

ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

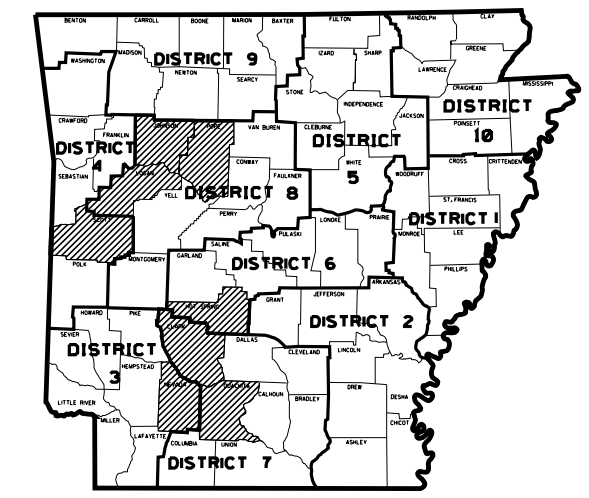
DATE REVISED	DATE	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
12-26-2024		6	ARK.	012494	1	82
SPECIALIZED BRIDGE SCOUR REMEDIATION (S)						

SPECIALIZED BRIDGE
SCOUR REMEDIATION (S)

VARIOUS COUNTIES

JOB 012494

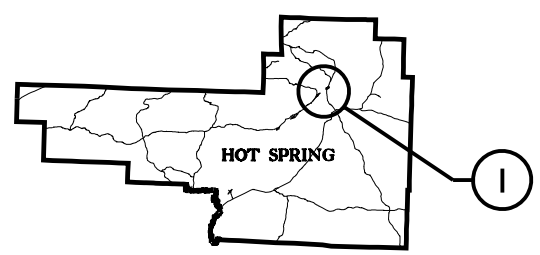
FEDERAL AID PROJ. PRTT-0076(339)



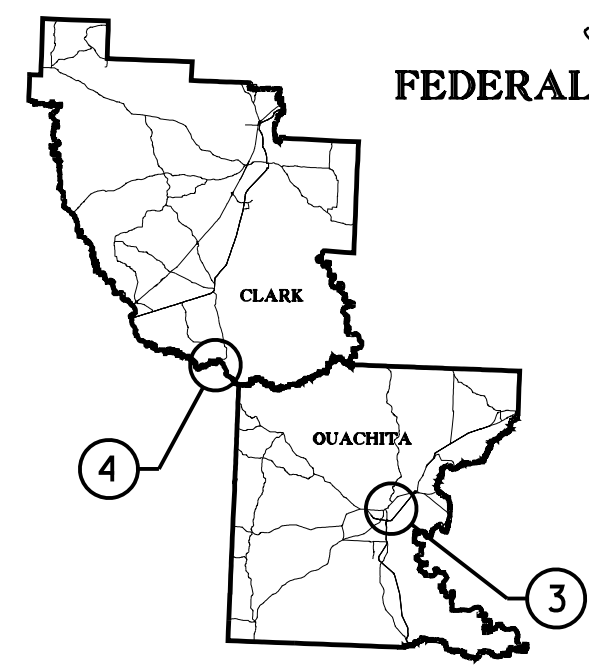
ARKANSAS HIGHWAY DISTRICTS 3, 4, 6, 7, & 8



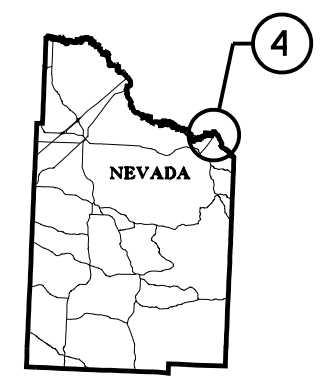
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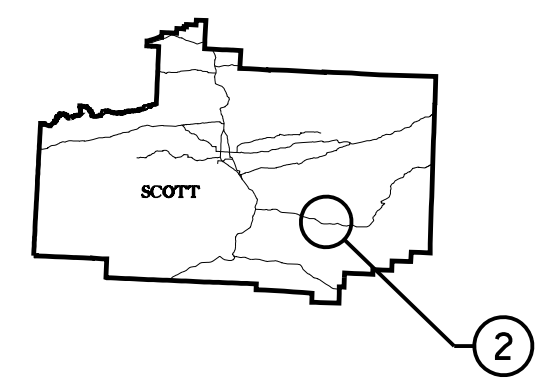
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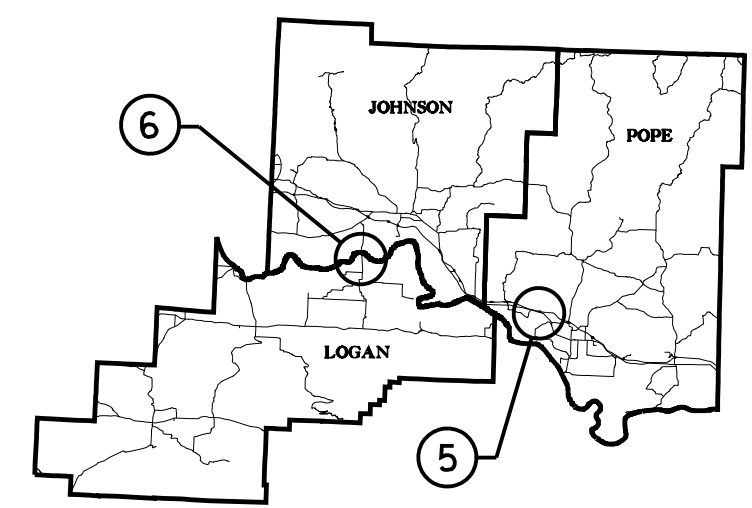
DISTRICT 7
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DISTRICT 3
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DISTRICT 4
NOT TO SCALE



DISTRICT 8
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BRIDGE DATA - EXISTING

- ① COMP. I-BEAM SPANS: 2 @ 40', COMP. P. G. SPANS: 5 @ 110', COMP. I-BEAM SPANS: 2 @ 40'
BRIDGE NO. A3424
ROUTE 30 WB, SECTION 21
LOG MILE 97.06
HOT SPRING COUNTY
- ② COMP. I-BEAM SPANS: 5 @ 50', 3 @ 83'-4", 57'
BRIDGE NO. 03447
ROUTE 28, SECTION 2
BRIDGE LOG MILE 6.94
SCOTT COUNTY
- ③ I-BEAM APPROACH UNITS: 585', 21' I-BEAM, LOW TRUSS: 3 @ 126', 46' I-BEAM
BRIDGE NO. 02466
ROUTE 79, SECTION 4
BRIDGE LOG MILE 2.27
OUACHITA COUNTY
- ④ R.C. SLAB SPANS: 17 @ 30'
BRIDGE NO. 03476
ROUTE 53, SECTIONS 1 & 2
BRIDGE LOG MILE 00.00
CLARK AND NEVADA COUNTIES
- ⑤ COMP. I-BEAM SPAN UNITS: 2 @ 279'-1"
BRIDGE NO. 03643
ROUTE 64, SECTION 6
BRIDGE LOG MILE 6.61
POPE COUNTY
- ⑥ CONT. P.G. SPAN UNITS: 10 @ 650', 785', 930', 320'
BRIDGE NO. 05600
ROUTE 109, SECTIONS 3 & 4
BRIDGE LOG MILE 7.85
LOGAN AND JOHNSON COUNTIES

① BRIDGE NO. A3424			
	BEGIN	MID-POINT	END
LATITUDE	N 34°23'22"	N 34°23'24"	N 34°23'26"
LONGITUDE	W 92°50'27"	W 92°50'23"	W 92°50'20"

② BRIDGE NO. 03447			
	BEGIN	MID-POINT	END
LATITUDE	N 34°47'33"	N 34°47'31"	N 34°47'30"
LONGITUDE	W 93°55'20"	W 93°55'17"	W 93°55'14"

③ BRIDGE NO. 02466			
	BEGIN	MID-POINT	END
LATITUDE	N 33°35'43"	N 33°35'47"	N 33°35'50"
LONGITUDE	W 92°49'11"	W 92°49'06"	W 92°49'03"

④ BRIDGE NO. 03476			
	BEGIN	MID-POINT	END
LATITUDE	N 33°48'56"	N 33°48'53"	N 33°48'48"
LONGITUDE	W 93°08'20"	W 93°08'26"	W 93°08'29"

⑤ BRIDGE NO. 03643			
	BEGIN	MID-POINT	END
LATITUDE	N 35°19'04"	N 35°19'02"	N 35°19'00"
LONGITUDE	W 93°11'06"	W 93°11'04"	W 93°11'02"

⑥ BRIDGE NO. 05600			
	BEGIN	MID-POINT	END
LATITUDE	N 35°23'25"	N 35°24'07"	N 35°24'49"
LONGITUDE	W 93°31'49"	W 93°31'52"	W 93°31'56"

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	3	82
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09-11-2024						
10-23-2024						



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GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPURTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPURTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPURTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
102-3	PREQUALIFICATION OF BIDDERS
103-2	CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
105-4	MAINTENANCE DURING CONSTRUCTION
107-2	RESTRAINING CONDITIONS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
210-1	UNCLASSIFIED EXCAVATION
306-1	QUALITY CONTROL AND ACCEPTANCE
603-1	LANE CLOSURE NOTIFICATION
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
802-5	CONCRETE FOR STRUCTURES
JOB 012494	ASSESSMENT OF WORKING DAYS - MAINTENANCE OF TRAFFIC
JOB 012494	BIDDING REQUIREMENTS AND CONDITIONS
JOB 012494	BRIDGE SITE PREPARATION
JOB 012494	BRIDGE WORK IN NAVIGABLE WATERS
JOB 012494	BUY AMERICA - CONSTRUCTION MATERIALS
JOB 012494	CARGO PREFERENCE ACT REQUIREMENTS
JOB 012494	CELLULAR CONCRETE
JOB 012494	CONCRETE ARMOR UNITS
JOB 012494	DETAILS FOR RIVER TRAFFIC SAFETY
JOB 012494	DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES
JOB 012494	DRINKING WATER PROTECTION
JOB 012494	DUMPED RIPRAP
JOB 012494	GRAVEL-FILLED GEOTEXTILE CONTAINERS
JOB 012494	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 012494	MANDATORY ELECTRONIC CONTRACT
JOB 012494	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 012494	MAINTENANCE OF TRAFFIC
JOB 012494	NESTING SITES OF MIGRATORY BIRDS
JOB 012494	OFF-SITE RESTRAINING CONDITIONS FOR INDIANA AND NORTHERN LONG-EARED BATS
JOB 012494	PARTNERING REQUIREMENTS
JOB 012494	PRICE ADJUSTMENT FOR FUEL
JOB 012494	PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 012494	SEQUENCE OF WORK
JOB 012494	UTILITY ADJUSTMENTS
JOB 012494	VALUE ENGINEERING
JOB 012494	WATER POLLUTION CONTROL
JOB 012494	ZEBRA MUSSEL CONTAINMENT

GENERAL NOTES

1. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A PROPOSED METHOD OF ACCESS TO THE BRIDGE AND RECEIVE APPROVAL PRIOR TO BEGINNING WORK. IT IS ANTICIPATED THAT CONTRACTOR OPERATIONS WILL NOT DISTURB MORE THAN ONE ACRE OF LAND PER LOCATION. IF THE CONTRACTOR'S METHOD OF ACCESS OR CONSTRUCTION OPERATIONS WILL DISTURB MORE THAN ONE ACRE AT EACH LOCATION THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A NPDES PERMIT AND IMPLEMENTING A STORM WATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION "PROTECTION OF WATER QUALITY AND WETLANDS" AT NO COST TO THE DEPARTMENT.
2. IF THE CONTRACTOR ELECTS TO USE A METHOD OF ACCESS THE REQUIRES TRAFFIC CONTROL DEVICES, THOSE DEVICES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH JOB SECTION 603 AND AS APPROVED BY THE ENGINEER. NO DIRECT PAYMENT WILL BE MADE FOR TRAFFIC CONTROL DEVICES.
3. ANY PROPERTY THAT IS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR. SUCH PROPERTY WILL INCLUDE, BUT NOT BE LIMITED TO, PAVEMENT, SHOULDER, EMBANKMENTS, GRASS, FENCES, FIELD ROADS, EXISTING RIPRAP, RIGHT OF WAY MARKERS, AND BRIDGE COMPONENTS. NO DIRECT PAYMENT WILL BE MADE FOR THIS RESTORATION. PAYMENT SHALL BE SUBSIDIARY TO THE OTHER BID ITEMS.
4. IT IS ANTICIPATED THAT THE WORK CAN BE ACCOMPLISHED ENTIRELY FROM THE EXISTING RIGHT OF WAY.
5. WORK DONE ON HIGHWAY RIGHT OF WAY, INCLUDING STOCKPILING MATERIALS AND CONSTRUCTION OF ACCESS ROADS OR STAGING AREAS, IN ORDER TO COMPLETE THE PROJECT MUST BE APPROVED BY THE ENGINEER. DAMAGES CAUSED BY THE CONTRACTOR MUST BE CORRECTED TO A CONDITION EQUAL TO OR BETTER THAN THE CONDITIONS WHICH EXISTED PRIOR TO THE WORK TAKING PLACE.
6. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
7. THIS PROJECT IS COVERED UNDER MULTIPLE SECTION 404 NATIONWIDE 14 PERMITS AND A SECTION 404 NATIONWIDE 23 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.

ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	05-20-21
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-12-21
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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QUANTITIES						



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EROSION CONTROL

STATION	STATION	LOCATION	SAND BAG DITCH CHECKS	ROCK DITCH CHECKS	SILT FENCE
			(E-5) BAG	(E-6) CU.YD.	(E-11) LIN. FT.
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			660	90	3000
TOTALS:			660	90	3000

BASIS OF ESTIMATE:
 LIME2 TONS / ACRE OF SEEDING
 WATER102.0 M.G. / ACRE OF SEEDING
 WATER20.4 M.G. / ACRE OF TEMPORARY SEEDING
 SAND BAG DITCH CHECKS22 BAGS / LOCATION
 ROCK DITCH CHECKS3 CU.YD./LOCATION
 FILTER SOCKS23 LIN. FT./ 4' DIA. INLET

*QUANTITIES ESTIMATED.
 SEE SECTION 104.03 OF THE STD. SPECS.

QUANTITIES

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DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
10-23-2024		6	ARK.	012494	6	82
01-07-2025		VARIOUS			BRIDGE QUANTITIES 68350	



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SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 012494

SITE NO.	BRIDGE NO.	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM	SP, SS & 210	625	801	SP, SS & 816	SP JOB 012494	SP JOB 012494	SP JOB 012494	SP JOB 012494
					UNCLASSIFIED EXCAVATION (6)	GEOTEXTILE FABRIC (TYPE 5)	COFFERDAM (5)	DUMPED RIPRAP	2 FT. X 2 FT. CONCRETE ARMOR UNITS (4)	GRAVEL-FILLED GEOTEXTILE CONTAINERS (1)(2)	CELLULAR CONCRETE (3)	BRIDGE SITE PREPARATION (SITE NO. _) (7)
				UNIT	CU. YD.	SQ. YD.	SQ. YD.	CU. YD.	EACH	CU. YD.	CU. YD.	LUMP SUM
1	A3424	I-30 WB OVER OUCHITA RIVER	PIER NO. 3			624			5618	59		1.00
TOTALS FOR BRIDGE NO. A3424						624			5618	59		1.00
2	03447	SH 28 OVER FOURCHE-LAFAVE RIVER	PIER NO. 3			321			2885	135		1.00
TOTALS FOR BRIDGE NO. 03447						321			2885	135		1.00
3	02466	US 79 OVER OUCHITA RIVER	PIER NO. 3			451		480				1.00
TOTALS FOR BRIDGE NO. 02466						451		480				1.00
4	03476	SH 53 OVER LITTLE MISSOURI RIVER	PIER NOS. 3 & 4 AND BENT NO. 24			794		1349				1.00
TOTALS FOR BRIDGE NO. 03476						794		1349				1.00
5	03643	US 64 OVER ILLINOIS-BAYOU	PIER NOS. 5 & 6			235			2717	159	22	1.00
TOTALS FOR BRIDGE NO. 03643						235			2717	159	22	1.00
6	05600	SH 109 OVER ARKANSAS RIVER	BENT NOS. 25-28 & 42		1086	4093	2		37,444	2283	188	1.00
TOTALS FOR BRIDGE NO. 05600					1086	4093	2		37,444	2283	188	1.00
TOTALS FOR JOB NO. 012494					1086	6518	2	1829	48,664	2636	210	

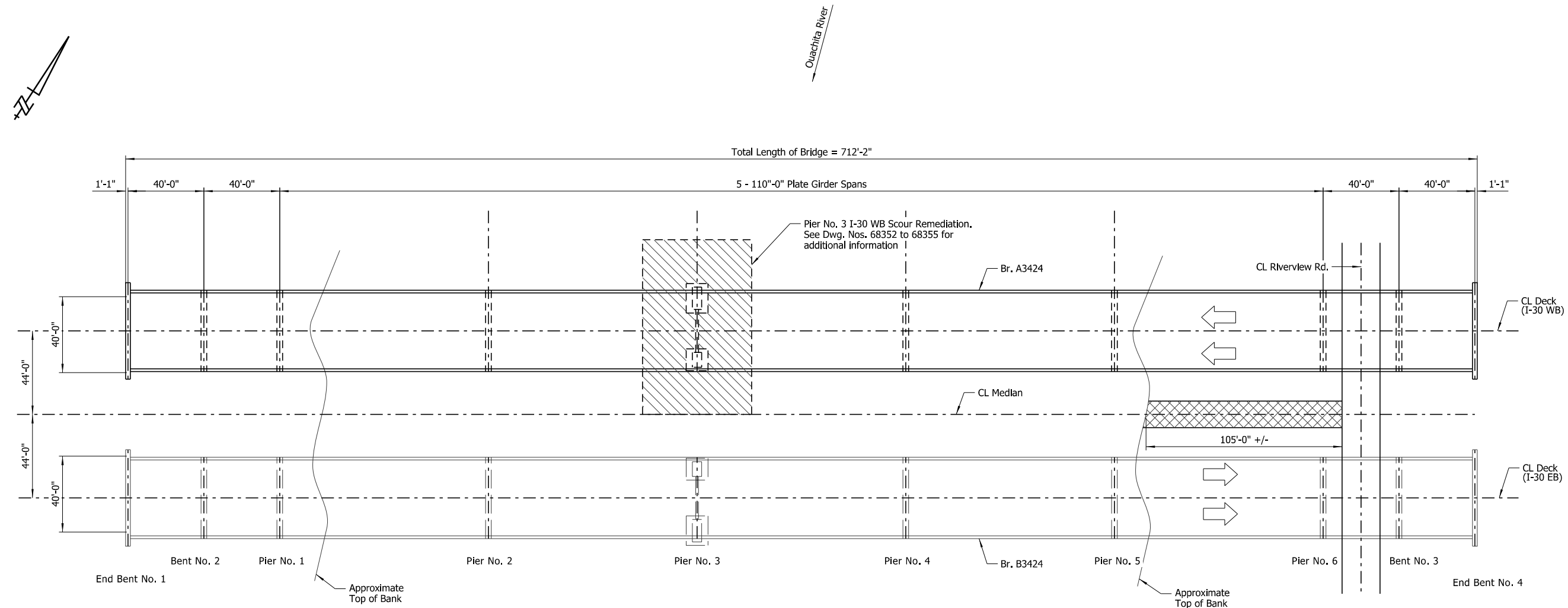
- ① Quantity shown is for total cubic yards of material required to meet the elevations shown in the design plans. Each container will be 5 ft. x 4 ft. x 1 ft. See SP Job 012494 "Gravel-Filled Geotextile Containers" for more information.
- ② Contractor shall be responsible for removing debris at piers, if encountered, prior to placement of gravel-filled geotextile containers. Removal of debris at piers, if any, will be considered subsidiary to SP Job 012494 "Gravel-Filled Geotextile Containers".
- ③ Includes all costs of providing, placing, and handling of the 3/8" Grade A36 steel plates required to contain the concrete for the footing repair at Bridge No. 03643 as shown on Dwg. No. 68382.
- ④ Includes additional 10% quantity to account for irregularity of concrete armor placement area limits.
- ⑤ Includes costs for all materials and installation as shown in details on Dwg. No. 68400 and 68415, excluding "Cellular Concrete". Materials required include, but are not limited to, W24 X 84 walers, PZ27 sheet piling, H.S. bolts. All cofferdam materials are to remain in place for final condition below top of footing. Includes costs for removal of any excess material above top of footing shall be included.
- ⑥ Quantity shown is for estimating and bidding purposes only. Actual quantity will be determined in field.
- ⑦ Includes bridge site preparation at two locations for Site No. 6 (Bridge No. 05600).

SCHEDULE OF BRIDGE QUANTITIES
SPECIALIZED BRIDGE SCOUR REMEDIATION (S)
ROUTE _____ SEC. _____
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: WMM DATE: JUNE 2024 FILENAME: b012494x0_q1.dgn
CHECKED BY: JLH DATE: JUNE 2024 SCALE: No Scale
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. VARIOUS DRAWING NO. 68350

1/7/2025 2:00:15 PM
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 REVISED DATE:



BRIDGE ENGINEER

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	8	82
A3424				LAYOUT	68351	



PLAN
Scale: 1" = 30'-0"

LEGEND

-  Area of Scour Remediation
-  Proposed Temporary Work Road

GENERAL NOTES

BENCH MARK: Top of deck at CL Deck, Bridge No. A3424, CL Pier No. 3, Elev. 271.09 as shown in existing plans.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable supplemental specifications and special provisions.

The proposed work consists of placing gravel-filled geotextile containers, geotextile fabric (Type 5) and 2 ft. x 2 ft. concrete armor units on the indicated areas of stream channel, see Dwg. Nos. 68352 to 68355 for additional details. The finished surface of the gravel-filled geotextile containers shall meet Elev. 227.14 and shall not be sloped. Care shall be exercised to avoid damaging the bridge while placing the scour remediation materials under the bridge and around the spread footings and curtain wall. The scour remediation materials may be placed underwater in a manner that maintains the required elevation. The Contractor shall take soundings to verify thickness and extent.

At the time of the September 2021 UW Inspection, the waterline was at Elev. 231.8.

NOTES:

Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

Contractor can access this site by utilizing single lane closure on I-30. All traffic control for single lane closure shall meet the current ARDOT and MUTCD standards.



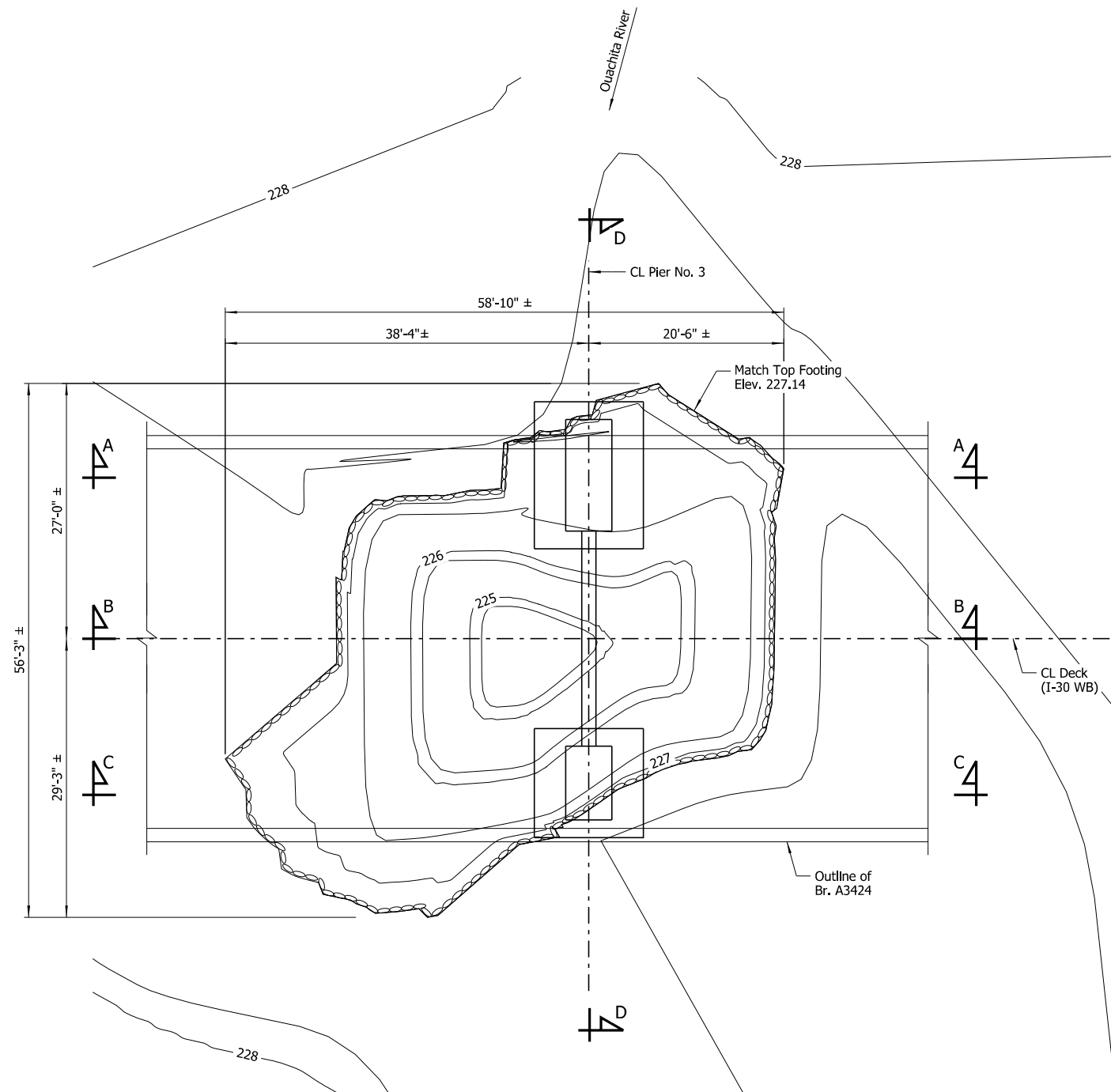
**LAYOUT OF SCOUR REPAIR
I-30 WB OVER OUACHITA RIVER
HOT SPRING COUNTY**

ROUTE I-30 SEC. 21
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

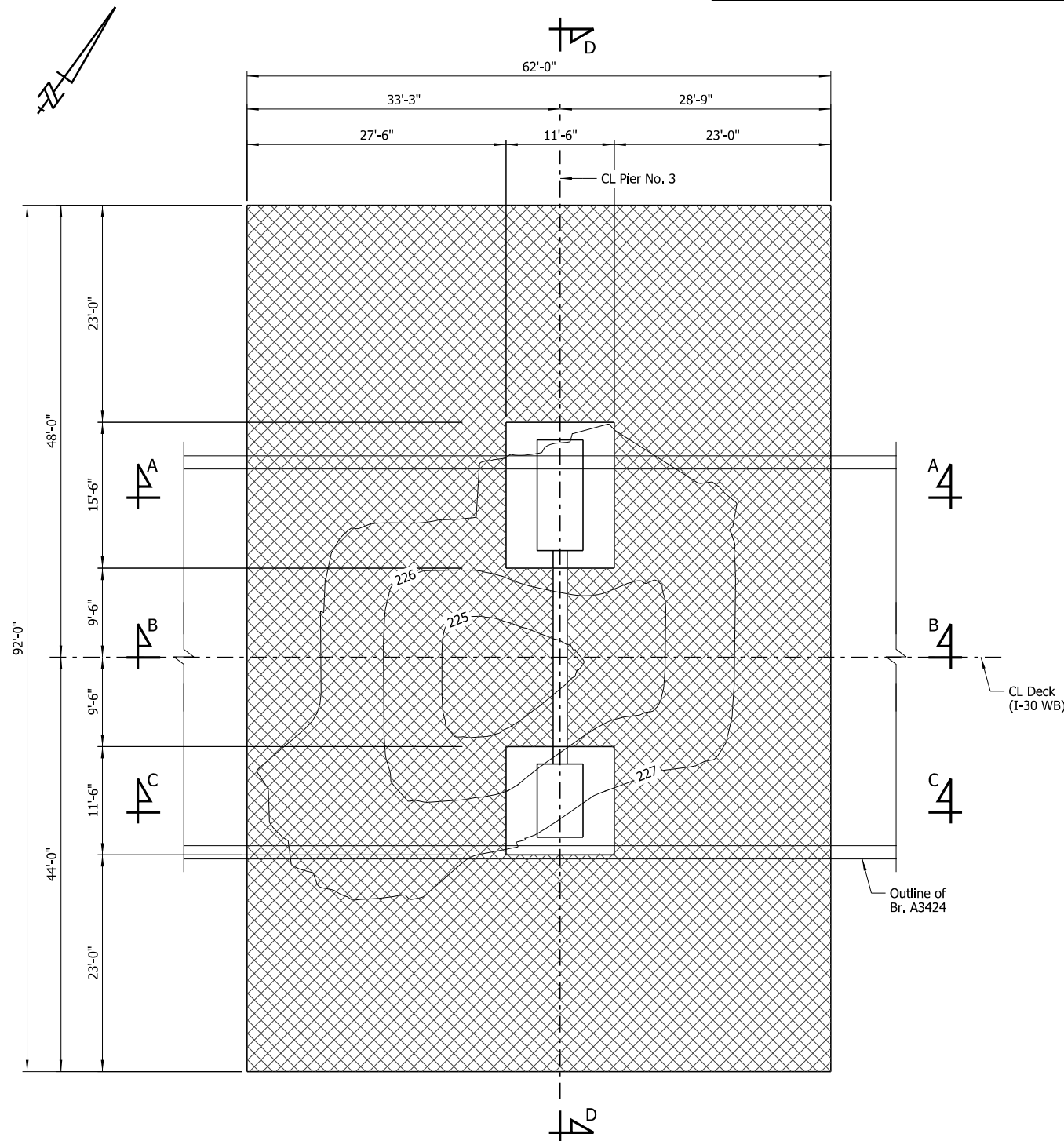
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 DESIGNED BY: JLH DATE: JUNE 2024
 BRIDGE NO. **A3424** DRAWING NO. **68351**

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 \\arvhnclocal\gdata\Projects\2021\2110104 - ARDOT Statewide Scour Remediation\Drawings\SUBMITTAL - Overall - Without Interchange\A3424\012494x1_I1.dgn
 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	9	82
		A3424	SCOUR REPAIR DETAILS		68352	





PLAN - PIER NO. 3
Showing Gravel-Filled Geotextile Container Placement
Scale: 1/8" = 1'-0"



PLAN - PIER NO. 3
Showing Concrete Armor Unit Placement
Scale: 1/8" = 1'-0"

NOTES:
For "Section A-A" and "Section B-B", see Dwg. No. 68353.
For "Section C-C", see Dwg. No. 68354.
For "Section D-D", see Dwg. No. 68355.

LEGEND

-  Concrete Armor Unit Placement Area
-  Gravel-filled Geotextile Container Placement Area

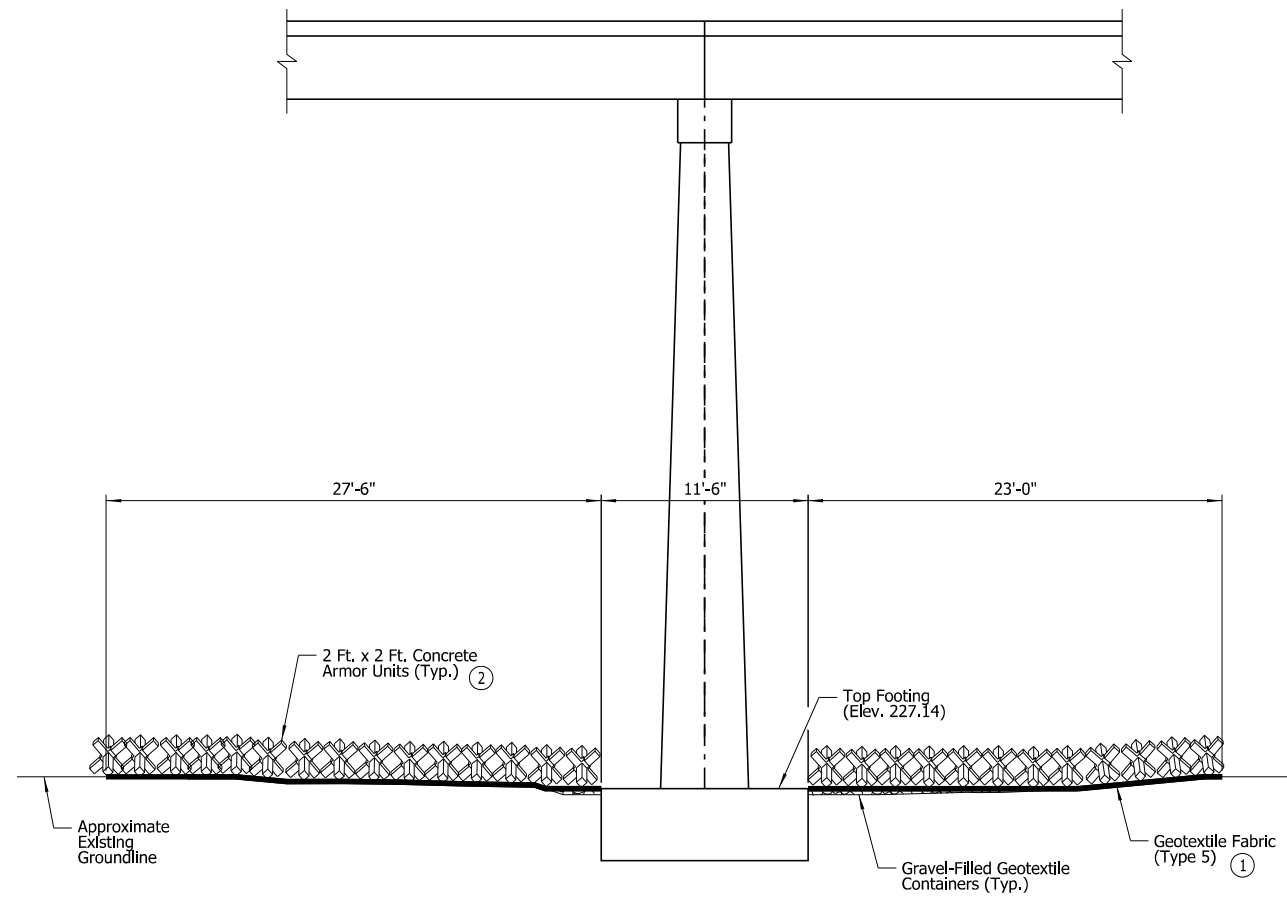


SHEET 1 OF 4
PIER NO. 3 SCOUR REPAIR DETAILS
I-30 WB OVER OUACHITA RIVER
ROUTE I-30 SEC. 21
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x1_md1.dgn
CHECKED BY: JLH DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. A3424 DRAWING NO. 68352

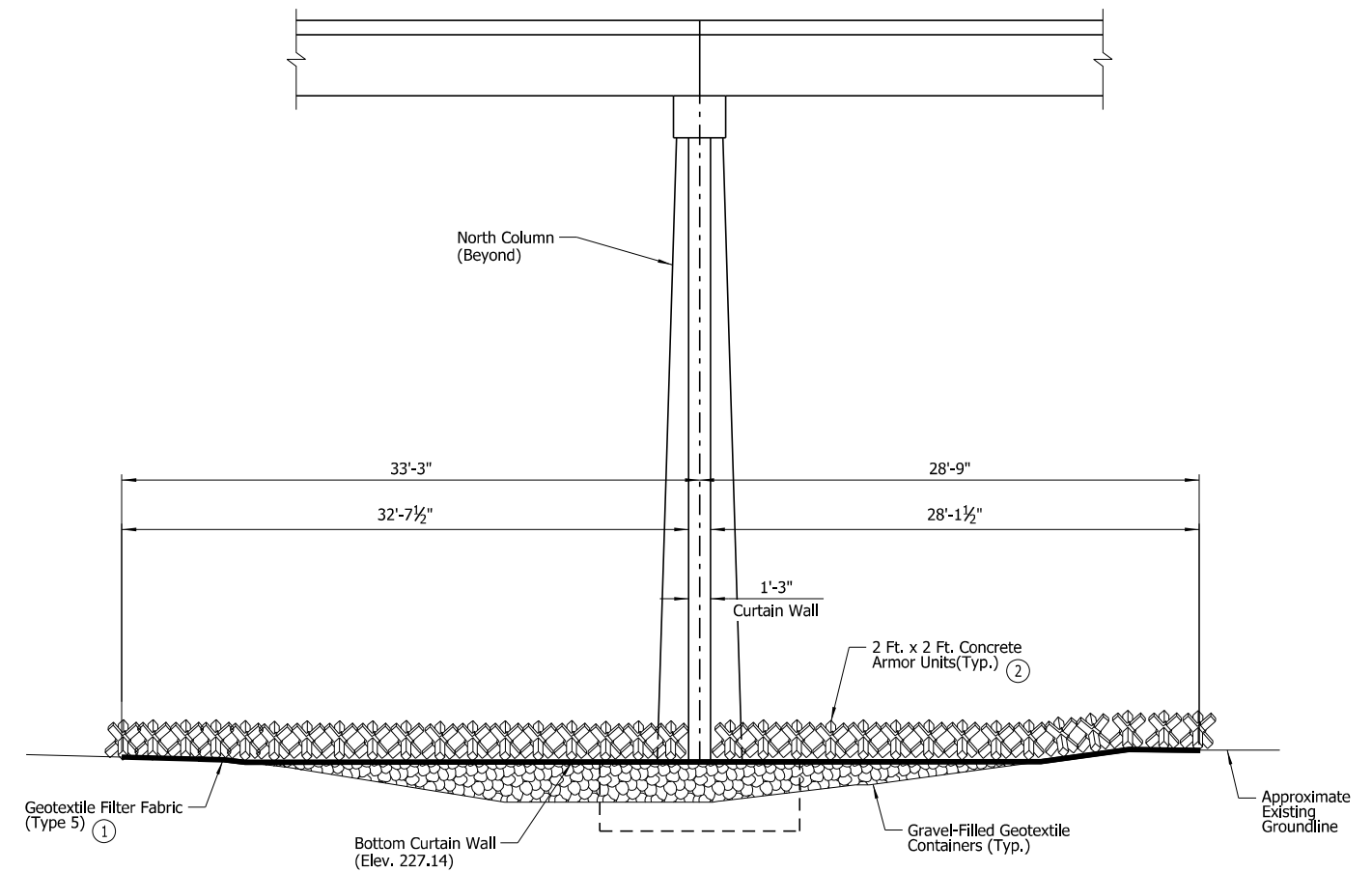
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 REVISED DATE:

NOTE:
Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	10	82
		A3424	SCOUR REPAIR DETAILS		68353	



SECTION A-A
Showing Pier No. 3 at North Footing
Scale: $\frac{3}{16}$ " = 1'-0"



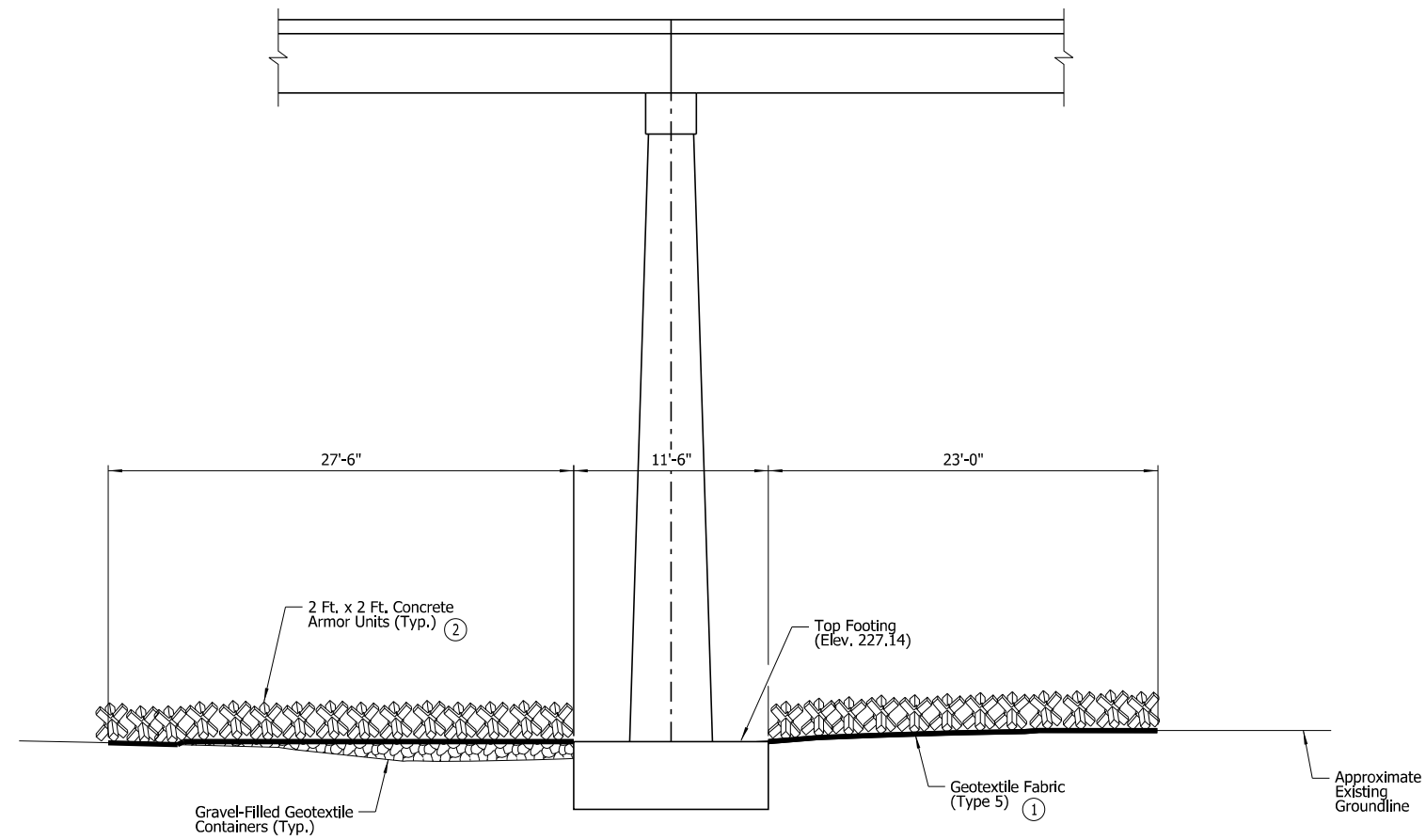
SECTION B-B
Showing Pier No. 3 at CL Bridge
Scale: $\frac{3}{16}$ " = 1'-0"

- ① Attach Geotextile Fabric To Concrete Armor Unit Bundle Prior To Installation
- ② For placement details, see Dwg. No. 68352.



SHEET 2 OF 4
PIER NO. 3 SCOUR REPAIR DETAILS
I-30 WB OVER OUACHITA RIVER
ROUTE I-30 SEC. 21
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x1_md2.dgn
CHECKED BY: JLH DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. A3424 DRAWING NO. 68353

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	11	82
		A3424 SCOUR REPAIR DETAILS			68354	



SECTION C-C
Showing Pier No. 3 at South Footing
Scale: $\frac{3}{8}$ " = 1'-0"

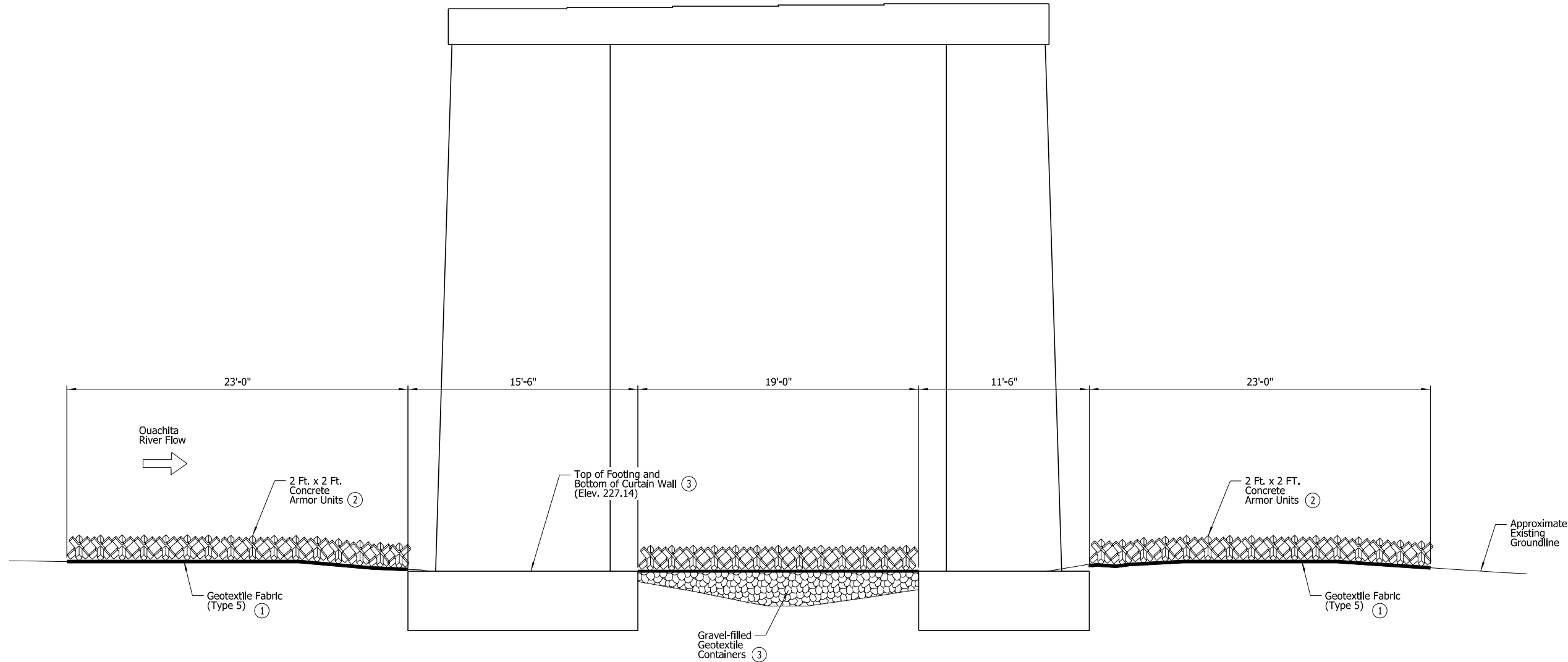
- ① Attach Geotextile Fabric To Concrete
Armor Unit Bundle Prior To Installation
- ② For placement details, see Dwg. No. 68352.



DIGITALLY SIGNED 08/07/2024
BRIDGE ENGINEER

SHEET 3 OF 4
PIER NO. 3 SCOUR REPAIR DETAILS
I-30 WB OVER OUACHITA RIVER
ROUTE I-30 SEC. 21
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x1_md3.dgn
CHECKED BY: JLH DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. A3424 DRAWING NO. 68354

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	12	82
		A3424	SCOUR REPAIR DETAILS		68355	



SECTION D-D
 Showing Elevation Near CL Pier No. 3 at Edge of Curtain Wall
 (Looking Ahead)
 Scale: 1/4" = 1'-0"

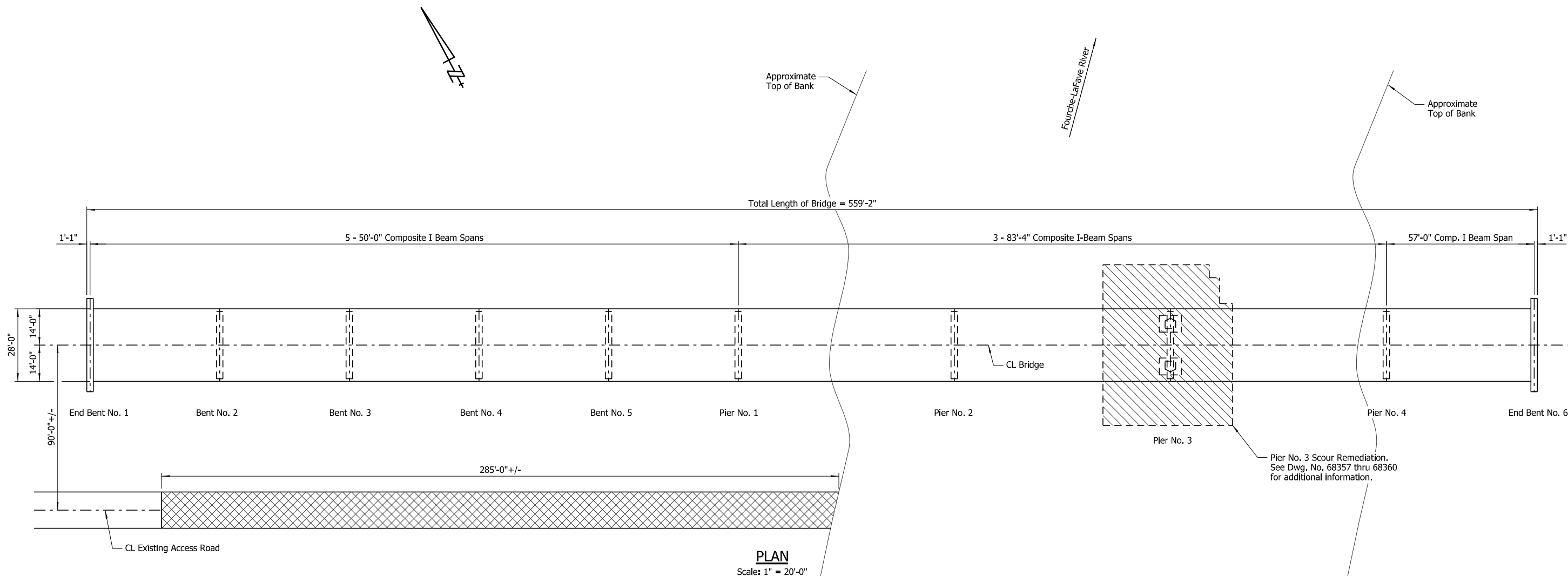
- ① Attach Geotextile Fabric To Concrete Armor Unit Bundle Prior To Installation
- ② For placement details, see Dwg. No. 68352.
- ③ Within the limits of the curtain wall, the Gravel-filled Geotextile Containers shall extend to the bottom of the curtain wall.

DIGITALLY SIGNED 08/07/2024
 BRIDGE ENGINEER

SHEET 4 OF 4
PIER NO. 3 SCOUR REPAIR DETAILS
I-30 WB OVER OUACHITA RIVER
 ROUTE I-30 SEC. 21
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
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 CHECKED BY: JLH DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. A3424 DRAWING NO. 68355



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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	13	82
				03447	LAYOUT	68356



PLAN
Scale: 1" = 20'-0"

LEGEND

-  Area of Scour Remediation
-  Proposed Temporary Work Road

GENERAL NOTES

BENCH MARK: Top of deck at CL Bridge No. 03447, CL Pier No. 3, Elev. 586.50 as shown in existing plans.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable supplemental specifications and special provisions.

The proposed work consists of placing gravel-filled geotextile containers, geotextile fabric (Type 5) and 2 ft. x 2 ft. concrete armor units on the indicated areas of stream channel, see Dwg. Nos. 68357 to 68360 for additional details. The finished surface of the gravel-filled geotextile containers shall meet Elev. 556.50 and shall not be sloped. Care shall be exercised to avoid damaging the bridge while placing the scour remediation materials under the bridge and around the spread footings and curtain wall. The scour remediation materials may be placed underwater in a manner that maintains the required elevation. The Contractor shall take soundings to determine thickness and extent.

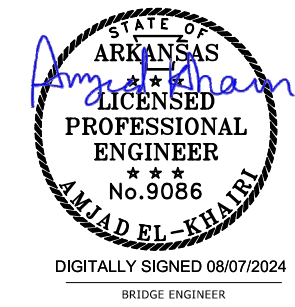
At the time of the March 2022 UW Inspection, the waterline was at Elev. 564.4.

NOTES:

Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

Contractor can access this site by utilizing single lane closure on Hwy. 28. All traffic control for single lane closure shall meet the current ARDOT and MUTCD standards.

