8813	615.802	EDGE OF PAVEMENT
103	511378.9134	1815378.8107	608.769	RSS'
104	511370.9914	1815363.3349	614.720	EDGE OF PAVEMENT
105	511407.0459	1815339.8219	611.194	EDGE OF PAVEMENT
106	511454.9674	1815307.1339	608.465	EDGE OF PAVEMENT
107	511487.1375	1815285.5136	609.702	RSS'
108	511474.9697	1815349.3037	607.848	EDGE OF PAVEMENT
109	511479.5493	1815337.1384	608.424	EDGE OF PAVEMENT
110	511529.3914	1815341.8885	595.284	RSS'
111	511561.9835	1815199.3705	608.418	EDGE OF PAVEMENT
112	511563.3719	1815199.8007	608.577	EDGE OF PAVEMENT
113	511521.4633	1815328.3653	594.733	RSS'
114	511506.0021	1815258.4715	590.574	EDGE OF PAVEMENT
115	511506.5680	1815251.0013	599.092	RSS'
116	511554.3647	1815244.7796	590.148	EDGE OF PAVEMENT
117	511546.6366	1815272.8159	587.772	EDGE OF PAVEMENT
118	511496.4339	1815259.2078	600.945	RSS'
119	511594.7689	1815430.5663	585.865	EDGE OF PAVEMENT
120	511479.0917	1815123.1570	595.830	EDGE OF PAVEMENT
121	511504.1125	1815354.9227	593.370	RSS'
122	511491.8246	1815231.5474	593.654	EDGE OF PAVEMENT
123	511465.1539	1815309.9275	591.677	EDGE OF PAVEMENT
124	511594.9197	1815398.8216	590.846	RSS'
125	511463.3779	1815421.3809	590.491	EDGE OF PAVEMENT
126	511463.1202	1815432.9679	589.494	EDGE OF PAVEMENT
127	511499.7960	1815433.5243	589.436	RSS'
128	511476.5929	1815433.5463	589.834	EDGE OF PAVEMENT
129	511475.4329	1815437.5463	581.845	RSS'
130	511488.4329	1815437.5463	580.948	EDGE OF PAVEMENT
131	511490.4330	1815451.5343	579.975	EDGE OF PAVEMENT
132	511507.4330	1815451.5343	579.663	EDGE OF PAVEMENT
133	511507.4330	1815438.5343	579.597	EDGE OF PAVEMENT
134	511512.4330	1815438.5343	579.531	RSS'
135	511512.4330	1815433.5343	579.598	EDGE OF PAVEMENT
136	511528.3463	1815433.5343	577.997	EDGE OF PAVEMENT/CONCRETE
137	511528.6703	1815406.7975	578.411	EDGE OF PAVEMENT/CONCRETE
138	511579.0973	1815349.1308	589.760	EDGE OF PAVEMENT
139	511530.8510	1815235.8534	594.864	RSS'
140	511600.7347	1815319.8125	590.114	EDGE OF PAVEMENT
141	511592.1324	1815314.7288	591.402	EDGE OF PAVEMENT
142	511632.9914	1815320.7525	595.727	RSS'
143	511634.0435	1815149.9164	597.776	EDGE OF PAVEMENT
144	511643.8778	1815119.4463	605.744	EDGE OF PAVEMENT
145	511476.6755	1815134.2475	606.374	EDGE OF PAVEMENT

Point Table				
Point #	Northing	Easting	Elevation	Raw Description
146	511451.8345	1815217.3796	606.344	EDGE OF PAVEMENT
147	511458.6375	1815212.2437	606.248	RS'
148	511455.6237	1815223.6607	606.168	EDGE OF PAVEMENT
149	511453.0114	1815235.4313	607.151	EDGE OF PAVEMENT
150	511403.1693	1815251.4612	612.120	RSS'
151	511430.9991	1815293.8688	609.609	EDGE OF PAVEMENT
152	511393.2126	1815319.0998	612.434	TIE TO EXISTING PAVEMENT
153	511379.4000	1815324.8435	611.961	TIE TO EXISTING PAVEMENT
154	511374.1986	1815313.8535	613.573	RSS'
155	511359.2154	1815311.9899	615.648	TIE TO EXISTING PAVEMENT
156	511359.6064	1815481.4960	576.000	EDGE OF CONCRETE
157	511360.3640	1815461.6819	576.000	EDGE OF CONCRETE
200	511442.9757	1815349.5772	600.501	INFORMATION BOOK
201	511442.0667	1815267.4206	600.504	PROPOSED SIGN
202	511433.9129	1815095.9109	609.333	5/8" REBAR/CAP CONTROL POINT
203	511437.7530	1815466.2950	595.040	P.K. NAIL SET CONTROL POINT
204	511376.7326	1815367.8178	614.743	5/8" REBAR/CAP CONTROL POINT
205	511373.0000	1815378.3000	615.000	5/8" REBAR/CAP CONTROL POINT
206	511399.0453	1815311.6645	613.000	LIGHT POLE
207	511437.9757	1815197.1706	606.557	LIGHT POLE
208	511547.5662	1815198.1695	603.524	LIGHT POLE
209	511463.1160	1815431.1448	591.575	LIGHT POLE
210	511373.6445	1815427.7000	574.499	LIGHT POLE
211	511477.7253	1815176.5451	606.444	BEGIN GUARDRAIL
212	511546.4371	1815372.3545	590.513	END GUARDRAIL
213	511453.9192	1815281.1784	611.518	PEDESTRIAN GATE
300	511463.1743	1815411.8811	592.854	GATE / FENCE CORNER
301	511444.2035	1815314.1198	607.953	GATE / FENCE CORNER
302	511433.2753	1815263.6670	610.727	FENCE CORNER
303	511431.4579	1815278.7721	610.597	FENCE CORNER
304	511422.6000	1815348.8116	612.290	FENCE CORNER
305	511423.1000	1815377.7771	610.332	FENCE CORNER
306	511431.9699	1815391.8406	609.408	FENCE CORNER
307	511419.3678	1815342.9523	604.896	FENCE CORNER
308	511417.1343	1815406.3409	596.305	FENCE CORNER
309	511478.7331	1815472.4376	581.670	FENCE CORNER
310	511486.3618	1815493.3905	578.878	FENCE CORNER
311	511511.1211	1815496.9677	574.000	FENCE CORNER
400	511421.8689	1815442.8703	581.978	PROPOSED DITCH
401	511440.8658	1815441.9334	582.038	PROPOSED DITCH
402	511440.4159	1815444.5802	581.131	PROPOSED DITCH
403	511466.3953	1815453.0857	580.096	PROPOSED DITCH
404	511489.1794	1815466.6987	579.181	PROPOSED DITCH
405	511509.7889	1815476.4874	578.013	PROPOSED DITCH
406	511564.9161	1815486.1571	576.000	END STREAM REROUTE

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NO.	BY	DATE	DESCRIPTION
2		9/15/2010	REVISED POINTS FOR RELOCATION OF DATES

SCALE: AS SHOWN
DRAWN: DATE:
CHECKED: DATE:
APPROVED: DATE:
SURVEY BOOK:
SURVEY BY:
FIELD BOOK No:

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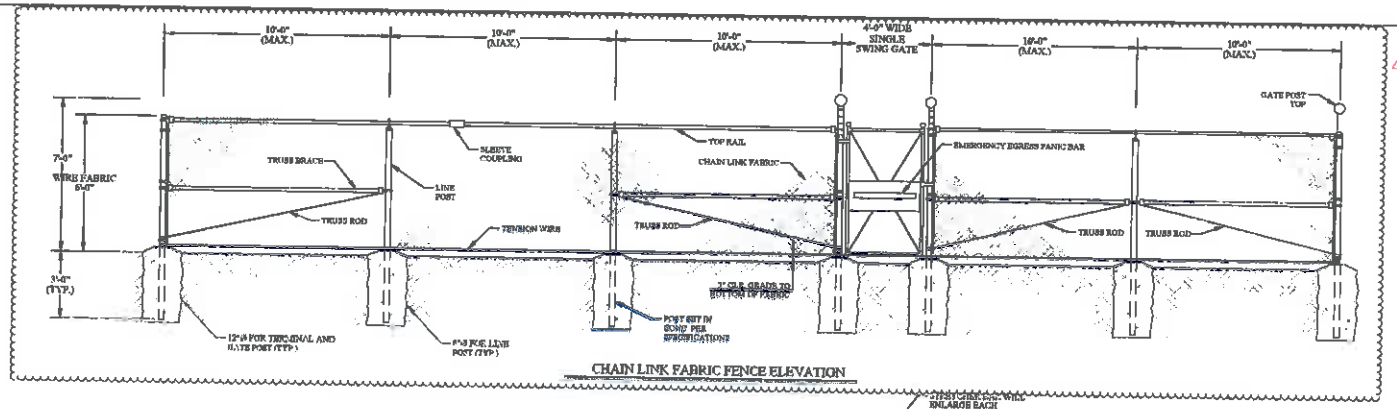
PHASE No.
CONTRACT No.
PROJECT No. 1-01-030-3318

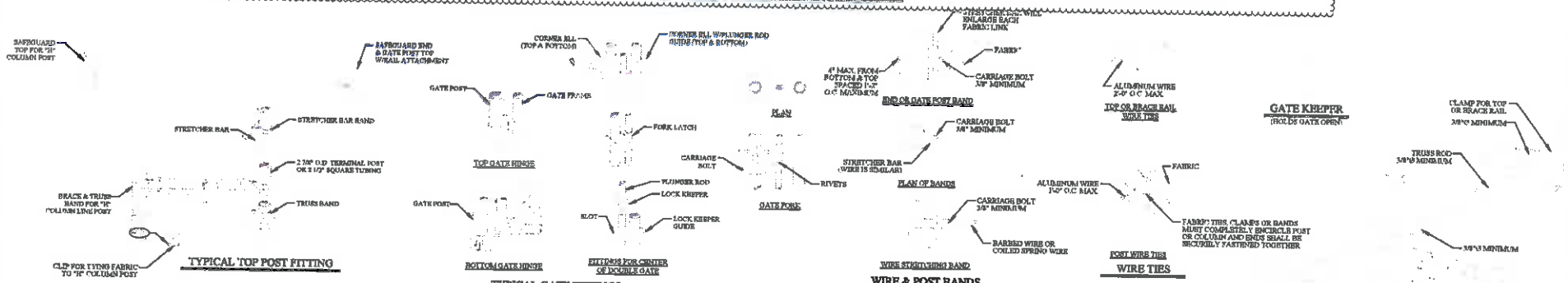
WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
BIG CHIMNEY
LAYOUT POINTS

SHEET No. 5C

LAYOUT TAB: LAYOUT-2
CAD FILE: R:\030-3318-BIG CHIMNEY BOAT RAMP-ACCESS\Plans\3318-LAYOUT.DWG PLOT DATE/TIME: 2/18/2020 12:37 PM



CHAIN LINK FABRIC FENCE ELEVATION



CHAIN LINK FENCE SPECIFICATIONS

1. INSTALLATION. FENCE ADDITION SHALL BE PLUMB AND TRUE TO LINE, CHAIN LINK FABRIC SHALL BE TAUT AND PROPERLY SECURED. CORNER BRACES AND DIAGONAL BRACES SHALL BE PROPERLY PLACED TO PREVENT SAGGING. THE COMPLETE INSTALLATION SHALL BE INSTALLED BY SKILLED AND EXPERIENCED FENCE ERECTORS, IN A WORKMANLIKE MANNER, IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND IN ACCORDANCE WITH ALL LOCAL APPLICABLE CODES.

2. MATERIAL. SPECIFICATIONS FOR HOT-DIP GALVANIZED FENCE CHAIN LINK FABRIC - THE CHAIN LINK FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-392 SPECIFICATIONS AND SHALL BE HOT DIPPED GALVANIZED AFTER WEAVING, HAVING A COATING WEIGHT OF 2 OUNCES OF ZINC PER SQUARE FOOT, MINIMUM, OF UNCOATED WIRE SURFACE (CLASS II). FABRIC SHALL BE NO. 9 GAUGE WIRE WOVEN IN A 2-INCH CHAIN LINK DIAMOND MESH. THE FABRIC SHALL BE FASTENED TO THE LINE POST BY MEANS OF NO. 6 GAUGE ALUMINUM WIRE CLIPS SPACED 12 INCHES ON CENTER. IT SHALL BE ATTACHED TO TOP RAIL WITH NO. 9 GAUGE ALUMINUM TIE WIRES SPACED 24 INCHES ON CENTER. FABRIC SHALL BE ATTACHED TO TERMINAL POST

BY MEANS OF A 1/4" X 3/4" TENSION BAR WITH HEAVY GAUGE PRESSED STEEL BAND OR CLIPS SPACED APPROXIMATELY 14 INCHES ON CENTER.
BARBED WIRE - BARBED WIRE TO BE OF 4 POINT BARTHEW, COMPOSED OF THREE STRANDS OF NO. 15-1/2 GAUGE GALVANIZED WIRE WITH LARGE ALUMINUM BARBS SPACED APPROXIMATELY 4" TO 5" INCHES ON CENTER.

BOTTOM TENSION WIRE - NO. 7 GAUGE GALVANIZED COIL SPRING TENSION WIRE WITH CLASS 1 COATING. WIRE TO BE FASTENED TO CHAIN LINK FABRIC WITH 240. 11 GAUGE HOG RINGS ON 18 INCH CENTERS.

POST AND OTHER APPURTENANCES - ALL POST AND OTHER APPURTENANCES SHALL BE HOT-DIP GALVANIZED WITH A MINIMUM ZINC COATING OF 2.0 OUNCES PER SQUARE FOOT OF SURFACE (CLASS II COATING ASTM A-392).

LINE POST - LINE POST SHALL BE 2 1/4" "H" COLUMN WEIGHING 4.1 LBS. PER FOOT, MINIMUM CARBON CONTENT .35%, MINIMUM TENSILE STRENGTH 75,000 PSI OR 2 3/8" O.D. SCHEDULE 40 PIPE, OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF 3'-0" BELOW GROUND LEVEL. THE POSTS SHALL BE SPACED IN THE LINE OF FENCE. NO FURTHER THAN 10'-0"

TERMINAL POST - ALL END, CORNER AND PULL POSTS SHALL BE 2 7/8" O.D. SCHEDULE 40 PIPE OR 2 1/2" X 2 1/2" X .1875" WALL THICKNESS SQUARE TUBING.

