DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	1	809
		HWY. 22 - GUN CLUB RD. (F)				

"THIS IS A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLANS

HWY. 22 - GUN CLUB RD. (F)

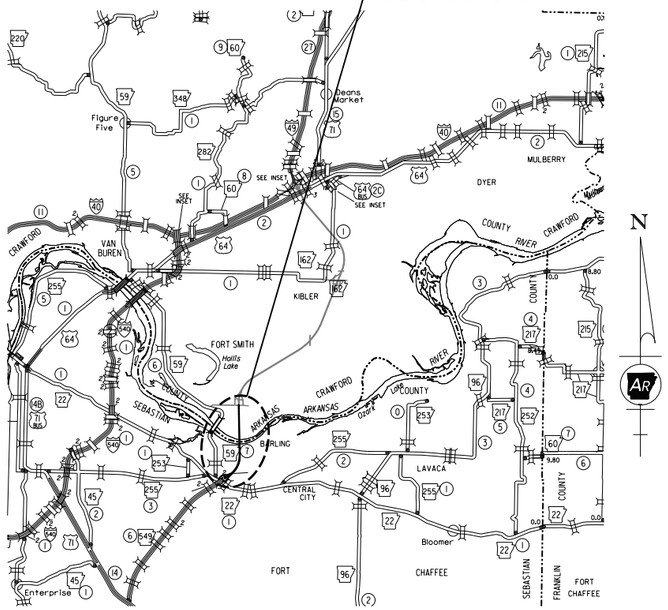
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SECTION 6

JOB 040901

FED. AID PROJ. NHPP-1765(9) & 9030

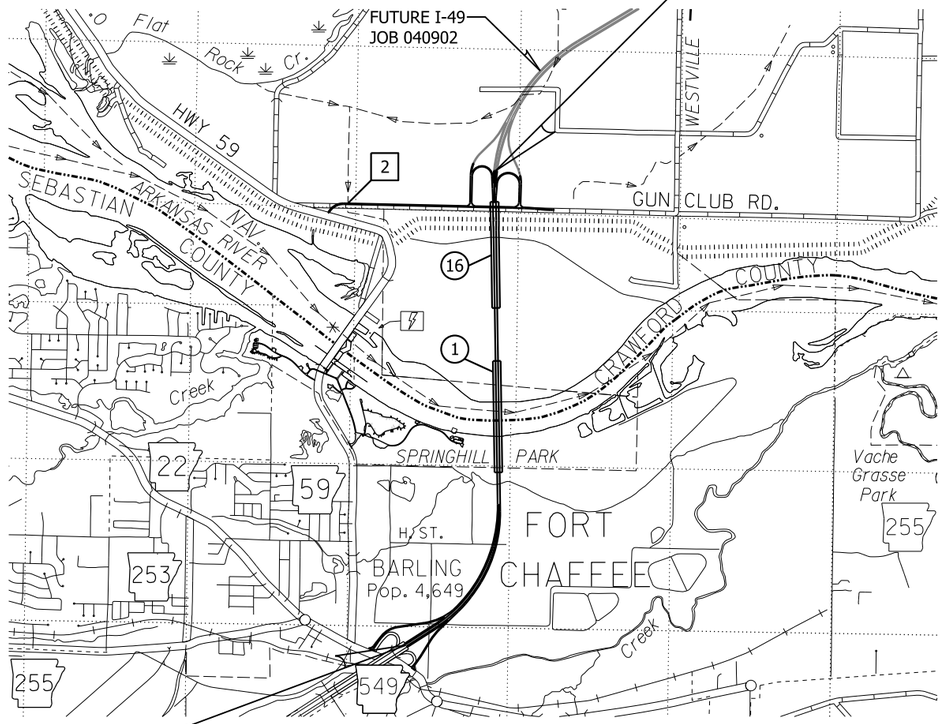
PROJECT LOCATION

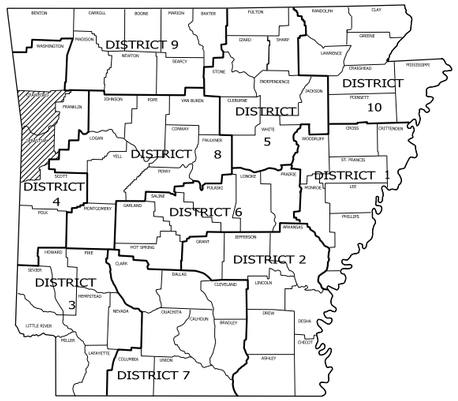


VICINITY MAP

FOR BRIDGE DATA REFER TO SHEET NO. 2

NOT TO SCALE





ARKANSAS HIGHWAY DISTRICT 4

· DESIGN TRAFFIC DATA ·

DESIGN YEAR	2044
2024 ADT	12,000
2044 ADT	19,000
2044 DHV	2,090
DIRECTIONAL DISTRIBUTION	60%
TRUCKS	12%
DESIGN SPEED	70 MPH

	BEGIN PROJECT	MID POINT OF PROJECT	END PROJECT
LATITUDE	N 35°19'23"	N 35°20'34"	N 35°21'57"
LONGITUDE	W 94°17'26"	W 94°16'50"	W 94°16'50"

PROJECT LENGTH COMPUTED ALONG C.L. I-49

GROSS LENGTH OF PROJECT	16900.00	FEET	OR	3.201	MILES
NET LENGTH OF ROADWAY	9845.68	FEET	OR	1.865	MILES
NET LENGTH OF BRIDGES	7054.32	FEET	OR	1.336	MILES
NET LENGTH OF PROJECT	16900.00	FEET	OR	3.201	MILES

CERTIFICATE OF AUTHORIZATION
HNTB CORP
No. 638
ARKANSAS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19914
JAMES KINDER
5/1/24

5/1/2024 11:34:03 AM
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	2	809
		BRIDGE DATA				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19914
JAMES KINDER
4/18/24

BRIDGE DATA

ALTERNATE NO. 1

(1) STA. 163+71.92 BRIDGE BEGIN
BR. NO. 07684 (I-49 OVER ARKANSAS RIVER)
390'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNIT NO. 1 (130'-130'-130')
520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS NO. 2 & 3 (130'-130'-130'-130')
1590'-0" CONTINUOUS PLATE GIRDER UNIT NO. 4 (355'-440'-440'-355')
520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS NO. 5 & 6 (130'-130'-130'-130')
390'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS NO. 7 - 9 (130'-130'-130')
TWO 40'-0" CLEAR ROADWAYS
PILES AT BENTS 1 & 33
DRILLED SHAFTS AT BENTS 2 - 32
5232'-2" BRIDGE LENGTH
STA. 216+04.08 BRIDGE END

(16) STA. 240+71.92 BRIDGE BEGIN
BR. NO. 07685 (I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.)
520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNIT NO. 1 (130'-130'-130'-130')
420'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNIT NO. 2 (90'-130'-100'-100')
520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNIT NO. 3 (130'-130'-130'-130')
360'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNIT NO. 4 (115'-130'-115')
TWO CLEAR ROADWAYS VARIES (40'-0" TO 48'-0")
PILES AT BENTS 1 & 16
DRILLED SHAFTS AT BENTS 2 - 15
1822'-2" BRIDGE LENGTH
STA. 258+94.08 BRIDGE END

ALTERNATE NO. 2

(1) STA. 163+71.92 BRIDGE BEGIN
BR. NO. 07684 (I-49 OVER ARKANSAS RIVER)
390'-0" CONTINUOUS PLATE GIRDER UNIT NO. 1 (130'-130'-130')
520'-0" CONTINUOUS PLATE GIRDER UNITS NO. 2 & 3 (130'-130'-130'-130')
1590'-0" CONTINUOUS PLATE GIRDER UNIT NO. 4 (355'-440'-440'-355')
520'-0" CONTINUOUS PLATE GIRDER UNITS NO. 5 & 6 (130'-130'-130'-130')
390'-0" CONTINUOUS PLATE GIRDER UNITS NO. 7 - 9 (130'-130'-130')
TWO 40'-0" CLEAR ROADWAYS
PILES AT BENTS 1 & 33
DRILLED SHAFTS AT BENTS 2 - 32
5232'-2" BRIDGE LENGTH
STA. 216+04.08 BRIDGE END

(16) STA. 240+71.92 BRIDGE BEGIN
BR. NO. 07685 (I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.)
520'-0" CONTINUOUS PLATE GIRDER UNIT NO. 1 (130'-130'-130'-130')
420'-0" CONTINUOUS PLATE GIRDER UNIT NO. 2 (90'-130'-100'-100')
520'-0" CONTINUOUS PLATE GIRDER UNIT NO. 3 (130'-130'-130'-130')
360'-0" CONTINUOUS PLATE GIRDER UNIT NO. 4 (115'-130'-115')
TWO CLEAR ROADWAYS VARIES (40'-0" TO 48'-0")
PILES AT BENTS 1 & 16
DRILLED SHAFTS AT BENTS 2 - 15
1822'-2" BRIDGE LENGTH
STA. 258+94.08 BRIDGE END

STRUCTURES OVER 20'-0" SPAN

[2] STA. 20+65.46 GUN CLUB RD. CONST.
TRIPLE 8' X 10' X 85' R.C. BOX CULVERT
W/ 3:1 WINGS LT. & RT.
REMOVE LT. WING
RETAIN & EXTEND 36' LT.
3:1 WINGS LT.
Q50 = 8,200 CFS DA = 18,816 ACRES
SPAN = 28'-0"

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9-6-2024		GOVERNING SPECIFICATIONS AND GENERAL NOTES				
9-25-2024						

GOVERNING SPECIFICATIONS

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

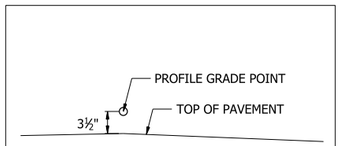
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FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
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100-4	DEPARTMENT NAME CHANGE
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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
10-03-2024

GENERAL NOTES

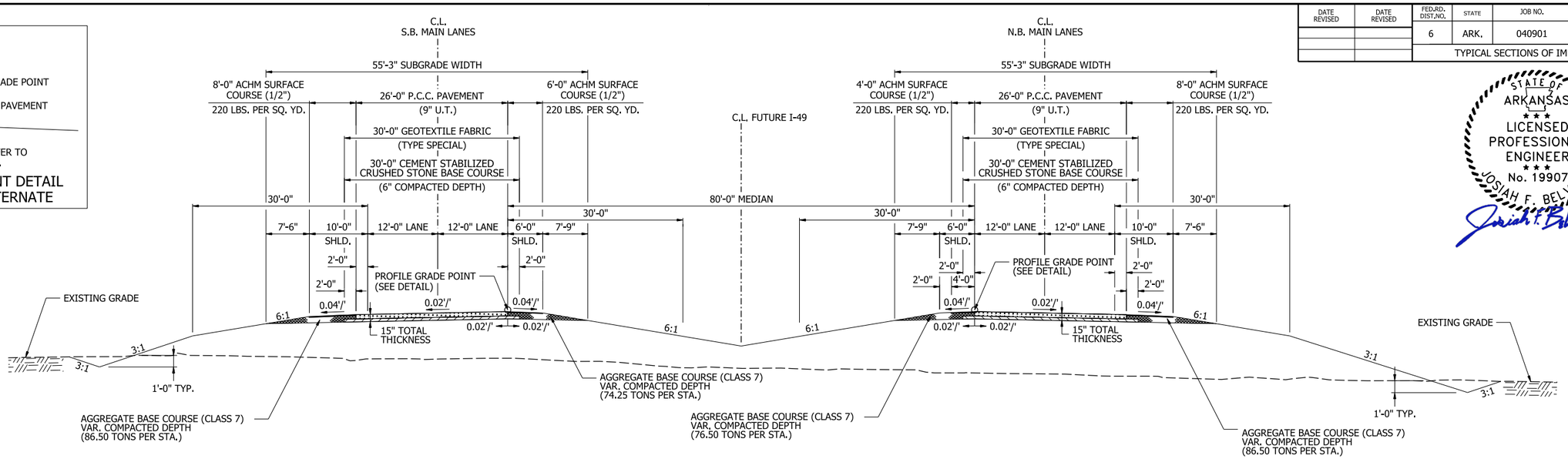
1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
4. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
5. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
7. THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT, AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE STAGE AS APPROVED BY THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE ENGINEER.
8. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
9. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	7	809
		TYPICAL SECTIONS OF IMPROVEMENT				



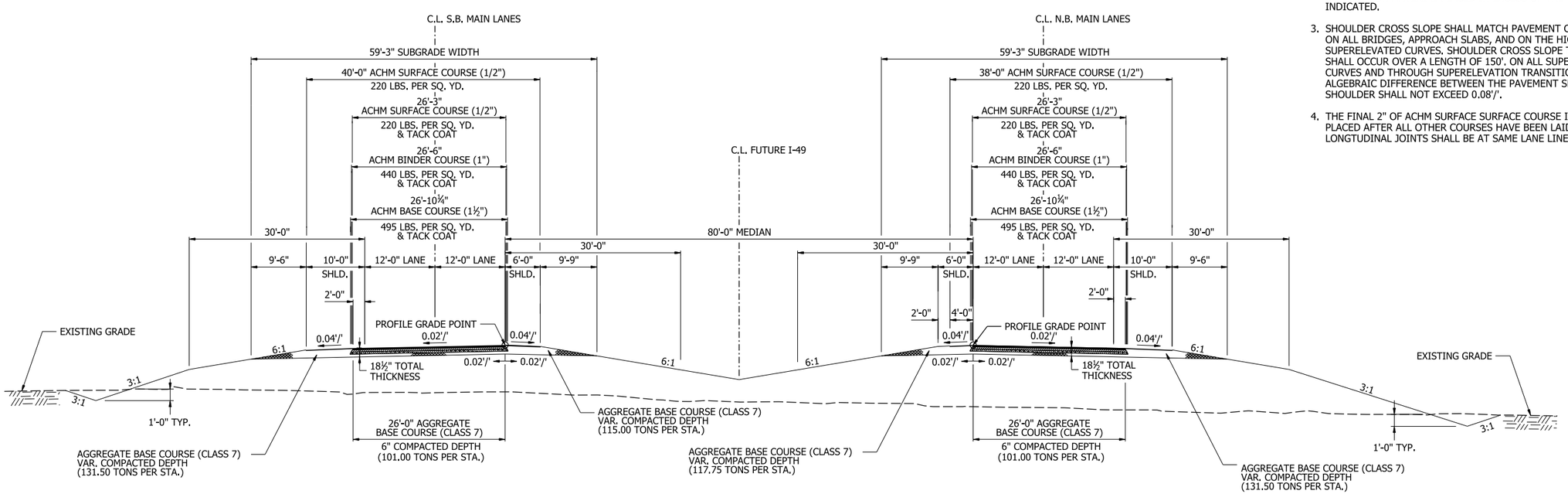
NOTE: 3½" VARIES. REFER TO SPECIAL DETAILS.

PROFILE GRADE POINT DETAIL FOR CONCRETE ALTERNATE



PROPOSED FUTURE I-49
TYPICAL TANGENT SECTION
CONCRETE ALTERNATE

C.L. I-49 STA. 100+00.00 TO STA. 108+65.00



PROPOSED FUTURE I-49
TYPICAL TANGENT SECTION
ASPHALT ALTERNATE

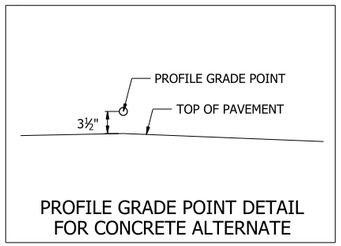
C.L. I-49 STA. 100+00.00 TO STA. 108+65.00

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/1/2024

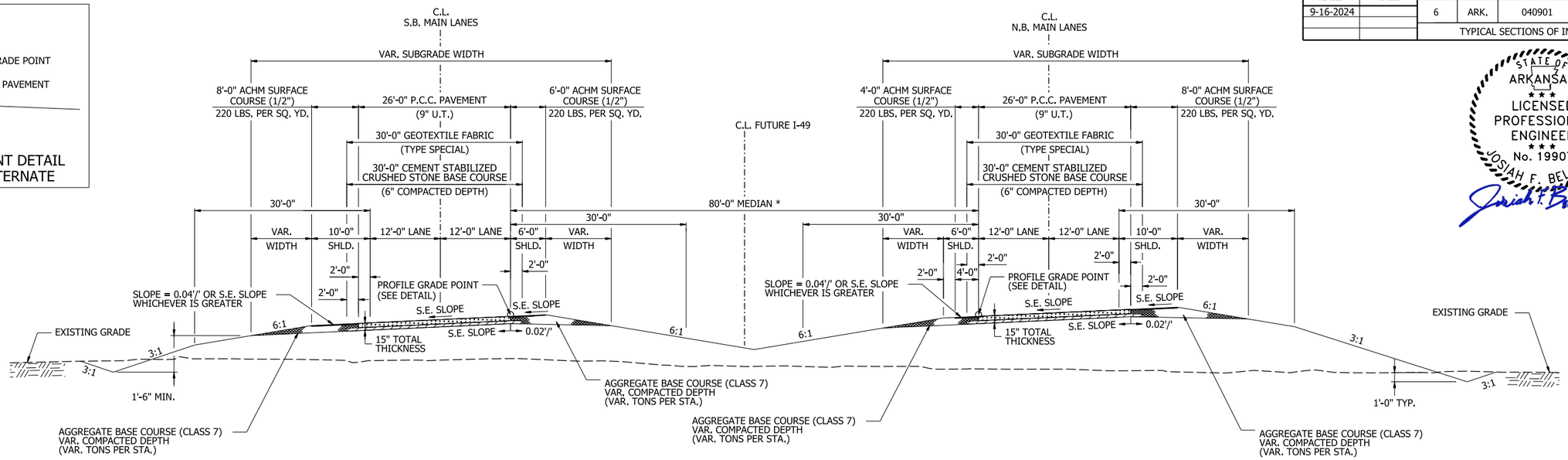
NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
3. SHOULDER CROSS SLOPE SHALL MATCH PAVEMENT CROSS SLOPE ON ALL BRIDGES, APPROACH SLABS, AND ON THE HIGH SIDE OF ALL SUPERELEVATED CURVES, SHOULDER CROSS SLOPE TRANSITIONS SHALL OCCUR OVER A LENGTH OF 150'. ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT SLOPE AND SHOULDER SHALL NOT EXCEED 0.08'/'.
4. THE FINAL 2" OF ACHM SURFACE SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID; LONGTUDINAL JOINTS SHALL BE AT SAME LANE LINES.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	8	809
		TYPICAL SECTIONS OF IMPROVEMENT				



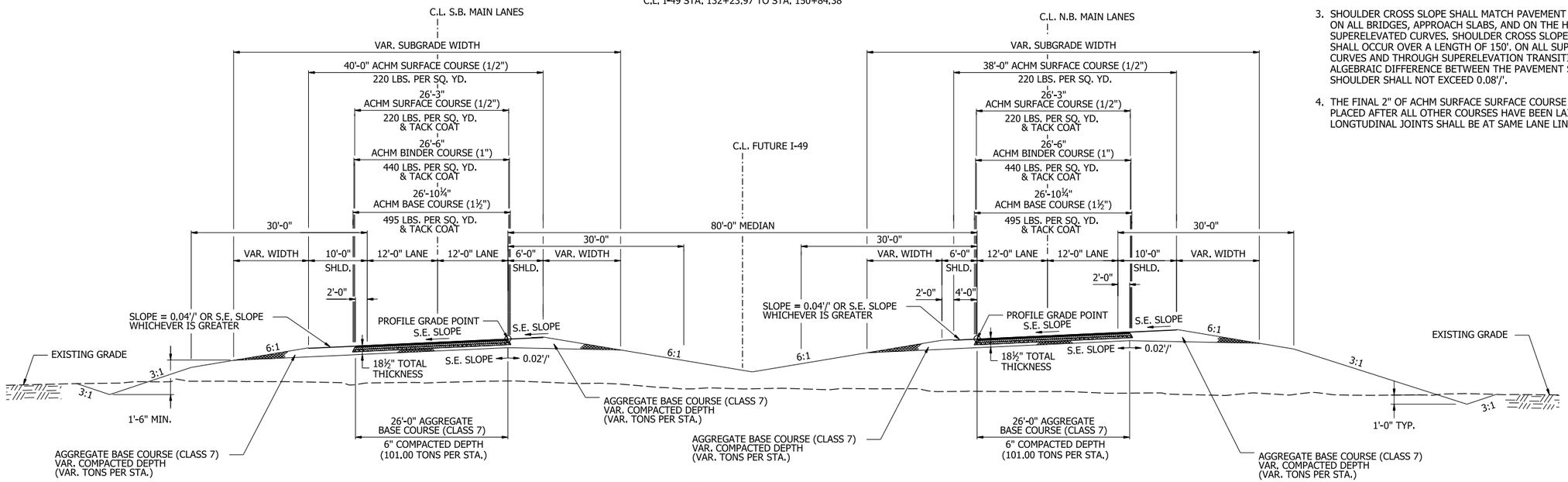
PROFILE GRADE POINT DETAIL
FOR CONCRETE ALTERNATE



PROPOSED FUTURE I-49
TYPICAL SUPERELEVATION SECTION
CONCRETE ALTERNATE

C.L. I-49 STA. 108+65.00 TO STA. 117+95.77
C.L. I-49 STA. 127+95.77 TO STA. 150+84.38

* MEDIAN WIDTH VARIES 45'-3" TO 80'-0" FROM C.L. I-49 STA. 132+23.97 TO STA. 150+84.38



PROPOSED FUTURE I-49
TYPICAL SUPERELEVATION SECTION
ASPHALT ALTERNATE

C.L. I-49 STA. 108+65.00 TO STA. 117+95.77
C.L. I-49 STA. 127+95.77 TO STA. 132+23.97

NOTES:

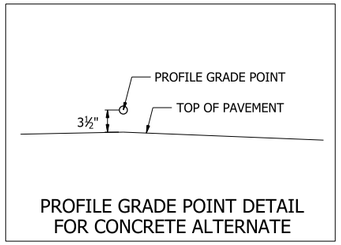
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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024

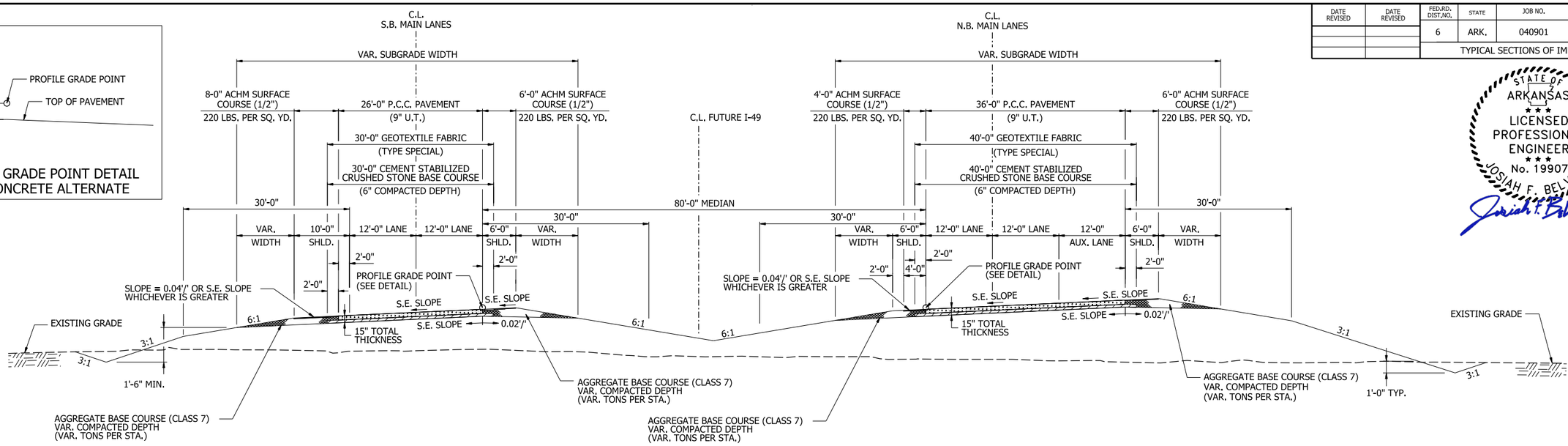
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TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	9	809
		TYPICAL SECTIONS OF IMPROVEMENT				

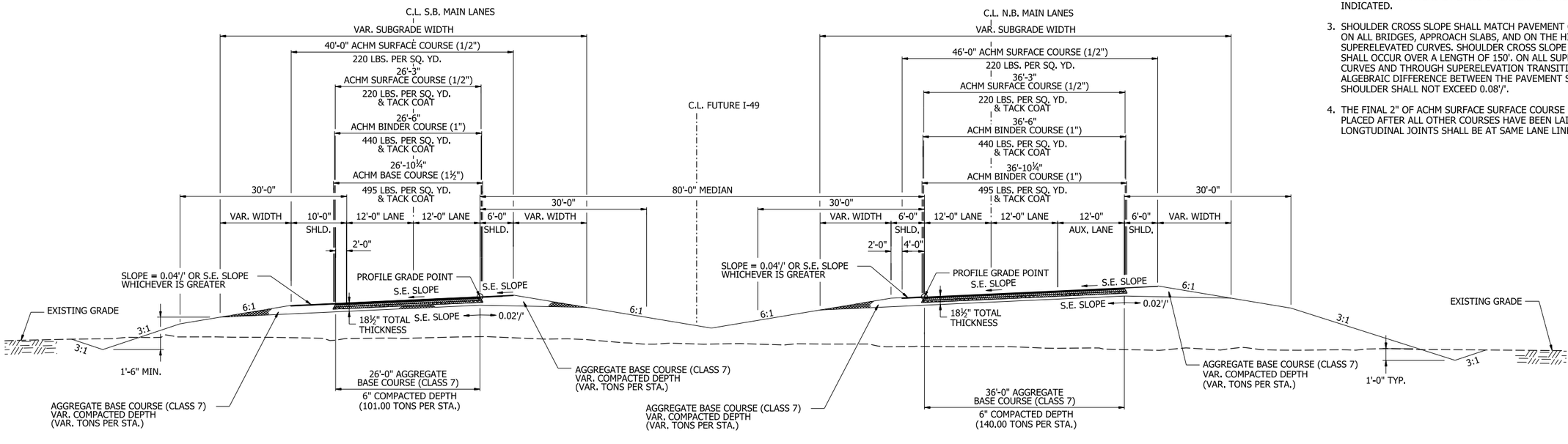


PROFILE GRADE POINT DETAIL
FOR CONCRETE ALTERNATE



PROPOSED FUTURE I-49 WITH N.B. AUXILIARY LANE
TYPICAL SUPERELEVATION SECTION
CONCRETE ALTERNATE

C.L. I-49 STA. 117+95.77 TO STA. 127+95.77



PROPOSED FUTURE I-49 WITH N.B. AUXILIARY LANE
TYPICAL SUPERELEVATION SECTION
ASPHALT ALTERNATE

C.L. I-49 STA. 117+95.77 TO STA. 127+95.77

NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
3. SHOULDER CROSS SLOPE SHALL MATCH PAVEMENT CROSS SLOPE ON ALL BRIDGES, APPROACH SLABS, AND ON THE HIGH SIDE OF ALL SUPERELEVATED CURVES. SHOULDER CROSS SLOPE TRANSITIONS SHALL OCCUR OVER A LENGTH OF 150'. ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT SLOPE AND SHOULDER SHALL NOT EXCEED 0.08'/'.
4. THE FINAL 2" OF ACHM SURFACE SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID; LONGTUDINAL JOINTS SHALL BE AT SAME LANE LINES.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/1/2024

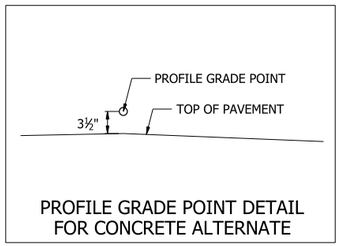
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TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
09-16-2024		6	ARK.	040901	10	809
		TYPICAL SECTIONS OF IMPROVEMENT				

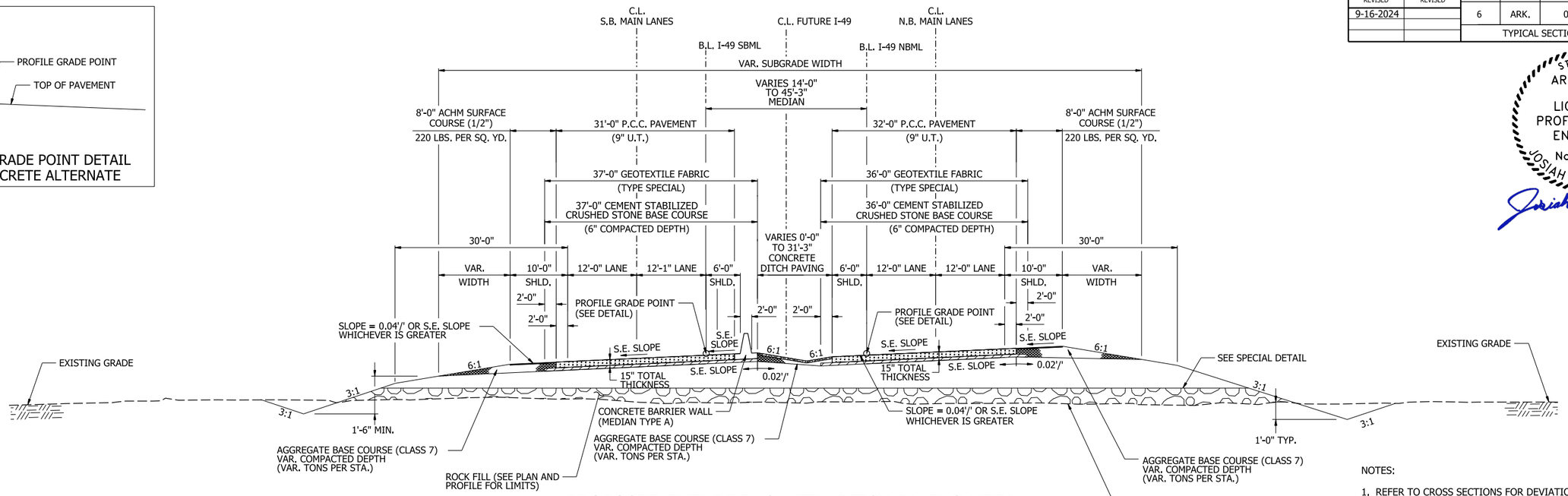
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	11	809
		TYPICAL SECTIONS OF IMPROVEMENT				



PROFILE GRADE POINT DETAIL
FOR CONCRETE ALTERNATE

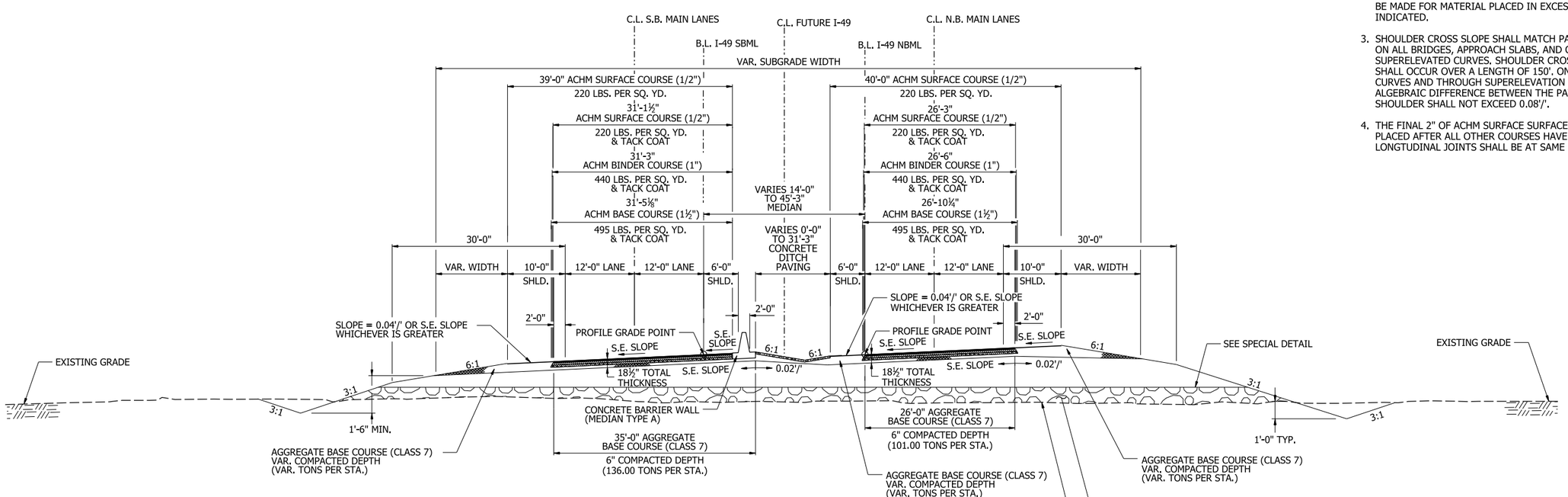
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024



PROPOSED FUTURE I-49 WITH DITCH PAVING MEDIAN
TYPICAL SUPERELEVATION SECTION
CONCRETE ALTERNATE

C.L. I-49 STA. 150+84.38 TO STA. 160+52.00

*MEDIAN VARIES 45'-3" TO 14'-0" FROM STA. 150+84.40 TO STA. 159+08.29
MEDIAN 14'-0" FROM STA. 159+08.29 TO STA. 160+52.00



PROPOSED FUTURE I-49 WITH DITCH PAVING MEDIAN
TYPICAL SUPERELEVATION SECTION
ASPHALT ALTERNATE

C.L. I-49 STA. 150+84.38 TO STA. 160+52.00

*MEDIAN VARIES 45'-3" TO 14'-0" FROM STA. 150+84.29 TO STA. 159+08.29
MEDIAN 14'-0" FROM STA. 159+08.29 TO STA. 160+52.00

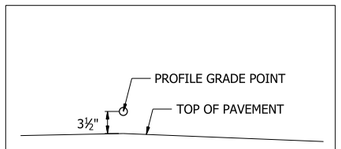
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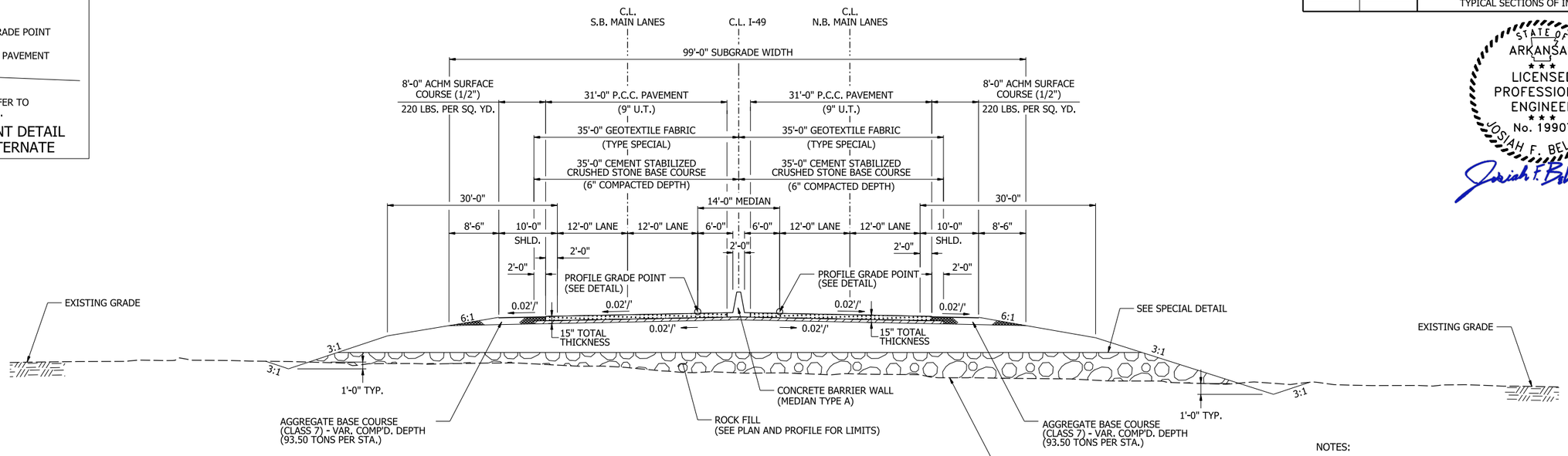
TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	12	809
		TYPICAL SECTIONS OF IMPROVEMENT				



NOTE: 3½" VARIES. REFER TO SPECIAL DETAILS.