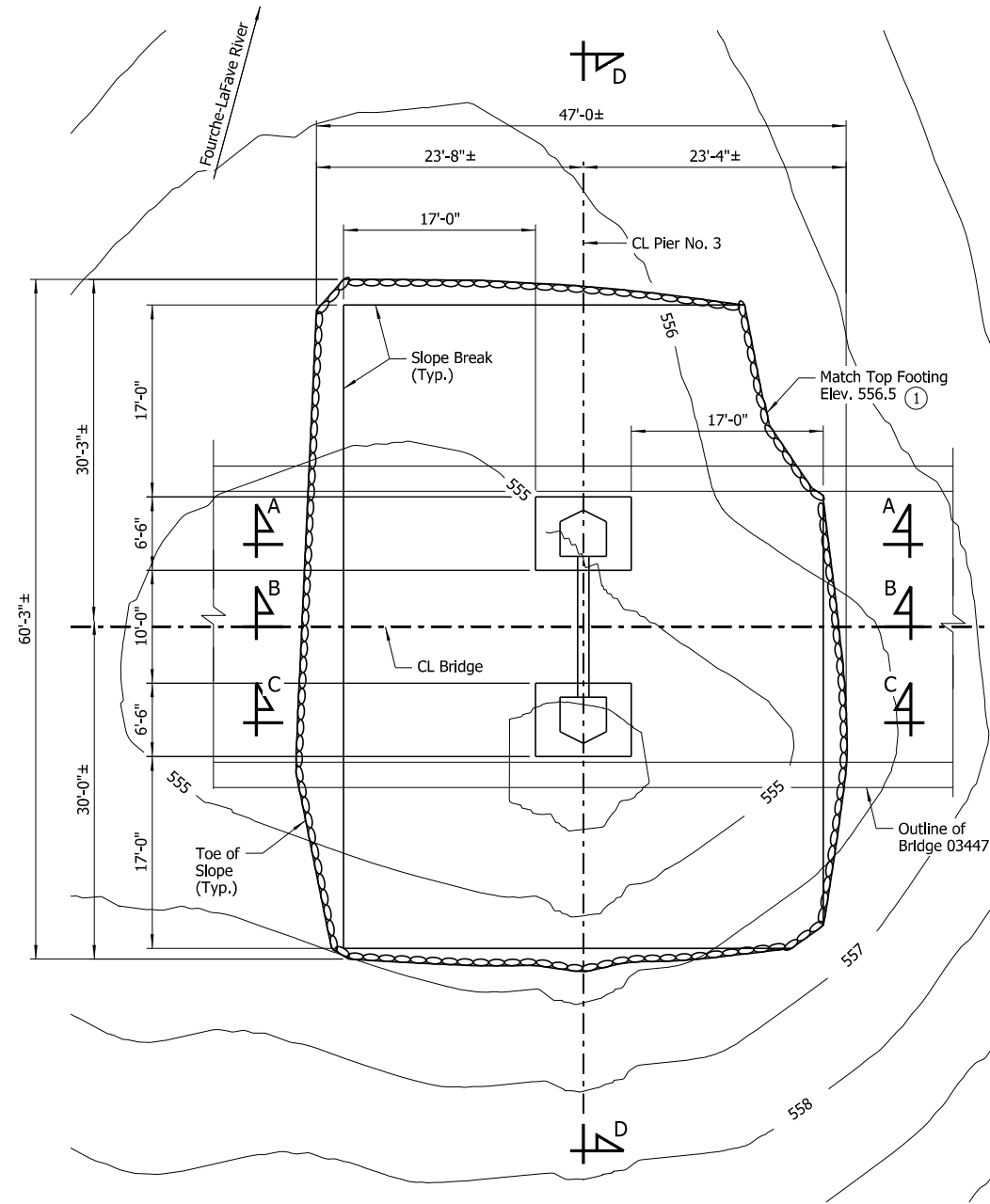
LAYOUT OF SCOUR REPAIR
STATE HWY. 28 OVER FOURCHE-LAFAVE RIVER
SCOTT COUNTY
ROUTE 28 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.



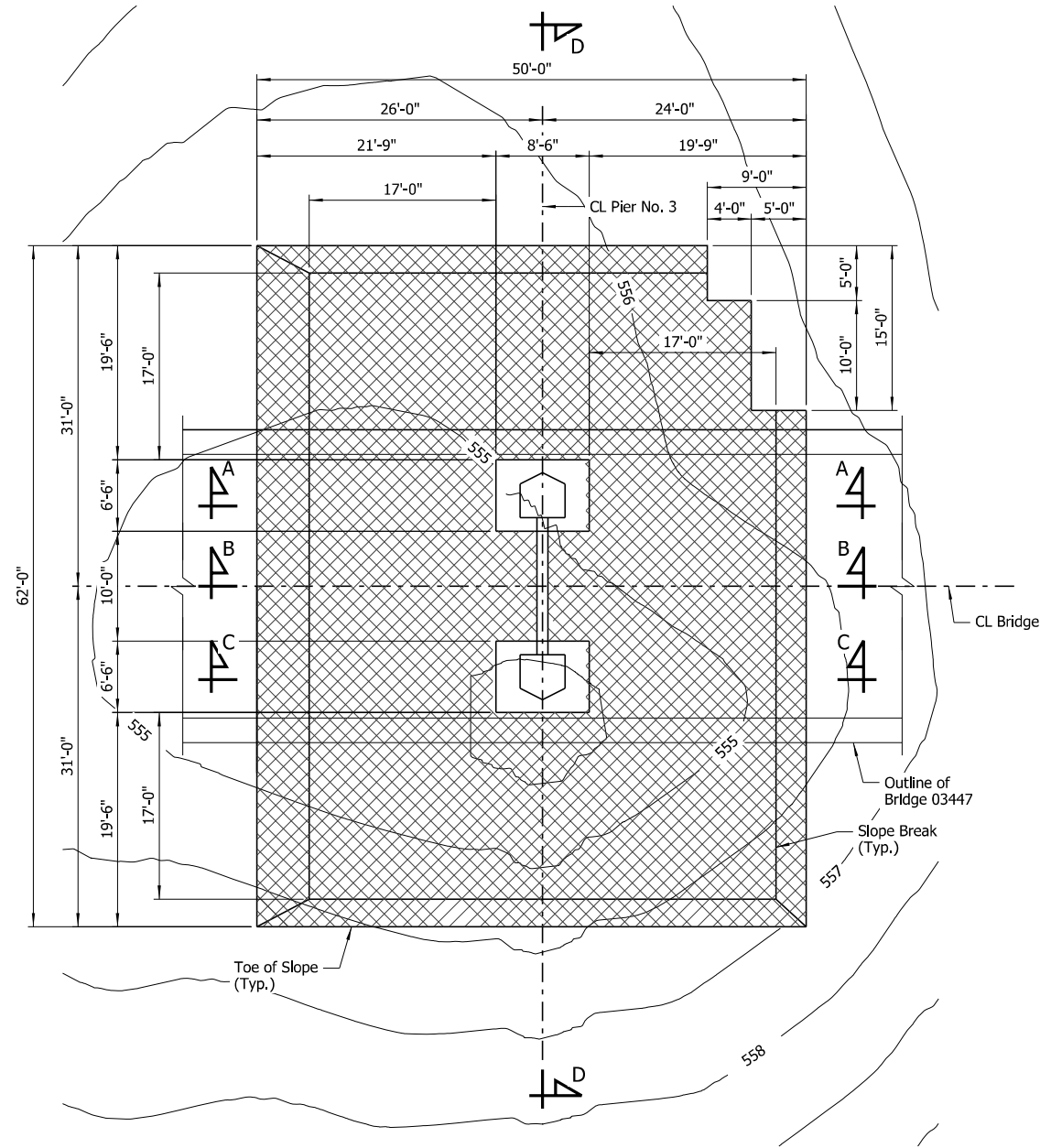
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CHECKED BY: WMM DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: JLH DATE: JUNE 2024
BRIDGE NO. 03447 DRAWING NO. 68356

8/7/2024 3:19:26 PM
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	14	82
		03447	SCOUR REPAIR DETAILS		68357	



PLAN - PIER NO. 3
Showing Gravel-Filled Geotextile Container Placement
Scale: 1/8" = 1'-0"





PLAN - PIER NO. 3
Showing Concrete Armor Unit Placement
Scale: 1/8" = 1'-0"

① Per Underwater Inspection
Email on 12-09-22.

NOTE:
Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

NOTES:
For "Section A-A" & "Section B-B", see Dwg. No. 68358.
For "Section C-C", see Dwg. No. 68359.
For "Section D-D", see Dwg. No. 68360.

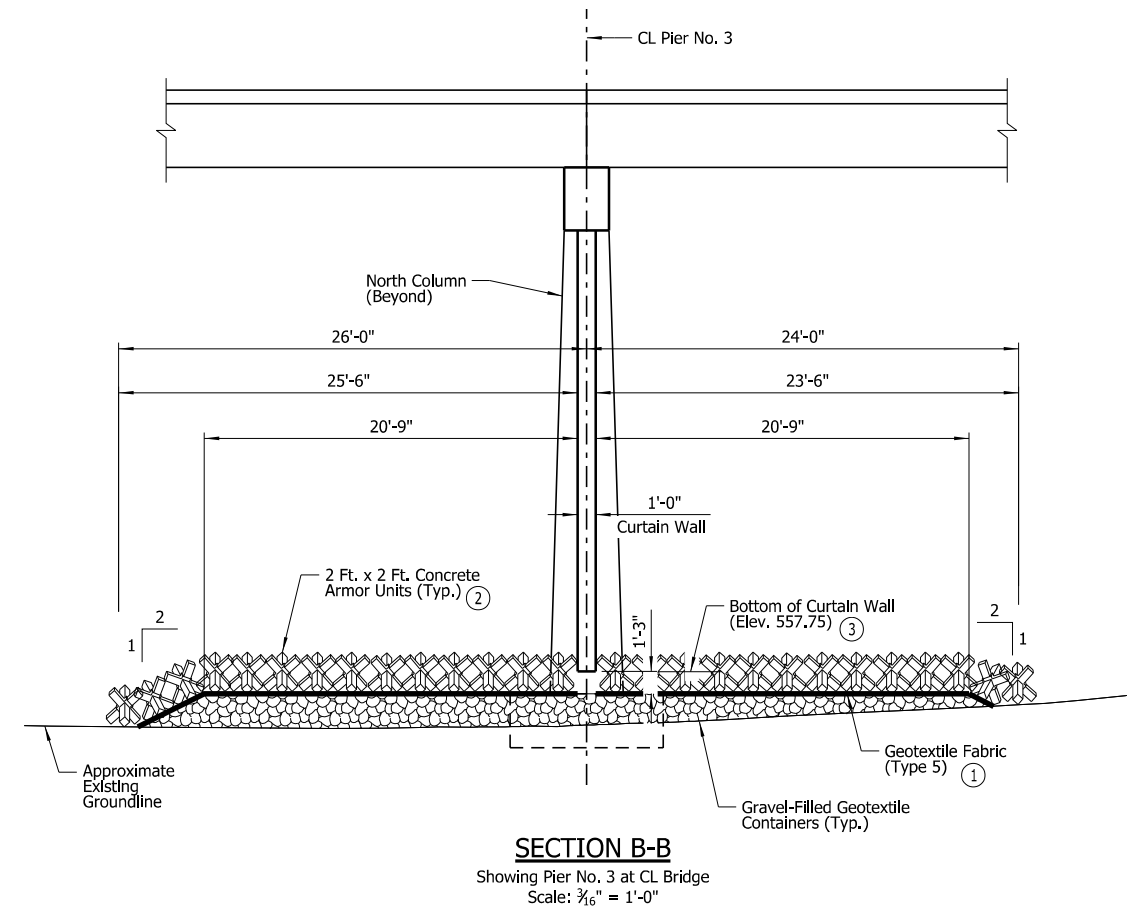
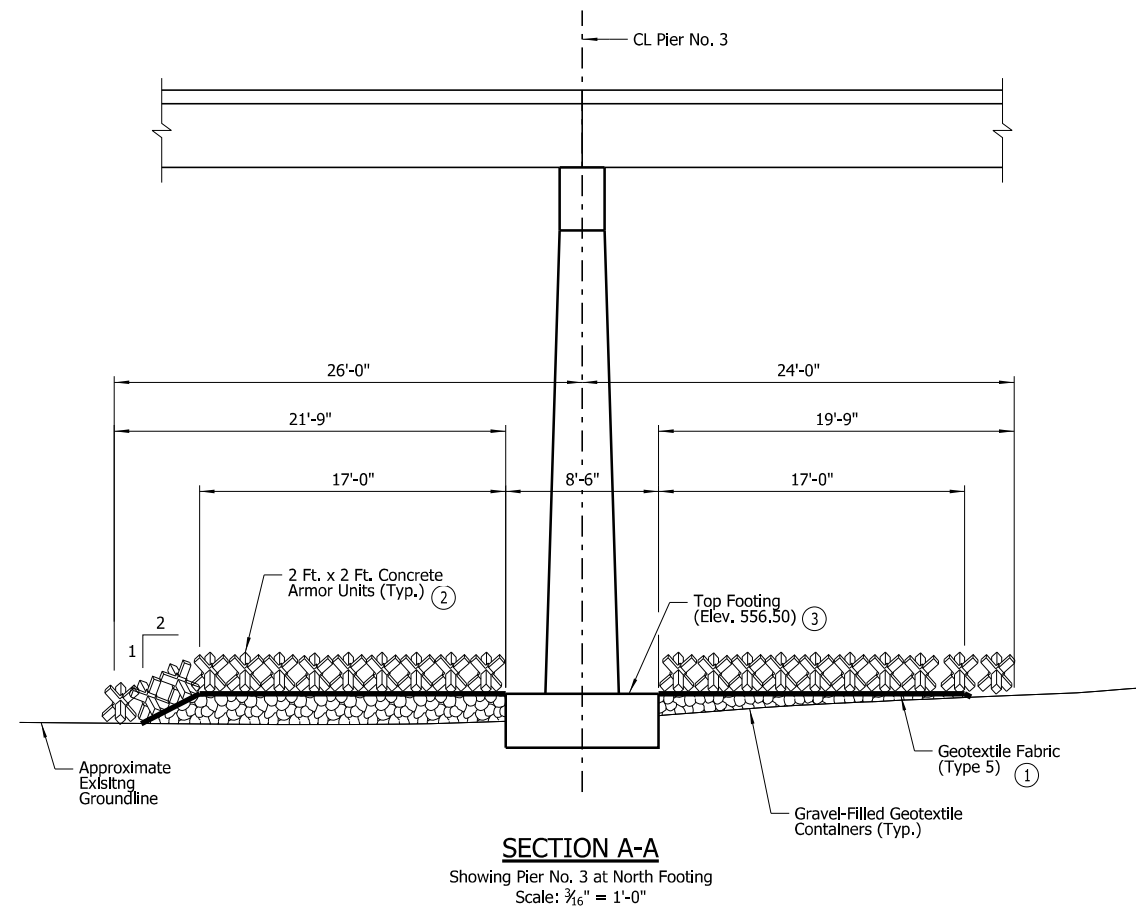
- LEGEND**
-  Concrete Armor Unit Placement Area
 -  Gravel-Filled Geotextile Container Placement



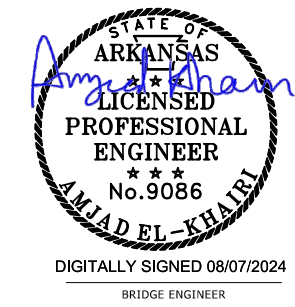
SHEET 1 OF 4
PIER NO. 3 SCOUR REPAIR DETAILS
STATE HWY. 28 OVER FOURCHE-LAFAYE RIVER
ROUTE 28 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
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CHECKED BY: JLH DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 03447 DRAWING NO. 68357

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	15	82
		03447 SCOUR REPAIR DETAILS			68358	



- ① Attach Geotextile Fabric To Concrete Armor Unit Bundle Prior To Installation
- ② For placement details, see Dwg. No. 68357.
- ③ Per Underwater Inspection Email on 12-09-22.

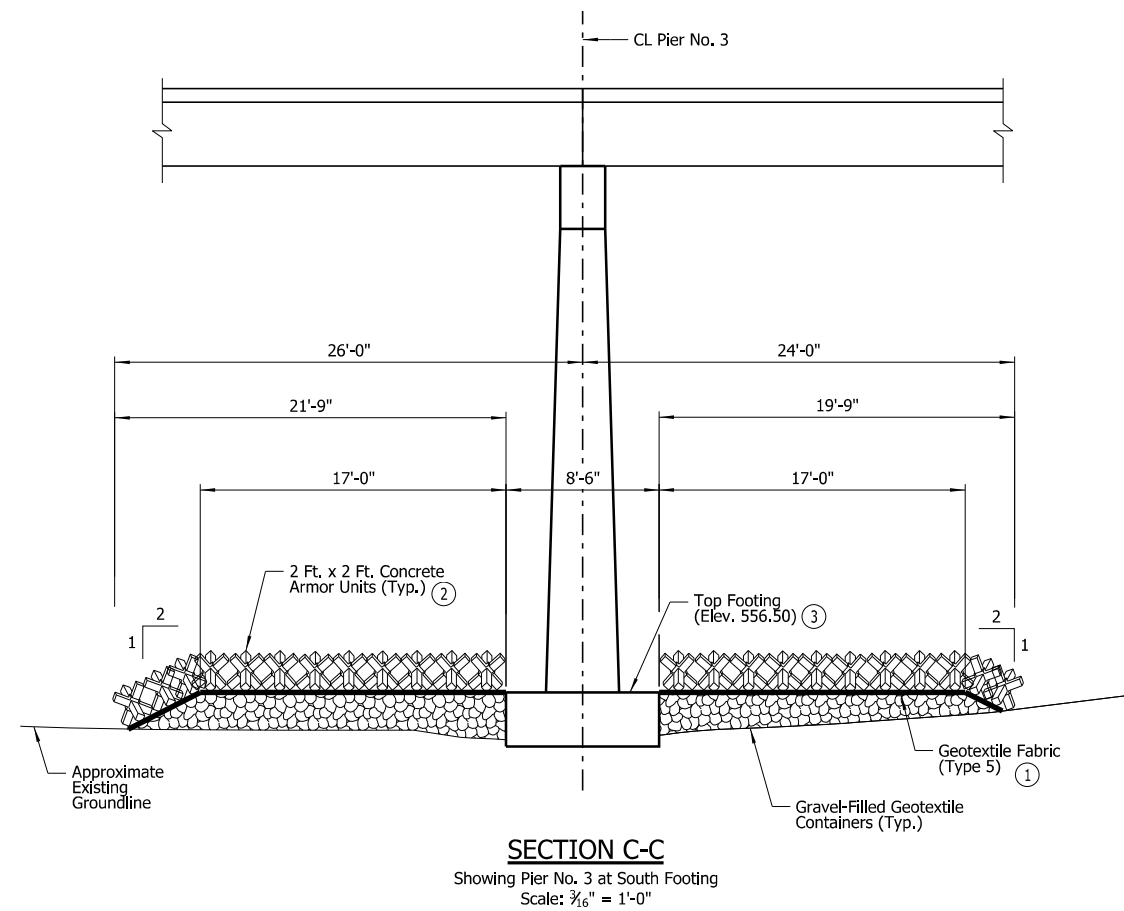


SHEET 2 OF 4
PIER NO. 3 SCOUR REPAIR DETAILS
STATE HWY. 28 OVER FOURCHE-LAFAVE RIVER
ROUTE 28 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

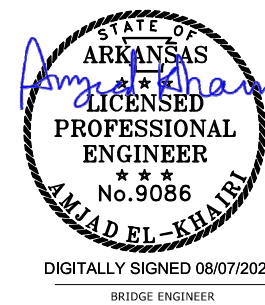
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CHECKED BY: JLH DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 03447 DRAWING NO. 68358

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	16	82
				03447	SCOUR REPAIR DETAILS	68359



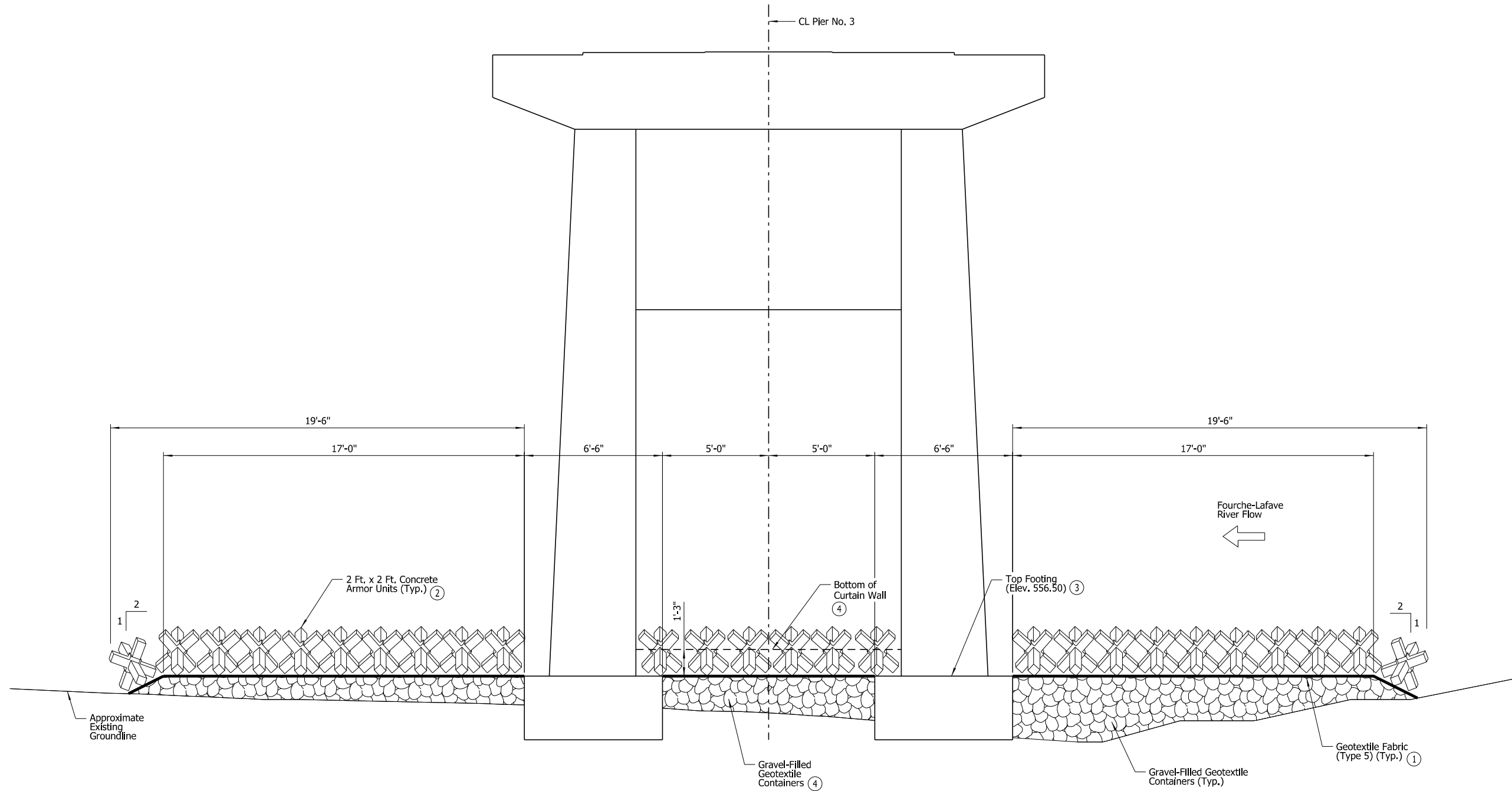
- ① Attach Geotextile Fabric To Concrete Armor Unit Bundle Prior To Installation
- ② For placement details, see Dwg. No. 68357.
- ③ Per Underwater Inspection Email on 12-09-22.



SHEET 3 OF 4
PIER NO. 3 SCOUR REPAIR DETAILS
STATE HWY. 28 OVER FOURCHE-LAFAVE RIVER
ROUTE 28 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x2_md3.dgn
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 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. **03447** DRAWING NO. **68359**

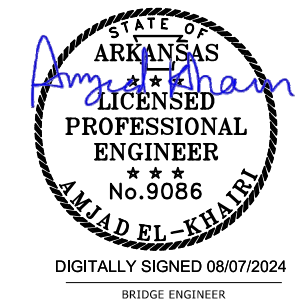
DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	17	82
		03447	SCOUR REPAIR DETAILS		68360	



SECTION D-D

Showing Elevation Near CL Pier No. 3 at Edge of Curtain Wall (Looking Ahead)
Scale: 3/8" = 1'-0"

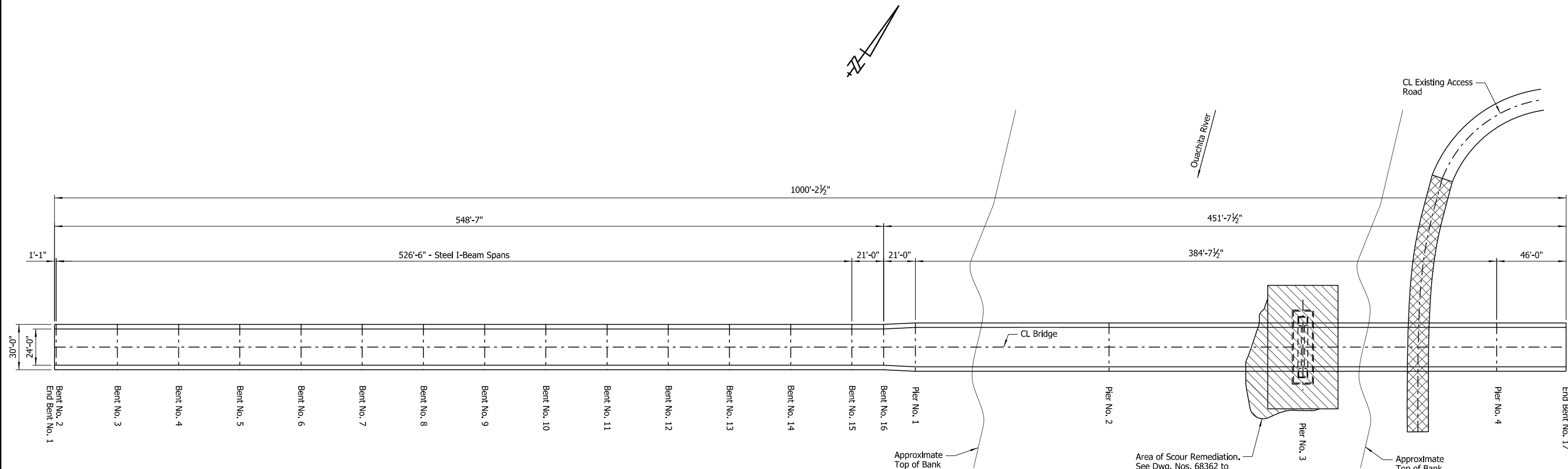
- ① Attach Geotextile Fabric To Concrete Armor Unit Bundle Prior To Installation
- ② For placement details, see Dwg. No. 68357.
- ③ Per Underwater Inspection Email on 12-09-22.
- ④ Within the limits of the curtain wall, the Gravel-filled Geotextile Containers shall extend to the bottom of the curtain wall.



SHEET 4 OF 4
PIER NO. 3 SCOUR REPAIR DETAILS
STATE HWY. 28 OVER FOURCHE-LAFAVE RIVER
ROUTE 28 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x2_md4.dgn
CHECKED BY: JLH DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 03447 DRAWING NO. 68360



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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	18	82
02466				LAYOUT	68361	



PLAN
No Scale

LEGEND

-  Area of Scour Remediation
-  Proposed Temporary Work Road

NOTES:

Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

Contractor can access this site by utilizing single lane closure on Hwy. 79. All traffic control for single lane closure shall meet the current ARDOT and MUTCD standards.

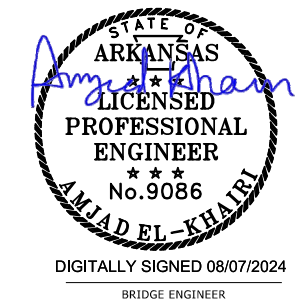
GENERAL NOTES

BENCH MARK: Top of deck at CL Bridge No.02466, CL Pier No. 3, Elev. 120.57 as shown in existing plans.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable supplemental specifications and special provisions.

The proposed work consists of placing rtrap on the indicated areas of stream channel, see Dwg. Nos. 68362 to 68365 for additional details. Care shall be exercised to avoid damaging the bridge while placing the scour remediation materials under the bridge and around the footing. The scour remediation materials may be placed underwater in a manner that maintains the required elevation. The Contractor shall take soundings to determine thickness and extent.

At the time of the March 2022 UW Inspection, the waterline was at Elev. 79.1.

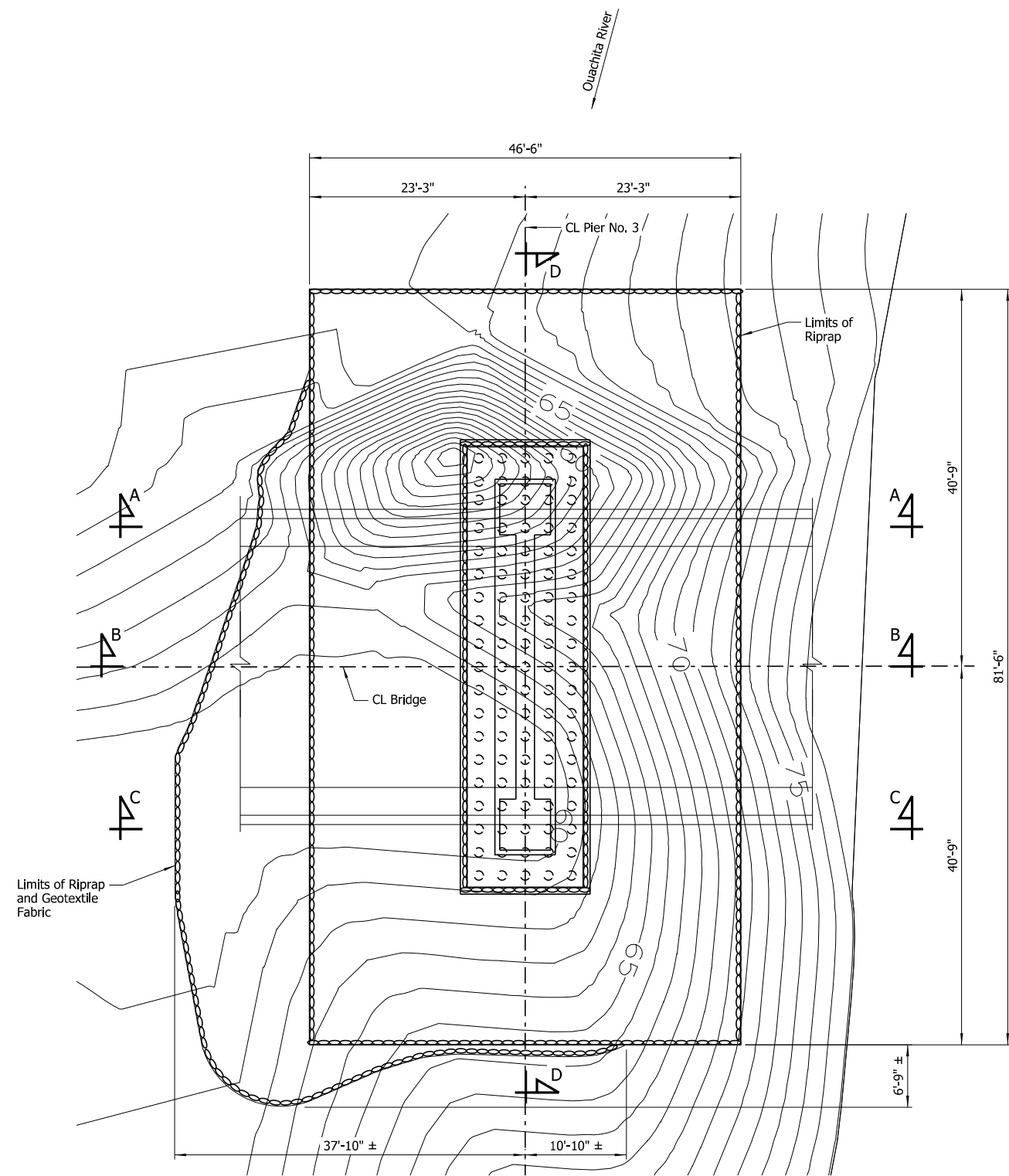
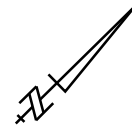


**LAYOUT OF SCOUR REPAIR
US 79 BRIDGE OVER OUACHITA RIVER
OUACHITA COUNTY**
ROUTE 79 SEC. 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x3_IL.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 02466 DRAWING NO. 68361

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	19	82
				02466	SCOUR REPAIR DETAILS	68362



PLAN - PIER NO. 3
 Showing Limits of Riprap Placement
 Scale: 1/8" = 1'-0"

NOTE:
 Place riprap to top of existing footing or a minimum of 10 1/2" above channel bottom whichever is higher. Riprap placed higher than the top of the footing elevation shall be transitioned to top of footing at a 1V:1H slope.

NOTES:
 For "Section A-A" and "Section B-B", see Dwg. No. 68363.
 For "Section C-C", see Dwg. No. 68364.
 For "Section D-D", see Dwg. No. 68365.

NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

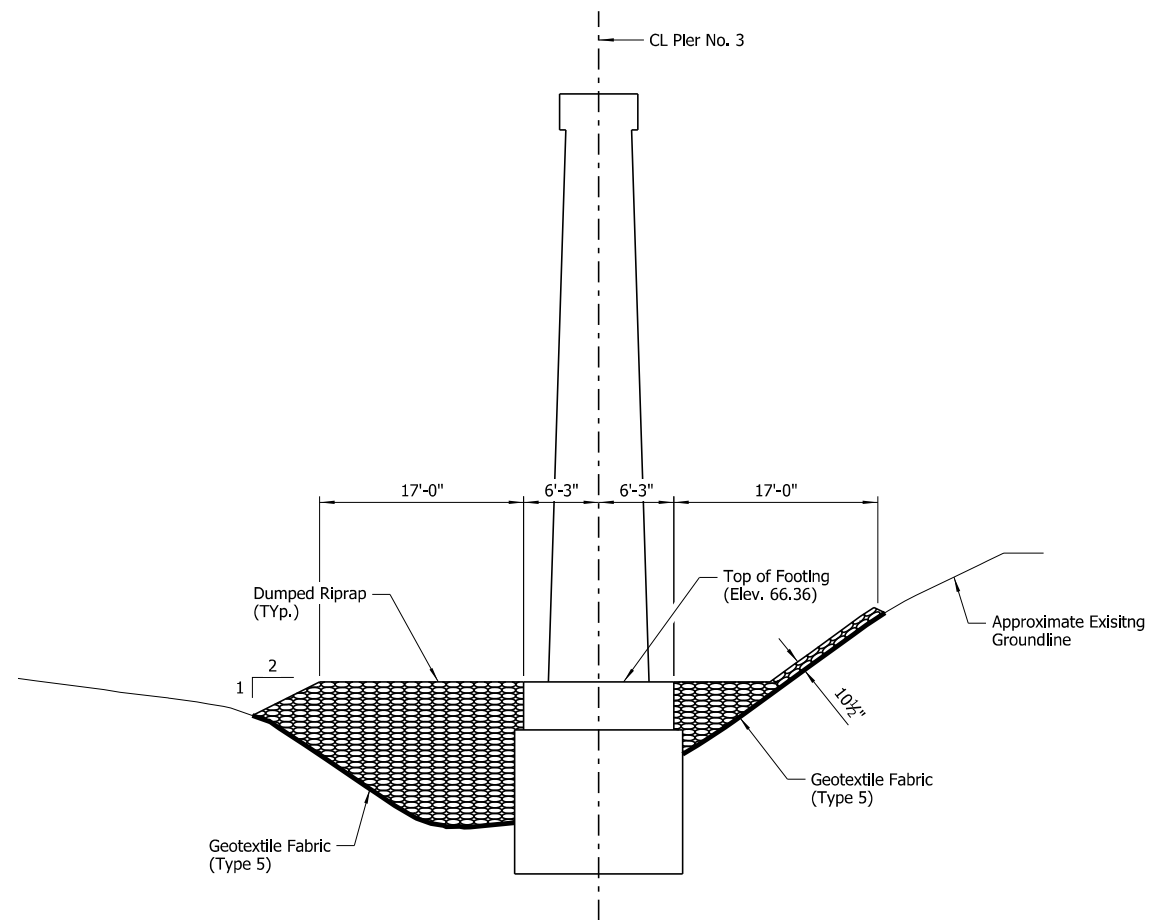
LEGEND
 Riprap and Geotextile Fabric Placement Area

STATE OF ARKANSAS
 AMY EL-KHAIRI
 LICENSED PROFESSIONAL ENGINEER
 No. 9086
 DIGITALLY SIGNED 08/07/2024
 BRIDGE ENGINEER

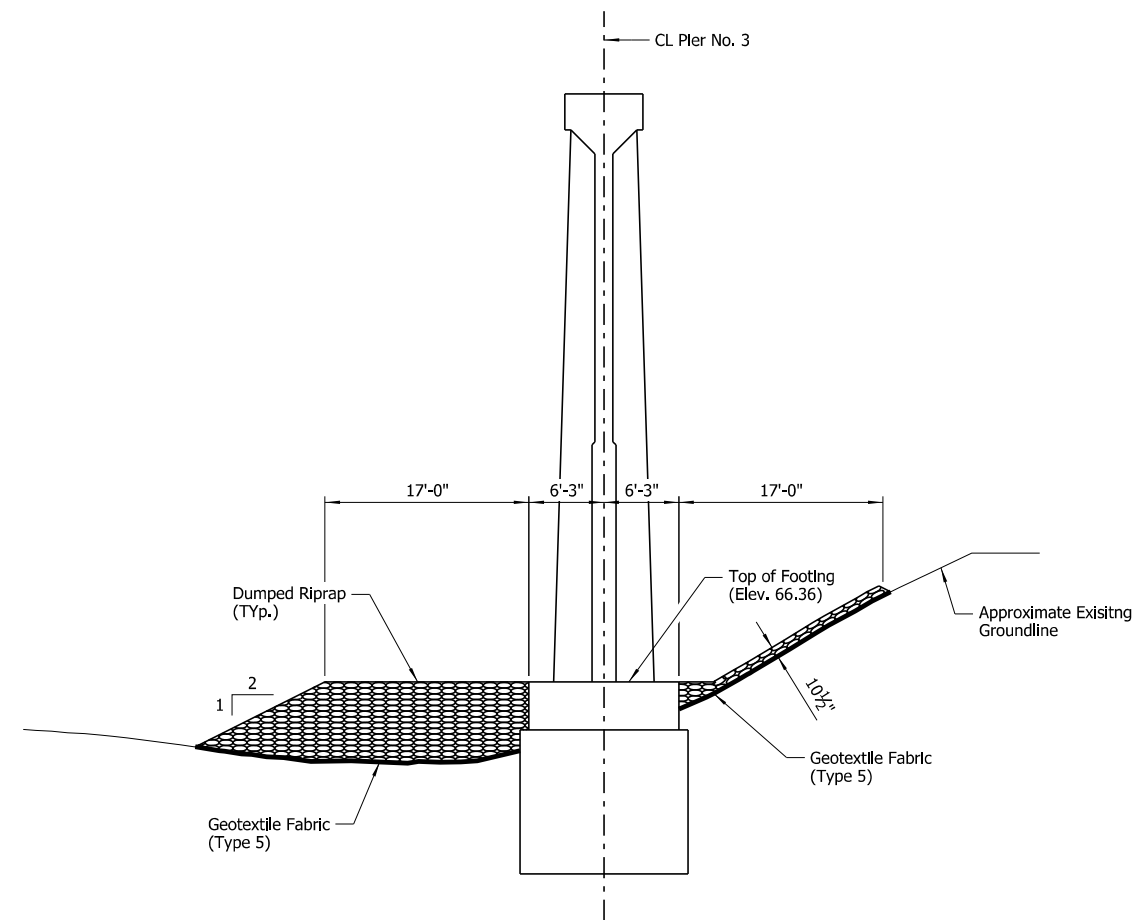
SHEET 1 OF 4
 PIER NO. 3 SCOUR REPAIR DETAILS
 US 79 OVER OUACHITA RIVER
 ROUTE 79 SEC. 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x3_md1.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 02466 DRAWING NO. 68362

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 WORKSPACE: ARDOT Bridge (2019)
 \\arvnet\local\gdata\Projects\2021\2110104 - ARDOT Statewide Scour Remediation\Drawings\SUBMITTAL - Overall - Without Interchange\02466\012494x3_md1.dgn
 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	20	82
				02466	SCOUR REPAIR DETAILS	68363



SECTION A-A
Showing Pier No. 3 at North End of Footing
Scale: 1/8" = 1'-0"



SECTION B-B
Showing Pier No. 3 at CL Bridge
Scale: 1/8" = 1'-0"

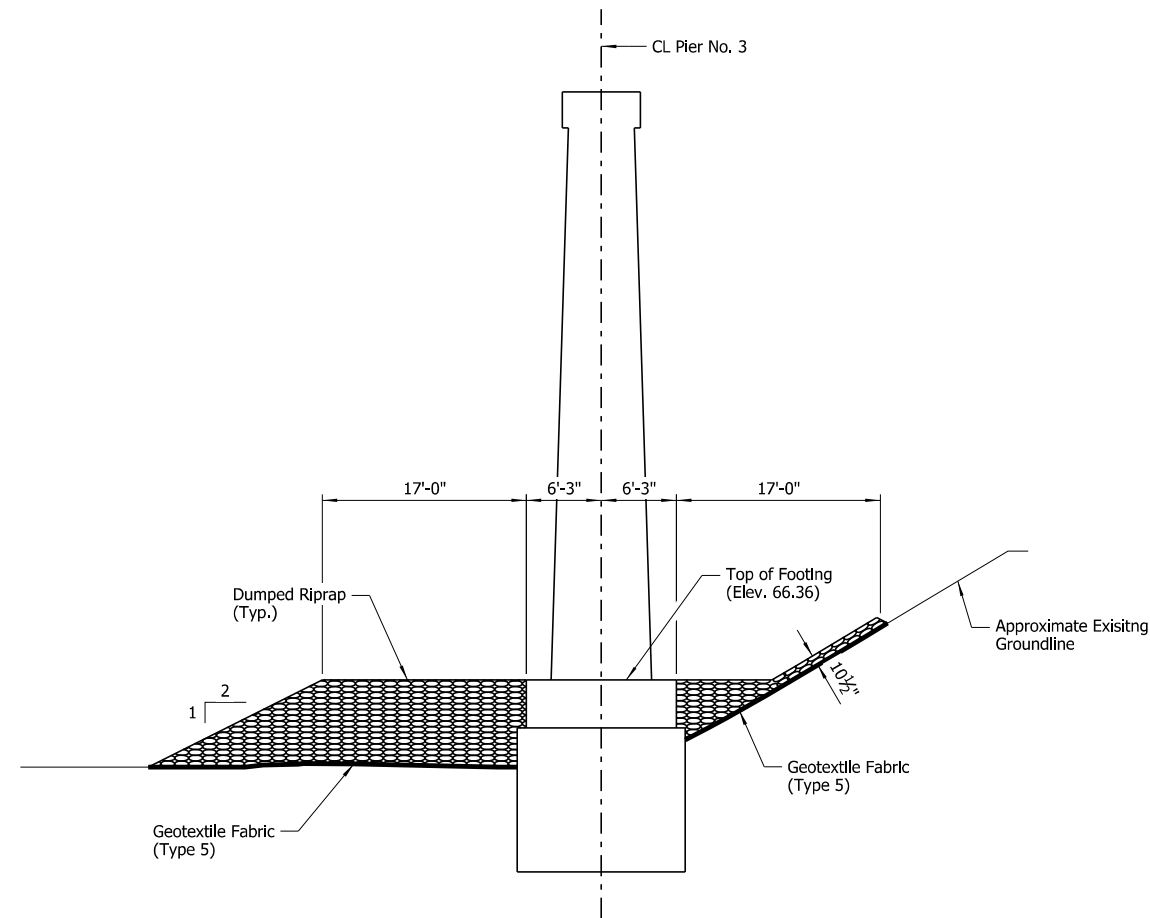
NOTE:
Place riprap to top of existing footing or a minimum of 10 1/2" above channel bottom whichever is higher. Riprap placed higher than the top of the footing elevation shall be transitioned to top of footing at a 1V:1H slope.



SHEET 2 OF 4
PIER NO. 3 SCOUR REPAIR DETAILS
BRIDGE OVER OUACHITA RIVER
ROUTE 79 SEC. 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x3_md2.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 02466 DRAWING NO. 68363

WMM:Entire 8/7/2024 3:19:29 PM
 WORKSPACE: ARDOT Bridge (2019)
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	21	82
		02466		SCOUR REPAIR DETAILS		68364



SECTION C-C

Showing Pier No. 3 at South End of Footing
Scale: 1/8" = 1'-0"

NOTE:
Place riprap to top of existing footing or a minimum of 10 1/2" above channel bottom whichever is higher. Riprap placed higher than the top of the footing elevation shall be transitioned to top of footing at a 1V:1H slope.

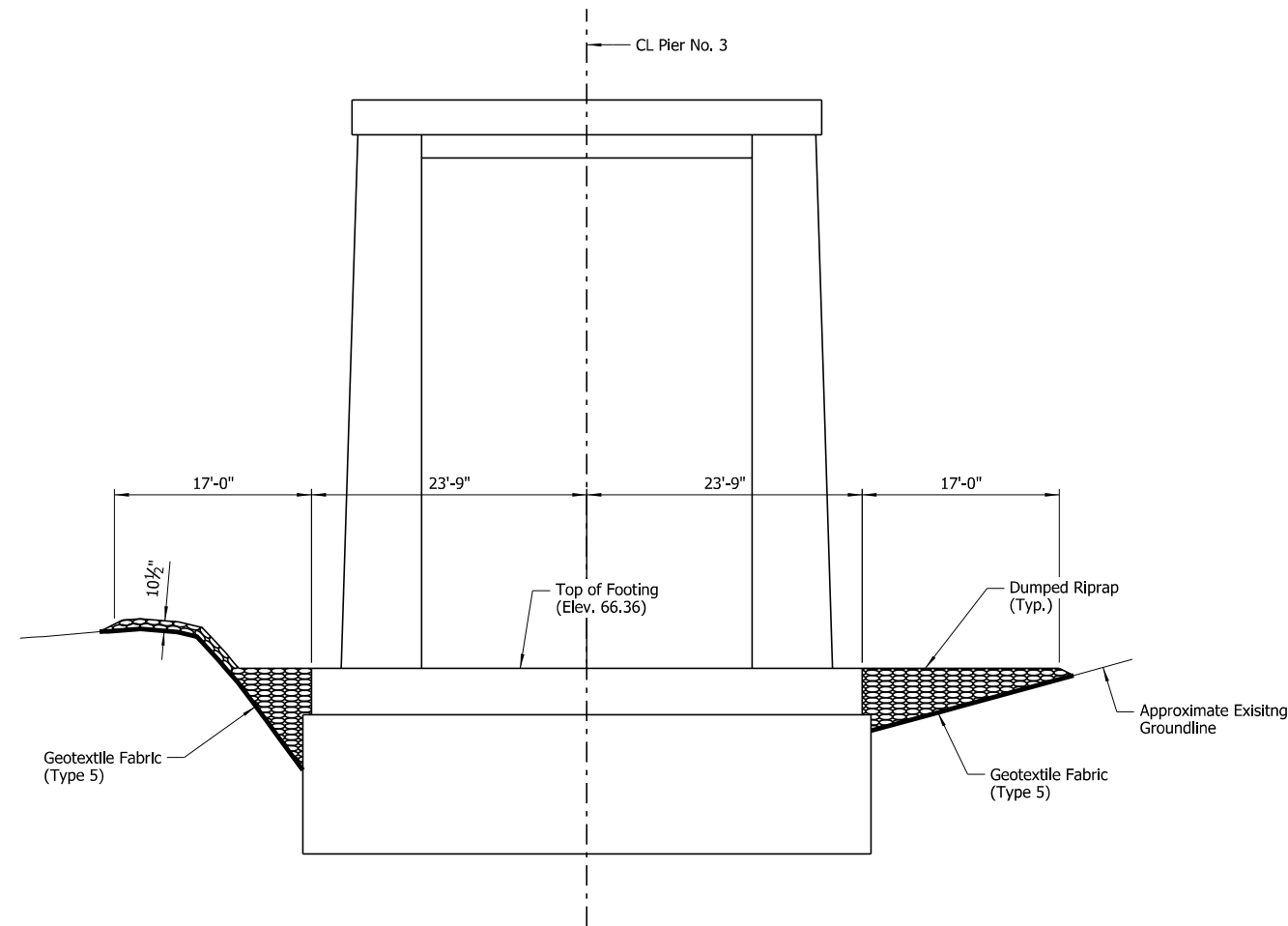


DIGITALLY SIGNED 08/07/2024
BRIDGE ENGINEER

SHEET 3 OF 4
PIER NO. 3 SCOUR REPAIR DETAILS
BRIDGE OVER OUACHITA RIVER
ROUTE 79 SEC. 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x3_md3.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 02466 DRAWING NO. 68364

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	22	82
		02466	SCOUR REPAIR DETAILS		68365	



SECTION D-D
 Showing Pier No. 3 at CL Footing
 Scale: 1/8" = 1'-0"

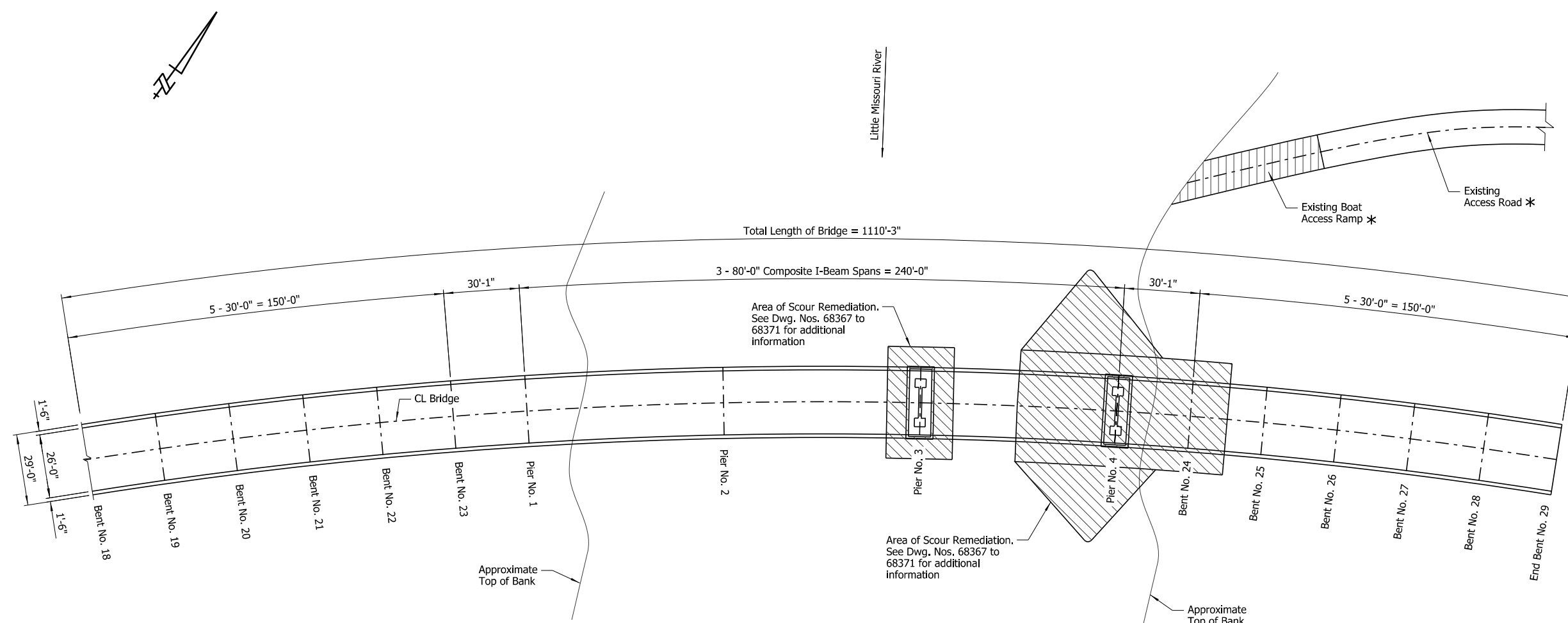
NOTE:
 Place riprap to top of existing footing or a minimum of 10 1/2" above channel bottom whichever is higher. Riprap placed higher than the top of the footing elevation shall be transitioned to top of footing at a 1V:1H slope.



SHEET 4 OF 4
PIER NO. 3 SCOUR REPAIR DETAILS
BRIDGE OVER OUACHITA RIVER
 ROUTE 79 SEC. 4
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x3_md4.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. **02466** DRAWING NO. **68365**


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 RE/USED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	23	82
				03476	LAYOUT	68366



PLAN
No Scale

LEGEND

 Area of Scour Remediation

* Contractor to utilize existing access road and boat ramp to access this site. Any damage to existing ramp or access road due to Contractor's operation will be repaired by Contractor's own expenses. All work shall be approved by ARDOT Engineer.