GATE POST - GATE POST SHALL BE OF THE FOLLOWING SIZE FOR SINGLE SWING GATES OR ONE LEAF OF DOUBLE GATE

UP TO 6' WIDE			
OVER 6' TO 18'	2-1/2" SQ. OR 2-7/8" O.D	NOM. WT.	SAME AS TERMINAL POST
OVER 18' TO 18'	4" O.D.	NOM. WT.	9.11 LB/FT
OVER 18'	6-5/8" O.D.	NOM. WT.	18.97 LB/FT
	8-5/8" O.D.	NOM. WT.	24.70 LB/FT

EACH POST SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF 3'-0" BELOW GROUND LEVEL.

LINE POST AND TERMINAL POST ANCHORAGE - ALL POST SHALL BE SET IN CYLINDRICAL CONCRETE FOUNDATIONS WITH TOP OF FINISH CONCRETE SURFACE 3 INCHES ABOVE FINISH GRADE. EXCAVATION SHALL BE 3'-0" DEEP AND NOT LESS THAN EIGHT INCHES (8") IN DIAMETER FOR ALL LINE POSTS, AND NOT LESS THAN TWELVE INCHES (12") IN DIAMETER FOR TERMINAL AND GATE POST. CONCRETE SHALL MEET ACI-318 SPECIFICATION FOR 3000 PSI-28 DAY STRENGTH CONCRETE

TOP RAIL - THE FENCE SHALL HAVE A CONTINUOUS TOP RAIL FOR ITS FULL LENGTH OF STANDARD GALVANIZED PIPE, 1-5/8" O.D. THE TOP RAIL SHALL PASS THROUGH OPENINGS PROVIDED FOR THAT PURPOSE IN THE POST TOPS AND EACH LENGTH SHALL BE COUPLED WITH A SLEEVE COUPLING, WITH EXPANSION COUPLING EVERY FIFTH JOINT.

BRACES - TRUSS BRACES OF STANDARD GALVANIZED 1-5/8" O.D. PIPE 2.71 LB/FT., WITH A 3/8" O.D. TRUSS ROD AND TURNBUCKLE ATTACHMENT SHALL BE INSTALLED BETWEEN EACH END OR GATE POST AND THE ADJACENT LINE POST. TWO TRUSS BRACES SHALL BE FURNISHED ON CORNER OR PULL POSTS.

FITTINGS - ALL FITTINGS USED IN THE COMPLETE FENCE ASSEMBLY SHALL BE OF MALLEABLE, CAST IRON OR PRESSED STEEL AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.

EXTENSION ARMS - LINE POST SHALL BE EQUIPPED WITH EXTENSION ARMS TO WITHSTAND A MINIMUM PULL-DOWN WEIGHT OF 450 LBS. FROM END OF ARM. ARMS TO BE DESIGNED TO EXTEND AT A 45 DEGREES ANGLE WITH LOCKING DEVICE TO SECURELY FASTEN THREE STRANDS OF BARBED WIRE EQUALLY SPACED WITH THE TOP STRAND LOCATED 12 INCHES ABOVE FABRIC AND 12 INCHES OUT FROM THE FENCE LINE.

POST TOPS - ALL END, CORNER, PULL AND GATE POST SHALL BE EQUIPPED WITH TOPS. TUBULAR POST TOPS TO BE SO DESIGNED AS TO EXCLUDE MOISTURE FROM THE POST. ALL LINE POST TOPS DESIGNED TO HOLD THE TOP RAIL AND THE EXTENSION ARM FOR THREE STRANDS OF BARBED WIRE.

GATES - GATE FRAMES SHALL BE MADE OF 2" X 2" X .110" W.T. SQUARE STEEL TUBING OR 1 9 INCH O.D. SCHEDULE 40, 2.72 LB./FT. STANDARD WEIGHT PIPE, HOT-DIP GALVANIZED. FRAMES TO BE JOINED AT CORNERS TO FORM A RIGID PANEL AND SHALL BE FILLED WITH CHAIN LINK FABRIC OF SAME GAUGE AS USED ON THE FENCE

FABRIC SHALL BE FASTENED IN THE FRAME ON ALL FOUR SIDES BY MEANS OF TENSION BARS AND CLIPS. THREE STRANDS OF BARBED WIRE SHALL BE FASTENED TO THE EXTENDED FRAMES OF GATE. EACH FRAME TO BE EQUIPPED WITH 3/8" DIAMETER ADJUSTABLE TRUSS ROD, HINGES POSITIVE TYPE LATCHING DEVICE WITH PROVISIONS FOR PADLOCKING.

ALL DRIVE GATES TO BE PROVIDED WITH POSITIVE TYPE LATCHING DEVICE WITH PROVISIONS FOR PADLOCKING, DRIVE GATES SHALL ALSO HAVE CENTER PLUNGER ROD, CATCH AND SEMI-AUTOMATIC OUTER CATCHES TO SECURE GATES IN OPEN POSITION.

ALL MAN EGRESS GATES SHALL BE SECURE FROM OUTSIDE INTRUDERS WITH PANIC BAR WHICH ALLOW FOR FREE EXIT IN AN EMERGENCY.

NOTE:

1. GATE SHALL BE OF THE AUTOMATIC CLOSING TYPE AND CLOSE FROM DUSK UNTIL DAWN.
2. WHEN GATE IS CLOSED, THERE SHALL BE ACCESSIBILITY FOR EMERGENCY VEHICLES.
3. GATE SHALL ALLOW PERSONS REMAINING INSIDE GATE ONCE IT IS SHUT TO OPEN FOR EXIT.

CHAIN LINK FENCE DETAIL

NOT TO SCALE

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NO.	BY	DATE	DESCRIPTION
2		8/18/2020	REVISED GATE DETAIL

SCALE: AS SHOWN
DRAWN: DATE
DESIGNED: DATE
REVIEWED: DATE
PROJECT MGR.: DATE
SURVEY BY:
FIELD BOOK NO.:

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FAX (304) 343-7934

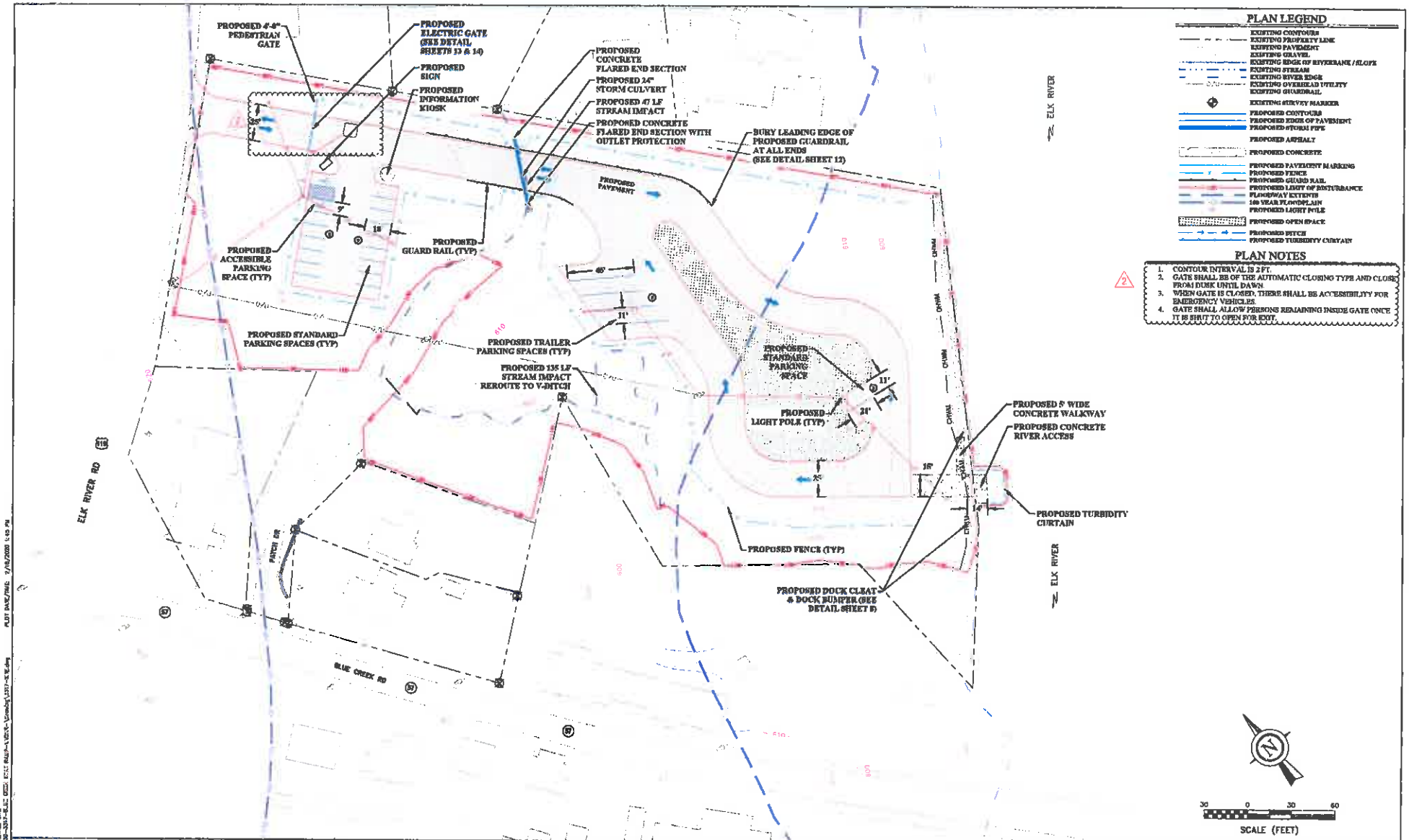
PROJECT No.
CONTRACT No.
PROJECT No. 1-01-030-3315

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
BIG CHIMNEY
DETAILS

SHEET No. 10

LAYOUT FILE: DETAILS-5
CAD FILE: R:\1301-3315-R2 CHIMNEY BOAT RAMP--WORK--\drawing\3315-DETAILS.dwg
PLOT DATE/TIME: 2/18/2020 2:50 PM

10



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NO.	BY	DATE	DESCRIPTION
2	DRK	8/18/2020	REVISED GATE LOCATIONS AND ADDED NOTES

SCALE: AS SHOWN
DRAWN: DATE:
CHECKED: DATE:
APPROVED: DATE:
SURVEY DATE:
SURVEY BY:
FIELD BOOK No.:

THRASHER
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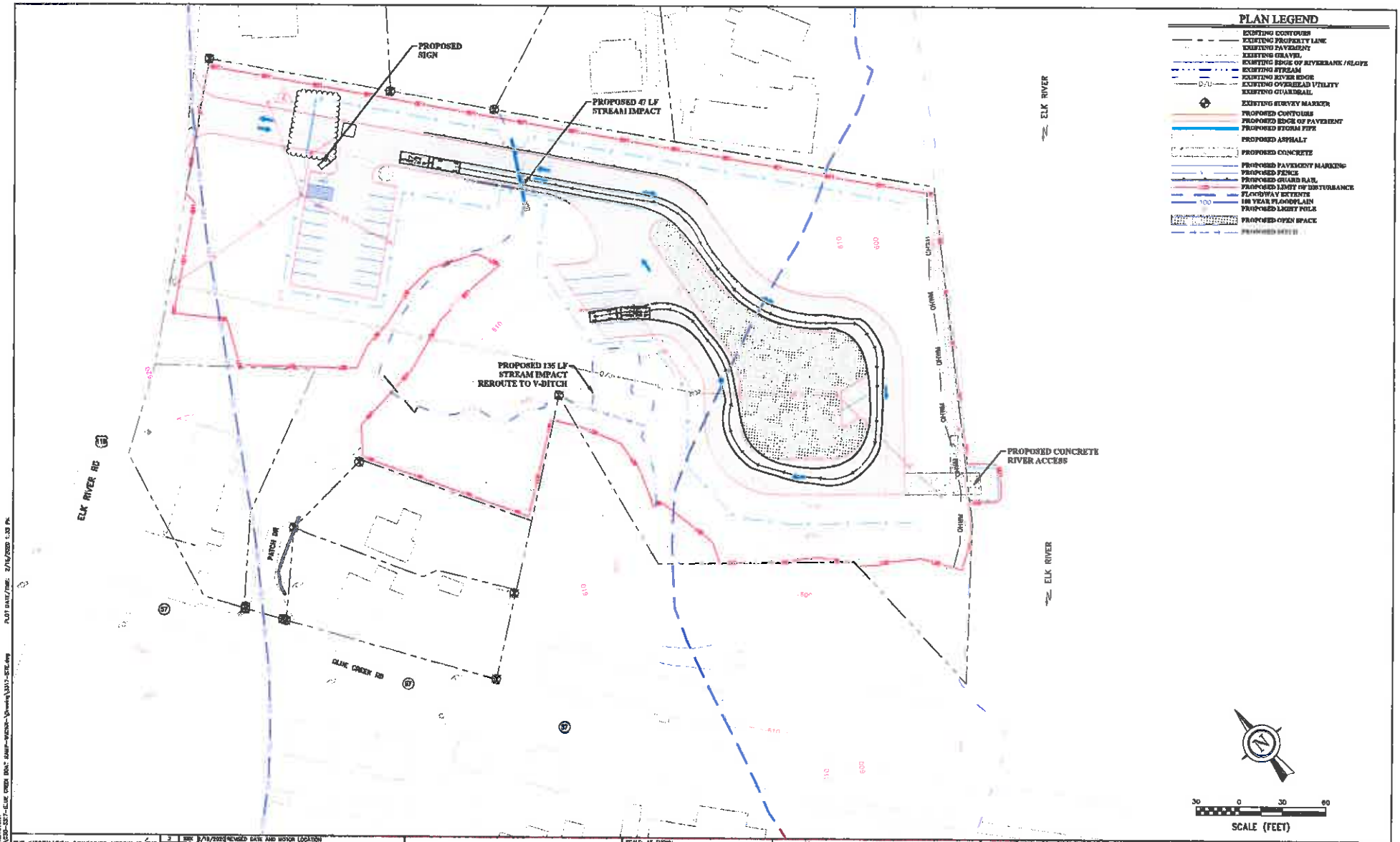
PHASE No.
CONTRACT No.
PROJECT No. 1-01-030-3317

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
BLUE CREEK
OVERALL SITE PLAN