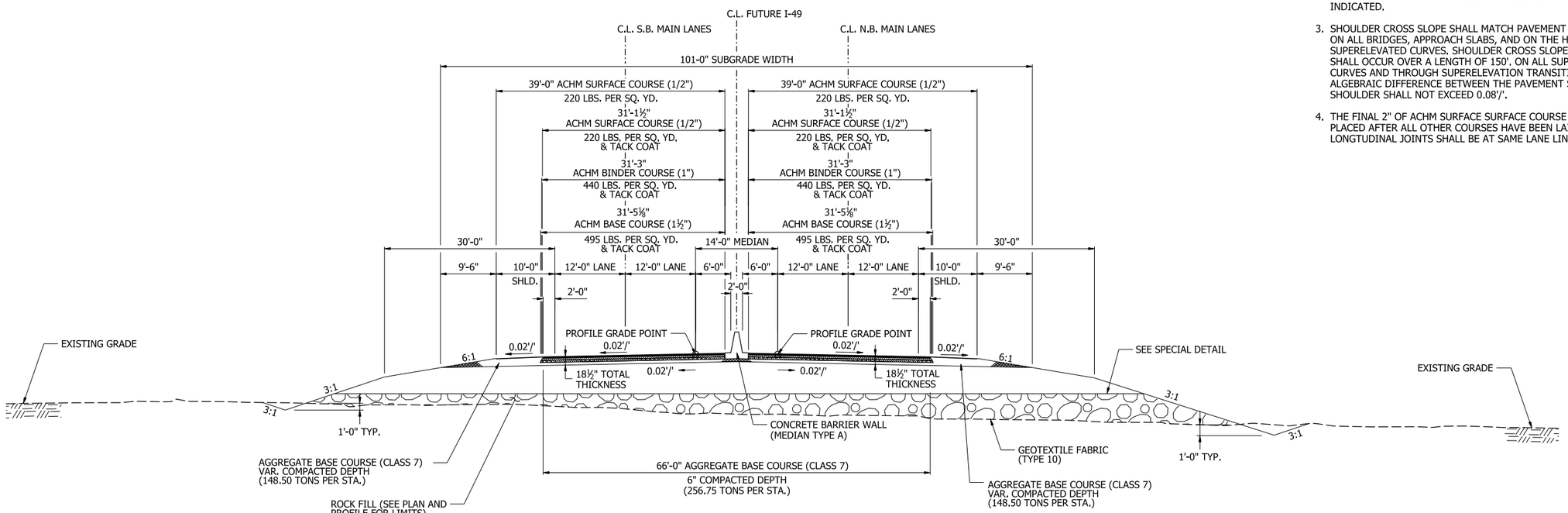
PROFILE GRADE POINT DETAIL FOR CONCRETE ALTERNATE



NOTE:
APROACH SLAB C.L. I-49 STA. 163+36.92 TO STA. 163+71.92
SEE SECTION OF APPROACH SLAB SPECIAL DETAIL

PROPOSED FUTURE I-49 WITH MEDIAN BARRIER WALL TYPICAL TANGENT SECTION CONCRETE ALTERNATE

C.L. I-49 STA. 160+52.00 TO STA. 163+36.92



NOTE:
APROACH SLAB C.L. I-49 STA. 163+36.92 TO STA. 163+71.92
SEE SECTION OF APPROACH SLAB SPECIAL DETAIL

PROPOSED FUTURE I-49 WITH MEDIAN BARRIER WALL TYPICAL TANGENT SECTION ASPHALT ALTERNATE

C.L. I-49 STA. 160+52.00 TO STA. 163+36.92

NOTES:

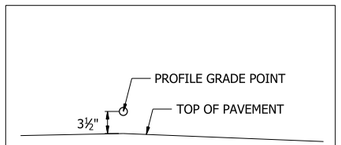
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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
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5/17/2024

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TYPICAL SECTIONS OF IMPROVEMENT

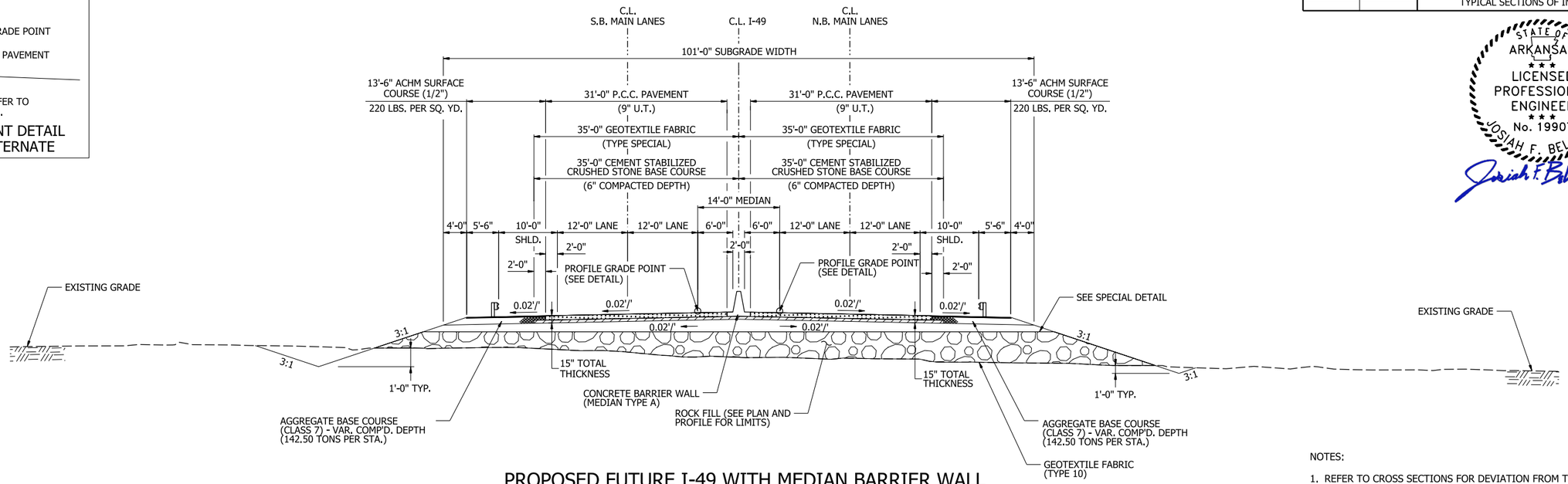
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	13	809
		TYPICAL SECTIONS OF IMPROVEMENT				



NOTE: 3½" VARIES. REFER TO SPECIAL DETAILS.

PROFILE GRADE POINT DETAIL FOR CONCRETE ALTERNATE

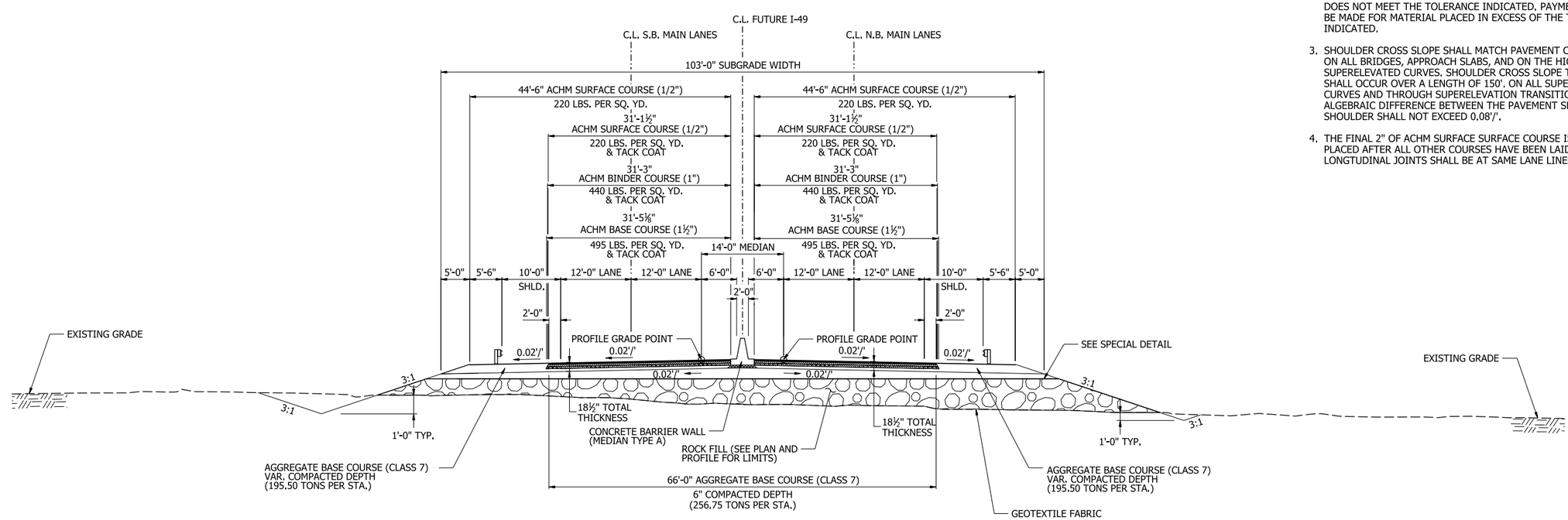
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024



NOTE:
APROACH SLAB C.L. I-49 STA. 216+04.08 TO STA. 216+39.08
APROACH SLAB C.L. I-49 STA. 240+36.92 TO STA. 240+71.92
SEE SECTION OF APPROACH SLAB SPECIAL DETAIL

PROPOSED FUTURE I-49 WITH MEDIAN BARRIER WALL TYPICAL TANGENT SECTION CONCRETE ALTERNATE

C.L. I-49 STA. 216+39.08 TO STA. 240+36.92



NOTE:
APROACH SLAB C.L. I-49 STA. 216+04.08 TO STA. 216+39.08
APROACH SLAB C.L. I-49 STA. 240+36.92 TO STA. 240+71.92
SEE SECTION OF APPROACH SLAB SPECIAL DETAIL

PROPOSED FUTURE I-49 WITH MEDIAN BARRIER WALL TYPICAL TANGENT SECTION ASPHALT ALTERNATE

C.L. I-49 STA. 216+39.08 TO STA. 240+36.92

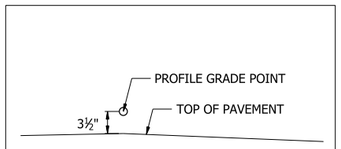
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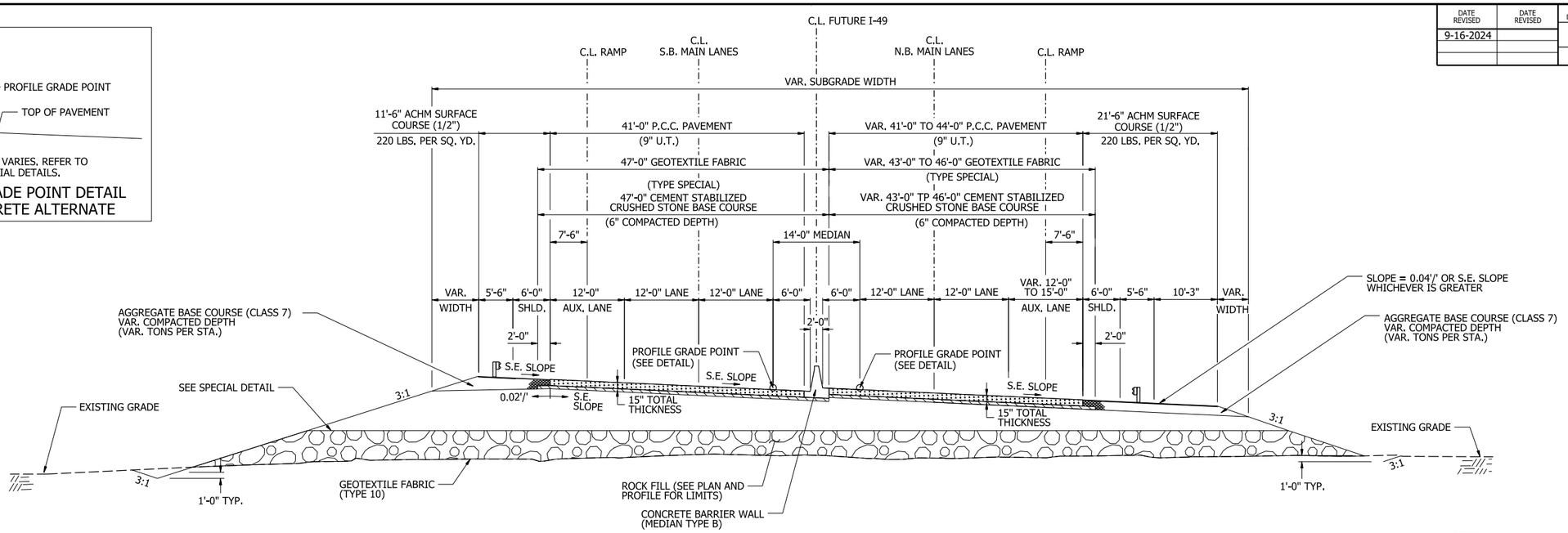
TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	14	809
		TYPICAL SECTIONS OF IMPROVEMENT				



NOTE: 3½" VARIES. REFER TO SPECIAL DETAILS.

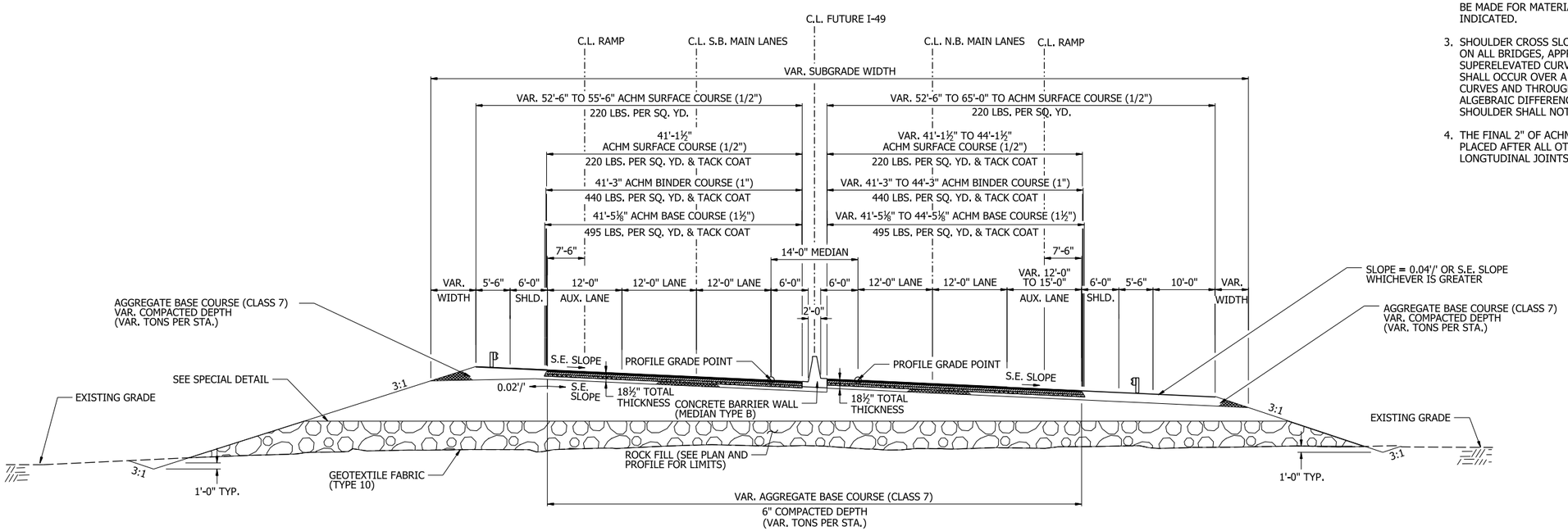
PROFILE GRADE POINT DETAIL FOR CONCRETE ALTERNATE



PROPOSED FUTURE I-49 WITH MEDIAN BARRIER WALL AND AUXILIARY LANE
TYPICAL SUPERELEVATION SECTION
CONCRETE ALTERNATE

C.L. I-49 STA. 259+29.08 TO STA. 260+00.93

NOTE:
APROACH SLAB C.L. I-49 STA. 258+94.08 TO STA. 259+29.08
SEE SECTION OF APPROACH SLAB SPECIAL DETAIL



PROPOSED FUTURE I-49 WITH MEDIAN BARRIER WALL AND AUXILIARY LANE
TYPICAL SUPERELEVATION SECTION
ASPHALT ALTERNATE

C.L. I-49 STA. 259+29.08 TO STA. 260+00.93

NOTE:
APROACH SLAB C.L. I-49 STA. 258+94.08 TO STA. 259+29.08
SEE SECTION OF APPROACH SLAB SPECIAL DETAIL

NOTES:

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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

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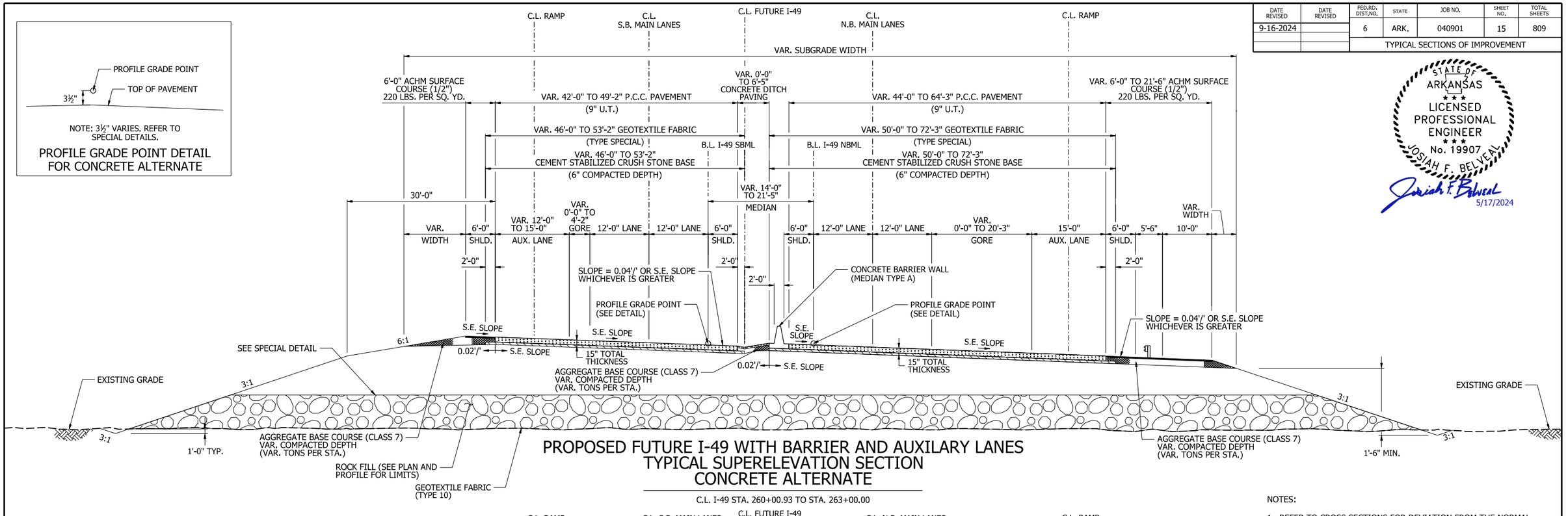
TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	15	809
		TYPICAL SECTIONS OF IMPROVEMENT				

NOTE: 3½" VARIES. REFER TO SPECIAL DETAILS.

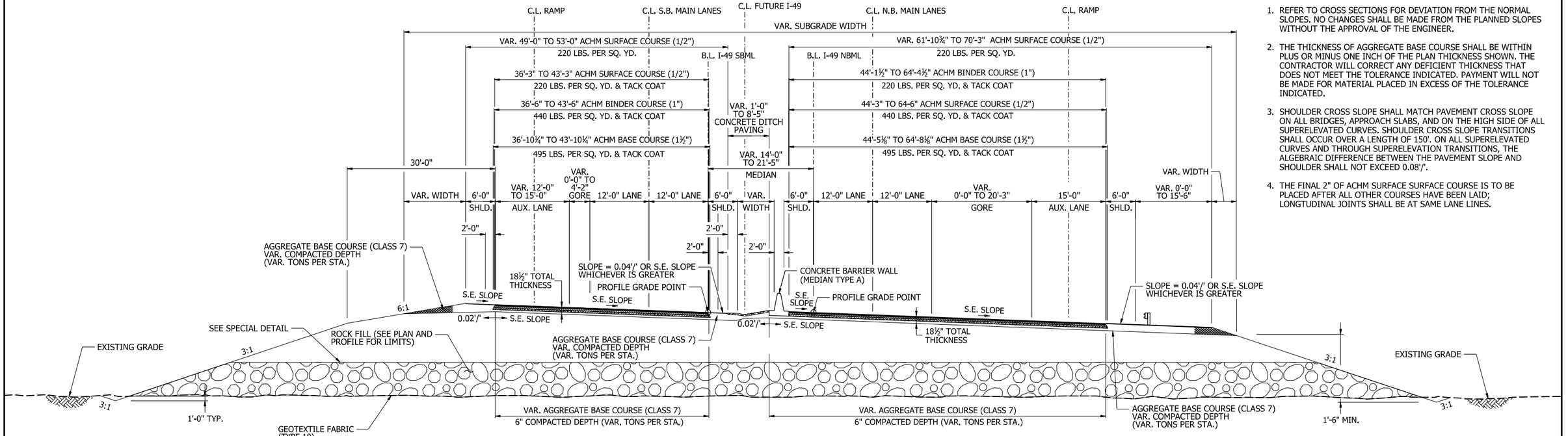
PROFILE GRADE POINT DETAIL FOR CONCRETE ALTERNATE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024



PROPOSED FUTURE I-49 WITH BARRIER AND AUXILARY LANES TYPICAL SUPERELEVATION SECTION CONCRETE ALTERNATE

C.L. I-49 STA. 260+00.93 TO STA. 263+00.00



PROPOSED FUTURE I-49 WITH AUXILARY LANES AND BARRIER TYPICAL SUPERELEVATION SECTION ASPHALT ALTERNATE

C.L. I-49 STA. 260+00.93 TO STA. 263+00.00

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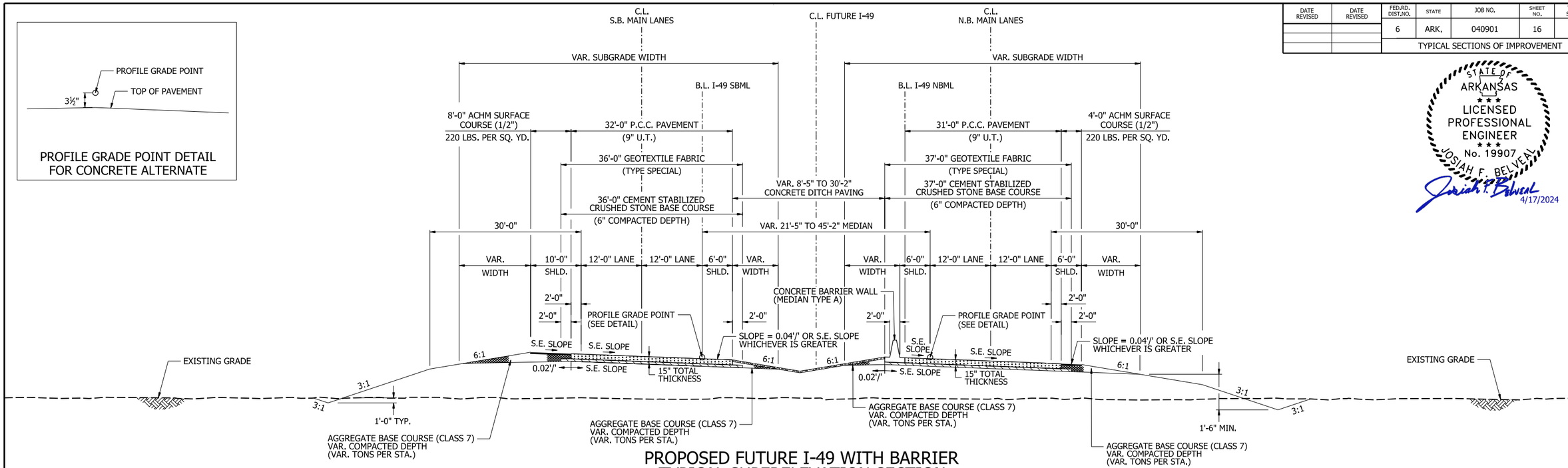
TYPICAL SECTIONS OF IMPROVEMENT

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		TYPICAL SECTIONS OF IMPROVEMENT				

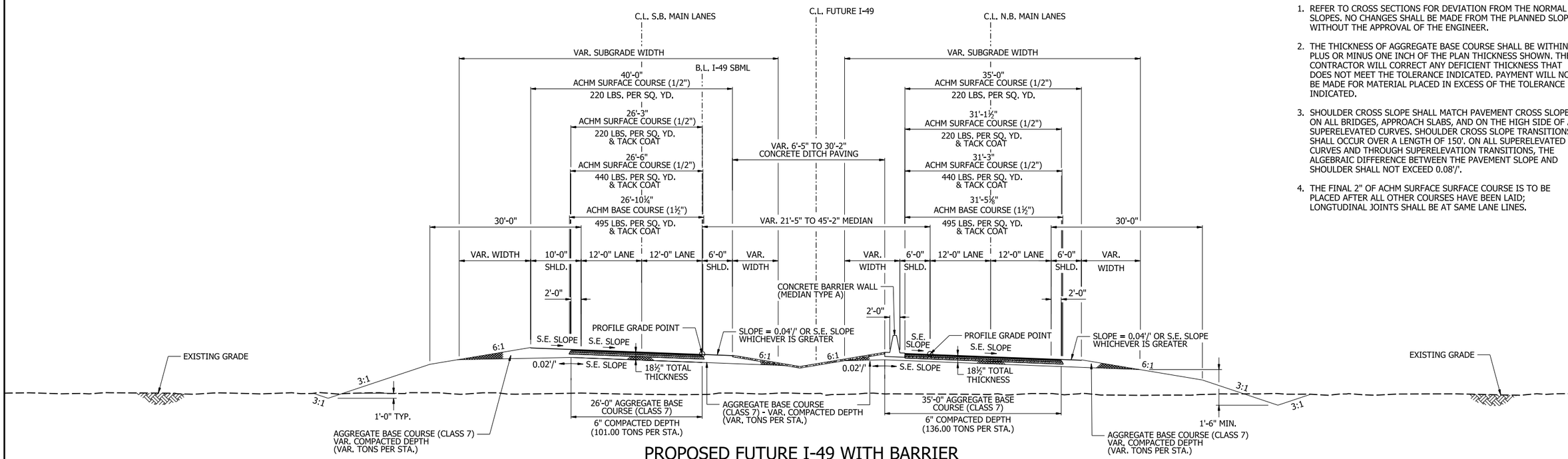
PROFILE GRADE POINT DETAIL
FOR CONCRETE ALTERNATE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024



PROPOSED FUTURE I-49 WITH BARRIER
TYPICAL SUPERELEVATION SECTION
CONCRETE ALTERNATE

C.L. I-49 STA. 263+00.00 TO STA. 269+00.00



PROPOSED FUTURE I-49 WITH BARRIER
TYPICAL SUPERELEVATION SECTION
ASPHALT ALTERNATE

C.L. I-49 STA. 263+00.00 TO STA. 269+00.00

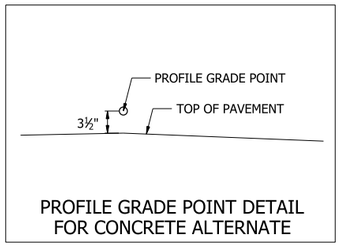
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TYPICAL SECTIONS OF IMPROVEMENT

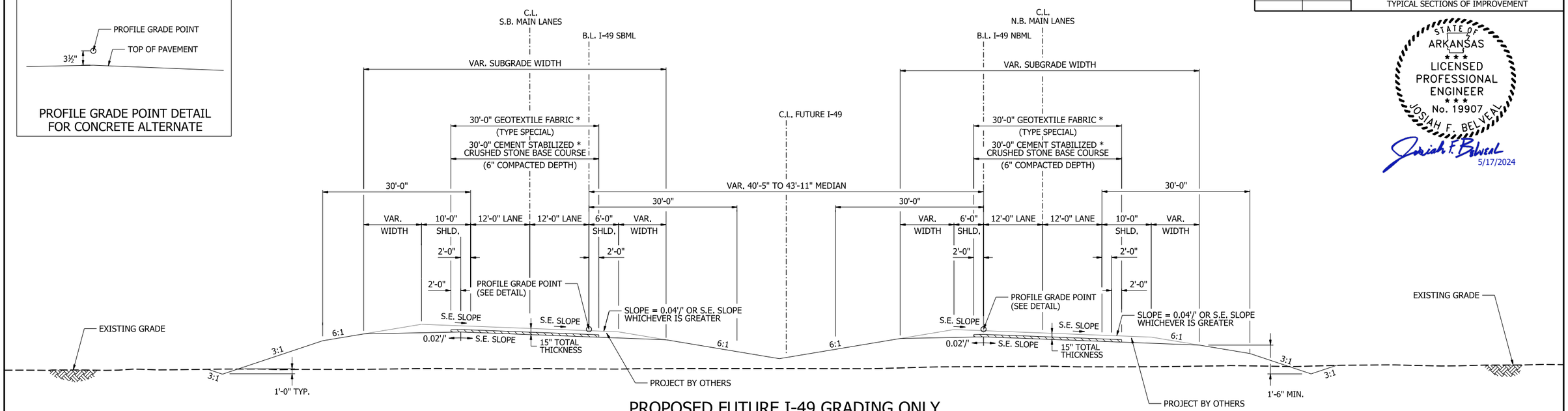
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9-16-2024		6	ARK.	040901	17	809
		TYPICAL SECTIONS OF IMPROVEMENT				



PROFILE GRADE POINT DETAIL
FOR CONCRETE ALTERNATE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024



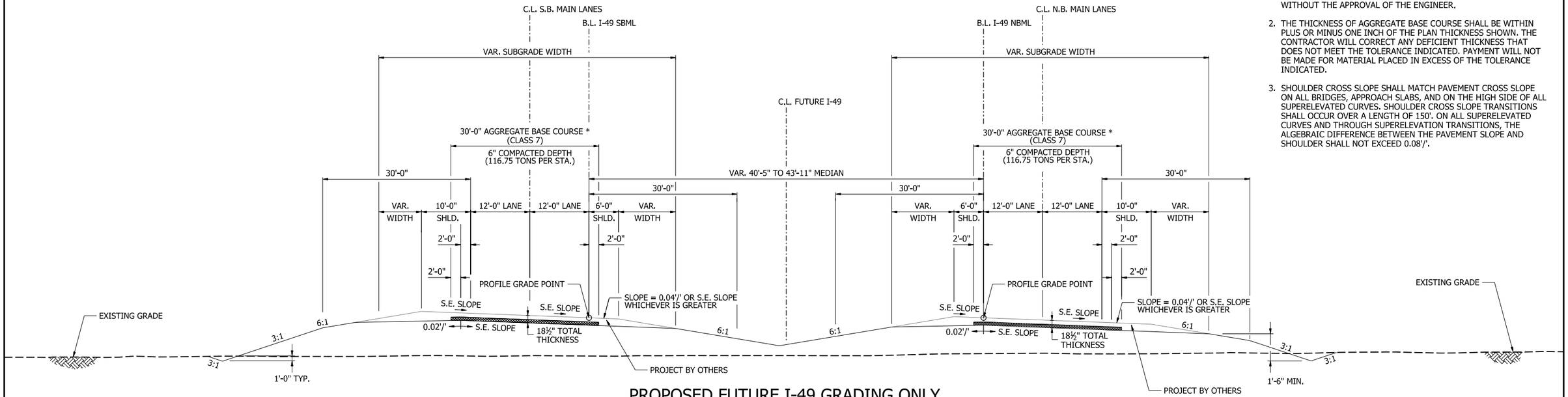
PROPOSED FUTURE I-49 GRADING ONLY
TYPICAL SUPERELEVATION SECTION
CONCRETE ALTERNATE

C.L. I-49 STA. 269+00.00 TO STA. 270+00.00

* REFER TO CONCRETE ALTERNATE TRANSITION AT END OF JOB SPECIAL DETAIL

NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
3. SHOULDER CROSS SLOPE SHALL MATCH PAVEMENT CROSS SLOPE ON ALL BRIDGES, APPROACH SLABS, AND ON THE HIGH SIDE OF ALL SUPERELEVATED CURVES. SHOULDER CROSS SLOPE TRANSITIONS SHALL OCCUR OVER A LENGTH OF 150'. ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT SLOPE AND SHOULDER SHALL NOT EXCEED 0.08'/'.



PROPOSED FUTURE I-49 GRADING ONLY
TYPICAL SUPERELEVATION SECTION
ASPHALT ALTERNATE

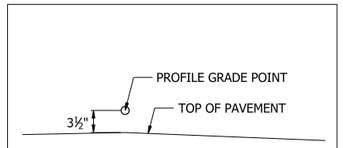
C.L. I-49 STA. 269+00.00 TO STA. 270+00.00

* REFER TO ASPHALT ALTERNATE TRANSITION AT END OF JOB SPECIAL DETAIL

TYPICAL SECTIONS OF IMPROVEMENT

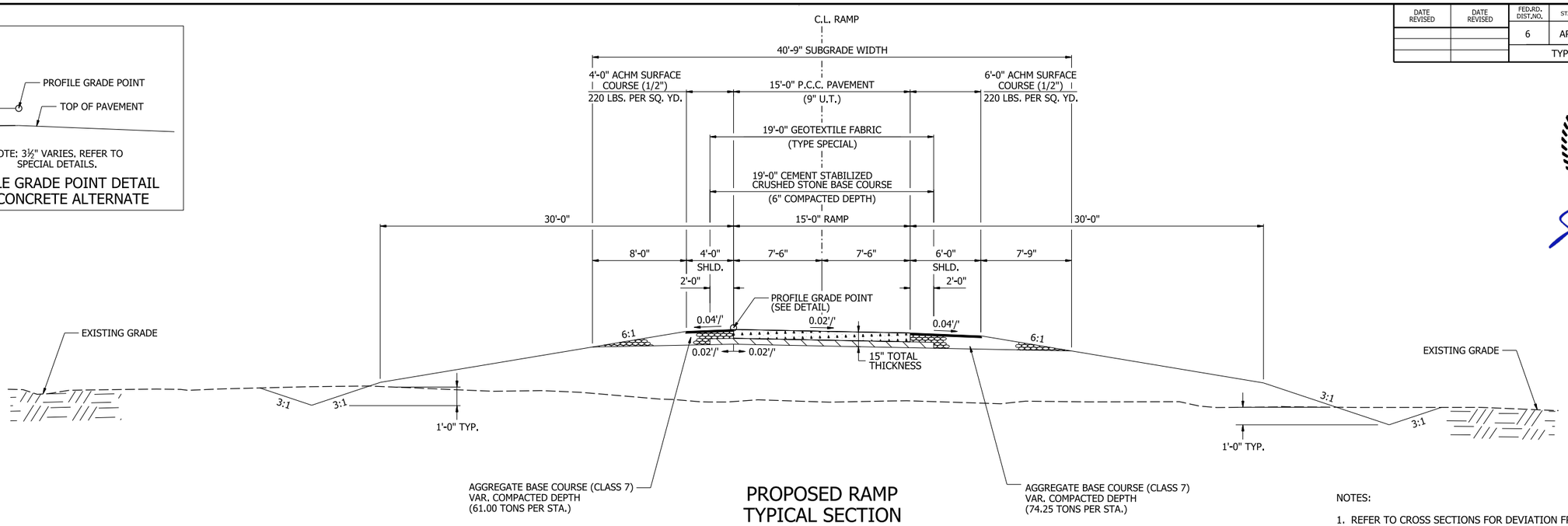
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	18	809
		TYPICAL SECTIONS OF IMPROVEMENT				



NOTE: 3½" VARIES. REFER TO SPECIAL DETAILS.

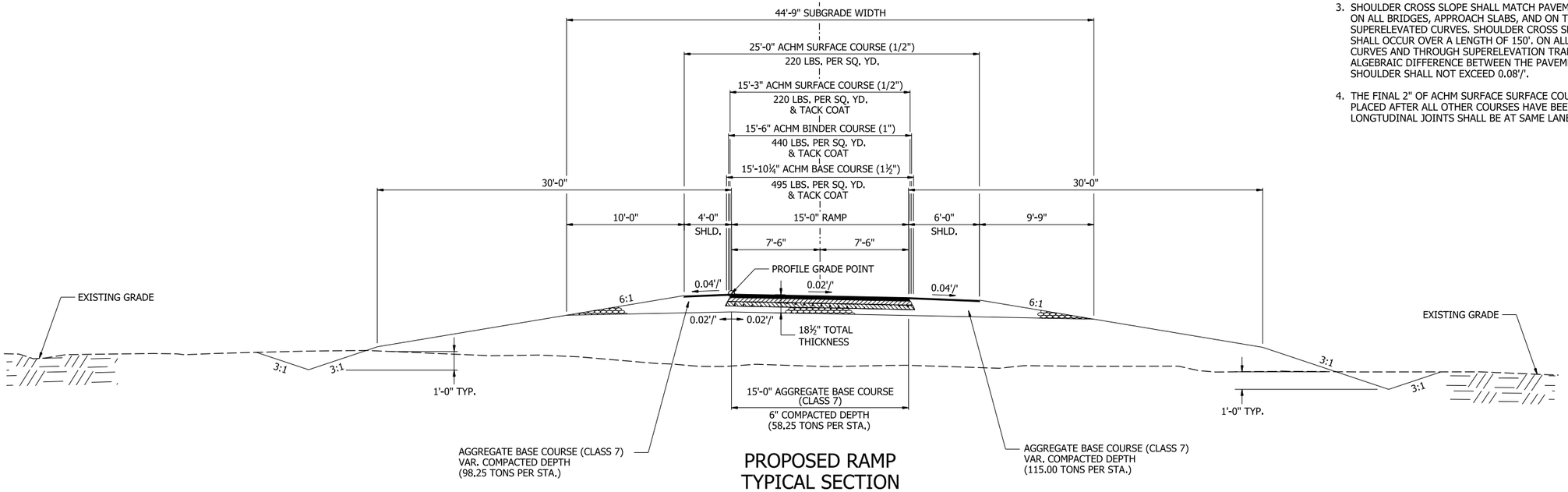
PROFILE GRADE POINT DETAIL FOR CONCRETE ALTERNATE



PROPOSED RAMP TYPICAL SECTION CONCRETE ALTERNATE

(SHOWN IN DIRECTION OF TRAFFIC)

C.L. HWY 22 RAMP 2 STA. 10+29.60 TO STA. 12+88.00
C.L. HWY 22 RAMP 3 STA. 25+42.00 TO STA. 28+82.00
C.L. GC RAMP 4 STA. 13+98.24 TO STA. 16+66.00



PROPOSED RAMP TYPICAL SECTION ASPHALT ALTERNATE

(SHOWN IN DIRECTION OF TRAFFIC)

C.L. HWY 22 RAMP 2 STA. 10+29.60 TO STA. 12+88.00
C.L. HWY 22 RAMP 3 STA. 25+42.00 TO STA. 28+82.00
C.L. GC RAMP 4 STA. 13+98.24 TO STA. 16+66.00

NOTES:

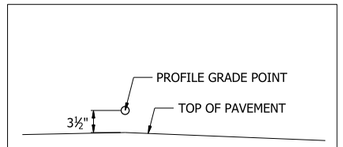
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4. THE FINAL 2" OF ACHM SURFACE SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID; LONGTUDINAL JOINTS SHALL BE AT SAME LANE LINES.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

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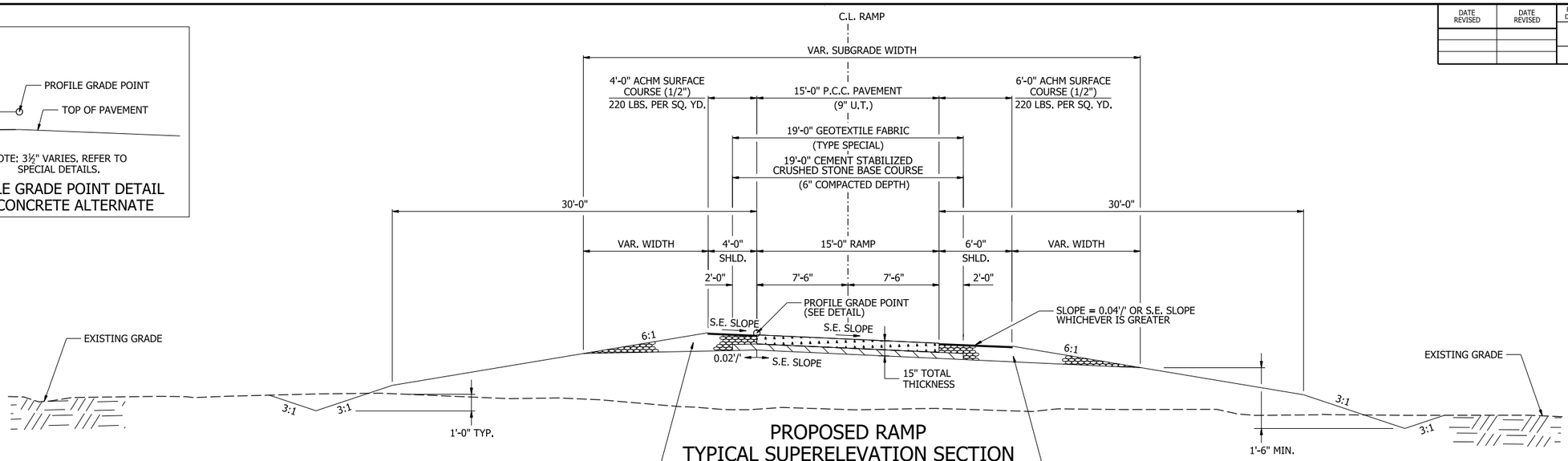
TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	19	809
		TYPICAL SECTIONS OF IMPROVEMENT				



NOTE: 3½" VARIES, REFER TO SPECIAL DETAILS.