NOTES:

Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

Contractor can access this site by utilizing single lane closure on Hwy. 53. All traffic control for single lane closure shall meet the current ARDOT and MUTCD standards.

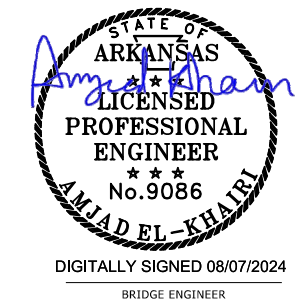
GENERAL NOTES

BENCH MARK: Top of deck at CL Bridge No. 03476, CL Pier No. 3, Elev. 179.50 as shown in existing plans.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable supplemental specifications and special provisions.

The proposed work consists of placing riprap on the indicated areas of stream channel and north of the channel, see Dwg. Nos. 68367 to 68371 for additional details. Care shall be exercised to avoid damaging the bridge while placing the scour remediation materials under the bridge and around the footings at Piers 3 & 4 and around piles at Bent 24. The scour remediation materials may be placed underwater in a manner that maintains the required elevation. The Contractor shall take soundings to determine thickness and extent.

At the time of the March 2022 UW Inspection, the waterline was at Elev. 151.1.



**LAYOUT OF SCOUR REPAIR
HWY. 53 BRIDGE OVER LITTLE MISSOURI RIVER
CLARK & NEVADA COUNTY**

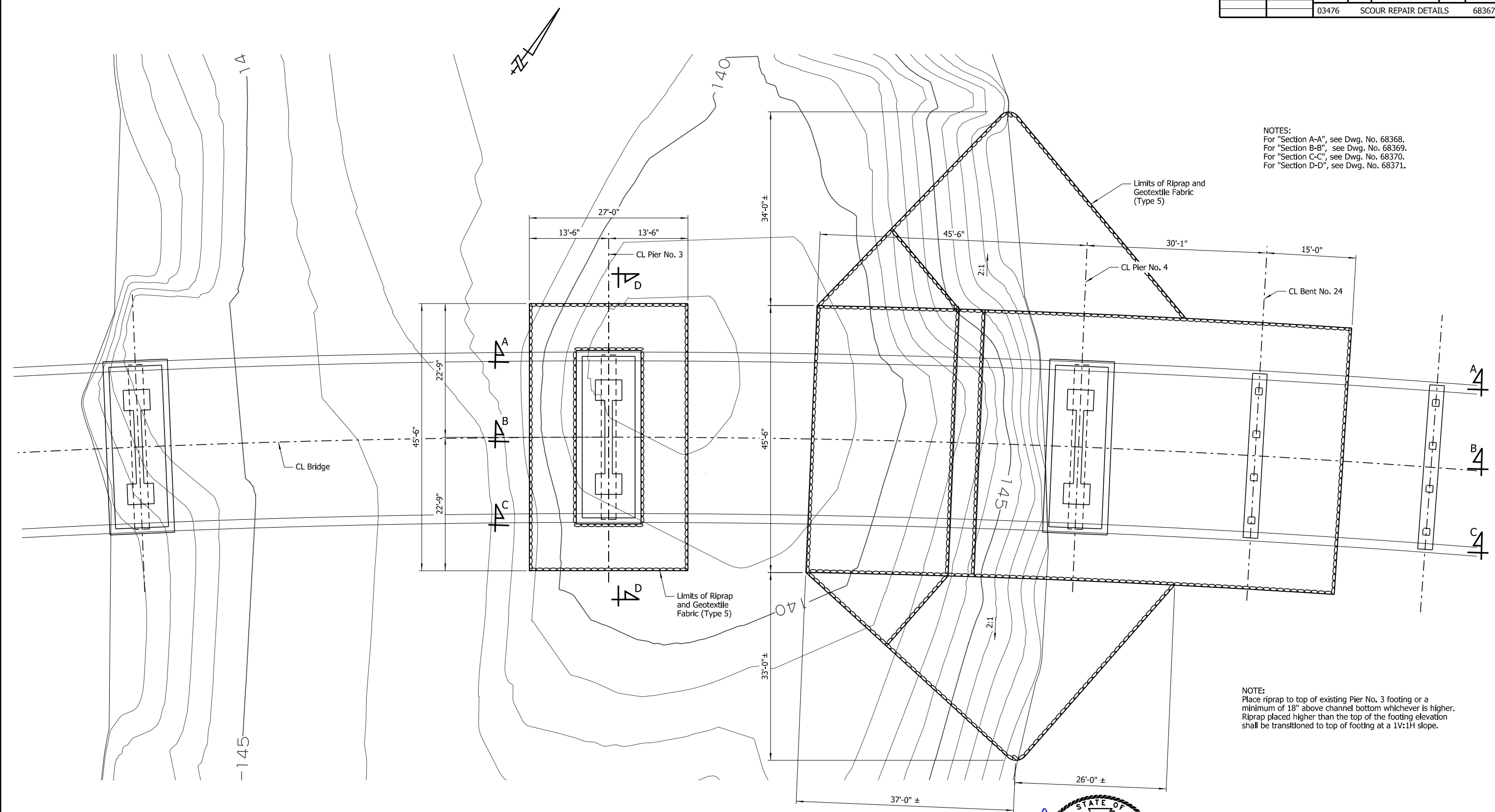
ROUTE 53 SEC. 1 & 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x4_I1.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 03476 DRAWING NO. 68366

WMM:Entire 8/7/2024 3:19:30 PM
 WORKSPACE: ARDOT Bridge (2019)
 \\arv\nc\local\gdata\Projects\2021\21101044 - ARDOT Statewide Scour Remediation\Drawings\SUBMITTAL - Overall - Without Interchange\03476\012494x4_I1.dgn
 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	24	82
		03476	SCOUR REPAIR DETAILS		68367	

NOTES:
 For "Section A-A", see Dwg. No. 68368.
 For "Section B-B", see Dwg. No. 68369.
 For "Section C-C", see Dwg. No. 68370.
 For "Section D-D", see Dwg. No. 68371.




NOTE:
 Place riprap to top of existing Pier No. 3 footing or a minimum of 18" above channel bottom whichever is higher. Riprap placed higher than the top of the footing elevation shall be transitioned to top of footing at a 1V:1H slope.

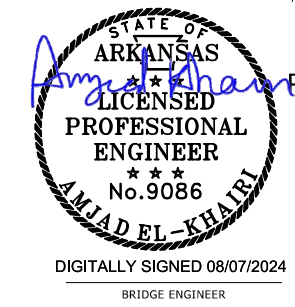
PLAN - PIER NOS. 3 & 4 AND BENT NO. 24

Showing Limits of Riprap Placement
 Scale: 1/8" = 1'-0"

LEGEND

 Riprap and Geotextile Filter Fabric Placement Area

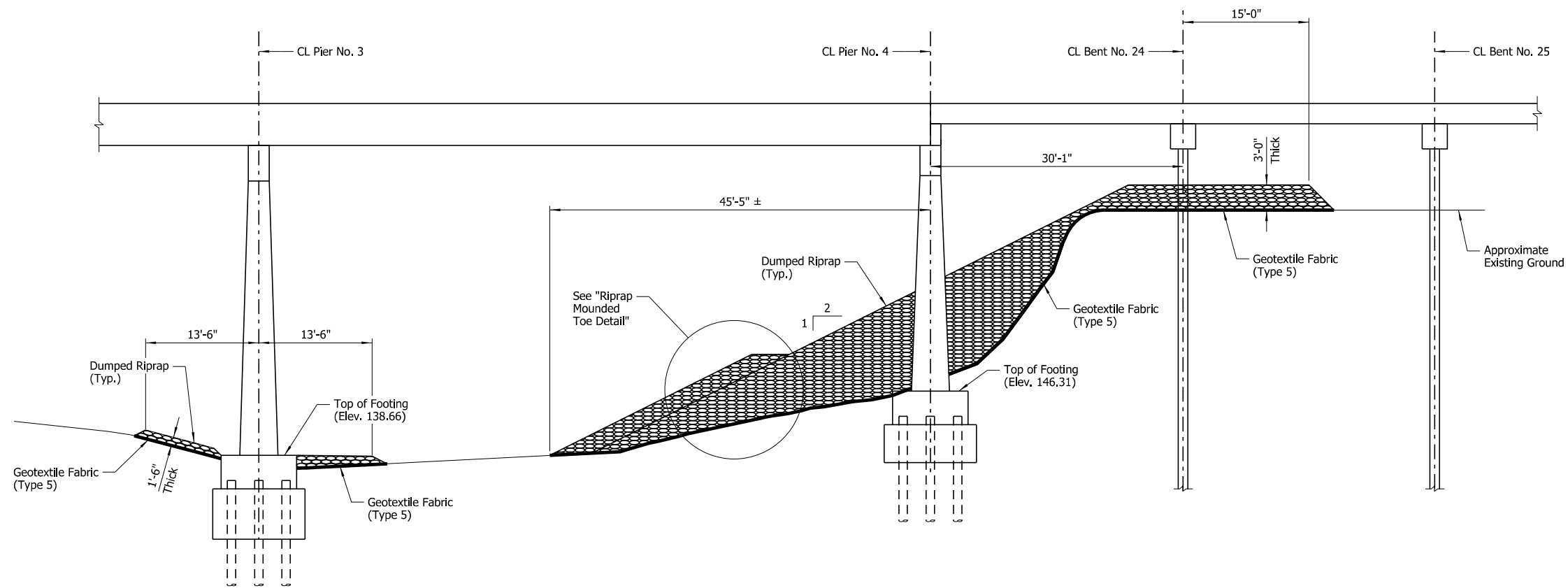
NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.



SHEET 1 OF 5
 PIER NOS. 3 & 4 & BENT NO. 24 SCOUR REPAIR DETAILS
 BRIDGE OVER LITTLE MISSOURI RIVER
 ROUTE 53 SEC. 1 & 2
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x4_md1.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 03476 DRAWING NO. 68367

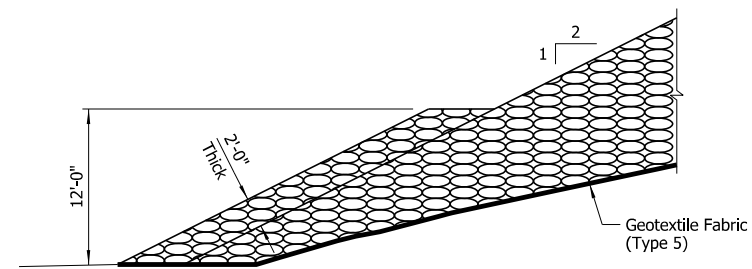
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	25	82
		03476	SCOUR REPAIR DETAILS		68368	



SECTION A-A

Showing Pier Nos. 3 & 4 and Bent 24 at North Edge of Bridge
Scale: 1/8" = 1'-0"



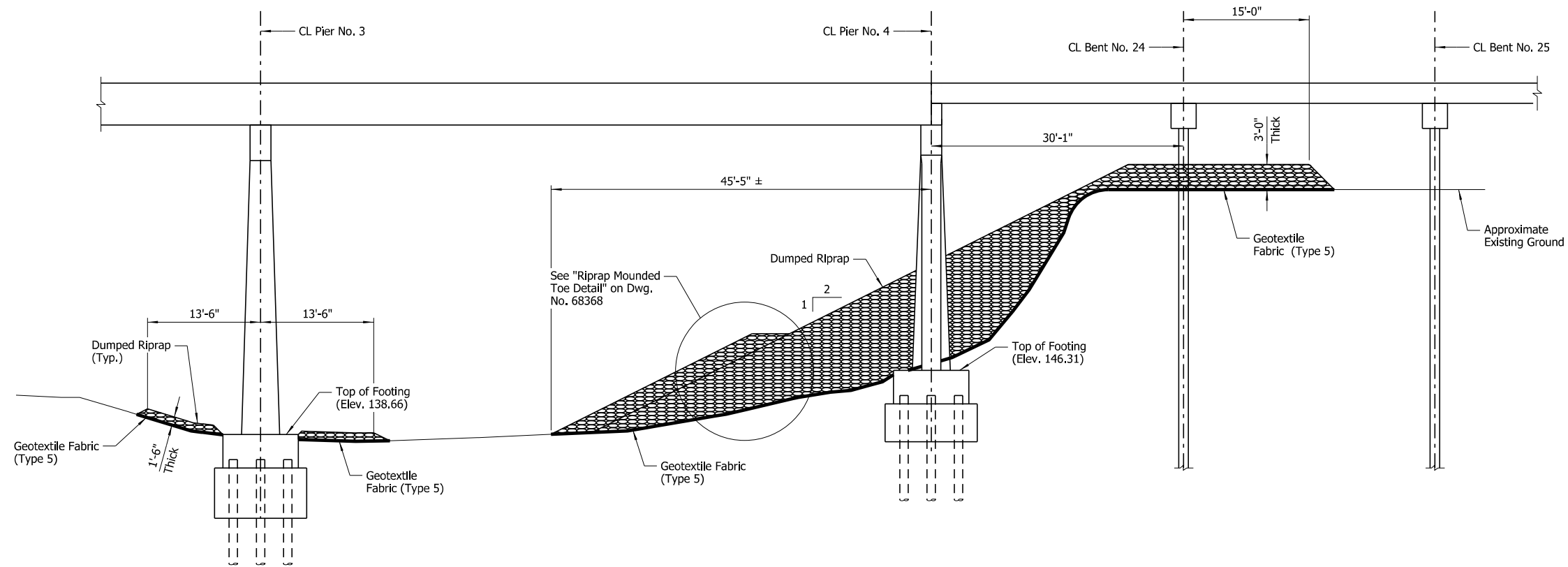
RIPRAP MOUNDED TOE DETAIL

NOTE:
Place riprap to top of existing Pier No. 3 footing or a minimum of 18" above channel bottom whichever is higher. Riprap placed higher than the top of the footing elevation shall be transitioned to top of footing at a 1V:1H slope.



SHEET 2 OF 5
PIER NOS. 3 & 4 SCOUR REPAIR DETAILS
BRIDGE OVER LITTLE MISSOURI RIVER
ROUTE 53 SEC. 1 & 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x4_md2.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 03476 DRAWING NO. 68368

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	26	82
		03476	SCOUR REPAIR DETAILS		68369	



SECTION B-B

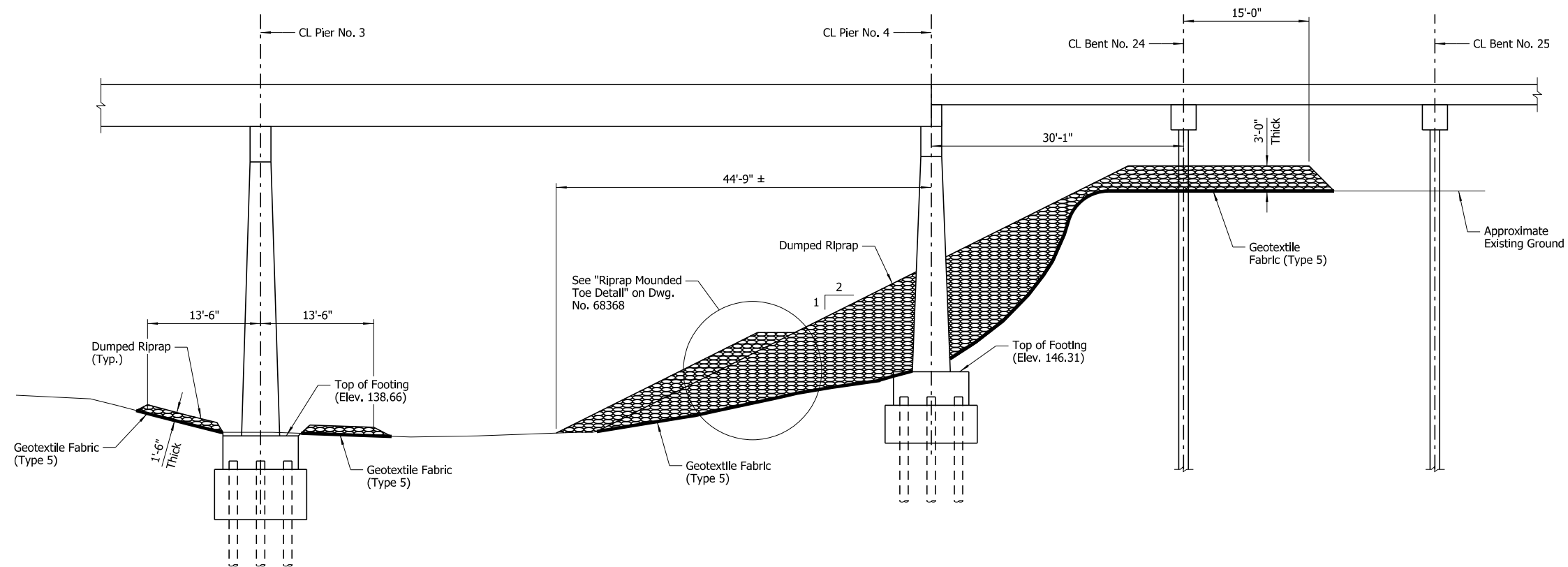
Showing Pier Nos. 3 & 4 and Bent 24 at CL Bridge
Scale: 1/8" = 1'-0"

NOTE:
Place riprap to top of existing Pier No. 3 footing or a minimum of 18" above channel bottom whichever is higher. Riprap placed higher than the top of the footing elevation shall be transitioned to top of footing at a 1V:1H slope.



SHEET 3 OF 5
PIER NOS. 3 & 4 SCOUR REPAIR DETAILS
BRIDGE OVER LITTLE MISSOURI RIVER
ROUTE 53 SEC. 1 & 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x4_md3.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 03476 DRAWING NO. 68369

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	27	82
				03476	SCOUR REPAIR DETAILS	68370



SECTION C-C

Showing Pier Nos. 3 & 4 at South Edge of Bridge
Scale: 1/8" = 1'-0"

NOTE:
Place riprap to top of existing Pier No. 3 footing or a minimum of 18" above channel bottom whichever is higher. Riprap placed higher than the top of the footing elevation shall be transitioned to top of footing at a 1V:1H slope.

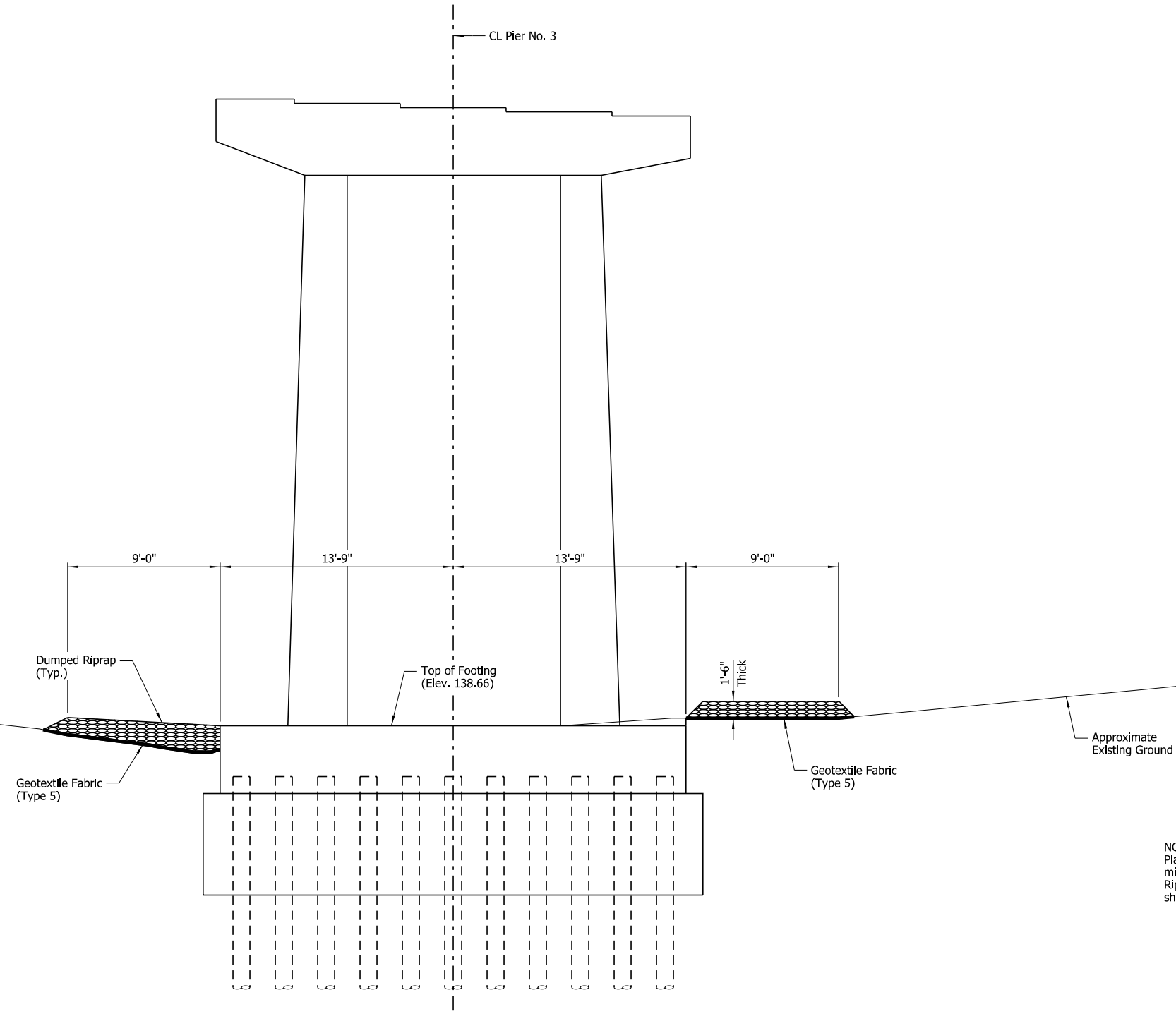


DIGITALLY SIGNED 08/07/2024
BRIDGE ENGINEER

SHEET 4 OF 5
PIER NOS. 3 & 4 SCOUR REPAIR DETAILS
BRIDGE OVER LITTLE MISSOURI RIVER
ROUTE 53 SEC. 1 & 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

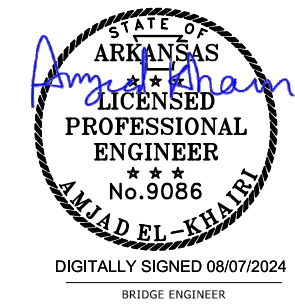
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CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 03476 DRAWING NO. 68370

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	28	82
		03476	SCOUR REPAIR DETAILS		68371	



NOTE:
Place riprap to top of existing Pier No. 3 footing or a minimum of 18" above channel bottom whichever is higher. Riprap placed higher than the top of the footing elevation shall be transitioned to top of footing at a 1V:1H slope.

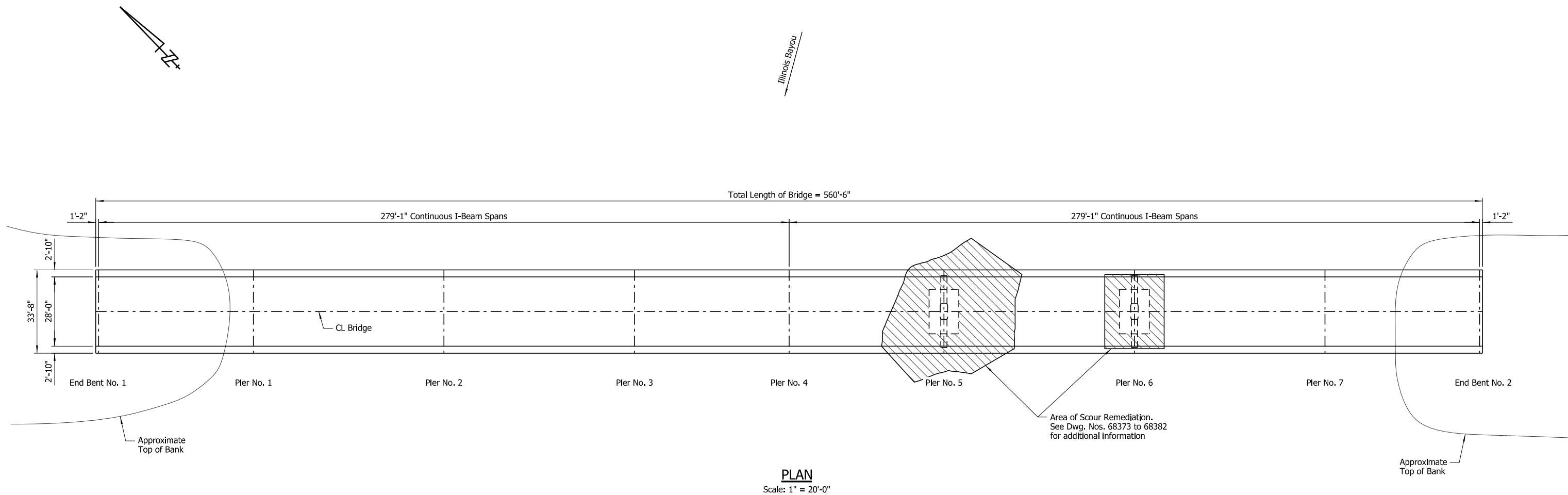
SECTION D-D
Showing Elevation Along CL Pier No. 3
(Looking Ahead)
Scale: 1/4" = 1'-0"



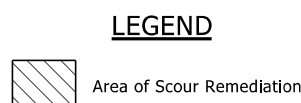
SHEET 5 OF 5
PIER NOS. 3 & 4 SCOUR REPAIR DETAILS
BRIDGE OVER LITTLE MISSOURI RIVER
ROUTE 53 SEC. 1 & 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x4_md5.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 03476 DRAWING NO. 68371

WMM:Entire 8/7/2024 3:19:32 PM
 WORKSPACE: ARDOT Bridge (2019)
 \\arvhnclocal\data\Projects\2021\2110104 - ARDOT Statewide Scour Remediation\Drawings\SUBMITTAL - Overall - Without Interchange\03476\b012494x4_md5.dgn
 RE/USED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	29	82
03643				LAYOUT	68372	



PLAN
Scale: 1" = 20'-0"



NOTES:

Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

Contractor to access this site by utilizing existing boat ramp located northwest of the bridge.

Contractor can access this site by utilizing single lane closure on Hwy. 64. All traffic control for single lane closure shall meet the current ARDOT and MUTCD standards.

GENERAL NOTES

BENCH MARK: Top of deck at CL Bridge No. 03643, CL Pier No. 5, Elev. 353.29 as shown in existing plans.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable supplemental specifications and special provisions.

The proposed work consists of placing gravel-filled geotextile containers, cellular concrete, geotextile filter fabric (Type 5) and 2 ft. x 2 ft. concrete armor units on the indicated areas of stream channel, see Dwg. Nos. 68373 to 68382 for additional details. The finished surface of the gravel-filled geotextile containers shall meet Elev. 310.00 to the limits shown and shall slope 2H:1V to existing ground at Pier No. 5. Care shall be exercised to avoid damaging the bridge while placing the scour remediation materials under the bridge and around the footings. The scour remediation materials may be placed underwater in a manner that maintains the required elevation. The Contractor shall take soundings to determine thickness and extent.

At the time of the November 2021 UW Inspection, the waterline was at Elev. 337.6.

NOTE:

Contractor shall coordinate with ARDOT to notify the United States Coast Guard and the United States Army Corps of Engineers (USACE) a minimum of 30 days prior to beginning any work at this bridge site.

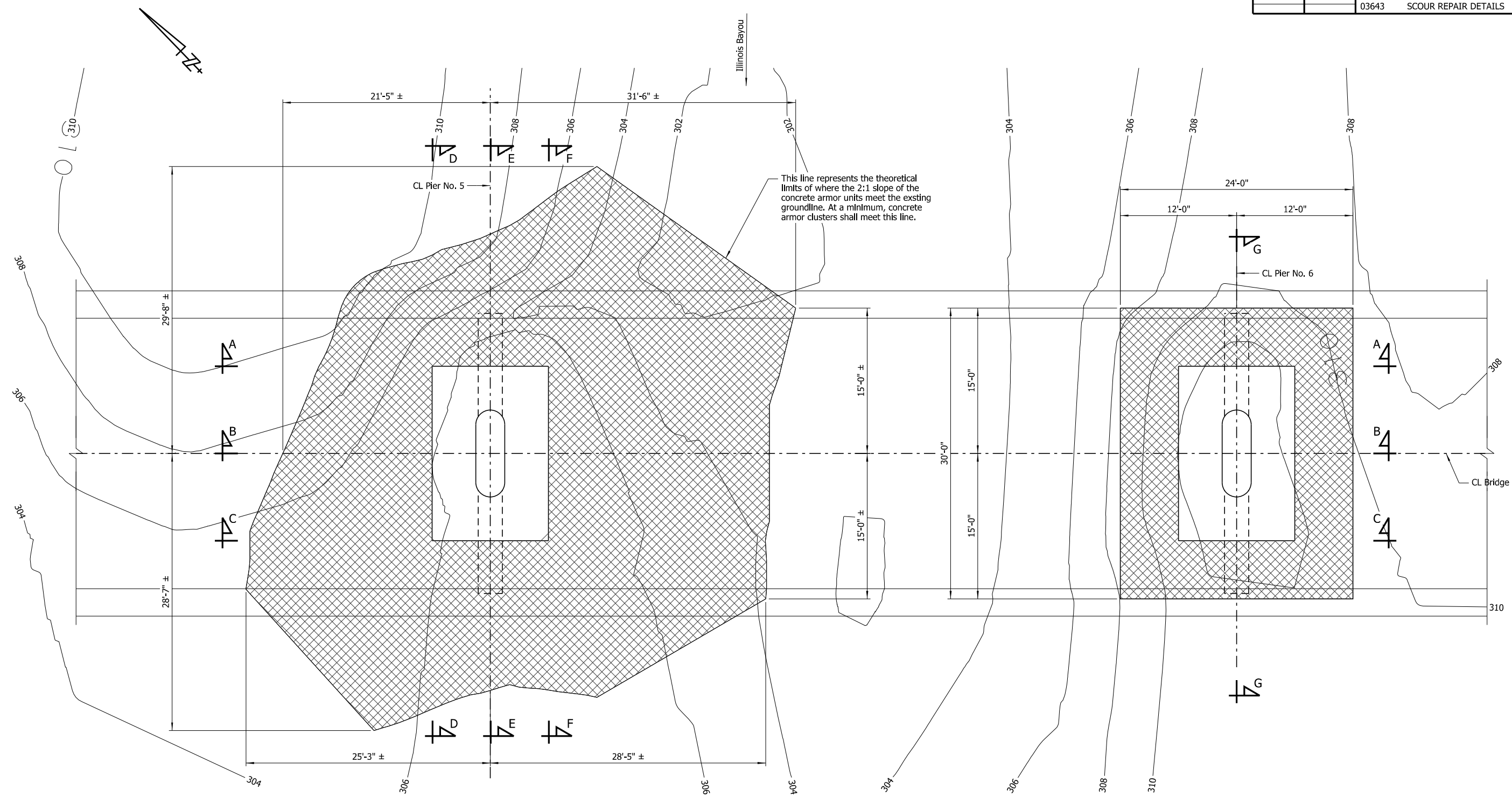


**LAYOUT OF SCOUR REPAIR
US 64 BRIDGE OVER ILLINOIS BAYOU
POPE COUNTY**

ROUTE 64 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x5_I1.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 03643 DRAWING NO. 68372

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	30	82
		03643	SCOUR REPAIR DETAILS		68374	



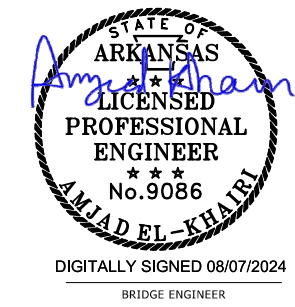
NOTES:
 For "Section A-A", see Dwg. No. 68375.
 For "Section B-B", see Dwg. No. 68376.
 For "Section C-C", see Dwg. No. 68377.
 For "Section D-D", see Dwg. No. 68378.
 For "Section E-E", see Dwg. No. 68379.
 For "Section F-F", see Dwg. No. 68380.
 For "Section G-G", see Dwg. No. 68381.

PLAN - PIER NOS. 5 & 6
 Showing Limits of Concrete Armor Unit Placement
 Scale: 1/16" = 1'-0"

LEGEND

- Concrete Armor Unit Placement Area at Pier No. 5
- Concrete Armor Unit And Geotextile Filter Fabric Placement Area at Pier No. 6

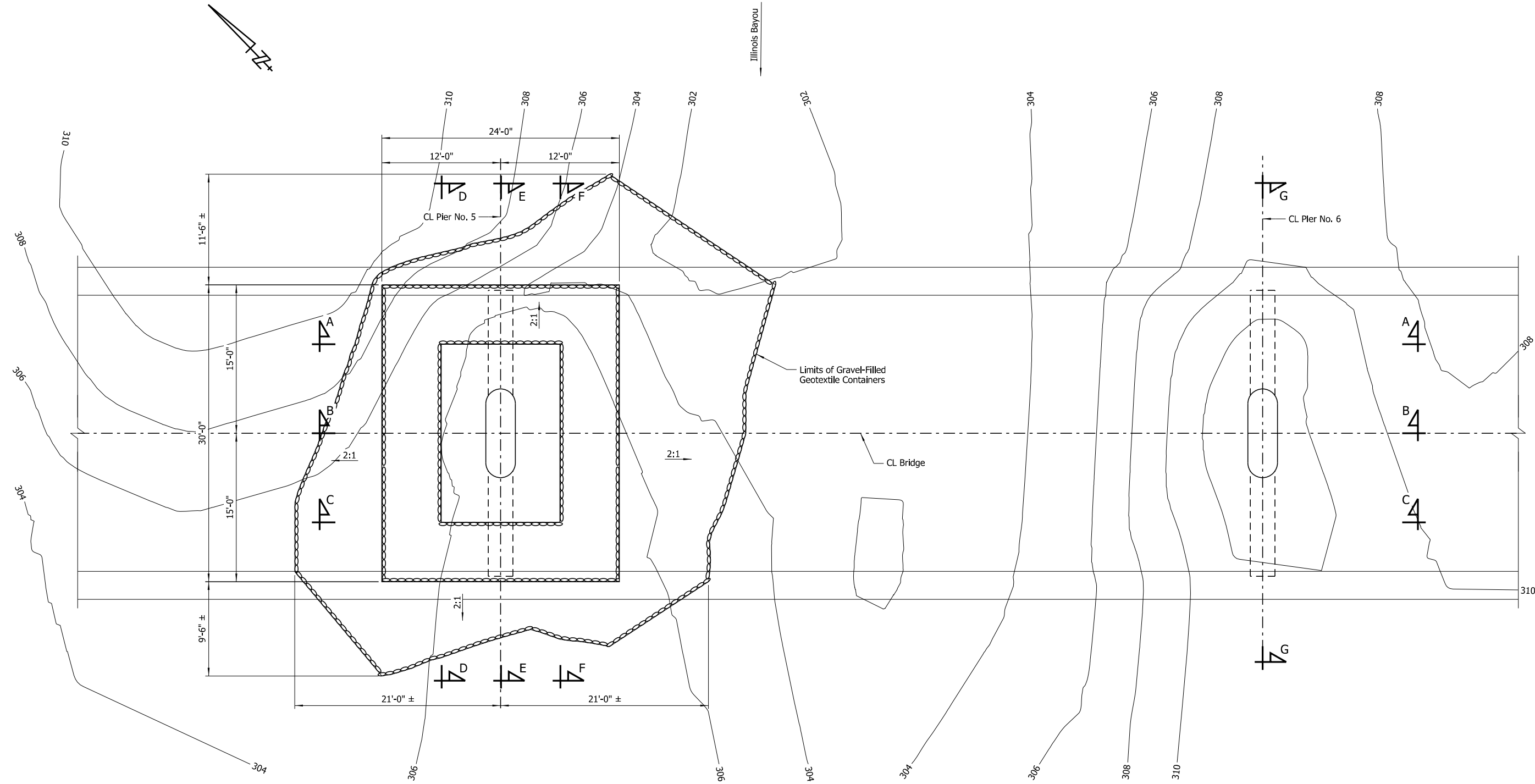
NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.



SHEET 1 OF 10
PIER NOS. 5 & 6 SCOUR REPAIR DETAILS
 ILLINOIS BAYOU BRIDGE
 ROUTE 64 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x5_md1.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 03643 DRAWING NO. 68373

WMM:Entire 8/7/2024 3:19:33 PM
 WORKSPACE: ARDOT Bridge (2019)
 \\arvnet\local\gdata\Projects\2021\2110104 - ARDOT Statewide Scour Remediation\Drawings\SUBMITTAL - Overall - Without Interchange\03643\012494x5_md1.dgn
 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	31	82
		03643	SCOUR REPAIR DETAILS		68373	



NOTES:
 For "Section A-A", see Dwg. No. 68375.
 For "Section B-B", see Dwg. No. 68376.
 For "Section C-C", see Dwg. No. 68377.
 For "Section D-D", see Dwg. No. 68378.
 For "Section E-E", see Dwg. No. 68379.
 For "Section F-F", see Dwg. No. 68380.
 For "Section G-G", see Dwg. No. 68381.

NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

PLAN - PIER NOS. 5 & 6
 Showing Limits of Gravel-Filled Geotextile Container
 Scale: 3/16" = 1'-0"

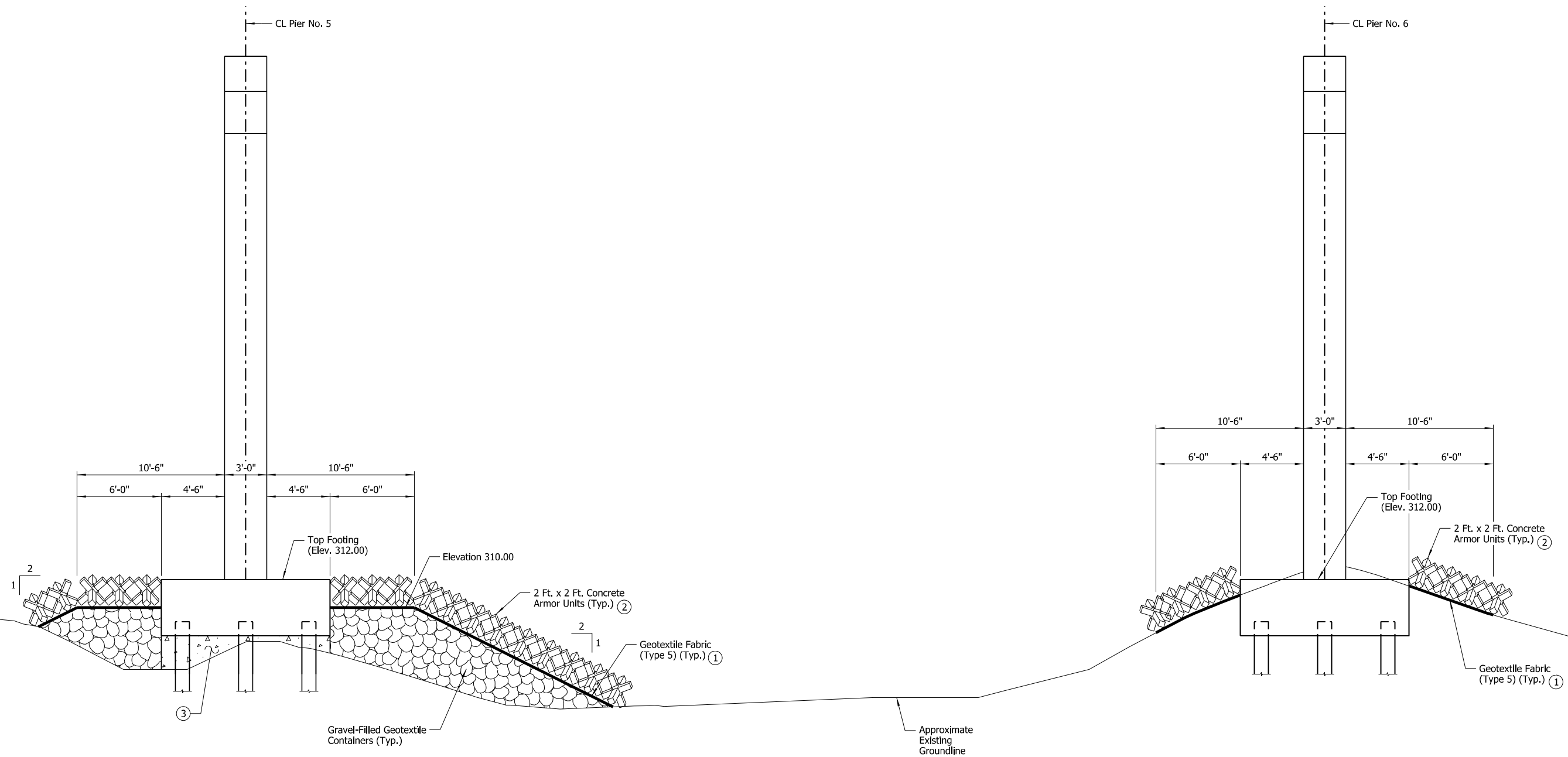
LEGEND
 Gravel-filled Geotextile Container Placement Area

STATE OF ARKANSAS
 LICENSED PROFESSIONAL ENGINEER
 No. 9086
AMJAD EL-KHAIRI
 BRIDGE ENGINEER
 DIGITALLY SIGNED 08/07/2024

SHEET 2 OF 10
PIER NOS. 5 & 6 SCOUR REPAIR DETAILS
ILLINOIS BAYOU BRIDGE
 ROUTE 64 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x5_md2.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 03643 DRAWING NO. 68374

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 \\arvnclocal\data\Projects\2021\21101044 - ARDOT Statewide Scour Remediation\Drawings\SUBMITTAL - Overall - Without Interchange\03643\012494x5_md2.dgn
 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	32	82
		03643	SCOUR REPAIR DETAILS		68375	



SECTION A-A

Showing Pier Nos. 5 & 6 at South End of Footing
Scale: 1/4" = 1'-0"

- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68373.
- ③ For Cellular Concrete placement details, see Dwg. No. 68382.

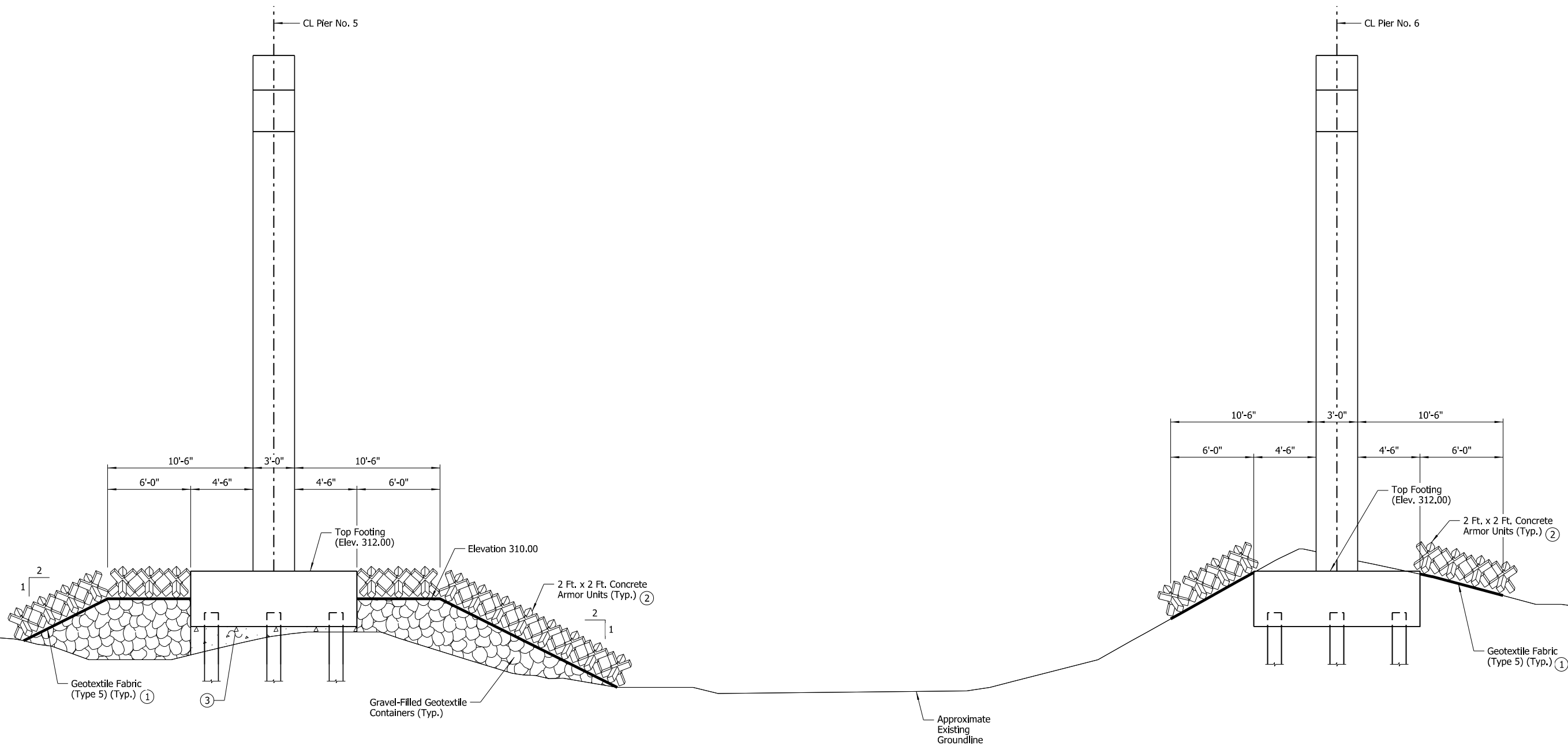


SHEET 3 OF 10
PIER NOS. 5 & 6 SCOUR REPAIR DETAILS
ILLINOIS BAYOU BRIDGE
ROUTE 64 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x5_md3.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 03643 DRAWING NO. 68375

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	33	82
		03643	SCOUR REPAIR DETAILS		68376	



SECTION B-B

Showing Pier Nos. 5 & 6 at CL Bridge
Scale: 1/4" = 1'-0"

- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68373.
- ③ For Cellular Concrete placement details, see Dwg. No. 68382.

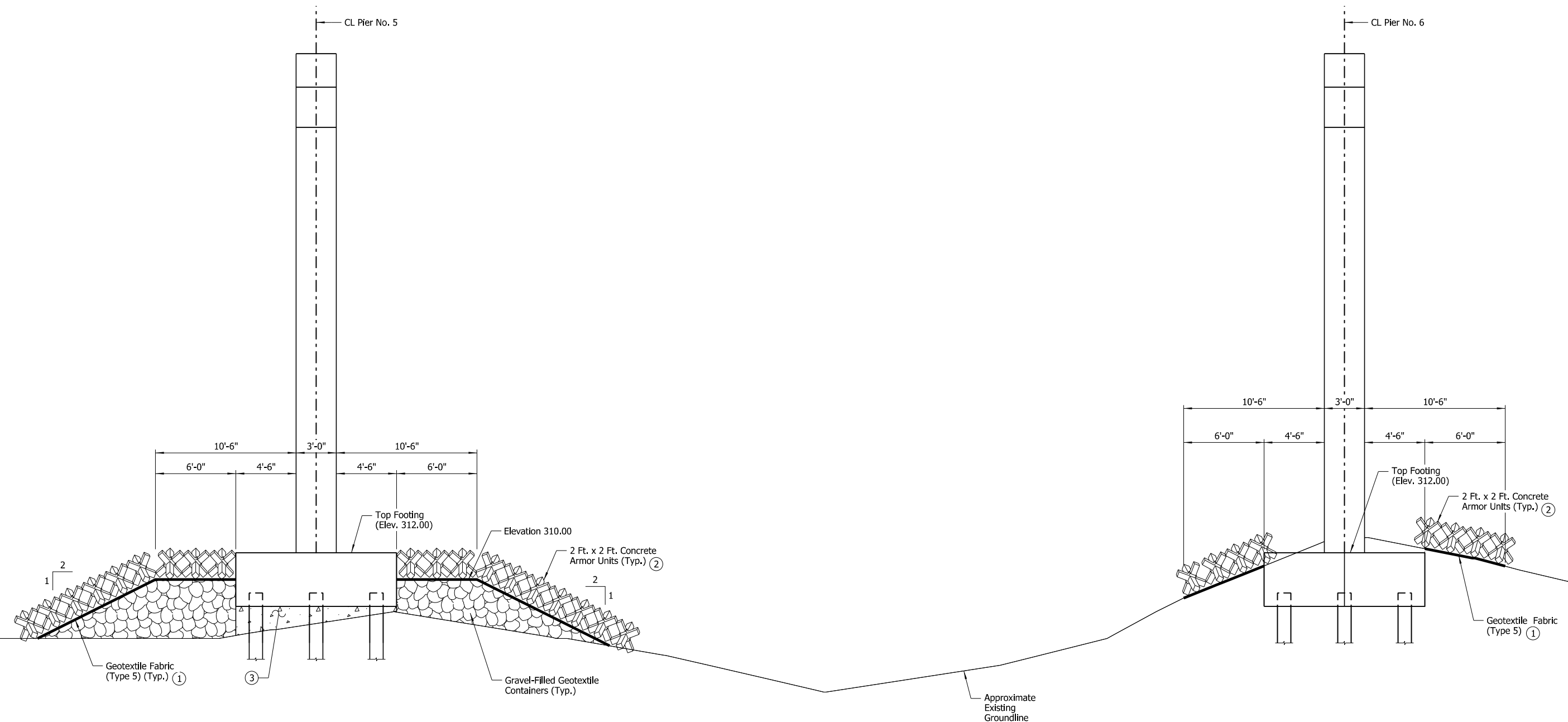


SHEET 4 OF 10
PIER NOS. 5 & 6 SCOUR REPAIR DETAILS
ILLINOIS BAYOU BRIDGE
ROUTE 64 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	34	82
		03643	SCOUR REPAIR DETAILS		68377	



SECTION C-C

Showing Pier Nos. 5 & 6 at End of North Footing
Scale: 1/4" = 1'-0"

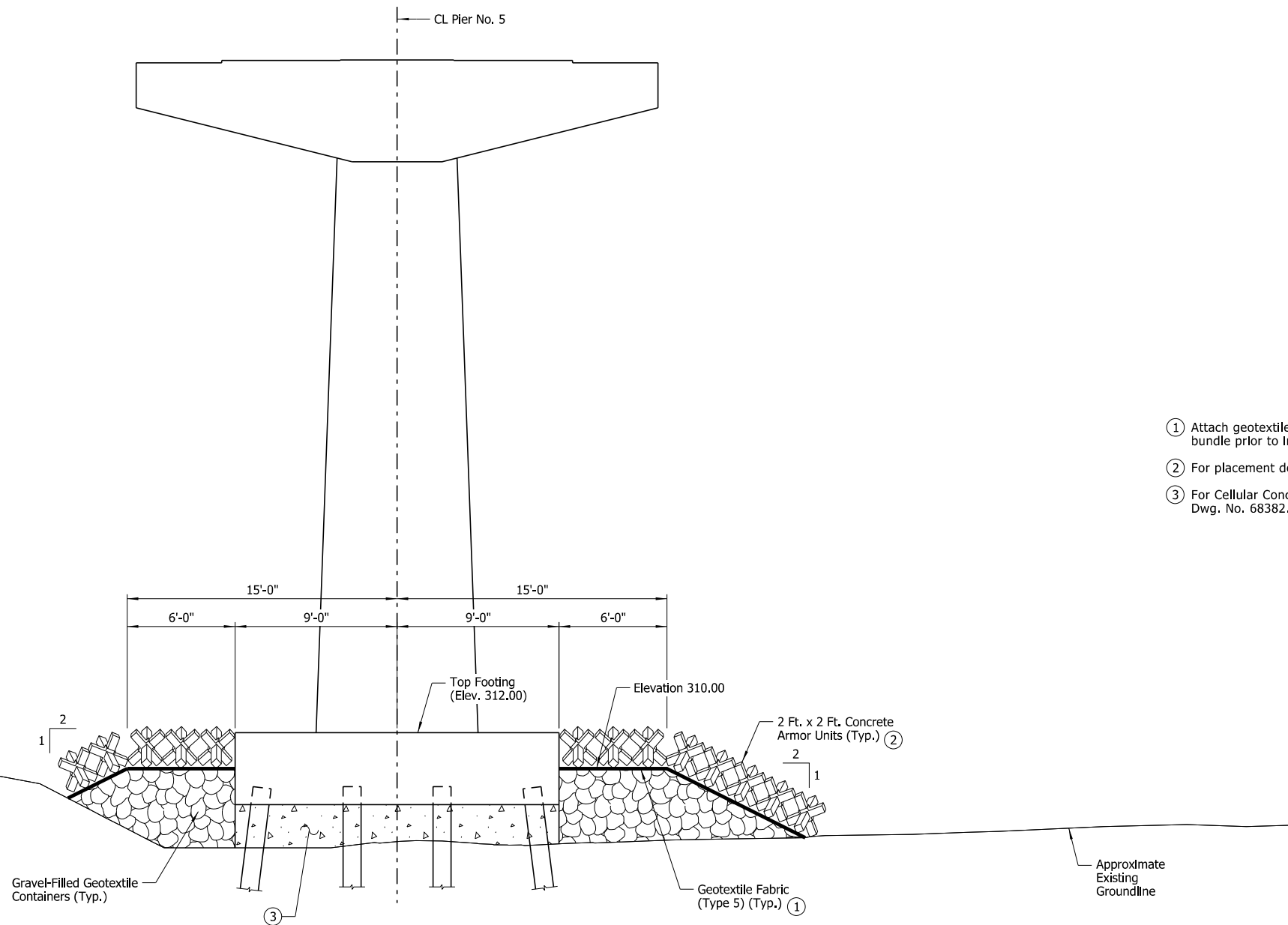
- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68373.
- ③ For Cellular Concrete placement details, see Dwg. No. 68382.