SHEET No. 4

LAYOUT TAB: OVERALL SITE
CAD FILE: R:\030-3317-BLUE CREEK\ ELK RIVER-WEST VIRGINIA-Drawings\3317-ELK.dwg
PLOT DATE/TIME: 9/16/2020 1:45 PM



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NO.	BY	DATE	DESCRIPTION
2	BRK	8/19/2020	REVISED GATE AND MOTOR LOCATION

SCALE: AS SHOWN
DRAWN: DATE:
CHECKED: DATE:
APPROVED: DATE:
SURVEY DATE:
SURVEY BY:
FIELD BOOK No.:

THRASHER
THE THRASHER GROUP, INC.
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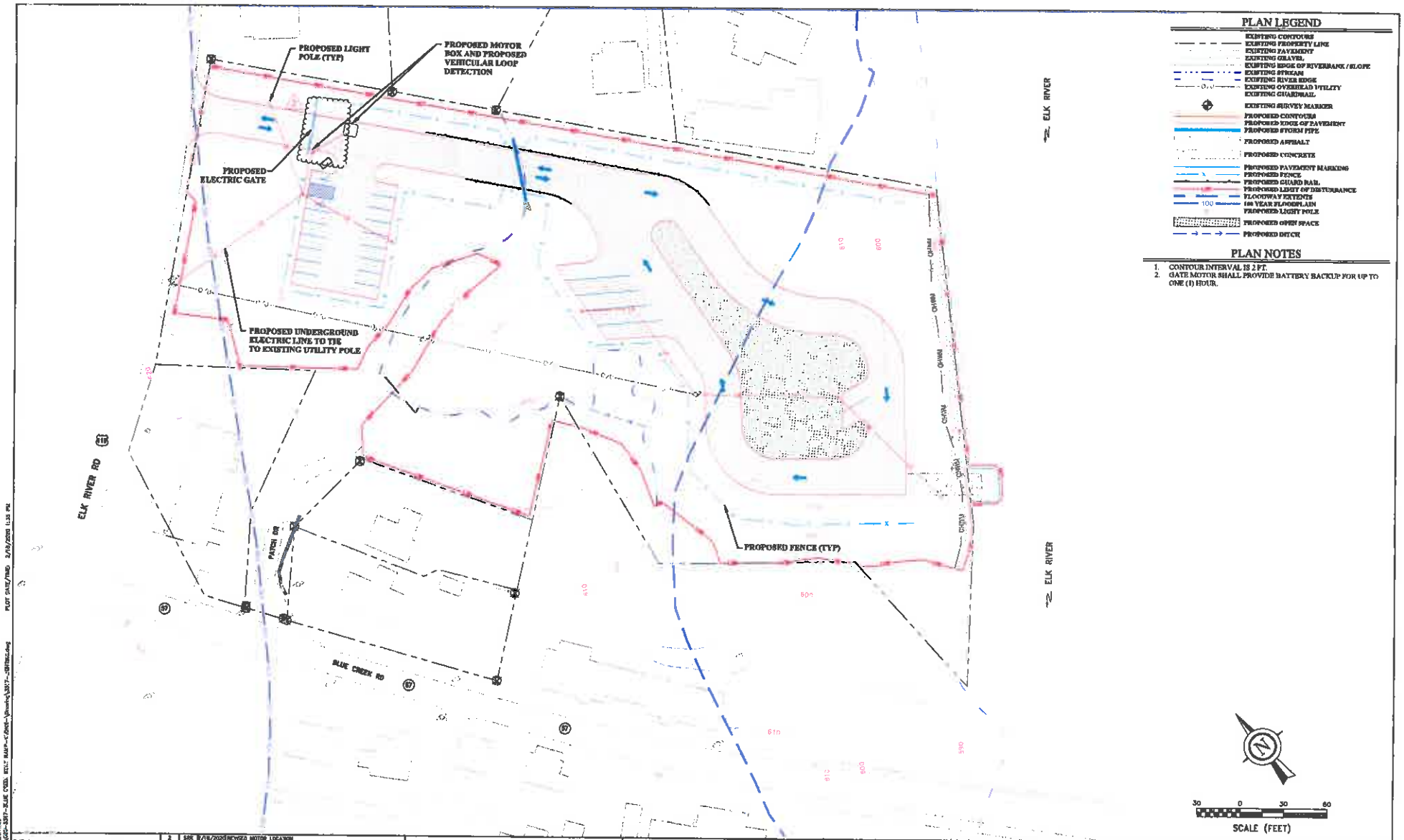
PHASE No.
CONTRACT No.
PROJECT No. 1-01-030-3317

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
BLUE CREEK
AUTOTURN MOVEMENTS

SHEET No. 4A

LAYOUT FILE: LAYOUT(4A)
XREF(S): 3317-SITE.dwg
PLOT DATE/TIME: 2/14/2020 1:33 PM


PROPOSED LIGHT POLE (TYP)
PROPOSED MOTOR BOX AND PROPOSED VEHICULAR LOOP DETECTION
PROPOSED ELECTRIC GATE
PROPOSED UNDERGROUND ELECTRIC LINE TO TIE TO EXISTING UTILITY POLE
PROPOSED FENCE (TYP)
ELK RIVER RD
ELK RIVER
ELK RIVER
PATCH DR
BLUE CREEK RD
PLAN LEGEND
EXISTING CONTOURS
EXISTING PROPERTY LINE
EXISTING PAVEMENT
EXISTING GRAVEL
EXISTING EDGE OF RIVERBANK / SLOPE
EXISTING STREAM
EXISTING RIVER EDGE
EXISTING OVERHEAD UTILITY
EXISTING GUARDRAIL
EXISTING SURVEY MARKER
PROPOSED CONTOURS
PROPOSED EDGE OF PAVEMENT
PROPOSED STORM PIPE
PROPOSED ASPHALT
PROPOSED CONCRETE
PROPOSED PAVEMENT MARKING
PROPOSED FENCE
PROPOSED GUARD RAIL
PROPOSED LIMIT OF DISTURBANCE
FLOODWAY EXTENTS
100 YEAR FLOODPLAIN
PROPOSED LIGHT POLE
PROPOSED OPEN SPACE
PROPOSED DITCH
PLAN NOTES
1. CONTOUR INTERVAL IS 2 FT.
2. GATE MOTOR SHALL PROVIDE BATTERY BACKUP FOR UP TO ONE (1) HOUR.
30 0 30 60
SCALE (FEET)
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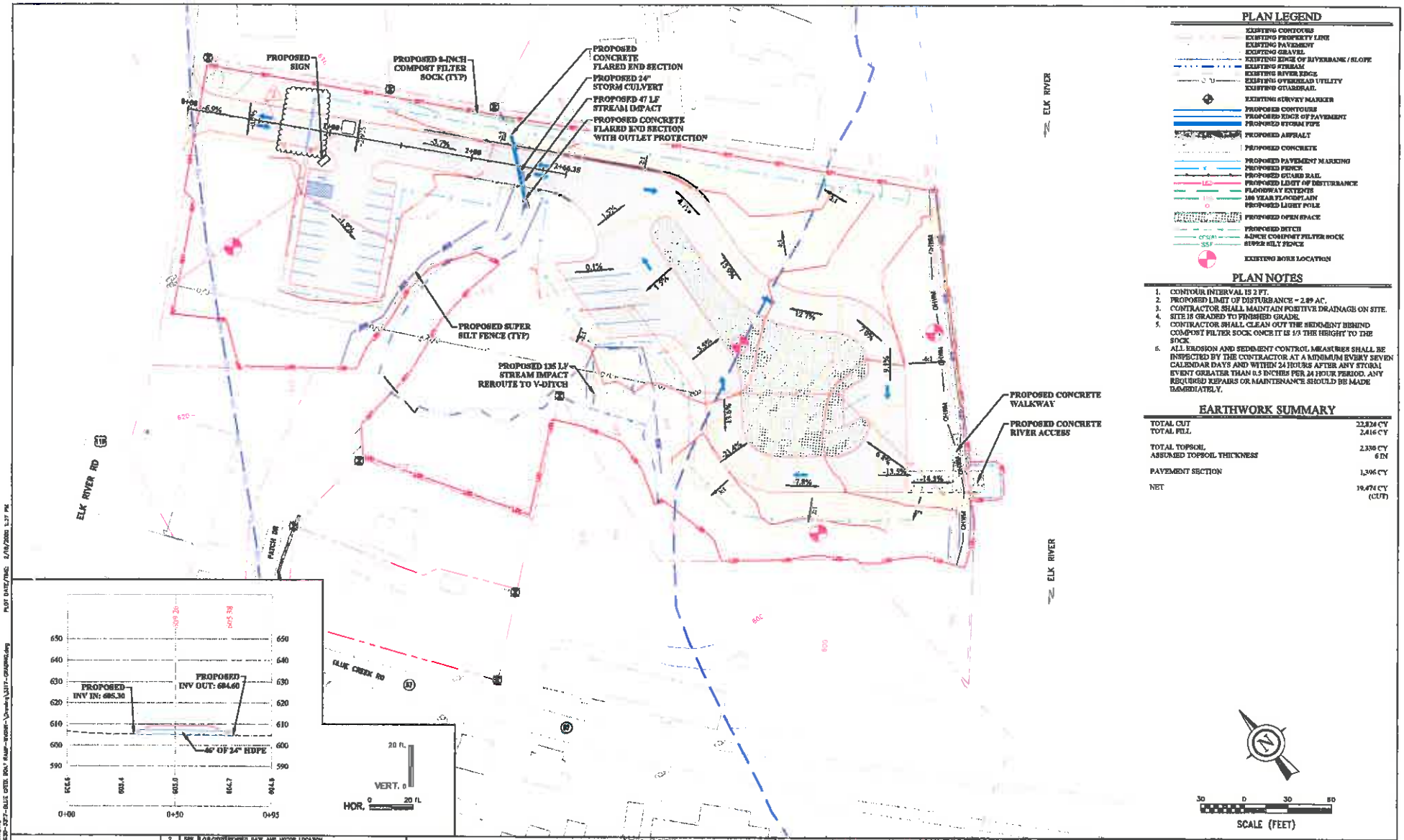
NO. BY DATE DESCRIPTION
2 SAK 3/18/2020 REVISED MOTOR LOCATION
SCALE: AS SHOWN
DRAWN: DATE:
CHECKED: DATE:
APPROVED: DATE:
SURVEY DATE:
SURVEY BY:
FIELD BOOK No.:
THRASHER
THE THRASHER GROUP, INC.
300 ASSOCIATION DR. CHARLESTON, WV 25311
PHONE: (304) 343-7931
FAX: (304) 343-7934
PHASE No.
CONTRACT No.
PROJECT No.
1-01-030-3317
WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
BLUE CREEK
LIGHTING PLAN
SHEET No.
4B



PLAN LEGEND

- EXISTING CONTOURS
- EXISTING PROPERTY LINE
- EXISTING PAVEMENT
- EXISTING GRAVEL
- EXISTING EDGE OF RIVERBANK / SLOPE
- EXISTING STREAM
- EXISTING RIVER EDGE
- EXISTING OVERHEAD UTILITY
- EXISTING GUARDRAIL
- EXISTING SURVEY MARKER
- PROPOSED CONTOURS
- PROPOSED EDGE OF PAVEMENT
- PROPOSED STORM PIPE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED PAVEMENT MARKING
- PROPOSED FENCE
- PROPOSED GUARD RAIL
- PROPOSED LIMIT OF DISTURBANCE
- FLOODWAY EXTENTS
- 100 YEAR FLOODPLAIN
- PROPOSED LIGHT POLE
- PROPOSED OPEN SPACE
- PROPOSED DITCH
- 8-INCH COMPOST FILTER SOCK
- SUPER SILT FENCE
- EXISTING BORE LOCATION

PLAN NOTES

1. CONTOUR INTERVAL IS 2 FT.
2. PROPOSED LIMIT OF DISTURBANCE = 2.89 AC.
3. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE ON SITE.
4. SITE IS GRADED TO FINISHED GRADE.
5. CONTRACTOR SHALL CLEAN OUT THE SEDIMENT BEHIND COMPOST FILTER SOCK ONCE IT IS 1/3 THE HEIGHT TO THE SOCK.
6. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR AT A MINIMUM EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES PER 24 HOUR PERIOD. ANY REQUIRED REPAIRS OR MAINTENANCE SHOULD BE MADE IMMEDIATELY.