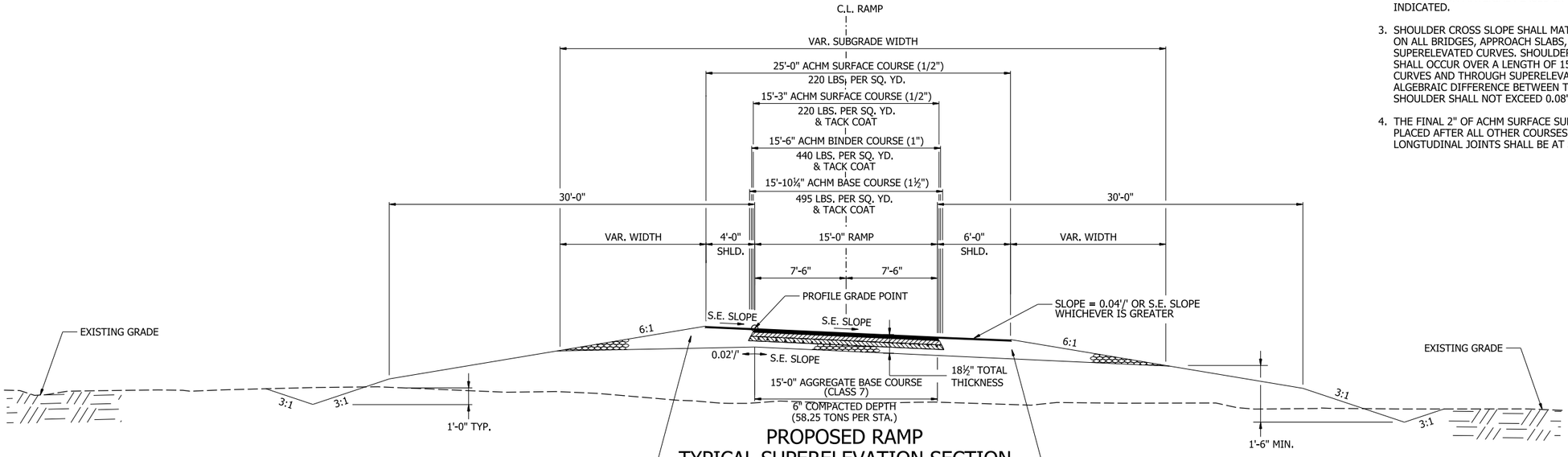
PROFILE GRADE POINT DETAIL FOR CONCRETE ALTERNATE



PROPOSED RAMP TYPICAL SUPERELEVATION SECTION CONCRETE ALTERNATE

(SHOWN IN DIRECTION OF TRAFFIC)

C.L. HWY 22 RAMP 2 STA. 12+88.00 TO STA. 33+29.15
C.L. HWY 22 RAMP 3 STA. 16+53.80 TO STA. 25+42.00
C.L. HWY 22 RAMP 3 STA. 28+82.00 TO STA. 38+44.85
C.L. GC RAMP 1 STA. 14+16.07 TO STA. 27+97.58
C.L. GC RAMP 2 STA. 19+51.45 TO STA. 20+00.00
C.L. GC RAMP 3 STA. 21+44.75 TO STA. 24+00.00
C.L. GC RAMP 4 STA. 16+66.00 TO STA. 27+47.43



PROPOSED RAMP TYPICAL SUPERELEVATION SECTION ASPHALT ALTERNATE

(SHOWN IN DIRECTION OF TRAFFIC)

C.L. HWY 22 RAMP 2 STA. 12+88.00 TO STA. 33+29.15
C.L. HWY 22 RAMP 3 STA. 16+53.80 TO STA. 25+42.00
C.L. HWY 22 RAMP 3 STA. 28+82.00 TO STA. 38+44.85
C.L. GC RAMP 1 STA. 14+16.07 TO STA. 27+97.58
C.L. GC RAMP 2 STA. 19+51.45 TO STA. 20+00.00
C.L. GC RAMP 3 STA. 21+44.75 TO STA. 24+00.00
C.L. GC RAMP 4 STA. 16+66.00 TO STA. 27+47.43

NOTES:

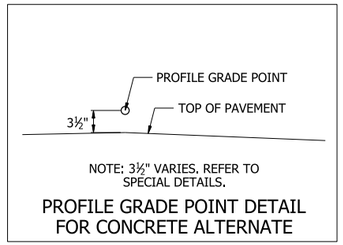
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STATE OF ARKANSAS
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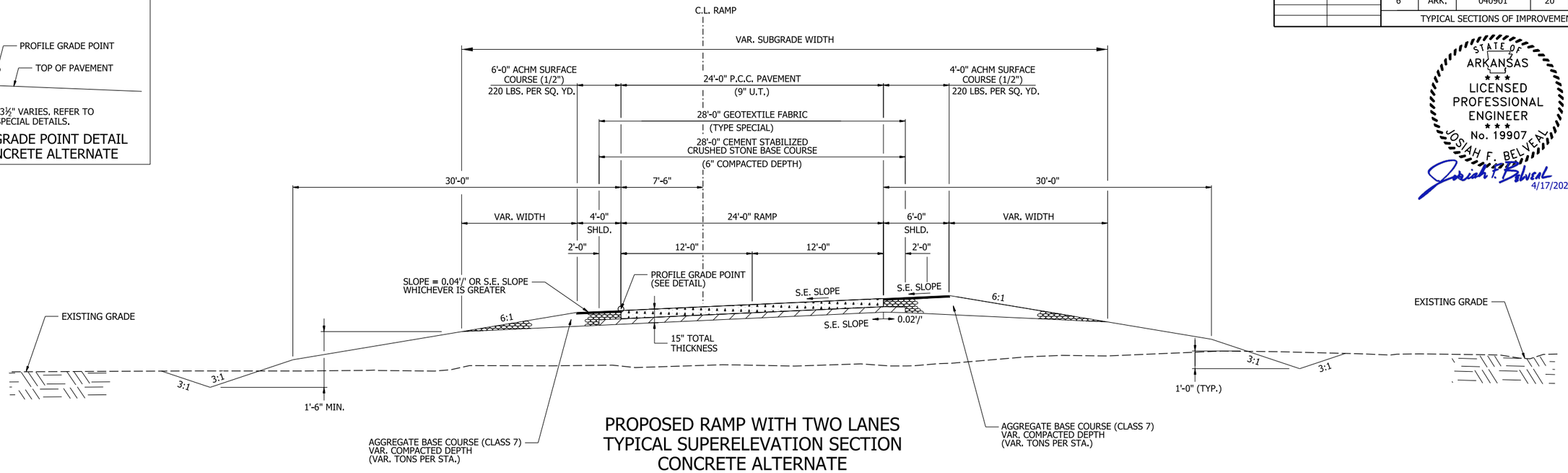
TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	20	809
		TYPICAL SECTIONS OF IMPROVEMENT				



NOTE: 3½" VARIES, REFER TO SPECIAL DETAILS.

PROFILE GRADE POINT DETAIL FOR CONCRETE ALTERNATE



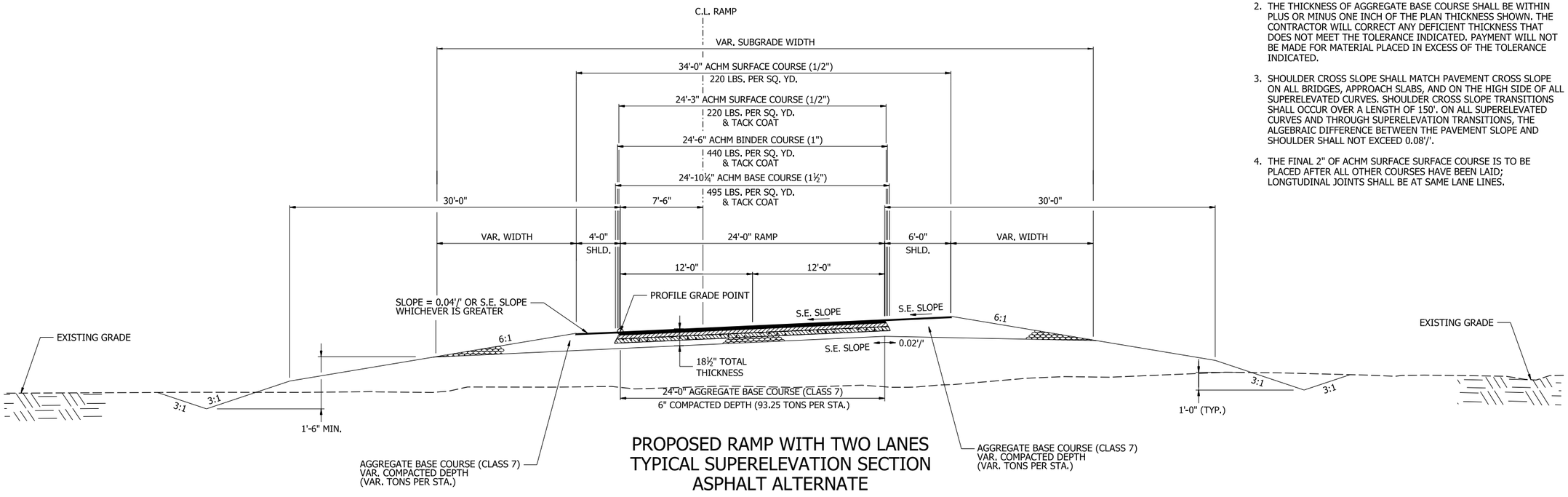
PROPOSED RAMP WITH TWO LANES TYPICAL SUPERELEVATION SECTION CONCRETE ALTERNATE

(SHOWN IN DIRECTION OF TRAFFIC)

C.L. HWY 22 RAMP 3 STA. 10+32.55 TO STA. 13+53.80

NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
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PROPOSED RAMP WITH TWO LANES TYPICAL SUPERELEVATION SECTION ASPHALT ALTERNATE

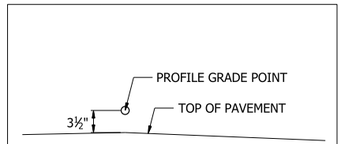
(SHOWN IN DIRECTION OF TRAFFIC)

C.L. HWY 22 RAMP 3 STA. 10+32.55 TO STA. 13+53.80

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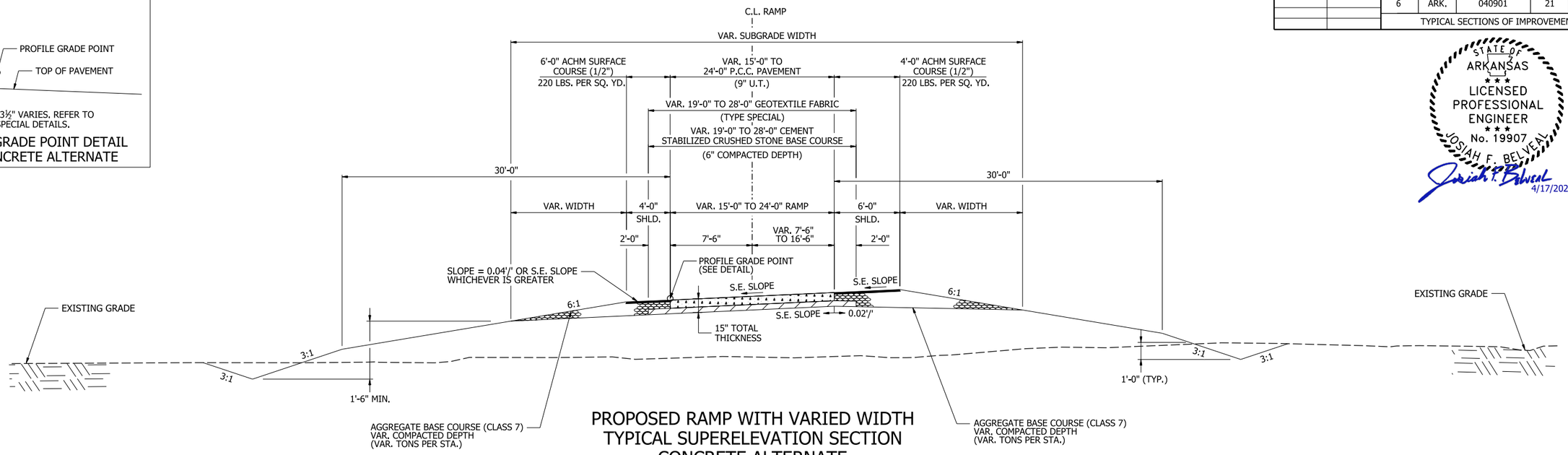
TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	21	809
		TYPICAL SECTIONS OF IMPROVEMENT				



NOTE: 3½" VARIES, REFER TO SPECIAL DETAILS.

PROFILE GRADE POINT DETAIL FOR CONCRETE ALTERNATE



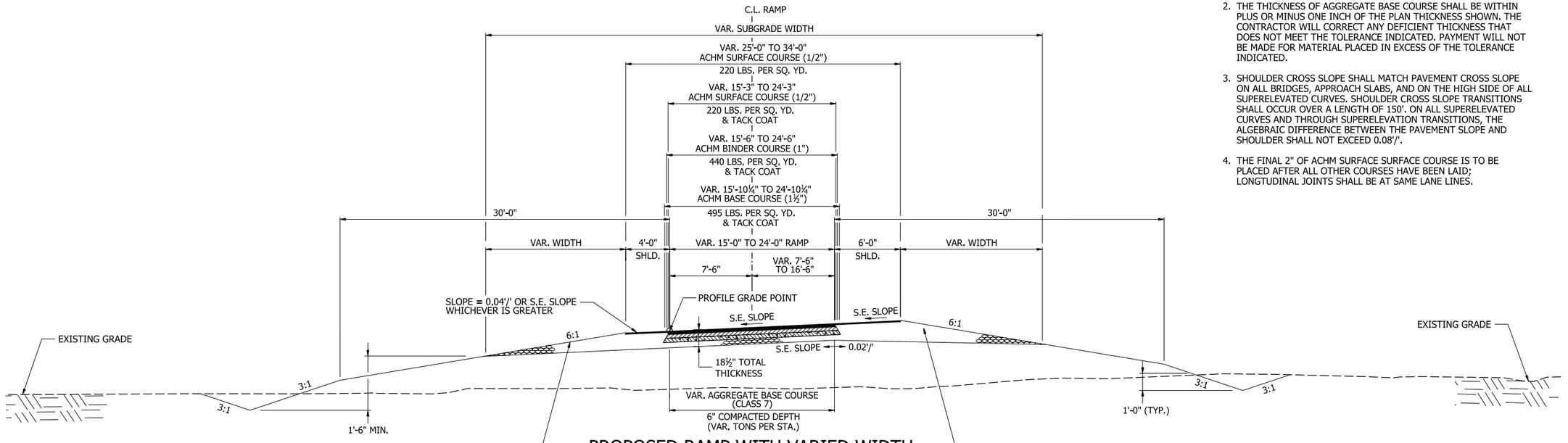
PROPOSED RAMP WITH VARIED WIDTH TYPICAL SUPERELEVATION SECTION CONCRETE ALTERNATE

(SHOWN IN DIRECTION OF TRAFFIC)

C.L. HWY 22 RAMP 3 STA. 13+53.80 TO STA. 16+53.80

NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
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4. THE FINAL 2" OF ACHM SURFACE SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID; LONGTUDINAL JOINTS SHALL BE AT SAME LANE LINES.



PROPOSED RAMP WITH VARIED WIDTH TYPICAL SUPERELEVATION SECTION ASPHALT ALTERNATE

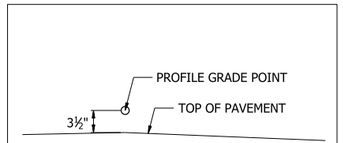
(SHOWN IN DIRECTION OF TRAFFIC)

C.L. HWY 22 RAMP 3 STA. 13+53.80 TO STA. 16+53.80

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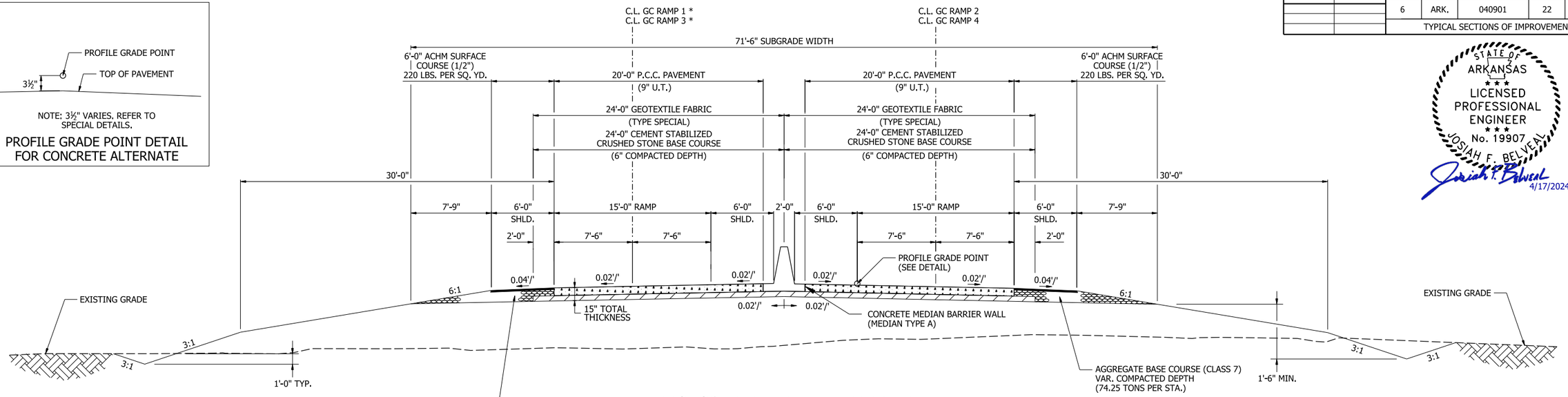
TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	22	809
		TYPICAL SECTIONS OF IMPROVEMENT				



NOTE: 3½" VARIES, REFER TO SPECIAL DETAILS.

PROFILE GRADE POINT DETAIL FOR CONCRETE ALTERNATE



PROPOSED RAMP WITH BARRIER
TYPICAL SECTION
CONCRETE ALTERNATE

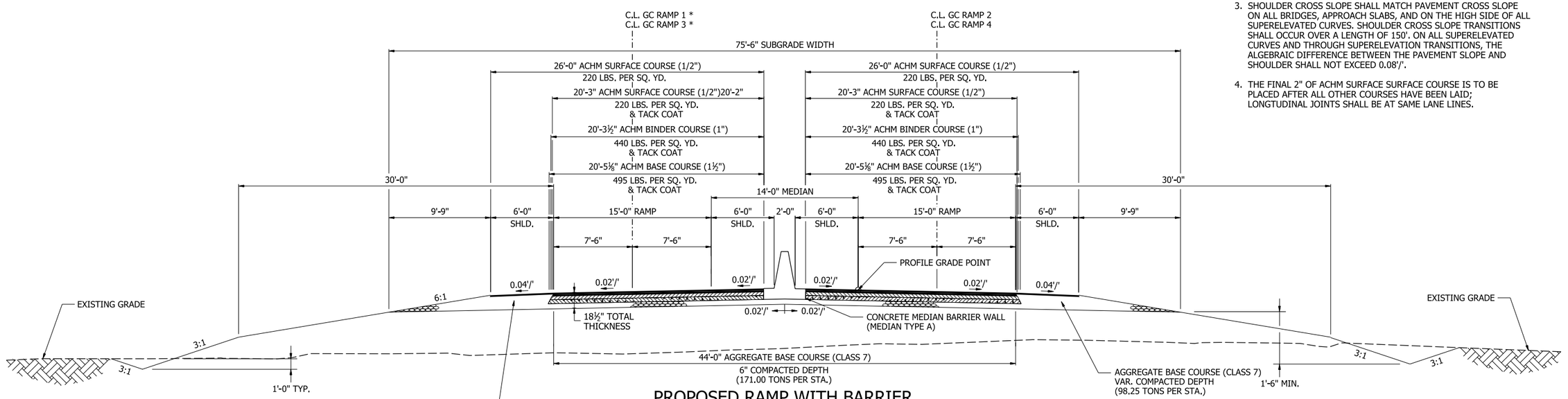
(SHOWN IN DIRECTION OF TRAFFIC FOR RAMPS 2 & 4)

C.L. GC RAMP 1 STA. 29+85.00 TO STA. 35+55.58
C.L. GC RAMP 2 STA. 10+12.00 TO STA. 15+65.00
C.L. GC RAMP 3 STA. 10+12.00 TO STA. 17+94.00
C.L. GC RAMP 4 STA. 30+73.00 TO STA. 38+73.80

*RAMPS 1 AND 3 ARE CONTROLLED VERTICALLY BY THE PROFILE GRADE LINES OF RAMPS 2 AND 4 RESPECTIVELY IN THIS STATION RANGE.

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PROPOSED RAMP WITH BARRIER
TYPICAL SECTION
ASPHALT ALTERNATE

(SHOWN IN DIRECTION OF TRAFFIC FOR RAMPS 2 & 4)

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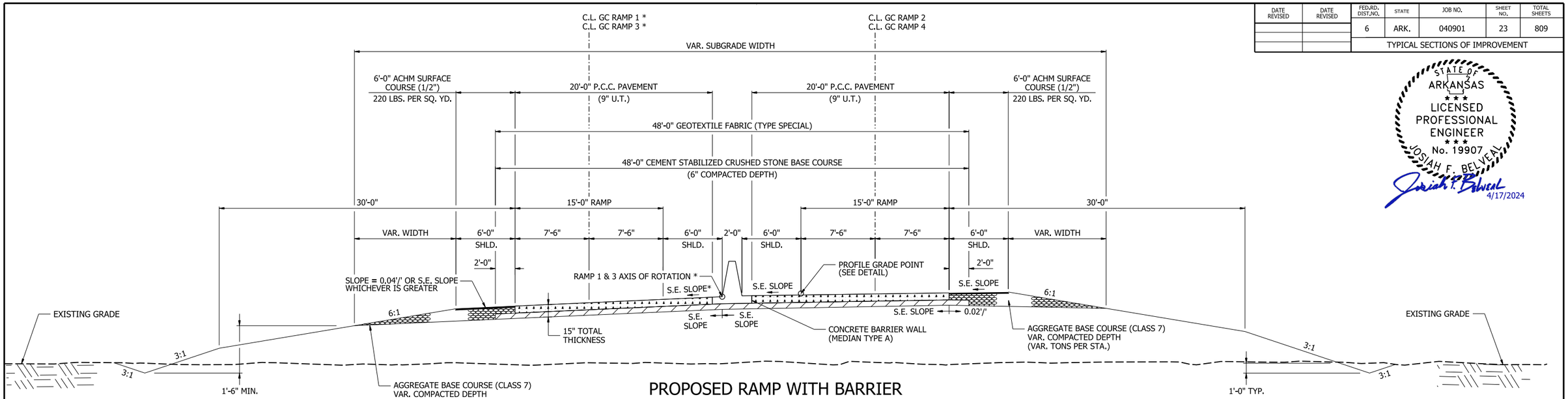
TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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JOSIAH F. BELVEAL
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4/17/2024

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	23	809
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024



PROPOSED RAMP WITH BARRIER TYPICAL SUPERELEVATION SECTION CONCRETE ALTERNATE

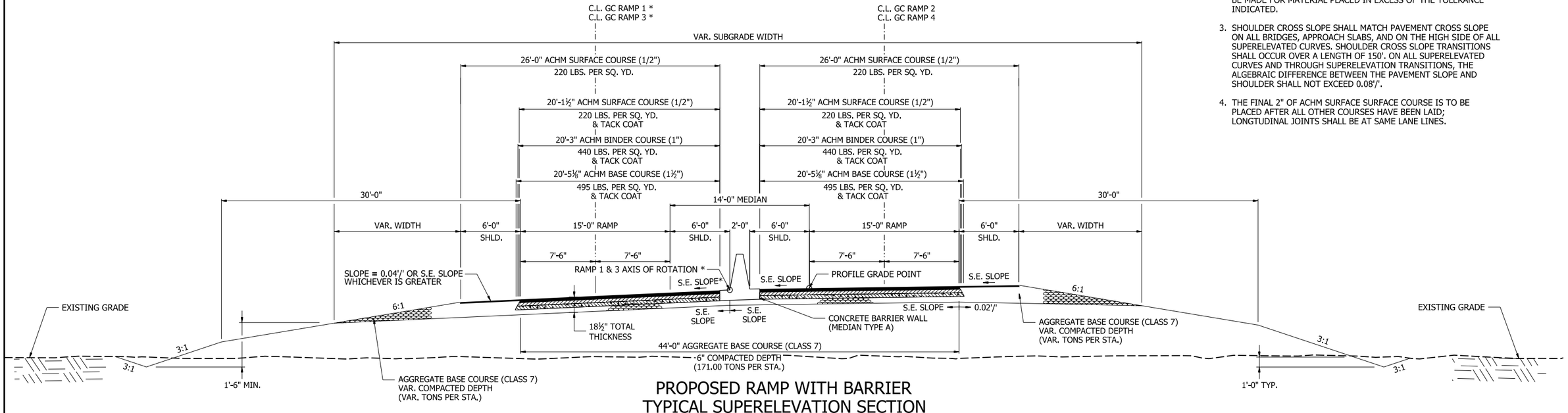
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C.L. GC RAMP 2 STA. 15+65.00 TO STA. 17+70.00
C.L. GC RAMP 3 STA. 17+94.00 TO STA. 20+00.00
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RAMP-SPECIFIC SUPERLEVEATION IS USED FOR EACH RAMP. REFER TO PLAN & PROFILE SHEETS AND CROSS SECTIONS FOR APPLICATION.

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PROPOSED RAMP WITH BARRIER TYPICAL SUPERELEVATION SECTION ASPHALT ALTERNATE

(SHOWN IN DIRECTION OF TRAFFIC FOR RAMPS 2 & 4)

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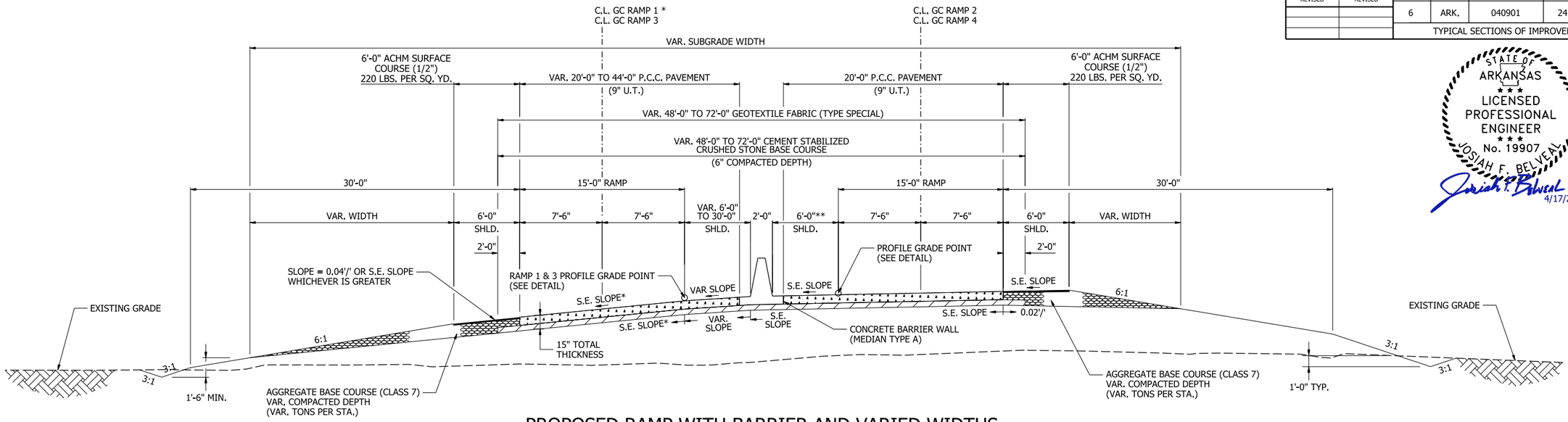
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TYPICAL SECTIONS OF IMPROVEMENT

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		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
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No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024



PROPOSED RAMP WITH BARRIER AND VARIED WIDTHS TYPICAL SUPERELEVATION SECTION CONCRETE ALTERNATE

(SHOWN IN DIRECTION OF TRAFFIC FOR RAMPS 2 & 4)

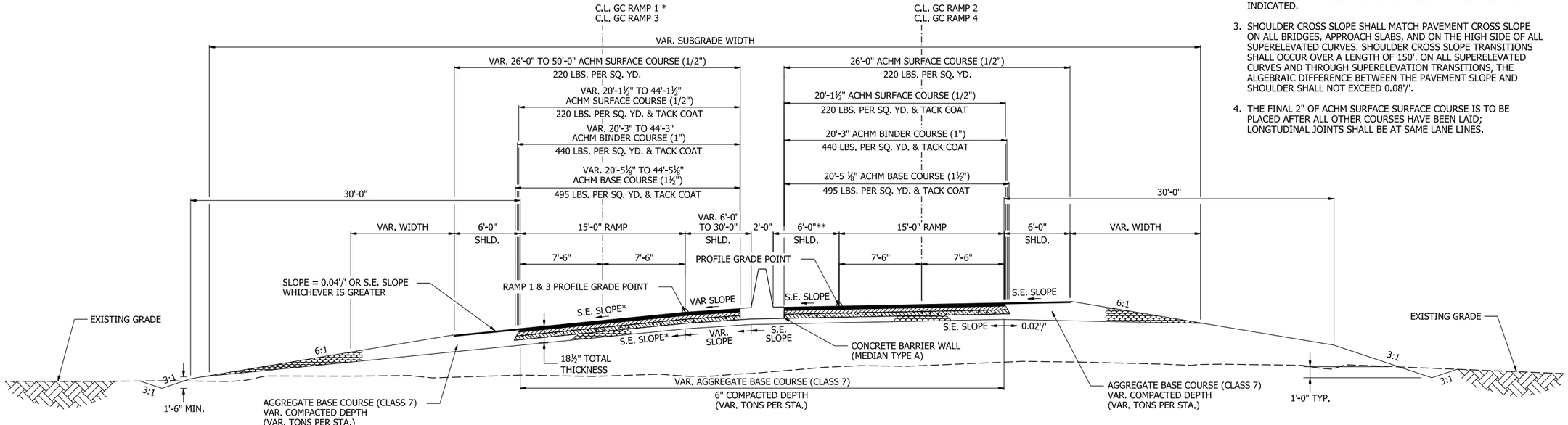
C.L. GC RAMP 1 STA. 26+29.97 TO STA. 27+97.58
C.L. GC RAMP 2 STA. 17+70.00 TO STA. 19+51.45
C.L. GC RAMP 3 STA. 20+00.00 TO STA. 21+44.75
C.L. GC RAMP 4 STA. 27+47.43 TO STA. 28+85.87

*RAMP-SPECIFIC SUPERLEVEATION IS USED FOR EACH RAMP. REFER TO PLAN & PROFILE SHEETS AND CROSS SECTIONS FOR APPLICATION.

**RAMP 2 SHOULDER VARIES FROM 6'-0" TO 8'-0" FROM STA. 17+89.62 TO STA. 19+51.45

NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
3. SHOULDER CROSS SLOPE SHALL MATCH PAVEMENT CROSS SLOPE ON ALL BRIDGES, APPROACH SLABS, AND ON THE HIGH SIDE OF ALL SUPERELEVATED CURVES. SHOULDER CROSS SLOPE TRANSITIONS SHALL OCCUR OVER A LENGTH OF 150'. ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT SLOPE AND SHOULDER SHALL NOT EXCEED 0.08'/'.
4. THE FINAL 2" OF ACHM SURFACE SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID; LONGTUDINAL JOINTS SHALL BE AT SAME LANE LINES.



PROPOSED RAMP WITH BARRIER AND VARIED WIDTHS TYPICAL SUPERELEVATION SECTION ASPHALT ALTERNATE

(SHOWN IN DIRECTION OF TRAFFIC FOR RAMPS 2 & 4)

*RAMP-SPECIFIC SUPERLEVEATION IS USED FOR EACH RAMP. REFER TO PLAN & PROFILE SHEETS AND CROSS SECTIONS FOR APPLICATION.

**RAMP 2 SHOULDER VARIES FROM 6'-0" TO 8'-0" FROM STA. 17+89.62 TO STA. 19+51.45

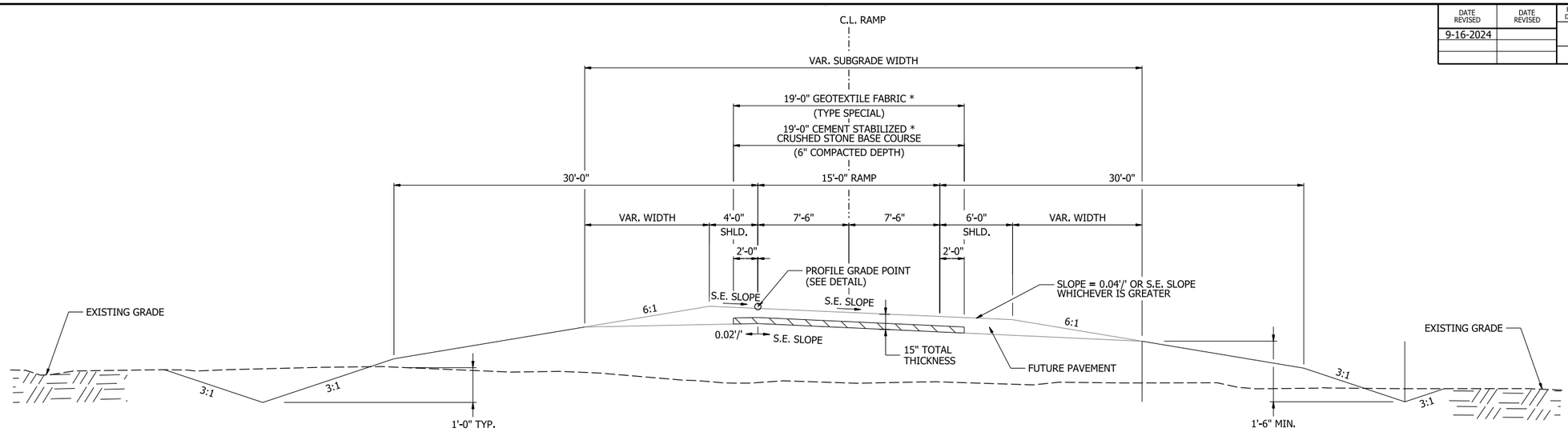
C.L. GC RAMP 1 STA. 26+29.97 TO STA. 27+97.58
C.L. GC RAMP 2 STA. 17+70.00 TO STA. 19+51.45
C.L. GC RAMP 3 STA. 20+00.00 TO STA. 21+44.75
C.L. GC RAMP 4 STA. 27+47.43 TO STA. 28+85.87

TYPICAL SECTIONS OF IMPROVEMENT

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	25	809
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024



PROPOSED RAMP GRADING ONLY
TYPICAL SUPERELEVATION SECTION
CONCRETE ALTERNATE

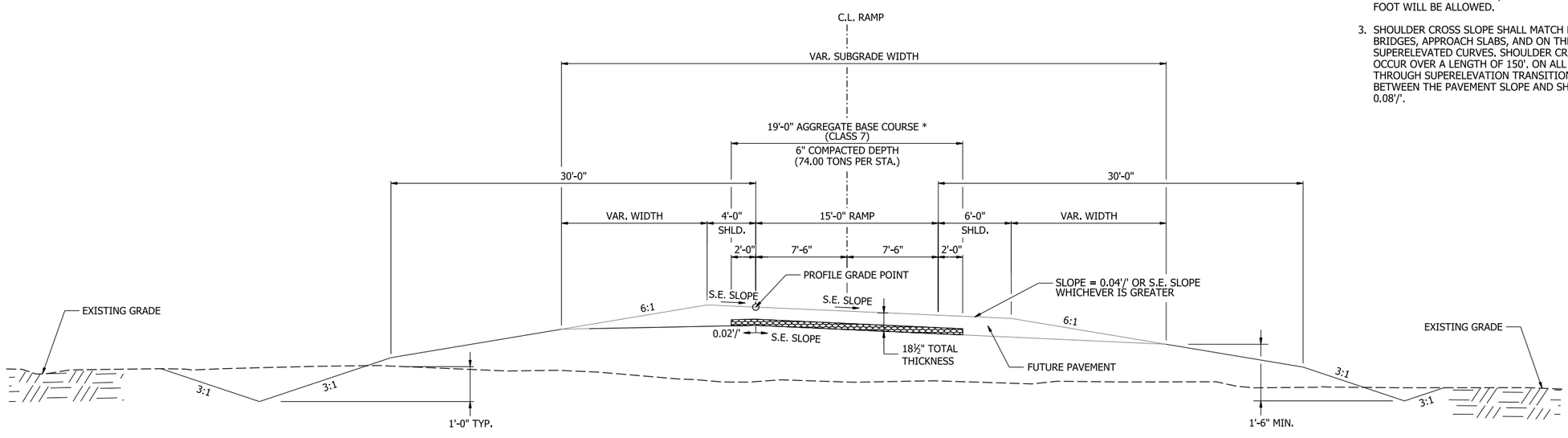
(SHOWN IN DIRECTION OF TRAFFIC)

C.L. GC RAMP 2 STA. 20+00.00 TO STA. 21+00.00
C.L. GC RAMP 3 STA. 24+00.00 TO STA. 25+00.00

* REFER TO CONCRETE ALTERNATE TRANSITION AT END OF JOB SPECIAL DETAIL

NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. IT IS INTENDED THAT THE SUBGRADE SHALL BE FINISHED IN CONFORMITY WITH THE LINES, GRADES, AND CROSS SECTIONS SHOWN ON THE PLANS. HOWEVER, A TOLERANCE OF PLUS OR MINUS ONE-TENTH FOOT WILL BE ALLOWED.
3. SHOULDER CROSS SLOPE SHALL MATCH PAVEMENT CROSS SLOPE ON ALL BRIDGES, APPROACH SLABS, AND ON THE HIGH SIDE OF ALL SUPERELEVATED CURVES. SHOULDER CROSS SLOPE TRANSITIONS SHALL OCCUR OVER A LENGTH OF 150', ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT SLOPE AND SHOULDER SHALL NOT EXCEED 0.08'/'.