SHEET 5 OF 10
PIER NOS. 5 & 6 SCOUR REPAIR DETAILS
ILLINOIS BAYOU BRIDGE
 ROUTE 64 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
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 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 03643 DRAWING NO. 68377

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	35	82
		03643	SCOUR REPAIR DETAILS		68378	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68373.
- ③ For Cellular Concrete placement details, see Dwg. No. 68382.

SECTION D-D

Showing Elevation Along West Face of Pier No. 5 Footing
(Looking Ahead)
Scale: 1/4" = 1'-0"

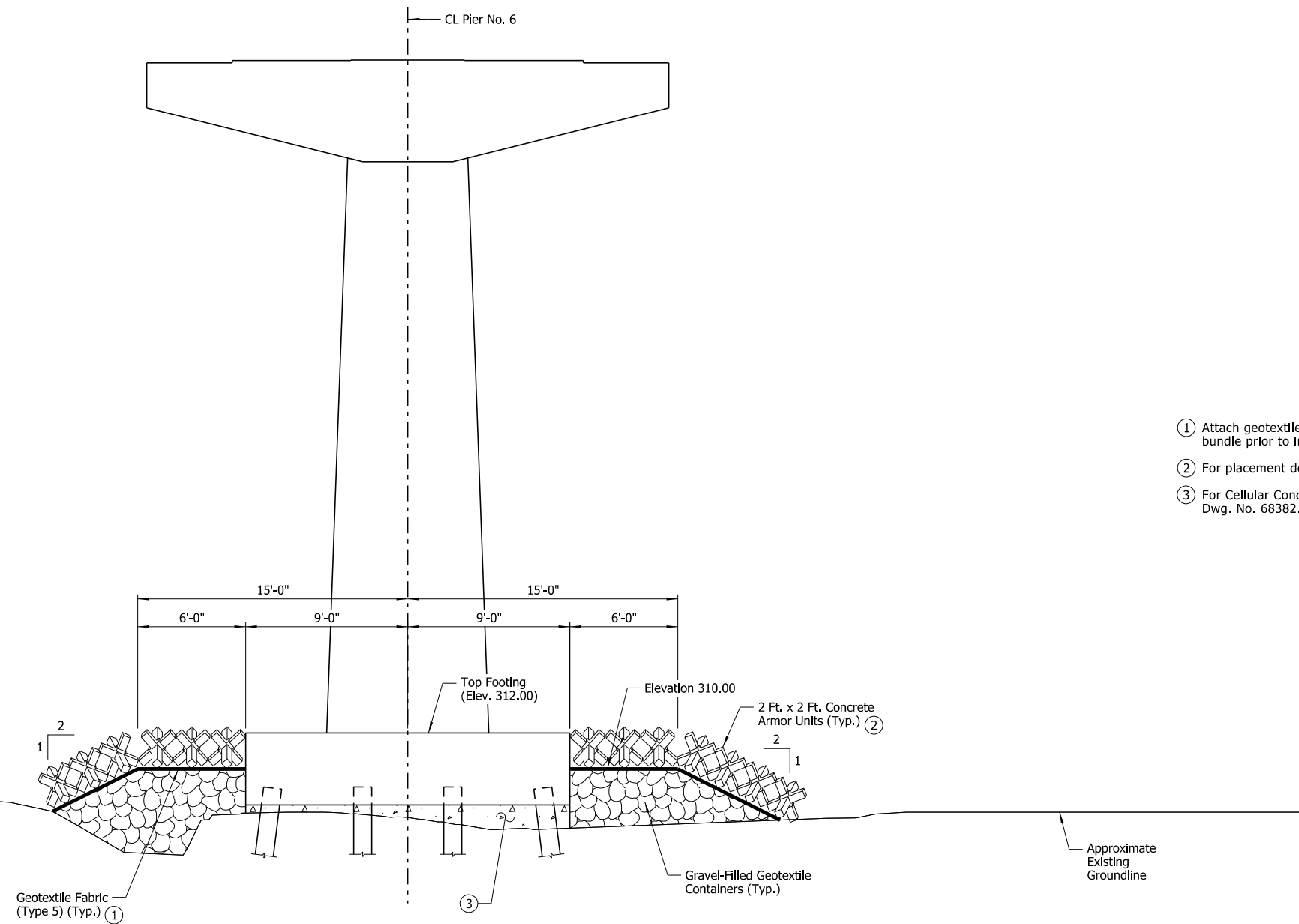


DIGITALLY SIGNED 08/07/2024
BRIDGE ENGINEER

SHEET 6 OF 10
PIER NOS. 5 & 6 SCOUR REPAIR DETAILS
ILLINOIS BAYOU BRIDGE
ROUTE 64 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

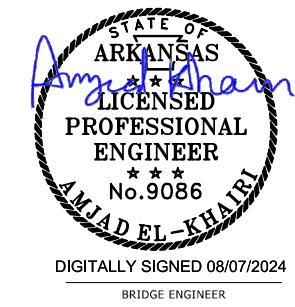
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BRIDGE NO. 03643 DRAWING NO. 68378

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	36	82
		03643	SCOUR REPAIR DETAILS		68379	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68373.
- ③ For Cellular Concrete placement details, see Dwg. No. 68382.

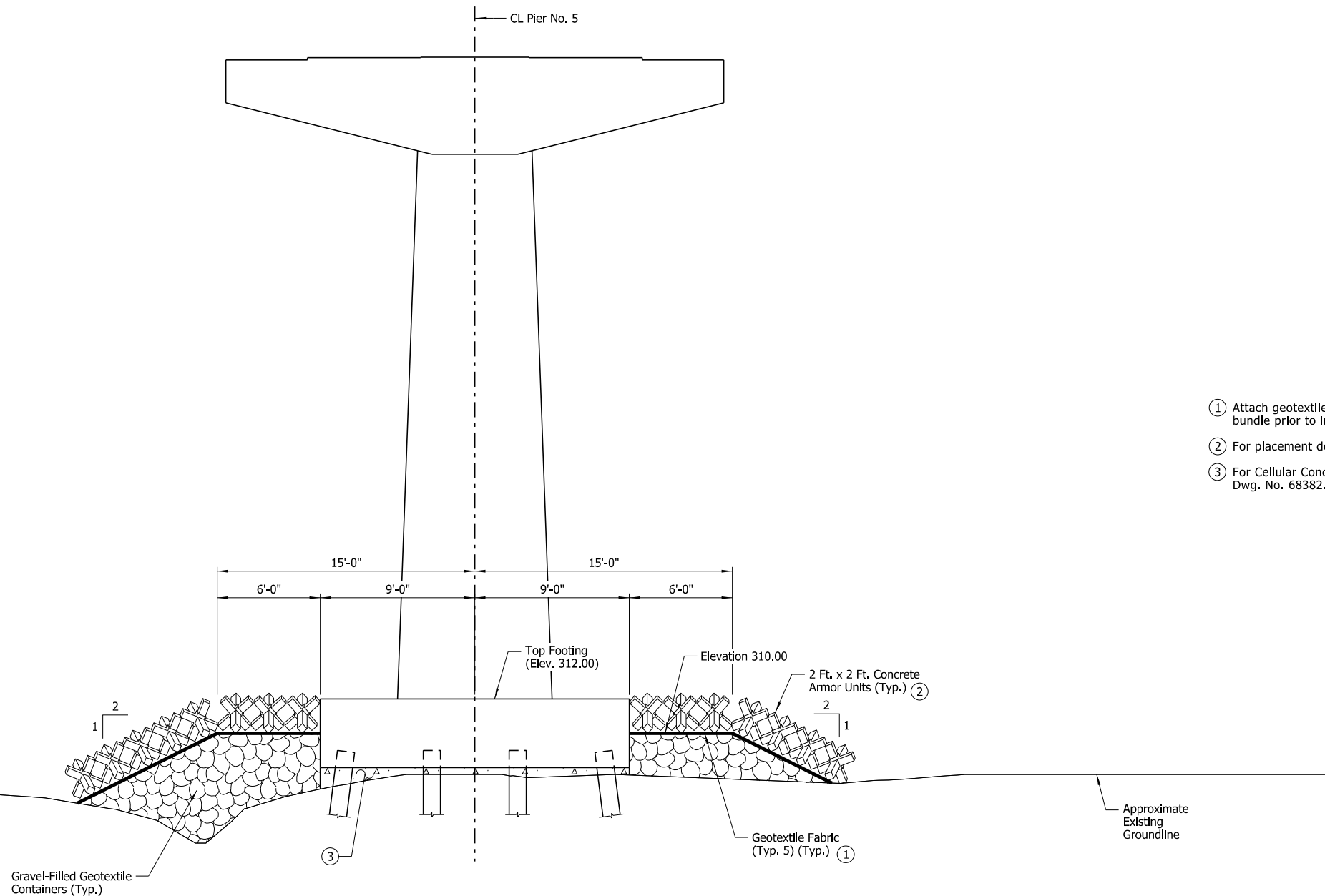
SECTION E-E
 Showing Elevation Along CL Pier No. 5
 (Looking Ahead)
 Scale: 1/4" = 1'-0"



SHEET 7 OF 10
 PIER NOS. 5 & 6 SCOUR REPAIR DETAILS
 ILLINOIS BAYOU BRIDGE
 ROUTE 64 SEC. 6
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	37	82
		03643	SCOUR REPAIR DETAILS		68380	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68373.
- ③ For Cellular Concrete placement details, see Dwg. No. 68382.

SECTION F-F

Showing Elevation Along East Face of Pier No. 5 Footing
(Looking Ahead)
Scale: 1/4" = 1'-0"



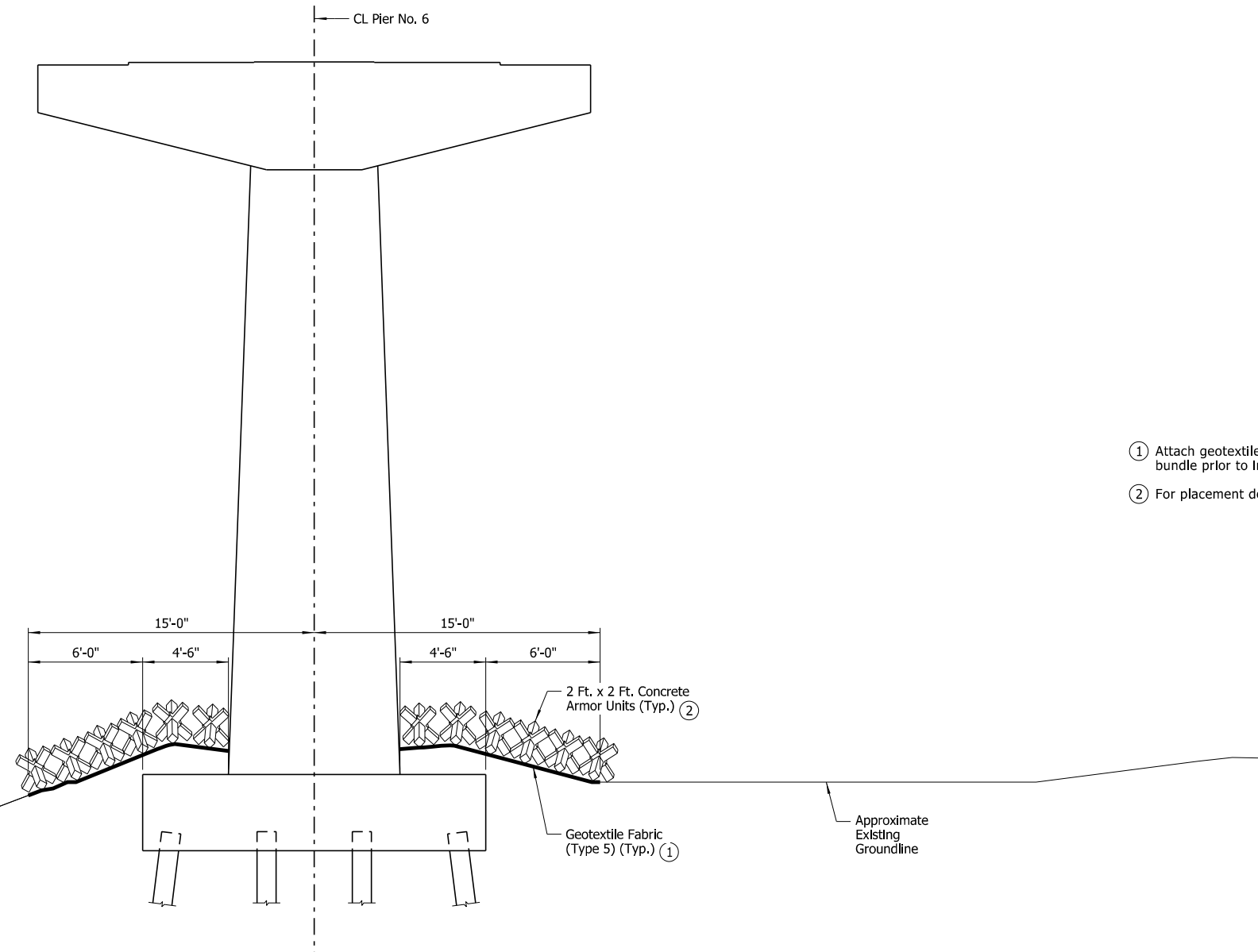
DIGITALLY SIGNED 08/07/2024
BRIDGE ENGINEER

SHEET 8 OF 10
PIER NOS. 5 & 6 SCOUR REPAIR DETAILS
ILLINOIS BAYOU BRIDGE
ROUTE 64 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x5_md8.dgn
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DESIGNED BY: WMM DATE: JUNE 2024
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 \\arvnclocal\data\projects\2021\21T01044 - ARDOT Statewide Scour Remediation\Drawings\SUBMITTAL - Overall - Without Interchange\03643\b012494x5_md8.dgn
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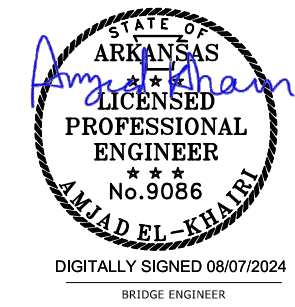
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		6	ARK.	012494	38	82
		03643	SCOUR REPAIR DETAILS		68381	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68373.

SECTION G-G

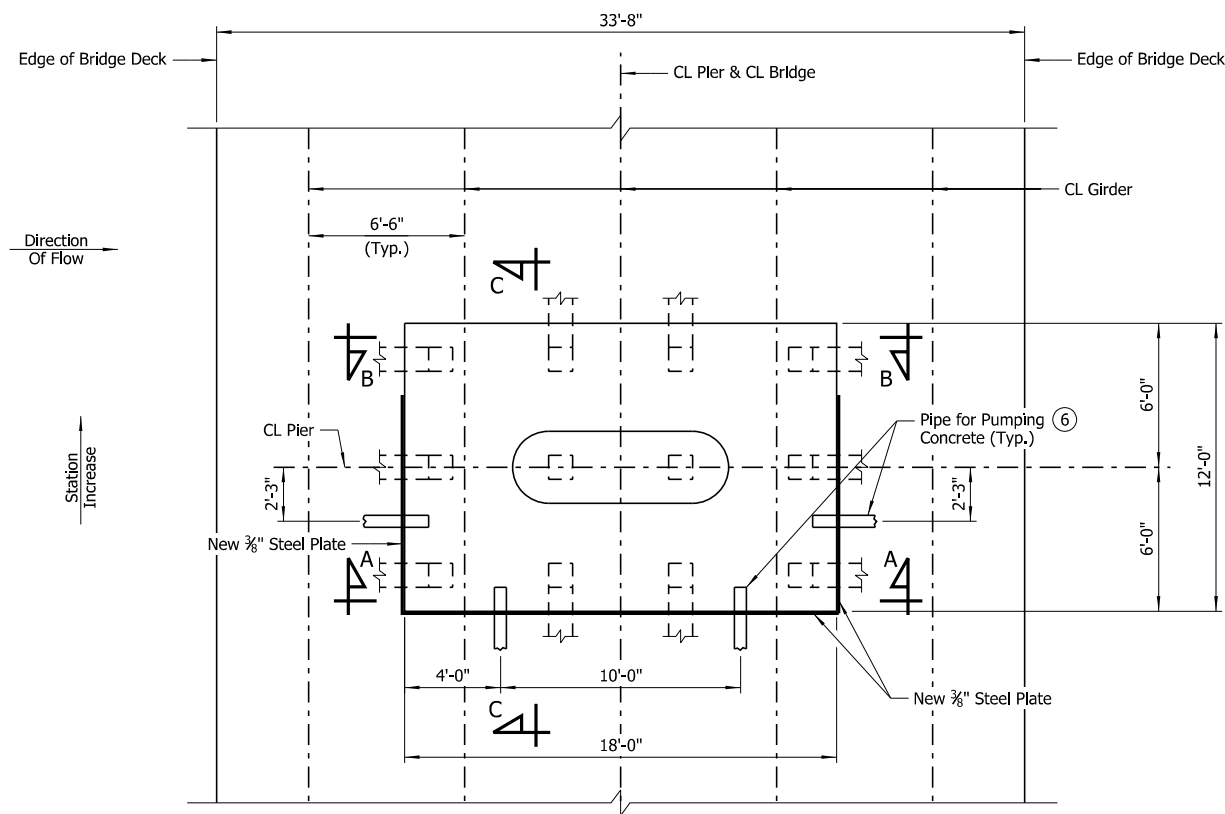
Showing Elevation Along CL Pier No. 6
(Looking Ahead)
Scale: 1/4" = 1'-0"



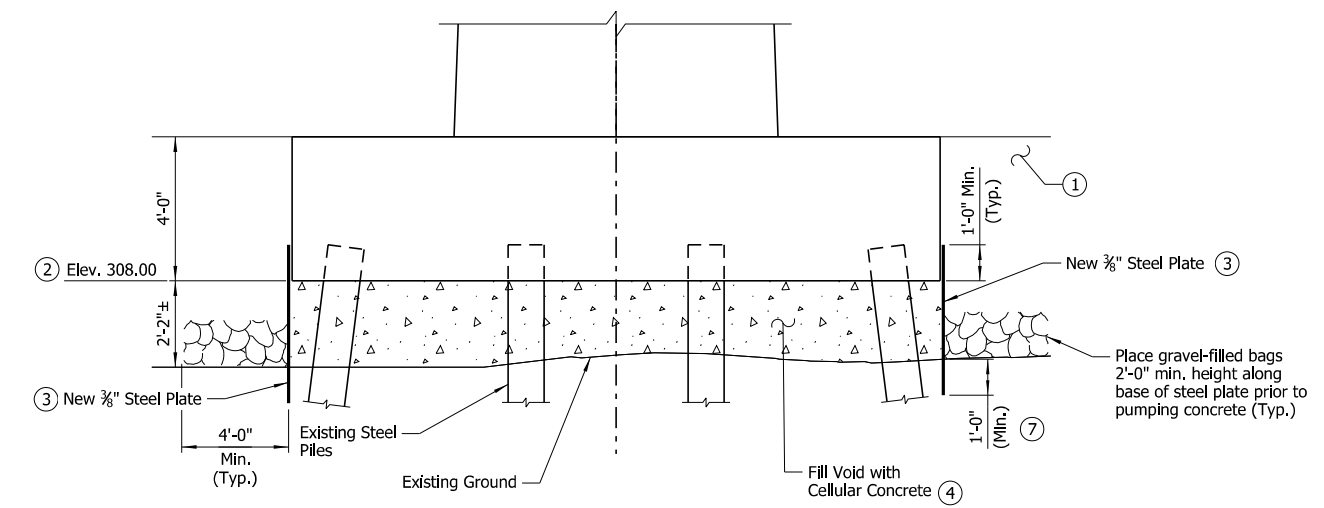
SHEET 9 OF 10
PIER NOS. 5 & 6 SCOUR REPAIR DETAILS
ILLINOIS BAYOU BRIDGE
ROUTE 64 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
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DESIGNED BY: WMM DATE: JUNE 2024
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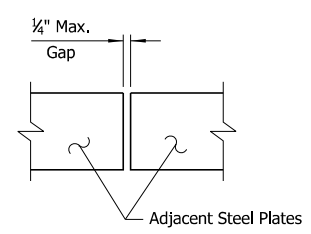
DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	39	82
		03643	SCOUR REPAIR DETAILS		68382	



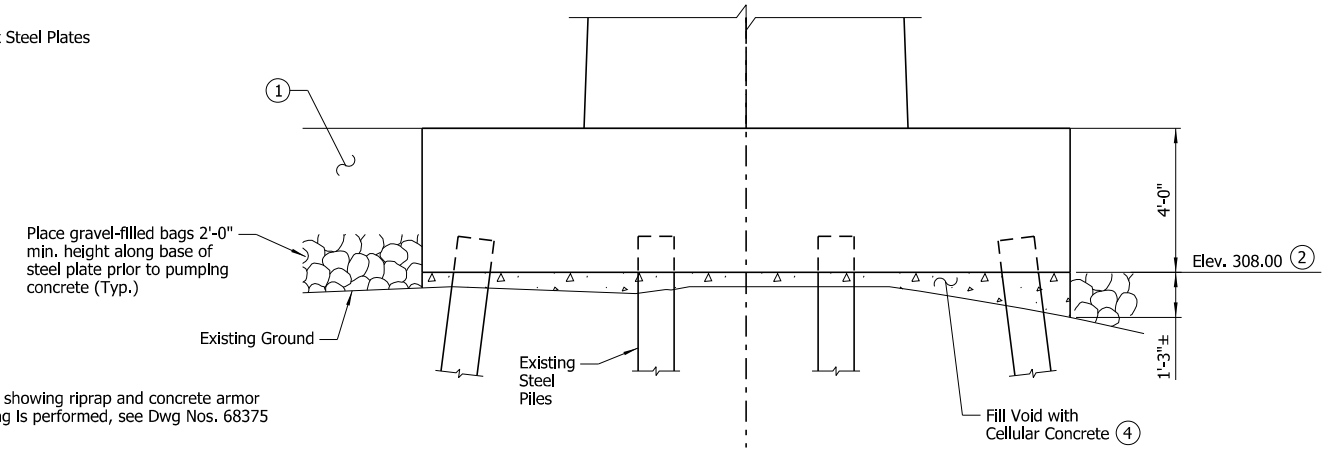
PLAN - PIER NO. 5
Scale: 1/4" = 1'-0"



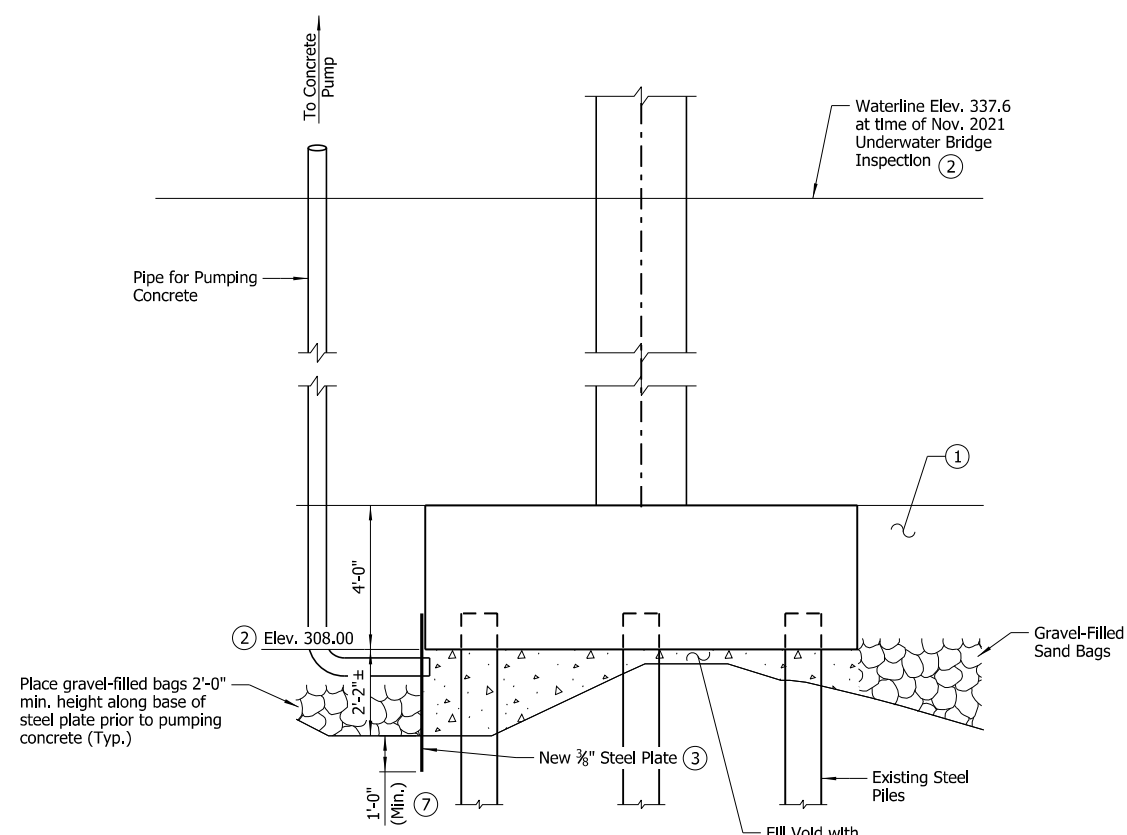
SECTION A-A
Showing Pier No. 5 Footing (Looking Ahead)
Scale: 3/8" = 1'-0"



DETAIL A
No Scale



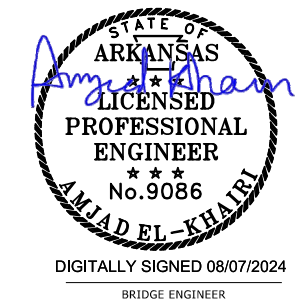
SECTION B-B
Showing Pier No. 5 at Footing (Looking Back)
Scale: 3/8" = 1'-0"



SECTION C-C
Scale: 3/8" = 1'-0"

- ① For final condition showing riprap and concrete armor units after pumping is performed, see Dwg Nos. 68375 thru 68380.
- ② Contractor shall field verify.
- ③ Steel plate shall be Grade A36. Steel plates shall be left in place following the installation of Cellular Concrete. See Detail A.
- ④ See Job 012494 Special Provision "Cellular Concrete".
- ⑤ Exact location of the placement of steel plates shall be determined on site by the Engineer.
- ⑥ The contractor shall use maximum of two pipes to pour the concrete. The other two pipes are to remain open in order for water to escape.
- ⑦ Exact embedment required shall be determined by the Contractor.

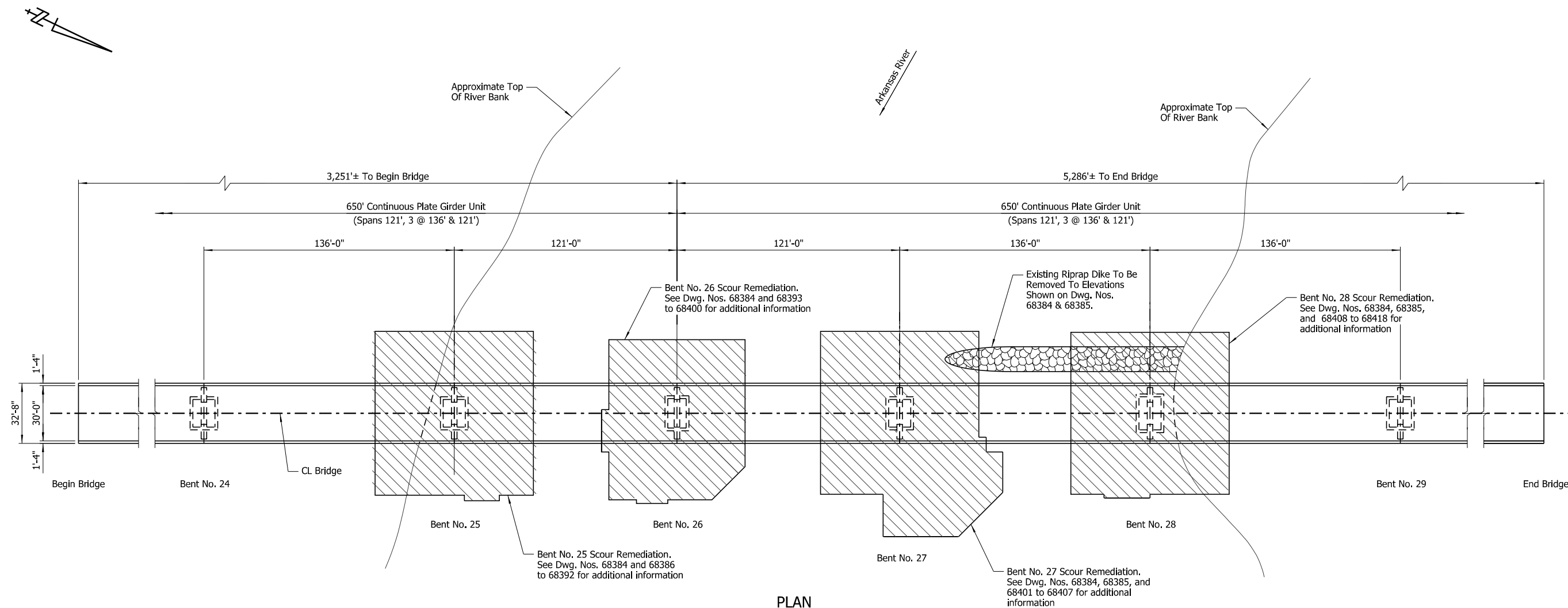
NOTE:
The Contractor shall place 3/8" steel plates for placement of Cellular Concrete underneath the footing at Pier No. 5 as shown on this sheet. The contractor shall determine the dimensions of the plates. All steel plates shall be placed in a manner to contain and seal the new concrete to the limits shown on this sheet.



SHEET 10 OF 10
PIER NOS. 5 & 6 SCOUR REPAIR DETAILS
ILLINOIS BAYOU BRIDGE
ROUTE 64 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x5_md10.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 03643 DRAWING NO. 68382

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	40	82
				05600	LAYOUT	68383



PLAN
Scale: 1" = 30'-0"

GENERAL NOTES

BENCH MARK: Top of deck at CL Bridge No. 05600, Bent No. 26, Elev. 364.20 as shown in existing plans.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable supplemental specifications and special provisions.

The proposed work consists of placing gravel-filled geotextile containers, geotextile fabric (Type 5), cellular concrete, cofferdams, 2 ft. x 2 ft. concrete armor units on the indicated areas of stream channel, and removing existing riprap dike to elevations shown on Dwg. Nos. 68384 and 68385. See Dwg. Nos. 68386 to 68415 for additional details. Care shall be exercised to avoid damaging the bridge while placing the scour remediation materials under the bridge and around the footings. The scour remediation materials may be placed underwater in a manner that maintains the required elevation. The Contractor shall take soundings to determine thickness and extent.

Prior to start of the work, the Contractor is required to survey the work area in order to set a baseline for existing conditions to be compared to existing survey data. If major differences are noted, the Contractor shall contact the Engineer to address any potential issues. After the work is completed, the Contractor is required to survey the work area to establish new in place ground contours. The Contractor shall supply ARDOT Engineer with all survey data. All costs associated with the survey will not be paid for separately but will be considered subsidiary to other bid items.

The Contractor is NOT allowed to use spans adjacent to Bent Nos. 27 and 28 for storage, construction, and/or operations. No live load and/or construction load will be allowed.

Structural steel in cofferdams, including all elements of water system, shall be ASTM A709, Gr. 50 and shall be paid for as "COFFERDAM".

Sheet piling in cofferdams shall be ASTM A572, Gr. 50 and shall be paid for as "COFFERDAM".

Cellular concrete in cofferdams shall be furnished as defined by Job 012494 SP "CELLULAR CONCRETE".

LEGEND



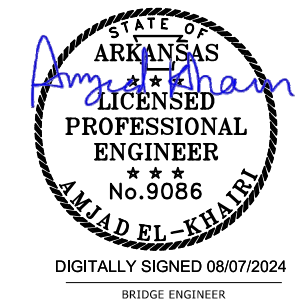
NOTE:

Contractor shall coordinate with ARDOT to notify the United States Coast Guard and the United States Army Corps of Engineers (USACE) a minimum of 30 days prior to beginning any work at this bridge site.

NOTES:

Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

Contractor can access this site by utilizing single lane closure on Hwy. 109. All traffic control for single lane closure shall meet the current ARDOT and MUTCD standards.



DIGITALLY SIGNED 08/07/2024
BRIDGE ENGINEER

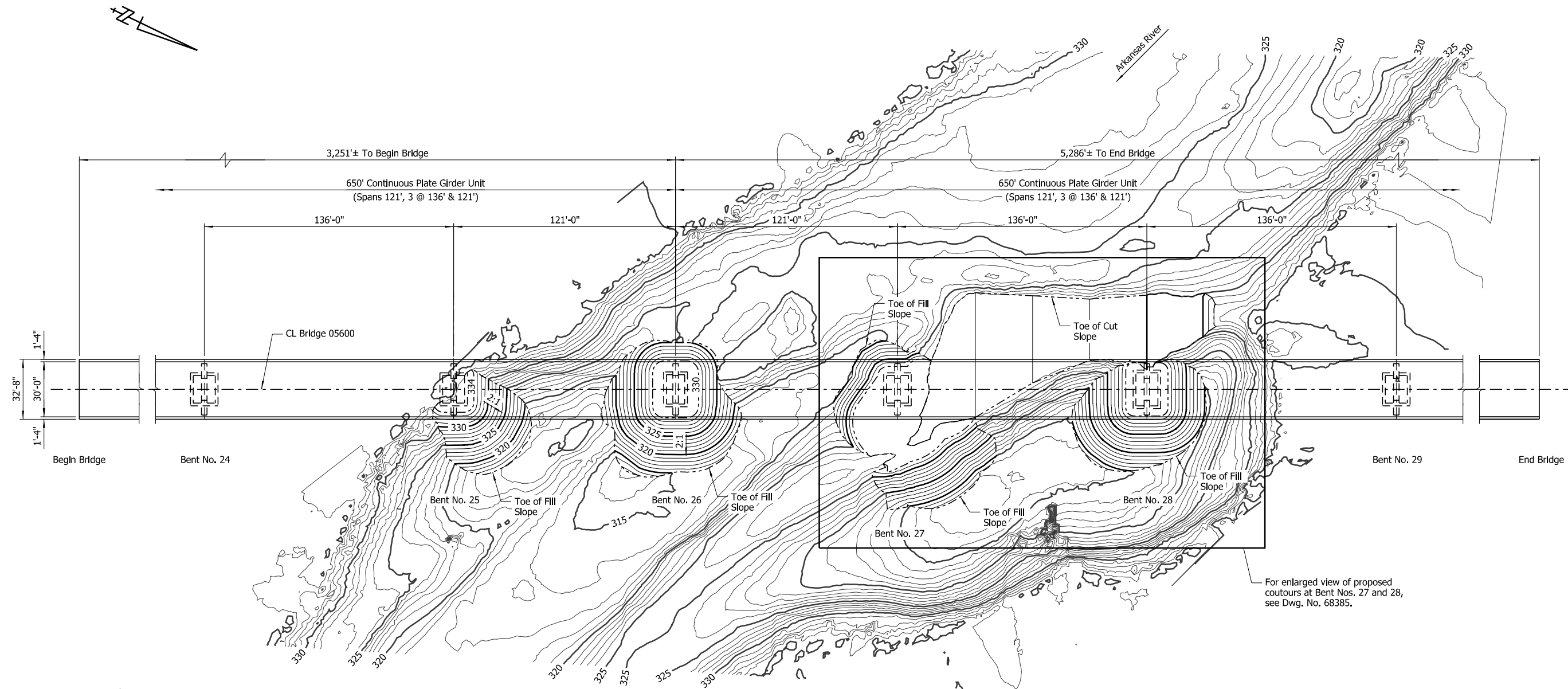
**LAYOUT OF SCOUR REPAIR
BRIDGE OVER ARKANSAS RIVER
(CLARKSVILLE)
LOGAN & JOHNSON COUNTY**

ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_I1.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68383

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	41	82
				05600	PROPOSED LAYOUT	68384



For enlarged view of proposed contours at Bent Nos. 27 and 28, see Dwg. No. 68385.

GENERAL NOTES

BENCH MARK: Top of deck at CL Bridge No. 05600 at Bent No. 26, Elev. 364.20 as shown in existing plans.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable supplemental specifications and special provisions.

The proposed work consists of placing gravel-filled geotextile containers, geotextile fabric (Type 5), cellular concrete, cofferdams, 2 ft. x 2 ft. concrete armor units on the indicated areas of stream channel, and removing existing riprap dike to elevations shown on Dwg. Nos. 68384 and 68385. See Dwg. Nos. 68386 to 68415 for additional details. Care shall be exercised to avoid damaging the bridge while placing the scour remediation materials under the bridge and around the footings. The scour remediation materials may be placed underwater in a manner that maintains the required elevation. The Contractor shall take soundings to determine thickness and extent.

Prior to start of the work, the Contractor is required to survey the work area in order to set a baseline for existing conditions to be compared to existing survey data. If major differences are noted, the Contractor shall contact the Engineer to address any potential issues. After the work is completed, the Contractor is required to survey the work area to establish new in place ground contours. The Contractor shall supply ARDOT Engineer with all survey data. All costs associated with the survey will not be paid for separately but will be considered subsidiary to other bid items.

The Contractor is NOT allowed to use spans adjacent to Bent Nos. 25 to 28 for storage, construction, and/or operations. No live load and/or construction load will be allowed.

Structural steel in cofferdams, including all elements of water system, shall be ASTM A709, Gr. 50 and shall be paid for as "COFFERDAM".

Sheet piling in cofferdams shall be ASTM A572, Gr. 50 and shall be paid for as "COFFERDAM".

Cellular concrete in cofferdams shall be furnished as defined by Job 012494 SP "CELLULAR CONCRETE".

PLAN

Scale: 1" = 30'-0"

NOTE:
Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

NOTE:
Contractor shall construct the new cofferdams under low/no flow conditions. Contractor may be required to install stream diversion to accomplish the low/no flow condition if elected to work during high flow condition.

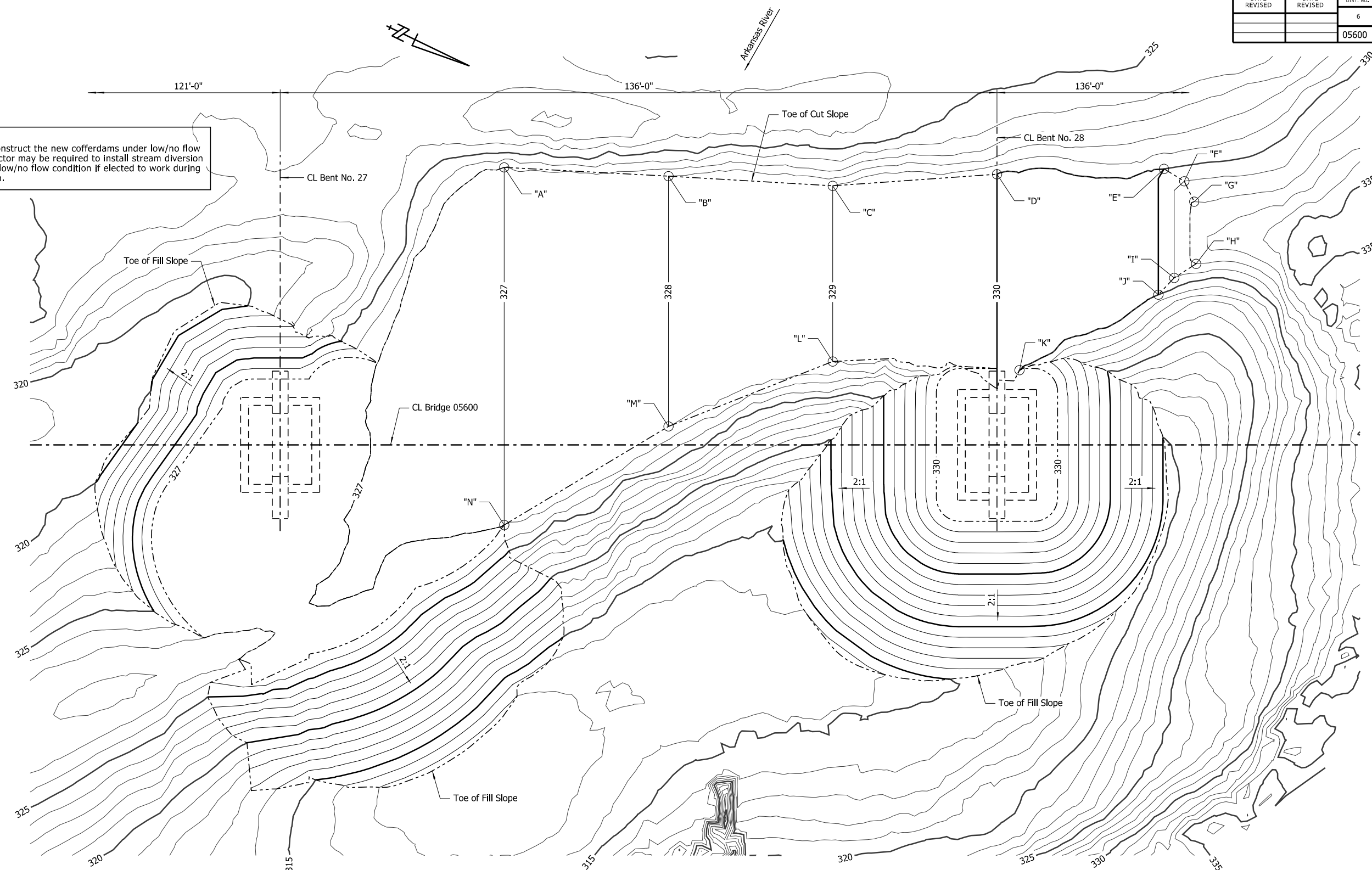


SHEET 1 OF 2
PROPOSED LAYOUT OF SCOUR REPAIR
BRIDGE NO. 05600 - BENT NOS. 25 TO 28
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
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NOTE:
Contractor shall construct the new cofferdams under low/no flow conditions. Contractor may be required to install stream diversion to accomplish the low/no flow condition if elected to work during high flow condition.



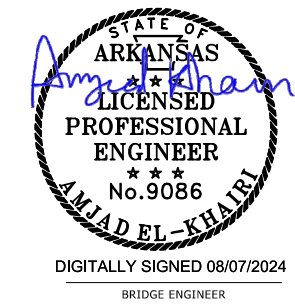
PLAN
(Showing proposed contours at Bent Nos. 27 & 28)
Scale: 1" = 10'-0"

TABLE OF VARIABLES				
Point	Elev.	N/S Offset (1)	E/W Offset (2)	
"A"	327.00	93.50' S	52.67' W	
"B"	328.00	62.33' S	50.00' W	
"C"	329.00	31.17' S	49.16' W	
"D"	330.00	0	51.35' W	
"E"	330.00	31.68' N	52.38' W	
"F"	329.00	35.53' N	50.02' W	
"G"	328.00	37.41' N	46.16' W	

TABLE OF VARIABLES				
Point	Elev.	N/S Offset (1)	E/W Offset (2)	
"H"	328.00	37.78' N	34.35' W	
"I"	329.00	33.62' N	31.69' W	
"J"	330.00	30.62' N	28.50' W	
"K"	330.00	4.26' N	14.18' W	
"L"	329.00	31.17' S	15.82' W	
"M"	328.00	62.33' S	3.50' W	
"N"	327.00	93.50' S	15.21' E	

NOTE:
Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

- ① N/S Offset measured perpendicular to CL Bent No. 28.
- ② E/W Offset measured perpendicular to CL Bridge No. 05600.

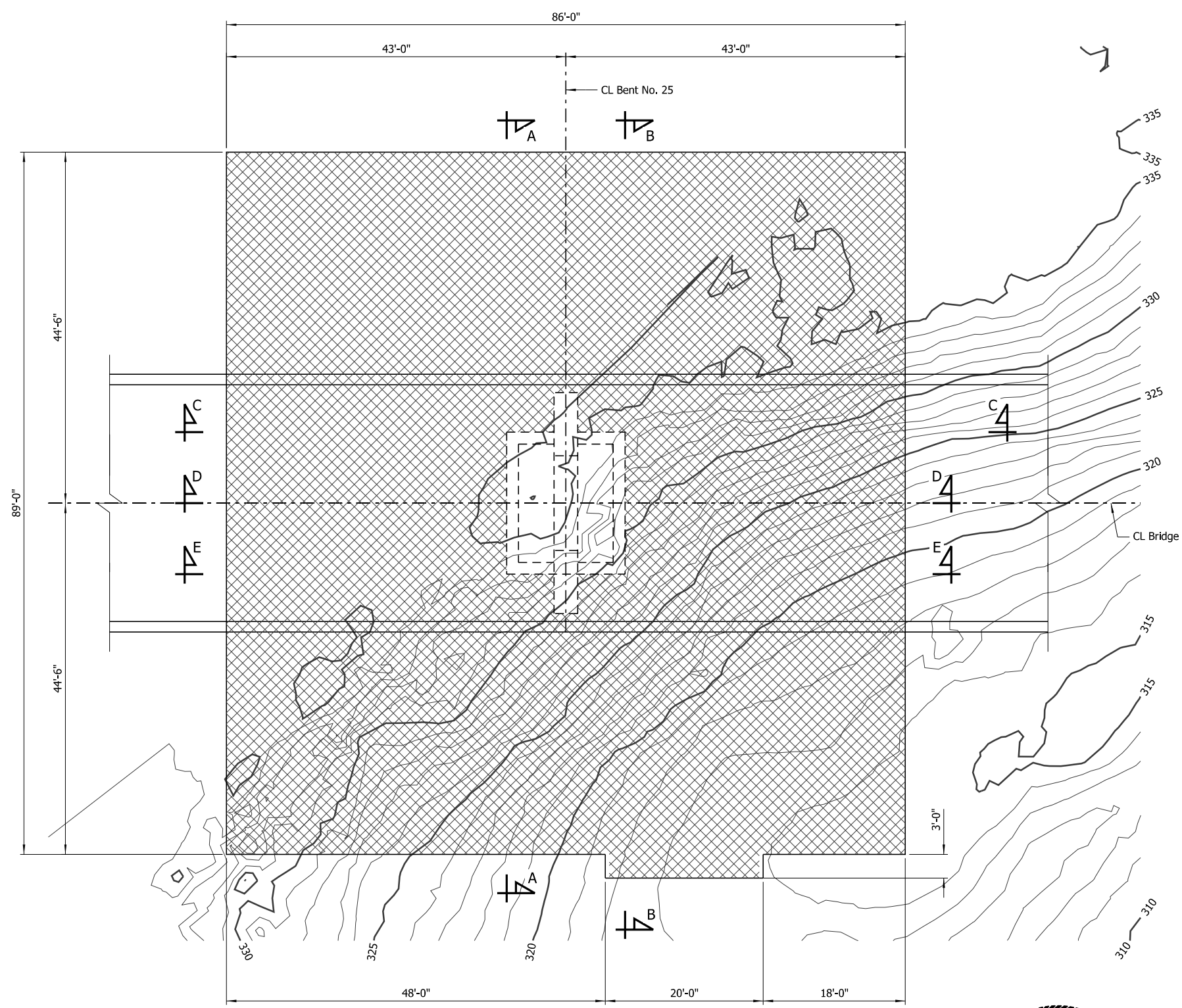
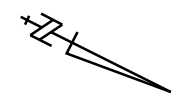


SHEET 2 OF 2
PROPOSED LAYOUT OF SCOUR REPAIR
BRIDGE NO. 05600 - BENT NOS. 25 TO 28
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC. 3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_I3.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68385

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 WORKSPACE: ARDOT Bridge (2019)
 \\arvnc\local\gdata\Projects\2021\2110104 - ARDOT Statewide Scour Remediation\Drawings\SUBMITTAL - Overall - Without Interchange\05600\012494x6_I3.dgn
 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	43	82
		05600	SCOUR REPAIR DETAILS		68386	



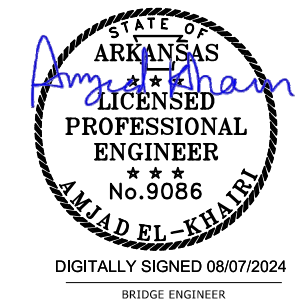
LEGEND

 Concrete Armor Unit Placement

NOTES:
 For "Section A-A", see Dwg. No. 68388.
 For "Section B-B", see Dwg. No. 68389.
 For "Section C-C", see Dwg. No. 68390.
 For "Section D-D", see Dwg. No. 68391.
 For "Section E-E", see Dwg. No. 68392.

PLAN - BENT NO. 25
 Showing Limits of Concrete Armor Units
 Scale: 1/8" = 1'-0"

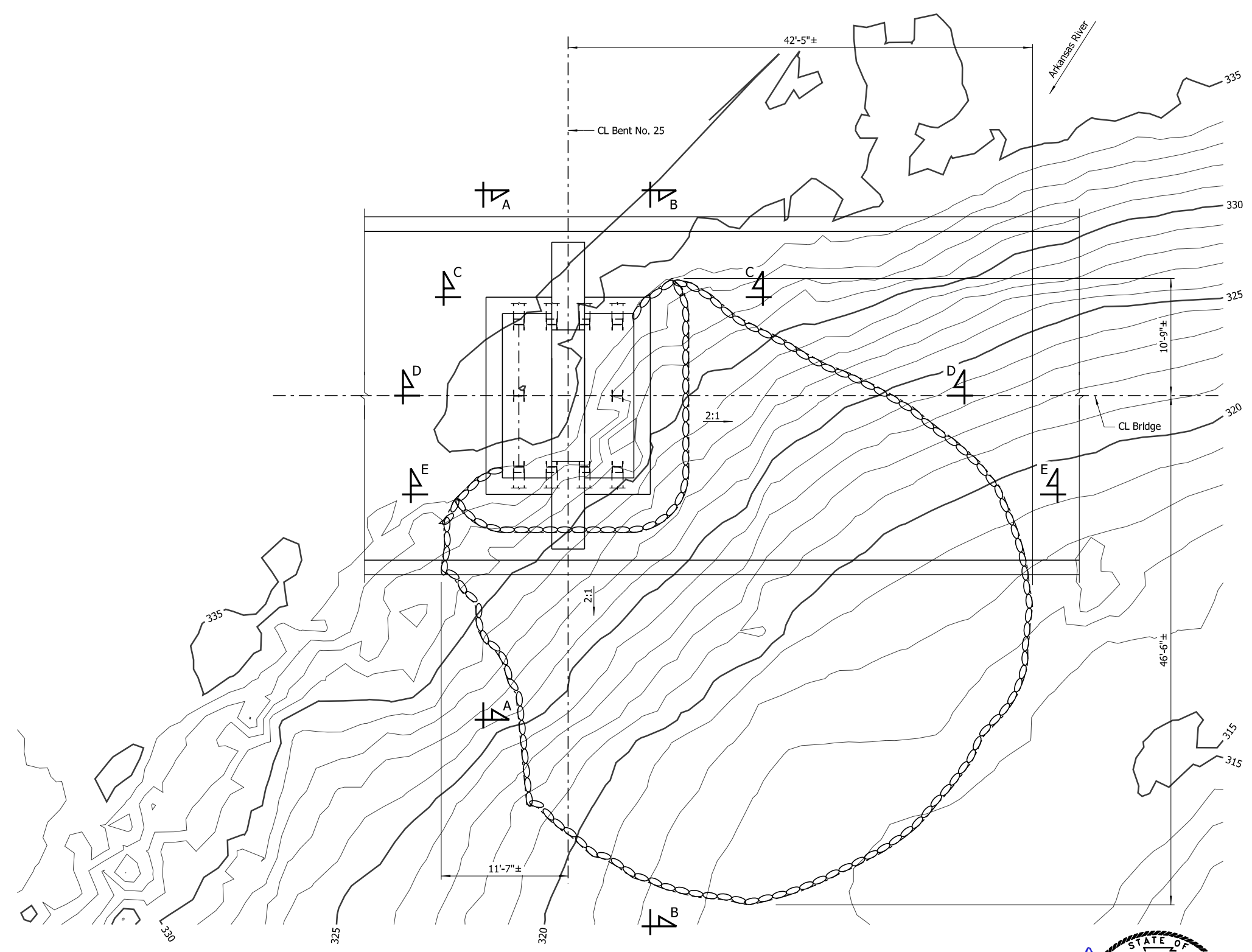
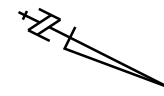
NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.