EARTHWORK SUMMARY

TOTAL CUT	22,824 CY
TOTAL FILL	2,416 CY
TOTAL TOPSOIL ASSUMED TOPSOIL THICKNESS	2,336 CY 6 IN
PAVEMENT SECTION	1,396 CY
NET	19,476 CY (CUT)

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NO.	BY	DATE	DESCRIPTION
2	SAW	8/18/2020	REVISED DATE AND MOTOR LOCATION

SCALE: AS SHOWN
DRAWN: DATE:
CHECKED: DATE:
APPROVED: DATE:
SURVEY DATE:
SURVEY BY:
FIELD BOOK No.:

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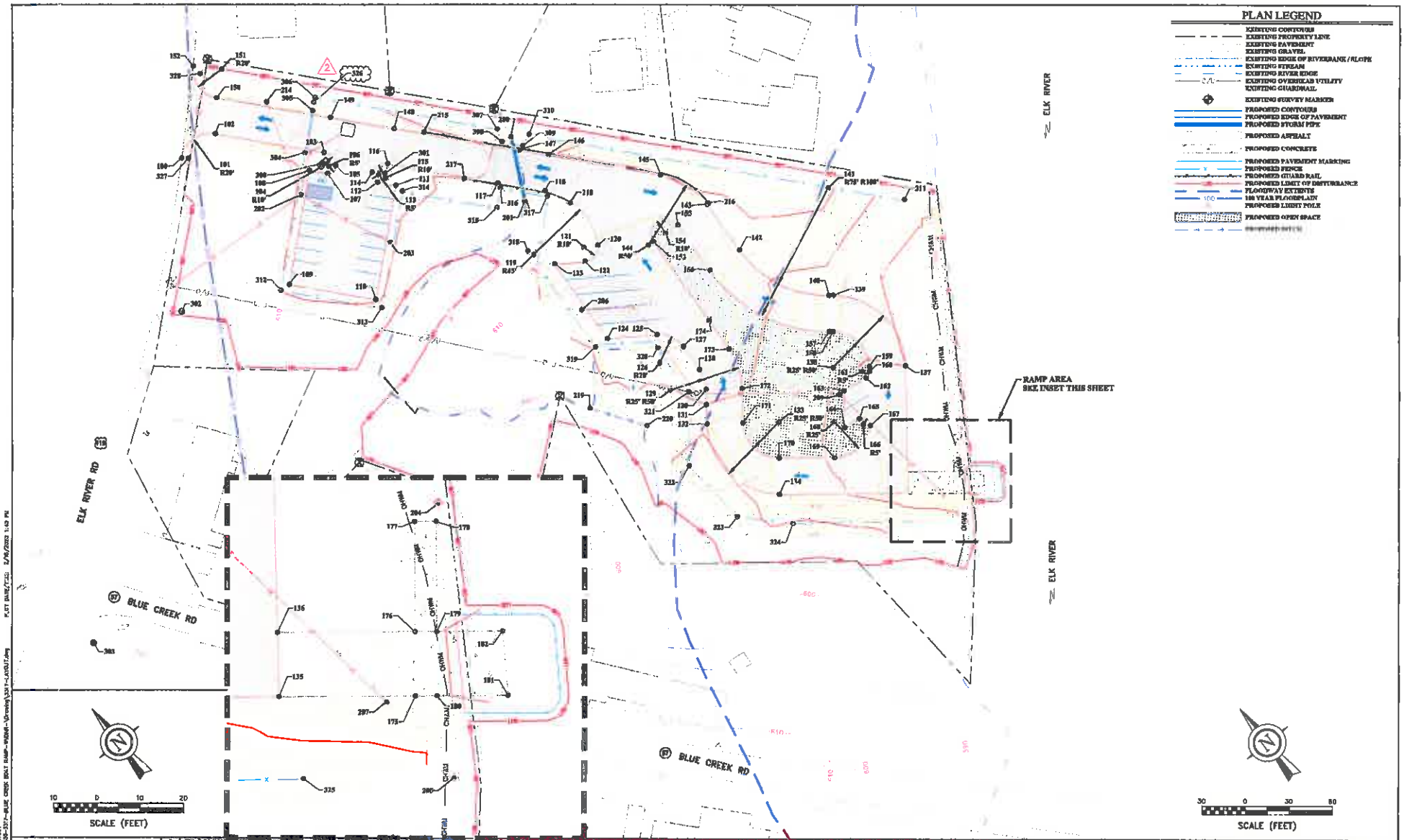
PHASE No.
CONTRACT No.
PROJECT No. 1-01-030-3317

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
BLUE CREEK
GRADING PLAN

SHEET No. 5



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NO.	BY	DATE	DESCRIPTION
2	GRK	9/16/2020	REVISED BASE LOCATION

SCALE: AS SHOWN
DRAWN: DATE:
CHECKED: DATE:
APPROVED: DATE:
SURVEY DATE:
SURVEY BY:
FIELD BOOK No.:

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PROJECT No.
CONTRACT No.
PROJECT No. 1-01-030-3517

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
BLUE CREEK
LAYOUT PLAN

SHEET No. 5A

Point Table

Point #	Northing	Easting	Elevation	Raw Description
100	528777.7604	1837748.8961	618.386	TIE TO EXISTING PAVEMENT
101	528763.8368	1837764.5985	616.788	R20'
102	528776.8971	1837776.7344	616.815	EDGE OF PAVEMENT
103	528718.0152	1837824.8253	613.676	EDGE OF PAVEMENT
104	528711.4845	1837839.2324	612.673	R10'
105	528708.6846	1837837.4800	612.811	EDGE OF PAVEMENT
106	528700.9895	1837825.3363	612.723	R5'
107	528688.3981	1837819.8397	612.729	EDGE OF PAVEMENT
108	528715.8939	1837811.1438	612.592	EDGE OF PAVEMENT
109	528662.1546	1837749.8852	612.538	EDGE OF PAVEMENT
110	528615.9618	1837709.6460	611.908	EDGE OF PAVEMENT
111	528668.8830	1837698.9015	611.918	EDGE OF PAVEMENT
112	528679.7807	1837642.4915	612.848	EDGE OF PAVEMENT
113	528681.9711	1837646.2788	612.860	R5'
114	528686.4368	1837644.8893	612.136	EDGE OF PAVEMENT
115	528677.5395	1837648.5467	612.891	R10'
116	528684.8462	1837656.1196	612.885	EDGE OF PAVEMENT
117	528625.4350	1837608.0716	609.528	EDGE OF PAVEMENT
118	528680.3114	1837628.3312	609.800	EDGE OF PAVEMENT
119	528576.9229	1837594.2531	607.142	R45'
120	528547.8846	1837612.8686	607.731	EDGE OF PAVEMENT
121	528582.9428	1837554.2012	607.401	R20'
122	528544.6738	1837618.6566	607.245	EDGE OF PAVEMENT
123	528536.5298	1837641.2337	606.649	EDGE OF PAVEMENT
124	528493.7981	1837596.9536	605.975	EDGE OF PAVEMENT
125	528473.7859	1837625.1967	605.383	EDGE OF PAVEMENT
126	528457.1694	1837613.9465	605.268	R20'
127	528455.6256	1837623.8921	604.235	EDGE OF PAVEMENT
128	528436.1371	1837632.4469	602.666	EDGE OF PAVEMENT
129	528437.9778	1837607.1149	599.769	R25' R30'
130	528422.6488	1837637.3384	601.491	EDGE OF PAVEMENT
131	528414.2883	1837628.7273	600.645	EDGE OF PAVEMENT
132	528403.7398	1837613.8281	599.978	EDGE OF PAVEMENT
133	528373.8875	1837651.9751	596.530	R25' R30'
134	528334.1273	1837628.5974	596.670	EDGE OF PAVEMENT
135	528278.8136	1837589.9267	594.879	EDGE OF PAVEMENT/CONCRETE
136	528289.8436	1837599.1616	594.303	EDGE OF PAVEMENT/CONCRETE
137	528247.9319	1837644.4545	593.186	EDGE OF PAVEMENT
138	528278.6767	1837665.8245	594.297	R25' R30'
139	528417.5985	1837634.4618	594.803	EDGE OF PAVEMENT

Point Table

Point #	Northing	Easting	Elevation	Raw Description
140	528419.3832	1837634.5629	594.831	EDGE OF PAVEMENT
141	528477.9786	1837681.5394	611.791	R25' R30'
142	528402.3669	1837664.7245	605.520	EDGE OF PAVEMENT
143	528321.9373	1837699.2647	594.679	EDGE OF PAVEMENT
144	528325.6238	1837699.7480	594.798	R25'
145	528358.7784	1837697.2846	600.835	EDGE OF PAVEMENT
146	528318.1968	1837695.9774	599.193	EDGE OF PAVEMENT
147	528633.5814	1837913.6590	609.395	EDGE OF PAVEMENT
148	528796.7731	1837975.8619	612.725	EDGE OF PAVEMENT
149	528734.3431	1837965.7376	612.796	EDGE OF PAVEMENT
150	528795.8661	1837794.3911	616.672	EDGE OF PAVEMENT
151	528808.1366	1837798.5347	613.809	R20'
152	528622.4976	1837794.8374	612.368	TIE TO EXISTING PAVEMENT
153	528625.2986	1837864.5824	606.942	EDGE OF PAVEMENT
154	528634.5396	1837874.3827	607.422	R10'
155	528633.7795	1837884.6539	607.932	EDGE OF PAVEMENT
156	528604.9428	1837903.7923	605.196	EDGE OF PAVEMENT
157	528399.8131	1838018.6451	596.549	EDGE OF PAVEMENT
158	528398.1468	1838020.7430	596.314	EDGE OF PAVEMENT
159	528343.3641	1838024.7395	593.609	EDGE OF PAVEMENT
160	528360.7849	1838022.7126	593.235	EDGE OF PAVEMENT
161	528363.7784	1838018.7696	593.202	R5'
162	528368.5374	1838018.6765	593.183	EDGE OF PAVEMENT
163	528361.3011	1838000.3524	593.004	EDGE OF PAVEMENT
164	528341.3678	1837984.7539	592.798	EDGE OF PAVEMENT
165	528339.6186	1837996.5498	592.698	EDGE OF PAVEMENT
166	528334.6666	1837998.8887	593.633	R5'
167	528331.1183	1837999.3734	593.879	EDGE OF PAVEMENT
168	528348.8917	1837981.8800	593.230	R25'
169	528339.4516	1837966.8812	593.164	EDGE OF PAVEMENT
170	528353.5875	1837936.3362	595.467	EDGE OF PAVEMENT
171	528308.3693	1837932.3516	590.872	EDGE OF PAVEMENT
172	528407.2863	1837946.9619	600.487	EDGE OF PAVEMENT
173	528434.2853	1837937.3799	601.663	EDGE OF PAVEMENT
174	528458.8978	1837999.1378	603.573	EDGE OF PAVEMENT
175	528258.1681	1838014.4097	585.879	EDGE OF CONCRETE
176	528249.8243	1838033.9784	585.378	EDGE OF CONCRETE
177	528288.8729	1838040.1313	585.588	EDGE OF CONCRETE
178	528286.7292	1838044.8192	585.478	EDGE OF CONCRETE
179	528266.4884	1838037.9884	585.259	EDGE OF CONCRETE
180	528258.6164	1838048.3771	584.879	EDGE OF CONCRETE
181	528244.7942	1838031.1389	578.476	EDGE OF CONCRETE
182	528272.8994	1838039.6577	578.181	EDGE OF CONCRETE
200	528644.3996	1837934.8517	605.304	PROPOSED 24" STORM INV IN
201	528663.3764	1837917.9434	604.668	PROPOSED 24" STORM INV OUT

Point Table

Point #	Northing	Easting	Elevation	Raw Description
202	528705.5977	1837791.3629	611.533	LIGHT POLE
203	528640.6007	1837823.8072	610.828	LIGHT POLE
204	528589.6007	1838046.3997	604.416	DOCK CLEAT & BUMPER
205	528597.6337	1838049.3540	598.858	DOCK CLEAT & BUMPER
206	528510.9583	1837995.5195	600.865	LIGHT POLE
207	528367.1310	1838048.3642	598.235	LIGHT POLE
209	528361.3967	1837896.5448	593.186	LIGHT POLE
214	528778.9861	1837816.3751	613.901	LIGHT POLE
215	528609.3913	1837889.4668	611.476	BEGIN GUARDRAIL
216	528521.8630	1838010.3913	604.999	END GUARDRAIL
217	528642.5047	1837896.6338	609.913	BEGIN GUARDRAIL
218	528712.8547	1837836.6844	608.853	END GUARDRAIL
219	528463.3652	1837884.7636	597.999	BEGIN STREAM REROUTE
220	528439.1882	1837970.7464	596.398	END STREAM REROUTE
300	528712.6339	1837831.5783	612.481	PROPOSED SIGN
301	528680.1955	1837858.3322	612.911	PROPOSED KIOSK
302	528694.6489	1837888.9410	619.830	5/8" REBAR/CAP CONTROL POINT
303	528554.3648	1837486.7879	621.450	5/8" REBAR/CAP CONTROL POINT
304	528726.7273	1837816.4421	613.340	GATE / FENCE CORNER
305	528723.9339	1837839.1601	612.981	GATE / FENCE CORNER
306	528722.8339	1837846.3951	610.868	FENCE CORNER
307	528684.7584	1837938.7353	604.999	FENCE CORNER
308	528645.9317	1837927.1935	600.889	FENCE CORNER
309	528634.4674	1837936.4605	597.257	FENCE CORNER
310	528637.8528	1837944.8167	594.997	FENCE CORNER
311	528438.8003	1838117.3641	595.625	FENCE CORNER
312	528663.6776	1837792.7514	610.202	FENCE CORNER
313	528608.9099	1837789.1198	607.289	FENCE CORNER
314	528663.9798	1837851.8298	611.362	FENCE CORNER
315	528612.8311	1837895.3447	605.727	FENCE CORNER
316	528631.4741	1837905.9468	600.368	FENCE CORNER
317	528396.6481	1837937.8315	605.487	FENCE CORNER
318	528675.8358	1837892.6162	605.360	FENCE CORNER
319	528493.9778	1837886.5800	601.289	FENCE CORNER
320	528666.1990	1837919.6273	603.866	FENCE CORNER
321	528628.8396	1837916.8669	600.470	FENCE CORNER
322	528398.8276	1837884.6953	595.731	FENCE CORNER
323	528348.9197	1837888.3653	594.196	FENCE CORNER
324	528313.6668	1837915.8693	596.929	FENCE CORNER
325	528323.4726	1837933.1243	595.239	FENCE CORNER
326	528749.9280	1837843.5488	613.947	PEDESTRIAN GATE
327	528774.6955	1837831.9669	616.799	GUARDRAIL END
328	528815.1986	1837795.1453	617.679	GUARDRAIL END

2

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NO.	BY	DATE	DESCRIPTION
2	BMC	9/18/2013	REVISED PEDESTRIAN FENCE LOCATION

SCALE: AS SHOWN
DRAWN: DATE:
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FIELD BOOK No:

THRASHER
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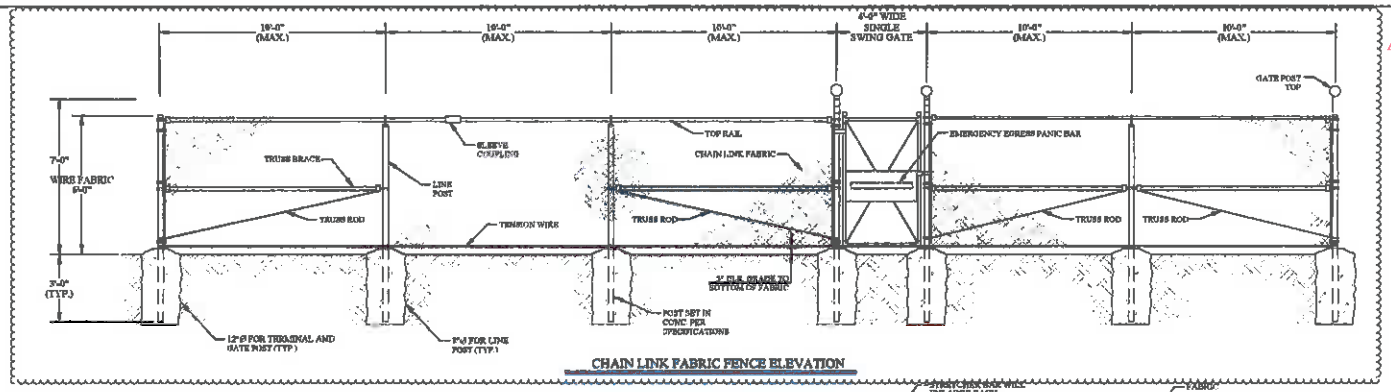
PHASE No.
CONTRACT No.
PROJECT No. 1-01-030-3317