PROPOSED RAMP GRADING ONLY
TYPICAL SUPERELEVATION SECTION
ASPHALT ALTERNATE

(SHOWN IN DIRECTION OF TRAFFIC)

C.L. GC RAMP 2 STA. 20+00.00 TO STA. 21+00.00
C.L. GC RAMP 3 STA. 24+00.00 TO STA. 25+00.00

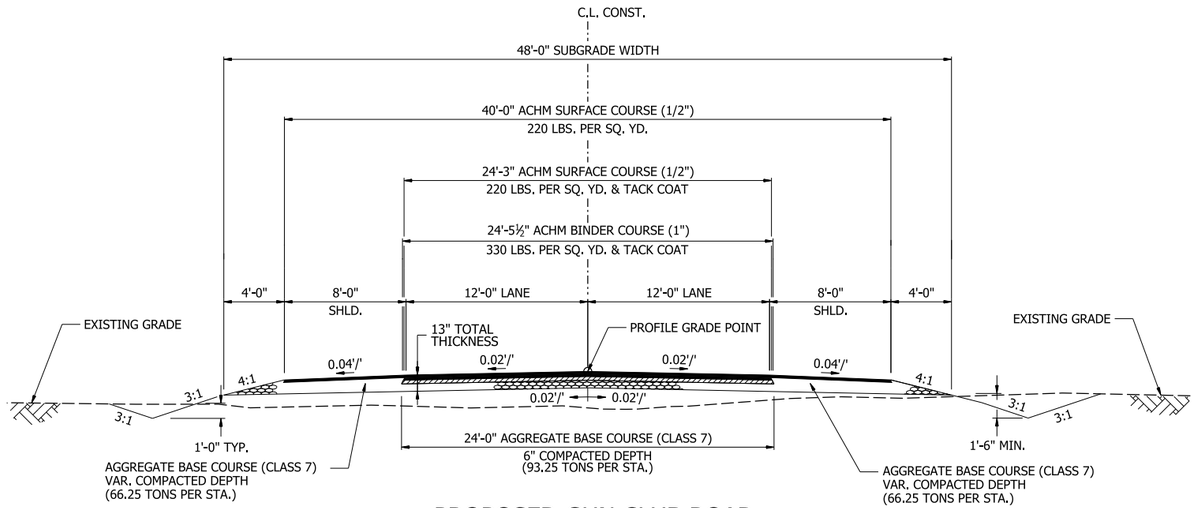
* REFER TO ASPHALT ALTERNATE TRANSITION AT END OF JOB SPECIAL DETAIL

TYPICAL SECTIONS OF IMPROVEMENT

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	26	809
		TYPICAL SECTIONS OF IMPROVEMENT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024

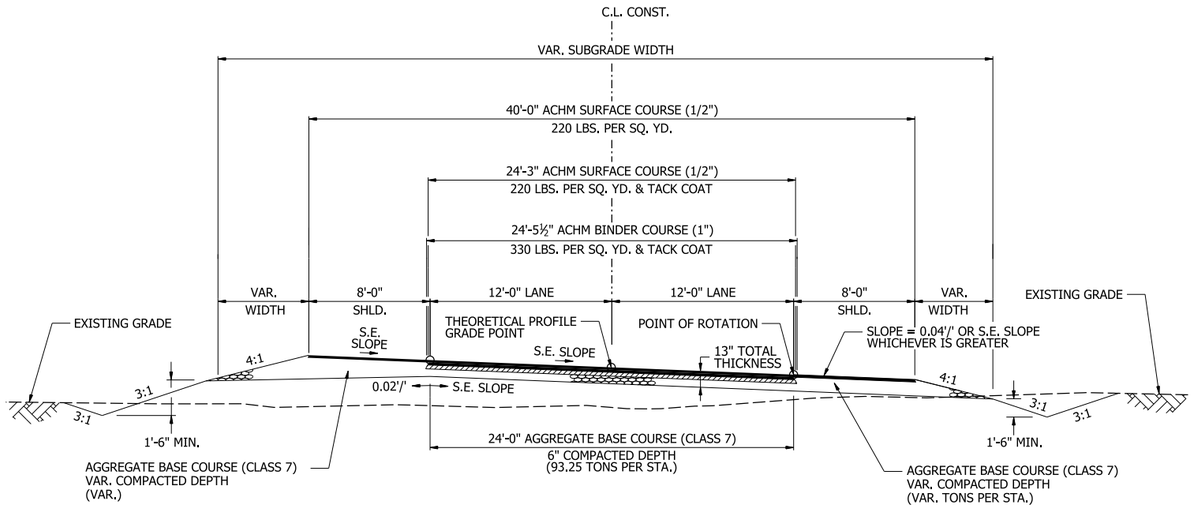


PROPOSED GUN CLUB ROAD
TYPICAL SECTION

C.L. GUN CLUB DR. STA. 10+24.43 TO STA 10+55.00
C.L. GUN CLUB DR. STA. 18+92.00 TO STA 82+05.51

NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
3. SHOULDER CROSS SLOPE SHALL MATCH PAVEMENT CROSS SLOPE ON ALL BRIDGES, APPROACH SLABS, AND ON THE HIGH SIDE OF ALL SUPERELEVATED CURVES. SHOULDER CROSS SLOPE TRANSITIONS SHALL OCCUR OVER A LENGTH OF 150'. ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT SLOPE AND SHOULDER SHALL NOT EXCEED 0.08'/'.
4. THE FINAL 2" OF ACHM SURFACE SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID; LONGTUDINAL JOINTS SHALL BE AT SAME LANE LINES.

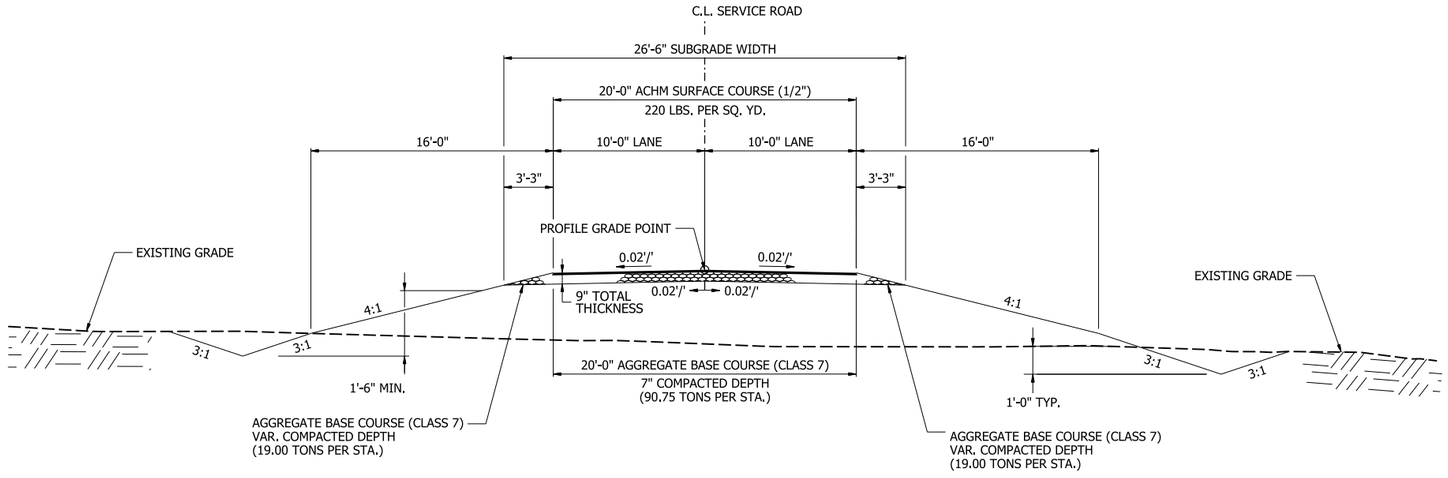


PROPOSED GUN CLUB ROAD
TYPICAL SUPERELEVATION SECTION

C.L. GUN CLUB DR. STA. 10+55.00 TO STA 18+92.00

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	27	809
		TYPICAL SECTIONS OF IMPROVEMENT				



PROPOSED LOCAL SERVICE ROAD
TYPICAL SECTION

C.L. SE SERVICE RD STA. 11+00.00 TO STA. 26+10.00
C.L. NW SERVICE RD STA. 11+00.00 TO STA. 24+05.00

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024

NOTES:

1. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

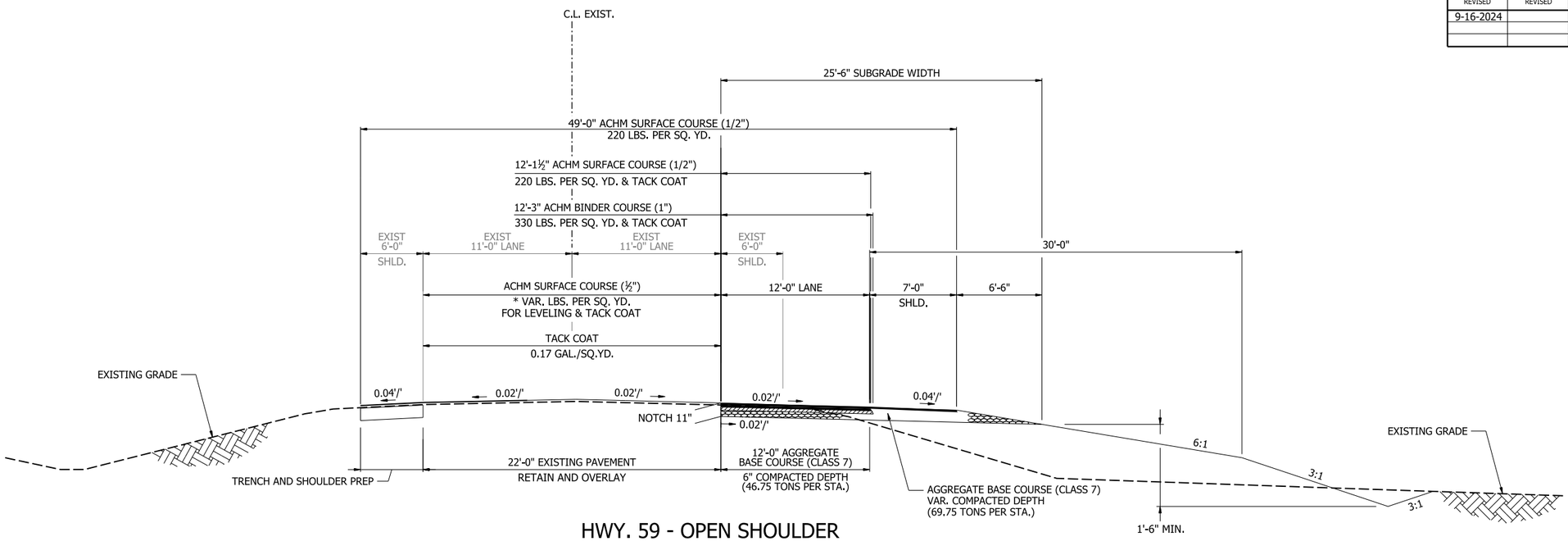
3. SHOULDER CROSS SLOPE SHALL MATCH PAVEMENT CROSS SLOPE ON ALL BRIDGES, APPROACH SLABS, AND ON THE HIGH SIDE OF ALL SUPERELEVATED CURVES. SHOULDER CROSS SLOPE TRANSITIONS SHALL OCCUR OVER A LENGTH OF 150'. ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08'/'.

4. THE FINAL 2" OF ACHM SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID; LONGITUDINAL JOINTS SHALL BE AT SAME LANE LINES.

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		TYPICAL SECTIONS OF IMPROVEMENT				

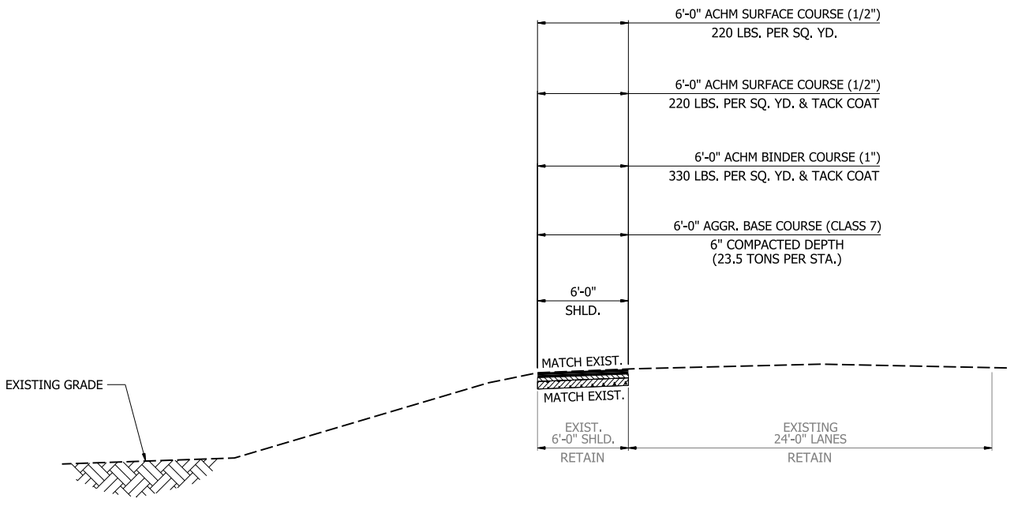
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024



HWY. 59 - OPEN SHOULDER TANGENT SECTION NOTCH AND WIDEN

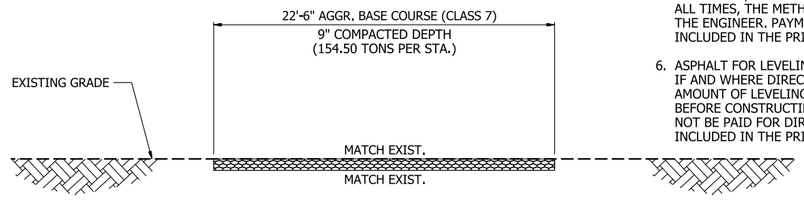
STA. 50+00.00 TO STA 70+60.00

* TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER



HWY. 59 - TRENCHING AND SHOULDER PREPARATION

HWY. 59 LT. STAGE 1 STA. 49+10.00 TO STA 72+33.00



EXIST. P. STREET. - RESTORATION

I-49 STA. 171+06.13 TO STA. 171+29.66, 64' RT.

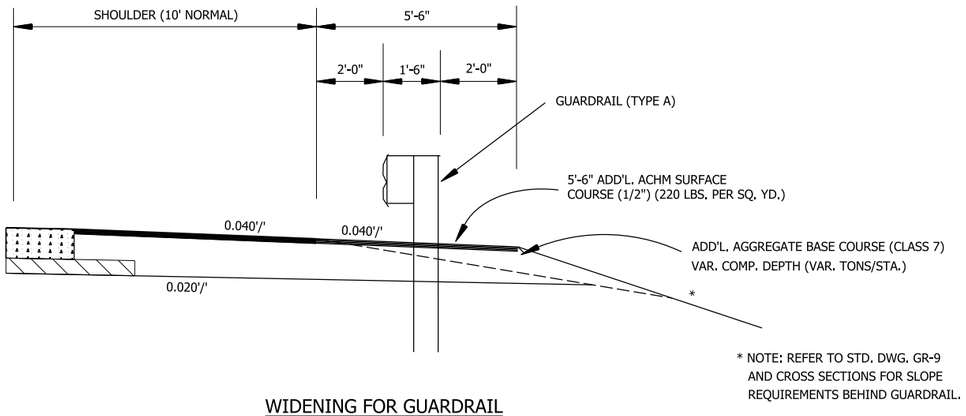
NOTES:

1. REFER TO STANDARD DRAWING DR-2 FOR MORE INFORMATION.
2. REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
3. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET THE TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIALPLACED IN EXCESS OF THE TOLERANCE INDICATED.
4. THE FINAL 2" OF ACHM SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID; LONGITUDINAL JOINTS SHALL BE AT THE SAME LANE LINES.
5. BLEEDER DITCHES- PRIOR TO AND DURING PLACEMENT OF PAVEMENT AT THE NOTCH, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES, THE METHOD(S) AND SPACING USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.
6. ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER, CALCULATIONS FOR THE AMOUNT OF LEVELING AND LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT PAYMENT SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS PAY ITEMS.

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TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	29	809
		SPECIAL DETAILS				

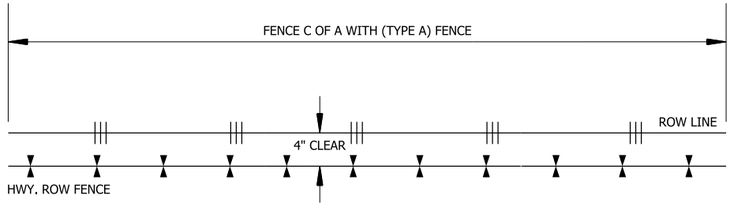


WIDENING FOR GUARDRAIL



6.0" Radius, 1.3" Border, Black on Orange;
"Job XXXXXX" C 2K; "Start Date Mo Year" C 2K;
"Est Completion Mo Year" C 2K; "IDRIVE " Arial;
" ARKANSAS.COM " Arial;

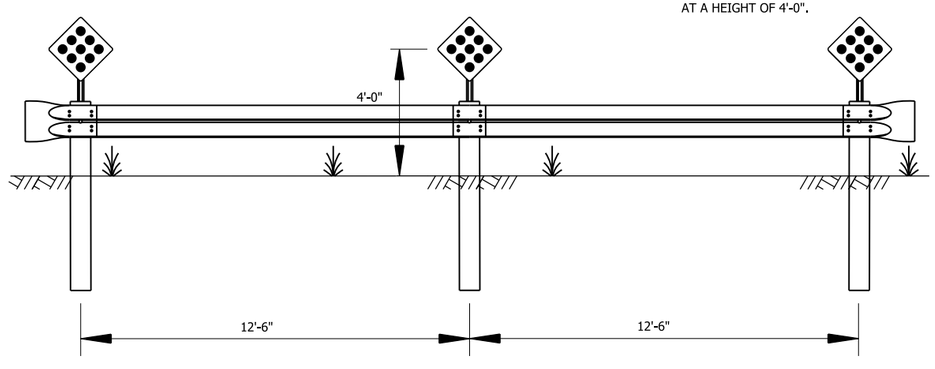
CONSTRUCTION PROJECT INFORMATION SIGN



DETAIL OF ROW FENCE

(NO SCALE)

CONSTRUCT
25 LIN. FT. TYPE "C" GUARDRAIL
WITH 3 RED DIAMOND REFLECTORS
MOUNTED ON U-CHANNEL POSTS
DIRECTLY BEHIND THE GUARDRAIL
AT A HEIGHT OF 4'-0".



ROAD CLOSED DETAIL

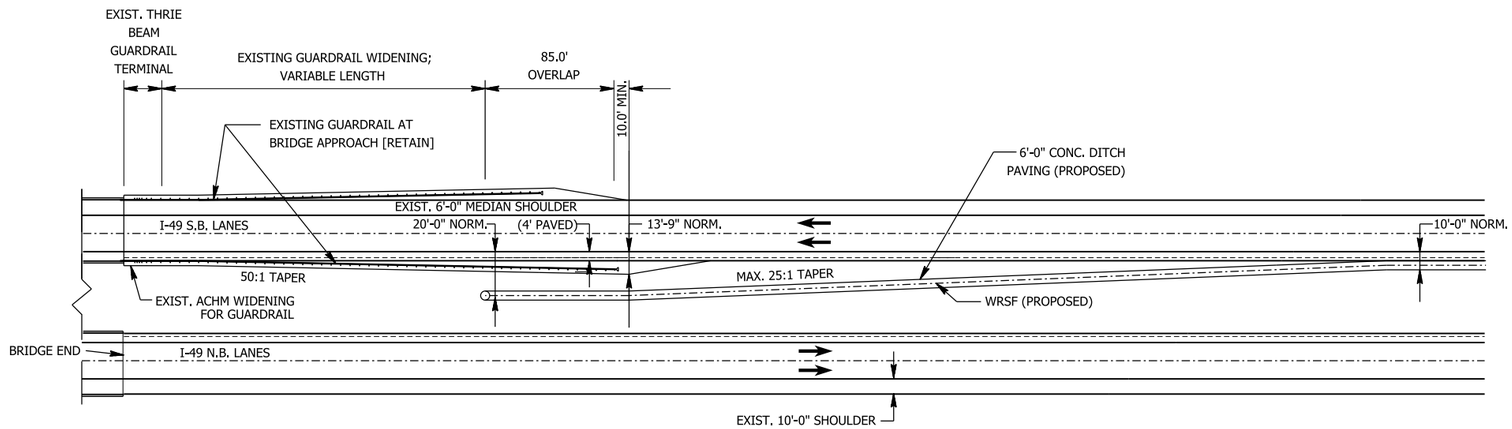
TO BE USED WHERE EXISTING
ROADS WILL BE PERMANENTLY CLOSED.
SEE PLAN SHEETS FOR LOCATIONS
SEE STD. DWG. GR-5 FOR
MORE DETAILS.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024

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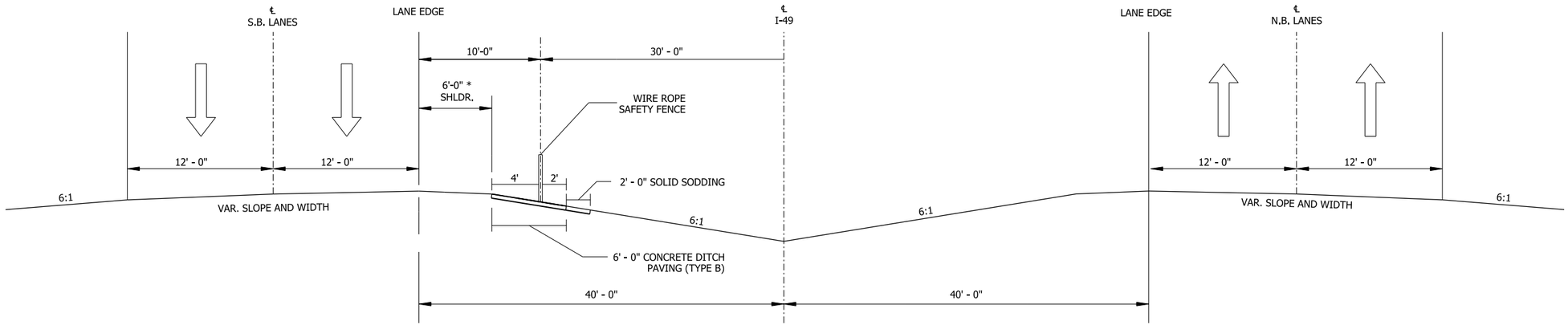
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	30	809
		SPECIAL DETAILS				





DETAIL OF WIRE ROPE SAFETY FENCE AT EXISTING BRIDGE ENDS

WRSF IN CL MEDIAN



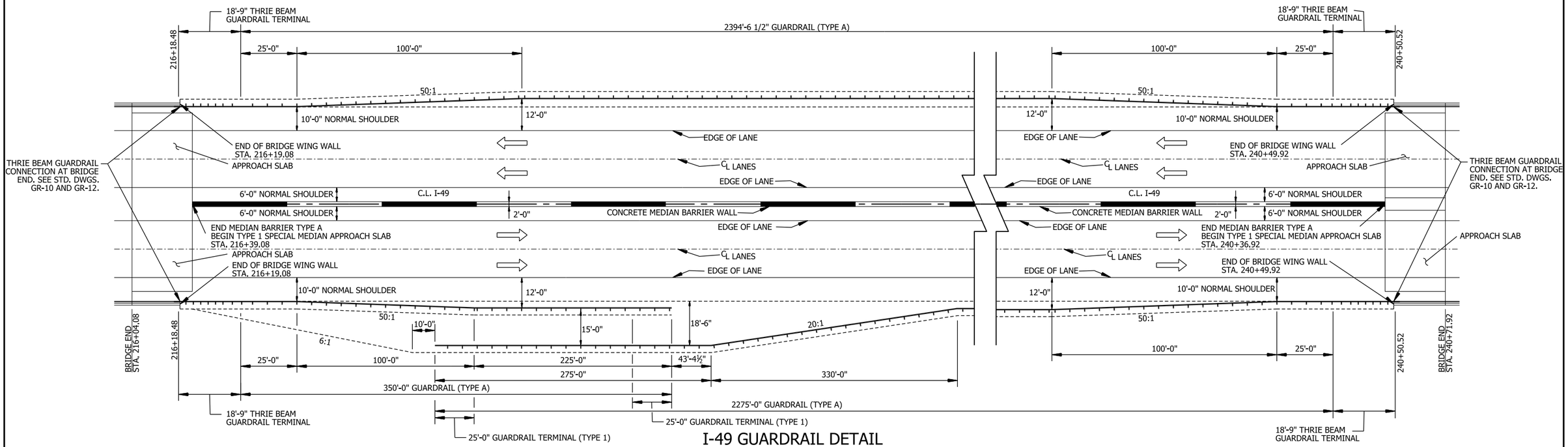
DETAIL OF WIRE ROPE SAFETY FENCE IN MEDIAN

* IN LOCATIONS WITH WRSF CONTRACTOR SHALL PAVE FULL INSIDE SHOULDER WIDTH (SEE TYPICAL SECTIONS)

5/1/2024 11:01:55 AM
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	31	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
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No. 19907
JOSIAH F. BELVEAL
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4/17/2024



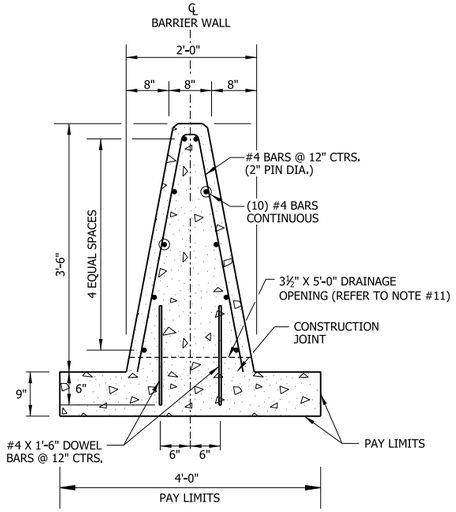
I-49 GUARDRAIL DETAIL

STA. 216+16.08 TO STA. 240+49.92

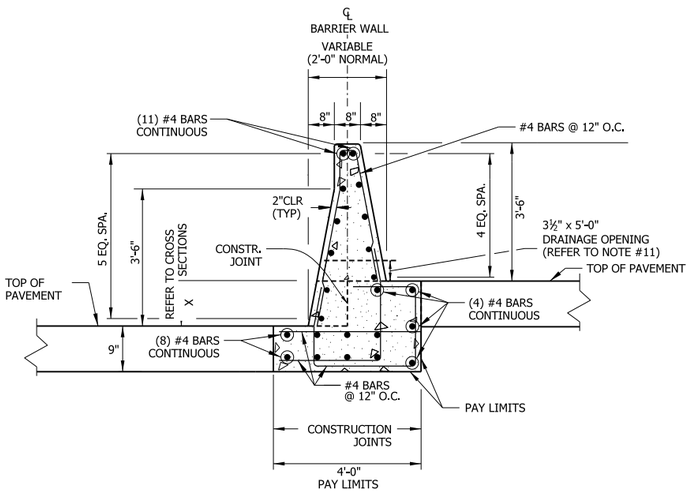
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		SPECIAL DETAILS				

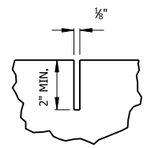
STATE OF ARKANSAS
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Josiah F. Belveal
4/17/2024



CONCRETE BARRIER WALL
(MEDIAN TYPE A; MASH TL-4)
N.T.S.



CONCRETE BARRIER WALL
(MEDIAN TYPE B; MASH TL-4)
X = 0'-0" TO 1'-0" MAX
N.T.S.



CONTRACTION
JOINT DETAIL

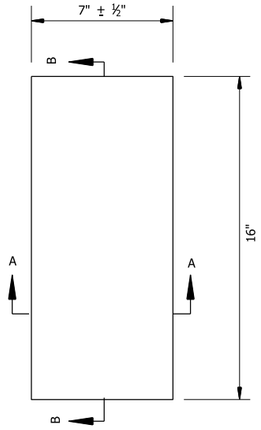
GENERAL NOTES FOR CONCRETE BARRIER WALLS

1. ALL BARRIER WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 631 OF THE STANDARD SPECIFICATIONS, 2014 EDITION.
2. CONTRACTION JOINTS REQUIRED AT 15'-0" MAXIMUM SPACING FOR BARRIER TYPES MEDIAN A, MEDIAN B, AND SIDE A. A 30'-0" MAXIMUM SPACING IS REQUIRED FOR TYPES MEDIAN C, SIDE D, AND SIDE E.
3. ALL CONTRACTION JOINTS TO BE FORMED IN FRESH CONCRETE ON TOP AND IN SIDES OF BARRIER WALL.
4. JOINTS IN PCCB WALL SHOULD ALIGN WITH PCCP JOINTS.
5. DOWEL BARS FOR BARRIER TYPES MEDIAN A, MEDIAN B, AND SIDE A WILL NOT BE REQUIRED IF BARRIER AND MINIMUM 4' WIDE BASE ARE CAST AS A COMPLETE UNIT.
6. CONTRACTION JOINTS ARE NOT PERMITTED AT THE DOWEL BAR LOCATIONS.
7. ALL EXPOSED EDGES OF CONCRETE BARRIER WALL SHALL HAVE A ¾" CHAMFER.
8. THE DESIGN OF BARRIER WALL TYPES MEDIAN C, SIDE D AND SIDE E IS BASED ON A MINIMUM FOUNDATION BEARING CAPACITY OF ONE TON PER SQUARE FOOT. UNSTABLE FOUNDATION MATERIAL SHALL BE REMOVED AND REPLACED TO PROVIDE A FIRM FOUNDATION AS DIRECTED BY THE ENGINEER.
9. SPACING BETWEEN EXPANSION JOINTS SHALL NOT EXCEED 400 FT FOR BARRIER TYPES MEDIAN A, MEDIAN B, AND SIDE A OR 120 FT FOR BARRIER TYPES MEDIAN C, SIDE D, AND SIDE E. EXPANSION JOINTS SHALL BE FORMED USING 1" PREFORMED JOINT FILLER. CONTINUOUS REINFORCEMENT SHALL BE CUT 2" CLEAR OF EXPANSION JOINTS.
10. EXPANSION JOINTS SHOULD BE CONSTRUCTED IN BOTH THE FOOTING OF THE STRUCTURE AND THE PCCB WALL.
11. CONSTRUCT DRAINAGE OPENINGS EVERY 100' O.C. AND AT SAGS AND ADJACENT TO DROP INLETS IF SHOWN ON THE PLANS. DOWEL BARS SHALL NOT BE PLACED WITHIN 3" OF DRAINAGE OPENINGS.
12. SUBSTITUTE #4 AND #5 VERTICAL BARS WITH #5 TIES(TOP & BOTTOM) PLACED AT 12" SPACING FOR MEDIAN TYPE C AND SIDE TYPE E BARRIER WALLS.
13. MAINTAIN 3" CLEARANCE ON ALL FOOTING REINFORCEMENT AND 2" CLEARANCE ON ALL OTHER REINFORCEMENT.
14. REFER TO BRIDGE PLANS FOR DETAILS OF LUMINAIRE MOUNTED TO BRIDGE BARRIER WALLS
15. BARRIER REINFORCING BARS ANCHORED INTO EXISTING CONCRETE PAVEMENT SHALL BE INSTALLED AND SECURED ACCORDING TO 804.06 USING AN APPROVED ANCHORING SYSTEM FROM QPL.

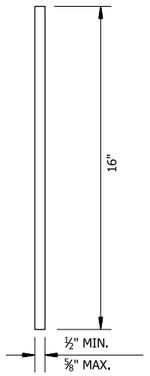
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	33	809
		SPECIAL DETAILS				

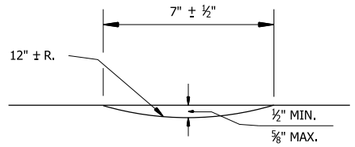
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024



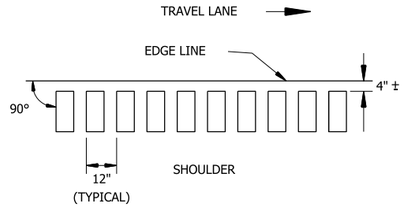
PLAN



SECTION B-B



SECTION A-A



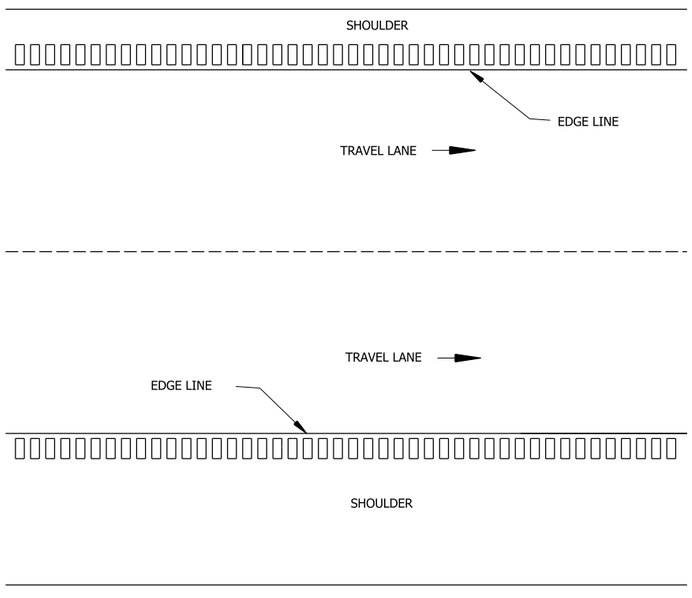
LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER

NOTES:

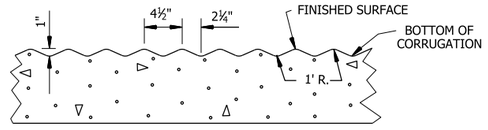
1. ALIGNMENT OF RUMBLE STRIPS SHALL GENERALLY BE STRAIGHT AND OFFSET APPROXIMATELY 4" FROM THE OUTER EDGE OF THE EDGE LINE. THIS OFFSET MAY BE ADJUSTED TO ACCOMMODATE VARIATIONS IN THE EDGE LINE.

2. THE ½" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.

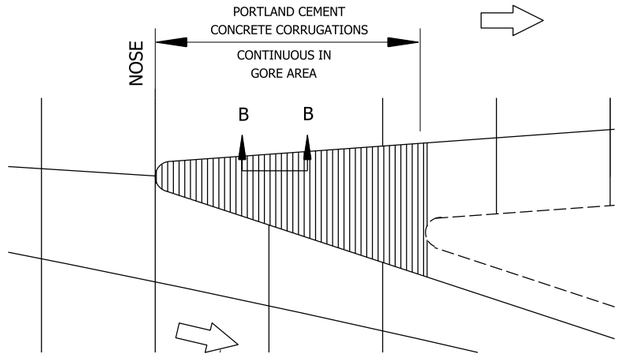
3. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.