SHEET 1 OF 7
BENT NO. 25 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md1.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 05600 DRAWING NO. 68386

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 WORKSPACE: ARDOT Bridge (2019)
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	44	82
		05600	SCOUR REPAIR DETAILS		68387	



LEGEND

⊗ Gravel-Filled Geotextile Container Placement Area

NOTES:
 For "Section A-A", see Dwg. No. 68388.
 For "Section B-B", see Dwg. No. 68389.
 For "Section C-C", see Dwg. No. 68390.
 For "Section D-D", see Dwg. No. 68391.
 For "Section E-E", see Dwg. No. 68392.

PLAN - BENT NO. 25
 Showing Limits of Gravel-Filled Geotextile Containers
 Scale: 3/16" = 1'-0"

NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

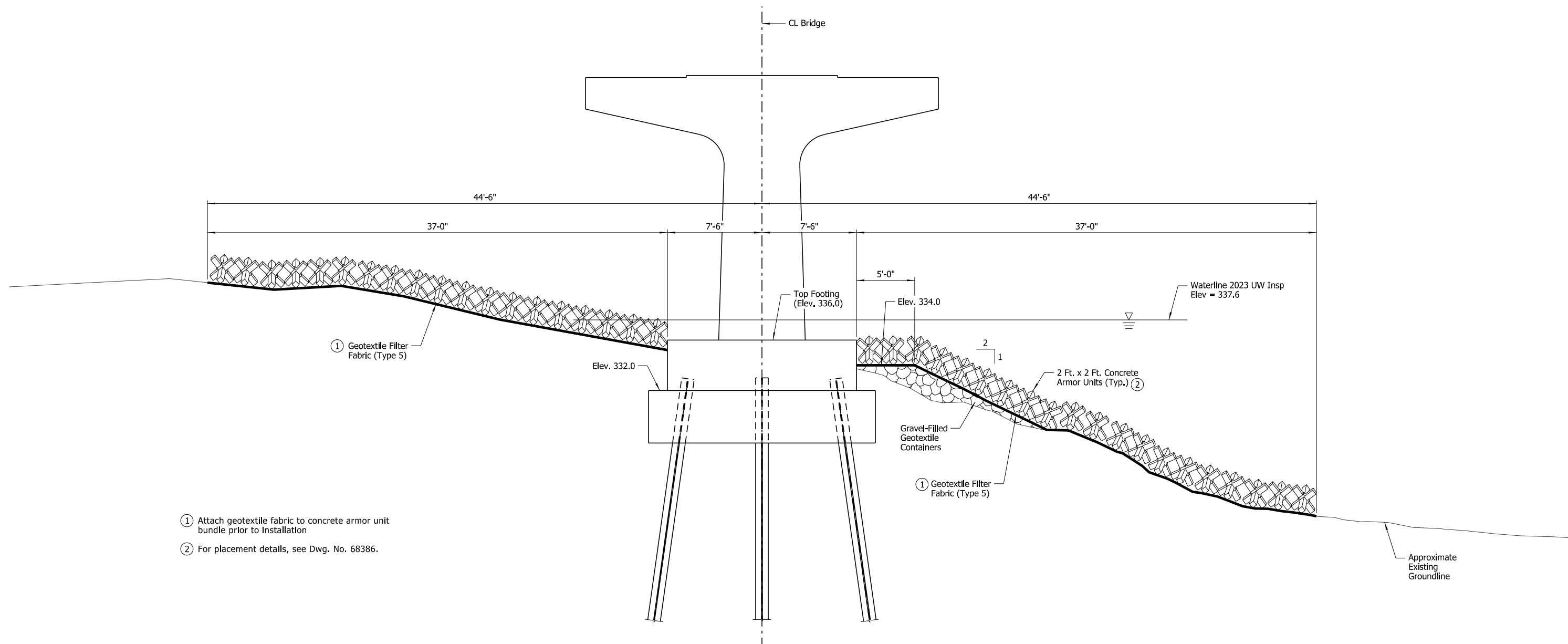


SHEET 2 OF 7
 BENT NO. 25 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

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 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
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 WORKSPACE: ARDOT Bridge (2019)
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 REVISED DATE:

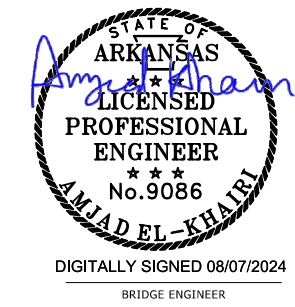
DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	45	82
		05600 SCOUR REPAIR DETAILS			68388	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68386.

SECTION A-A

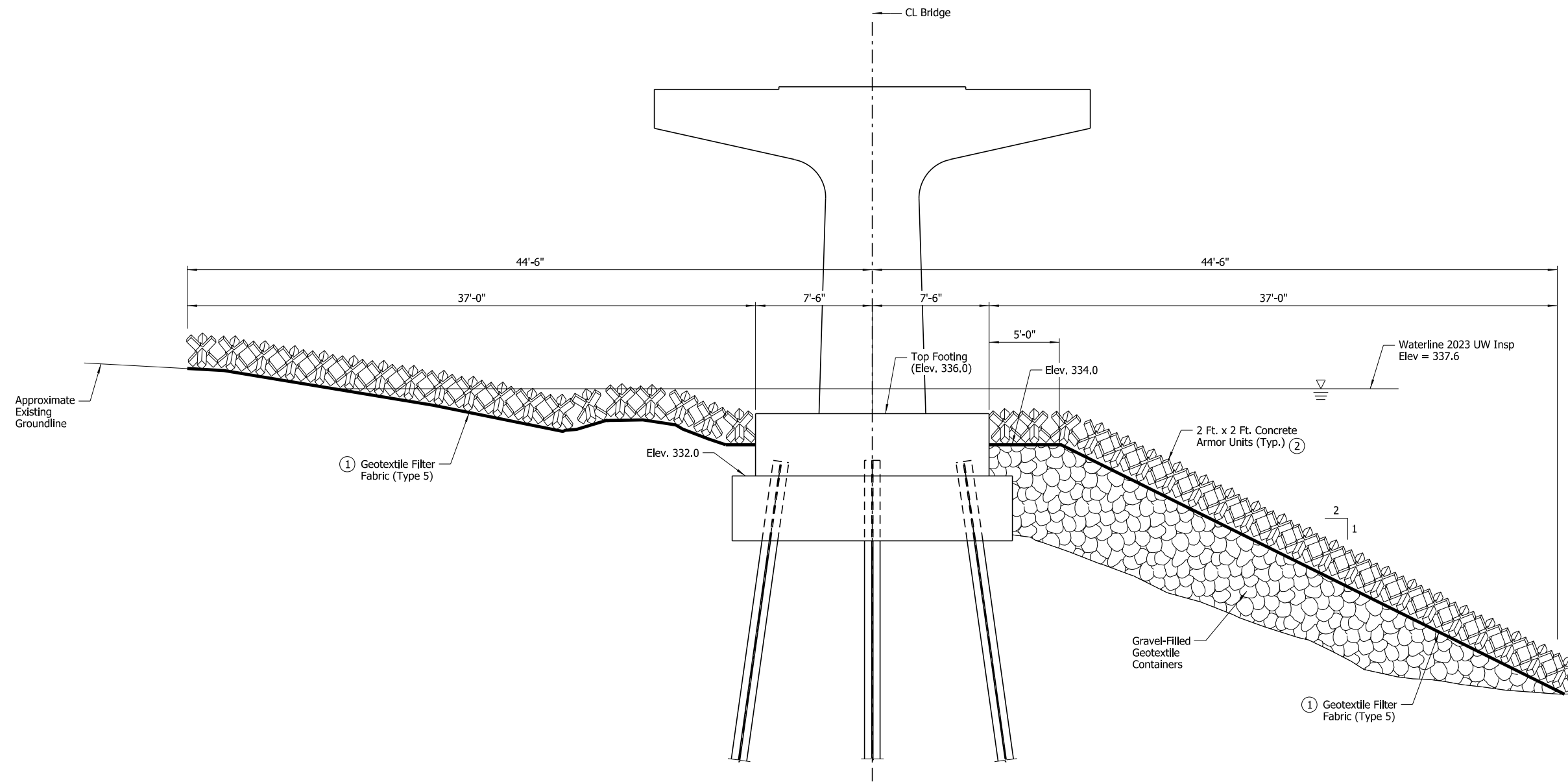
Showing Bent No. 25 along South Face of Footing
Scale: 1/4" = 1'-0"



SHEET 3 OF 7
BENT NO. 25 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md3.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 05600 DRAWING NO. 68388

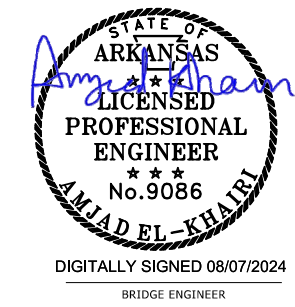
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	46	82
				05600	SCOUR REPAIR DETAILS 68389	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68386.

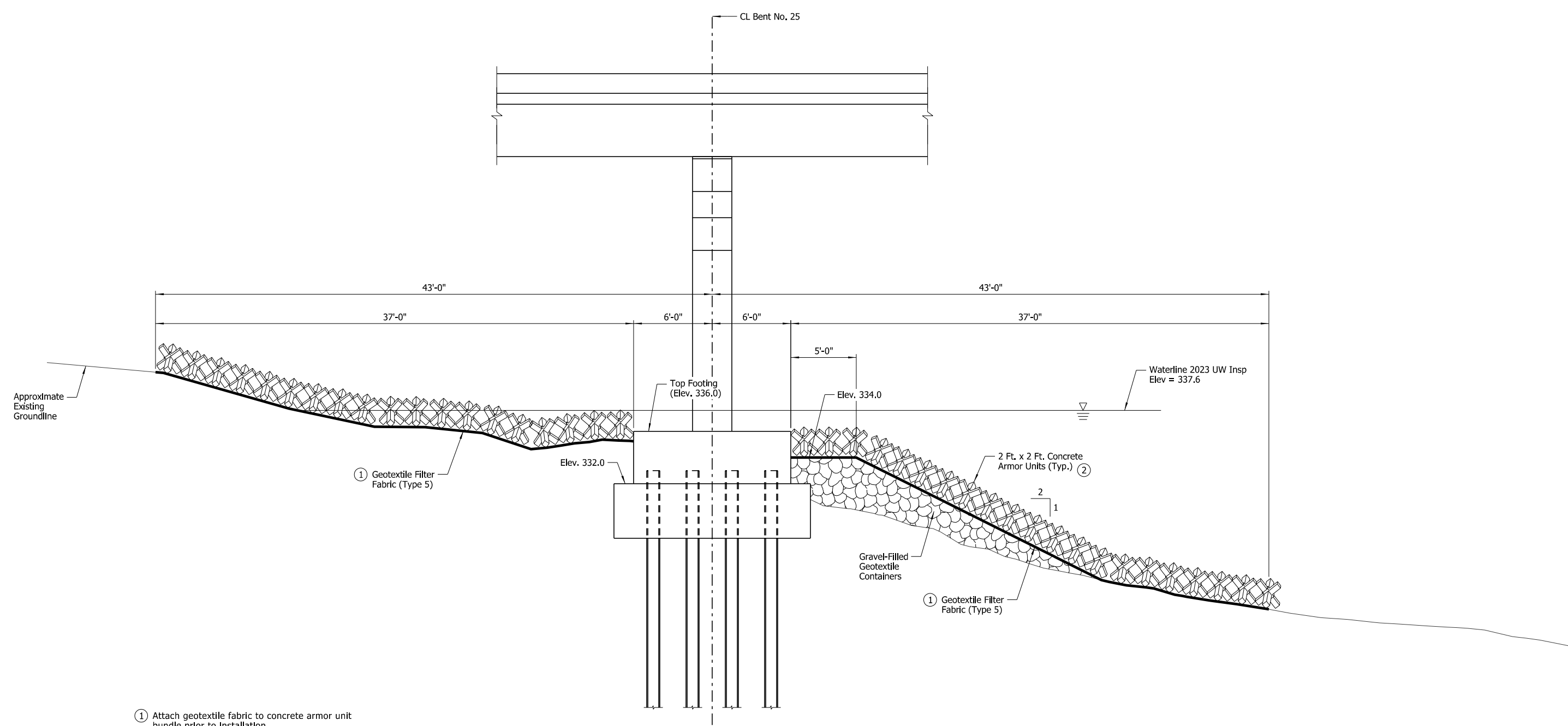
SECTION B-B
Showing Bent No. 25 along North Face of Footing
Scale: 1/4" = 1'-0"



SHEET 4 OF 7
BENT NO. 25 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md4.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68389

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	48	82
				05600	SCOUR REPAIR DETAILS	68391



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68386.

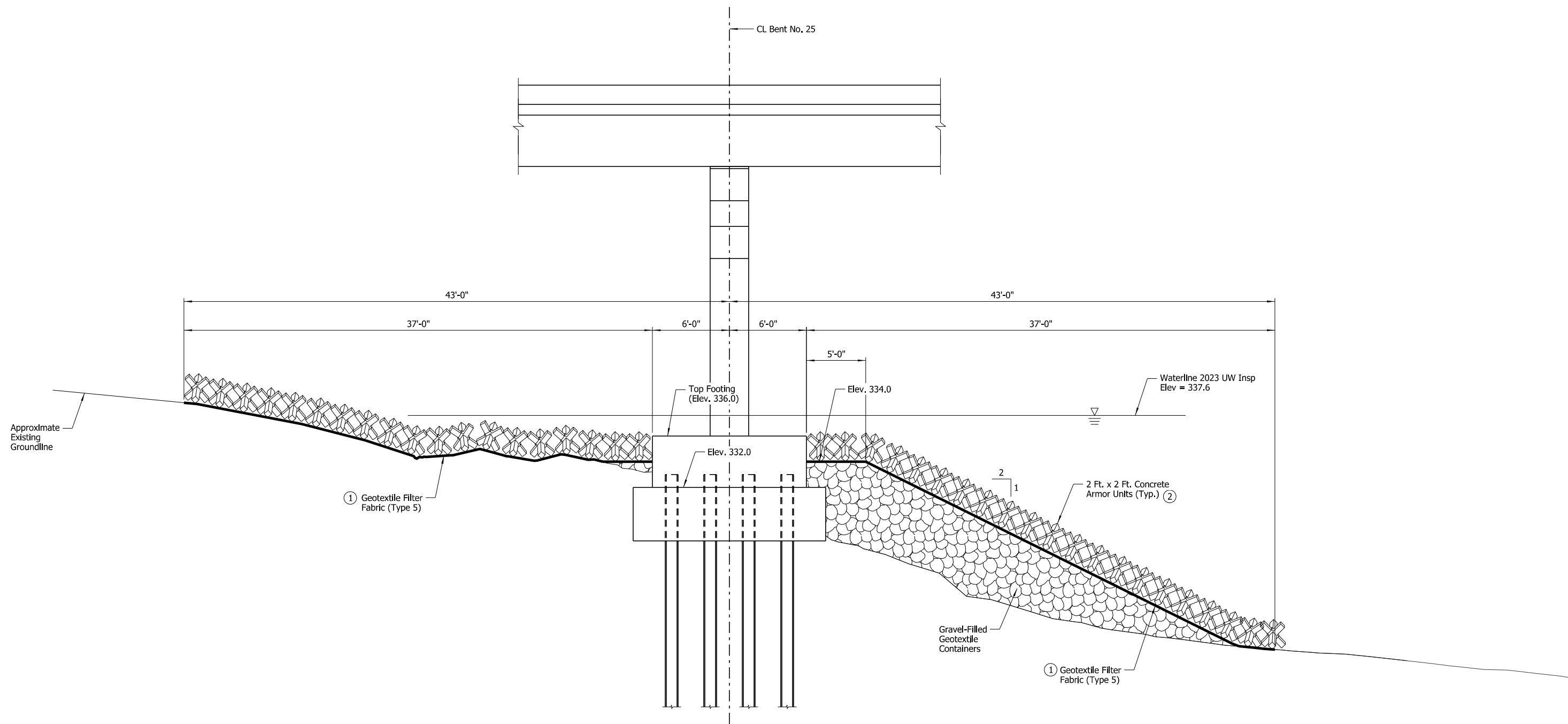
SECTION D-D
 Showing Bent No. 25 along CL Bent
 Scale: 1/4" = 1'-0"



SHEET 6 OF 7
 BENT NO. 25 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md6.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 05600 DRAWING NO. 68391

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	49	82
				05600	SCOUR REPAIR DETAILS	68392



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 683876.

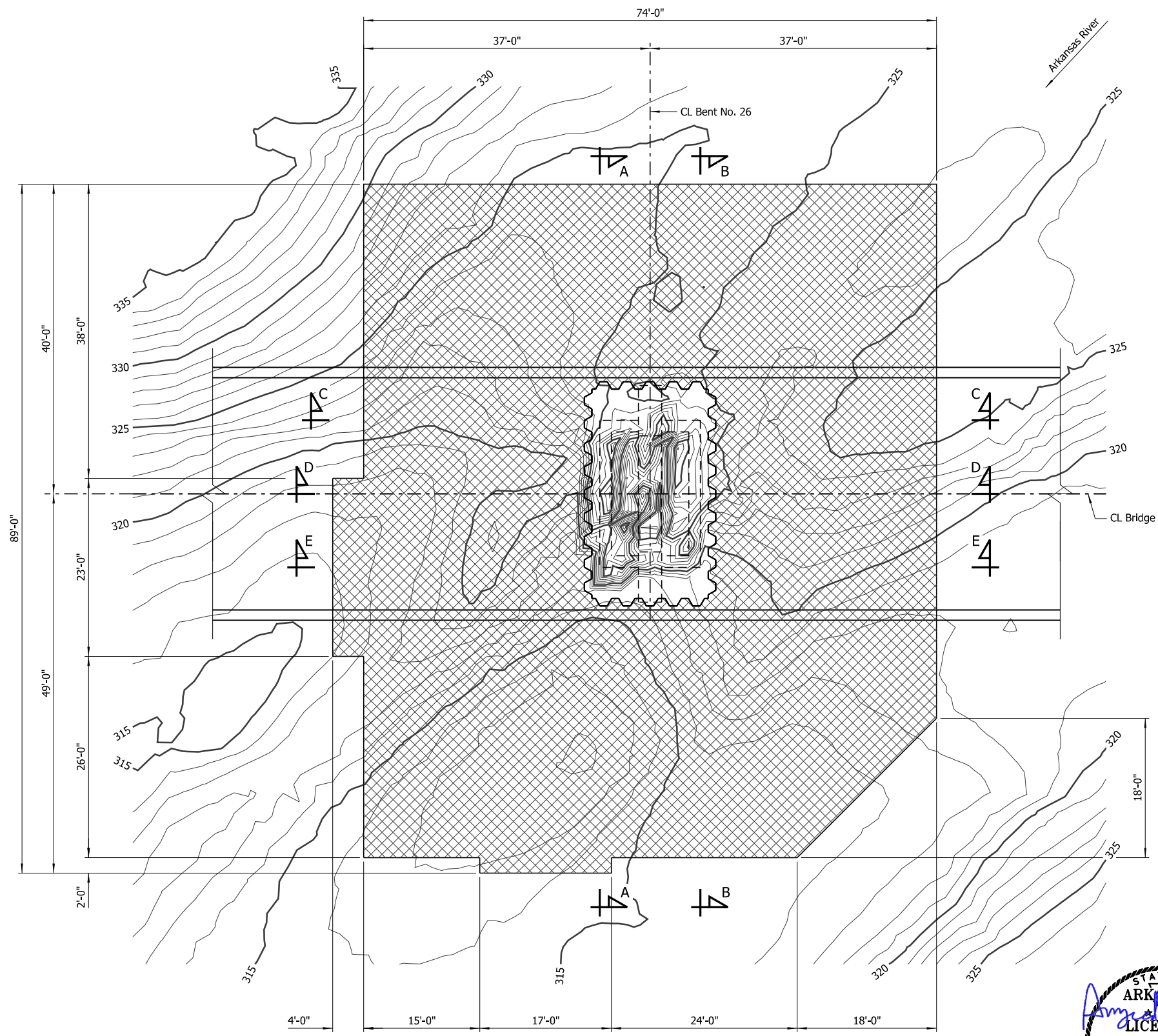
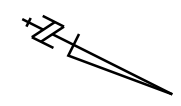
SECTION E-E

Showing Bent No. 25 along East Face of Footing
Scale: 1/4" = 1'-0"



SHEET 7 OF 7
BENT NO. 25 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md7.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68392

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	50	82
				05600	SCOUR REPAIR DETAILS	68393



LEGEND

 Concrete Armor Unit Placement

NOTES:
 For "Section A-A", see Dwg. No. 68395.
 For "Section B-B", see Dwg. No. 68396.
 For "Section C-C", see Dwg. No. 68397.
 For "Section D-D", see Dwg. No. 68398.
 For "Section E-E", see Dwg. No. 68399.

NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

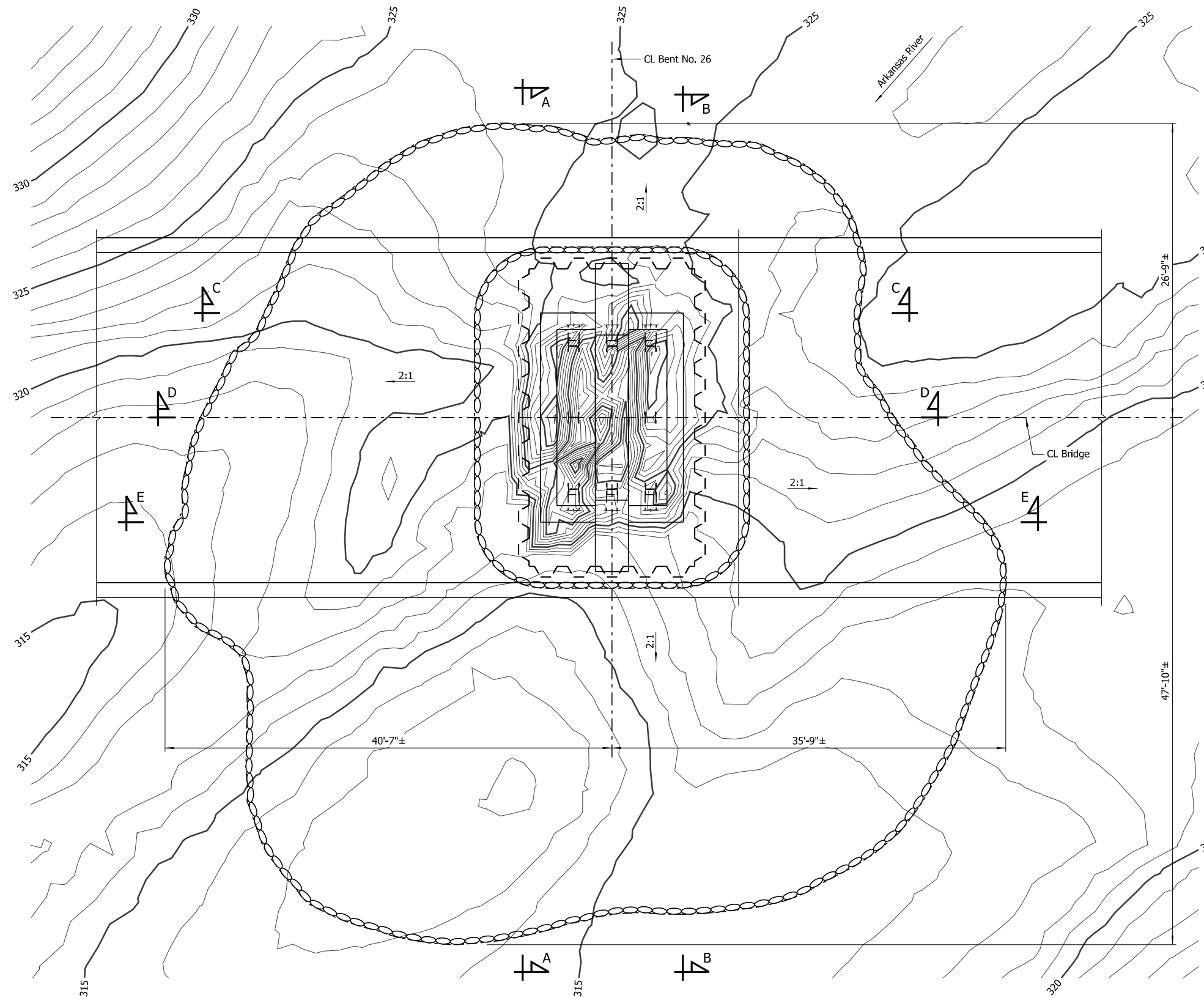
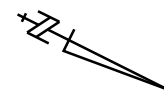
PLAN - BENT NO. 26
 Showing Limits of Concrete Armor Units
 Scale: 1/8" = 1'-0"

STATE OF ARKANSAS
 LICENSED PROFESSIONAL ENGINEER
 No. 9086
 AMJAD EL-KHAIRI
 BRIDGE ENGINEER
 DIGITALLY SIGNED 08/07/2024

SHEET 1 OF 8
 BENT NO. 26 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC. 3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md8.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 05600 DRAWING NO. 68393

WMM:Entire 8/7/2024 3:19:47 PM
 WORKSPACE: ARDOT Bridge (2019)
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	51	82
				05600	SCOUR REPAIR DETAILS	68394



LEGEND

Gravel-Filled Geotextile Container Placement Area

NOTES:
 For "Section A-A", see Dwg. No. 68395.
 For "Section B-B", see Dwg. No. 68396.
 For "Section C-C", see Dwg. No. 68397.
 For "Section D-D", see Dwg. No. 68398.
 For "Section E-E", see Dwg. No. 68399.

PLAN - BENT NO. 26
 Showing Limits of Gravel-Filled Geotextile Containers
 Scale: 3/16" = 1'-0"

NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

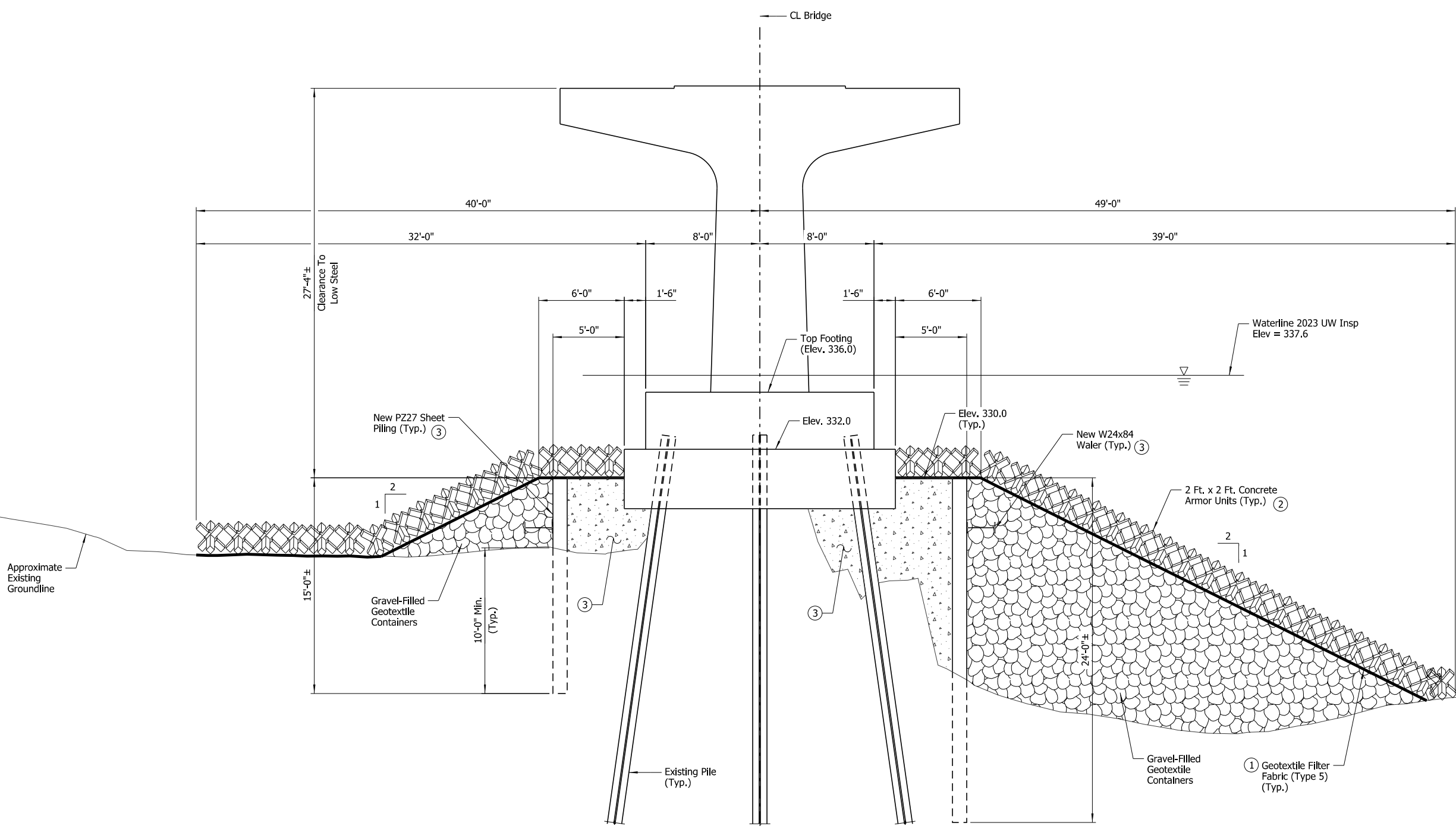


SHEET 2 OF 8
BENT NO. 26 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC. 3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

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 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. **05600** DRAWING NO. **68394**

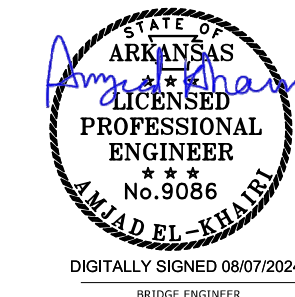
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	52	82
				05600	SCOUR REPAIR DETAILS	68395



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68393.
- ③ For cofferdam details, see Dwg. No. 68400.

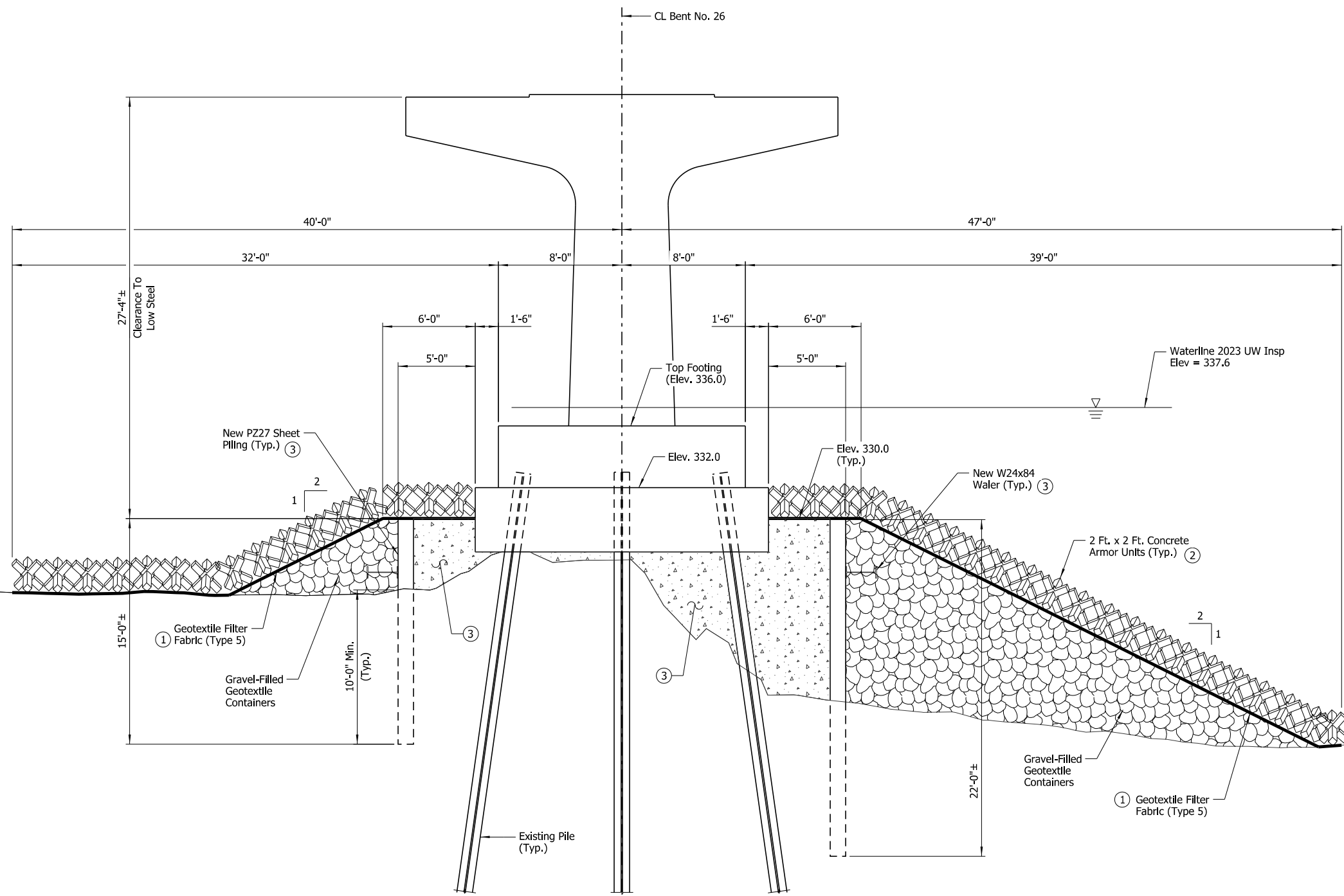
SECTION A-A
 Showing Bent No. 26 along South Face of Footing
 Scale: 1/4" = 1'-0"



SHEET 3 OF 8
 BENT NO. 26 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC. 3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md10
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 05600 DRAWING NO. 68395

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	53	82
		05600	SCOUR REPAIR DETAILS		68396	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68393.
- ③ For cofferdam details, see Dwg. No. 68400.

SECTION B-B

Showing Bent No. 26 along North Face of Footing
Scale: 1/4" = 1'-0"

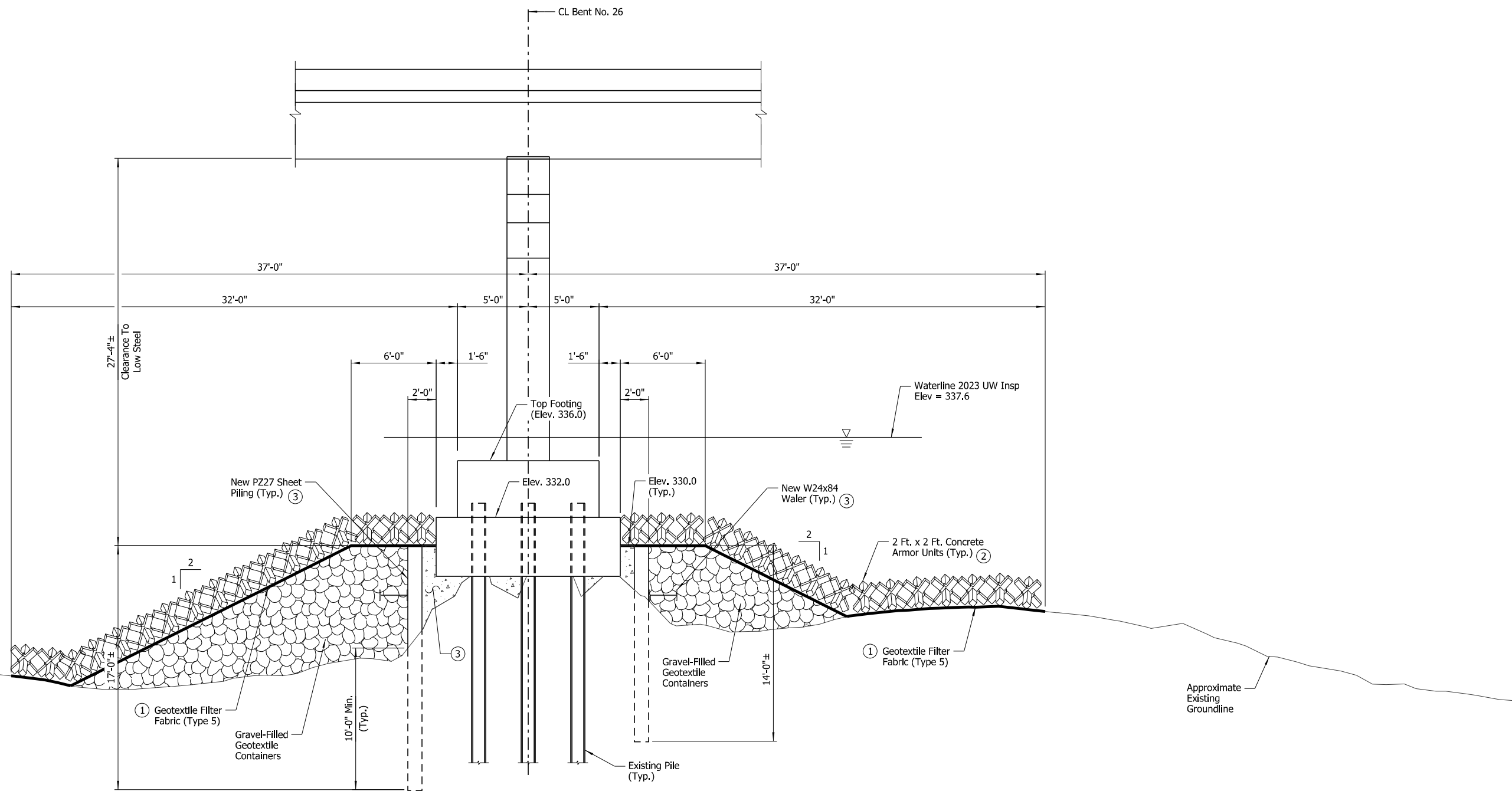


SHEET 4 OF 8
BENT NO. 26 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC. 3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md11.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68396

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	54	82
				05600	SCOUR REPAIR DETAILS	68397



SECTION C-C

Showing Bent No. 26 along West Face of Footing
Scale: 1/4" = 1'-0"

- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68393.
- ③ For cofferdam details, see Dwg. No. 68400.



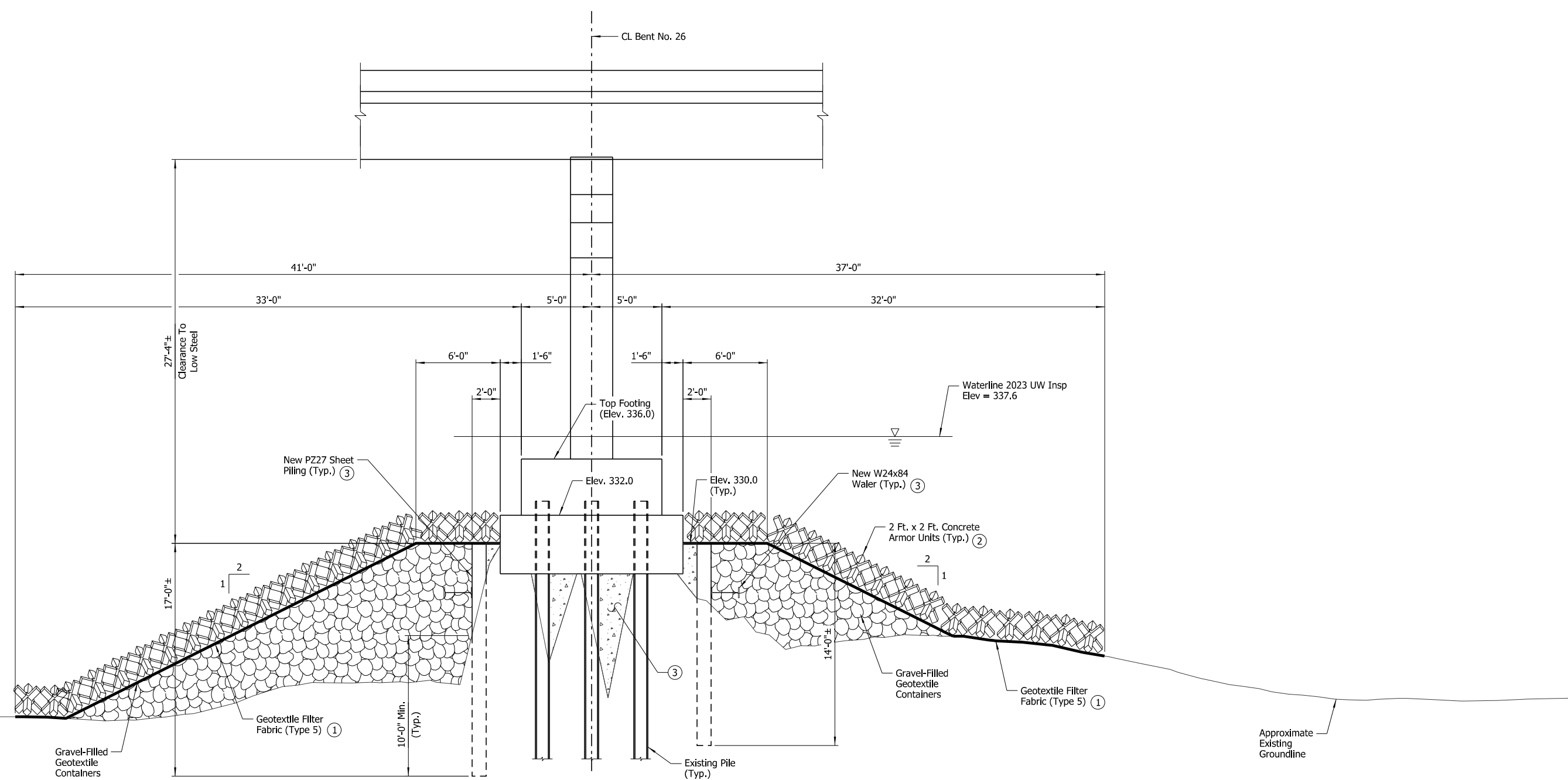
DIGITALLY SIGNED 08/07/2024
BRIDGE ENGINEER

SHEET 5 OF 8
BENT NO. 26 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC. 3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68397

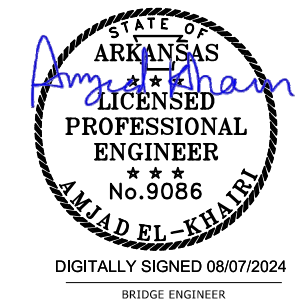
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	55	82
		05600 SCOUR REPAIR DETAILS			68398	



SECTION D-D
 Showing Bent No. 26 at CL Footing
 Scale: 1/4" = 1'-0"

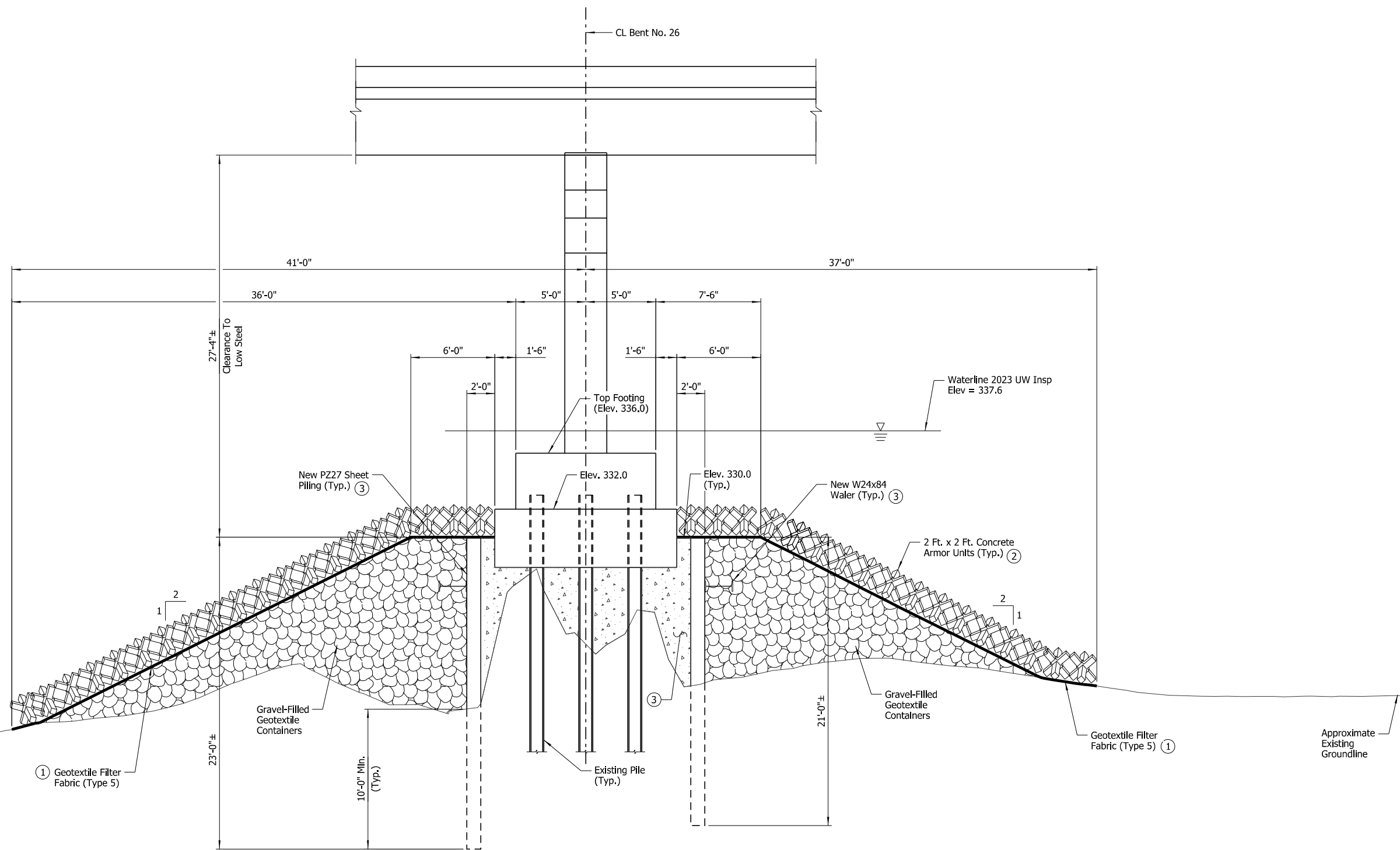
- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68393.
- ③ For cofferdam details, see Dwg. No. 68400.



SHEET 6 OF 8
 BENT NO. 26 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC. 3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md13.dgn
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 BRIDGE NO. 05600 DRAWING NO. 68398

8/7/2024 3:19:49 PM
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 REVISED DATE:

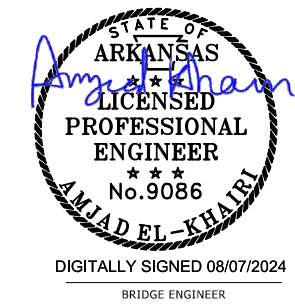
DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	56	82
		05600 SCOUR REPAIR DETAILS			68399	



SECTION E-E

Showing Bent No. 26 along East Face of Footing
Scale: 1/4" = 1'-0"

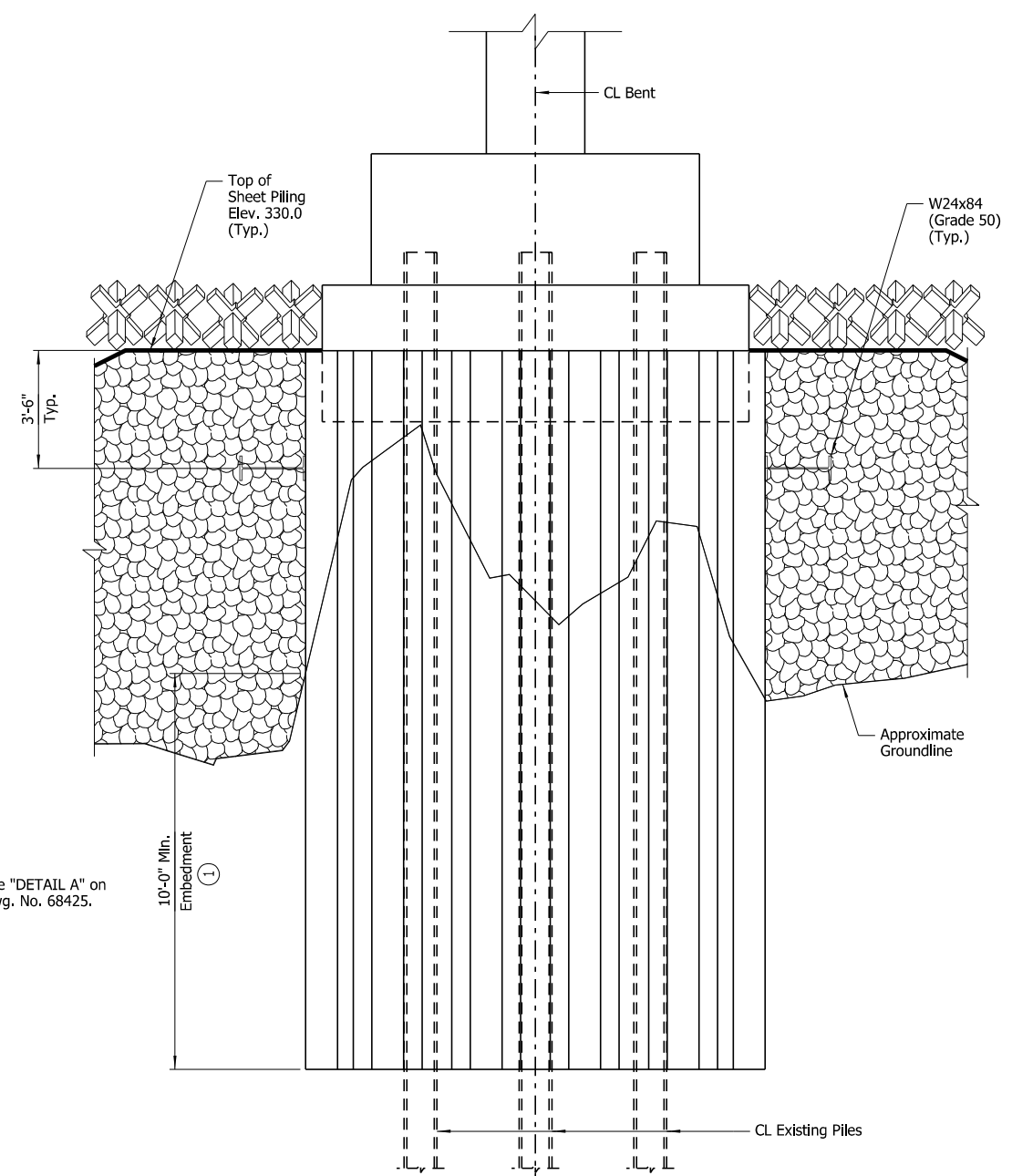
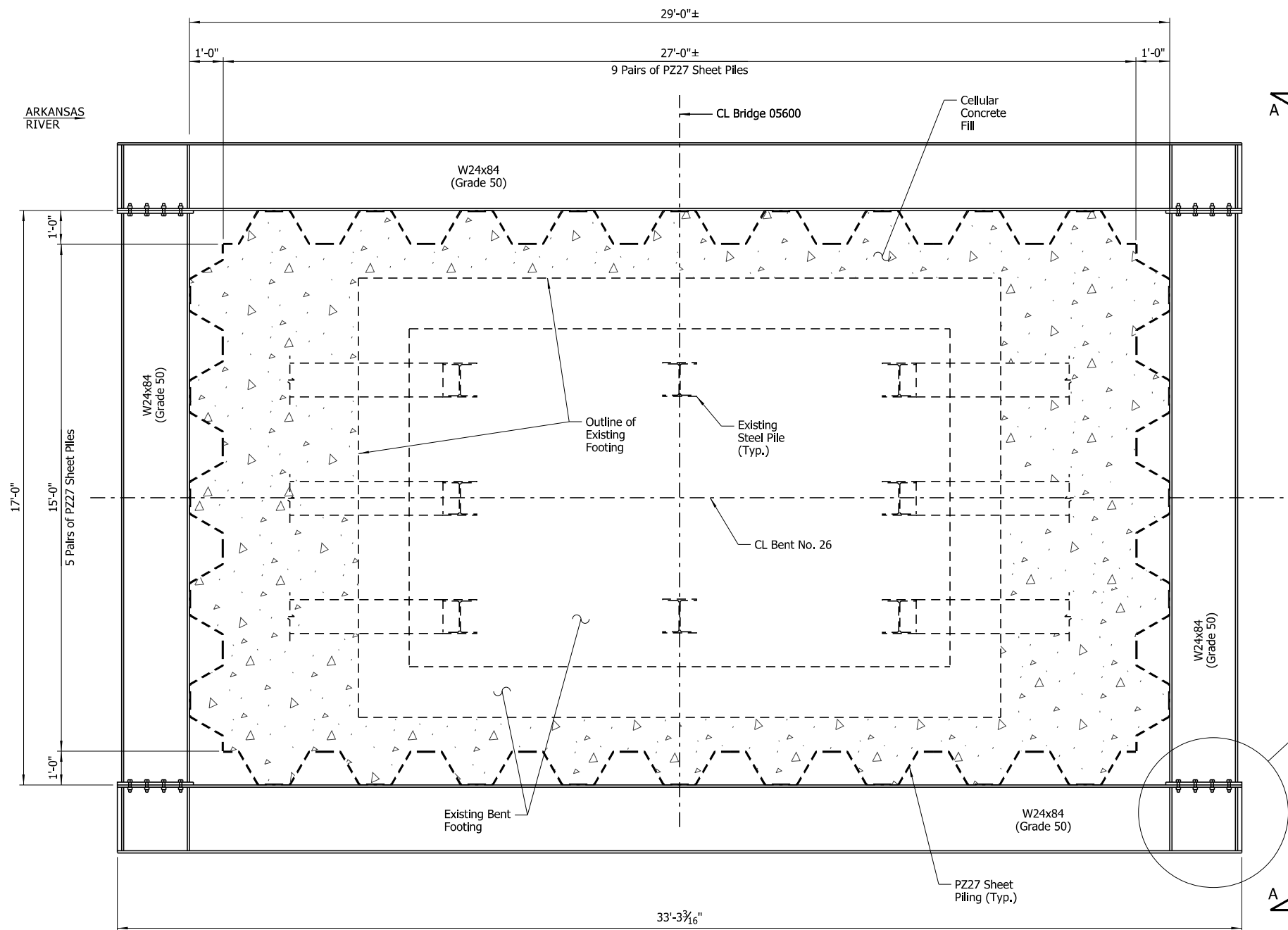
- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68393.
- ③ For cofferdam details, see Dwg. No. 68400.