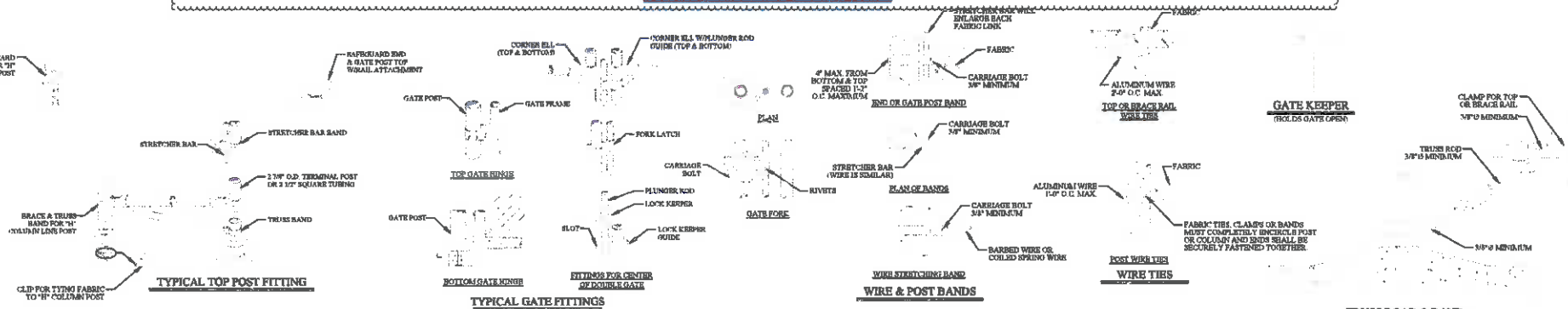
WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
BLUE CREEK
LAYOUT POINTS

SHEET No. 5B

LAYOUT TAB: LAYOUT-5
CAD FILE: W:\030-3317-BLUE CREEK BOAT RAMP-WORK-\Drawing\3317-LAYOUT.dwg PLOT DATE/TIME: 2/16/2023 2:58 PM



CHAIN LINK FABRIC FENCE ELEVATION



CHAIN LINK FENCE SPECIFICATIONS

1. INSTALLATION: FENCE ADDITION SHALL BE PLUMB AND TRUE TO LINE, CHAIN LINK FABRIC SHALL BE TAUT AND PROPERLY SECURED. CORNER BRACES AND DIAGONAL BRACES SHALL BE PROPERLY PLACED TO PREVENT SAGGING. THE COMPLETE INSTALLATION SHALL BE INSTALLED BY SKILLED AND EXPERIENCED FENCE ERECTORS, IN A WORKMANLIKE MANNER, IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND IN ACCORDANCE WITH ALL LOCAL APPLICABLE CODES.

2. MATERIAL: SPECIFICATIONS FOR HOT-DIP GALVANIZED FENCE CHAIN LINK FABRIC - THE CHAIN LINK FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-392 SPECIFICATIONS AND SHALL BE HOT DIPPED GALVANIZED AFTER WEAVING, HAVING A COATING WEIGHT OF 2 OUNCES OF ZINC PER SQUARE FOOT, MINIMUM, OF UNCOATED WIRE SURFACE (CLASS II). FABRIC SHALL BE NO. 9 GAUGE WIRE WOVEN IN A 2-INCH CHAIN LINK DIAMOND MESH. THE FABRIC SHALL BE FASTENED TO THE LINE POST BY MEANS OF NO. 6 GAUGE ALUMINUM WIRE CLIPS SPACED 12 INCHES ON CENTER. IT SHALL BE ATTACHED TO TOP RAIL WITH NO. 9 GAUGE ALUMINUM TIE WIRES SPACED 24 INCHES ON CENTER. FABRIC SHALL BE ATTACHED TO TERMINAL POST

BY MEANS OF A 1/4" X 3/4" TENSION BAR WITH HEAVY GAUGE PRESSED STEEL BAND OR CLIPS SPACED APPROXIMATELY 14 INCHES ON CENTER.
BARBED WIRE - BARBED WIRE TO BE OF 4 POINT PATTERN, COMPOSED OF THREE STRANDS OF NO. 15-1/2 GAUGE GALVANIZED WIRE WITH LARGE ALUMINUM BARBS SPACED APPROXIMATELY 4" TO 5" INCHES ON CENTER.

BOTTOM TENSION WIRE - NO. 7 GAUGE GALVANIZED COIL SPRING TENSION WIRE WITH CLASS I COATING. WIRE TO BE FASTENED TO CHAIN LINK FABRIC WITH NO. 11 GAUGE HOG RINGS ON 18 INCH CENTERS.

POST AND OTHER APPURTENANCES - ALL POST AND OTHER APPURTENANCES SHALL BE HOT-DIP GALVANIZED WITH A MINIMUM ZINC COATING OF 2.0 OUNCES PER SQUARE FOOT OF SURFACE (CLASS II COATING ASTM A-502).

LINE POST - LINE POST SHALL BE 2 1/4" "H" COLUMN WEIGHING 4.1 LBS. PER FOOT, MINIMUM CARBON CONTENT .35%, MINIMUM TENSILE STRENGTH 75,000 PSI OR 2 3/8" O.D. SCHEDULE 40 PIPE, OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF 3'-0" BELOW GROUND LEVEL. THE POSTS SHALL BE SPACED IN THE LINE OF FENCE, NO FURTHER THAN 10'-0"

TERMINAL POST - ALL END, CORNER AND PULL POSTS SHALL BE 2 7/8" O.D. SCHEDULE 40 PIPE OR 2 1/2" X 2 1/2" X .1875" WALL THICKNESS SQUARE TUBING.

GATE POST - GATE POST SHALL BE OF THE FOLLOWING SIZE FOR SINGLE SWING GATES OR ONE LEAF OF DOUBLE GATE

UP TO 6' WIDE

OVER 6' TO 13'	2-1/2" SQ OR 3-3/8" O.D.	NOM. WT.	SAME AS TERMINAL POST
OVER 13' TO 18'	4" O.D.	NOM. WT.	9.11 LB/FT
OVER 18'	6-5/8" O.D.	NOM. WT.	18.97 LB/FT
	8-5/8" O.D.	NOM. WT.	24.70 LB/FT

EACH POST SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF 3'-0" BELOW GROUND LEVEL.

LINE POST AND TERMINAL POST ANCHORAGE - ALL POST SHALL BE SET IN CYLINDRICAL CONCRETE FOUNDATIONS WITH TOP OF FINISH CONCRETE SURFACE 5 INCHES ABOVE FINISH GRADE. EXCAVATION SHALL BE 3'-0" DEEP AND NOT LESS THAN EIGHT INCHES (8") IN DIAMETER FOR ALL LINE POSTS, AND NOT LESS THAN TWELVE INCHES (12") IN DIAMETER FOR TERMINAL AND GATE POST. CONCRETE SHALL MEET ACI-318 SPECIFICATION FOR 3000 PSI-28 DAY STRENGTH CONCRETE.

TOP RAIL - THE FENCE SHALL HAVE A CONTINUOUS TOP RAIL FOR ITS FULL LENGTH OF STANDARD GALVANIZED PIPE, 1-5/8" O.D. THE TOP RAIL SHALL PASS THROUGH OPENINGS PROVIDED FOR THAT PURPOSE IN THE POST TOPS AND EACH LENGTH SHALL BE COUPLED WITH A SLEEVE COUPLING, WITH EXPANSION COUPLING EVERY FIFTH JOINT.

BRACES - TRUSS BRACES OF STANDARD GALVANIZED 1-5/8" O.D. PIPE 2.71 LB./FT., WITH A 3/8" O.D. TRUSS ROD AND TURNBUCKLE ATTACHMENT SHALL BE INSTALLED BETWEEN EACH END OR GATE POST AND THE ADJACENT LINE POST. TWO TRUSS BRACES SHALL BE FURNISHED ON CORNER OR PULL POSTS.

FITTINGS - ALL FITTINGS USED IN THE COMPLETE FENCE ASSEMBLY SHALL BE OF MALLEABLE, CAST IRON OR PRESSED STEEL AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.

EXTENSION ARMS - LINE POST SHALL BE EQUIPPED WITH EXTENSION ARMS TO WITHSTAND A MINIMUM PULL-DOWN WEIGHT OF 450 LBS. FROM END OF ARM. ARMS TO BE DESIGNED TO EXTEND AT A 45 DEGREE ANGLE WITH LOCKING DEVICE TO SECURELY FASTEN THREE STRANDS OF BARBED WIRE EQUALLY SPACED WITH THE TOP STRAND LOCATED 12 INCHES ABOVE FABRIC AND 12 INCHES OUT FROM THE FENCE LINE.

POST TOPS - ALL END, CORNER, PULL AND GATE POST SHALL BE EQUIPPED WITH TOPS. TUBULAR POST TOPS TO BE SO DESIGNED AS TO EXCLUDE MOISTURE FROM THE POST. ALL LINE POST TOPS DESIGNED TO HOLD THE TOP RAIL AND THE EXTENSION ARM FOR THREE STRANDS OF BARBED WIRE

GATES - GATE FRAMES SHALL BE MADE OF 2" X 2" X .110" W.T. SQUARE STEEL TUBING OR 1.9 INCH O.D. SCHEDULE 40, 2.72 LB./FT. STANDARD WEIGHT PIPE, HOT-DIP GALVANIZED. FRAMES TO BE JOINED AT CORNERS TO FORM A RIGID PANEL AND SHALL BE FILLED WITH CHAIN LINK FABRIC OF SAME GAUGE AS USED ON THE FENCE

FABRIC SHALL BE FASTENED IN THE FRAME ON ALL FOUR SIDES BY MEANS OF TENSION BARS AND CLIPS. THREE STRANDS OF BARBED WIRE SHALL BE FASTENED TO THE EXTENDED FRAMES OF GATE. EACH FRAME TO BE EQUIPPED WITH 3/8" DIAMETER ADJUSTABLE TRUSS ROD. HINGES POSITIVE TYPE LATCHING DEVICE WITH PROVISIONS FOR PADLOCKING.

ALL DRIVE GATES TO BE PROVIDED WITH POSITIVE TYPE LATCHING DEVICE WITH PROVISIONS FOR PADLOCKING. DRIVE GATES SHALL ALSO HAVE CENTER PLUNGER ROD, CATCH AND SEMI-AUTOMATIC OUTER CATCHES TO SECURE GATES IN OPEN POSITION.

ALL MAN EGRESS GATES SHALL BE SECURE FROM OUTSIDE INTRUDERS WITH PANIC BAR WHICH ALLOW FOR FREE EXIT IN AN EMERGENCY.

NOTE:

1. GATE SHALL BE OF THE AUTOMATIC CLOSING TYPE AND CLOSE FROM DUSK UNTIL DAWN.
2. WHEN GATE IS CLOSED, THERE SHALL BE ACCESSIBILITY FOR EMERGENCY VEHICLES.
3. GATE SHALL ALLOW PERSONS REMAINING INSIDE GATE ONCE IT IS SHUT TO OPEN FOR EXIT.

CHAIN LINK FENCE DETAIL

NOT TO SCALE

NO.	BY	DATE	DESCRIPTION
2	BRE	8/18/2023	REVISED FENCE DETAIL

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CONTRACT No.
PROJECT No. 1-01-030-3317

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
BLUE CREEK
DETAILS

SHEET No. 11

LAYOUT TAB: DETAILS-8
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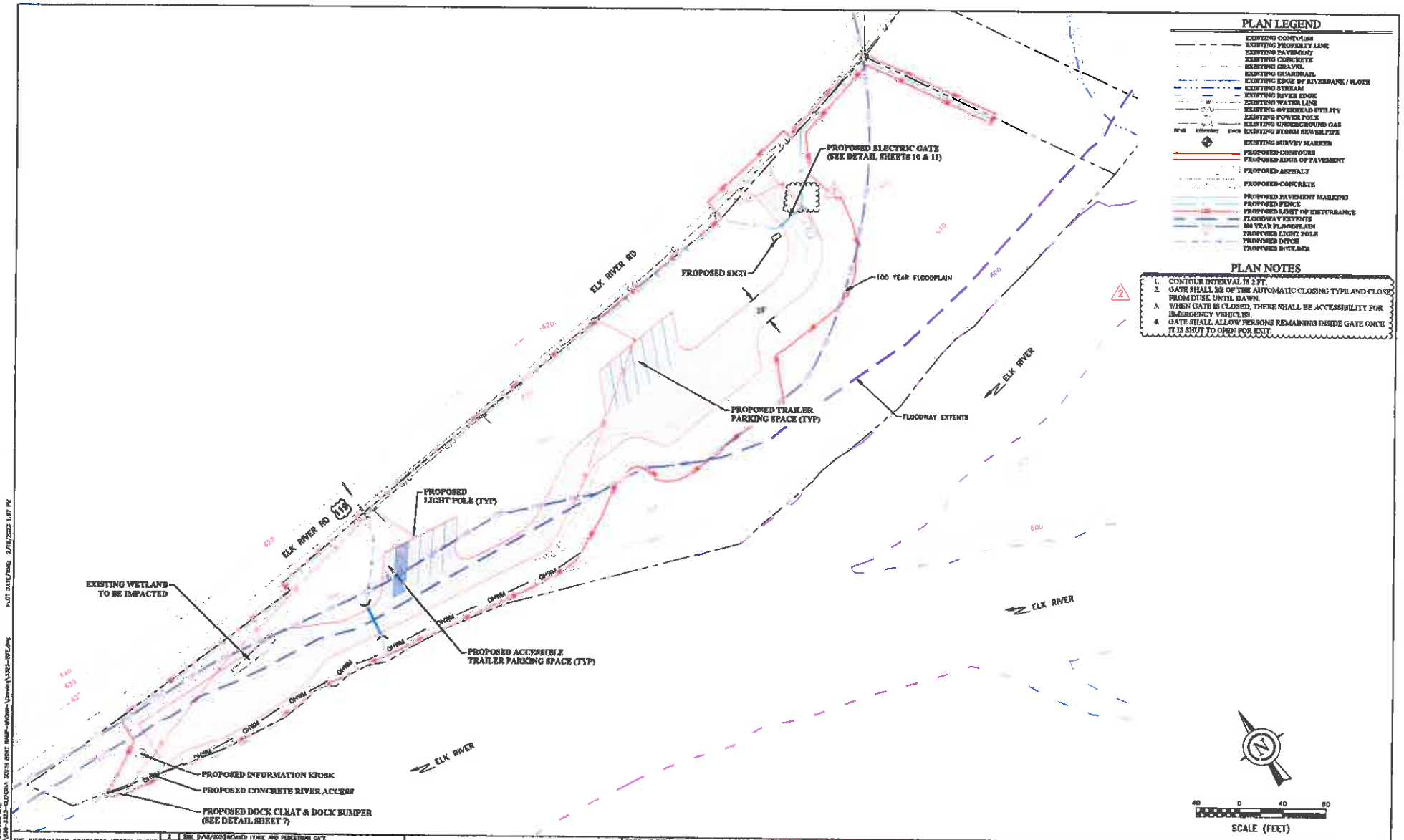