DETAILS OF RUMBLE STRIPS



SECTION B-B



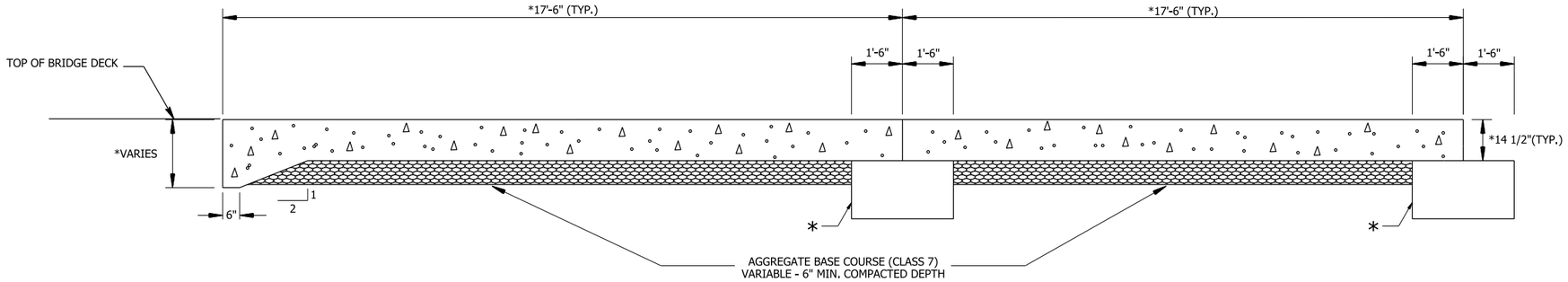
LAYOUT OF SHOULDER CORRUGATIONS
IN EXIT GORE AREAS

SPECIAL DETAILS

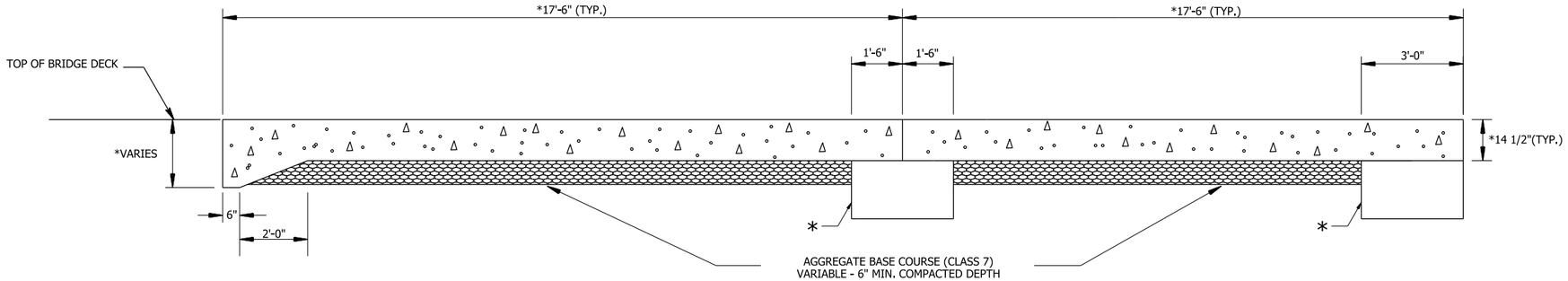
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	34	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024



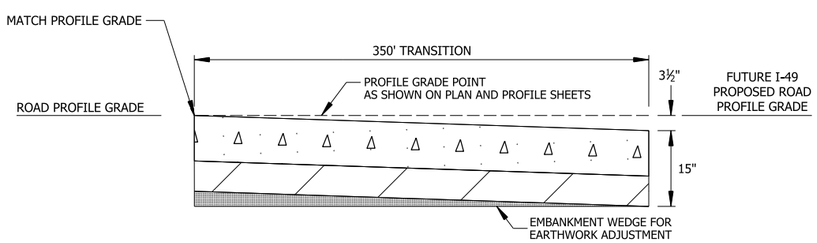
SECTION OF APPROACH SLAB (FOR CONCRETE PAVEMENT)



SECTION OF APPROACH SLAB (FOR ASPHALT PAVEMENT)

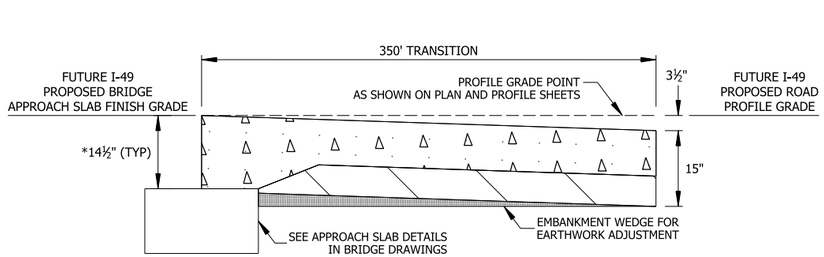
C.L. I-49 STA. 163+36.92 TO STA. 163+71.92
C.L. I-49 STA. 216+04.08 TO STA. 216+39.08
C.L. I-49 STA. 240+36.92 TO STA. 240+71.92
C.L. I-49 STA. 258+94.08 TO STA. 259+29.08

* SEE APPROACH SLAB DETAILS IN BRIDGE DRAWINGS



DETAIL OF CONCRETE ALTERNATE TRANSITION

C.L. I-49 STA. 100+00.00 TO STA. 103+50.00
C.L. HWY 22 RAMP 2 STA. 12+38.00 TO STA. 15+88.00
C.L. HWY 22 RAMP 3 STA. 12+00.00 TO STA. 15+50.00
C.L. GUN CLUB RAMP 2 STA. 12+00.00 TO STA. 15+50.00
C.L. GUN CLUB RAMP 4 STA. 33+50.00 TO STA. 37+00.00



TRANSITION AT PROPOSED APPROACH SLABS FOR CONCRETE ALTERNATE PAVEMENT DESIGN

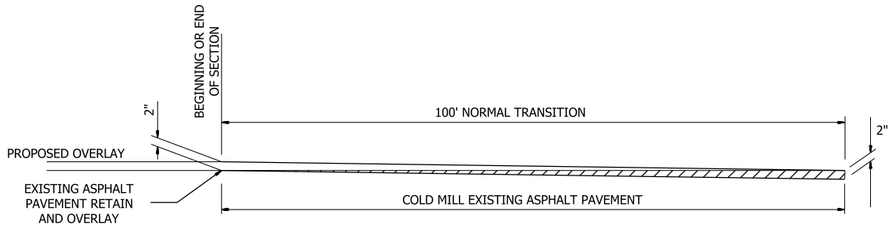
* SEE APPROACH SLAB DETAILS IN BRIDGE DRAWINGS

C.L. I-49 STA. 159+86.92 TO STA. 163+36.92
C.L. I-49 STA. 216+39.08 TO STA. 219+89.08
C.L. I-49 STA. 236+86.92 TO STA. 240+36.92
C.L. I-49 STA. 259+29.08 TO STA. 262+79.08

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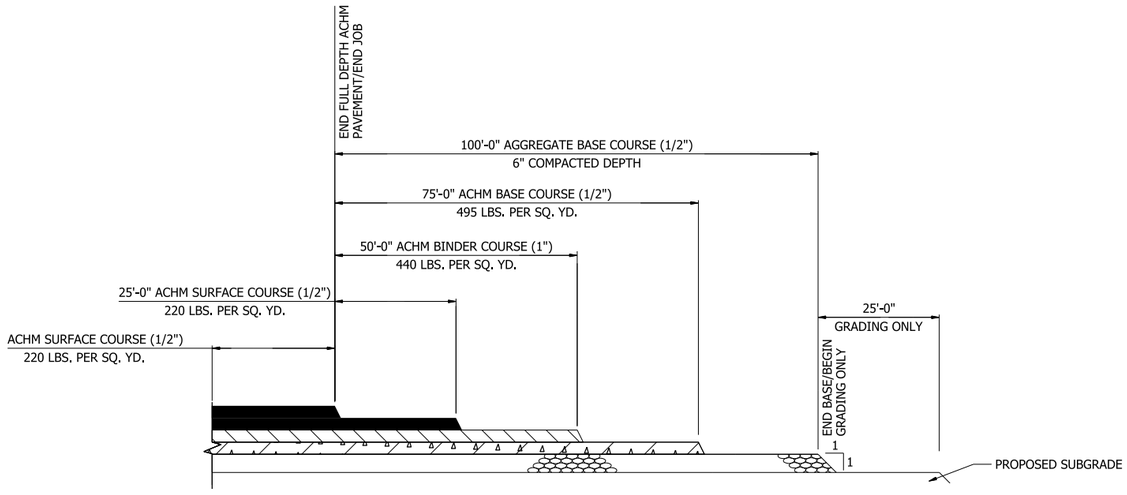
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	35	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024



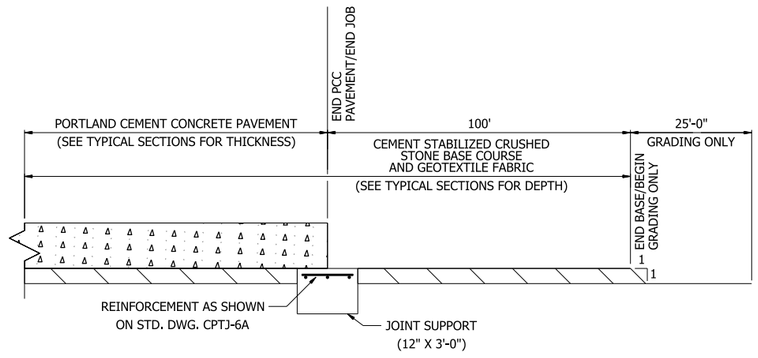
DETAIL FOR TRANSITIONS

C.L. HWY 59 50+20.00 TO STA. 51+20.00
C.L. HWY 59 69+80.00 TO STA. 70+80.00



DETAIL OF ASPHALT ALTERNATE TRANSITION AT END OF JOB

END FULL DEPTH ACHM
PAVEMENT/END JOB
C.L. I-49 STA. 269+00.00
C.L. GC RAMP 2 STA. 20+00.00
C.L. GC RAMP 3 STA. 24+00.00

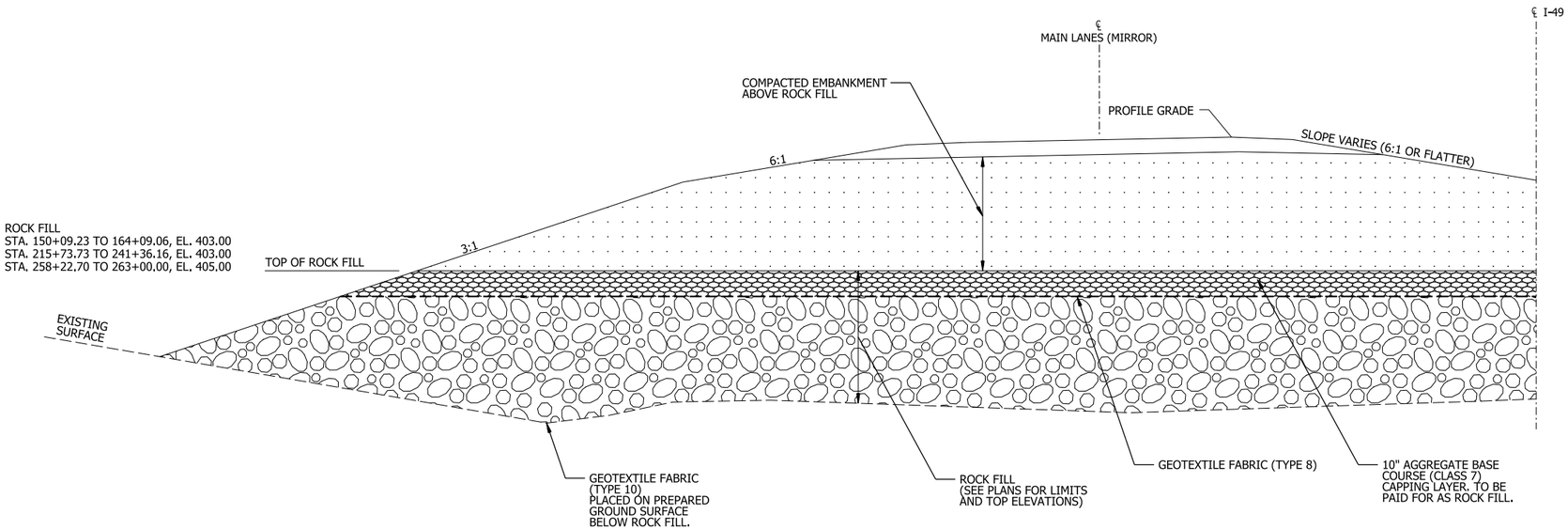


DETAIL OF CONCRETE ALTERNATE TRANSITION AT END OF JOB

END PCC
PAVEMENT/END JOB
C.L. I-49 STA. 269+00.00
C.L. GC RAMP 2 STA. 20+00.00
C.L. GC RAMP 3 STA. 24+00.00

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	36	809
		SPECIAL DETAILS				

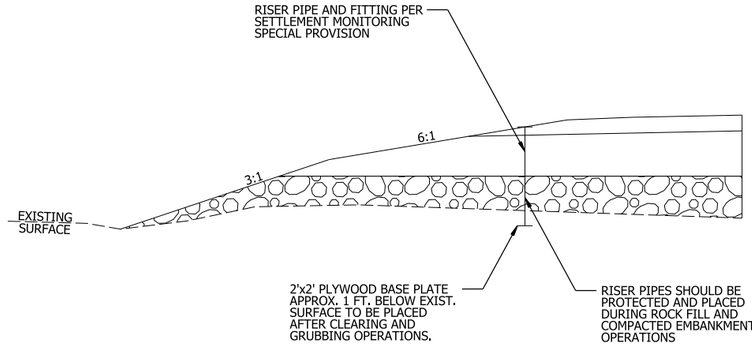


DETAIL OF ROCK FILL AND EMBANKMENT CONSTRUCTION

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21612
MICHAEL JORDAN LEE DESTIGTER
9/20/2024

EMBANKMENT NOTES

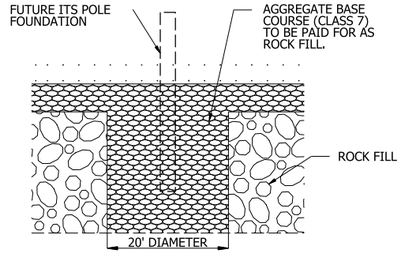
PLACE ROCK FILL IN THE LOWER PORTION OF THE EMBANKMENTS WITHIN THE LIMITS AS SHOWN IN THE PLANS. ROCK FILL MATERIAL REQUIREMENTS ARE SHOWN IN THE PLANS AND SPECIFIED IN THE ROCK FILL SPECIAL PROVISIONS. COMPACTION REQUIREMENTS IN SECTION 303 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION ARE WAIVED FOR EMBANKMENT CONSTRUCTION.



DETAIL OF SETTLEMENT PLATE PLACEMENT

SETTLEMENT PLATE LOCATIONS

SP-1	STA. 162+90	O/S 30' LT.
SP-2	STA. 162+90	O/S 30' RT.
SP-3	STA. 163+40	O/S 30' LT.
SP-4	STA. 163+40	O/S 30' RT.
SP-5	STA. 216+30	O/S 30' LT.
SP-6	STA. 216+30	O/S 30' RT.
SP-7	STA. 216+80	O/S 30' LT.
SP-8	STA. 216+80	O/S 30' RT.
SP-9	STA. 239+90	O/S 30' LT.
SP-10	STA. 239+90	O/S 30' RT.
SP-11	STA. 240+40	O/S 30' LT.
SP-12	STA. 240+40	O/S 30' RT.
SP-13	STA. 259+30	O/S 30' LT.
SP-14	STA. 259+30	O/S 30' RT.
SP-15	STA. 259+80	O/S 30' LT.
SP-16	STA. 259+80	O/S 30' RT.



DETAIL OF FUTURE ITS POLE LOCATION

POLE FOUNDATION LOCATIONS

STA. 162+50 O/S 49' LT.
STA. 217+50 O/S 51' RT.

SETTLEMENT PLATE MONITORING NOTES:

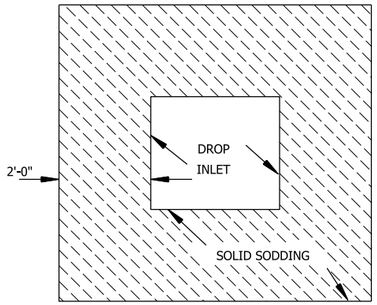
1. ALL ROADWAY EMBANKMENTS SHALL BE CONSTRUCTED TO SUBGRADE LEVEL AND REQUIRED TO MEET SETTLEMENT WAIT TIMES PRIOR TO PROCEEDING WITH PILE DRIVING, DROP INLETS, OUTLET PIPES, AND PAVING.
2. APPROACH EMBANKMENTS CONSTRUCTED AT BRIDGES 07684 AND 07685 END BENTS AND FOR A MINIMUM OF 150 FEET BEHIND THE FOUR END BENTS WILL REQUIRE INSTALLATION AND MONITORING WITH SETTLEMENT PLATES (SP) AS PER THE SETTLEMENT MONITORING SPECIAL PROVISION. BASED ON SP READINGS COLLECTED DURING WAIT PERIODS AFTER CONSTRUCTION TO SUBGRADE LEVEL, THE ENGINEER WILL DETERMINE WHEN PILE DRIVING MAY BEGIN. THE ESTIMATED WAIT PERIODS ARE 8 MONTHS AT BRIDGE 07684 END BENT 1, 6 MONTHS AT BRIDGE 07684 END BENT 33 AND BRIDGE 07685 END BENT 1, AND 10 MONTHS AT BRIDGE 07685 END BENT 16 EMBANKMENTS. ACTUAL WAIT PERIODS WILL BE DETERMINED BY THE ENGINEER.
3. ROADWAY EMBANKMENTS CONSTRUCTED BEYOND 150 FEET BEHIND THE FOUR END BENT LOCATIONS WILL BE REQUIRED TO MEET SETTLEMENT WAIT TIMES AFTER CONSTRUCTION TO SUBGRADE LEVEL BASED ON ADJACENT END BENT EMBANKMENT SETTLEMENT RATE DATA. THE ENGINEER WILL DETERMINE WHEN DROP INLETS, OUTLET PIPES, AND PAVING MAY BEGIN. THE ESTIMATED WAIT PERIODS ARE 5 MONTHS FOR EMBANKMENT HEIGHTS GREATER THAN 10 FEET, AND 3 MONTHS FOR EMBANKMENT HEIGHTS EQUAL TO AND LESS THAN 10 FEET. ACTUAL WAIT PERIODS WILL BE DETERMINED BY THE ENGINEER.

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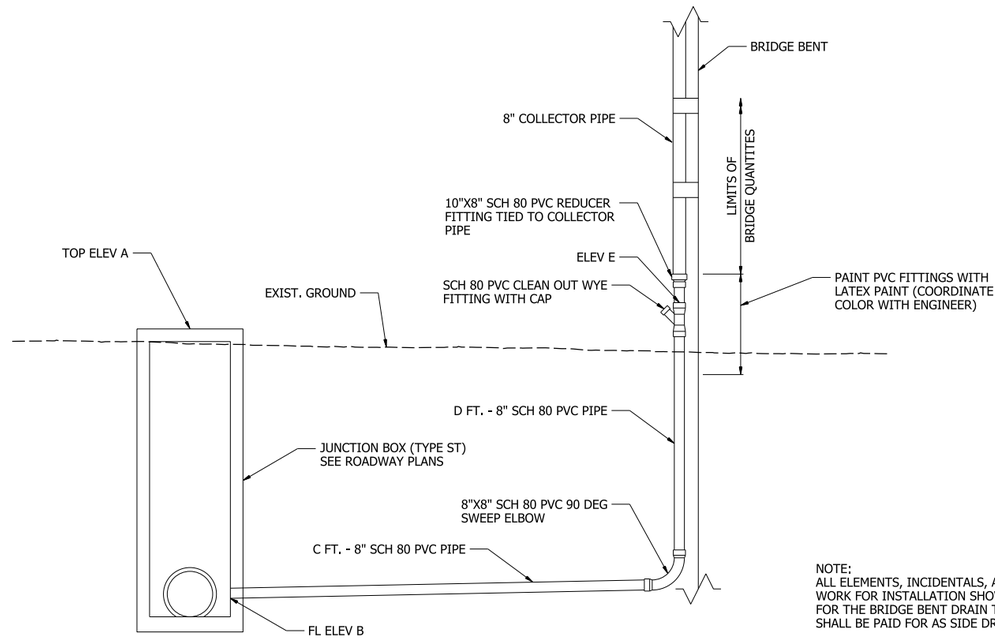
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	37	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

Station	Top Elev A (ft)	FL Elev B (ft)	Length C (ft)	Length D (ft)	Elev E (ft)
176+73.00	392.71	387.30	32	5	395
174+13.00	390.28	386.28	32	6	392
172+83.00	389.74	385.64	32	9	392



DETAIL FOR SOLID SODDING AROUND DROP INLETS

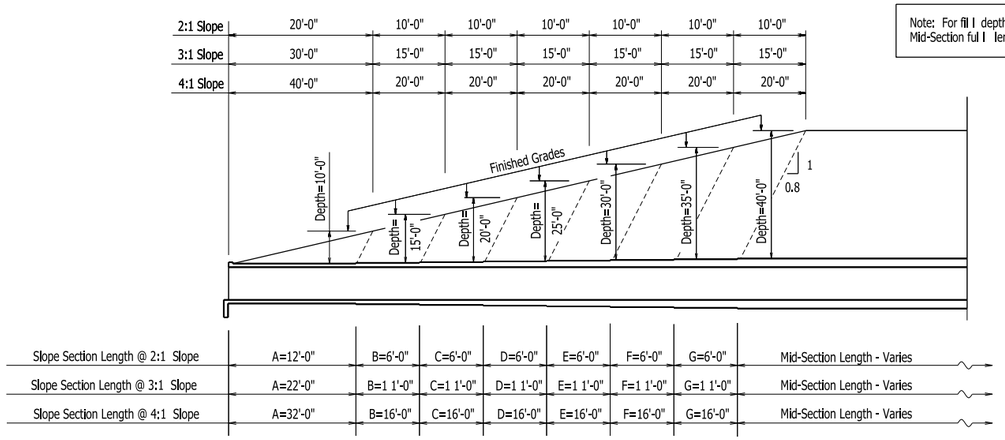


BRIDGE BENT DRAIN TIE DETAIL

NOTE:
ALL ELEMENTS, INCIDENTALS, AND WORK FOR INSTALLATION SHOWN FOR THE BRIDGE BENT DRAIN TIE SHALL BE PAID FOR AS SIDE DRAIN.

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

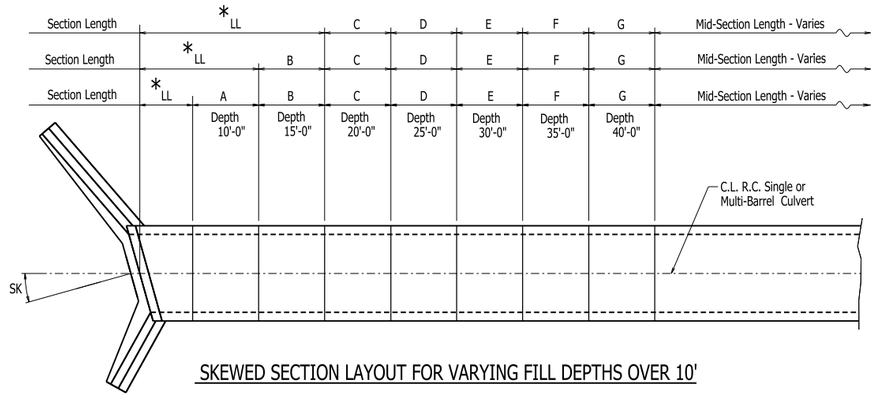


Note: For fill depths 10' and under, use Mid-Section full length of box culvert.

LONGITUDINAL SECTION LENGTH SCHEDULE FOR VARYING FILL DEPTHS OVER 10'

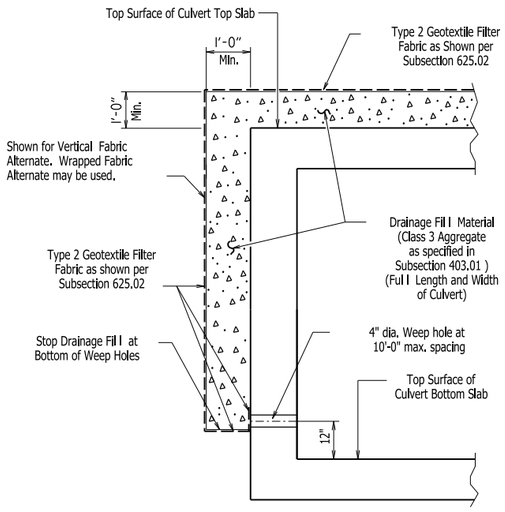
Lengths for Non-Skewed Boxes

* LL = Skewed End Section Length - See "Skewed End Section Details" Length LL varies with skew angle, overall box width and fill depth and may eliminate the need for some slope section lengths as shown.



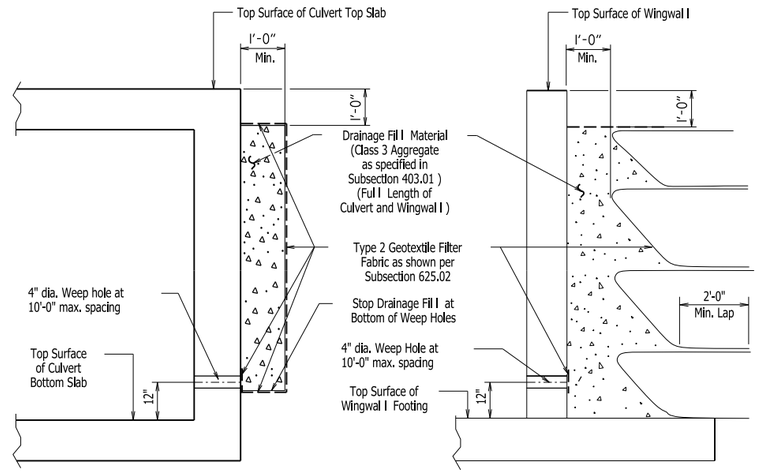
SKEWED SECTION LAYOUT FOR VARYING FILL DEPTHS OVER 10'

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024



CULVERT DRAINAGE DETAIL FOR ROCK FILL

This detail shall be used when rock fill is specified for embankment construction.

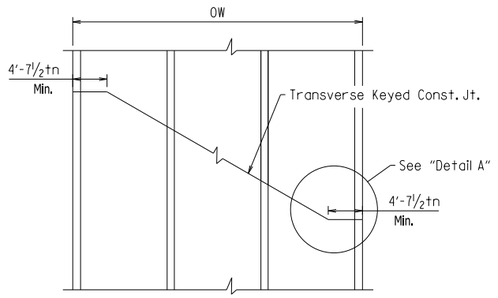


For Details of Excavation and Pay Limits, see Standard Drawing RCB-2.

VERTICAL FABRIC ALTERNATE
(Shown for Culvert, Similar for Wingwall)

WRAPPED FABRIC ALTERNATE
(Shown for Wingwall, Similar for Culvert)

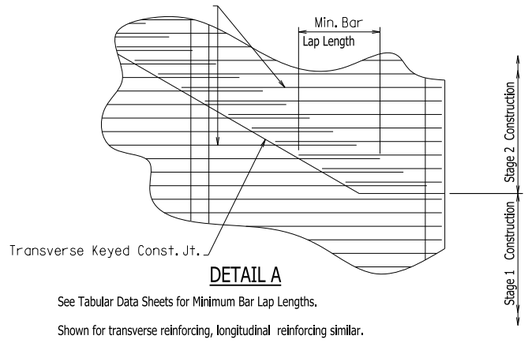
WINGWALL & CULVERT DRAINAGE DETAIL



SKEWED TRANSVERSE JOINT DETAIL

This detail shall be used to construct a skewed transverse joint only for Multi-Barrel Culverts and only when required by the Maintenance of Traffic Plans. Otherwise, transverse joints should be made normal to the centerline of the barrel.

Slab bars "a", "b", "c", "d", "b1", or "f". Slab distribution and Wall reinforcing omitted for clarity.



DETAIL A

See Tabular Data Sheets for Minimum Bar Lap Lengths.

Shown for transverse reinforcing, longitudinal reinforcing similar.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable Supplemental Specifications and Special Provisions. Section and Subsection refer to the Standard Construction Specifications unless otherwise noted in the Plans.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, Fifth Edition (2010) with 2010 interim revisions.

LIVE LOADING: HL-93

All concrete shall be Class S with a minimum 28-day compressive strength of 3,500 psi and shall be poured in the dry. All exposed corners to have ¾" chamfers.

Reinforcing Steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M31 or M322, Type A, with mill test reports.

Reinforcing Steel Tolerances: The tolerances for reinforcing steel shall meet those listed in 'Manual of Standard Practice' published by Concrete Reinforcing Steel Institute (CRSI) except that the tolerance for truss bars such as Figure 3 on page 7-4 of the CRSI Manual shall be minus zero to plus 1/2 inch.

Excavation and backfilling shall be in accordance with the requirements of Section 801.

Membrane Waterproofing shall conform to the requirements of Section 815. Membrane Waterproofing shall be Type C and as directed by the Engineer applied to all construction joints in the top slab and the sidewalls of R.C. Box culverts and to the construction joint between wingwalls and R.C. Box culvert walls.

Weep Holes in box culvert walls shall have a maximum horizontal spacing of 10'-0" and shall be spaced to clear all reinforcing steel. The drain opening shall be 4" diameter and shall be placed 12" above the top of the bottom slab.

Weep Holes in wingwalls shall have a maximum horizontal spacing of 10'-0" and shall be spaced to clear all reinforcing steel. There shall be a minimum of two (2) weep holes in each wingwall. The drain opening shall be 4" diameter and shall be placed 12" above the top of the wingwall footing.

The barrel components of the culvert may be constructed using continuous pours. For longer culvert construction, the Contractor may use multiple pours with transverse construction joints spaced a minimum of 50 feet apart unless superseded by stage construction or site constraints as approved by the Engineer. Construction joints between footings and walls shall be made only where shown in the Plans. Joints shall be keyed and shall be normal to the centerline of barrel except as noted. Reinforcing shall be continuous through joints unless noted otherwise. Reinforcing through stage construction joints shall provide the minimum bar lap length shown on the Tabular Data Sheets. All longitudinal construction joints shall be submitted to the Engineer for approval.

Membrane Waterproofing, Weep Holes, Geotextile Filter Fabric, and Drainage Fill Material will not be paid for directly but shall be considered subsidiary to Class S Concrete.

When the top slab of the box culvert serves as finished roadway surface, curing and finishing shall be in accordance with subsections 802.17 and 802.20 for bridge roadway surface and a tine finish shall be applied in accordance with subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. Curing and finishing shall not be paid for directly, but shall be considered incidental to the item "Class S Concrete-Roadway". Class 1 Protective Surface Treatment shall be applied to the roadway surface and this work shall be paid for under the unit price bid for "Class 1 Protective Surface Treatment".

When precast reinforced concrete box culverts are substituted for cast in place box culverts, they shall be manufactured according to ASTM C 1577 and meet the requirements of Section 607. When the top slab of the box culvert serves as the finished roadway surface, a precast reinforced concrete box culvert substitution is not allowed.

SHEET 1 OF 4

GENERAL DETAILS OF R.C. BOX CULVERT

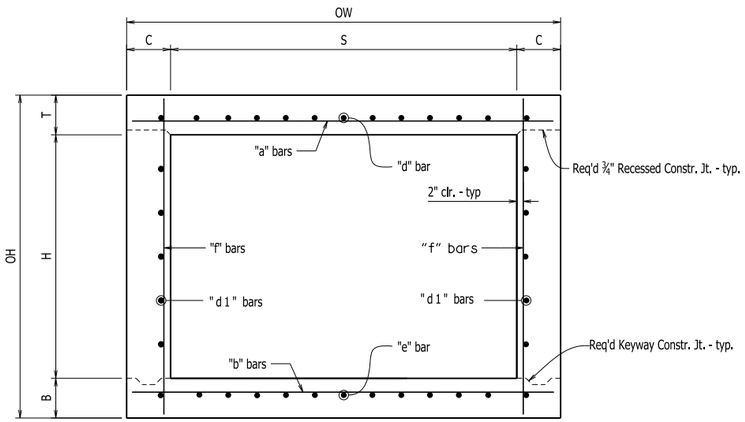
GENERAL NOTES &
LONGITUDINAL SECTION LENGTH SCHEDULE

SPECIAL DETAILS

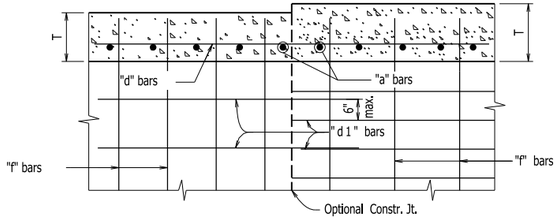
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	39	809
		SPECIAL DETAILS				

Note: When top slab of culvert serves as finished roadway surface, see General Notes on Sheet 1 of 4.



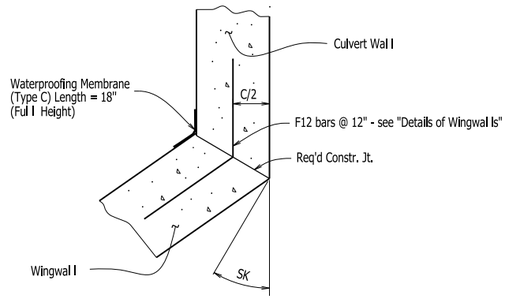
TYPICAL SECTION M-M



Longitudinal Bar Spacing at individual sections shall be maintained, which may result in noncontact bar laps.

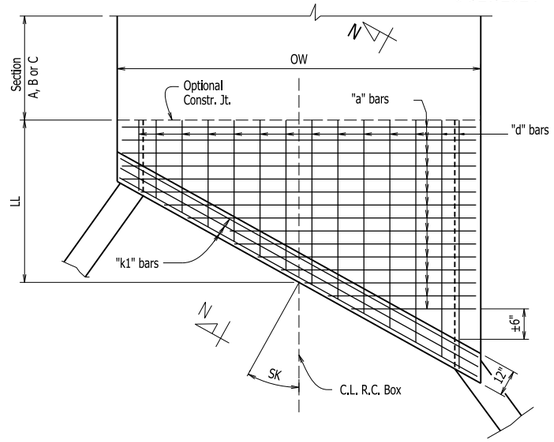
LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

TOP SLAB SHOWN, BOTTOM SLAB SIMILAR

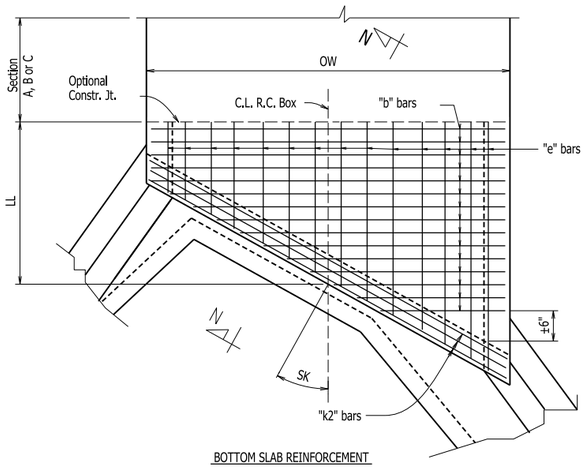


WINGWALL ATTACHMENT

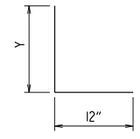
See "Details of Wingwalls" for additional information and wingwall details.



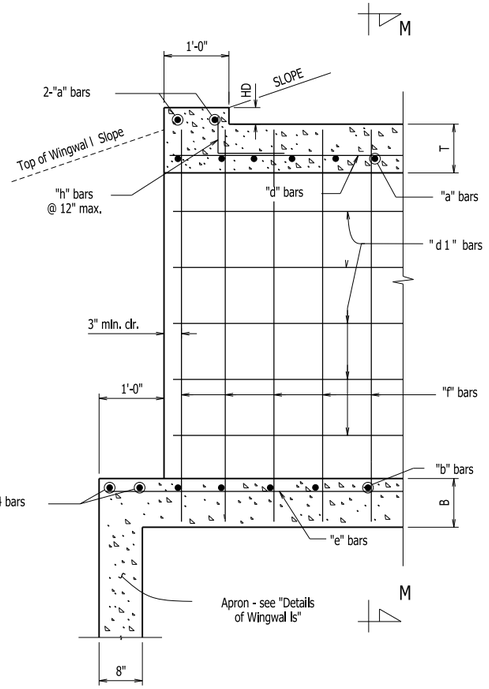
TOP SLAB REINFORCEMENT



BOTTOM SLAB REINFORCEMENT

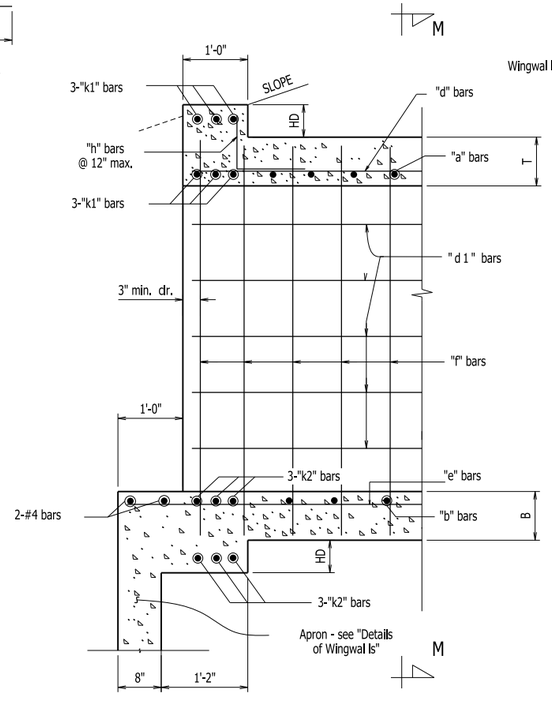


"h" bars sketch



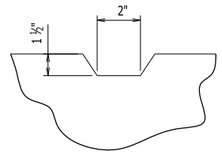
PART LONGITUDINAL SECTION

(Non-Skewed Ends)



PART LONGITUDINAL SECTION N-N

(Skewed Ends)



TYPICAL KEYWAY DETAIL

(All Construction Joints)

SKEWED END SECTION DETAILS

SHEET 2 OF 4

GENERAL DETAILS OF R.C. BOX CULVERT

DETAILS OF SINGLE BARREL
R.C. BOX CULVERT

SPECIAL DETAILS

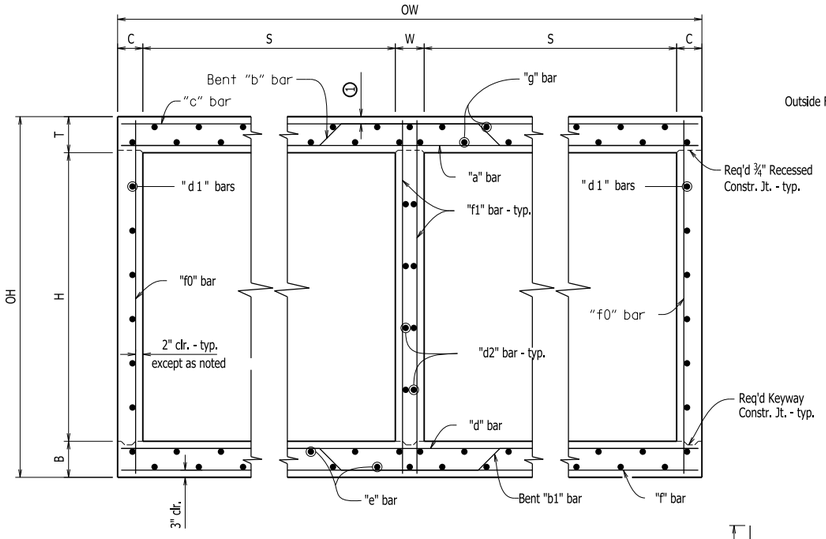
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LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	40	809
		SPECIAL DETAILS				

① 2" clr. for fill depth (D) greater than 2 ft.
2½" clr. for fill depth (D) equal to or less than 2 ft.

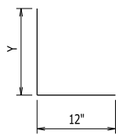
Note: When top slab of culvert serves as finished roadway surface, see General Notes on Sheet 1 of 4.



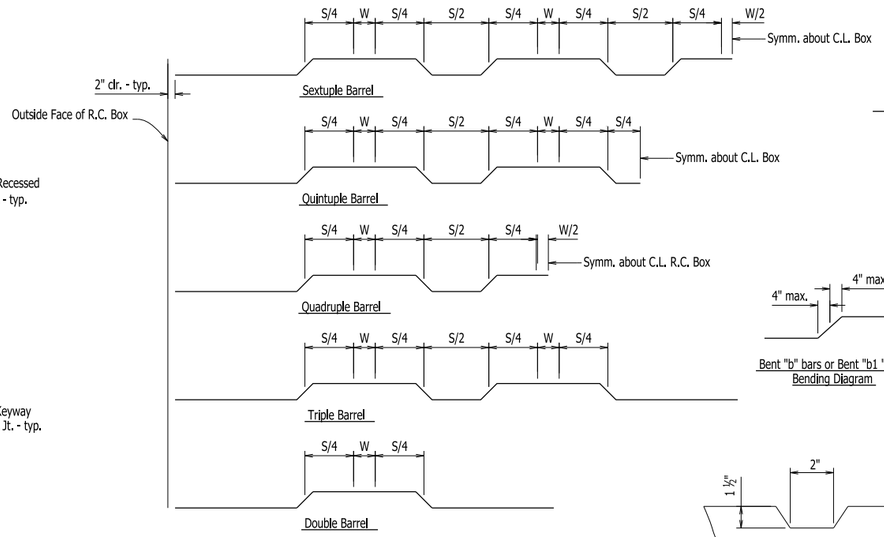
TYPICAL SECTION M-M

Top Slab
Straight "c" bars shall alternate with Bent "b" bars in top.
Straight "a" bars shall alternate with Bent "b" bars in bottom.

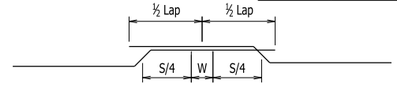
Bottom Slab
Straight "d" bars shall alternate with Bent "b1" bars in top.
Straight "f" bars shall alternate with Bent "b1" bars in bottom.



"h" bars sketch

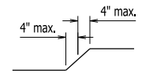


Bent "b" bars or Bent "b1" bars sketch

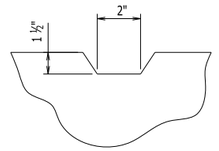


Lap Detail
For Bent "b" bars and Bent "b1" bars

At the Contractor's option in lieu of providing Bent "b" or Bent "b1" bars, one bar top and bottom of equivalent size may be substituted for each bent bar. Payment for the reinforcing will be based on the weight of the "b" or "b1" bar.

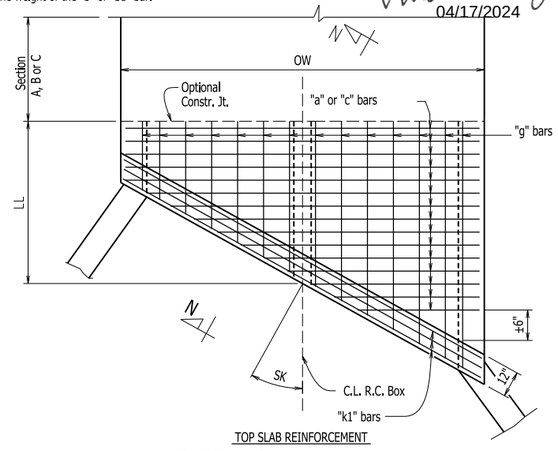


Bent "b" bars or Bent "b1" bars Bending Diagram



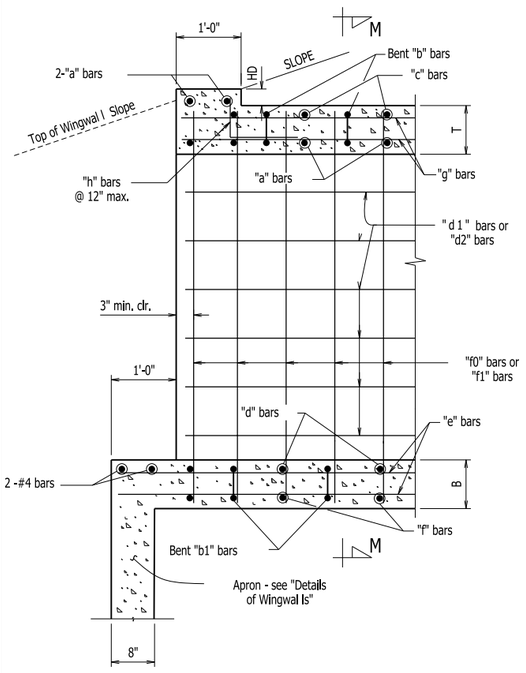
TYPICAL KEYWAY DETAIL

(All Construction Joints)



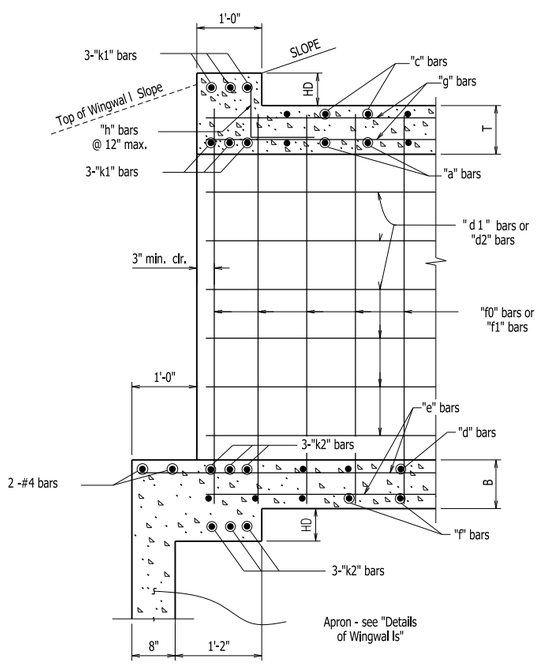
TOP SLAB REINFORCEMENT

Straight "c" bars in top.
Straight "a" bars in bottom.