SHEET 7 OF 8
BENT NO. 26 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC. 3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md14.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	57	82
		05600	SCOUR REPAIR DETAILS		68400	

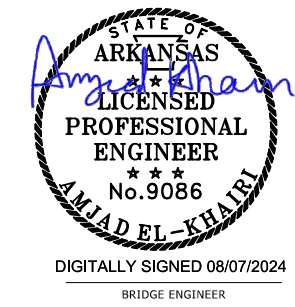


PLAN OF COFFERDAM
Scale: 1/2" = 1'-0"

VIEW A-A
Scale: 3/8" = 1'-0"

NOTE:
All new walers and sheet piles to remain in place after construction is completed.

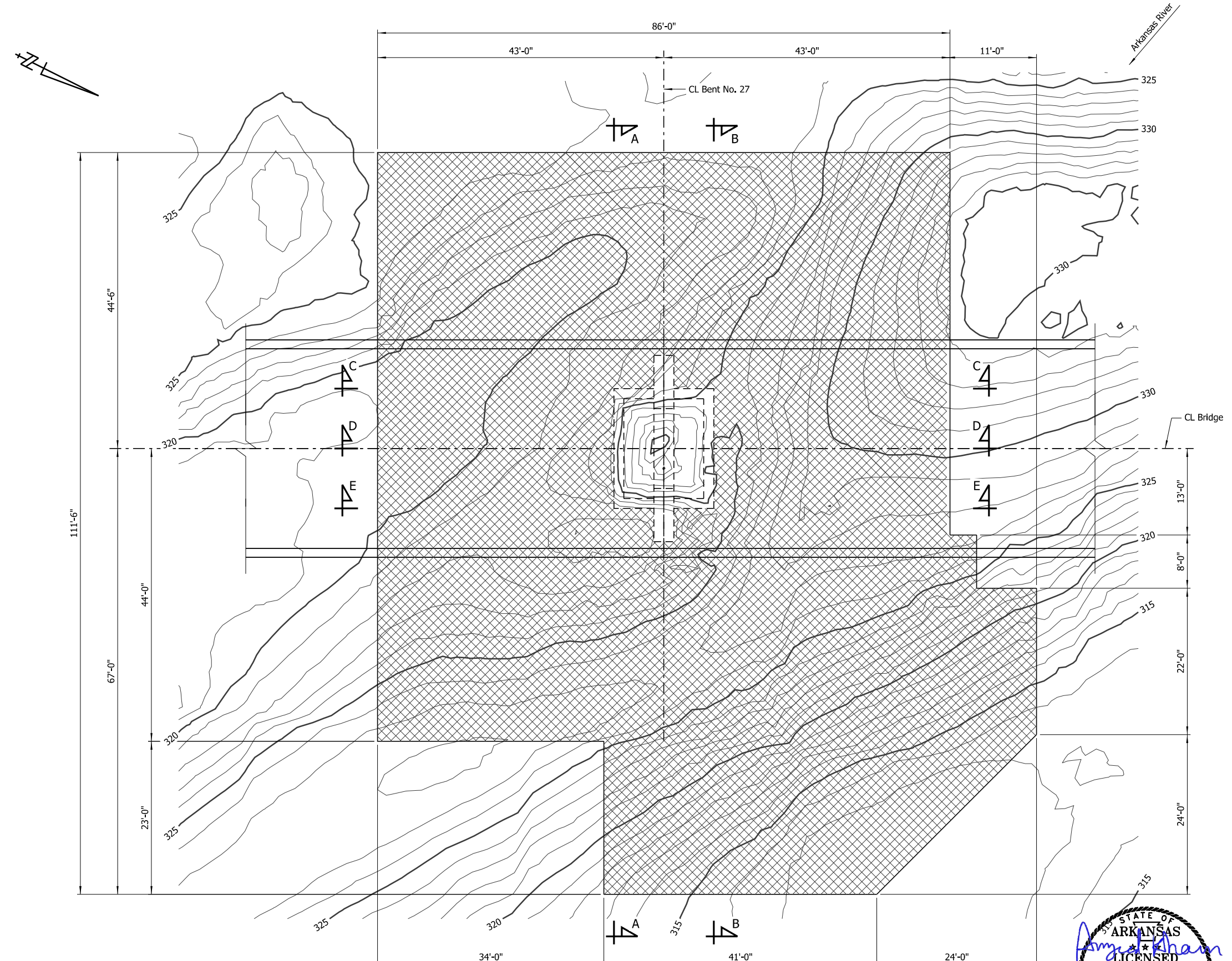
① Sheet pile pairs are allowed to be stepped as the groundline allows. A minimum of 10'-0" embedment must be maintained.



SHEET 8 OF 8
BENT NO. 26 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC. 3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md15.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: JLH DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68400

8/7/2024 3:19:49 PM
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 \\arvnclocal\data\projects\2021\21101044 - ARDOT Statewide Scour Remediation\Drawings\SUBMITTAL - Overall - Without Interchange\05600\012494x6_md15.dgn
 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	58	82
		05600	SCOUR REPAIR DETAILS		68401	



LEGEND
 Concrete Armor Unit Placement

NOTES:
 For "Section A-A", see Dwg. No. 68403.
 For "Section B-B", see Dwg. No. 68404.
 For "Section C-C", see Dwg. No. 68405.
 For "Section D-D", see Dwg. No. 68406.
 For "Section E-E", see Dwg. No. 68407.

NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

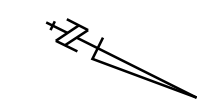
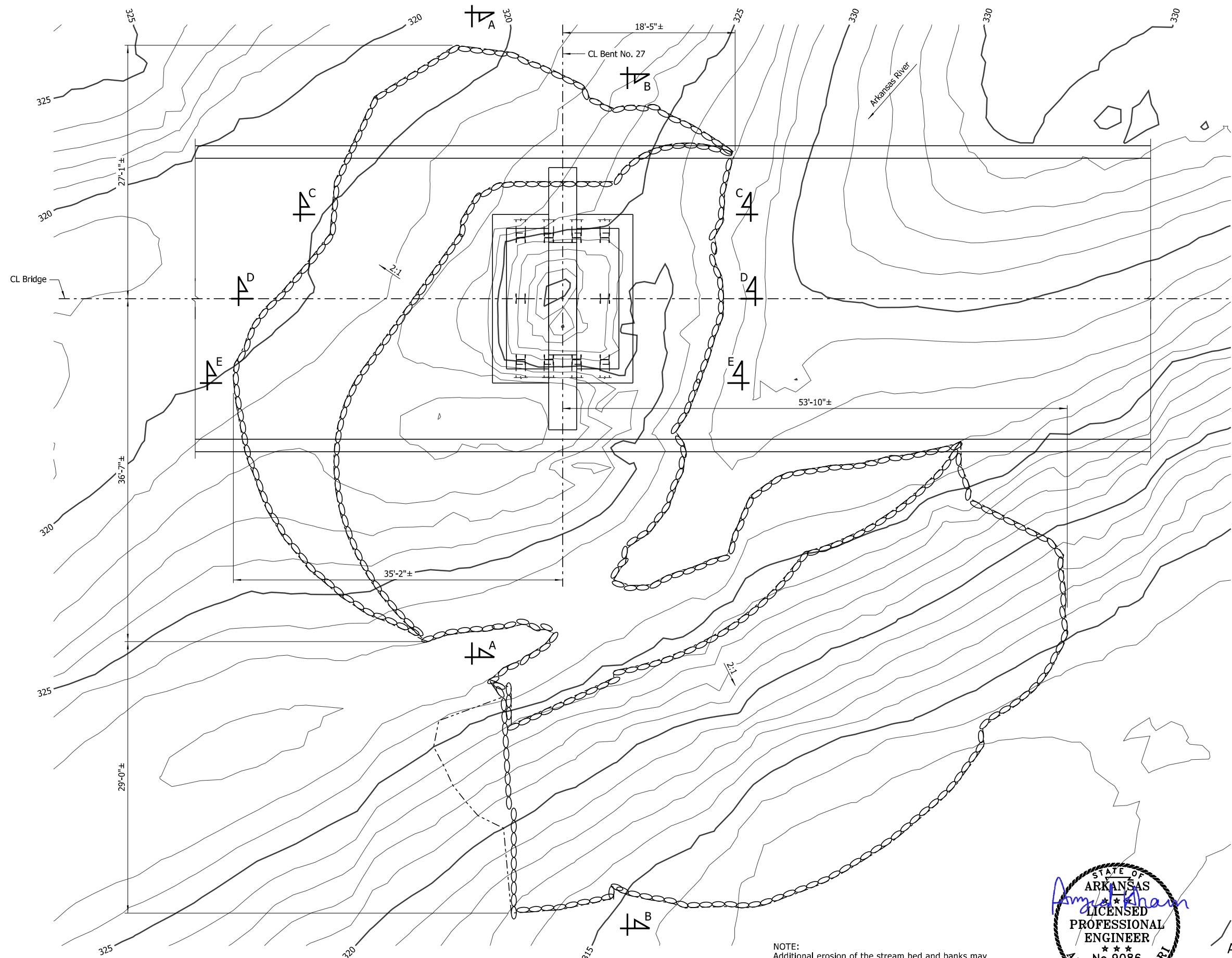
PLAN - BENT NO. 27
 Showing Limits of Concrete Armor Units
 Scale: 1/8" = 1'-0"

STATE OF ARKANSAS
 AMY EL-KHAYRI
 LICENSED PROFESSIONAL ENGINEER
 No. 9086
 DIGITALLY SIGNED 08/07/2024
 BRIDGE ENGINEER

SHEET 1 OF 7
 BENT NO. 27 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md16.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 05600 DRAWING NO. 68401

WMM:Entire 8/7/2024 3:19:50 PM
 WORKSPACE: ARDOT Bridge (2019)
 \\arvnc\local\data\Projects\2021\2110104 - ARDOT Statewide Scour Remediation\Drawings\SUBMITTAL - Overall - Without Interchange\05600\012494x6_md16.dgn
 REVISED DATE:

DATE REVISION	DATE REVISION	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	59	82
				05600	SCOUR REPAIR DETAILS	68402



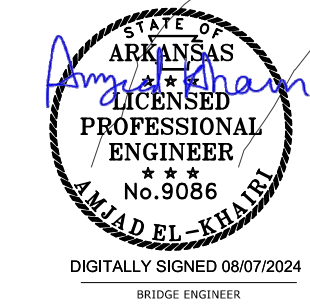
LEGEND

○ ○ ○ ○ Gravel-Filled Geotextile Container Placement Area

NOTES:
 For "Section A-A", see Dwg. No. 68403.
 For "Section B-B", see Dwg. No. 68404.
 For "Section C-C", see Dwg. No. 68405.
 For "Section D-D", see Dwg. No. 68406.
 For "Section E-E", see Dwg. No. 68407.

PLAN - BENT NO. 27
 Showing Limits of Gravel-Filled Geotextile Containers
 Scale: 1/16" = 1'-0"

NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

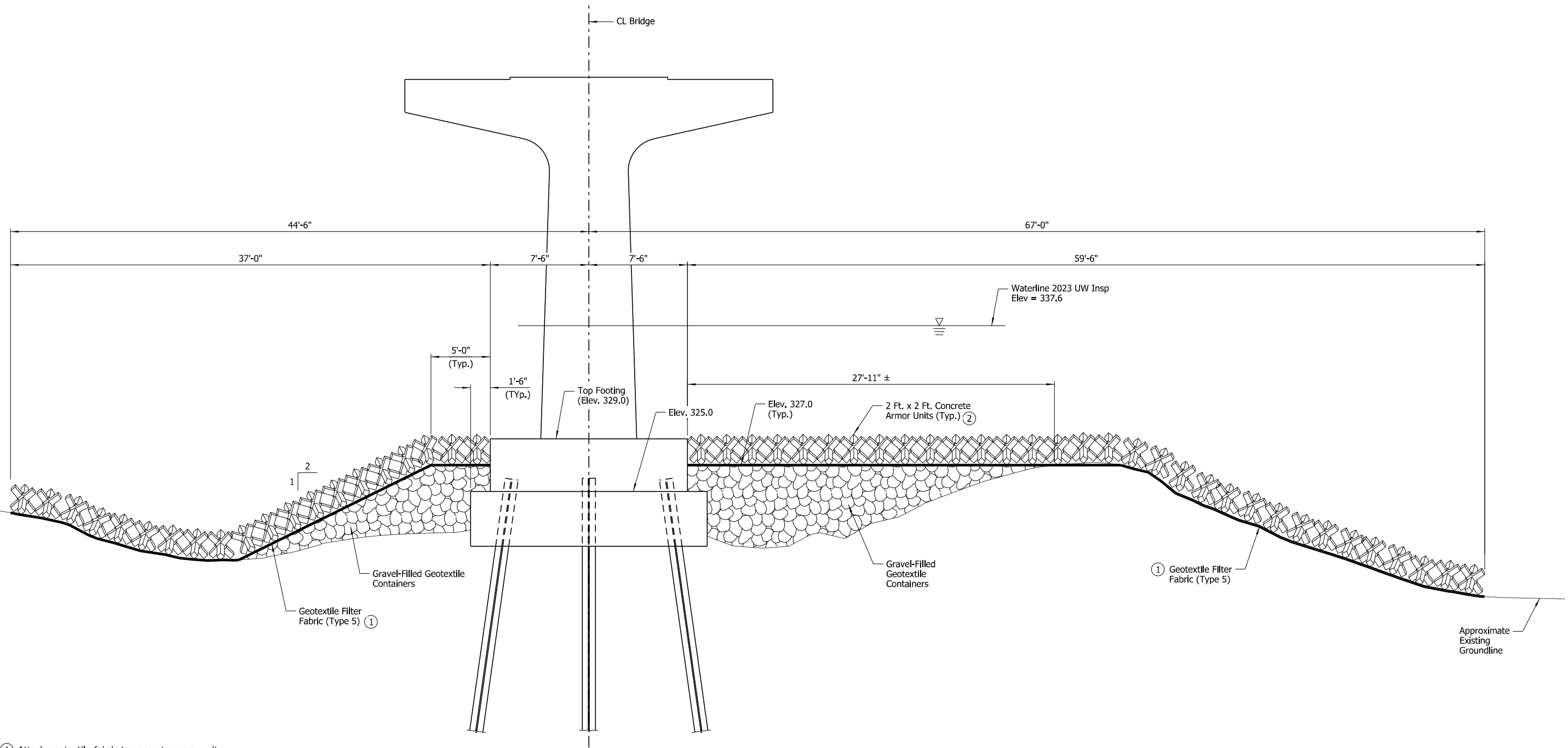


SHEET 2 OF 7
BENT NO. 27 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC. 3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md17.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
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 \\arvnclocal\data\Projects\2021\21101044 - ARDOT Statewide Scour Remediation\Drawings\SUBMITTAL - Overall - Without Interchange\05600\012494x6_md17.dgn
 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS	
		6	ARK.	012494	60	82	
05600		SCOUR REPAIR DETAILS				68403	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68401.

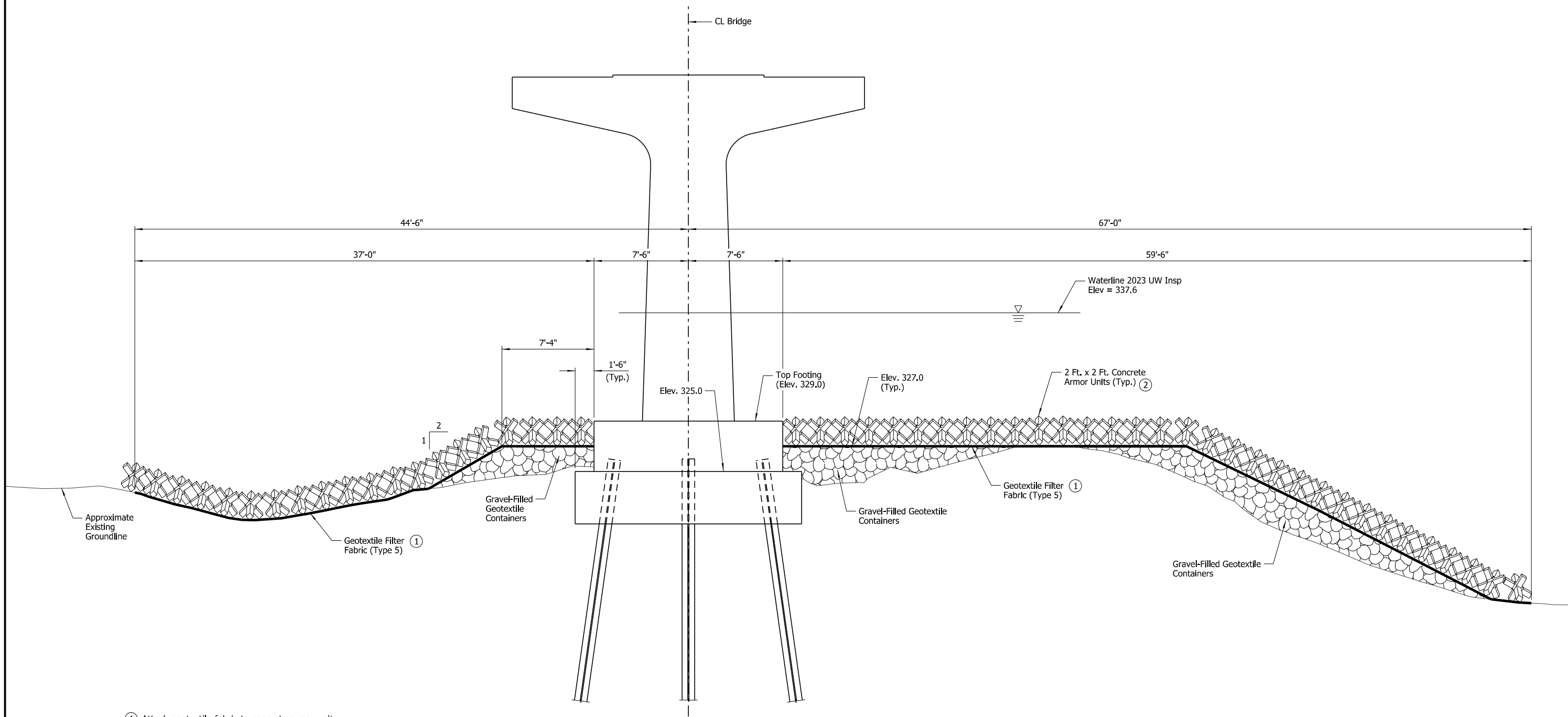
SECTION A-A
Showing Bent No. 27 along South Face of Footing
Scale: 1/4" = 1'-0"



SHEET 3 OF 7
BENT NO. 27 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md18.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68403

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	61	82
		05600	SCOUR REPAIR DETAILS		68404	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68401.

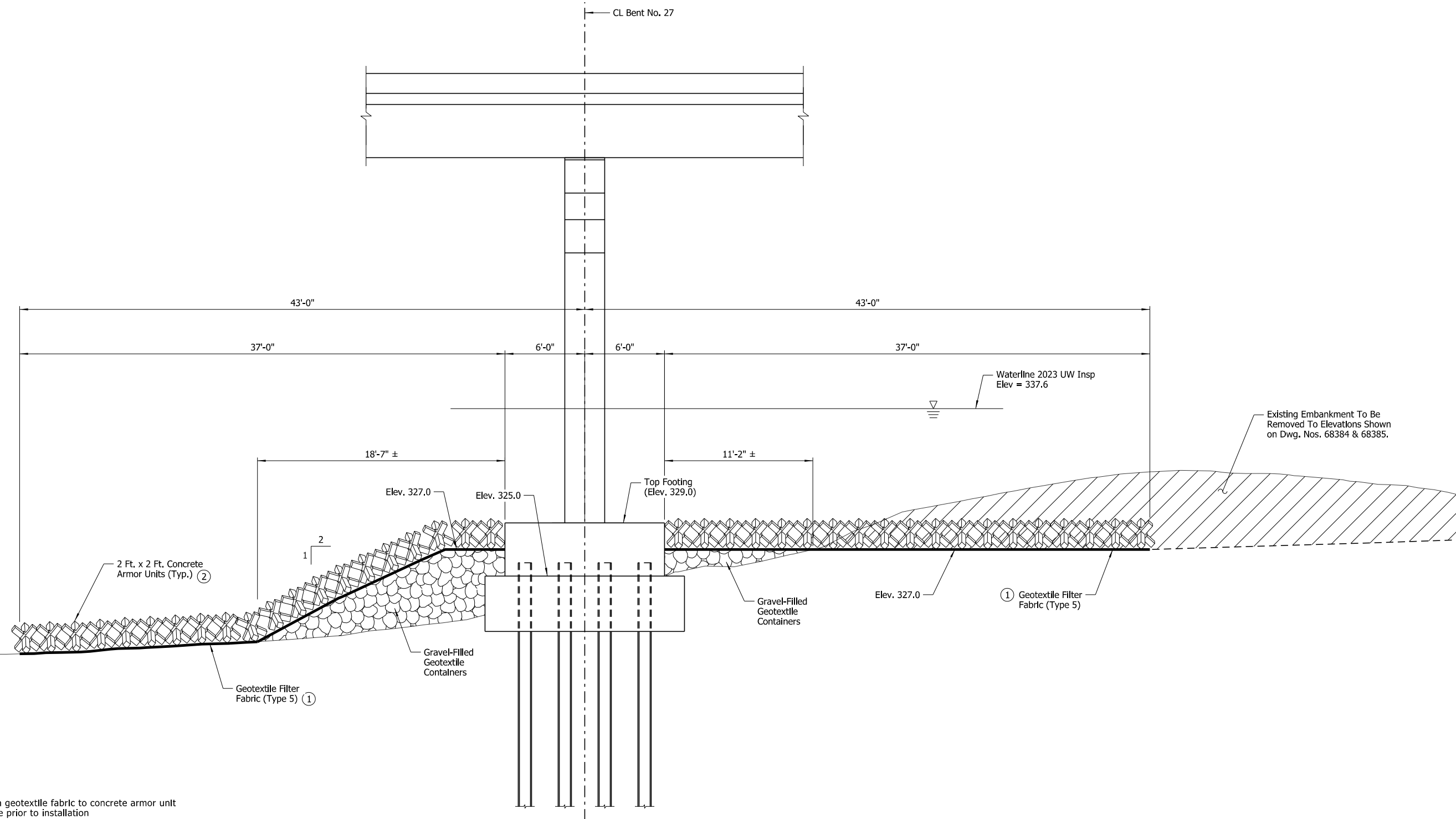
SECTION B-B
 Showing Bent No. 27 along North Face of Footing
 Scale: 1/4" = 1'-0"



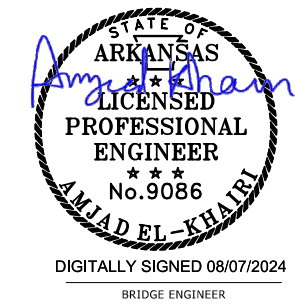
SHEET 4 OF 7
 BENT NO. 27 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
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 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 05600 DRAWING NO. 68404

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	62	82
		05600	SCOUR REPAIR DETAILS		68405	



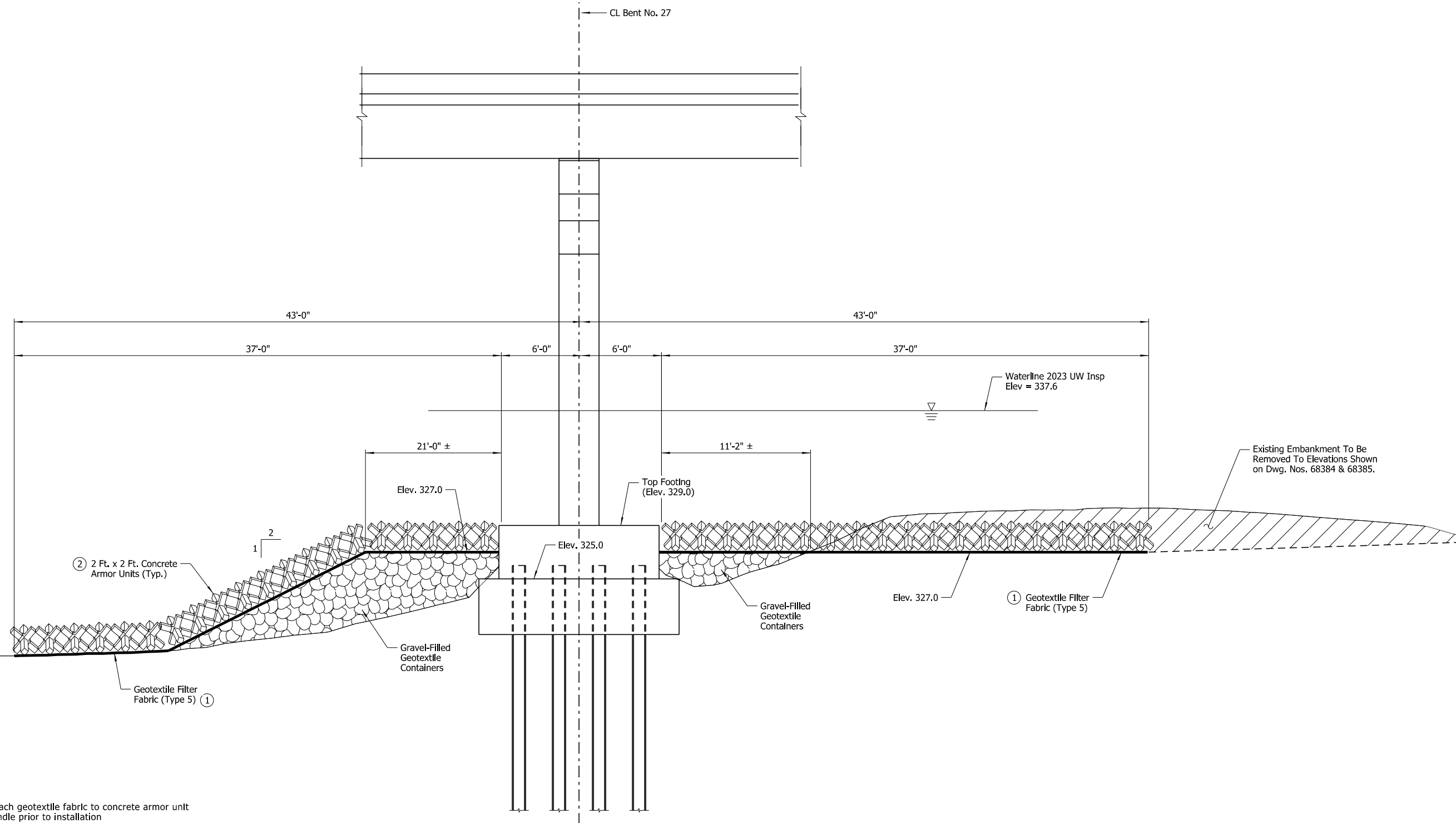
SECTION C-C
Showing Bent No. 27 along West Face of Footing
Scale: 1/4" = 1'-0"



SHEET 5 OF 7
BENT NO. 27 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
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DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68405

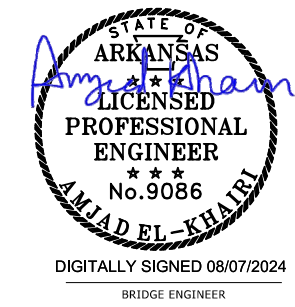
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 \\arvnclocal\data\projects\2021\21101044 - ARDOT Statewide Scour Remediation\Drawings\SUBMITTAL - Overall - Without Interchange\05600\012494x6_md20.dgn
 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	63	82
		05600	SCOUR REPAIR DETAILS		68406	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68401.

SECTION D-D
Showing Bent No. 27 at CL Footing
Scale: 1/4" = 1'-0"

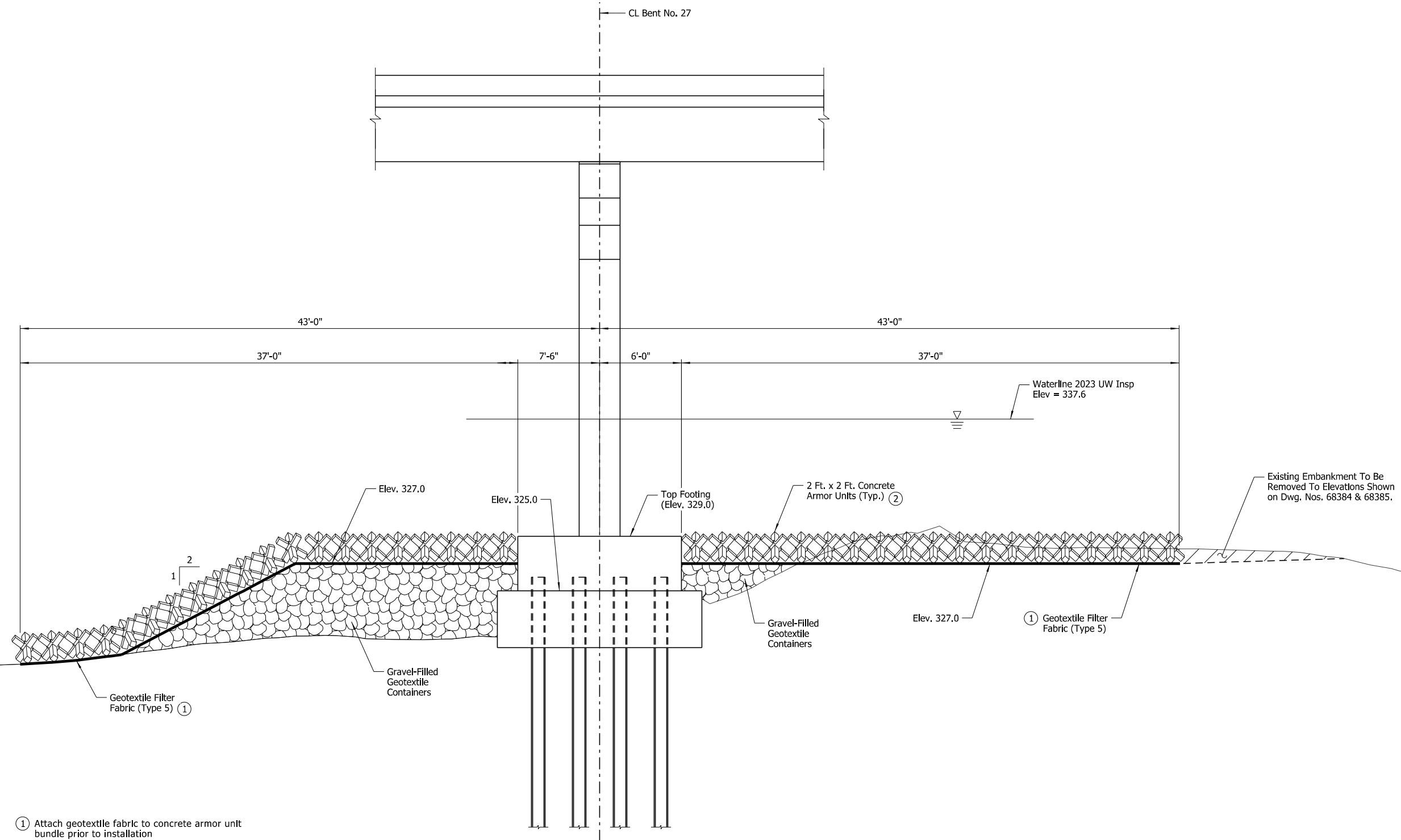


SHEET 6 OF 7
BENT NO. 27 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68406

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	64	82
		05600	SCOUR REPAIR DETAILS		68407	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68401.

SECTION E-E
Showing Bent No. 27 along East Face of Footing
Scale: 1/4" = 1'-0"

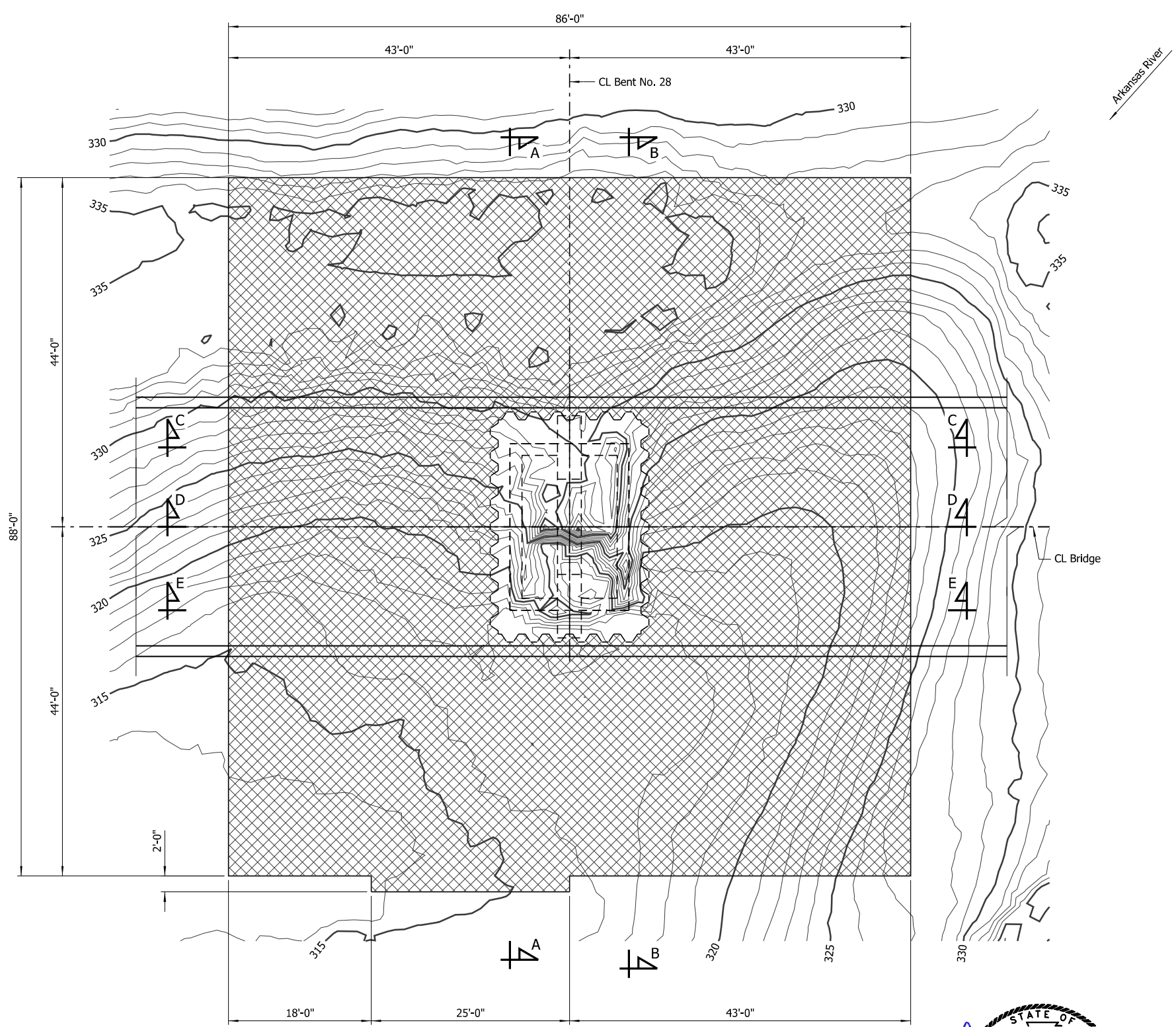
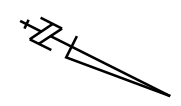


SHEET 7 OF 7
BENT NO. 27 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md22.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68407

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	65	82
		05600	SCOUR REPAIR DETAILS		68408	



LEGEND
 Concrete Armor Unit Placement

NOTES:
 For "Section A-A", see Dwg. No. 68410.
 For "Section B-B", see Dwg. No. 68411.
 For "Section C-C", see Dwg. No. 68412.
 For "Section D-D", see Dwg. No. 68413.
 For "Section E-E", see Dwg. No. 68414.

NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

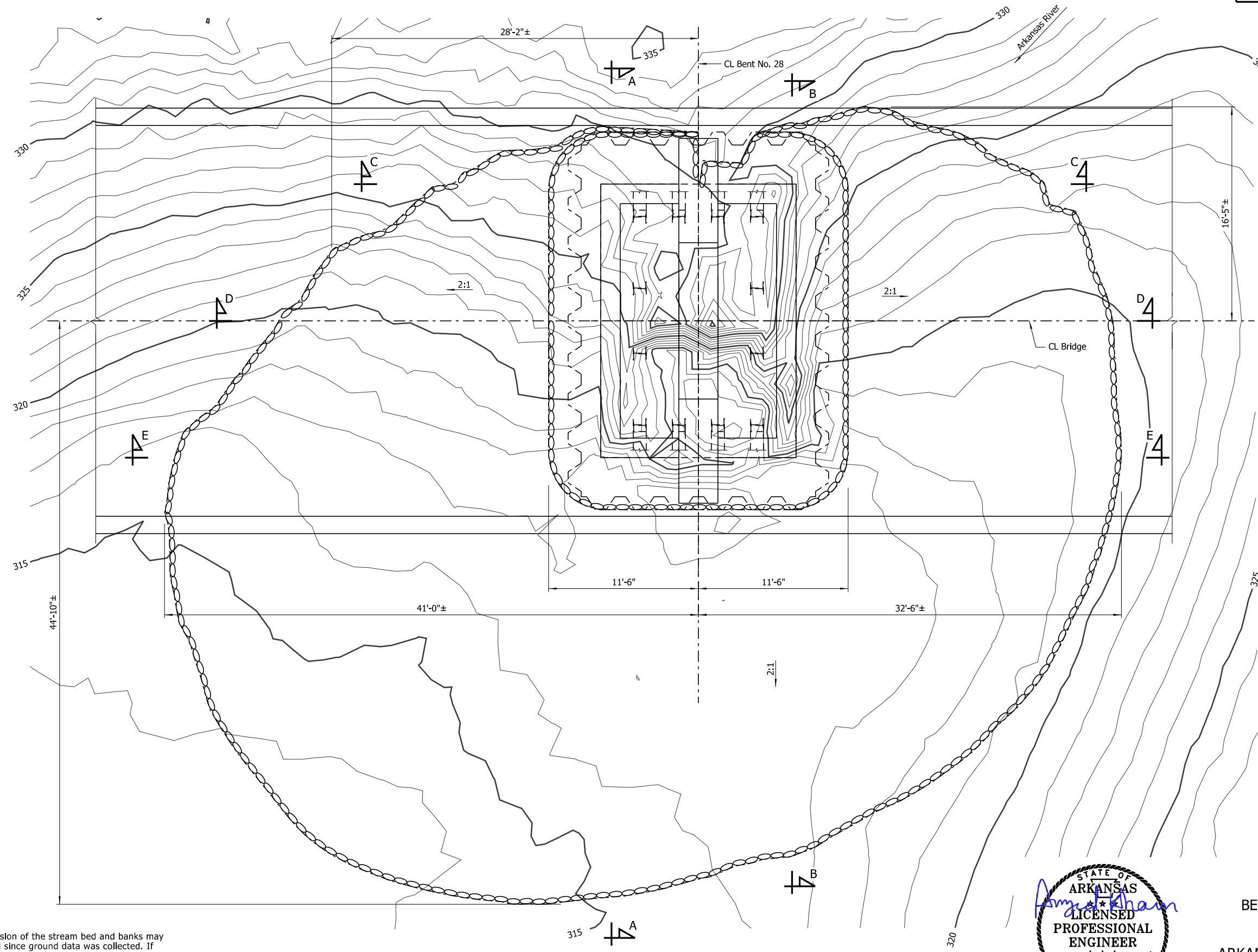
PLAN - BENT NO. 28
 Showing Limits of Concrete Armor Units
 Scale: 1/8" = 1'-0"

Amjad El-Khairi
 STATE OF ARKANSAS
 LICENSED PROFESSIONAL ENGINEER
 No. 9086
 AMJAD EL-KHAIRI
 BRIDGE ENGINEER
 DIGITALLY SIGNED 08/07/2024

SHEET 1 OF 8
 BENT NO. 28 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC. 3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md23.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 05600 DRAWING NO. 68408

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 WORKSPACE: ARDOT Bridge (2019)
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	66	82
				05600	SCOUR REPAIR DETAILS	68409



LEGEND
 Gravel-Filled Geotextile Container Placement Area

NOTES:
 For "Section A-A", see Dwg. No. 68410.
 For "Section B-B", see Dwg. No. 68411.
 For "Section C-C", see Dwg. No. 68412.
 For "Section D-D", see Dwg. No. 68413.
 For "Section E-E", see Dwg. No. 68414.

NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

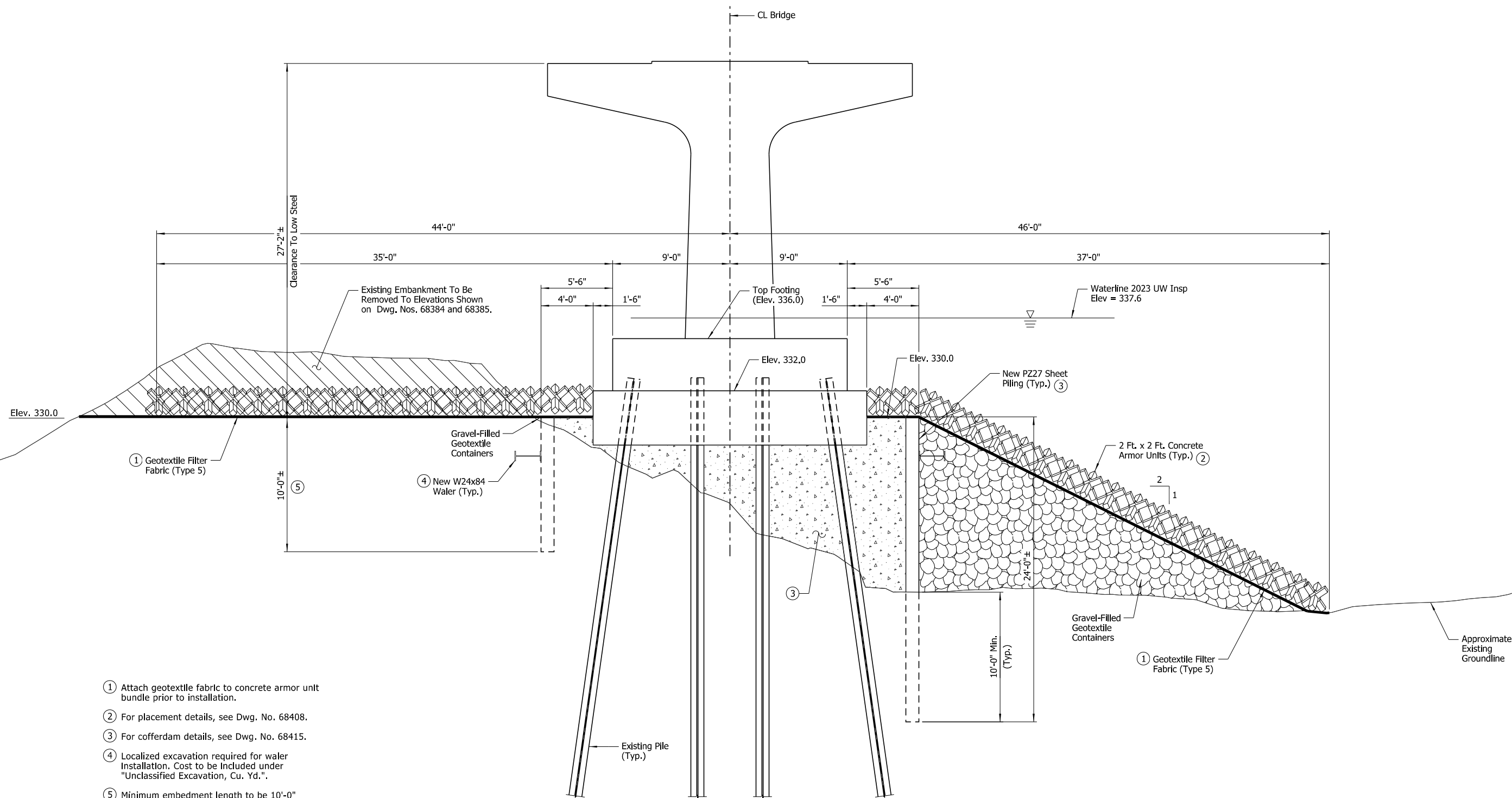
PLAN - BENT NO. 28
 Showing Limits of Gravel-Filled Geotextile Containers
 Scale: 1/4" = 1'-0"

Amyl Khan
 STATE OF ARKANSAS
 LICENSED PROFESSIONAL ENGINEER
 No. 9086
 AMJAD EL-KHAIRI
 BRIDGE ENGINEER
 DIGITALLY SIGNED 08/07/2024

SHEET 2 OF 8
 BENT NO. 28 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md24.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 05600 DRAWING NO. 68409

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 WORKSPACE: ARDOT Bridge (2019)
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	67	82
				05600	SCOUR REPAIR DETAILS	68410



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation.
- ② For placement details, see Dwg. No. 68408.
- ③ For cofferdam details, see Dwg. No. 68415.
- ④ Localized excavation required for waler installation. Cost to be included under "Unclassified Excavation, Cu. Yd."
- ⑤ Minimum embedment length to be 10'-0" measured from top of localized excavation for waler installation.

SECTION A-A

Showing Bent No. 28 along South Face of Footing
Scale: 1/4" = 1'-0"

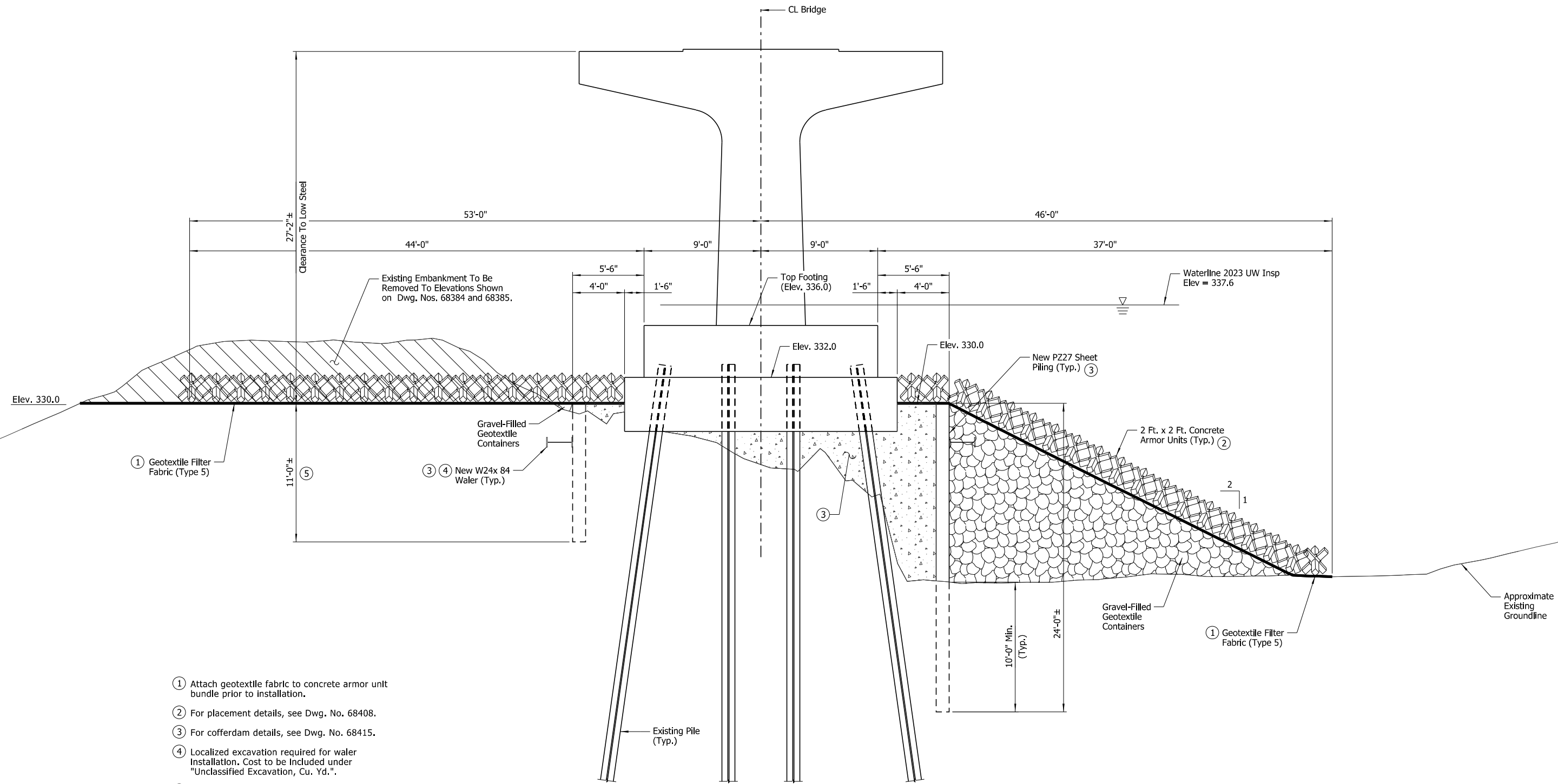


SHEET 3 OF 8
BENT NO. 28 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md25.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	68	82
		05600	SCOUR REPAIR DETAILS			68411



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation.
- ② For placement details, see Dwg. No. 68408.
- ③ For cofferdam details, see Dwg. No. 68415.
- ④ Localized excavation required for water installation. Cost to be included under "Unclassified Excavation, Cu. Yd."
- ⑤ Minimum embedment length to be 10'-0" measured from top of localized excavation for water installation.