LAYOUT TAB: OVERALL SITE
CAD FILE: N:\1323-1323-CLENDENIN SOUTH BOAT RAMP-WORK\Drawing\1323-SITE.dwg PLOT DATE/TIME: 2/16/2023 1:27 PM

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NO.	BY	DATE	DESCRIPTION
2	BRK	2/16/2023	REVISED FENCE AND PEDESTRIAN GATE

SCALE: AS SHOWN
DRAWN: BAWEI
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APPROVED: BAWEI
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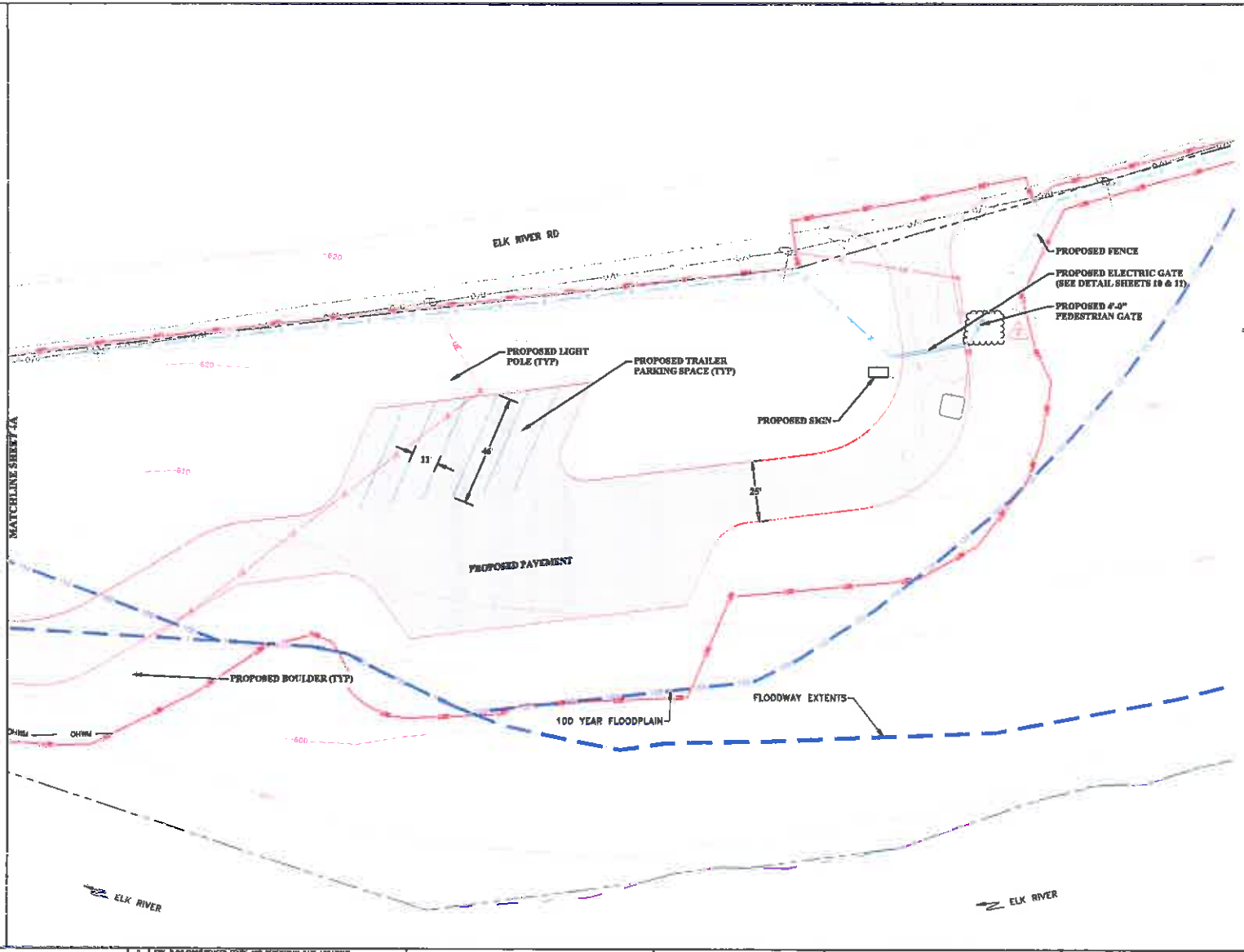
CONTRACT No.
PROJECT No. 1-01-030-3323

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
CLENDENIN SOUTH
OVERALL SITE PLAN

SHEET No. 4



PLAN LEGEND

- EXISTING CONTOURS
- EXISTING PROPERTY LINE
- EXISTING PAVEMENT
- EXISTING CONCRETE
- EXISTING GRAVEL
- EXISTING GUARDRAIL
- EXISTING EDGE OF RIVERBANK / SLOPE
- EXISTING STREAM
- EXISTING RIVER EDGE
- EXISTING WATER LINE
- EXISTING OVERHEAD UTILITY
- EXISTING POWER POLE
- EXISTING UNDERGROUND GAS
- EXISTING STORM SEWER PIPE
- EXISTING SURVEY MARKER
- PROPOSED CONTOURS
- PROPOSED EDGE OF PAVEMENT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED PAVEMENT MARKING
- PROPOSED FENCE
- PROPOSED LIMIT OF DISTURBANCE
- FLOODWAY EXTENTS
- 100 YEAR FLOODPLAIN
- PROPOSED LIGHT POLE
- PROPOSED DITCH
- PROPOSED BOULDER

PLAN NOTES

1. CONTOUR INTERVAL IS 2 FT.
2. PROPOSED BOULDERS ARE TO BE APPROXIMATELY 3' WIDE AND 4' HIGH. THE BOULDERS ARE TO BE PLACED NO MORE THAN 3' APART.

N

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SCALE (FEET)

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NO.	BY	DATE	DESCRIPTION
2	SBK	2/18/2020	REVISED FENCE AND PEDESTRIAN GATE LOCATIONS

SCALE: AS SHOWN
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SURVEY DATE:
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FIELD BOOK No.:

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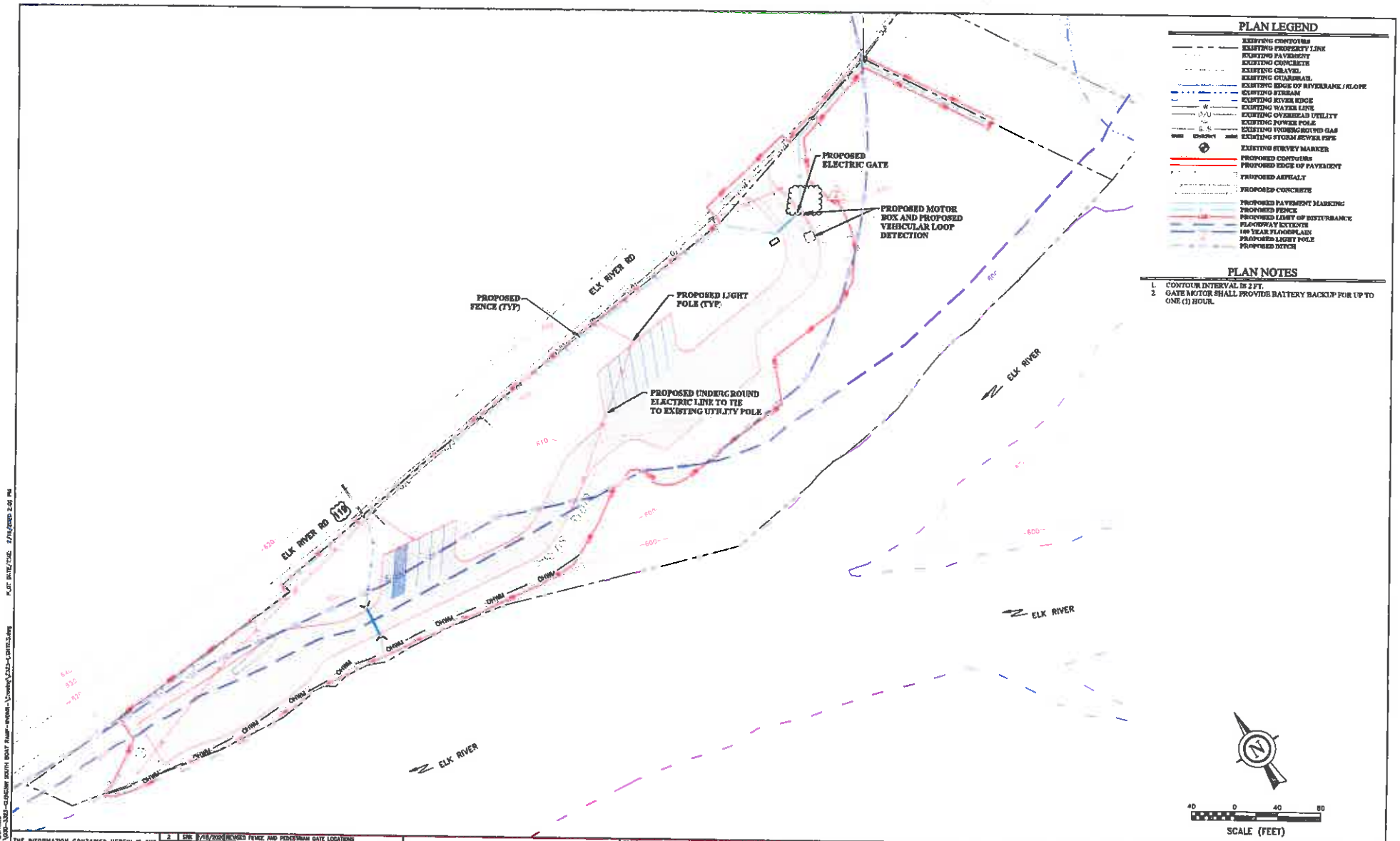
PHASE No.
CONTRACT No.
PROJECT No. 1-01-050-3323

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
CLENDENIN SOUTH
SITE PLAN

SHEET No. 4B



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NO.	BY	DATE	DESCRIPTION
2	ERK	3/18/2020	REVISED FENCE AND PEDESTRIAN GATE LOCATIONS

SCALE: AS SHOWN
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PROJECT No. 1-01-030-3323

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
CLENDENIN SOUTH
LIGHTING PLAN

SHEET No. 4E

LAYOUT TAB: LIGHTING
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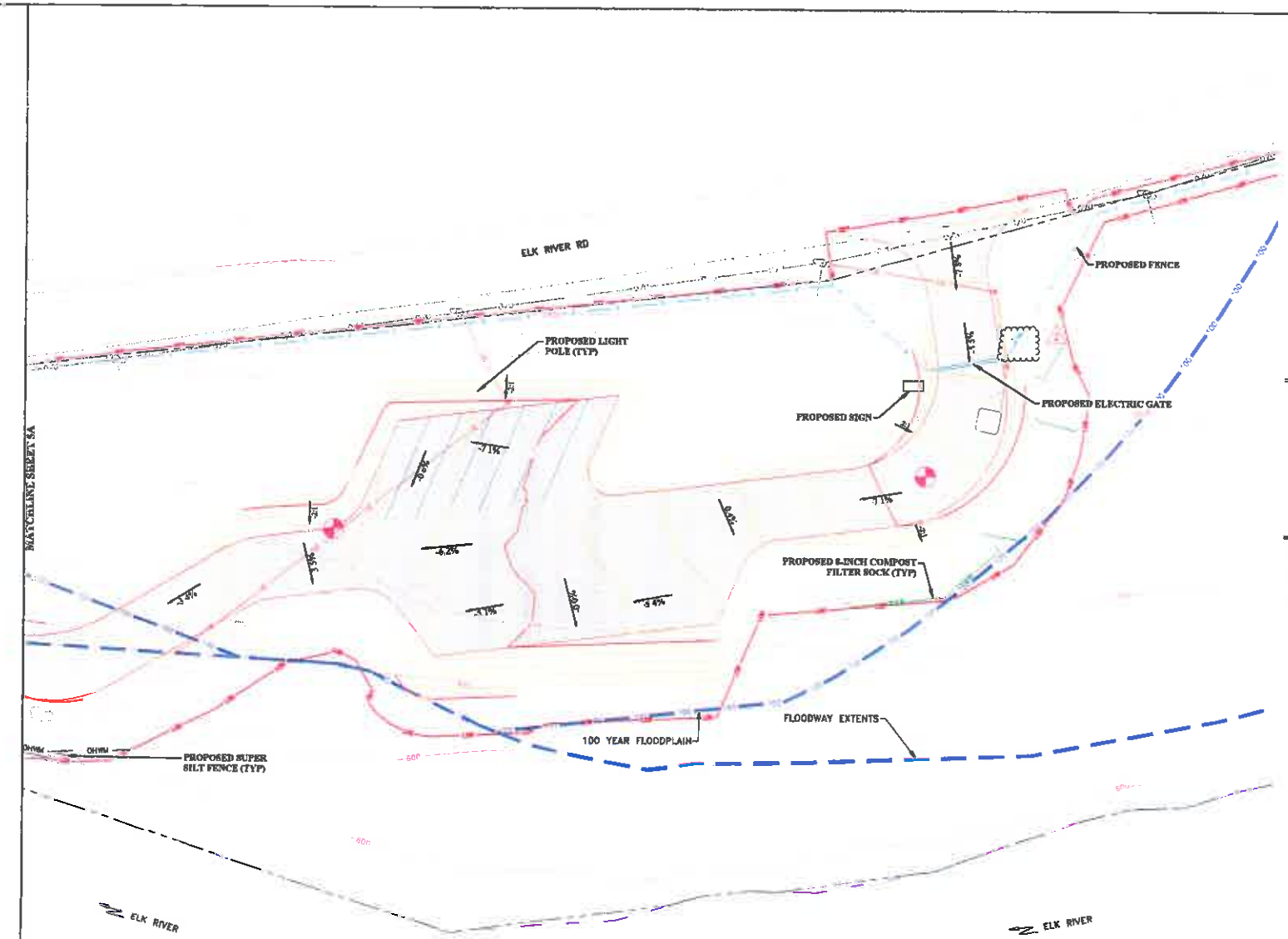