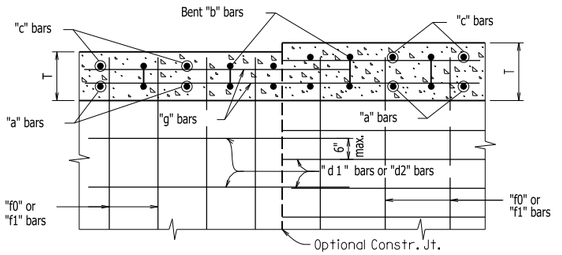
PART LONGITUDINAL SECTION

(Non-Skewed Ends)



PART LONGITUDINAL SECTION N-N

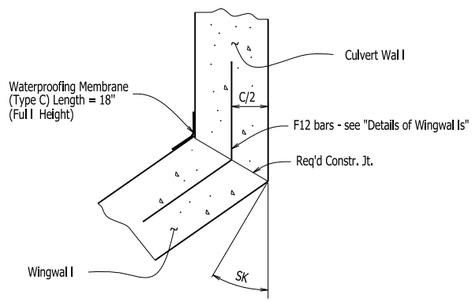
(Skewed Ends)



Longitudinal Bar Spacing at individual sections shall be maintained, which may result in noncontact bar laps.

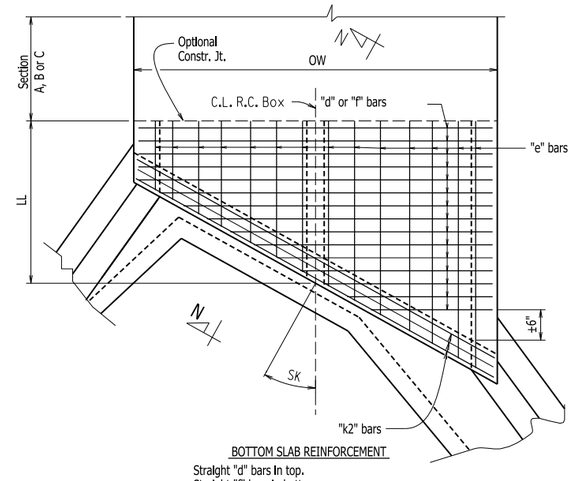
LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

TOP SLAB SHOWN, BOTTOM SLAB SIMILAR



WINGWALL ATTACHMENT

See "Details of Wingwall s" for additional information and wingwall details.



BOTTOM SLAB REINFORCEMENT

Straight "d" bars in top.
Straight "f" bars in bottom.

SKEWED END SECTION DETAILS

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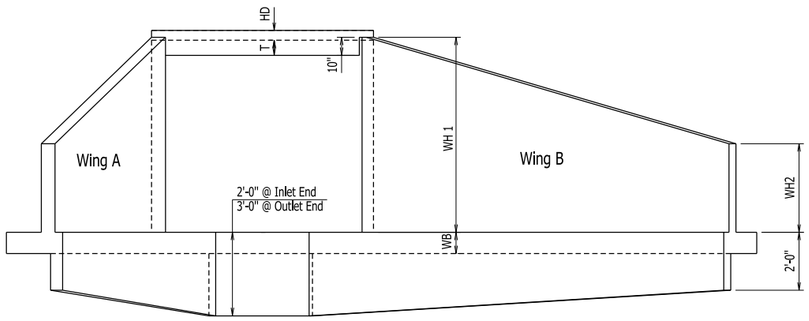
SHEET 3 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT

DETAILS OF MULTI-BARREL
R.C. BOX CULVERT

SPECIAL DETAILS

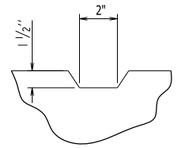
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	41	809
		SPECIAL DETAILS				



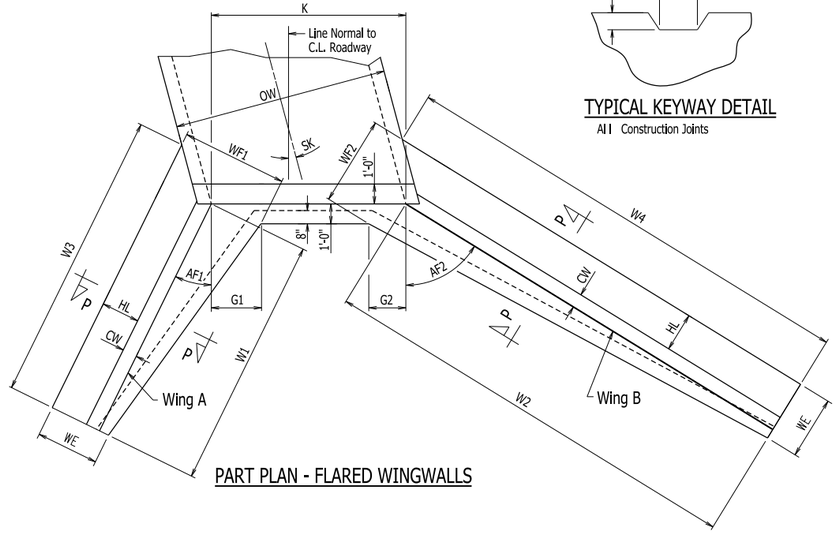
END ELEVATION

Flared Wingwal ls Shown

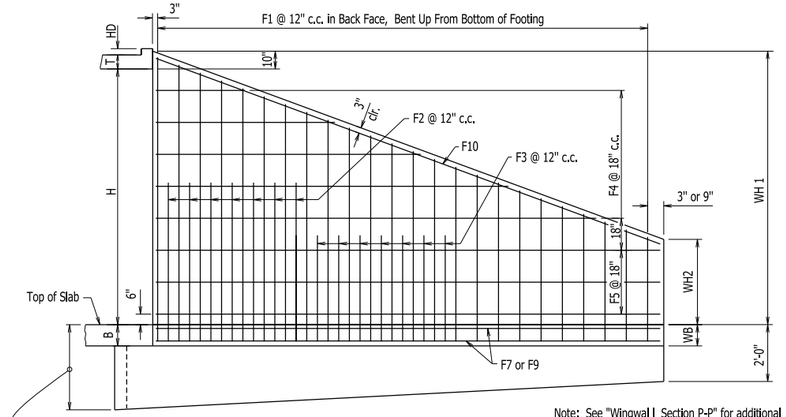


TYPICAL KEYWAY DETAIL

Al l Construction Joints



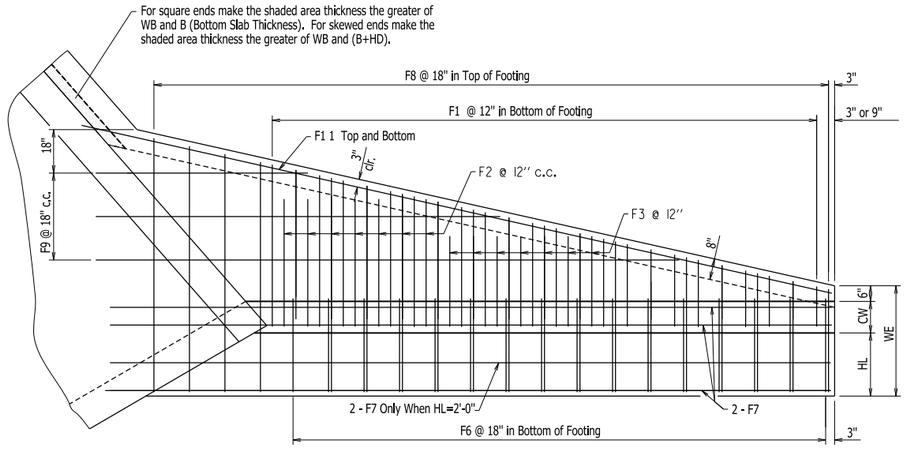
PART PLAN - FLARED WINGWALLS



WINGWALL ELEVATION

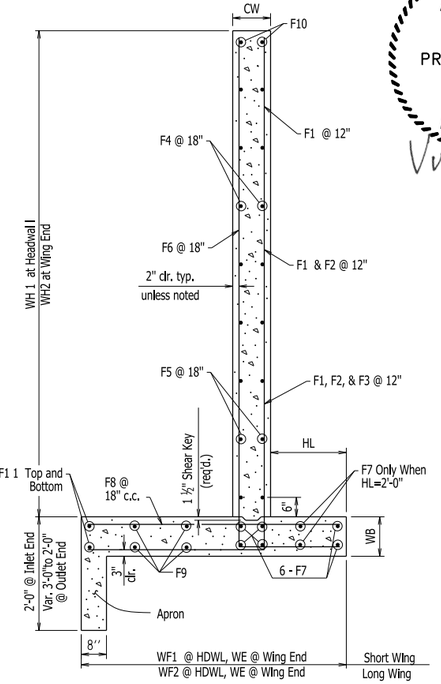
Showing Back Face Reinforcement

Note: See "Wingwal l Section P-P" for additional detalls and reinforcing.

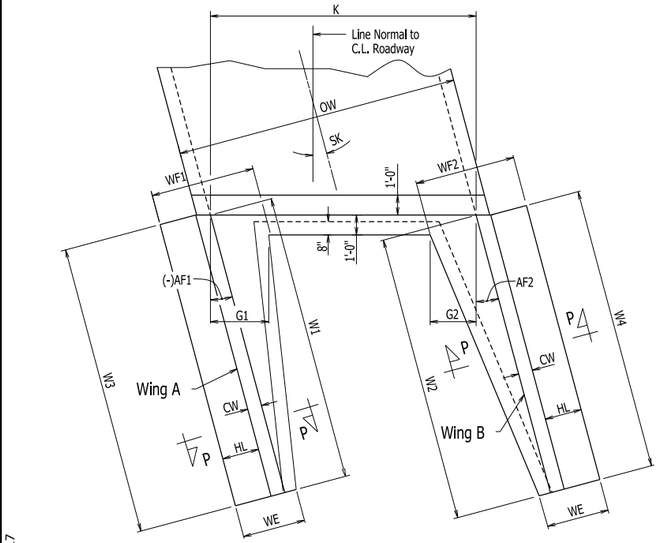


PLAN - FLARED WINGWALLS

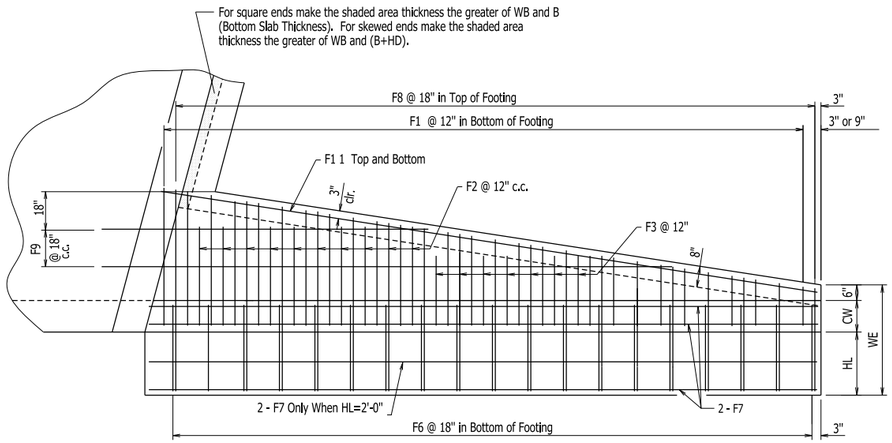
Showing Footing Reinforcement



WINGWALL SECTION P-P

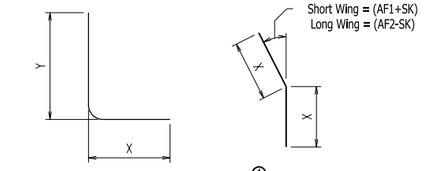


PART PLAN - PARALLEL WINGWALLS



PLAN - PARALLEL WINGWALLS

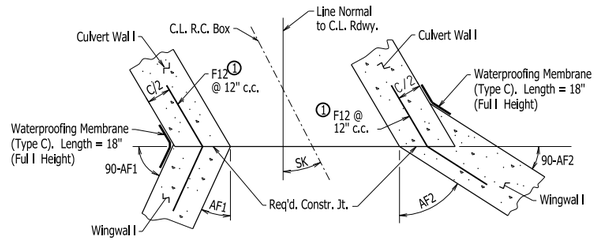
Showing Footing Reinforcement



F1, F2, F3, & F6 BARS

① F12 BAR

① F12 Is a straight bar for paral lel wingwal ls



CONSTRUCTION JOINTS

Flared Wingwal ls Shown

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

SHEET 4 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT
DETAILS OF WINGWALLS
SPECIAL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	42	809
		SPECIAL DETAILS				

INLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
17'-8"	4'-0"	0'-9"	0'-8"	0	3:1	16'-7 7/8"	1'-0"	4'-10"	1'-4"	30	30	2'-2"	2'-5 3/4"	2'-5 3/4"	0'-4 3/8"	0'-4 3/8"	12'-0"	12'-0"	13'-10 5/8"	13'-10 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
INLET	INLET
CU.YD	LBS.
5.06	478

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY	F1 LENGTHS	F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY	F6 LENGTHS	F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS	REINF. STEEL QTY. PER WING (LBS)
WING A	4	12	12	L Min	2'-6"	-	-	-	L -	-	-	-	L -	4	18	4	Min	4	18	2	11'-8"	4	18	8	L Min	3'-2"	4	6	14'-9"	6	18	8	Min	-	-	-	Min	4	2	12'-0"	4	2	13'-4"	6	12	4	L 3'-4"	239
				L Max	6'-0"												3'-10"								Max 6'-3"								1'-8"														X 1'-8"	
				X Min	0'-9"				X -				X -				Max								L Min 1'-4"								Max														
				X Max	1'-1"												9'-0"								X Max 1'-4"								2'-0"														
				Y Min	1'-10"				Y -				Y -												Y Min 1'-11"																						
				Y Max	5'-0"																				Y Max 5'-0"																						
WING B	4	12	12	L Min	2'-6"	-	-	-	L -	-	-	-	L -	4	18	4	Min	4	18	2	11'-8"	4	18	8	L Min	3'-2"	4	6	14'-9"	6	18	8	Min	-	-	-	Min	4	2	12'-0"	4	2	13'-4"	6	12	4	L 3'-4"	239
				L Max	6'-0"												3'-10"								Max 6'-3"								1'-8"														X 1'-8"	
				X Min	0'-9"				X -				X -				Max								L Min 1'-4"								Max														
				X Max	1'-1"												9'-0"								X Max 1'-4"								2'-0"														
				Y Min	1'-10"				Y -				Y -												Y Min 1'-11"																						
				Y Max	5'-0"																				Y Max 5'-0"																						

MID-SECTION BAR LAP TABLE

# of Long. Laps Req'd.	SL = Section Length
0	< 40.0 ft
1	>40.0 ft - 78.0 ft
2	>78.0 ft - 116.0 ft
3	>116.0 ft - 154.0 ft
4	>154.0 ft - 192.0 ft
5	>192.0 ft - 230.0 ft
6	>230.0 ft - 268.0 ft
7	>268.0 ft - 306.0 ft
8	>306.0 ft -344.0 ft

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"



TABULAR DATA BY: VS DATE: 07/20/2023
CHECKED BY: RCT DATE: 07/28/2023

This drawing to be used in conjunction with
SHEET 1 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE',
SHEET 3 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF MULTI-BARREL R.C. BOX CULVERT',
SHEET 4 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF WINGWALLS', and
STANDARD DRAWING RCB-2.

For additional information and outlet sections, see Sheet 2 of 2.

INLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THK.	HDWL DEPTH	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	TOP SLAB REINFORCING STEEL "c" SIZE	"c" SPACING	"c" LENGTHS VARY	"c" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "d" SIZE	"d" SPACING	"d" LENGTHS VARY	"d" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "f" SIZE	"f" SPACING	"f" LENGTHS VARY	"f" NO. REQ'D	SIDE WALL REINFORCING STEEL "f0" SIZE	"f0" SPACING	"f0" NO. REQ'D	"f0" LENGTH	INTERIOR WALL REINFORCING STEEL "f1" SIZE	"f1" SPACING	"f1" NO. REQ'D	"f1" LENGTH	TOP SLAB DISTRIBUTION REINFORCING STEEL "g" SIZE	"g" SPACING	"g" NO. REQ'D	"g" LENGTHS VARY	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" SIZE	"d2" SPACING	"d2" NO. REQ'D	"d2" LENGTH
SK	SL	D	S	H	LL	T	HD	B	C	W	OW	OH																																													
															Max				Max						Max																															
															Min				Min						Min																															

"k1" HDWL BARS SIZE	"k1" HDWL BARS LENGTH	"k1" HDWL BARS NO. REQ'D	"k2" HDWL BARS SIZE	"k2" HDWL BARS LENGTH	"k2" HDWL BARS NO. REQ'D	"h" HDWL BARS SIZE	"h" HDWL BARS LENGTH	"h" HDWL BARS Y	"h" HDWL BARS NO. REQ'D

CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	REINFORCING STEEL (GR 60) (Includes HDWL) LBS.

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

INLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THK.	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "a" SIZE	"a" L	Bent "b" SIZE	Bent "b" L	"c" SIZE	"c" L	SPACING	NO. REQ'D	BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "d" SIZE	"d" L	Bent "b1" SIZE	Bent "b1" L	"f" SIZE	"f" L	SPACING	NO. REQ'D	SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D	INTERIOR WALL DISTRIBUTION REINF. STEEL "d2" LENGTH = SL SIZE	SPACING	NO. REQ'D
D	S	H	T	B	C	W	OW	OH	SL																																									

HDWL DEPTH HD	ADDITIONAL REINF. FOR HDWL LBS.	"h" HDWL BARS SIZE	"h" HDWL BARS Y	"h" HDWL BARS LENGTH	"h" HDWL BARS NO. REQ'D
3"	23	4	0'-7"	1'-7"	19

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
TOTAL	
0.16	43

Design Fill Depth	Range of Actual Fill Depth
2	0.0 ft - 2.0 ft
5	>2.0 ft - 5.0 ft
10	>5.0 ft - 10.0 ft
15	>10.0 ft - 15.0 ft
20	>15.0 ft - 20.0 ft
25	>20.0 ft - 25.0 ft
30	>25.0 ft - 30.0 ft
35	>30.0 ft - 35.0 ft
40	>35.0 ft - 40.0 ft

Data shown for Mid-Section, Slope Section(s), and Skewed End Section is based on the design fill depth shown in the table, see PLAN AND PROFILE SHEETS for actual fill depth.

MID-SECTION

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THK.	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "a" SIZE	"a" L	Bent "b" SIZE	Bent "b" L	"c" SIZE	"c" L	SPACING	NO. REQ'D	BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "d" SIZE	"d" L	Bent "b1" SIZE	Bent "b1" L	"f" SIZE	"f" L	SPACING	NO. REQ'D	SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D	INTERIOR WALL DISTRIBUTION STEEL "d2" LENGTH = SL SIZE	SPACING	NO. REQ'D
D	S	H	T	B	C	W	OW	OH	SL																																									
A	5	8	4	9.0	9	6.0	8	17'-8"	5'-6"	234	4	17'-4"	8	17'-6"	7	17'-4"	17	165	4	17'-4"	4	17'-6"	4	17'-4"	9	312	4	8.5	660	5'-2"	4	12	468	5'-2"	4	12	35	4	12	35	4	12	8	4	12	8

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
287.44	44296

SHEET 1 OF 2
DETAILS OF R.C. BOX CULVERT

DOUBLE BARREL BOX CULVERT
C.L. I-49 STA. 106+60

SPECIAL DETAILS

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Ver. 1.117

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	43	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

TABULAR DATA BY: VS DATE: 07/20/2023
CHECKED BY: RCT DATE: 07/28/2023

OUTLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
17'-8"	4'-0"	0'-9"	0'-8"	0	3:1	16'-7 7/8"	1'-0"	4'-10"	1'-4"	30	30	2'-2"	2'-5 3/4"	2'-5 3/4"	0'-4 3/8"	0'-4 3/8"	12'-0"	12'-0"	13'-10 5/8"	13'-10 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
OUTLET	OUTLET
CU.YD	LBS.
5.74	478

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY			F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS			F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS			F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY
WING A	4	12	12	L	Min	2'-6"	-	-	-	L	-		-	-	-	L	-		4	18	4	Min
					Max	6'-0"																3'-10"
				X	Min	0'-9"				X	-					X	-					Max
					Max	1'-1"																9'-0"
				Y	Min	1'-10"				Y	-					Y	-					
					Max	5'-0"																
WING B	4	12	12	L	Min	2'-6"	-	-	-	L	-		-	-	-	L	-		4	18	4	Min
					Max	6'-0"																3'-10"
				X	Min	0'-9"				X	-					X	-					Max
					Max	1'-1"																9'-0"
				Y	Min	1'-10"				Y	-					Y	-					
					Max	5'-0"																

WING	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY			F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY			F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS			F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS			REINF. STEEL QTY. PER WING (LBS)
WING A	4	18	2	11'-8"	4	18	8	L	Min	3'-2"	4	6	14'-9"	6	18	8	Min			-	-	-	-			4	2	12'-0"	4	2	13'-4"	6	12	4	L	3'-4"		239
									Max	6'-3"							1'-8"																				
								X	Min	1'-4"																											
									Max	1'-4"							Max						Max												X	1'-8"	
								Y	Min	1'-11"																											
									Max	5'-0"							2'-0"						-													
WING B	4	18	2	11'-8"	4	18	8	L	Min	3'-2"	4	6	14'-9"	6	18	8	Min			-	-	-	-			4	2	12'-0"	4	2	13'-4"	6	12	4	L	3'-4"		239
									Max	6'-3"							1'-8"																				
								X	Min	1'-4"																											
									Max	1'-4"							Max						Max												X	1'-8"	
								Y	Min	1'-11"																											
									Max	5'-0"							2'-0"						-													

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

OUTLET SKEWED END SECTION

SKEW (DEGREE) SK	SLOPE SL	DESIGN FILL DEPTH (FT.) D	CLEAR SPAN (FT.) S	CLEAR HEIGHT (FT.) H	SECTION LENGTH LL	TOP SLAB THK. T	HDWL DEPTH HD	BOTTOM SLAB THK. B	SIDE WALL THK. C	INTERIOR WALL THK. W	OVER ALL WIDTH OW	OVER ALL HEIGHT OH

TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	"c" SIZE	"c" SPACING	"c" LENGTHS VARY	"c" NO. REQ'D
		Max				Max	
		Min				Min	

BOTTOM SLAB REINFORCING STEEL "d" SIZE	"d" SPACING	"d" LENGTHS VARY	"d" NO. REQ'D	"f" SIZE	"f" SPACING	"f" LENGTHS VARY	"f" NO. REQ'D
		Max				Max	
		Min				Min	

SIDE WALL REINFORCING STEEL "f0" SIZE	"f0" SPACING	"f0" NO. REQ'D	"f0" LENGTH

INTERIOR WALL REINFORCING STEEL "f1" SIZE	"f1" SPACING	"f1" NO. REQ'D	"f1" LENGTH

TOP SLAB DISTRIBUTION REINFORCING STEEL "g" SIZE	"g" SPACING	"g" NO. REQ'D	"g" LENGTHS VARY
			Max
			Min

BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY
			Max
			Min

SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH
			LONG
			SHORT

INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" SIZE	"d2" SPACING	"d2" NO. REQ'D	"d2" LENGTH

CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	①REINFORCING STEEL (GR 60) (Includes HDWL.) LBS.

"k1" HDWL BARS SIZE	"k1" HDWL BARS LENGTH	"k1" HDWL BARS NO. REQ'D	"k2" HDWL BARS SIZE	"k2" HDWL BARS LENGTH	"k2" HDWL BARS NO. REQ'D	"h" HDWL BARS SIZE	"h" HDWL BARS LENGTH	"h" HDWL BARS Y	"h" HDWL BARS NO. REQ'D

OUTLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.) D	CLEAR SPAN (FT.) S	CLEAR HEIGHT (FT.) H	TOP SLAB THK. T	BOTTOM SLAB THK. B	SIDE WALL THK. C	INTERIOR WALL THK. W	OVER ALL WIDTH OW	OVER ALL HEIGHT OH	SECTION LENGTH (FT.) SL

TOP SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "a" SIZE	"a" L	Bent "b" SIZE	Bent "b" L	"c" SIZE	"c" L	SPACING	NO. REQ'D

BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "d" SIZE	"d" L	Bent "b1" SIZE	Bent "b1" L	"f" SIZE	"f" L	SPACING	NO. REQ'D

SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH

INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH

TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL SIZE	SPACING	NO. REQ'D

BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D

SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D

INTERIOR WALL DISTRIBUTION REINF. STEEL "d2" LENGTH = SL SIZE	SPACING	NO. REQ'D

HDWL DEPTH HD	ADDITIONAL REINF. FOR HDWL LBS.	"h" HDWL BARS SIZE	"h" HDWL BARS Y	"h" HDWL BARS LENGTH	"h" HDWL BARS NO. REQ'D
3"	23	4	0'-7"	1'-7"	19

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
TOTAL	
0.16	43

The required number of bars and lengths shown are for estimating purpose only. The actual number and length required shall be determined in field.

Unless otherwise noted, all dimensions are in inches.

SHEET 2 OF 2

DETAILS OF R.C. BOX CULVERT

DOUBLE BARREL BOX CULVERT
C.L. I-49 STA. 106+60

SPECIAL DETAILS

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Ver. 1.117

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	44	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

TABULAR DATA BY: TSA DATE: 09/16/2022
CHECKED BY: RCT DATE: 02/07/2023

INLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
5'-0"	4'-0"	0'-9"	0'-8"	0	3:1	4'-0"	1'-0"	4'-10"	1'-4"	30	30	2'-2"	2'-5 3/4"	2'-5 3/4"	0'-4 3/8"	0'-4 3/8"	12'-0"	12'-0"	13'-10 5/8"	13'-10 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
INLET	INLET
CU.YD	LBS.
4.32	460

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY	F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY	F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS	REINF. STEEL QTY. PER WING (LBS)
WING A	4	12	12	L Min 2'-6" / Max 6'-0"; X Min 0'-9" / Max 1'-1"; Y Min 1'-10" / Max 5'-0"	-	-	-	L - / X - / Y -	-	-	-	L - / X - / Y -	4	18	4	Min / 3'-10" / Max / 9'-0"	4	18	2	11'-8"	4	18	8	L Min 3'-2" / Max 6'-3"; X Min 1'-4" / Max 1'-4"; Y Min 1'-11" / Max 5'-0"	4	6	14'-9"	6	18	8	Min / 1'-8" / Max / 2'-0"	-	-	-	Min / - / Max / -	4	2	12'-0"	4	2	13'-4"	6	12	4	L 3'-4" / X 1'-8"	230
WING B	4	12	12	L Min 2'-6" / Max 6'-0"; X Min 0'-9" / Max 1'-1"; Y Min 1'-10" / Max 5'-0"	-	-	-	L - / X - / Y -	-	-	-	L - / X - / Y -	4	18	4	Min / 3'-10" / Max / 9'-0"	4	18	2	11'-8"	4	18	8	L Min 3'-2" / Max 6'-3"; X Min 1'-4" / Max 1'-4"; Y Min 1'-11" / Max 5'-0"	4	6	14'-9"	6	18	8	Min / 1'-8" / Max / 2'-0"	-	-	-	Min / - / Max / -	4	2	12'-0"	4	2	13'-4"	6	12	4	L 3'-4" / X 1'-8"	230

This drawing to be used in conjunction with
SHEET 1 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE',
SHEET 2 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF SINGLE-BARREL R.C. BOX CULVERT',
SHEET 4 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF WINGWALLS', and
STANDARD DRAWING RCB-2.

For additional information and outlet sections, see Sheet 2 of 2.

INLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	HEADWALL DEPTH	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "b" SIZE	"b" SPACEING	"b" LENGTHS VARY	"b" NO. REQ'D	SIDE WALL REINFORCING STEEL "f" SIZE	"f" SPACING	"f" NO. REQ'D	"f" LENGTH	TOP SLAB DISTRIBUTION REINFORCING STEEL "d" SIZE	"d" SPACING	"d" NO. REQ'D	"d" LENGTHS VARY	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	HEADWALL REINFORCING STEEL "k1", "k2" & "h" BAR	SIZE	NO. REQ'D	LENGTH	CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	① REINFORCING STEEL (GR. 60) (Includes HDWL) LBS.
SK	SL	D	S	H	LL	T	B	C	HD	OW	OH	SIZE	SPACING	LENGTHS VARY	NO. REQ'D	SIZE	SPACEING	LENGTHS VARY	NO. REQ'D	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	LENGTHS VARY	SIZE	SPACING	NO. REQ'D	LENGTHS VARY	SIZE	SPACING	NO. REQ'D	LENGTHS VARY	SIZE	SPACING	NO. REQ'D	LENGTH								
														Max / Min				Max / Min										Max / Min				Max / Min							LONG / SHORT	"k1" / "k2" / "h"			Y		

INLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF.STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D	CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 50) LBS.
D	S	H	T	B	C	OW	OH	SL																										

HDWL DEPTH	ADDITIONAL REINF. FOR HDWL	"h" HDWL BARS SIZE	Y	LENGTH	NO. REQ'D
HD	LBS				
3"	6	4	0'-6"	1'-6"	6

TOTAL CU. YDS.	TOTAL LBS.
0.05	12

MID-SECTION

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THK.	BOTTOM SLAB THK.	SIDE WALL THK	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D	CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (Gr. 60) LBS.
D	S	H	T	B	C	OW	OH	SL																										
A	10	4	4	7	7	6	5'-0"	5'-2"	196.00	4	8.5	276	4'-8"	4	7.5	313	4'-8"	4	9	522	4'-10"	4	12	5	4	12	5	4	12	8	71.38	5990

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

MID-SECTION BAR LAP TABLE

# of Long. Laps Req'd.	SL = Section Length
0	< 40.0 ft
1	>40.0 ft - 78.0 ft
2	>78.0 ft - 116.0 ft
3	>116.0 ft - 154.0 ft
4	>154.0 ft - 192.0 ft
5	>192.0 ft - 230.0 ft
6	>230.0 ft - 268.0 ft
7	>268.0 ft - 306.0 ft
8	>306.0 ft -344.0 ft

Design Fill Depth	Range of Actual Fill Depth
2	0.0 ft - 2.0 ft
5	>2.0 ft - 5.0 ft
10	>5.0 ft - 10.0 ft
15	>10.0 ft - 15.0 ft
20	>15.0 ft - 20.0 ft
25	>20.0 ft - 25.0 ft
30	>25.0 ft - 30.0 ft
35	>30.0 ft - 35.0 ft
40	>35.0 ft - 40.0 ft

Data shown for Mid-Section, Slope Section(s), and Skewed End Section is based on the design fill depth shown in the table, see PLAN AND PROFILE SHEETS for actual fill depth.

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

SHEET 1 OF 2
DETAILS OF R.C. BOX CULVERT

SINGLE BARREL BOX CULVERT
C.L. I-49 STA. 129+65

SPECIAL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	45	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

TABULAR DATA BY: TSA DATE: 09/16/2022
CHECKED BY: RCT DATE: 02/07/2023

OUTLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B	CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4	CU.YD	LBS.
5'-0"	4'-0"	0'-9"	0'-8"	0	3:1	4'-0"	1'-0"	4'-10"	1'-4"	30	30	2'-2"	2'-5 3/4"	2'-5 3/4"	0'-4 3/8"	0'-4 3/8"	12'-0"	12'-0"	13'-10 5/8"	13'-10 5/8"	4.68	460

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY	F1	F1	F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F2	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F3	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY	F6	F6
WING A	4	12	12	L	Min	2'-6"	-	-	-	L	-	-	-	-	L	-	4	18	4	Min	4	18	2	11'-8"	4	18	8	L	Min	3'-2"
					Max	6'-0"														3'-10"									Max	6'-3"
				X	Min	0'-9"				X	-				X	-				Max								X	Min	1'-4"
					Max	1'-1"														9'-0"									Max	1'-4"
				Y	Min	1'-10"				Y	-				Y	-												Y	Min	1'-11"
					Max	5'-0"																							Max	5'-0"
WING B	4	12	12	L	Min	2'-6"	-	-	-	L	-	-	-	-	L	-	4	18	4	Min	4	18	2	11'-8"	4	18	8	L	Min	3'-2"
					Max	6'-0"														3'-10"									Max	6'-3"
				X	Min	0'-9"				X	-				X	-				Max								X	Min	1'-4"
					Max	1'-1"														9'-0"									Max	1'-4"
				Y	Min	1'-10"				Y	-				Y	-												Y	Min	1'-11"
					Max	5'-0"																							Max	5'-0"

WING	F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F8	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F9	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS	F12	REINF. STEEL QTY. PER WING (LBS)
WING A	4	6	14'-9"	6	18	8	Min	1'-8"	-	-	-	Min	-	4	2	12'-0"	4	2	13'-4"	6	12	4	L	3'-4"	230
							Max	2'-0"				Max	-										X	1'-8"	
WING B	4	6	14'-9"	6	18	8	Min	1'-8"	-	-	-	Min	-	4	2	12'-0"	4	2	13'-4"	6	12	4	L	3'-4"	230
							Max	2'-0"				Max	-										X	1'-8"	

OUTLET SKEW SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	HEADWALL DEPTH	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "b" SIZE	"b" SPACEING	"b" LENGTHS VARY	"b" NO. REQ'D	SIDE WALL REINFORCING STEEL "f" SIZE	"f" SPACING	"f" NO. REQ'D	"f" LENGTH	TOP SLAB DISTRIBUTION REINFORCING STEEL "d" SIZE	"d" SPACING	"d" NO. REQ'D	"d" LENGTHS VARY	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	HEADWALL REINFORCING STEEL "k1", "k2" & "h"				CLASS "S" CONCRETE (Includes HDWL.)	① REINFORCING STEEL (GR. 60) (Includes HDWL.)
SK	SL	D	S	H	LL	T	B	C	HD	OW	OH																														CU. YDS.	LBS.
														Max				Max								Max				Max			LONG	"k1"						
																																		"k2"						
														Min				Min								Min				Min			SHORT						
																																		"h"			Y			

OUTLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF.STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D	CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 50) LBS.
D	S	H	T	B	C	OW	OH	SL																								

HDWL DEPTH	ADDITIONAL REINF. FOR HDWL	"h" HDWL BARS			
HD	LBS	SIZE	Y	LENGTH	NO. REQ'D
3"	6	4	0'-6"	1'-6"	6

TOTAL	
0.05	12

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

The required number of bars and lengths shown are for estimating purpose only. The actual number and length required shall be determined in field.

Unless otherwise noted, all dimensions are in inches.

SHEET 2 OF 2

DETAILS OF R.C. BOX CULVERT

SINGLE BARREL BOX CULVERT
C.L. I-49 STA. 129+65

SPECIAL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	46	809
		SPECIAL DETAILS				

INLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
13'-8"	4'-0"	0'-9"	0'-8"	0	3:1	12'-8"	1'-0"	4'-10"	1'-4"	30	30	2'-2"	2'-5 3/4"	2'-5 3/4"	0'-4 3/8"	0'-4 3/8"	12'-0"	12'-0"	13'-10 5/8"	13'-10 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
INLET	INLET
CU.YD	LBS.
4.83	472

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY	F1 LENGTHS	F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS
WING A	4	12	12	L Min	2'-6"	-	-	-	L -	-	-	-	L -	4	18	4	Min	4	18	2	11'-8"
				L Max	6'-0"												3'-10"				
				X Min	0'-9"				X -				X -				Max				
				X Max	1'-1"												9'-0"				
				Y Min	1'-10"				Y -				Y -								
				Y Max	5'-0"																
WING B	4	12	12	L Min	2'-6"	-	-	-	L -	-	-	-	L -	4	18	4	Min	4	18	2	11'-8"
				L Max	6'-0"												3'-10"				
				X Min	0'-9"				X -				X -				Max				
				X Max	1'-1"												9'-0"				
				Y Min	1'-10"				Y -				Y -								
				Y Max	5'-0"																

WING	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY	F6 LENGTHS	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS	REINF. STEEL QTY. PER WING (LBS)
WING A	4	18	8	L Min	3'-2"	4	14'-9"	6	18	8	Min	-	-	-	Min	4	2	12'-0"	4	2	13'-4"	6	12	4	L 3'-4"	236
				L Max	6'-3"						1'-8"				-											
				X Min	1'-4"						Max				Max										X 1'-8"	
				X Max	1'-4"						2'-0"				-											
				Y Min	1'-11"																					
				Y Max	5'-0"																					
WING B	4	18	8	L Min	3'-2"	4	14'-9"	6	18	8	Min	-	-	-	Min	4	2	12'-0"	4	2	13'-4"	6	12	4	L 3'-4"	236
				L Max	6'-3"						1'-8"				-											
				X Min	1'-4"						Max				Max										X 1'-8"	
				X Max	1'-4"						2'-0"				-											
				Y Min	1'-11"																					
				Y Max	5'-0"																					

MID-SECTION

BAR LAP TABLE

# of Long. Laps Req'd.	SL = Section Length
0	< 40.0 ft
1	>40.0 ft - 78.0 ft
2	>78.0 ft - 116.0 ft
3	>116.0 ft - 154.0 ft
4	>154.0 ft - 192.0 ft
5	>192.0 ft - 230.0 ft
6	>230.0 ft - 268.0 ft
7	>268.0 ft - 306.0 ft
8	>306.0 ft -344.0 ft

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

This drawing to be used in conjunction with
SHEET 1 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE',
SHEET 3 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF MULTI-BARREL R.C. BOX CULVERT',
SHEET 4 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF WINGWALLS', and
STANDARD DRAWING RCB-2.

For additional information and outlet sections, see Sheet 2 of 2.

INLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THK.	HDWL DEPTH	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT
SK	SL	D	S	H	LL	T	HD	B	C	W	OW	OH

TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	"c" SIZE	"c" SPACING	"c" LENGTHS VARY	"c" NO. REQ'D
		Max				Max	
		Min				Min	

BOTTOM SLAB REINFORCING STEEL "d" SIZE	"d" SPACING	"d" LENGTHS VARY	"d" NO. REQ'D	"f" SIZE	"f" SPACING	"f" LENGTHS VARY	"f" NO. REQ'D
		Max				Max	
		Min				Min	

SIDE WALL REINFORCING STEEL "f0" SIZE	"f0" SPACING	"f0" NO. REQ'D	"f0" LENGTH

INTERIOR WALL REINFORCING STEEL "f1" SIZE	"f1" SPACING	"f1" NO. REQ'D	"f1" LENGTH

TOP SLAB DISTRIBUTION REINFORCING STEEL "g" SIZE	"g" SPACING	"g" NO. REQ'D	"g" LENGTHS VARY
			Max
			Min

BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY
			Max
			Min

SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH
			LONG
			SHORT

INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" SIZE	"d2" SPACING	"d2" NO. REQ'D	"d2" LENGTH

CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	REINFORCING STEEL (GR 60) (Includes HDWL) LBS.