SECTION B-B

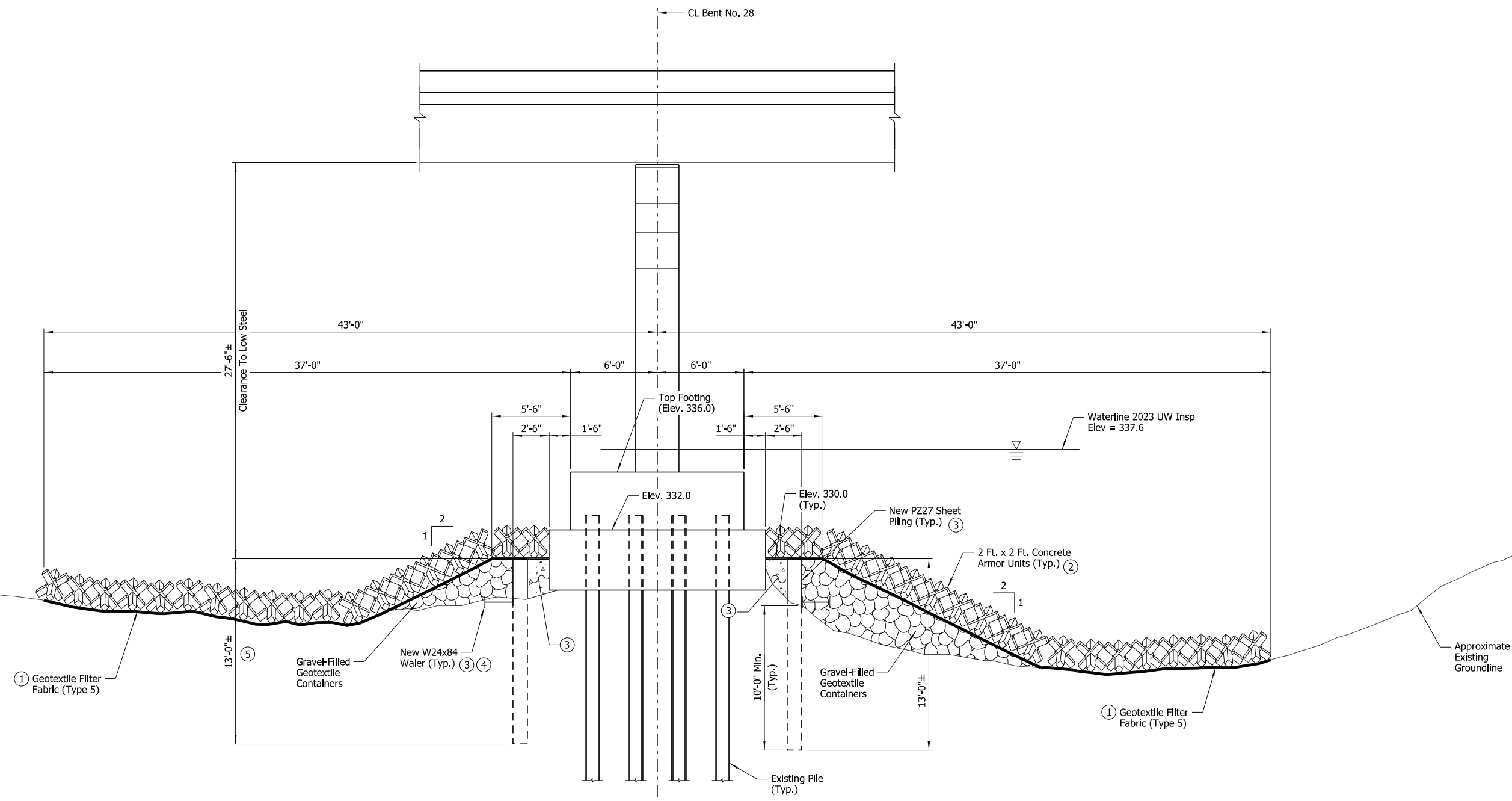
Showing Bent No. 28 along North Face of Footing
Scale: 1/4" = 1'-0"



SHEET 4 OF 8
BENT NO. 28 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md26.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68411

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 REVISED DATE:

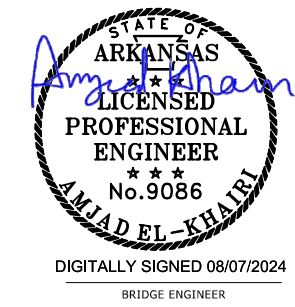
DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	69	82
		05600	SCOUR REPAIR DETAILS		68412	



SECTION C-C

Showing Bent No. 28 along West Face of Footing
Scale: 1/4" = 1'-0"

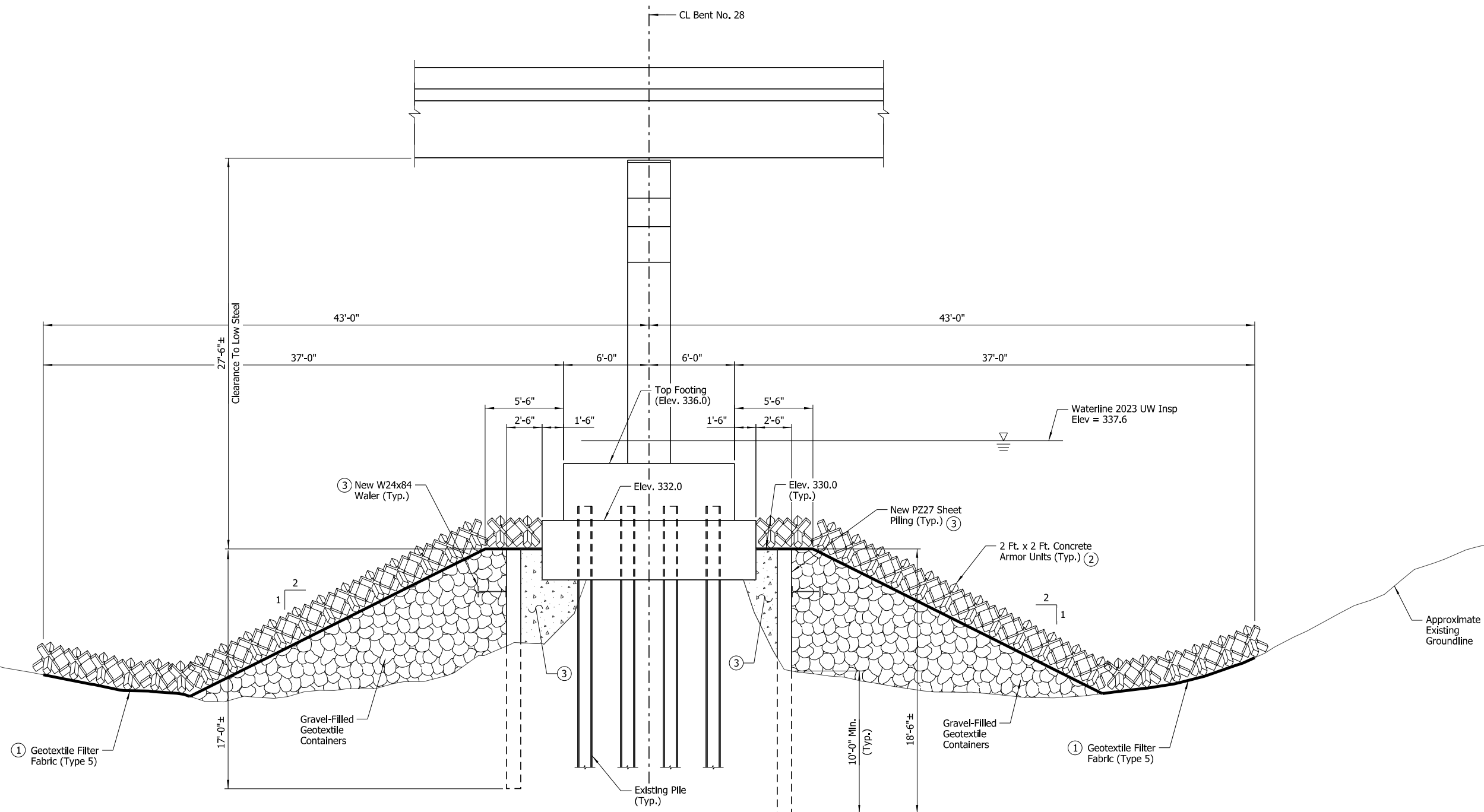
- ① Attach geotextile fabric to concrete armor unit bundle prior to installation.
- ② For placement details, see Dwg. No. 68408.
- ③ For cofferdam details, see Dwg. No. 68415.
- ④ Localized excavation required for waler installation. Cost to be included under "Unclassified Excavation, Cu. Yd."
- ⑤ Minimum embedment length to be 10'-0" measured from top of localized excavation for waler installation.



SHEET 5 OF 8
BENT NO. 28 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md27.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 05600 DRAWING NO. 68412

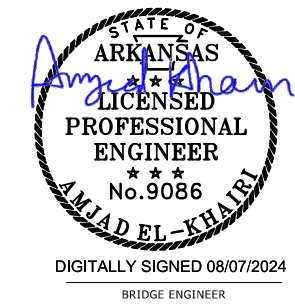
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	70	82
		05600	SCOUR REPAIR DETAILS			68413



SECTION D-D
Showing Bent No. 28 at CL Footing
Scale: 1/4" = 1'-0"

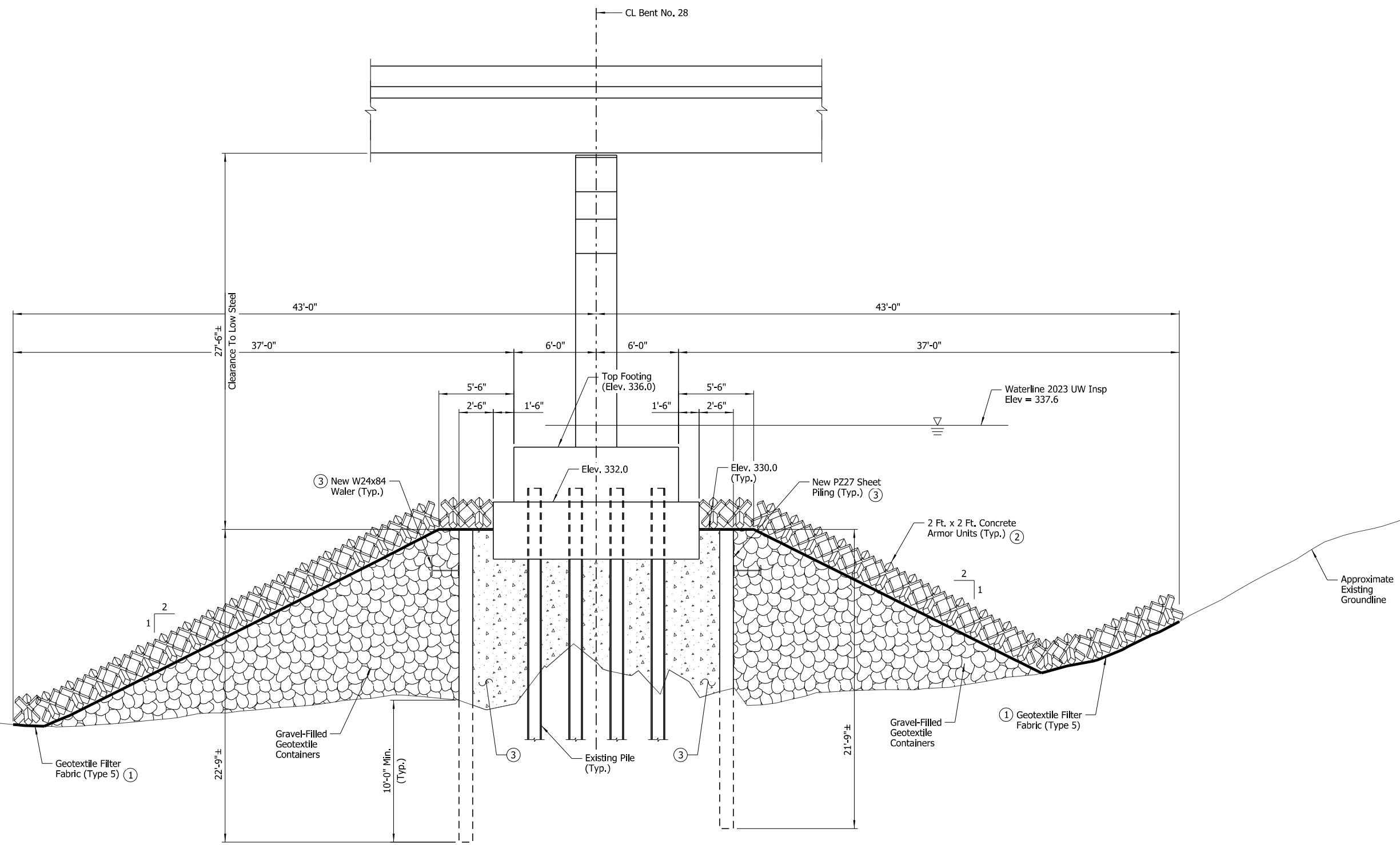
- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68408.
- ③ For cofferdam details, see Dwg. No. 68415.



SHEET 6 OF 8
BENT NO. 28 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md28.dgn
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DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68413

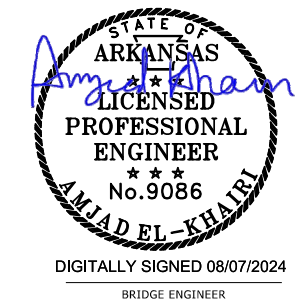
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	71	82
				05600	SCOUR REPAIR DETAILS	68414



SECTION E-E
 Showing Bent No. 28 along East Face of Footing
 Scale: 1/4" = 1'-0"

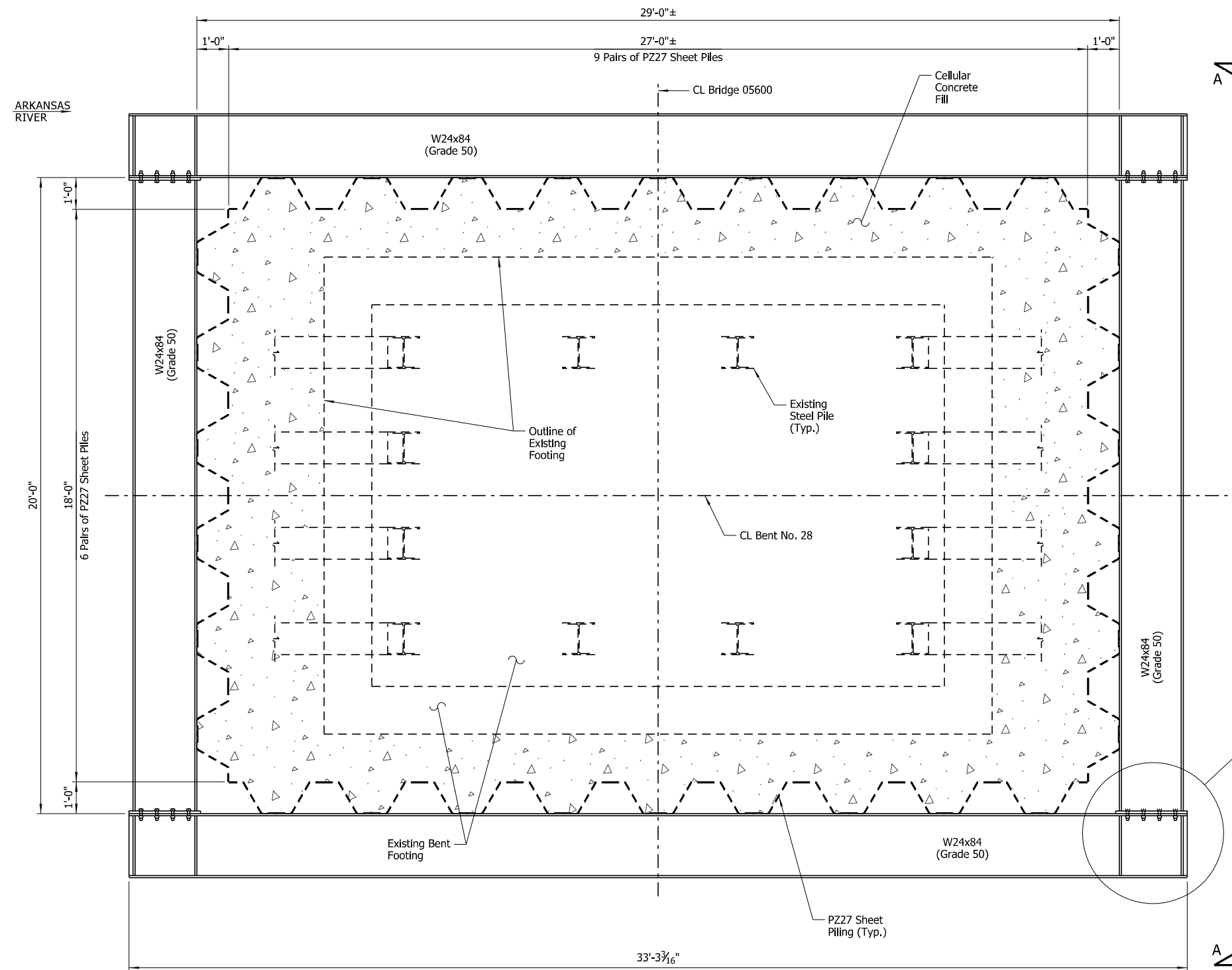
- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68408.
- ③ For cofferdam details, see Dwg. No. 68415.



SHEET 7 OF 8
 BENT NO. 28 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
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 DESIGNED BY: WMM DATE: JUNE 2024
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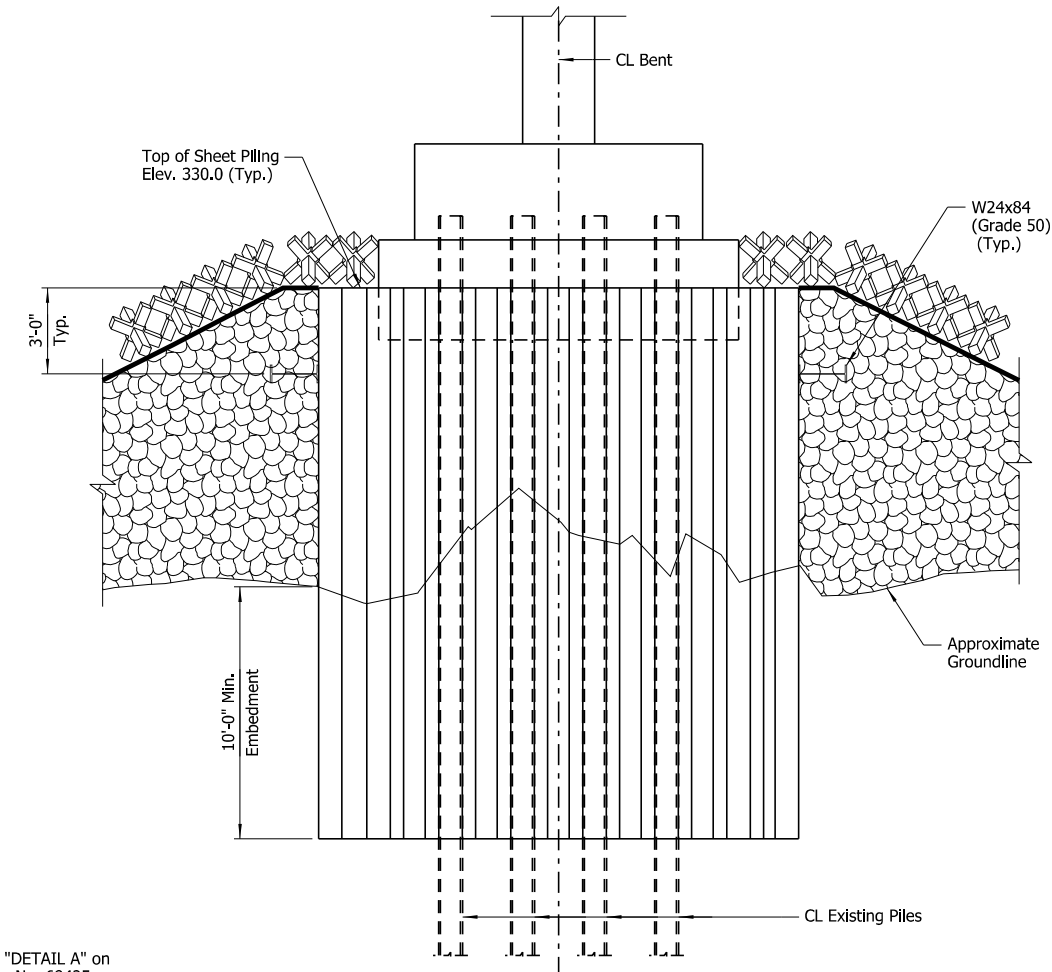
DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	72	82
		05600	SCOUR REPAIR DETAILS		68415	



PLAN OF COFFERDAM

Scale: 1/2" = 1'-0"

NOTE:
All new walers and sheet piles to remain in place after construction is completed.



VIEW A-A

Scale: 3/4" = 1'-0"

① Sheet pile pairs are allowed to be stepped as the groundline allows. A minimum of 10'-0" embedment must be maintained.



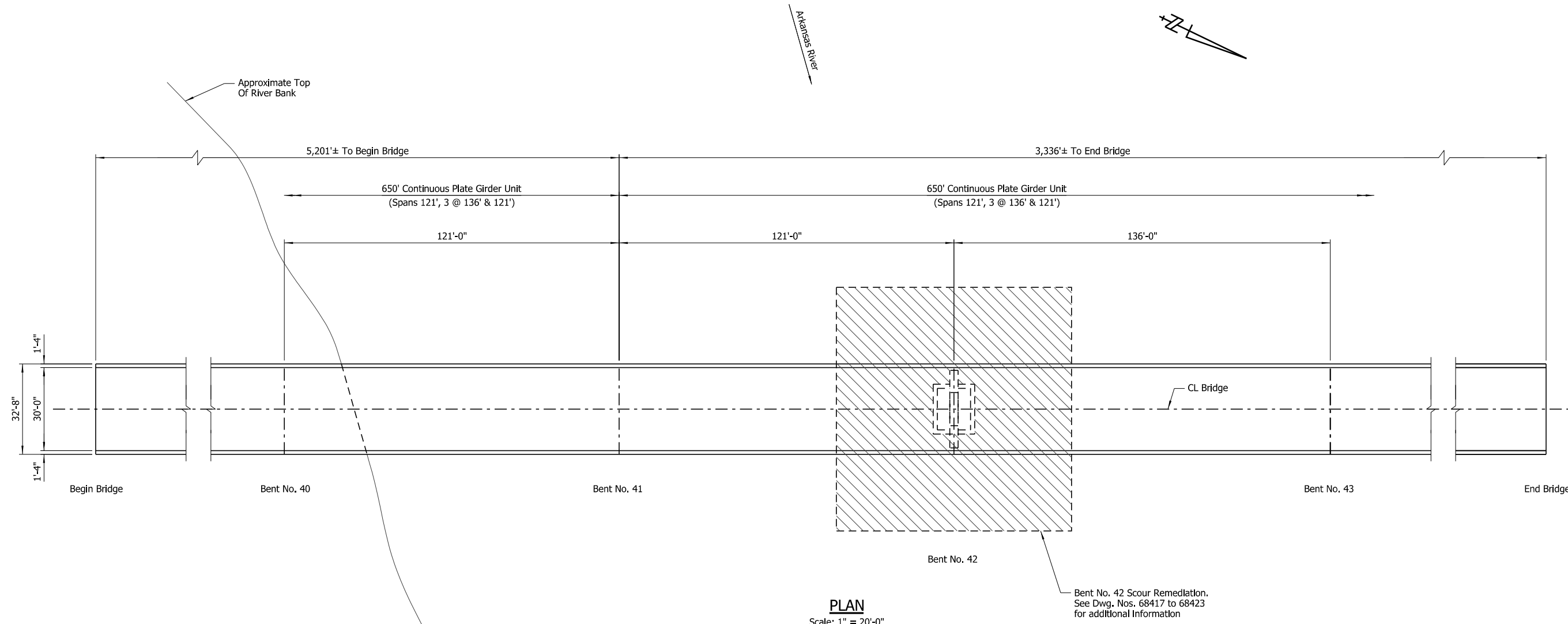
DIGITALLY SIGNED 08/07/2024
BRIDGE ENGINEER

SHEET 8 OF 8
BENT NO. 28 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC. 3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md30.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: JLH DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68415


8/7/2024 3:19:56 PM
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	73	82
				05600	LAYOUT	68416



PLAN
Scale: 1" = 20'-0"

LEGEND

 Area of Scour Remediation

GENERAL NOTES

BENCH MARK: Top of deck at CL Bridge No. 05600, Bent No. 42, Elev. 364.20 as shown in existing plans.

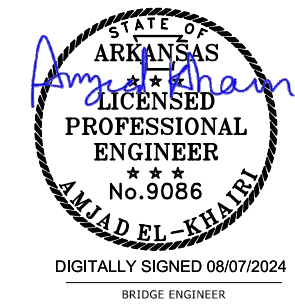
CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable supplemental specifications and special provisions.

The proposed work consists of placing gravel-filled geotextile containers, geotextile filter fabric (Type 5) and 2 ft. x 2 ft. concrete armor units on the indicated areas of stream channel, see Dwg. Nos. 68417 to 68423 for additional details. The finished surface of the gravel-filled geotextile containers shall meet Elev. 334.00 to the limits shown and shall slope 2H:1V to existing ground. Care shall be exercised to avoid damaging the bridge while placing the scour remediation materials under the bridge and around the footings. The scour remediation materials may be placed underwater in a manner that maintains the required elevation. The Contractor shall take soundings to determine thickness and extent.

NOTES:

Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

Contractor can access this site by utilizing single lane closure on Hwy. 109. All traffic control for single lane closure shall meet the current ARDOT and MUTCD standards.



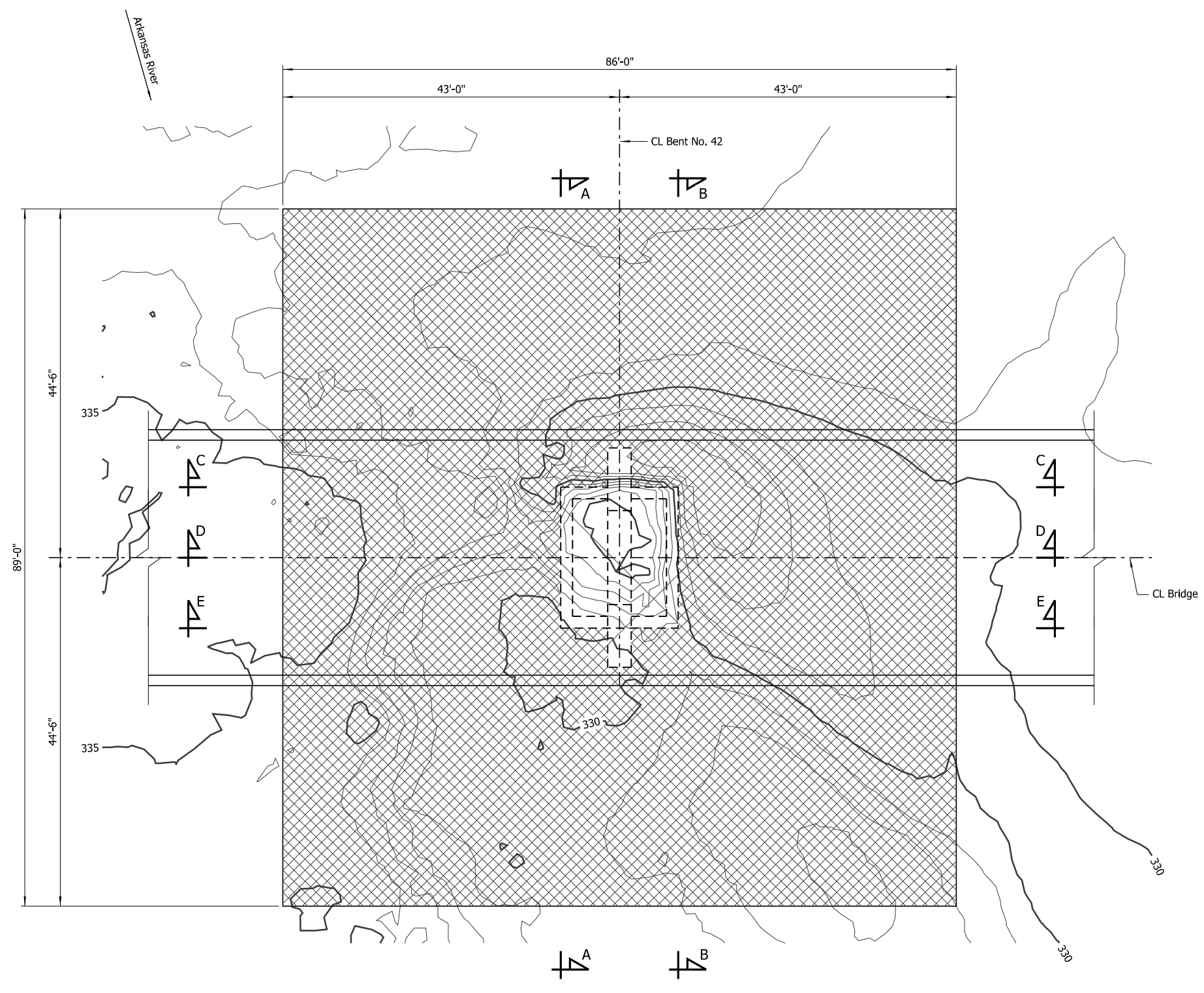
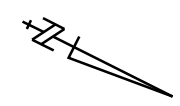
**LAYOUT OF SCOUR REPAIR
BRIDGE OVER ARKANSAS RIVER
(CLARKSVILLE)
LOGAN & JOHNSON COUNTY**

ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_I4.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	74	82
				05600	SCOUR REPAIR DETAILS	68417



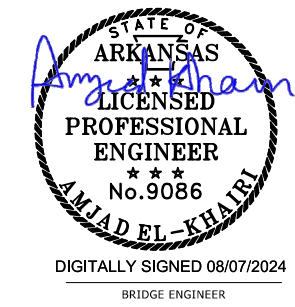
LEGEND

 Concrete Armor Unit Placement

NOTES:
 For "Section A-A", see Dwg. No. 68419.
 For "Section B-B", see Dwg. No. 68420.
 For "Section C-C", see Dwg. No. 68421.
 For "Section D-D", see Dwg. No. 68422.
 For "Section E-E", see Dwg. No. 68423.

PLAN - BENT NO. 42
 Showing Limits of Concrete Armor Units
 Scale: 1/8" = 1'-0"

NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

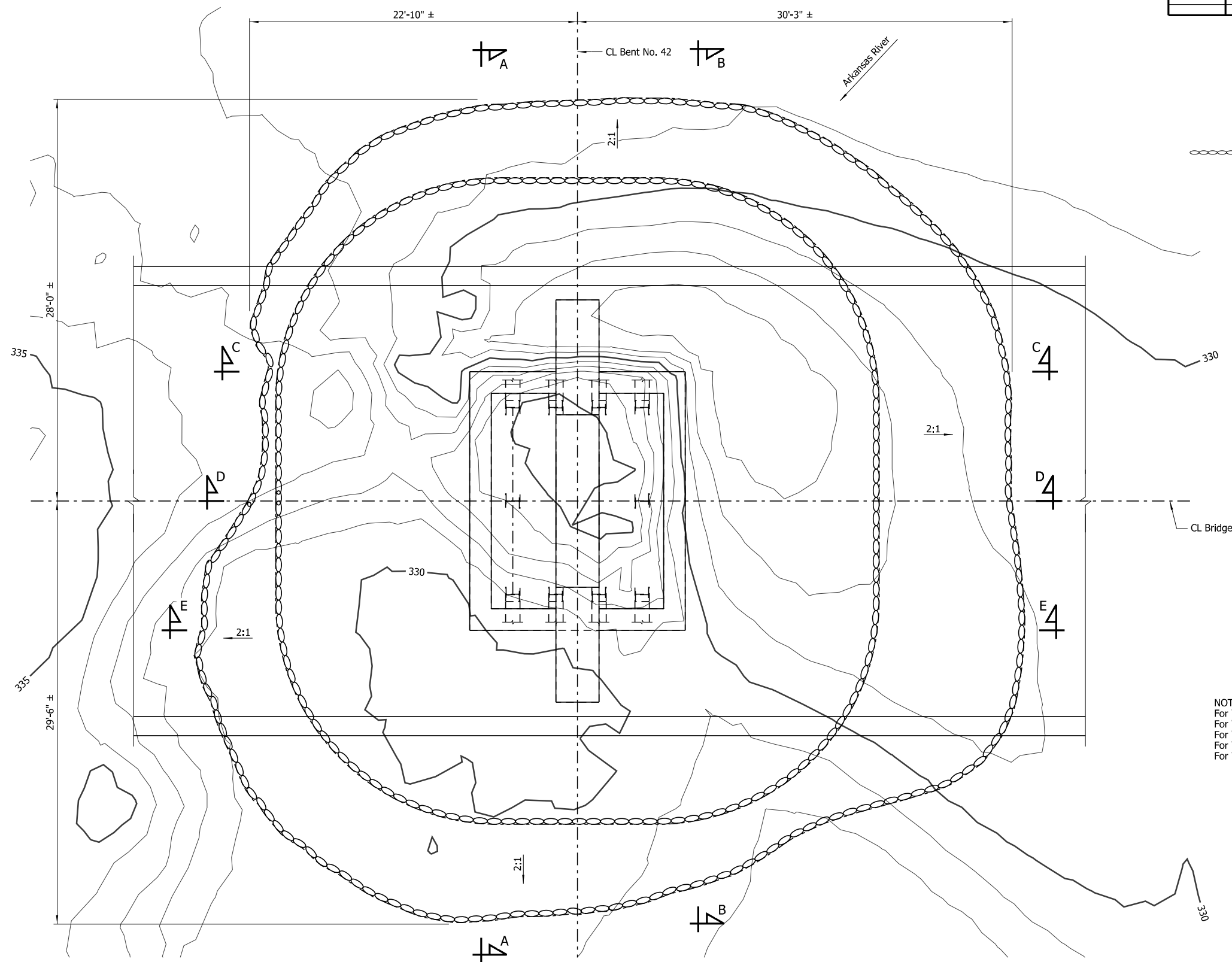


SHEET 1 OF 7
BENT NO. 42 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md31.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 05600 DRAWING NO. 68417

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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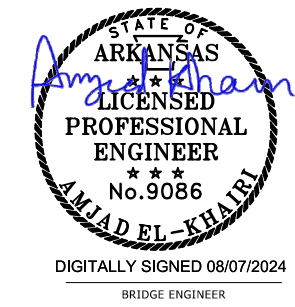
LEGEND

○ ○ ○ ○ Gravel-Filled Geotextile Container Placement Area

NOTES:
 For "Section A-A", see Dwg. No. 68419.
 For "Section B-B", see Dwg. No. 68420.
 For "Section C-C", see Dwg. No. 68421.
 For "Section D-D", see Dwg. No. 68422.
 For "Section E-E", see Dwg. No. 68423.

PLAN - BENT NO. 42
 Showing Limits of Gravel-Filled Geotextile Containers
 Scale: 1/4" = 1'-0"

NOTE:
 Additional erosion of the stream bed and banks may have occurred since ground data was collected. If significant variations exist between the plotted contours and the actual ground, the Engineer shall be notified. Modification of the scour repair details may be required.

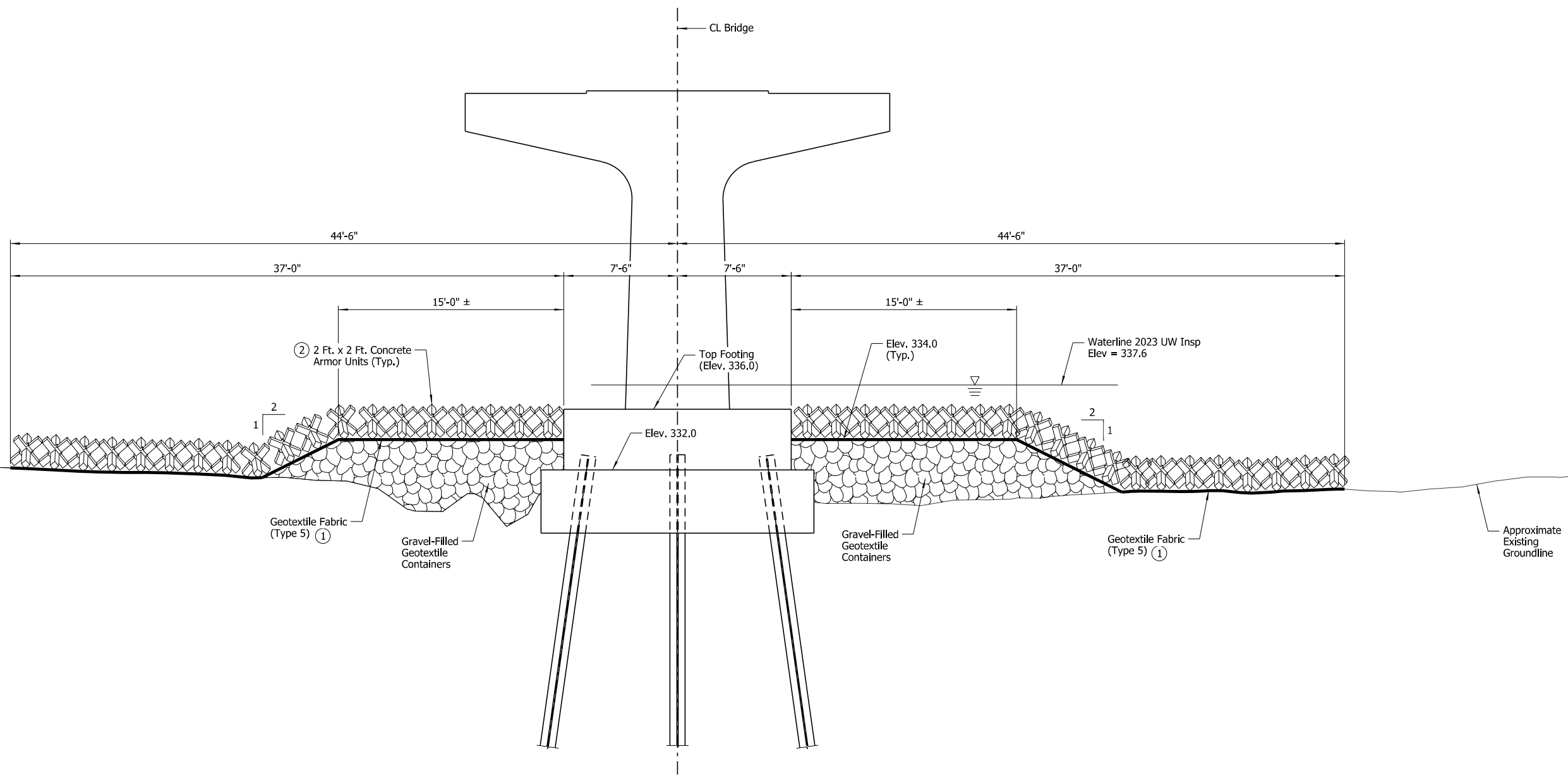


SHEET 2 OF 7
BENT NO. 42 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC. 3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

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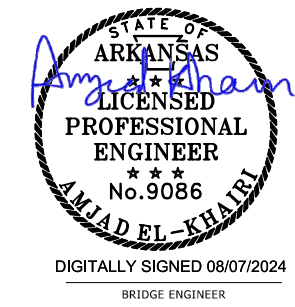
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		6	ARK.	012494	76	82
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SECTION A-A

Showing Bent No. 42 along South Face of Footing
Scale: 1/4" = 1'-0"

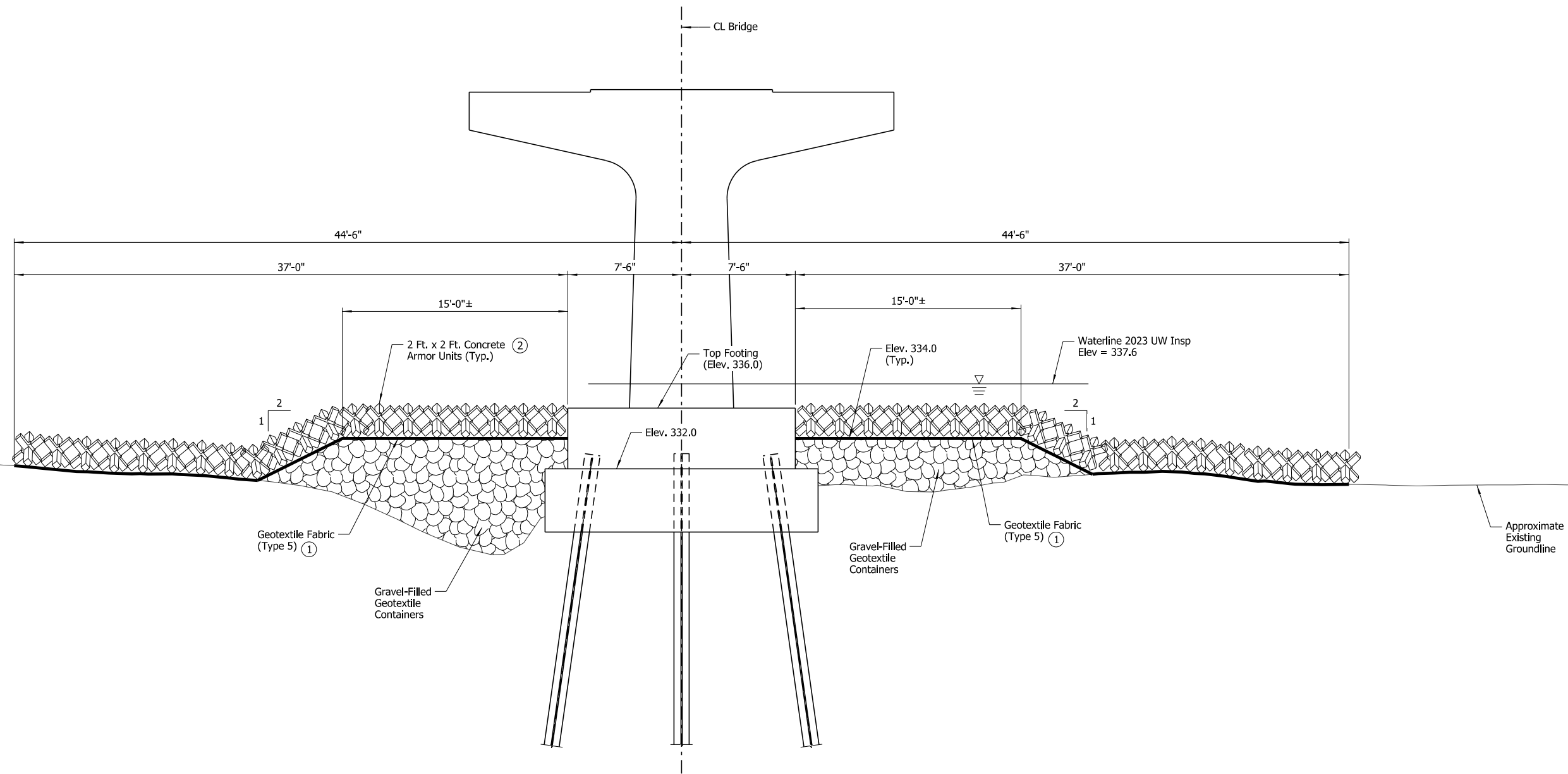
- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68417.



SHEET 3 OF 7
BENT NO. 42 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
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 DESIGNED BY: WMM DATE: JUNE 2024
 BRIDGE NO. 05600 DRAWING NO. 68419

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	77	82
		05600	SCOUR REPAIR DETAILS		68420	



SECTION B-B

Showing Bent No. 42 along North Face of Footing
Scale: 1/4" = 1'-0"

- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68417.

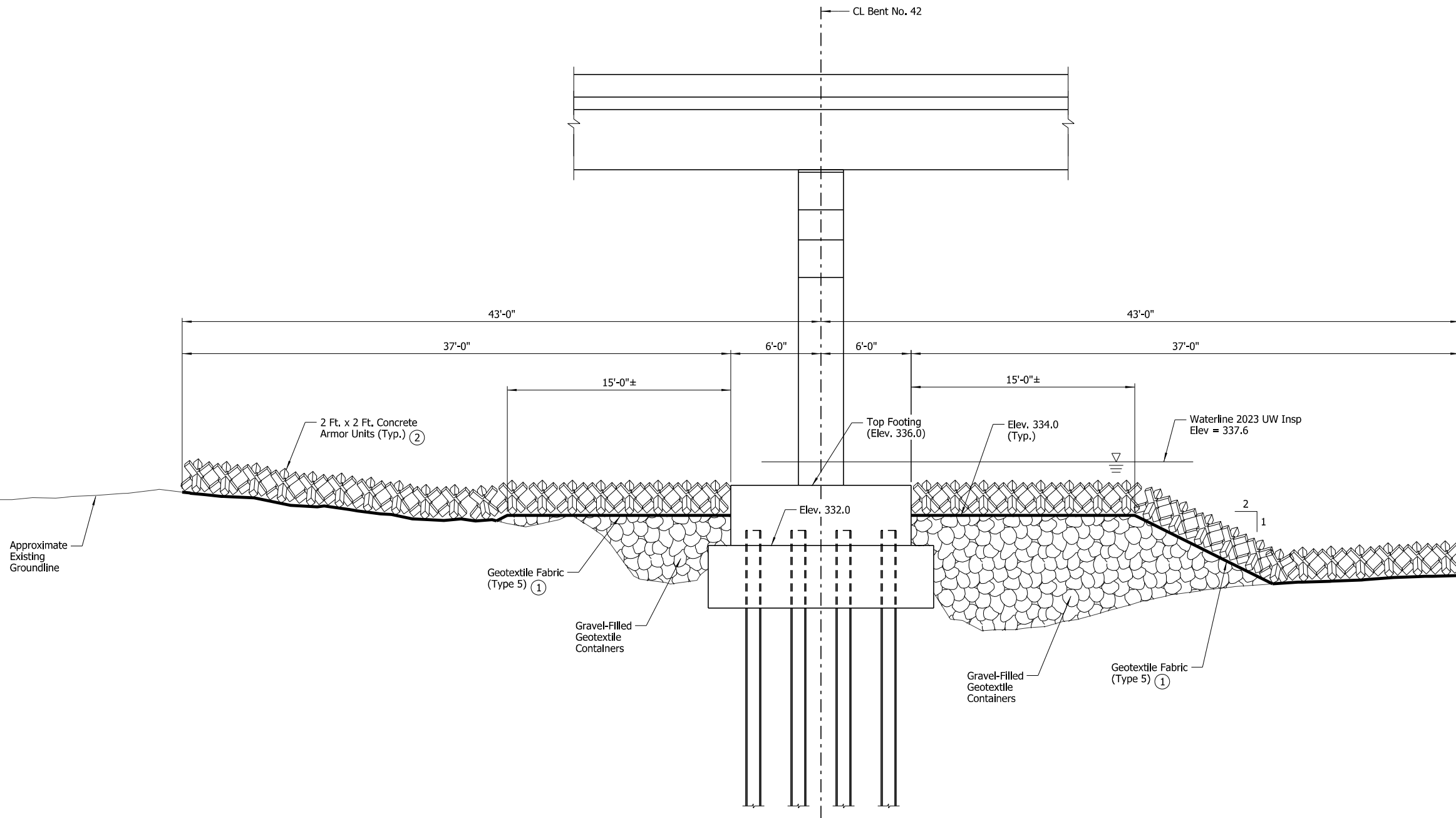


SHEET 4 OF 7
BENT NO. 42 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68420

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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	78	82
				05600	SCOUR REPAIR DETAILS 68421	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68417.

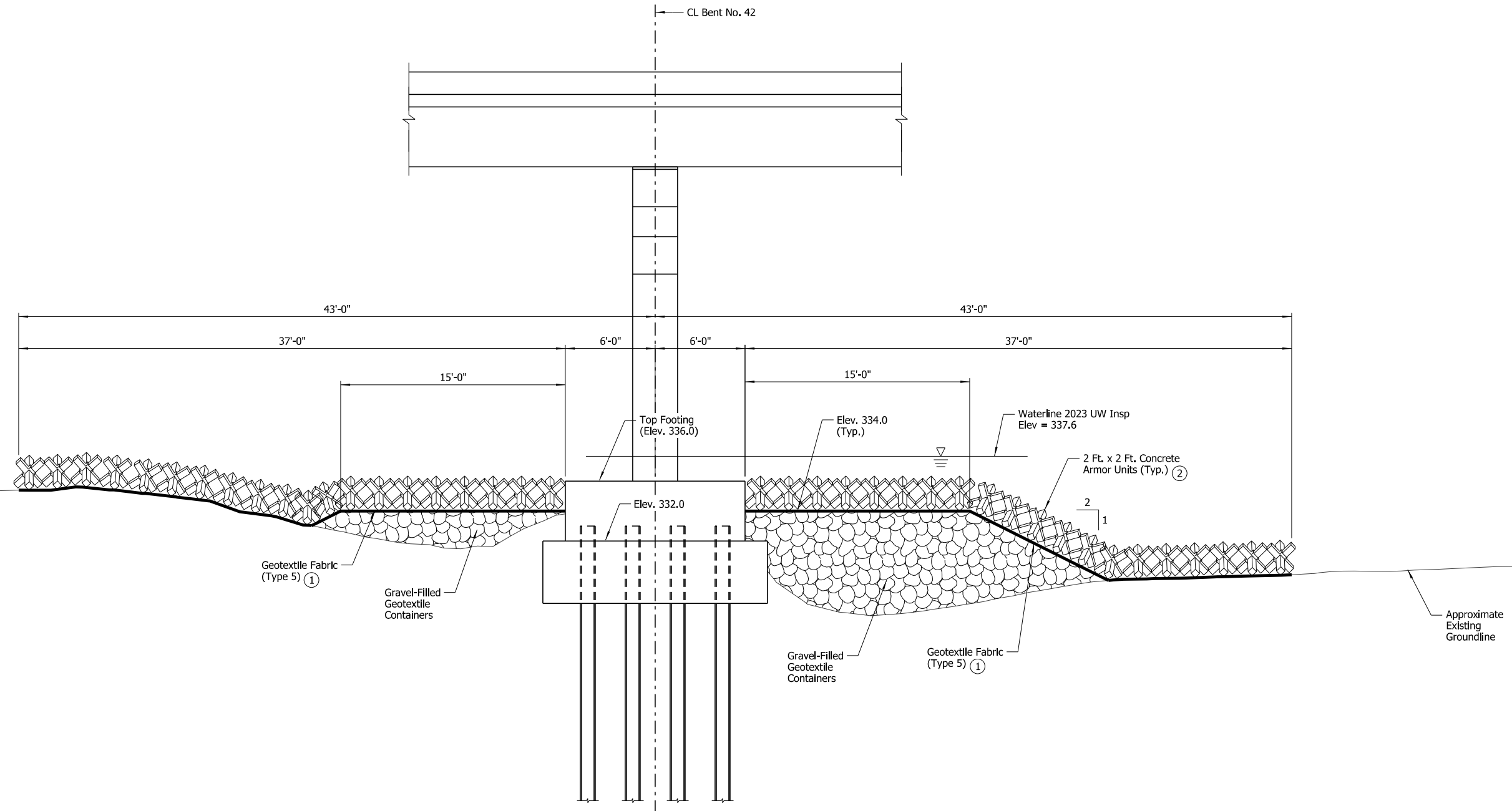
SECTION C-C
Showing Bent No. 42 along West Face of Footing
Scale: 1/4" = 1'-0"



SHEET 5 OF 7
BENT NO. 42 SCOUR REPAIR DETAILS
BRIDGE OVER ARKANSAS RIVER
ROUTE 109 SEC.3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
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DESIGNED BY: WMM DATE: JUNE 2024
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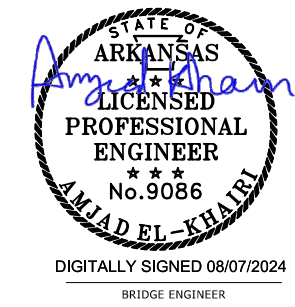
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	79	82
		05600	SCOUR REPAIR DETAILS			68422



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68417.