PLAN LEGEND

- EXISTING CONTOURS
- EXISTING PROPERTY LINE
- EXISTING PAVEMENT
- EXISTING CONCRETE
- EXISTING GRAVEL
- EXISTING GUARDRAIL
- EXISTING EDGE OF RIVERBANK / SLOPE
- EXISTING STREAM
- EXISTING RIVER EDGE
- EXISTING WATER LINE
- EXISTING OVERHEAD UTILITY
- EXISTING POWER POLE
- EXISTING UNDERGROUND GAS
- EXISTING STORM SEWER PIPE
- EXISTING SURVEY MARKER
- PROPOSED CONTOURS
- PROPOSED EDGE OF PAVEMENT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED PAVEMENT MARKING
- PROPOSED FENCE
- PROPOSED LIMIT OF DISTURBANCE
- FLOODWAY EXTENTS
- 100 YEAR FLOODPLAIN
- PROPOSED LIGHT POLE
- PROPOSED DITCH
- 8-INCH COMPOST FILTER SOCK
- SUPER SILT FENCE
- EXISTING BORE LOCATION
- PROPOSED BOULDER

PLAN NOTES

1. CONTOUR INTERVAL IS 2 FT.
2. PROPOSED LIMIT OF DISTURBANCE = 2.55 AC.
3. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE ON SITE.
4. SITE IS GRADED TO FINISHED GRADE.
5. CONTRACTOR SHALL CLEAN OUT THE SEDIMENT BEHIND COMPOST FILTER SOCK ONCE IT IS 1/3 THE HEIGHT TO THE SOCK.
6. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR AT A MINIMUM EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES PER 24 HOUR PERIOD. ANY REQUIRED REPAIRS OR MAINTENANCE SHOULD BE MADE IMMEDIATELY.

EARTHWORK SUMMARY

TOTAL CUT	4,276 CY
TOTAL FILL	1,297 CY
TOTAL TOPSOIL	2,060 CY
ASSUMED TOPSOIL THICKNESS	6 IN
PAVEMENT SECTION	1,617 CY
NET	2,536 CY (CUT)

N

20 0 20 40

SCALE (FEET)

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NO.	BY	DATE	DESCRIPTION
2	GRV	2/18/2020	REVISED FENCE AND PEDESTRIAN GATE LOCATIONS

SCALE: AS SHOWN
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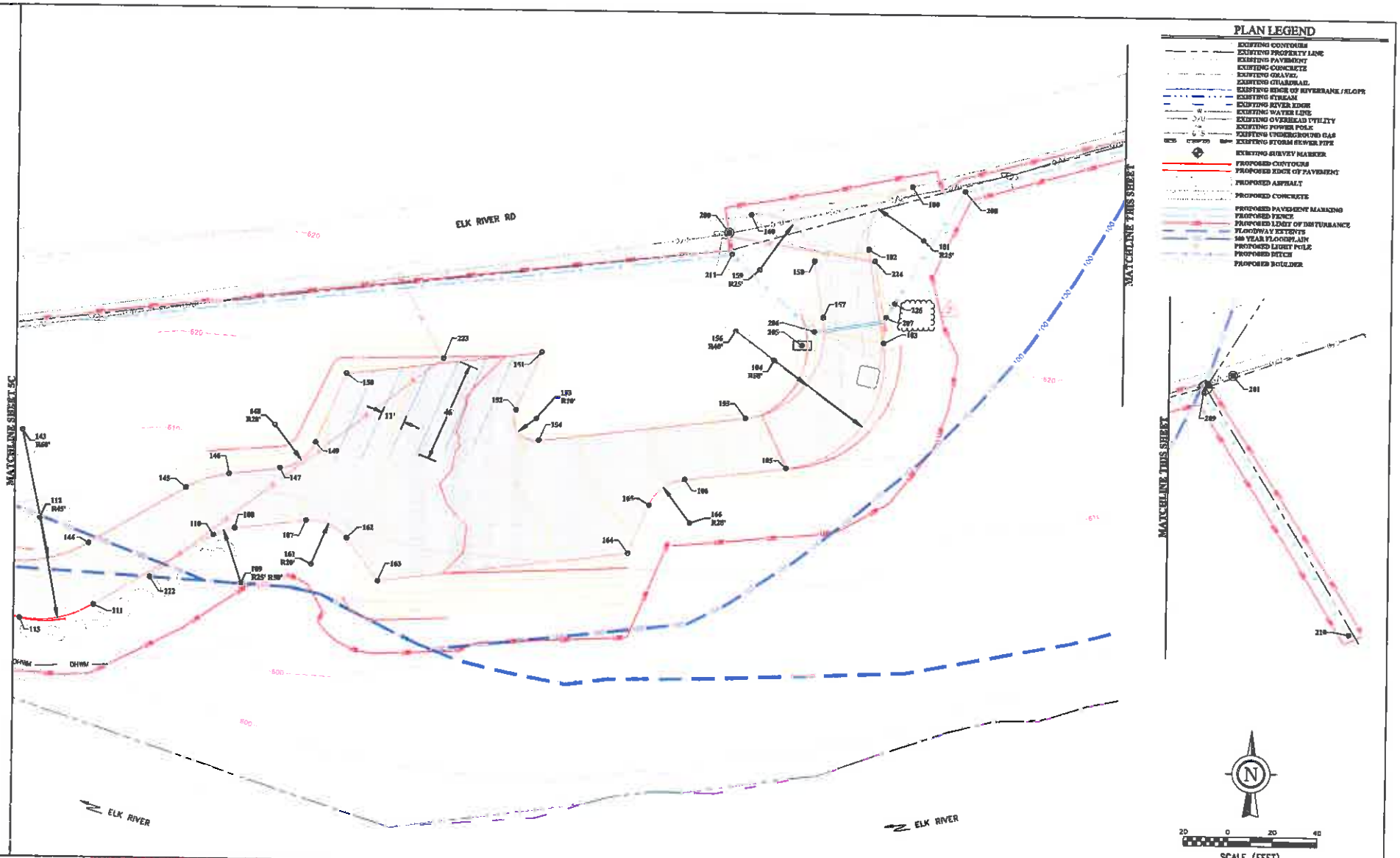
PHASE No.
CONTRACT No.
PROJECT No. 1-01-030-3325

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
CLENDENIN SOUTH
GRADING PLAN

SHEET No. 5B

LAYOUT NO. GRADING
LAYOUT NAME: 1-01-030-3325-CLENDENIN SOUTH BOAT RAMP-WORK-Layout-1.DWG PLOT DATE/TIME: 2/18/2020 2:03 PM



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NO.	BY	DATE	DESCRIPTION
2	SPK	8/18/2022	REVISED TITLES AND PEDESTRIAN GATE LOCATIONS

SCALE: AS SHOWN
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SURVEY DATE:
SURVEY BY:
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CONTRACT No.
PROJECT No. 1-01-030-3323

WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
CLENDENIN SOUTH
LAYOUT PLAN

SHEET No. 5E

LAYOUT TAB: LAYOUT - 2
CAD FILE: R:\030-3323-CLENDENIN SOUTH BOAT RAMP-WORK-\Drawing\3323-LAYOUT.dwg
PLOT DATE/TIME: 2/16/2022 3:01 PM

Point Table

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101	537627.8153	1869649.5700	624.043	R25'
102	537523.6344	1869623.9221	624.004	EDGE OF PAVEMENT
103	537481.5212	1869631.0638	623.990	EDGE OF PAVEMENT
104	537472.1694	1869581.7686	615.861	R25'
105	537425.3326	1869397.7857	619.952	EDGE OF PAVEMENT
106	537417.9943	1869341.0889	624.496	EDGE OF PAVEMENT
107	537397.1756	1869171.1146	626.123	EDGE OF PAVEMENT
108	537393.3787	1869134.9525	625.159	EDGE OF PAVEMENT
109	537388.3873	1869141.9985	626.251	R25' R30'
110	537398.8945	1869199.5658	624.439	EDGE OF PAVEMENT
111	537418.3459	1869379.1294	624.064	EDGE OF PAVEMENT
112	537397.1273	1869359.6752	625.824	R25'
113	537381.9748	1869341.9355	626.000	EDGE OF PAVEMENT
114	537376.3137	1869318.3811	627.920	EDGE OF PAVEMENT
115	537381.4844	1869312.4161	628.015	R25'
116	537378.8726	1869284.1462	627.001	EDGE OF PAVEMENT
117	537347.3369	1869083.7971	626.252	EDGE OF PAVEMENT
118	537345.4268	1869071.4354	626.124	EDGE OF PAVEMENT
119	537364.5913	1869234.7314	626.097	EDGE OF PAVEMENT
120	537366.4790	1869722.7193	626.001	EDGE OF PAVEMENT
121	537374.9955	1869679.1870	625.693	EDGE OF PAVEMENT
122	537380.7369	1869673.1669	0.000	R25'
123	537376.7593	1869672.9986	625.587	EDGE OF PAVEMENT
124	537378.8684	1869658.2889	625.165	EDGE OF PAVEMENT/CONCRETE
125	537387.4660	1869627.5640	622.600	EDGE OF CONCRETE
126	537371.8446	1869621.6283	622.000	EDGE OF CONCRETE
127	537369.5600	1869628.1941	625.195	EDGE OF PAVEMENT/CONCRETE
128	537421.8873	1869649.9869	628.000	EDGE OF PAVEMENT

Point Table

Point #	Northing	Easting	Elevation	Raw Description
129	537421.8188	1869679.2722	627.000	EDGE OF PAVEMENT
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131	537399.8254	1869860.1486	629.466	EDGE OF PAVEMENT
132	537421.4951	1869870.6882	629.177	R25'
133	537397.6671	1869867.7631	630.430	EDGE OF PAVEMENT
134	537399.1886	1869899.4891	630.549	EDGE OF PAVEMENT
135	537414.9713	1869891.8181	630.624	R25'
136	537465.0133	1869897.8016	630.549	EDGE OF PAVEMENT
137	537424.7207	1869918.6533	630.778	EDGE OF PAVEMENT
138	537421.9639	1869964.2581	629.533	EDGE OF PAVEMENT
139	537398.7346	1869986.9984	629.831	EDGE OF PAVEMENT
140	537392.7485	1869990.0961	630.992	R25'
141	537382.8241	1869995.8963	630.732	EDGE OF PAVEMENT
142	537377.9286	1869835.9054	631.169	EDGE OF PAVEMENT
143	537437.8164	1869842.3256	616.349	R60'
144	537388.8272	1869872.7925	632.318	EDGE OF PAVEMENT
145	537441.6316	1869316.6712	633.731	EDGE OF PAVEMENT
146	537418.1941	1869136.9466	634.349	EDGE OF PAVEMENT
147	537424.9999	1869129.0451	635.046	EDGE OF PAVEMENT
148	537468.9453	1869134.1958	632.496	R20'
149	537432.9998	1869174.9936	636.674	EDGE OF PAVEMENT
150	537464.8658	1869188.5789	636.367	EDGE OF PAVEMENT
151	537475.5631	1869174.8450	639.813	EDGE OF PAVEMENT
152	537449.9991	1869365.5239	631.679	EDGE OF PAVEMENT
153	537448.8064	1869374.7238	634.900	R15'
154	537435.1890	1869373.9969	632.367	EDGE OF PAVEMENT
155	537446.4686	1869549.1514	639.261	EDGE OF PAVEMENT
156	537406.1609	1869564.3488	628.982	R40'
157	537392.8078	1869563.7855	634.839	EDGE OF PAVEMENT
158	537399.9413	1869599.8137	635.816	EDGE OF PAVEMENT
159	537613.8694	1869374.8670	633.076	R15'
160	537598.8803	1869370.0549	637.700	TIE TO EXISTING PAVEMENT
161	537377.4199	1869373.5326	635.626	R20'

Point Table

Point #	Northing	Easting	Elevation	Raw Description
162	537399.4561	1869189.5135	637.169	EDGE OF PAVEMENT
163	537370.3997	1869183.9092	638.012	EDGE OF PAVEMENT
164	537384.8646	1869316.7983	633.363	EDGE OF PAVEMENT
165	537405.9850	1869326.8943	635.830	EDGE OF PAVEMENT
166	537390.1398	1869344.4923	634.378	R20'
190	537390.3468	1869368.2798	637.810	5/8" REBAR/CAP CONTROL POINT
191	537383.2570	1869367.7916	637.190	5/8" REBAR/CAP CONTROL POINT
202	537376.3894	1869636.8845	594.000	PROPOSED INFORMATION KIOSK
203	537398.9333	1869889.8179	595.849	PROPOSED 18" STORM INV IN
204	537366.8619	1869838.8741	594.724	PROPOSED 18" STORM INV OUT
205	537400.8084	1869384.3158	616.619	PROPOSED SIGN
206	537406.5735	1869399.8140	621.754	GATE / FENCE CORNER
207	537401.3120	1869432.8016	621.989	GATE / FENCE CORNER
208	537359.4237	1869467.8700	628.000	FENCE CORNER
209	537378.3836	1869864.6849	625.558	FENCE CORNER
210	537466.0913	1869631.3652	623.348	FENCE CORNER
211	537526.5901	1869432.3365	623.881	FENCE CORNER
212	537481.4736	1869014.6257	616.879	FENCE CORNER
213	537497.2689	1869017.6894	613.574	FENCE CORNER
214	537449.6743	1869852.8489	606.427	FENCE CORNER
215	537435.1945	1869619.9869	607.670	FENCE CORNER
216	537408.3508	1869646.8675	595.366	FENCE CORNER
217	537379.3185	1869991.7869	592.528	FENCE END
218	537374.8891	1869998.8579	592.000	DOCK CLEAT & BUMPER
219	537362.1758	1869628.1985	592.165	LIGHT POLE
220	537423.7273	1869742.7694	597.745	LIGHT POLE
221	537429.6744	1869949.1484	600.985	LIGHT POLE
222	537376.8898	1869180.6214	601.968	LIGHT POLE
223	537472.1999	1869232.4713	609.590	LIGHT POLE
224	537519.2982	1869436.8572	624.912	LIGHT POLE
232	537446.7629	1869916.6294	602.526	PROPOSED DITCH
236	537409.3345	1869438.9763	621.525	PEDESTRIAN GATE