ⓘ Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

"k1" HDWL BARS SIZE	"k1" LENGTH	"k1" NO. REQ'D	"k2" HDWL BARS SIZE	"k2" LENGTH	"k2" NO. REQ'D	"h" HDWL BARS SIZE	"h" LENGTH	"h" Y	"h" NO. REQ'D

INLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THK.	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)
	D	S	H	T	B	C	W	OW	OH	SL

TOP SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "a" SIZE	"a" L	Bent "b" SIZE	Bent "b" L	"c" SIZE	"c" L	SPACING	NO. REQ'D

BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "d" SIZE	"d" L	Bent "b1" SIZE	Bent "b1" L	"f" SIZE	"f" L	SPACING	NO. REQ'D

SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH

INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH

TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL SIZE	SPACING	NO. REQ'D

BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D

SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D

INTERIOR WALL DISTRIBUTION REINF. STEEL "d2" LENGTH = SL SIZE	SPACING	NO. REQ'D

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
TOTAL	
0.13	34

HDWL DEPTH HD	ADDITIONAL REINF. FOR HDWL LBS.	"h" HDWL BARS SIZE	"h" Y	"h" LENGTH	"h" NO. REQ'D
3"	18	4	0'-7"	1'-7"	15

Design Fill Depth	Range of Actual Fill Depth
2	0.0 ft - 2.0 ft
5	>2.0 ft - 5.0 ft
10	>5.0 ft - 10.0 ft
15	>10.0 ft - 15.0 ft
20	>15.0 ft - 20.0 ft
25	>20.0 ft - 25.0 ft
30	>25.0 ft - 30.0 ft
35	>30.0 ft - 35.0 ft
40	>35.0 ft - 40.0 ft

Data shown for Mid-Section, Slope Section(s), and Skewed End Section is based on the design fill depth shown in the table, see PLAN AND PROFILE SHEETS for actual fill depth.

MID-SECTION

| R.C. BOX SECTION | DESIGN FILL DEPTH (FT.) | CLEAR SPAN (FT.) | CLEAR HEIGHT (FT.) | TOP SLAB THK. | BOTTOM SLAB THK. | SIDE WALL THK. | INTERIOR WALL THK. | OVER ALL WIDTH | OVER ALL HEIGHT | SECTION LENGTH (FT.) | TOP SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "a" SIZE | "a" L | Bent "b" SIZE | Bent "b" L | "c" SIZE | "c" L | SPACING | NO. REQ'D | BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "d" SIZE | "d" L | Bent "b1" SIZE | Bent "b1" L | "f" SIZE | "f" L | SPACING | NO. REQ'D | SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE | SPACING | NO. REQ'D | LENGTH | INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE | SPACING | NO. REQ'D | LENGTH | TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL SIZE | SPACING | NO. REQ'D | BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE | SPACING | NO. REQ'D | SIDE WALL DISTRIBUTION STEEL "d1" LENGTH = SL SIZE | SPACING | NO. REQ'D | INTERIOR WALL DISTRIBUTION STEEL "d2" LENGTH = SL SIZE | SPACING | NO. REQ'D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	47	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

TABULAR DATA BY: VS DATE: 07/20/2023
CHECKED BY: RCT DATE: 07/28/2023

OUTLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
13'-8"	4'-0"	0'-9"	0'-8"	0	3:1	12'-8"	1'-0"	4'-10"	1'-4"	30	30	2'-2"	2'-5 3/4"	2'-5 3/4"	0'-4 3/8"	0'-4 3/8"	12'-0"	12'-0"	13'-10 5/8"	13'-10 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
OUTLET	OUTLET
CU.YD	LBS.
5.40	472

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY	F1	F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS
WING A	4	12	12	L	Min 2'-6"	-	-	-	L	-	-	-	-	L	-	4	18	4	Min	4	18	2	11'-8"
					Max 6'-0"														3'-10"				
				X	Min 0'-9"				X	-				X	-				Max				
					Max 1'-1"														9'-0"				
				Y	Min 1'-10"				Y	-				Y	-								
					Max 5'-0"																		
WING B	4	12	12	L	Min 2'-6"	-	-	-	L	-	-	-	-	L	-	4	18	4	Min	4	18	2	11'-8"
					Max 6'-0"														3'-10"				
				X	Min 0'-9"				X	-				X	-				Max				
					Max 1'-1"														9'-0"				
				Y	Min 1'-10"				Y	-				Y	-								
					Max 5'-0"																		

WING	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY	F6	F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS	REINF. STEEL QTY. PER WING (LBS)
WING A	4	18	8	L	Min 3'-2"	4	6	14'-9"	6	18	8	Min	-	-	-	Min	4	2	12'-0"	4	2	13'-4"	6	12	4	L 3'-4"	236
					Max 6'-3"							1'-8"				-											
				X	Min 1'-4"							Max				Max										X 1'-8"	
					Max 1'-4"							2'-0"				-											
				Y	Min 1'-11"																						
					Max 5'-0"																						
WING B	4	18	8	L	Min 3'-2"	4	6	14'-9"	6	18	8	Min	-	-	-	Min	4	2	12'-0"	4	2	13'-4"	6	12	4	L 3'-4"	236
					Max 6'-3"							1'-8"				-											
				X	Min 1'-4"							Max				Max										X 1'-8"	
					Max 1'-4"							2'-0"				-											
				Y	Min 1'-11"																						
					Max 5'-0"																						

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

OUTLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THK.	HDWL DEPTH	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	TOP SLAB REINFORCING STEEL "c" SIZE	"c" SPACING	"c" LENGTHS VARY	"c" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "d" SIZE	"d" SPACING	"d" LENGTHS VARY	"d" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "f" SIZE	"f" SPACING	"f" LENGTHS VARY	"f" NO. REQ'D
SK	SL	D	S	H	LL	T	HD	B	C	W	OW	OH																
															Max				Max				Max				Max	
															Min				Min				Min				Min	

SIDE WALL REINFORCING STEEL "f0" SIZE	"f0" SPACING	"f0" NO. REQ'D	"f0" LENGTH	INTERIOR WALL REINFORCING STEEL "f1" SIZE	"f1" SPACING	"f1" NO. REQ'D	"f1" LENGTH	TOP SLAB DISTRIBUTION REINFORCING STEEL "g" SIZE	"g" SPACING	"g" NO. REQ'D	"g" LENGTHS VARY	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" SIZE	"d2" SPACING	"d2" NO. REQ'D	"d2" LENGTH
											Max				Max				LONG				
											Min				Min				SHORT				

CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	①REINFORCING STEEL (GR 60) (Includes HDWL.) LBS.

"k1" HDWL BARS SIZE	LENGTH	NO. REQ'D	"k2" HDWL BARS SIZE	LENGTH	NO. REQ'D	"h" HDWL BARS SIZE	LENGTH	Y	NO. REQ'D

OUTLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THK.	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "a" SIZE	"a" L	Bent "b" SIZE	Bent "b" L	"c" SIZE	"c" L	"c" SPACING	"c" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "d" SIZE	"d" L	Bent "b1" SIZE	Bent "b1" L	"f" SIZE	"f" L	"f" SPACING	"f" NO. REQ'D
	D	S	H	T	B	C	W	OW	OH	SL																

SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF. STEEL "c1" LENGTH = SL SIZE	SPACING	NO. REQ'D	INTERIOR WALL DISTRIBUTION REINF. STEEL "d2" LENGTH = SL SIZE	SPACING	NO. REQ'D

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
TOTAL	
0.13	34

HDWL DEPTH HD	ADDITIONAL REINF. FOR HDWL LBS.	"h" HDWL BARS SIZE	Y	LENGTH	NO. REQ'D
3"	18	4	0'-7"	1'-7"	15

The required number of bars and lengths shown are for estimating purpose only. The actual number and length required shall be determined in field.

Unless otherwise noted, all dimensions are in inches.

SHEET 2 OF 2

DETAILS OF R.C. BOX CULVERT

DOUBLE BARREL BOX CULVERT

C.L. HWY 22 RAMP 2 STA. 14+50

SPECIAL DETAILS

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Ver. 1.117

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	48	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

TABULAR DATA BY: VS DATE: 03/29/2024
CHECKED BY: BOL DATE: 04/09/2024

INLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B	CLASS "S" CONCRETE (Includes apron) INLET	REINFORCING STEEL (Includes apron and laps if required) INLET
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4	CU.YD	LBS.
9'-0"	4'-0"	0'-9"	0'-8"	0	3:1	8'-0"	1'-0"	4'-10"	1'-4"	30	30	2'-2"	2'-5 3/4"	2'-5 3/4"	0'-4 3/8"	0'-4 3/8"	12'-0"	12'-0"	13'-10 5/8"	13'-10 5/8"	4.56	466

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY			F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS			F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS			F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY
WING A	4	12	12	L	Min	2'-6"	-	-	-	L	-		-	-	-	L	-		4	18	4	Min
					Max	6'-0"																3'-10"
				X	Min	0'-9"				X	-					X	-					Max
					Max	1'-1"																9'-0"
				Y	Min	1'-10"				Y	-					Y	-					
					Max	5'-0"																
WING B	4	12	12	L	Min	2'-6"	-	-	-	L	-		-	-	-	L	-		4	18	4	Min
					Max	6'-0"																3'-10"
				X	Min	0'-9"				X	-					X	-					Max
					Max	1'-1"																9'-0"
				Y	Min	1'-10"				Y	-					Y	-					
					Max	5'-0"																

WING	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY			F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY		F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS		F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS		REINF. STEEL QTY. PER WING (LBS)
WING A	4	18	2	11'-8"	4	18	8	L	Min	3'-2"	4	6	14'-9"	6	18	8	Min		-	-	-	Min		4	2	12'-0"	4	2	13'-4"	6	12	4	L	3'-4"	233
									Max	6'-3"							1'-8"					-													
								X	Min	1'-4"							Max					Max											X	1'-8"	
									Max	1'-4"							2'-0"					-											
								Y	Min	1'-11"																								
									Max	5'-0"																								
WING B	4	18	2	11'-8"	4	18	8	L	Min	3'-2"	4	6	14'-9"	6	18	8	Min		-	-	-	Min		4	2	12'-0"	4	2	13'-4"	6	12	4	L	3'-4"	233
									Max	6'-3"							1'-8"					-											
								X	Min	1'-4"							Max					Max											X	1'-8"	
									Max	1'-4"							2'-0"					-											
								Y	Min	1'-11"																								
									Max	5'-0"																								

This drawing to be used in conjunction with
SHEET 1 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE',
SHEET 2 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF SINGLE-BARREL R.C. BOX CULVERT',
SHEET 4 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF WINGWALLS', and
STANDARD DRAWING RCB-2.

For additional information and outlet sections, see Sheet 2 of 2.

INLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	HEADWALL DEPTH	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "b" SIZE	"b" SPACEING	"b" LENGTHS VARY	"b" NO. REQ'D	SIDE WALL REINFORCING STEEL "f" SIZE	"f" SPACING	"f" NO. REQ'D	"f" LENGTH	TOP SLAB DISTRIBUTION REINFORCING STEEL "d" SIZE	"d" SPACING	"d" NO. REQ'D	"d" LENGTHS VARY	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	HEADWALL REINFORCING STEEL "k1", "k2" & "h"				CLASS "S" CONCRETE (Includes HDWL)	① REINFORCING STEEL (GR. 60) (Includes HDWL)
SK	SL	D	S	H	LL	T	B	C	HD	OW	OH																											BAR	SIZE	NO. REQ'D	LENGTH	CU. YDS.	LBS.
														Max				Max								Max				Max			LONG	"k1"					
																																		"k2"					
														Min				Min								Min				Min			SHORT	"h"			Y		

INLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF.STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D	CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 50) LBS.
D	S	H	T	B	C	OW	OH	SL																									

HDWL DEPTH	ADDITIONAL REINF. FOR HDWL	"h" HDWL BARS			
HD	LBS	SIZE	Y	LENGTH	NO. REQ'D
3"	12	4	0'-6"	1'-6"	10

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 50) LBS.
TOTAL	
0.08	22

MID-SECTION

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THK	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D	CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (Gr. 60) LBS.
D	S	H	T	B	C	OW	OH	SL																									
A	5	8	4	8.5	8.5	6	9'-0"	5'-5"	79.00	6	6	158	8'-8"	6	6.5	145	6'-8"	4	9	210	5'-1"	4	12	9	4	12	9	4	12	8	49.01	6103

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

Design Fill Depth	Range of Actual Fill Depth
2	0.0 ft - 2.0 ft
5	>2.0 ft - 5.0 ft
10	>5.0 ft - 10.0 ft
15	>10.0 ft - 15.0 ft
20	>15.0 ft - 20.0 ft
25	>20.0 ft - 25.0 ft
30	>25.0 ft - 30.0 ft
35	>30.0 ft - 35.0 ft
40	>35.0 ft - 40.0 ft

Data shown for Mid-Section, Slope Section(s), and Skewed End Section is based on the design fill depth shown in the table, see PLAN AND PROFILE SHEETS for actual fill depth.

MID-SECTION BAR LAP TABLE

# of Long. Laps Req'd.	SL = Section Length
0	< 40.0 ft
1	>40.0 ft - 78.0 ft
2	>78.0 ft - 116.0 ft
3	>116.0 ft - 154.0 ft
4	>154.0 ft - 192.0 ft
5	>192.0 ft - 230.0 ft
6	>230.0 ft - 268.0 ft
7	>268.0 ft - 306.0 ft
8	>306.0 ft -344.0 ft

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

SHEET 1 OF 2
DETAILS OF R.C. BOX CULVERT

SINGLE BARREL BOX CULVERT
C.L. HWY 22 RAMP 3 STA. 32+60.00

SPECIAL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	49	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

TABULAR DATA BY: VS DATE: 03/29/2024
CHECKED BY: BOL DATE: 04/09/2024

OUTLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B	CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4	OUTLET	OUTLET
9'-0"	4'-0"	0'-9"	0'-8"	0	3:1	8'-0"	1'-0"	4'-10"	1'-4"	30	30	2'-2"	2'-5 3/4"	2'-5 3/4"	0'-4 3/8"	0'-4 3/8"	12'-0"	12'-0"	13'-10 5/8"	13'-10 5/8"	CU.YD	LBS.
																					5.01	466

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY		F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY		F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS		REINF. STEEL QTY. PER WING (LBS)
WING A	4	12	12	L	Min	2'-6"	-	-	-	L	-	-	L	-	4	18	4	Min	4	18	2	11'-8"	4	18	8	L	Min	3'-2"	4	6	14'-9"	6	18	8	Min	-	-	-	Min	4	2	12'-0"	4	2	13'-4"	6	12	4	L	3'-4"	233
					Max	6'-0"											3'-10"									Max	3'-3"							1'-8"														
				X	Min	0'-9"				X	-	-	X	-			Max					X	-	-	X	Min	1'-4"							Max				Max									X	1'-8"	
					Max	1'-1"																				Max	1'-4"							2'-0"														
				Y	Min	1'-10"				Y	-	-	Y	-			9'-0"					Y	-	-	Y	Min	1'-11"																						
					Max	5'-0"																					Max	5'-0"																					
WING B	4	12	12	L	Min	2'-6"	-	-	-	L	-	-	L	-	4	18	4	Min	4	18	2	11'-8"	4	18	8	L	Min	3'-2"	4	6	14'-9"	6	18	8	Min	-	-	-	Min	4	2	12'-0"	4	2	13'-4"	6	12	4	L	3'-4"	233
					Max	6'-0"											3'-10"									Max	3'-3"							1'-8"														
				X	Min	0'-9"				X	-	-	X	-			Max					X	-	-	X	Min	1'-4"							Max				Max									X	1'-8"	
					Max	1'-1"																				Max	1'-4"							2'-0"														
				Y	Min	1'-10"				Y	-	-	Y	-			9'-0"					Y	-	-	Y	Min	1'-11"																						
					Max	5'-0"																					Max	5'-0"																					

OUTLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	HEADWALL DEPTH	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "b" SIZE	"b" SPACING	"b" LENGTHS VARY	"b" NO. REQ'D	SIDE WALL REINFORCING STEEL "f" SIZE	"f" SPACING	"f" NO. REQ'D	"f" LENGTH	TOP SLAB DISTRIBUTION REINFORCING STEEL "d" SIZE	"d" SPACING	"d" NO. REQ'D	"d" LENGTHS VARY	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	HEADWALL REINFORCING STEEL "k1", "k2" & "h" BAR	"k1", "k2" & "h" SIZE	"k1", "k2" & "h" NO. REQ'D	"k1", "k2" & "h" LENGTH	CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	ⓘ REINFORCING STEEL (GR. 60) (Includes HDWL) LBS.
SK	SL	D	S	H	LL	T	B	C	HD	OW	OH																																
		0												Max				Max									Max				Max							LONG	"k1"				
																																						"k2"				
														Min				Min									Min				Min							SHORT					
																																						"h"			Y	

OUTLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF.STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D
D	S	H	T	B	C	OW	OH	SL																								

HDWL DEPTH	ADDITIONAL REINF. FOR HDWL	"h" HDWL BARS			
HD	LBS	SIZE	Y	LENGTH	NO. REQ'D
3"	12	4	0'-6"	1'-6"	10

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 50) LBS.
TOTAL	
0.08	22

ⓘ Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

The required number of bars and lengths shown are for estimating purpose only. The actual number and length required shall be determined in field.

Unless otherwise noted, all dimensions are in inches.

SHEET 2 OF 2

DETAILS OF R.C. BOX CULVERT

SINGLE BARREL BOX CULVERT
C.L. HWY 22 RAMP 3 STA. 32+60.00

SPECIAL DETAILS

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Ver. 1.117

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	50	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

TABULAR DATA BY: VS DATE: 07/20/2023
CHECKED BY: RCT DATE: 07/28/2023

INLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
5'-0"	3'-0"	0'-9"	0'-8"	0	3:1	4'-0"	1'-0"	3'-10"	1'-0"	30	30	2'-2"	2'-2"	2'-2"	0'-0"	0'-0"	9'-6"	9'-6"	11'-4 5/8"	11'-4 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
INLET	INLET
CU.YD	LBS.
3.09	338

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY			F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY
WING A	4	12	10	L	Min	2'-0"	-	-	-	L -	-	-	-	L -	4	18	2	Min
					Max	4'-8"												5'-5"
				X	Min	0'-9"				X -				X -				Max
					Max	0'-9"												5'-5"
				Y	Min	1'-4"				Y -				Y -				
					Max	4'-0"												
WING B	4	12	10	L	Min	2'-0"	-	-	-	L -	-	-	-	L -	4	18	2	Min
					Max	4'-8"												5'-5"
				X	Min	0'-9"				X -				X -				Max
					Max	0'-9"												5'-5"
				Y	Min	1'-4"				Y -				Y -				
					Max	4'-0"												

WING	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY			F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY
WING A	4	18	2	9'-2"	4	18	7	L	Min	2'-7"	4	6	12'-3"	6	18	6	Min
									Max	5'-3"							1'-8"
								X	Min	1'-4"							Max
									Max	1'-4"							1'-8"
								Y	Min	1'-4"							
									Max	4'-0"							
WING B	4	18	2	9'-2"	4	18	7	L	Min	2'-7"	4	6	12'-3"	6	18	6	Min
									Max	5'-3"							1'-8"
								X	Min	1'-4"							Max
									Max	1'-4"							1'-8"
								Y	Min	1'-4"							
									Max	4'-0"							

WING	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS		REINF. STEEL QTY. PER WING (LBS)
WING A	-	-	-	Min	4	2	9'-5"	4	2	10'-7"	6	12	3	L	3'-4"	169
				-												
				Max										X	1'-8"	
				1'-8"												
WING B	-	-	-	Min	4	2	9'-5"	4	2	10'-7"	6	12	3	L	3'-4"	169
				-												
				Max										X	1'-8"	
				1'-8"												

This drawing to be used in conjunction with
SHEET 1 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE',
SHEET 2 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF SINGLE-BARREL R.C. BOX CULVERT',
SHEET 4 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF WINGWALLS', and
STANDARD DRAWING RCB-2.

For additional information and outlet sections, see Sheet 2 of 2.

INLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	HEADWALL DEPTH	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "b" SIZE	"b" SPACEING	"b" LENGTHS VARY	"b" NO. REQ'D	SIDE WALL REINFORCING STEEL "f" SIZE	"f" SPACING	"f" NO. REQ'D	"f" LENGTH
SK	SL	D	S	H	LL	T	B	C	HD	OW	OH												
														Max				Max					
														Min				Min					

TOP SLAB DISTRIBUTION REINFORCING STEEL "d" SIZE	"d" SPACING	"d" NO. REQ'D	"d" LENGTHS VARY	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	HEADWALL REINFORCING STEEL "k1", "k2" & "h" BAR	"k1", "k2" & "h" SIZE	"k1", "k2" & "h" NO. REQ'D	"k1", "k2" & "h" LENGTH
			Max				Max				LONG	"k1"			
												"k2"			
			Min				Min				SHORT				
												"h"			Y

CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	① REINFORCING STEEL (GR. 60) (Includes HDWL) LBS.

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

INLET SLOPE SECTION(S)

R.C. BOX SECTION D	DESIGN FILL DEPTH (FT.) S	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.) H	TOP SLAB THICKNESS T	BOTTOM SLAB THK. B	SIDE WALL THICKNESS C	OVER ALL WIDTH OW	OVER ALL HEIGHT OH	SECTION LENGTH (FT.) SL	TOP SLAB REINF. "a" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	BOTTOM SLAB REINF. "b" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	SIDE WALL REINF. "f" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. "d" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF."d1" LENGTH = SL SIZE	SPACING	NO. REQ'D

HDWL DEPTH HD	ADDITIONAL REINF. FOR HDWL LBS	"h" HDWL BARS SIZE	Y	LENGTH	NO. REQ'D
3"	6	4	0'-6"	1'-6"	6

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 50) LBS.
TOTAL	
0.05	12

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

Design Fill Depth	Range of Actual Fill Depth
2	0.0 ft - 2.0 ft
5	>2.0 ft - 5.0 ft
10	>5.0 ft - 10.0 ft
15	>10.0 ft - 15.0 ft
20	>15.0 ft - 20.0 ft
25	>20.0 ft - 25.0 ft
30	>25.0 ft - 30.0 ft
35	>30.0 ft - 35.0 ft
40	>35.0 ft - 40.0 ft

Data shown for Mid-Section, Slope Section(s), and Skewed End Section is based on the design fill depth shown in the table, see PLAN AND PROFILE SHEETS for actual fill depth.

MID-SECTION

R.C. BOX SECTION D	DESIGN FILL DEPTH (FT.) S	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.) H	TOP SLAB THICKNESS T	BOTTOM SLAB THK. B	SIDE WALL THK C	OVER ALL WIDTH OW	OVER ALL HEIGHT OH	SECTION LENGTH (FT.) SL	TOP SLAB REINF. "a" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	BOTTOM SLAB REINF. "b" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	SIDE WALL REINF. "f" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. "d" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF."d1" LENGTH = SL SIZE	SPACING	NO. REQ'D
A	10	4	3	7	7	6	5'-0"	4'-2"	124.00	4	8.5	175	4'-8"	4	8	186	4'-8"	4	9	330	3'-10"	4	12	5	4	12	5	4	12	6

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (Gr. 60) LBS.
40.57	3354

MID-SECTION BAR LAP TABLE

# of Long. Laps Req'd.	SL = Section Length
0	< 40.0 ft
1	>40.0 ft - 78.0 ft
2	>78.0 ft - 116.0 ft
3	>116.0 ft - 154.0 ft
4	>154.0 ft - 192.0 ft
5	>192.0 ft - 230.0 ft
6	>230.0 ft - 268.0 ft
7	>268.0 ft - 306.0 ft
8	>306.0 ft -344.0 ft

SHEET 1 OF 2
DETAILS OF R.C. BOX CULVERT

SINGLE BARREL BOX CULVERT
C.L. GC RAMP 4 STA. 31+35.81

SPECIAL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	51	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

TABULAR DATA BY: VS DATE: 07/20/2023
CHECKED BY: RCT DATE: 07/28/2023

OUTLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
5'-0"	3'-0"	0'-9"	0'-8"	0	3:1	4'-0"	1'-0"	3'-10"	1'-0"	30	30	2'-2"	2'-2"	2'-2"	0'-0"	0'-0"	9'-6"	9'-6"	11'-4 5/8"	11'-4 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
OUTLET	OUTLET
CU.YD	LBS.
3.40	338

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY		F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS
WING A	4	12	10	L	Min 2'-0"				L -				L -	4	18	2	Min	4	18	2	9'-2"
					Max 4'-8"												5'-5"				
				X	Min 0'-9"	-	-	-	X -	-	-	-	X -				Max				
					Max 0'-9"												5'-5"				
				Y	Min 1'-4"				Y -				Y -								
					Max 4'-0"																
WING B	4	12	10	L	Min 2'-0"				L -				L -	4	18	2	Min	4	18	2	9'-2"
					Max 4'-8"												5'-5"				
				X	Min 0'-9"	-	-	-	X -	-	-	-	X -				Max				
					Max 0'-9"												5'-5"				
				Y	Min 1'-4"				Y -				Y -								
					Max 4'-0"																

WING	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY		F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS		REINF. STEEL QTY. PER WING (LBS)
WING A	4	18	7	L	Min 2'-7"	4	6	12'-3"	6	18	6	Min	-	-	-	Min	4	2	9'-5"	4	2	10'-7"	6	12	3	L	3'-4"	169
					Max 5'-3"							1'-8"				-												
				X	Min 1'-4"							Max				Max										X	1'-8"	
					Max 1'-4"							1'-8"				-												
				Y	Min 1'-4"																							
					Max 4'-0"																							
WING B	4	18	7	L	Min 2'-7"	4	6	12'-3"	6	18	6	Min	-	-	-	Min	4	2	9'-5"	4	2	10'-7"	6	12	3	L	3'-4"	169
					Max 5'-3"							1'-8"				-												
				X	Min 1'-4"							Max				Max										X	1'-8"	
					Max 1'-4"							1'-8"				-												
				Y	Min 1'-4"																							
					Max 4'-0"																							

OUTLET SKEWED END SECTION

SK	SL	D	S	H	LL	T	B	C	HD	OW	OH	TOP SLAB REINF. "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	BOTTOM SLAB REINF. "b" SIZE	"b" SPACING	"b" LENGTHS VARY	"b" NO. REQ'D	SIDE WALL REINF. "f" SIZE	"f" SPACING	"f" NO. REQ'D	"f" LENGTH	TOP SLAB DIST. REINF. "d" SIZE	"d" SPACING	"d" NO. REQ'D	"d" LENGTHS VARY	BOTTOM SLAB DIST. REINF. "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DIST. REINF. "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	HEADWALL REINF. BAR	HEADWALL REINF. "k1", "k2" & "h" SIZE	HEADWALL REINF. NO. REQ'D	HEADWALL REINF. LENGTH
SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	HEADWALL DEPTH	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL "a"				BOTTOM SLAB REINFORCING STEEL "b"				SIDE WALL REINFORCING STEEL "f"				TOP SLAB DISTRIBUTION REINFORCING STEEL "d"				BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e"				SIDE WALL DISTRIBUTION REINFORCING STEEL "d1"				HEADWALL REINFORCING STEEL "k1", "k2" & "h"			
												SIZE	SPACING	LENGTHS VARY	NO. REQ'D	SIZE	SPACING	LENGTHS VARY	NO. REQ'D	SIZE	SPACING	NO. REQ'D	LENGTH	SIZE	SPACING	NO. REQ'D	LENGTHS VARY	SIZE	SPACING	NO. REQ'D	LENGTHS VARY	SIZE	SPACING	NO. REQ'D	LENGTH	BAR	SIZE	NO. REQ'D	LENGTH
		0												Max				Max									Max				Max				LONG	"k1"			
																																			"k2"			
														Min				Min									Min				Min				SHORT				
																																			"h"			Y

CLASS "S" CONCRETE (Includes HDWL)	ⓘ REINFORCING STEEL (GR. 60) (Includes HDWL)
CU. YDS.	LBS.

ⓘ Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

OUTLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THICKNESS	BOTTOM SLAB THK.	SIDE WALL THICKNESS	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE	SPACING	NO. REQ'D	LENGTH	SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF.STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D
	D	S	H	T	B	C	OW	OH	SL																					

HDWL DEPTH	ADDITIONAL REINF. FOR HDWL	"h" HDWL BARS			
HD	LBS	SIZE	Y	LENGTH	NO. REQ'D
3"	6	4	0'-6"	1'-6"	6

CLASS "S" CONCRETE	REINFORCING STEEL (GR. 50)
CU. YDS.	LBS.
TOTAL	
0.05	12

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

The required number of bars and lengths shown are for estimating purpose only. The actual number and length required shall be determined in field.

Unless otherwise noted, all dimensions are in inches.

SHEET 2 OF 2

DETAILS OF R.C. BOX CULVERT

SINGLE BARREL BOX CULVERT
C.L. GC RAMP 4 STA. 31+35.81

SPECIAL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	52	809
		SPECIAL DETAILS				

INLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
13'-8"	3'-0"	0'-9"	0'-8"	0	3:1	12'-8"	1'-0"	3'-10"	1'-0"	30	30	2'-2"	2'-2"	2'-2"	0'-0"	0'-0"	9'-6"	9'-6"	11'-4 5/8"	11'-4 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
INLET	INLET
CU.YD	LBS.
3.59	350

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY		F1 LENGTHS	F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS
WING A	4	12	10	L	Min	2'-0"	-	-	-	L -	-	-	-	L -	4	18	2	Min	4	18	2	9'-2"
					Max	4'-8"												5'-5"				
				X	Min	0'-9"				X -				X -				Max				
					Max	0'-9"												5'-5"				
				Y	Min	1'-4"				Y -				Y -								
					Max	4'-0"																
WING B	4	12	10	L	Min	2'-0"	-	-	-	L -	-	-	-	L -	4	18	2	Min	4	18	2	9'-2"
					Max	4'-8"												5'-5"				
				X	Min	0'-9"				X -				X -				Max				
					Max	0'-9"												5'-5"				
				Y	Min	1'-4"				Y -				Y -								
					Max	4'-0"																

WING	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY		F6 LENGTHS	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS		REINF. STEEL QTY. PER WING (LBS)
WING A	4	18	7	L	Min	2'-7"	4	6	12'-3"	6	18	6	Min	-	-	-	Min	4	2	9'-5"	4	2	10'-7"	6	12	3	L	3'-4"	175
					Max	5'-3"						1'-8"				-												
				X	Min	1'-4"						Max				Max											X	1'-8"	
					Max	1'-4"						1'-8"				-												
				Y	Min	1'-4"																						
					Max	4'-0"																						
WING B	4	18	7	L	Min	2'-7"	4	6	12'-3"	6	18	6	Min	-	-	-	Min	4	2	9'-5"	4	2	10'-7"	6	12	3	L	3'-4"	175
					Max	5'-3"						1'-8"				-												
				X	Min	1'-4"						Max				Max											X	1'-8"	
					Max	1'-4"						1'-8"				-												
				Y	Min	1'-4"																						
					Max	4'-0"																						

MID-SECTION

BAR LAP TABLE

# of Long. Laps Req'd.	SL = Section Length
0	< 40.0 ft
1	>40.0 ft - 78.0 ft
2	>78.0 ft - 116.0 ft
3	>116.0 ft - 154.0 ft
4	>154.0 ft - 192.0 ft
5	>192.0 ft - 230.0 ft
6	>230.0 ft - 268.0 ft
7	>268.0 ft - 306.0 ft
8	>306.0 ft -344.0 ft

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

This drawing to be used in conjunction with
SHEET 1 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE',
SHEET 3 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF MULTI-BARREL R.C. BOX CULVERT',
SHEET 4 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF WINGWALLS', and
STANDARD DRAWING RCB-2.

For additional information and outlet sections, see Sheet 2 of 2.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

TABULAR DATA BY: VS DATE: 07/20/2023
CHECKED BY: RCT DATE: 07/28/2023

INLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THK.	HDWL DEPTH	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT
SK	SL	D	S	H	LL	T	HD	B	C	W	OW	OH

TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	TOP SLAB REINFORCING STEEL "c" SIZE	"c" SPACING	"c" LENGTHS VARY	"c" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "d" SIZE	"d" SPACING	"d" LENGTHS VARY	"d" NO. REQ'D	BOTTOM SLAB REINFORCING STEEL "f" SIZE	"f" SPACING	"f" LENGTHS VARY	"f" NO. REQ'D
		Max / Min				Max / Min				Max / Min				Max / Min	

SIDE WALL REINFORCING STEEL "f0" SIZE	"f0" SPACING	"f0" NO. REQ'D	"f0" LENGTH	INTERIOR WALL REINFORCING STEEL "f1" SIZE	"f1" SPACING	"f1" NO. REQ'D	"f1" LENGTH	TOP SLAB DISTRIBUTION REINFORCING STEEL "g" SIZE	"g" SPACING	"g" NO. REQ'D	"g" LENGTHS VARY
											Max / Min

BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH	INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" SIZE	"d2" SPACING	"d2" NO. REQ'D	"d2" LENGTH
			Max / Min				LONG / SHORT				

CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	REINFORCING STEEL (GR 60) (Includes HDWL) LBS.

ⓘ Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

"k1" HDWL BARS SIZE	"k1" HDWL BARS LENGTH	"k1" HDWL BARS NO. REQ'D	"k2" HDWL BARS SIZE	"k2" HDWL BARS LENGTH	"k2" HDWL BARS NO. REQ'D	"h" HDWL BARS SIZE	"h" HDWL BARS LENGTH	"h" HDWL BARS Y	"h" HDWL BARS NO. REQ'D

INLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THK.	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)
	D	S	H	T	B	C	W	OW	OH	SL

TOP SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "a" SIZE	"a" L	Bent "b" SIZE	Bent "b" L	"c" SIZE	"c" L	SPACING	NO. REQ'D

BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "d" SIZE	"d" L	Bent "b1" SIZE	Bent "b1" L	"f" SIZE	"f" L	SPACING	NO. REQ'D

SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D

SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D	INTERIOR WALL DISTRIBUTION REINF. STEEL "d2" LENGTH = SL SIZE	SPACING	NO. REQ'D

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
TOTAL	
0.13	34

HDWL DEPTH HD	ADDITIONAL REINF. FOR HDWL LBS.	"h" HDWL BARS SIZE	"h" HDWL BARS Y	"h" HDWL BARS LENGTH	"h" HDWL BARS NO. REQ'D
3"	18	4	0'-7"	1'-7"	15

Design Fill Depth	Range of Actual Fill Depth
2	0.0 ft - 2.0 ft
5	>2.0 ft - 5.0 ft
10	>5.0 ft - 10.0 ft
15	>10.0 ft - 15.0 ft
20	>15.0 ft - 20.0 ft
25	>20.0 ft - 25.0 ft
30	>25.0 ft - 30.0 ft
35	>30.0 ft - 35.0 ft
40	>35.0 ft - 40.0 ft

Data shown for Mid-Section, Slope Section(s), and Skewed End Section is based on the design fill depth shown in the table, see PLAN AND PROFILE SHEETS for actual fill depth.

MID-SECTION

| R.C. BOX SECTION | DESIGN FILL DEPTH (FT.) | CLEAR SPAN (FT.) | CLEAR HEIGHT (FT.) | TOP SLAB THK. | BOTTOM SLAB THK. | SIDE WALL THK. | INTERIOR WALL THK. | OVER ALL WIDTH | OVER ALL HEIGHT | SECTION LENGTH (FT.) | TOP SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "a" SIZE | "a" L | Bent "b" SIZE | Bent "b" L | "c" SIZE | "c" L | SPACING | NO. REQ'D | BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "d" SIZE | "d" L | Bent "b1" SIZE | Bent "b1" L | "f" SIZE | "f" L | SPACING | NO. REQ'D | SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE | SPACING | NO. REQ'D | LENGTH | INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE | SPACING | NO. REQ'D | LENGTH | TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL SIZE | SPACING | NO. REQ'D | BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE | SPACING | NO. REQ'D | SIDE WALL DISTRIBUTION STEEL "d1" LENGTH = SL SIZE | SPACING | NO. REQ'D | INTERIOR WALL DISTRIBUTION STEEL "d2" LENGTH = SL SIZE | SPACING | NO. REQ'D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	53	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

TABULAR DATA BY: VS DATE: 07/20/2023
CHECKED BY: RCT DATE: 07/28/2023

OUTLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
13'-8"	3'-0"	0'-9"	0'-8"	0	3:1	12'-8"	1'-0"	3'-10"	1'-0"	30	30	2'-2"	2'-2"	2'-2"	0'-0"	0'-0"	9'-6"	9'-6"	11'-4 5/8"	11'-4 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
OUTLET	OUTLET
CU.YD	LBS.
4.12	350

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY	F1	F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS
WING A	4	12	10	L	Min 2'-0"	-	-	-	L	-	-	-	-	L	-	4	18	2	Min	4	18	2	9'-2"
					Max 4'-8"														5'-5"				
				X	Min 0'-9"				X					X					Max				
					Max 0'-9"														5'-5"				
				Y	Min 1'-4"				Y					Y									
					Max 4'-0"																		
WING B	4	12	10	L	Min 2'-0"	-	-	-	L	-	-	-	-	L	-	4	18	2	Min	4	18	2	9'-2"
					Max 4'-8"														5'-5"				
				X	Min 0'-9"				X					X					Max				
					Max 0'-9"														5'-5"				
				Y	Min 1'-4"				Y					Y									
					Max 4'-0"																		

WING	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY	F6	F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS	REINF. STEEL QTY. PER WING (LBS)
WING A	4	18	7	L	Min 2'-7"	4	6	12'-3"	6	18	6	Min	-	-	-	Min	4	2	9'-5"	4	2	10'-7"	6	12	3	L 3'-4"	175
					Max 5'-3"							1'-8"				-											
				X	Min 1'-4"							Max				Max										X 1'-8"	
					Max 1'-4"							1'-8"				-											
				Y	Min 1'-4"																						
					Max 4'-0"																						
WING B	4	18	7	L	Min 2'-7"	4	6	12'-3"	6	18	6	Min	-	-	-	Min	4	2	9'-5"	4	2	10'-7"	6	12	3	L 3'-4"	175
					Max 5'-3"							1'-8"				-											
				X	Min 1'-4"							Max				Max										X 1'-8"	
					Max 1'-4"							1'-8"				-											
				Y	Min 1'-4"																						
					Max 4'-0"																						

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

OUTLET SKEWED END SECTION

SKEW (DEGREE) SK	SLOPE SL	DESIGN FILL DEPTH (FT.) D	CLEAR SPAN (FT.) S	CLEAR HEIGHT (FT.) H	SECTION LENGTH LL	TOP SLAB THK. T	HDWL DEPTH HD	BOTTOM SLAB THK. B	SIDE WALL THK. C	INTERIOR WALL THK. W	OVER ALL WIDTH OW	OVER ALL HEIGHT OH

TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	"c" SIZE	"c" SPACING	"c" LENGTHS VARY	"c" NO. REQ'D
		Max				Max	
		Min				Min	

BOTTOM SLAB REINFORCING STEEL "d" SIZE	"d" SPACING	"d" LENGTHS VARY	"d" NO. REQ'D	"f" SIZE	"f" SPACING	"f" LENGTHS VARY	"f" NO. REQ'D
		Max				Max	
		Min				Min	

SIDE WALL REINFORCING STEEL "f0" SIZE	"f0" SPACING	"f0" NO. REQ'D	"f0" LENGTH

INTERIOR WALL REINFORCING STEEL "f1" SIZE	"f1" SPACING	"f1" NO. REQ'D	"f1" LENGTH

TOP SLAB DISTRIBUTION REINFORCING STEEL "g" SIZE	"g" SPACING	"g" NO. REQ'D	"g" LENGTHS VARY
			Max
			Min

BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY
			Max
			Min

SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH
			LONG
			SHORT

INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" SIZE	"d2" SPACING	"d2" NO. REQ'D	"d2" LENGTH

CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	①REINFORCING STEEL (GR 60) (Includes HDWL.) LBS.