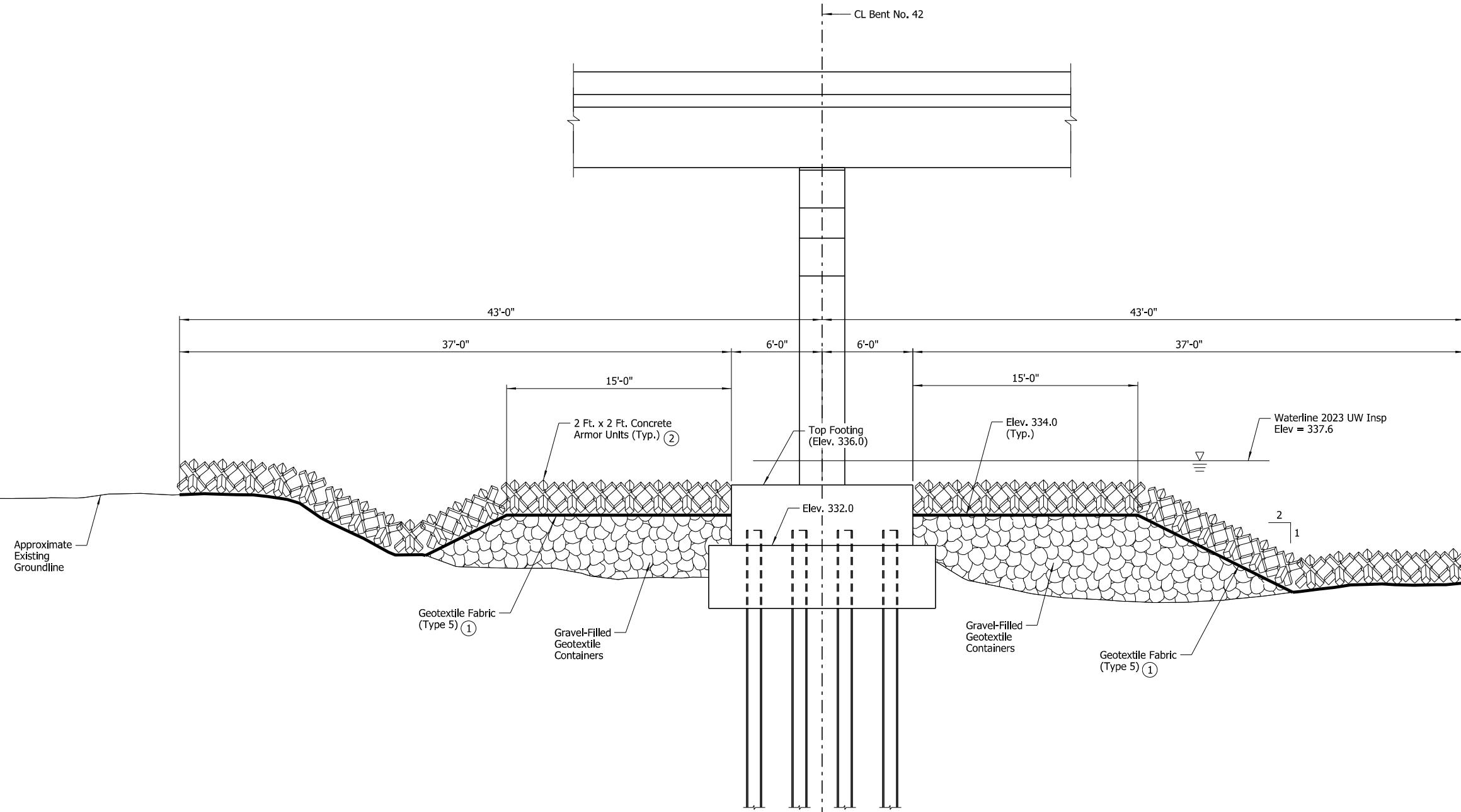
SECTION D-D
 Showing Bent No. 42 at CL Footing
 Scale: 1/4" = 1'-0"



SHEET 6 OF 7
 BENT NO. 42 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
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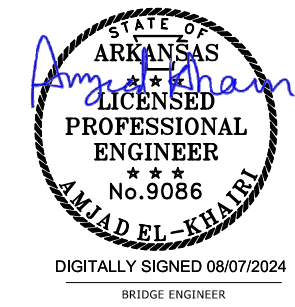
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	80	82
				05600	SCOUR REPAIR DETAILS 68423	



- ① Attach geotextile fabric to concrete armor unit bundle prior to installation
- ② For placement details, see Dwg. No. 68417.

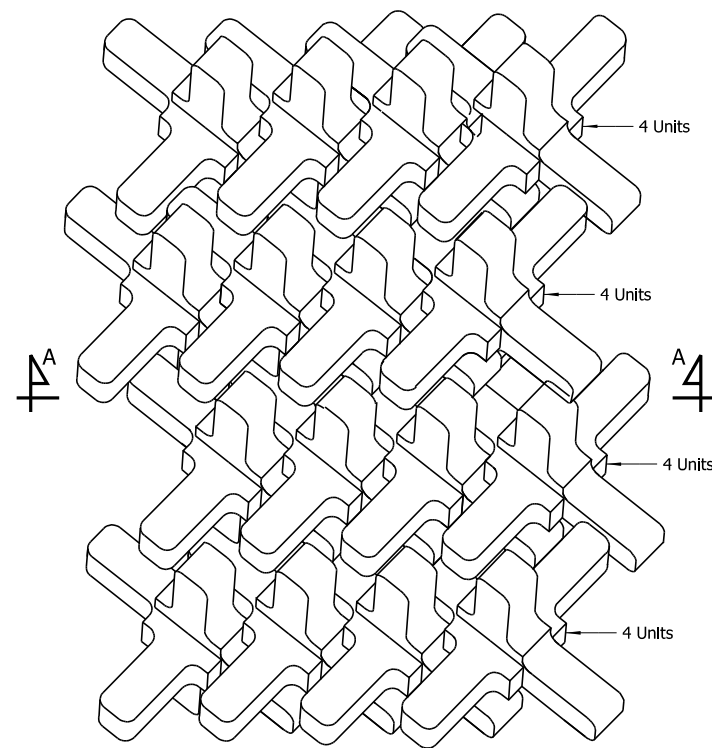
SECTION E-E
 Showing Bent No. 42 along East Face of Footing
 Scale: 1/4" = 1'-0"



SHEET 7 OF 7
 BENT NO. 42 SCOUR REPAIR DETAILS
 BRIDGE OVER ARKANSAS RIVER
 ROUTE 109 SEC.3 & 4
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md37.dgn
 CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
 DESIGNED BY: WMM DATE: JUNE 2024
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8/7/2024 3:19:59 PM
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 REVISED DATE:

DATE REVISED	DATE REVISED	FED. ROAD DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	012494	81	82
				A3424, 03447, 03643 & 05600	CONC. ARMOR UNITS 68424	



**PLAN VIEW: 24" CONCRETE ARMOR UNIT
4x4 UNIT CLUSTER**

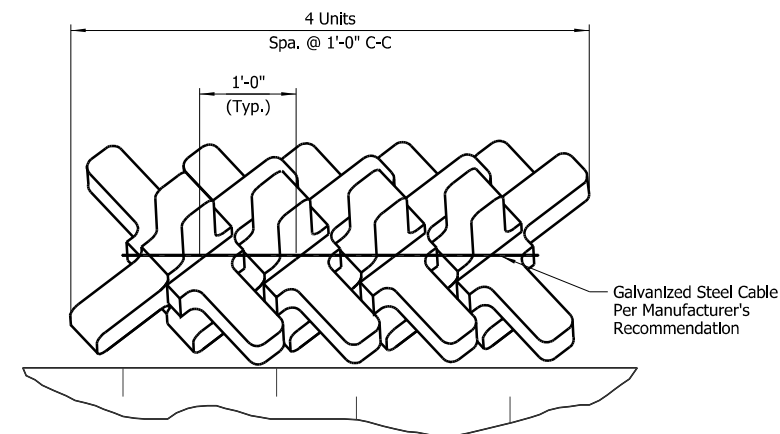
Scale: N.T.S.

NOTE:
Contractor may elect to utilize a smaller or larger cluster configuration than shown. Cluster shown in "Plan View" is an example of a possible cluster configuration. A minimum of 6 concrete units shall be cabled together as a cluster, as described in SP Job 012494 "Concrete Armor Units".

NOTES:
For locations of placement, see Dwg. Nos. 68351, 68356, 68361, 68366, 68372, 68383, and 68416.

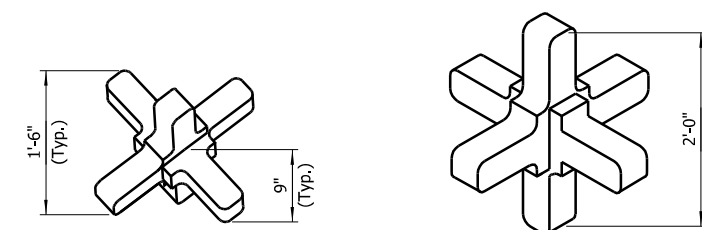
Concrete units shall be installed in clusters of at least six (6) concrete armor units. Clusters shall be installed so that each row of clusters is stable and as close to the adjacent clusters as possible. For additional notes concerning spacing of adjacent clusters, see SP Job 012494 "Concrete Armor Units". Each cluster shall be bound with one (1) wrap of galvanized steel cable with Manufacturer's recommended number of galvanized steel clamps around the mid-section of the units.

For additional notes regarding concrete armor units, assembly, and installation, see SP Job 012494 "Concrete Armor Units".



SECTION A-A

Scale: N.T.S.



**INDIVIDUAL 24" CONCRETE ARMOR UNIT
VERTICAL DIMENSIONS**

Scale: N.T.S.

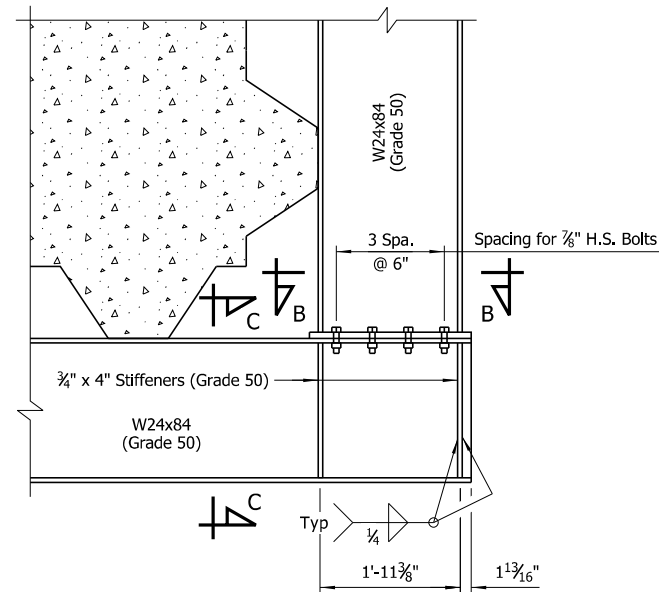


DIGITALLY SIGNED 08/07/2024
BRIDGE ENGINEER

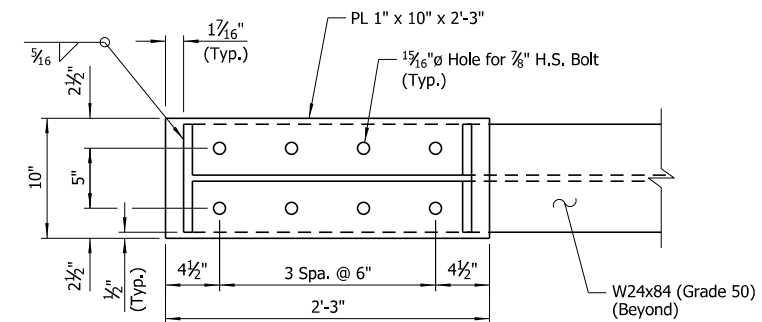
DETAILS OF CONCRETE ARMOR UNITS
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md38.dgn
CHECKED BY: JLH DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: WMM DATE: JUNE 2024
BRIDGE NO. A3424, 03447, 03643 & 05600 DRAWING NO. 68424

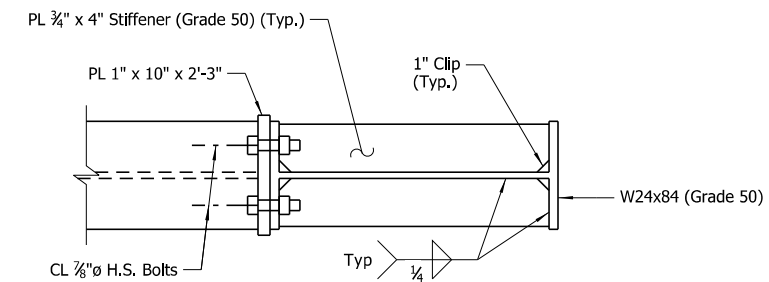
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		05600	SCOUR REPAIR DETAILS		68425	



DETAIL A
Scale: 3/4" = 1'-0"




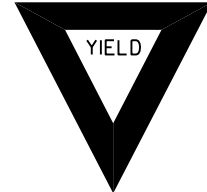

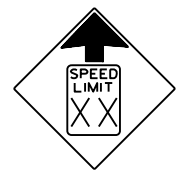





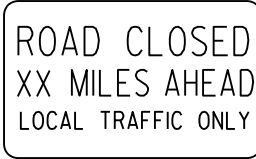
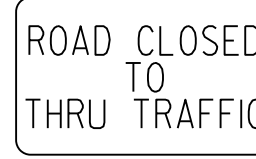





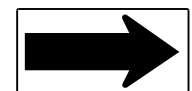
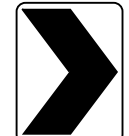
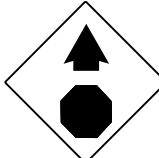
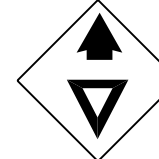
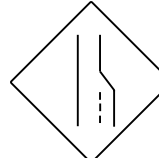

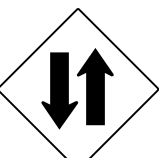

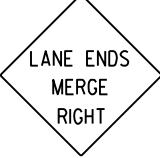


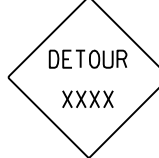







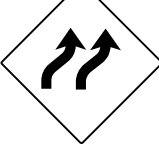


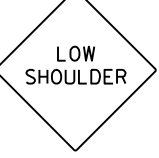

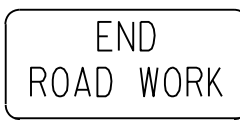
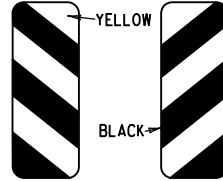
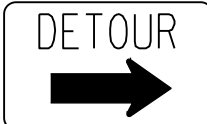

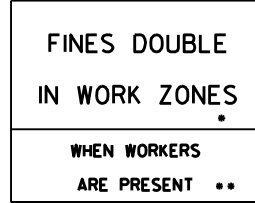
SECTION B-B
Scale: 1 1/2" = 1'-0"



SECTION C-C
Scale: 1 1/2" = 1'-0"



MISC. COFFERDAM DETAILS
ROUTE 109 SEC. 3 & 4
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: HEW DATE: JUNE 2024 FILENAME: b012494x6_md39.dgn
CHECKED BY: AJK DATE: JUNE 2024 SCALE: As Shown
DESIGNED BY: JLH DATE: JUNE 2024
BRIDGE NO. 05600 DRAWING NO. 68425

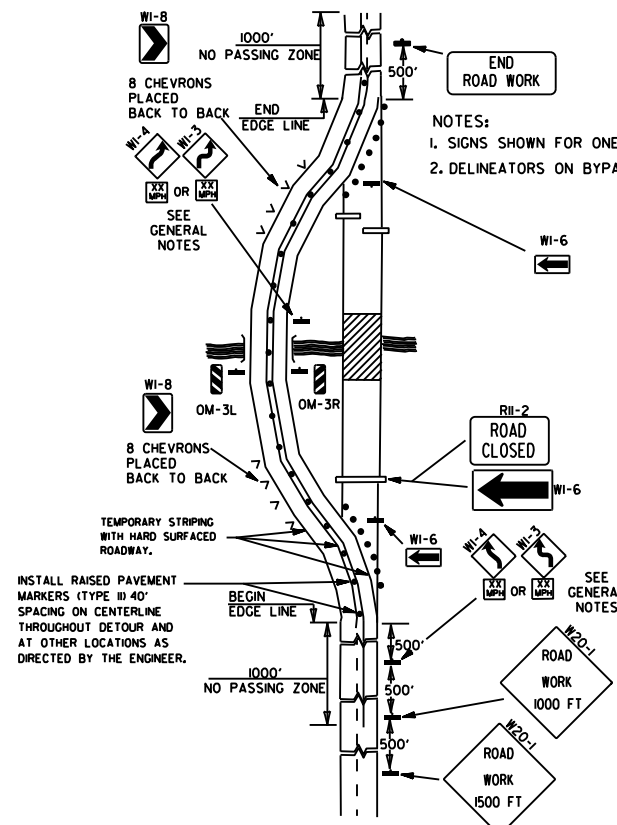
<p>RI-1</p>  <p>STANDARD 30"x30" EXPRESSWAY 36"x36" SPECIAL 48"x48"</p>	<p>RI-2</p>  <p>STD. 36"x36"x36" EXPWY. 48"x48"x48" FWY. 60"x60"x60"</p>	<p>R2-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>W3-5</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>W3-5a</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>R4-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R4-2</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	
<p>R5-1</p>  <p>STD. 30"x30" EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>R11-2</p>  <p>48"x30"</p>	<p>R11-3A</p>  <p>60"x30"</p>	<p>R11-4</p>  <p>60"x30"</p>	<p>W21-5a</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W1-1</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W1-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	
<p>W1-3</p>  <p>STD. 48"x48"</p>	<p>W1-4</p>  <p>STD. 48"x48"</p>	<p>W1-6</p>  <p>STD. 48"x24" SPECIAL 60"x30"</p>	<p>W1-8</p>  <p>STD. 18"x24" SPECIAL 24"x30" EXPWY. 30"x36" FWY. 36"x48"</p>	<p>W3-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W3-2</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W4-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	
<p>W5-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W6-3</p>  <p>EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>W8-7</p>  <p>EXPWY. 36"x36" FWY. 48"x48"</p>	<p>W9-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W13-1</p>  <p>STD. 24"x24"</p>	<p>W20-1</p>  <p>STD. 48"x48"</p>	<p>W20-2</p>  <p>STD. 48"x48"</p>	<p>W20-3</p>  <p>STD. 48"x48"</p>
<p>W20-4</p>  <p>STD. 48"x48"</p>	<p>W20-5</p>  <p>STD. 48"x48"</p>	<p>W20-7a</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W21-2</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W21-5</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W24-1</p>  <p>STD. 36"x36"</p>	<p>W1-4b</p>  <p>STD. 48"x48"</p>	<p>R56-1</p>  <p>STD. 18"x18"</p>
<p>W8-11</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W8-9</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>G20-1</p>  <p>60"x24"</p>	<p>G20-2</p>  <p>48"x24"</p>	<p>OM-3L OM-3R</p>  <p>12"x36"</p>	<p>M4-9</p>  <p>STD. 30"x24" SPECIAL 48"x36" SPECIAL 60"x48"</p>	<p>M4-10</p>  <p>48"x18"</p>	<p>R55-1</p>  <p>36"x60"</p> <p>• USE 6" C LETTERS •• USE 4" D LETTERS</p>

ADVANCE DISTANCES (XXXX)

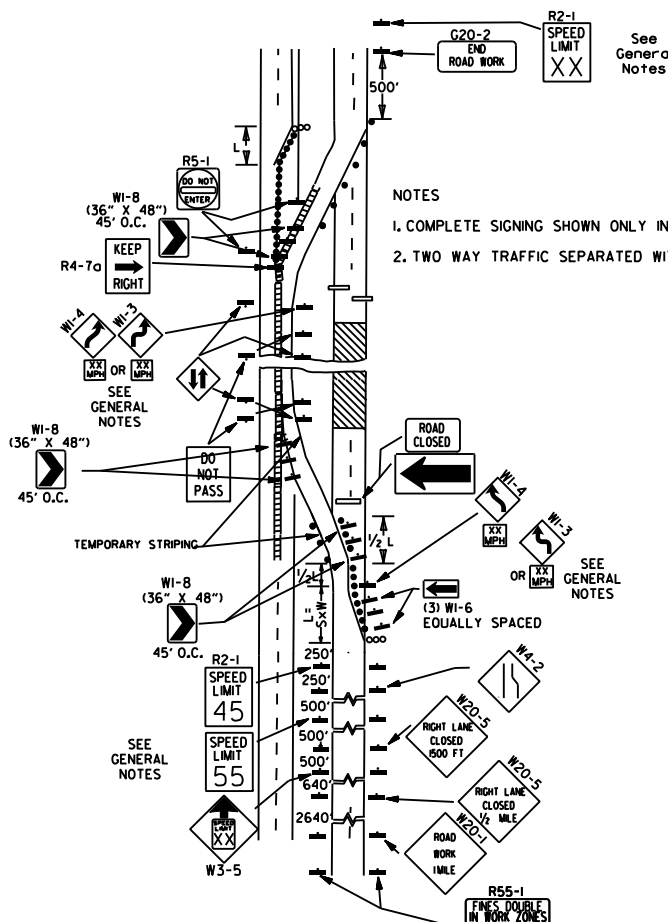
500 FT	1/2 MILE
1000 FT	3/4 MILE
1500 FT	1 MILE AHEAD

- GENERAL NOTES:
- ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
 - TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
 - EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.
 - SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.
 - SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.
 - POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.
 - ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.
 - FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
 - MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
 - R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.
- NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

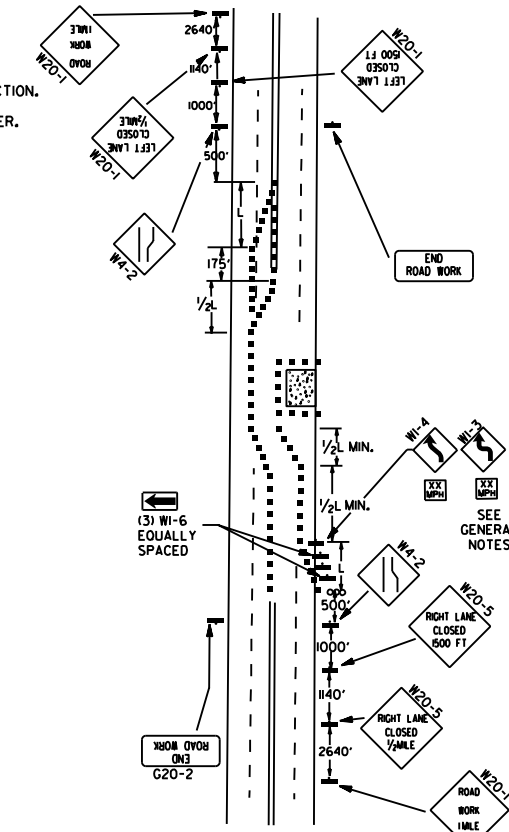
11-07-19	REVISED FOR MASH	
4-13-17	DELETED RSP-1 & ADDED W21-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VL.MITCD SEPT. 3, 1993	
8-16-91	DRAWN AND PLACED IN USE	
DATE	REVISION	FILMED



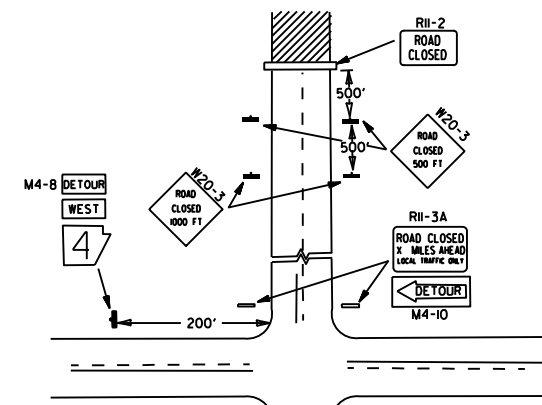
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



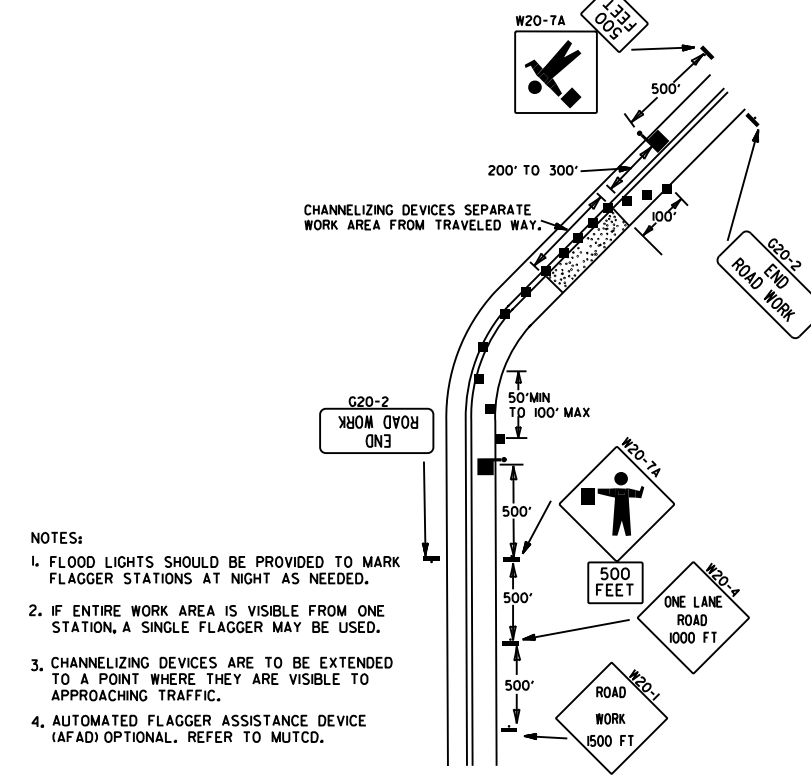
(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



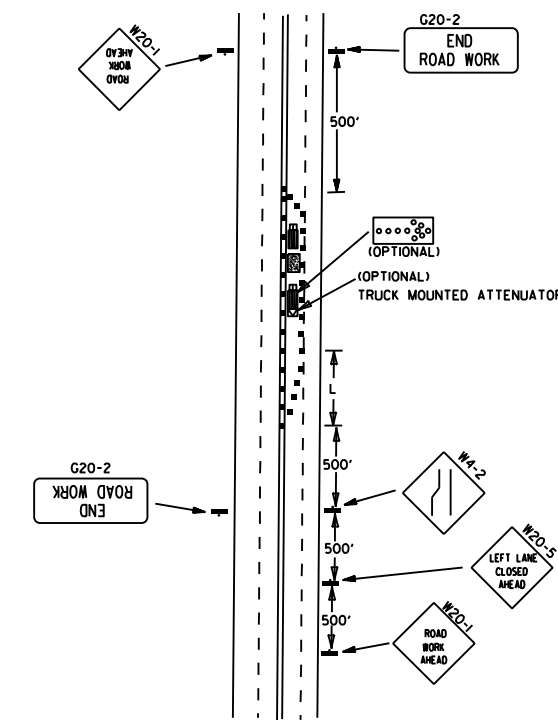
(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



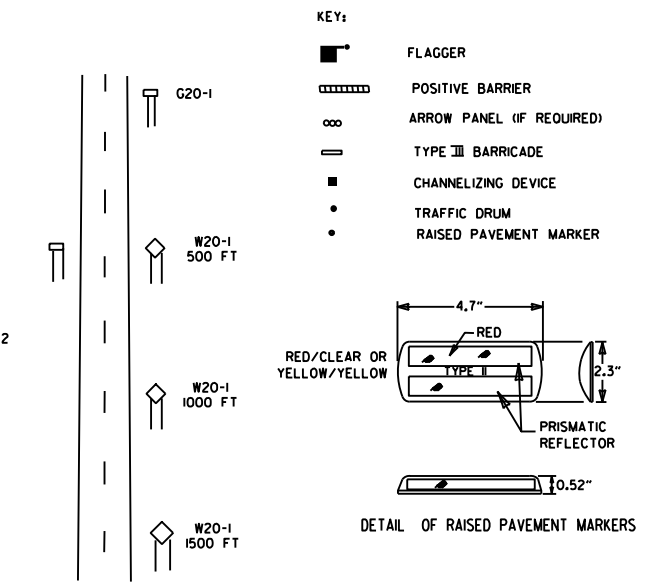
(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



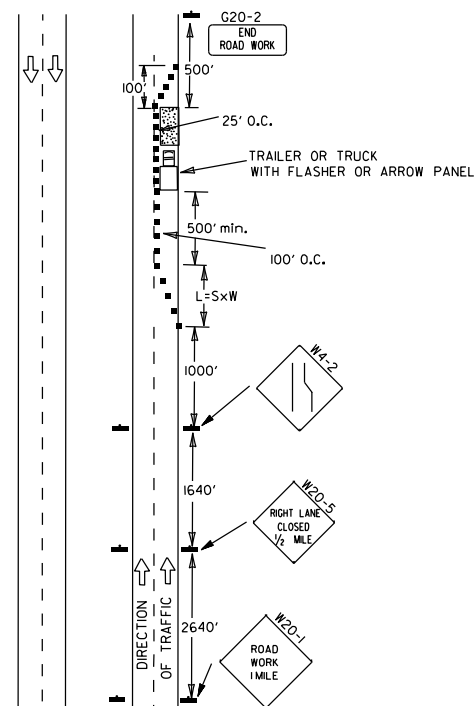
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.



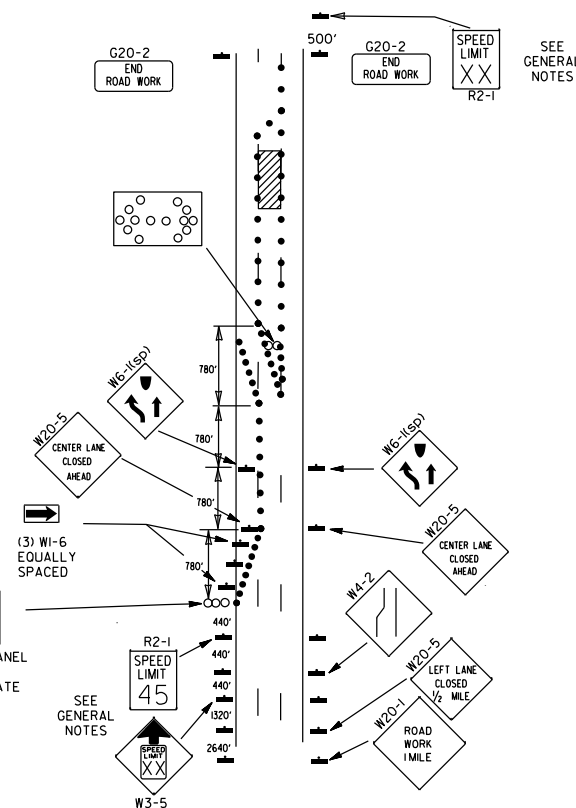
TYPICAL ADVANCE WARNING SIGN PLACEMENT
 TAPER FORMULAE:
 $L = SXW$ FOR SPEEDS OF 45MPH OR MORE.
 $L = \frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.
 WHERE:
 L = MINIMUM LENGTH OF TAPER.
 S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
 W = WIDTH OF OFFSET.

- GENERAL NOTES:
 1. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
 2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-145MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(1XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-(65) SHALL BE OMITTED. ADDITIONAL R2-155MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(1XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
 5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
 6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
 7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER, WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
 8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER, REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AASHTO QUALIFIED PRODUCTS LIST.
 9. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

DATE	REVISION	FILED
05-20-21	REVISED NOTE 7	
11-07-19	REVISED NOTE 1, ADDED NOTE 9	
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (G) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	



(A) TYPICAL APPLICATION - DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



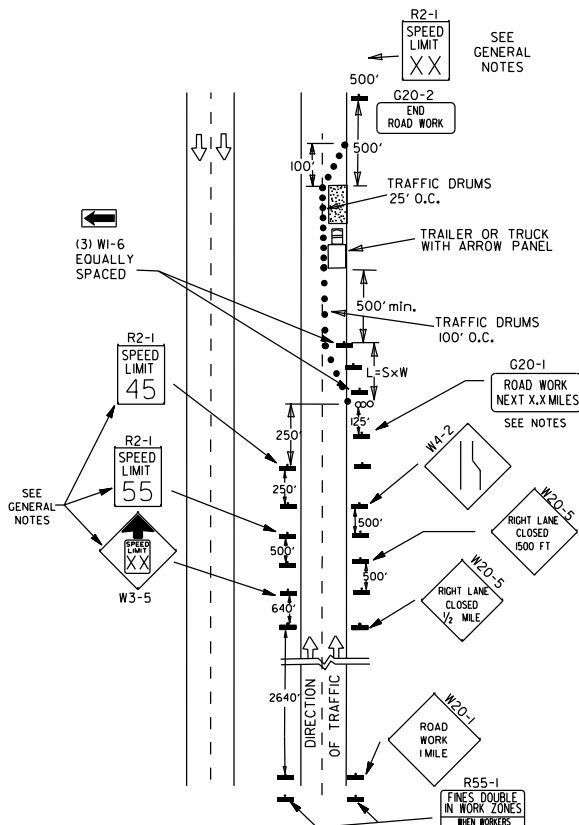
(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

KEY:

- ○ ○ ○ ○ ARROW PANEL (IF REQUIRED)
- CHANNELIZING DEVICE
- TRAFFIC DRUM

GENERAL NOTES:

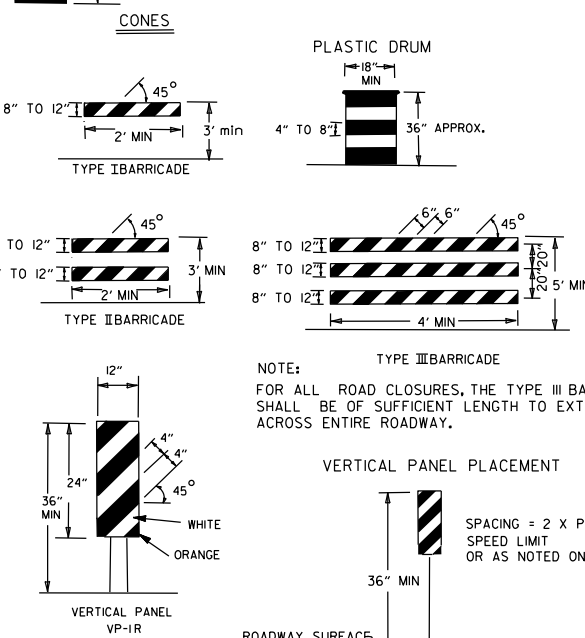
1. A SPEED LIMIT REDUCTION MAY BE IMPLEMENTED ONLY WHEN DESIGNATED IN THE PLAN OR WHEN RECOMMENDED BY THE ROADWAY DESIGN DIVISION.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1(45)MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/4 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(65) SHALL BE OMITTED. ADDITIONAL R2-1(55)MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/4 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. THE G20-1 SIGN WILL BE REQUIRED ON JOBS OF OVER TWO MILES IN LENGTH, WHEN THE LANE CLOSURE IS NOT AT THE BEGINNING OF THE PROJECT. THE G20-1 SIGN SHALL BE ERECTED 125' IN ADVANCE OF THE JOB LIMIT. ADDITIONAL W20-1(1/4 MILE) SIGNS ARE NOT REQUIRED IN ADVANCE OF LANE CLOSURES THAT BEGIN INSIDE THE PROJECT LIMITS.
8. FLAGGERS SHALL USE STOP/SLOW PADDLES FOR CONTROLLING TRAFFIC THROUGH WORK ZONES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. ALL PLASTIC DRUMS AND CONES SHALL MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
10. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER, WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
11. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).



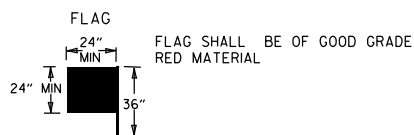
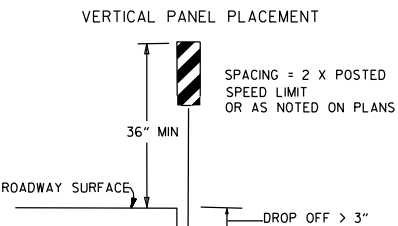
(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

CHANNELIZING DEVICES

WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.



NOTE: FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.



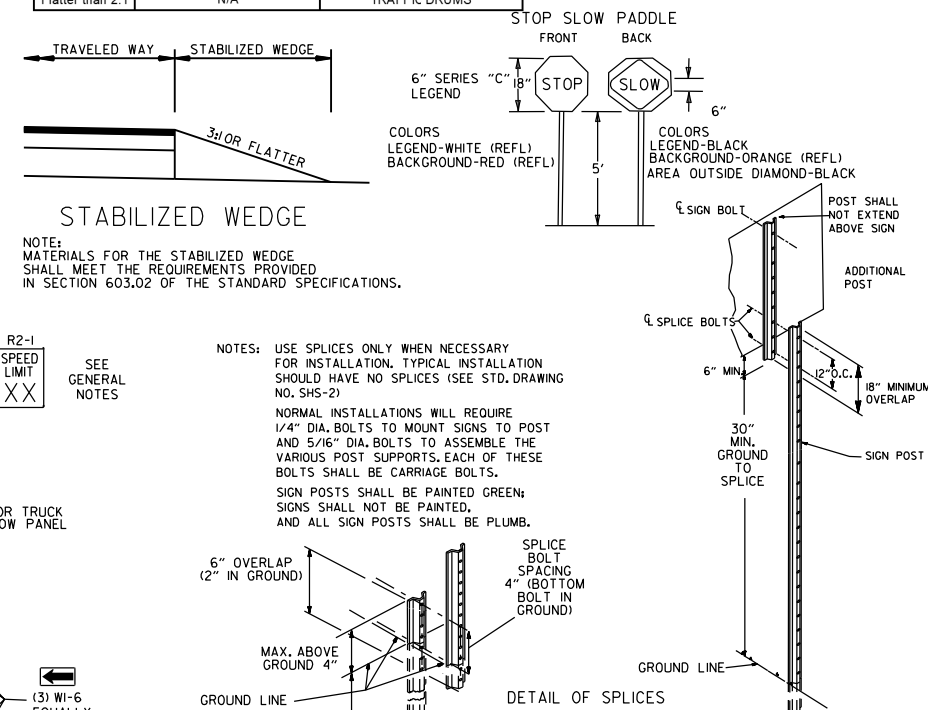
FLAG SHALL BE OF GOOD GRADE RED MATERIAL

TRAFFIC CONTROL DEVICES			
NON-INTERSTATE			
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45MPH	> 45MPH
≤ 1"	CENTERLINE	W6-11	W8-11
> 1"	CENTERLINE	W8-11 AND CENTERLINE LANE STRIPING	W8-11 AND CENTERLINE LANE STRIPING
> 3"	CENTERLINE	STANDARD LANE CLOSURE ⁽⁶⁾	STANDARD LANE CLOSURE ⁽⁶⁾
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9 AND TRAFFIC DRUMS ⁽¹⁾	W8-9 AND TRAFFIC DRUMS ⁽¹⁾
> 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾
≤ 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾	A STABILIZED WEDGE, W8-17, EDGE LINE STRIPING AND TRAFFIC DRUMS ⁽²⁾
> 18"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾	PRECAST CONCRETE BARRIER ⁽⁴⁾ & EDGE LINES
> 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER ⁽⁴⁾ & EDGE LINES	PRECAST CONCRETE BARRIER ⁽⁴⁾ & EDGE LINES

INTERSTATE		
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL
≤ 3"	CENTERLINE	W8-11 AND LANE STRIPING
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER & EDGE LINES

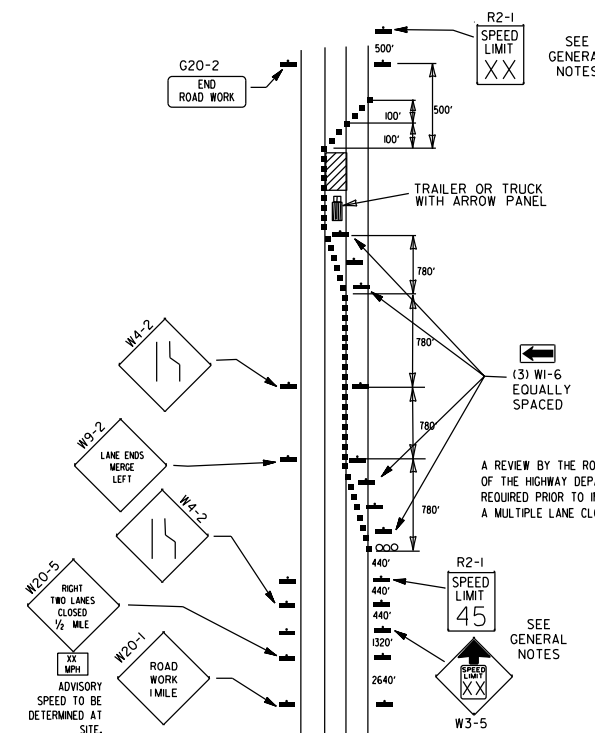
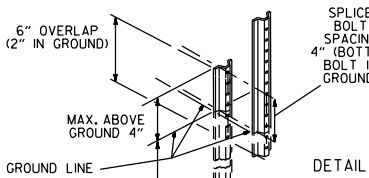
INTERSTATE AND NON-INTERSTATE		
FORESLOPE	HEIGHT	TRAFFIC CONTROL
1:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS

- GENERAL NOTES:
1. WHEN THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, THEN VERTICAL PANELS SHALL BE USED.
 2. WHEN THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, A STABILIZED WEDGE SHALL BE USED. PRECAST CONCRETE BARRIER WALL CAN BE USED IN LIEU OF A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS, IF AND WHERE DIRECTED BY THE ENGINEER.
 3. A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS CAN BE USED IN LIEU OF PRECAST CONCRETE BARRIER WALL, IF AND WHERE DIRECTED BY THE ENGINEER.
 4. W21-5, W21-5a, AND/OR W21-5b SIGNS SHALL BE USED WHERE THE ROADWAY IS UNOBSTRUCTED IF AND WHERE DIRECTED BY THE ENGINEER. TIME LIMITATIONS MUST CONFORM TO SECTION 603 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).



NOTE: MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.

NOTE: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2) NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS, EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS. SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.

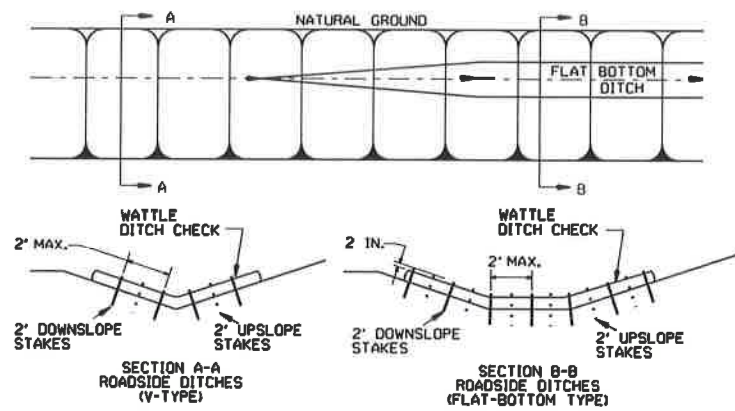


(D) TYPICAL APPLICATION - CLOSING MULTIPLE LANES OF A MULTILANE HIGHWAY.

DATE	REVISION	FILED
08-12-21	REVISED TRAFFIC CONTROL DEVICES AND NOTES	
05-20-21	REVISED NOTE 10	
2-27-20	REVISED TRAFFIC CONTROL DEVICES DETAILS	
11-07-19	REVISED NOTE 9, ADDED NOTE II	
7-25-19	REVISED TRAFFIC CONTROL DEVICES DETAILS	
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

GENERAL NOTES

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

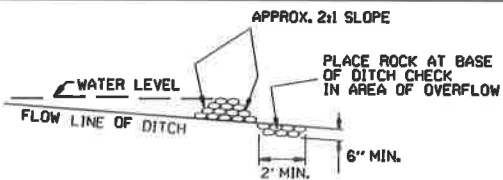


WATTLE DITCH CHECK (E-1)

NUMBER OF SAND BAGS AND ARRANGEMENT VARIABLE WITH ON-SITE CONDITIONS.

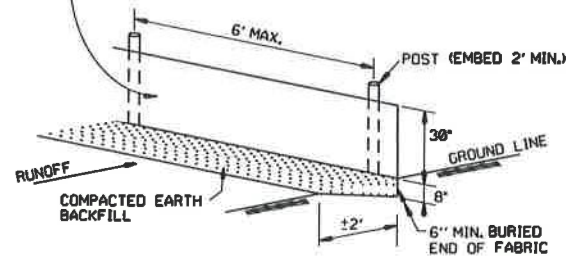


SAND BAG DITCH CHECK (E-5)

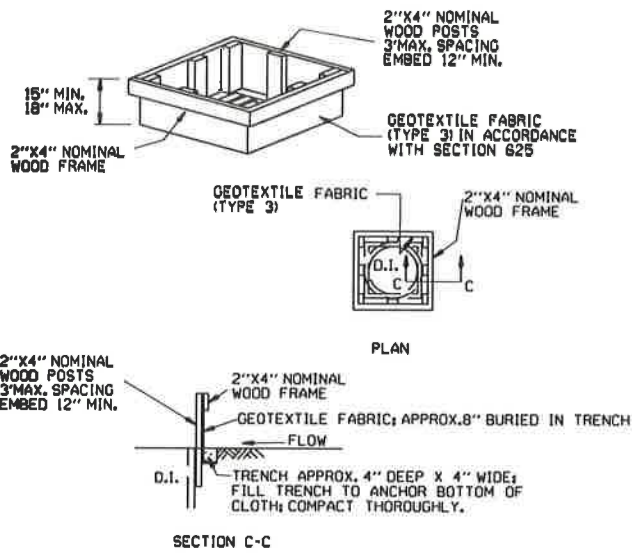


ROCK DITCH CHECK (E-6)

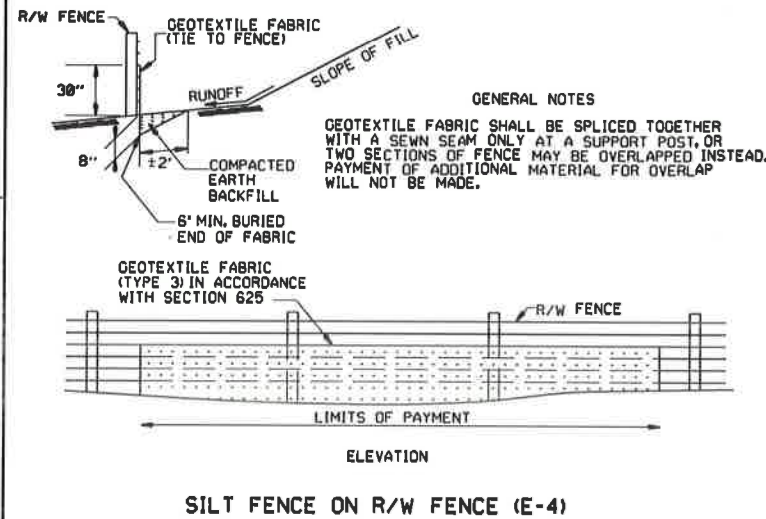
GENERAL NOTES
 GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625
 GEOTEXTILE FABRIC SHALL BE SPICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



SILT FENCE (E-11)

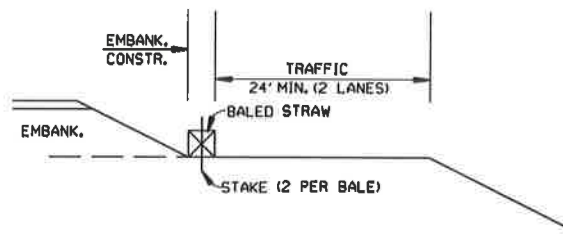


DROP INLET SILT FENCE (E-7)

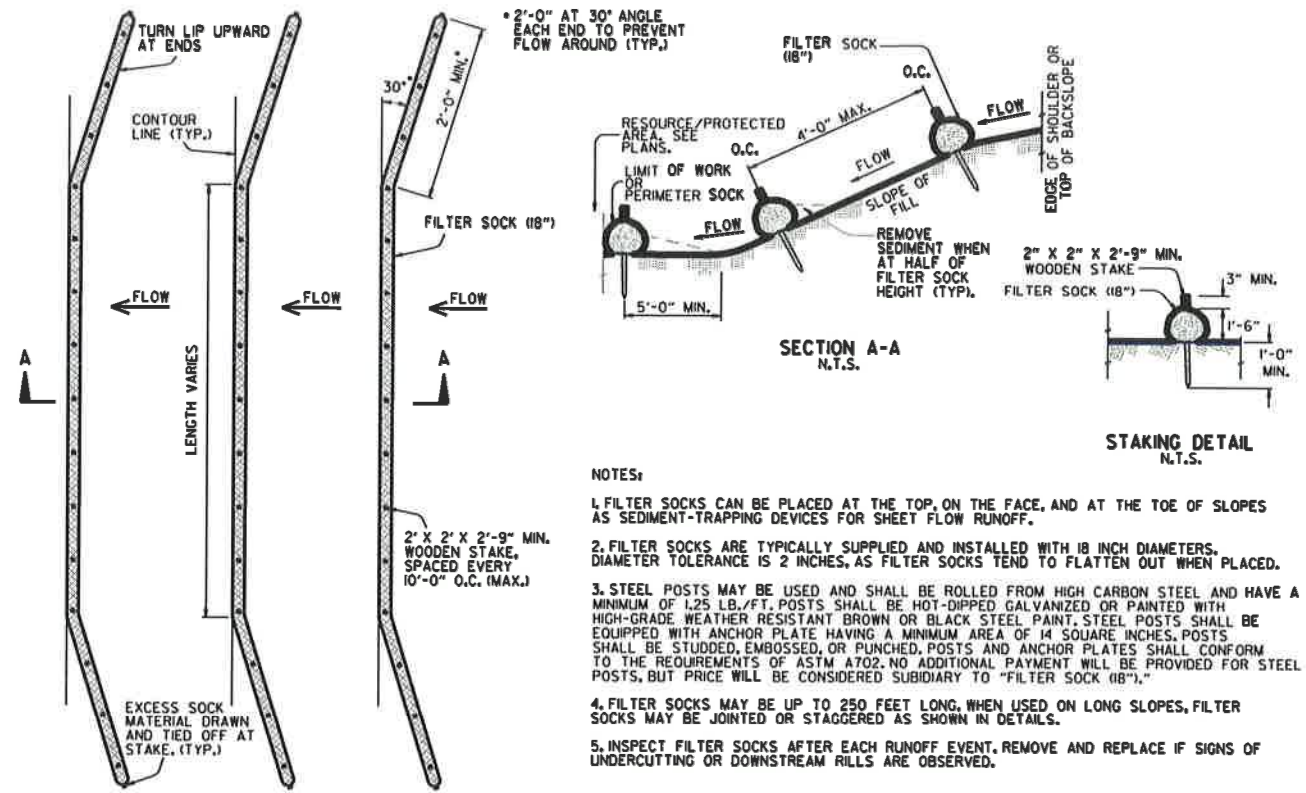


SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES
 1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.
 2. NO GAPS SHALL BE LEFT BETWEEN BALES.
 3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.

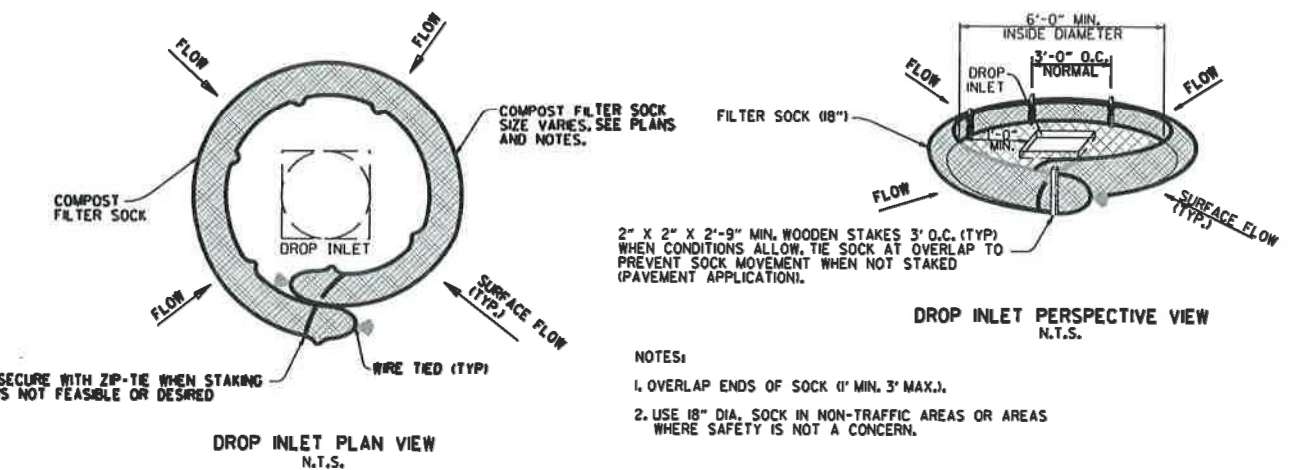


BALED STRAW FILTER BARRIER (E-2)



FILTER SOCK ALONG SLOPE (E-3)

NOTES:
 1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF.
 2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.
 3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR STEEL POSTS, BUT PRICE WILL BE CONSIDERED SUBSIDIARY TO "FILTER SOCK (18\"/>



COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

NOTES:
 1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).
 2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

DATE	REVISION	FILED
11-16-17	ADDED FILTER SOCK E-3 AND E-13	
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
07-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
07-15-94	REV. E-4 & E-11 MIN. 3" BURIED END OF FABRIC	
06-02-94	REVISED E-1, 4, 7 & 11 DELETED E-2 & 3	6-2-94
04-01-93	REDRAWN	
10-01-92	REDRAWN	
08-02-76	ISSUED R.D.M.	298-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION
 TEMPORARY EROSION CONTROL DEVICES
 STANDARD DRAWING TEC-1