2

2

NO.	BY	DATE	DESCRIPTION
2	SRK	2/18/2022	REVISED FENCE AND PEDESTRIAN GATE LOCATIONS

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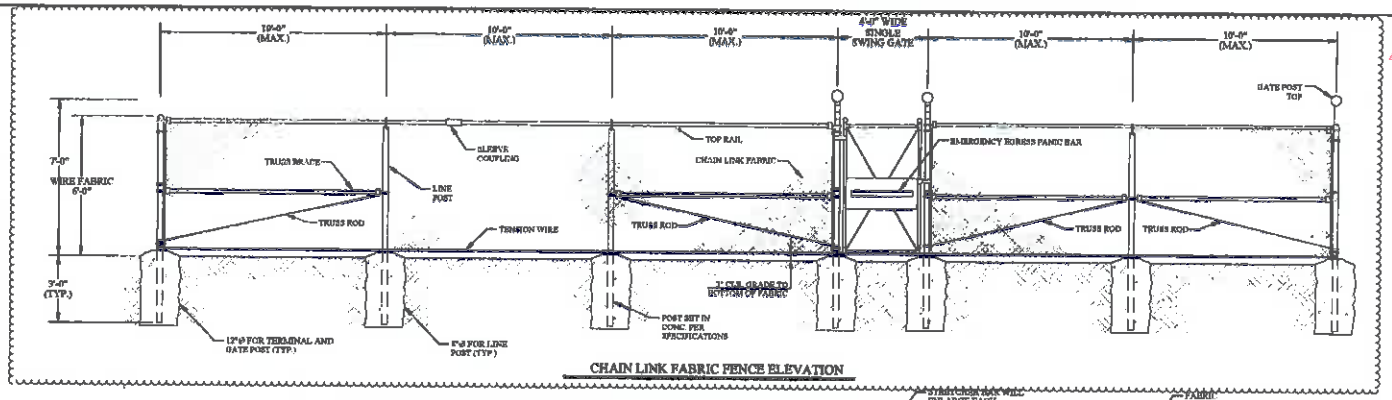
CONTRACT No.
PROJECT No. 1-01-030-3323

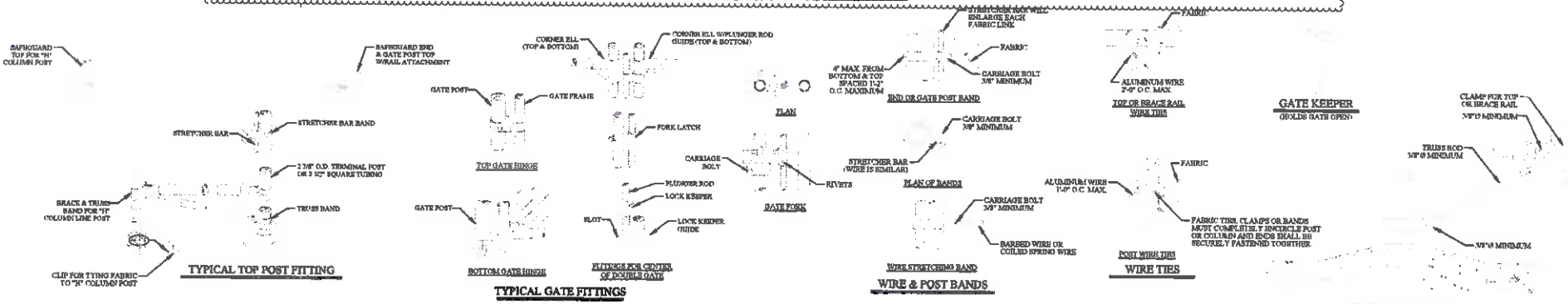
WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
CLENDENIN SOUTH
LAYOUT POINTS

SHEET No. 5F

LAYOUT TAB: LAYOUT -- 3
CAD FILE: R:\2023-CLENDENIN SOUTH
PLOT DATE/TIME: 2/18/2022 2:09 PM



CHAIN LINK FABRIC FENCE ELEVATION



TYPICAL TOP POST FITTING

TYPICAL GATE FITTINGS

WIRE & POST BANDS

WIRE TIES

TRUSS ROAD & BAND

CHAIN LINK FENCE SPECIFICATIONS

1. INSTALLATION. FENCE ADDITION SHALL BE PLUMB AND TRUE TO LINE, CHAIN LINK FABRIC SHALL BE TAUT AND PROPERLY SECURED. CORNER BRACES AND DIAGONAL BRACES SHALL BE PROPERLY PLACED TO PREVENT SAGGING. THE COMPLETE INSTALLATION SHALL BE INSTALLED BY SKILLED AND EXPERIENCED FENCE ERECTORS. IN A WORKMANLIKE MANNER, IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND IN ACCORDANCE WITH ALL LOCAL APPLICABLE CODES.

2. MATERIAL. SPECIFICATIONS FOR HOT-DIP GALVANIZED FENCE CHAIN LINK FABRIC - THE CHAIN LINK FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-392 SPECIFICATIONS AND SHALL BE HOT DIPPED GALVANIZED AFTER WEAVING, HAVING A COATING WEIGHT OF 2 OUNCES OF ZINC PER SQUARE FOOT, MINIMUM, OF UNCOATED WIRE SURFACE (CLASS II). FABRIC SHALL BE NO. 9 GAUGE WIRE WOVEN IN A 2-INCH CHAIN LINK DIAMOND MESH. THE FABRIC SHALL BE FASTENED TO THE LINE POST BY MEANS OF NO. 6 GAUGE ALUMINUM WIRE CLIPS SPACED 12 INCHES ON CENTER. IT SHALL BE ATTACHED TO TOP RAIL WITH NO. 9 GAUGE ALUMINUM TIE WIRES SPACED 24 INCHES ON CENTER. FABRIC SHALL BE ATTACHED TO TERMINAL POST

BY MEANS OF A 1/4" X 3/4" TENSION BAR WITH HEAVY GAUGE PRESSED STEEL BAND OR CLIPS SPACED APPROXIMATELY 14 INCHES ON CENTER.
BARBED WIRE - BARBED WIRE TO BE OF 4 POINT PATTERN, COMPOSED OF THREE STRANDS OF NO. 11-1/2 GAUGE GALVANIZED WIRE WITH LARGE ALUMINUM BARBS SPACED APPROXIMATELY 4" TO 5" INCHES ON CENTER.

BOTTOM TENSION WIRE - NO. 7 GAUGE GALVANIZED COIL SPRING TENSION WIRE WITH CLASS I COATING. WIRE TO BE FASTENED TO CHAIN LINK FABRIC WITH NO. 11 GAUGE HOG RINGS ON 18 INCH CENTERS.

POST AND OTHER APPURTENANCES - ALL POST AND OTHER APPURTENANCES SHALL BE HOT-DIP GALVANIZED WITH A MINIMUM ZINC COATING OF 2.0 OUNCES PER SQUARE FOOT OF SURFACE (CLASS II COATING ASTM A-392)

LINE POST - LINE POST SHALL BE 2 1/8" "H" COLUMN WEIGHING 4.1 LBS PER FOOT, MINIMUM CARBON CONTENT .35%, MINIMUM TENSILE STRENGTH 75,000 PSI OR 2 3/8" O.D. SCHEDULE 40 PIPE OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF 3'-0" BELOW GROUND LEVEL. THE POSTS SHALL BE SPACED IN THE LINE OF FENCE, NO FURTHER THAN 10'-0"

TERMINAL POST - ALL END, CORNER AND PULL POSTS SHALL BE 2 7/8" O.D. SCHEDULE 40 PIPE OR 2 1/2" X 2 1/2" X .187" WALL THICKNESS SQUARE TUBING

GATE POST - GATE POST SHALL BE OF THE FOLLOWING SIZE FOR SINGLE SWING GATES OR ONE LEAF OF DOUBLE GATE

UP TO 6' WIDE	2-1/2" SQ OR 2-7/8" O.D	NOM. WT.	SAME AS TERMINAL POST
OVER 6' TO 13'	4" O.D	NOM. WT.	9.11 LB/FT
OVER 13' TO 18'	6-5/8" O.D.	NOM. WT.	18.97 LB/FT
OVER 18'	8-5/8" O.D.	NOM. WT.	24.70 LB/FT

EACH POST SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF 3'-0" BELOW GROUND LEVEL.

LINE POST AND TERMINAL POST ANCHORAGE - ALL POST SHALL BE SET IN CYLINDRICAL CONCRETE FOUNDATIONS WITH TOP OF FINISH CONCRETE SURFACE 3 INCHES ABOVE FINISH GRADE. EXCAVATION SHALL BE 3'-0" DEEP AND NOT LESS THAN EIGHT INCHES (8") IN DIAMETER FOR ALL LINE POSTS, AND NOT LESS THAN TWELVE INCHES (12") IN DIAMETER FOR TERMINAL AND GATE POST. CONCRETE SHALL MEET ACI-318 SPECIFICATION FOR 3000 PSI-28 DAY STRENGTH CONCRETE

TOP RAIL - THE FENCE SHALL HAVE A CONTINUOUS TOP RAIL FOR ITS FULL LENGTH OF STANDARD GALVANIZED PIPE, 1-5/8" O.D. THE TOP RAIL SHALL PASS THROUGH OPENINGS PROVIDED FOR THAT PURPOSE ON THE POST TOPS AND EACH LENGTH SHALL BE COUPLED WITH A SLEEVE COUPLING, WITH EXPANSION COUPLING EVERY FIFTH JOINT.

BRACES - TRUSS BRACES OF STANDARD GALVANIZED 1-5/8" O.D. PIPE 2.71 LB/FT., WITH A 3/8" O.D. TRUSS ROD AND TURNBUCKLES ATTACHMENT SHALL BE INSTALLED BETWEEN EACH END OR GATE POST AND THE ADJACENT LINE POST. TWO TRUSS BRACES SHALL BE FURNISHED ON CORNER OR PULL POSTS.

FITTINGS - ALL FITTINGS USED IN THE COMPLETE FENCE ASSEMBLY SHALL BE OF MALLEABLE, CAST IRON OR PRESSED STEEL AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.

EXTENSION ARMS - LINE POST SHALL BE EQUIPPED WITH EXTENSION ARMS TO WITHSTAND A MINIMUM PULL-DOWN WEIGHT OF 450 LBS. FROM END OF ARM. ARMS TO BE DESIGNED TO EXTEND AT A 45 DEGREE ANGLE WITH LOCKING DEVICE TO SECURELY FASTEN THREE STRANDS OF BARBED WIRE EQUALLY SPACED WITH THE TOP STRAND LOCATED 12 INCHES ABOVE FABRIC AND 12 INCHES OUT FROM THE FENCE LINE

POST TOPS - ALL END, CORNER, PULL AND GATE POST SHALL BE EQUIPPED WITH TOPS. TUBULAR POST TOPS TO BE SO DESIGNED AS TO EXCLUDE MOISTURE FROM THE POST. ALL LINE POST TOPS DESIGNED TO HOLD THE TOP RAIL AND THE EXTENSION ARM FOR THREE STRANDS OF BARBED WIRE.

GATES - GATE FRAMES SHALL BE MADE OF 2" X 2" X .110" W.T. SQUARE STEEL TUBING OR 1.9 INCH O.D. SCHEDULE 40, 2.72 LB./FT. STANDARD WEIGHT PIPE, HOT-DIP GALVANIZED. FRAMES TO BE JOINED AT CORNERS TO FORM A RIGID PANEL AND SHALL BE FILLED WITH CHAIN LINK FABRIC OF SAME GAUGE AS USED ON THE FENCE

FABRIC SHALL BE FASTENED IN THE FRAME ON ALL FOUR SIDES BY MEANS OF TENSION BARS AND CLIPS. THREE STRANDS OF BARBED WIRE SHALL BE FASTENED TO THE EXTENDED FRAMES OF GATE. EACH FRAME TO BE EQUIPPED WITH 3/8" DIAMETER ADJUSTABLE TRUSS ROD, HINGES. POSITIVE TYPE LATCHING DEVICE WITH PROVISIONS FOR PADLOCKING.

ALL DRIVE GATES TO BE PROVIDED WITH POSITIVE TYPE LATCHING DEVICE WITH PROVISIONS FOR PADLOCKING. DRIVE GATES SHALL ALSO HAVE CENTER PLUNGER ROD, CATCH AND SEMI-AUTOMATIC OUTER CATCHES TO SECURE GATES IN OPEN POSITION.

ALL MAN HOLES GATES SHALL BE SECURE FROM OUTSIDE INTRUDERS WITH PANIC BAR WHICH ALLOW FOR FREE EXIT IN AN EMERGENCY

NOTE:

1. GATE SHALL BE OF THE AUTOMATIC CLOSING TYPE AND CLOSE FROM DUSK UNTIL DAWN.
2. WHEN GATE IS CLOSED, THERE SHALL BE ACCESSIBILITY FOR EMERGENCY VEHICLES.
3. GATE SHALL ALLOW PERSONS REMAINING INSIDE GATE ONCE IT IS SHUT TO OPEN FOR EXIT.

CHAIN LINK FENCE DETAIL

NOT TO SCALE

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NO.	BY	DATE	DESCRIPTION
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WEST VIRGINIA
DIVISION OF NATURAL RESOURCES
ELK RIVER BOATING ACCESS SITES
CLENDENIN SOUTH
DETAILS

SHEET No. 9

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:_____

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

[ ] Addendum No. 1	[ ] Addendum No. 6
[ ] Addendum No. 2	[ ] Addendum No. 7
[ ] Addendum No. 3	[ ] Addendum No. 8
[ ] Addendum No. 4	[ ] Addendum No. 9
[ ] Addendum No. 5	[ ] Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

_____
Company

_____
Authorized Signature

_____
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012