"k1" HDWL BARS SIZE	"k1" HDWL BARS LENGTH	"k1" HDWL BARS NO. REQ'D

"k2" HDWL BARS SIZE	"k2" HDWL BARS LENGTH	"k2" HDWL BARS NO. REQ'D

"h" HDWL BARS SIZE	"h" HDWL BARS LENGTH	"h" HDWL BARS Y	"h" HDWL BARS NO. REQ'D

OUTLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.) D	CLEAR SPAN (FT.) S	CLEAR HEIGHT (FT.) H	TOP SLAB THK. T	BOTTOM SLAB THK. B	SIDE WALL THK. C	INTERIOR WALL THK. W	OVER ALL WIDTH OW	OVER ALL HEIGHT OH	SECTION LENGTH (FT.) SL

TOP SLAB REINFORCING STEEL — LENGTH = OW - 4" + BENDS

"a" SIZE	"a" L	Bent "b" SIZE	Bent "b" L	"c" SIZE	"c" L	SPACING	NO. REQ'D

BOTTOM SLAB REINFORCING STEEL — LENGTH = OW - 4" + BENDS

"d" SIZE	"d" L	Bent "b1" SIZE	Bent "b1" L	"f" SIZE	"f" L	SPACING	NO. REQ'D

SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH

INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH

TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL SIZE	SPACING	NO. REQ'D

BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D

SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D

INTERIOR WALL DISTRIBUTION REINF. STEEL "d2" LENGTH = SL SIZE	SPACING	NO. REQ'D

HDWL DEPTH HD	ADDITIONAL REINF. FOR HDWL LBS.
3"	18

"h" HDWL BARS SIZE	Y	LENGTH	NO. REQ'D
4	0'-7"	1'-7"	15

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
TOTAL	
0.13	34

The required number of bars and lengths shown are for estimating purpose only. The actual number and length required shall be determined in field.

Unless otherwise noted, all dimensions are in inches.

SHEET 2 OF 2

DETAILS OF R.C. BOX CULVERT

DOUBLE BARREL BOX CULVERT
C.L. GUN CLUB STA. 11+00

SPECIAL DETAILS

4/16/2024 1:28:16 PM
R040901_05C_SD_015_016.dgn
Ver. 1.117

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	54	809
		SPECIAL DETAILS				

INLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
14'-4"	3'-0"	0'-9"	0'-8"	0	4:1	13'-4"	1'-0"	3'-10"	1'-0"	30	30	2'-2"	2'-2"	2'-2"	0'-0"	0'-0"	13'-0"	13'-0"	14'-10 5/8"	14'-10 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (includes apron and laps if required)
INLET	INLET
CU.YD	LBS.
4.69	452

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY	F1 LENGTHS	F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS
WING A	4	12	13	L	Min 2'-1"				L -				L -	4	18	2	Min	4	18	2	12'-8"
					Max 4'-8"												7'-6"				
				X	Min 0'-9"	-	-	-	X -	-	-	-	X -				Max				
					Max 0'-9"												7'-6"				
				Y	Min 1'-5"				Y -				Y -								
					Max 4'-0"																
WING B	4	12	13	L	Min 2'-1"				L -				L -	4	18	2	Min	4	18	2	12'-8"
					Max 4'-8"												7'-6"				
				X	Min 0'-9"	-	-	-	X -	-	-	-	X -				Max				
					Max 0'-9"												7'-6"				
				Y	Min 1'-5"				Y -				Y -								
					Max 4'-0"																

WING	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY	F6 LENGTHS	F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS	REINF. STEEL QTY. PER WING (LBS)
WING A	4	18	9	L Min 2'-8"		4	6	15'-9"	6	18	9	Min				Min	4	2	12'-10"	4	2	14'-1"	6	12	3	L 3'-4"	226
				Max 5'-3"								1'-8"				-											
				X Min 1'-4"								Max				Max										X 1'-8"	
				Max 1'-4"								1'-8"				-											
				Y Min 1'-5"																							
				Max 4'-0"																							
WING B	4	18	9	L Min 2'-8"		4	6	15'-9"	6	18	9	Min				Min	4	2	12'-10"	4	2	14'-1"	6	12	3	L 3'-4"	226
				Max 5'-3"								1'-8"				-											
				X Min 1'-4"								Max				Max										X 1'-8"	
				Max 1'-4"								1'-8"				-											
				Y Min 1'-5"																							
				Max 4'-0"																							

MID-SECTION

BAR LAP TABLE

# of Long. Laps Req'd.	SL = Section Length
0	< 40.0 ft
1	>40.0 ft - 78.0 ft
2	>78.0 ft - 116.0 ft
3	>116.0 ft - 154.0 ft
4	>154.0 ft - 192.0 ft
5	>192.0 ft - 230.0 ft
6	>230.0 ft - 268.0 ft
7	>268.0 ft - 306.0 ft
8	>306.0 ft -344.0 ft

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

TABULAR DATA BY: VS DATE: 07/20/2023
CHECKED BY: RCT DATE: 07/28/2023

This drawing to be used in conjunction with
SHEET 1 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE',
SHEET 3 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF MULTI-BARREL R.C. BOX CULVERT',
SHEET 4 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF WINGWALLS', and
STANDARD DRAWING RCB-2.

For additional information and outlet sections, see Sheet 2 of 2.

ⓘ Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

INLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THK.	HDWL DEPTH	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT
SK	SL	D	S	H	LL	T	HD	B	C	W	OW	OH

TOP SLAB REINFORCING STEEL "a" SIZE	"a" SPACING	"a" LENGTHS VARY	"a" NO. REQ'D	"c" SIZE	"c" SPACING	"c" LENGTHS VARY	"c" NO. REQ'D
		Max				Max	
		Min				Min	

BOTTOM SLAB REINFORCING STEEL "d" SIZE	"d" SPACING	"d" LENGTHS VARY	"d" NO. REQ'D	"f" SIZE	"f" SPACING	"f" LENGTHS VARY	"f" NO. REQ'D
		Max				Max	
		Min				Min	

SIDE WALL REINFORCING STEEL "f0" SIZE	"f0" SPACING	"f0" NO. REQ'D	"f0" LENGTH

INTERIOR WALL REINFORCING STEEL "f1" SIZE	"f1" SPACING	"f1" NO. REQ'D	"f1" LENGTH

TOP SLAB DISTRIBUTION REINFORCING STEEL "g" SIZE	"g" SPACING	"g" NO. REQ'D	"g" LENGTHS VARY
			Max
			Min

BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE	"e" SPACING	"e" NO. REQ'D	"e" LENGTHS VARY
			Max
			Min

SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE	"d1" SPACING	"d1" NO. REQ'D	"d1" LENGTH
			LONG
			SHORT

INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" SIZE	"d2" SPACING	"d2" NO. REQ'D	"d2" LENGTH
			LONG
			SHORT

CLASS "S" CONCRETE (Includes HDWL) CU. YDS	ⓘ REINFORCING STEEL (GR 60) (Includes HDWL) LBS.

"k1" HDWL BARS SIZE	"k1" HDWL BARS LENGTH	"k1" HDWL BARS NO. REQ'D	"k2" HDWL BARS SIZE	"k2" HDWL BARS LENGTH	"k2" HDWL BARS NO. REQ'D	"h" HDWL BARS SIZE	"h" HDWL BARS LENGTH	"h" HDWL BARS Y	"h" HDWL BARS NO. REQ'D

INLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THK.	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)
	D	S	H	T	B	C	W	OW	OH	SL

LENGTH = OW - 4" + BENDS "a" SIZE	"a" L	"b" SIZE	"b" L	"c" SIZE	"c" L	SPACING	NO. REQ'D

BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "d" SIZE	"d" L	"b1" SIZE	"b1" L	"f" SIZE	"f" L	SPACING	NO. REQ'D

SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH

INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH

TOP SLAB DISTRIBUTION REINFORCING STEEL "g" LENGTH = SL SIZE	SPACING	NO. REQ'D

BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D

SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D

INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" LENGTH = SL SIZE	SPACING	NO. REQ'D

HDWL DEPTH HD	ADDITIONAL REINF. FOR HDWL LBS.	"h" HDWL BARS SIZE	"h" HDWL BARS Y	"h" HDWL BARS LENGTH	"h" HDWL BARS NO. REQ'D
3"	19	4	0'-7"	1'-7"	16

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
0.13	36
TOTAL	
0.13	36

Design Fill Depth	Range of Actual Fill Depth
2	0.0 ft - 2.0 ft
5	>2.0 ft - 5.0 ft
10	>5.0 ft - 10.0 ft
15	>10.0 ft - 15.0 ft
20	>15.0 ft - 20.0 ft
25	>20.0 ft - 25.0 ft
30	>25.0 ft - 30.0 ft
35	>30.0 ft - 35.0 ft
40	>35.0 ft - 40.0 ft

Data shown for Mid-Section, Slope Section(s), and Skewed End Section is based on the design fill depth shown in the table, see PLAN AND PROFILE SHEETS for actual fill depth.

MID-SECTION

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THK.	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)
	D	S	H	T	B	C	W	OW	OH	SL
A	10	4	3	8	9	6	8	14'-4"	4'-5"	68

TOP SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "a" SIZE	"a" L	"b" SIZE	"b" L	"c" SIZE	"c" L	SPACING	NO. REQ'D
4	14'-0"	4	14'-4"	4	14'-0"	24	34

BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS "d" SIZE	"d" L	"b1" SIZE	"b1" L	"f" SIZE	"f" L	SPACING	NO. REQ'D
4	14'-0"	4	14'-4"	4	14'-0"	22	37

SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH
4	9	180	4'-1"

INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH
4	12	272	4'-1"

TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL SIZE	SPACING	NO. REQ'D
4	12	29

BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D
4	12	29

SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D
4	12	6

INTERIOR WALL DISTRIBUTION REINF. STEEL "d2" LENGTH = SL SIZE	SPACING	NO. REQ'D
4	12	12

CLASS "S" CONCRETE CU. YDS.	REINFORCING STEEL (GR. 60) LBS.
68.77	6788

SHEET 1 OF 2
DETAILS OF R.C. BOX CULVERT

TRIPLE BARREL BOX CULVERT
C.L. GUN CLUB STA. 73+60

SPECIAL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	55	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
04/17/2024

TABULAR DATA BY: VS DATE: 07/20/2023
CHECKED BY: RCT DATE: 07/28/2023

OUTLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	LENGTH OF FOOTING HEEL WING A	LENGTH OF FOOTING HEEL WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W3	W4
14'-4"	3'-0"	0'-9"	0'-8"	0	4:1	13'-4"	1'-0"	3'-10"	1'-0"	30	30	2'-2"	2'-2"	2'-2"	0'-0"	0'-0"	13'-0"	13'-0"	14'-10 5/8"	14'-10 5/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
OUTLET	OUTLET
CU.YD	LBS.
5.32	452

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY			F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS
WING A	4	12	13	L	Min	2'-1"	-	-	-	L -	-	-	-	L -	4	18	2	Min	4	18	2	12'-8"
					Max	4'-8"												7'-6"				
				X	Min	0'-9"				X -				X -				Max				
					Max	0'-9"												7'-6"				
				Y	Min	1'-5"				Y -				Y -								
					Max	4'-0"																
WING B	4	12	13	L	Min	2'-1"	-	-	-	L -	-	-	-	L -	4	18	2	Min	4	18	2	12'-8"
					Max	4'-8"												7'-6"				
				X	Min	0'-9"				X -				X -				Max				
					Max	0'-9"												7'-6"				
				Y	Min	1'-5"				Y -				Y -								
					Max	4'-0"																

WING	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY			F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS		REINF. STEEL QTY. PER WING (LBS)
WING A	4	18	9	L	Min	2'-8"	4	15'-9"	6	18	9	Min	-	-	-	Min	4	2	12'-10"	4	2	14'-1"	6	12	3	L	3'-4"	226
					Max	5'-3"						1'-8"				-												
				X	Min	1'-4"						Max				Max										X	1'-8"	
					Max	1'-4"						1'-8"				-												
				Y	Min	1'-5"																						
					Max	4'-0"																						
WING B	4	18	9	L	Min	2'-8"	4	15'-9"	6	18	9	Min	-	-	-	Min	4	2	12'-10"	4	2	14'-1"	6	12	3	L	3'-4"	226
					Max	5'-3"						1'-8"				-												
				X	Min	1'-4"						Max				Max										X	1'-8"	
					Max	1'-4"						1'-8"				-												
				Y	Min	1'-5"																						
					Max	4'-0"																						

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

ⓘ Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

OUTLET SKEWED END SECTION

| SKEW (DEGREE) | SLOPE | DES GN FILL DEPTH (FT.) | CLEAR SPAN (FT.) | CLEAR HEIGHT (FT.) | SECTION LENGTH | TOP SLAB THK. | HDWL DEPTH | BOTTOM SLAB THK. | SIDE WALL THK. | INTERIOR WALL THK. | OVER ALL WIDTH | OVER ALL HEIGHT | TOP SLAB REINFORCING STEEL "a" SIZE | "a" SPACING | "a" LENGTHS VARY | "a" NO. REQ'D | TOP SLAB REINFORCING STEEL "c" SIZE | "c" SPACING | "c" LENGTHS VARY | "c" NO. REQ'D | BOTTOM SLAB REINFORCING STEEL "d" SIZE | "d" SPACING | "d" LENGTHS VARY | "d" NO. REQ'D | BOTTOM SLAB REINFORCING STEEL "f" SIZE | "f" SPACING | "f" LENGTHS VARY | "f" NO. REQ'D | SIDE WALL REINFORCING STEEL "f0" SIZE | "f0" SPACING | "f0" NO. REQ'D | "f0" LENGTH | INTERIOR WALL REINFORCING STEEL "f1" SIZE | "f1" SPACING | "f1" NO. REQ'D | "f1" LENGTH | TOP SLAB DISTRIBUTION REINFORCING STEEL "g" SIZE | "g" SPACING | "g" NO. REQ'D | "g" LENGTHS VARY | BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE | "e" SPACING | "e" NO. REQ'D | "e" LENGTHS VARY | SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE | "d1" SPACING | "d1" NO. REQ'D | "d1" LENGTH | INTERIOR WALL DISTRIBUTION REINFORCING STEEL "d2" SIZE | "d2" SPACING | "d2" NO. REQ'D | "d2" LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---

DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	56	809

SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024

0 25 50 75 100
HORIZ. SCALE IN FEET: 1"=50'

HWY 22 56+60.54
37.50' LT., EL. 411.73

HWY 22 RAMP 1 2186+62.71
7.50' LT., EL. 411.79

HWY 22 RAMP 1 2186+50.52
13.45' LT., EL. 412.03

CONCRETE ISLAND
1098 SQ. YD.
TYPE "A" CURB FACE

SAWCUT

HWY 22 56+75.70
37.50' LT., EL. 411.86

FORT ST. / HWY. 22

HWY 22 RAMP 1 2185+58.46
13.62' LT., EL. 412.37

SEE SIGNAL PLANS FOR
MORE INFORMATION

HWY 22 57+42.32
37.50' LT., EL. 411.80

HWY 22 RAMP 1 2184+66.27
12.77' LT., EL. 412.55

HWY 22 RAMP 1 2184+53.02
7.50' LT., EL. 412.19

HWY 22 RAMP 1 2184+50.85
13.06' LT., EL. 412.43

SEE HWY 22 RAMP 2 PLAN AND
PROFILE SHEET FOR GUARDRAIL
QUANTITY

HWY 22 58+59.91
29.50 LT.

HWY 22. RAMP 1 (EXISTING)

C.L. HWY 22 RAMP 1 (EXISTING)

HWY 22 RAMP 1 2184+65.04
18.48' LT., EL. 412.23

HWY 22 58+08.94
37.50' LT., EL. 411.82

HWY 22 RAMP 1 2185+15.23
52.14' LT., EL. 411.94

HWY 22 58+15.96
37.50' LT., EL.411.62

HWY 22 RAMP 2 10+95.78
7.50 LT., EL. 411.97

CONNECT TO EXISTING GUARDRAIL

HWY 22 RAMP 1 2185+54.52
94.99' LT., EL. 411.59

N37°11'40"E
C.L. HWY 22 RAMP 2

C.L. HWY 22 RAMP 2 STA. 10+00.00 =
C.L. HWY 22 STA. 58+92.27
△=89°59'09"

HWY 22 RAMP 2 11+94.01
7.50 RT., EL. 411.53

HWY 22 RAMP 2 10+71.04
7.50' RT., EL. 411.74

CONCRETE ISLAND
192 SQ. YD.
TYPE "A" CURB FACE

HWY 22 RAMP 2 10+43.46
7.50' RT., EL. 411.83

HWY 22 RAMP 2 10+98.61
7.50' RT., EL. 411.67

HWY 22 59+05.65
37.50' LT., EL. 411.81

C.L. HWY 22 RAMP 2

HWY 22 RAMP 2 11+00.14
13.09' RT., EL. 411.56

SAWCUT

SEE SIGNAL PLANS FOR
MORE INFORMATION

HWY 22 59+31.01
37.50' LT ., EL. 411.89

HWY 22 RAMP 2 10+68.63
36.46' RT., EL. 411.51

EDGE OF TRAVEL

FACE OF CURB (TYPE A)

BACK OF CURB (TYPE A)

S52°38'30"E
C.L. HWY 22 (EXISTING)

HWY 22 59+56.38
37.50' LT., EL. 411.94

HWY 22 RAMP 2 10+29.01
172.03' RT., EL. 412.15

HWY 22 RAMP 2 10+42.77
65.95' RT., EL. 411.91

SEE HWY 22 RAMP 2 PLAN AND
PROFILE SHEET FOR GUARDRAIL
QUANTITY

CONNECT TO EXISTING GUARDRAIL

RAMP ISLAND DETAIL
HWY 22. RAMP 2

SECTION A-A

6'-0" P.C.C. PAVEMENT
(9" U.T.)

7'-0" GEOTEXTILE FABRIC
(TYPE SPECIAL)

7'-0" CEMENT STABILIZED
CRUSHED STONE BASE COURSE
(6" COMPACTED DEPTH)

CONC. CURB
& GUTTER
(TYPE A) (1'-6")

0.02'/'

DOWELED CONSTRUCTION JOINT

CONC. ISLAND
TYPE "A" CURB FACE
SEE INTERSECTION
SPECIAL DETAILS

15" TOTAL
THICKNESS

1'-0" SAWCUT
EXISTING PAVEMENT

15'-0" EXISTING P.C.C. PAVEMENT

INTERSECTION DETAILS
HWY. 22 & RAMPS 1 & 2
SPECIAL DETAILS

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DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	57	809

SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024

0 25 50 75 100
HORIZ. SCALE IN FEET: 1"=50'

SEE SIGNAL PLANS FOR MORE INFORMATION

HWY 22 RAMP 3 10+29.70
55.45' LT, EL. 423.55

HWY 22 RAMP 3 10+60.63
31.43' LT. , EL. 422.51

CONCRETE ISLAND
151 SQ. YD.
TYPE "A" CURB FACE

EDGE OF TRAVEL
FACE OF CURB (TYPE A)
BACK OF CURB (TYPE A)

HWY 22 RAMP 3 10+95.33
13.27' LT., EL. 421.93

HWY 22 44+24.18
37.50' LT., EL. 423.63

HWY 22 44+45.16
37.50' LT., EL. 423.15

HWY 22 44+66.15
37.50' LT., EL. 422.63

HWY 22 RAMP 3 10+41.42
7.50' LT., EL. 422.49

C.L. HWY 22 RAMP 3

HWY 22 RAMP 3 10+94.18
7.50' LT., EL. 421.84

HWY 22 RAMP 3 10+67.80
7.50' LT., EL. 422.12

RAMP ISLAND DETAIL
HWY 22. RAMP 3

HWY 22 43+55.96
29.50 LT., EL. 425.51

HWY 22 43+55.96
45.95 LT., EL. 425.23

+23.61, 91.30' LT.
EL. 424.34

+60.23, 55.95' LT.
EL. 422.76

+104.78, 31.01' LT.
EL. 422.17

+54.10, 18.13' LT.
EL. 421.72

SAWCUT

HWY 22 RAMP 3 11+79.58
16.50 LT., EL. 421.65

C.L. HWY 22 RAMP 3 STA. 10+00.00 =
C.L. HWY 22 STA. 44+68.47
△=74°59'57"

HWY 22 RAMP 3 10+93.54
7.50 RT.

C.L. HWY 22 RAMP 3
N39°44'29"E

HWY 22 45+07.67
31.06 LT., EL. 421.88

HWY 22 RAMP 4 2156+77.91
7.50' RT., EL. 420.97

+93.54, 7.50 RT.
421.60

+78.78, 8.97 RT,
421.75

+64.61, 13.31 RT.
421.73

+51.56, 20.35' RT.
421.77

+10.15, 29.83 RT.
421.89

HWY 22 RAMP 4 2157+46.67
7.50' RT., EL. 420.40

HWY 22 RAMP 4 2158+15.42
7.50' RT., EL. 419.88

HWY 22 RAMP 4 2158+33.61
7.00' RT., EL. 419.78

C.L. HWY 22 RAMP 4 STA. 2156+29.26 =
C.L. HWY 22 STA. 45+29.57
△=74°59'57"

N39°44'30"E
C.L. HWY 22 RAMP 4 (EXISTING)

HWY 22 45+46.87
37.50' LT., EL.420.93

HWY 22 45+55.21
37.50' LT., EL. 420.64

HWY 22 RAMP 4 2158+33.61
13.00' RT., EL. 419.67

HWY 22 RAMP 4 2158+16.64
13.24' RT., EL. 419.71

CONCRETE ISLAND
1062 SQ. YD.
TYPE "A" CURB FACE

HWY 22 RAMP 4 2157+49.13
64.58' RT., EL. 419.18

SAWCUT

EDGE OF TRAVEL
FACE OF CURB (TYPE A)
BACK OF CURB (TYPE A)

HWY 22 RAMP 4 2157+11.62
140.65' RT., EL. 417.87

HWY 22 46+90.70
47.84' LT., EL. 417.76

HWY 22 46+90.70
37.50' LT., EL. 417.89

HWY 22 46+20.27
37.50' LT., EL. 419.33

PARKING LOT

C.L. HWY 22 (EXISTING)
S63°15'34"E

FORT ST. / HWY. 22

42 43 44 45 46 47

10 11 12 13 14 15

2157 2158 2159 2160 2161

R 200' R 220' R 185' R 75' R 3' R 6'

20' 15' 24' 16.5' 4' 6'

SECTION A-A

6'-0" P.C.C. PAVEMENT
(9" U.T.)

7'-0" GEOTEXTILE FABRIC
(TYPE SPECIAL)

7'-0" CEMENT STABILIZED
CRUSHED STONE BASE COURSE
(6" COMPACTED DEPTH)

CONC. CURB
& GUTTER
(TYPE A) (1'-6")

0.02'/'

DOWELED CONSTRUCTION JOINT

CONC. ISLAND
TYPE "A" CURB FACE
SEE INTERSECTION
SPECIAL DETAILS

15" TOTAL
THICKNESS

1'-0" SAWCUT
EXISTING PAVEMENT

15'-0" EXISTING P.C.C. PAVEMENT

INTERSECTION DETAILS
HWY. 22 & RAMPS 3 & 4
SPECIAL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	58	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

0 25 50 75 100
HORIZ. SCALE IN FEET: 1"=50'

P.T. 73+68.13
C.L. GUN CLUB S86°46'53"E
GC RAMP 1 35+55.58
182.50' RT., EL. 399.42
2'-0"
+52.21, 148.36' RT. EL. 399.48
12'
+42.26, 115.53' RT. EL. 399.34
+26.08, 85.28' RT. EL. 399.01
+04.32, 58.76' RT. EL. 398.15
+77.80, 36.99' RT. EL. 397.62
+47.55, 20.82' RT. EL. 397.75
+14.72, 10.86' RT. EL. 397.99
R 175'
LIMIT OF RAMP PAVEMENT SECTION
24'
6'
20'
GC RAMP 1 33+80.58
7.50' RT., EL. 398.35
C.L. GUN CLUB STA. 75+83.82=
C.L. GC RAMP 1 STA. 35+67.58
Δ=90°00'00"
BEGIN GC RAMP 2
C.L. GC RAMP 2 STA. 10+12.00, 7.50' LT. =
C.L. GUN CLUB STA. 76+05.32 LT.
C.L. GUN CLUB STA. 76+12.82=
C.L. GC RAMP 2 STA. 10+00.00
Δ=90°00'00"
29'
44'
35
GUN CLUB RD.
GC RAMP 2 11+37.00
7.50' RT., EL. 397.97
+89.16, 17.02' RT. EL. 397.97
+67.55, 28.57' RT. EL. 398.10
+48.61, 44.11' RT. EL. 398.20
+33.07, 63.05' RT. EL. 398.14
+21.52, 84.66' RT. EL. 398.20
+14.40, 108.11' RT. EL. 398.16
+12.61, 9.90' RT. EL. 397.95
2'-0"
12'
R 125'
GC RAMP 2 10+12.00
132.50' RT., EL. 398.02

GUN CLUB 74+99.40
12.00' LT., EL. 399.60
GUN CLUB 75+34.86
12.00' LT., EL. 399.51
GUN CLUB 75+70.32
12.00' LT., EL. 399.34
GC RAMP 1 35+49.97
85.90' RT., EL. 399.48
CONCRETE ISLAND
306 SQ. YD.
TYPE "A" CURB FACE
R 3'
GC RAMP 1 35+18.46
44.61' RT., EL. 398.47
20'
R 195'
EDGE OF TRAVEL
FACE OF CURB (TYPE A)
BACK OF CURB (TYPE A)
GC RAMP 1 34+77.17
13.11' RT., EL. 398.09
C.L. GUN CLUB
R 6'
1'-6"
R 3'
C.L. GC RAMP 1
GC RAMP 1 35+49.58
7.50' RT., EL. 399.24
GC RAMP 1 35+14.12
7.50' RT., EL. 398.73
GC RAMP 1 34+78.66
7.50' RT., EL. 398.22
RAMP ISLAND DETAIL
GC RAMP 1
6'
C.L. GC RAMP 1
S3°13'7"W
15'
6'
6'
15'
C.L. GC RAMP 2
N3°13'7"E
6'

GC RAMP 2 10+18.00
7.50' RT., EL. 398.92
GC RAMP 2 10+33.61
7.50' RT., EL. 398.73
GC RAMP 2 10+53.21
7.50' RT., EL. 398.54
C.L. GC RAMP 2
GUN CLUB 76+26.32
12.00' LT., EL. 398.94
C.L. GUN CLUB
R 6'
R 3'
1'-6"
GC RAMP 2 10+54.91
12.97' RT., EL. 398.45
EDGE OF TRAVEL
FACE OF CURB (TYPE A)
BACK OF CURB (TYPE A)
R 145'
R 3'
GUN CLUB 76+43.92
12.00' LT., EL. 398.80
GC RAMP 2 10+34.47
29.97' RT., EL. 398.50
CONCRETE ISLAND
101 SQ. YD.
TYPE "A" CURB FACE
GUN CLUB 76+61.53
12.00' LT., EL. 398.67
GC RAMP 2 10+17.47
50.41' RT., EL. 398.55
RAMP ISLAND DETAIL
GC RAMP 1

INTERSECTION DETAILS
GUN CLUB RD. & RAMPS 1 & 2
SPECIAL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	59	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

0 25 50 75 100
HORIZ. SCALE IN FEET: 1"=50'

C.L. GUN CLUB
S87°19'4"E

GC RAMP 3 10+12.00
132.50' LT., EL. 401.63

2'-0"
+14.40, 108.11' LT.
EL. 401.52
+21.52, 84.66' LT.
EL. 401.30
+33.07, 63.05' LT.
EL. 400.95
+48.61, 44.11' LT.
EL. 400.38
+67.55, 28.57' LT.
EL. 399.92
+89.16, 17.02' LT.
EL. 399.80
+12.61, 9.90' LT.
EL. 399.93

R 125'

LIMIT OF RAMP
PAVEMENT SECTION

12'
6'
20'
24'

C.L. GUN CLUB STA. 59+97.93=
C.L. GC RAMP 4 STA. 38+85.80
Δ=90°00'00"

BEGIN GC RAMP 4
C.L. GC RAMP 4 STA. 38+73.80, 7.50' RT. =
C.L. GUN CLUB STA. 59+90.43, 12.00' LT.

C.L. GUN CLUB STA. 59+97.93=
C.L. GC RAMP 4 STA. 38+85.80
Δ=90°00'00"

29'
44'
60'

GC RAMP 3 37+00
7.50' LT., EL. 400.11

C.L. GC RAMP 3
N2°40'56"E

6'
15'
6'
6'
15'

C.L. GC RAMP 4
S2°40'56"W

35'
6'

GC RAMP 4 37+23.80
7.50' LT., EL. 400.31

20'
24'
6'

+07.13, 32.78' LT.
EL. 399.57
+29.87, 51.43' LT.
EL. 399.70
+48.52, 74.16' LT.
EL. 400.05
+62.38, 100.10' LT.
EL. 400.19
+70.92, 128.24' LT.
EL. 400.22
2'-0"

+81.20, 18.92' LT.
EL. 399.69
+53.06, 10.38' LT.
EL. 399.97

R 150'

GUN CLUB RD.
12'

GC RAMP 4 38+73.80
157.50' LT., EL. 400.14

GC RAMP 3 10+17.47
50.41' LT., EL. 401.20

GUN CLUB 59+20.22
12.00' LT., EL. 401.31

GUN CLUB 59+37.82
12.00' LT., EL. 401.22

GUN CLUB 59+55.43
12.00' LT., EL. 401.14

GC RAMP 3 10+34.47
29.97' LT., EL. 400.66

CONCRETE ISLAND
101 SQ. YD.
TYPE "A" CURB FACE

R 3'
R 145'
20'
1'-6"
R 6'
R 3'

GC RAMP 3 10+54.91
12.97' LT., EL. 400.28

C.L. GC RAMP 3

GC RAMP 3 10+53.21
7.50' LT., EL. 400.36

GC RAMP 3 10+18.00
7.50' LT., EL. 400.98

RAMP ISLAND DETAIL
GUN CLUB RAMP 3

GC RAMP 3 10+35.61
7.50' LT., EL. 400.64

GC RAMP 4 38+41.41
7.50' LT., EL. 400.34

GC RAMP 4 38+67.80
7.50' LT., EL. 400.77

CONCRETE ISLAND
190 SQ. YD.
TYPE "A" CURB FACE

GC RAMP 4 38+15.01
7.50' LT., EL. 400.06

C.L. GC RAMP 4

GUN CLUB 60+11.43
12.00' LT., EL. 400.86

R 6'
R 3'
1'-6"

GC RAMP 4 38+13.43
13.05' LT., EL. 399.95

C.L. GUN CLUB

R 170'
20'

R 3'

GUN CLUB 60+37.82
12.00' LT., EL. 400.72

GUN CLUB 60+64.22
12.00' LT., EL. 400.59

GC RAMP 4 38+44.01
37.29' LT., EL. 400.08

GC RAMP 4 38+68.25
67.87' LT., EL. 400.47

RAMP ISLAND DETAIL
GUN CLUB RAMP 4

INTERSECTION DETAILS
GUN CLUB RD. & RAMPS 3 & 4
SPECIAL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	60	809
		SPECIAL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20162
JOHN BLANCETT
5/16/2024

0 200 400 600 800
HORIZ. SCALE IN FEET: 1"=400'

N

LIMITS OF PRESERVED VEGETATION

TREE CLEARING MARKER
C.L. I-49 STA. 215+65.00
150.00' RT.

TREE CLEARING MARKER
C.L. I-49 STA. 212+65.00
1060.00' RT.

TREE CLEARING MARKER
C.L. I-49 STA. 212+20.00
2820.00' RT.

TREE CLEARING MARKER
C.L. I-49 STA. 208+10.00
2820.00' RT.

TREE CLEARING MARKER
C.L. I-49 STA. 201+10.00
150.00' RT.

TREE CLEARING MARKER
C.L. I-49 STA. 201+10.00
1045.00' RT.

E-1 P.C.E.

EXIST. ROW & COA

C.L. I-49

EXIST. ROW & COA

LIMITS OF CLEARING & GRUBBING (TYP.)
67.60 AC.

P.C.E.

LIMITS OF PRESERVED VEGETATION

BOLLARD
FILLED WITH CONCRETE
AND PAINTED RED

AUGERED HOLE
FILLED WITH CONCRETE

4' EXPOSED
4' BURIED
8'
15" DIA.

TREE CLEARING MARKER (N.T.S.)

MARKER SHALL BE STEEL PIPE BOLLARD 8FT LONG, 6IN DIAMETER, 0.250IN WALL TH, FILLED WITH CONCRETE, SET 4FT DEEP IN 15IN DIA AUGERED HOLE, BACKFILLED IN CONCRETE, WITH 4FT EXPOSED, AND PAINTED WITH RED ENAMEL.

LEGEND

E-1 WATTLE

WATTLE					E-1 LIN. FT.
STA.	201+20	TO	201+50	RT.	301
STA.	201+16	TO	215+47	RT.	4595
STA.	215+49	TO	215+58	RT.	370
STA.	215+58	TO	215+58	RT.	600

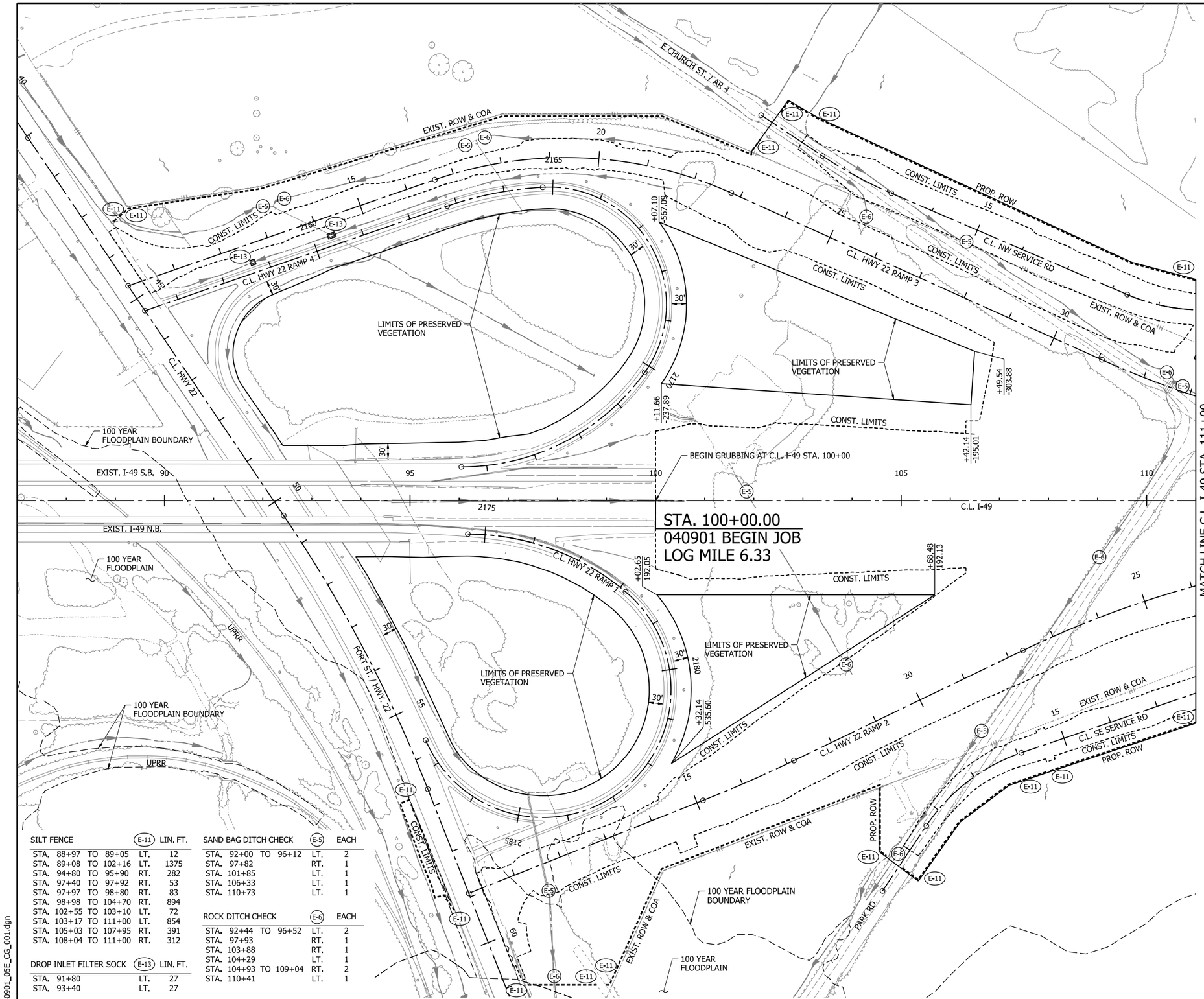
TREE CLEARING SPECIAL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	61	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
5/1/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



SILT FENCE	(E-11)	LIN. FT.
STA. 88+97 TO 89+05	LT.	12
STA. 89+08 TO 102+16	LT.	1375
STA. 94+80 TO 95+90	RT.	282
STA. 97+40 TO 97+92	RT.	53
STA. 97+97 TO 98+80	RT.	83
STA. 98+98 TO 104+70	RT.	894
STA. 102+55 TO 103+10	LT.	72
STA. 103+17 TO 111+00	LT.	854
STA. 105+03 TO 107+95	RT.	391
STA. 108+04 TO 111+00	RT.	312

DROP INLET FILTER SOCK	(E-13)	LIN. FT.
STA. 91+80	LT.	27
STA. 93+40	LT.	27

SAND BAG DITCH CHECK	(E-5)	EACH
STA. 92+00 TO 96+12	LT.	2
STA. 97+82	RT.	1
STA. 101+85	LT.	1
STA. 106+33	LT.	1
STA. 110+73	LT.	1

ROCK DITCH CHECK	(E-6)	EACH
STA. 92+44 TO 96+52	LT.	2
STA. 97+93	RT.	1
STA. 103+88	RT.	1
STA. 104+29	LT.	1
STA. 104+93 TO 109+04	RT.	2
STA. 110+41	LT.	1

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
- (E-13) FILTER SOCK

NOTES:
1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.
2. EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION. DEVICES PLACED IN PREVIOUS STAGES TO REMAIN ARE DISPLAYED HALF-TONED.
3. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

DATE OF REVISION	REVISIONS

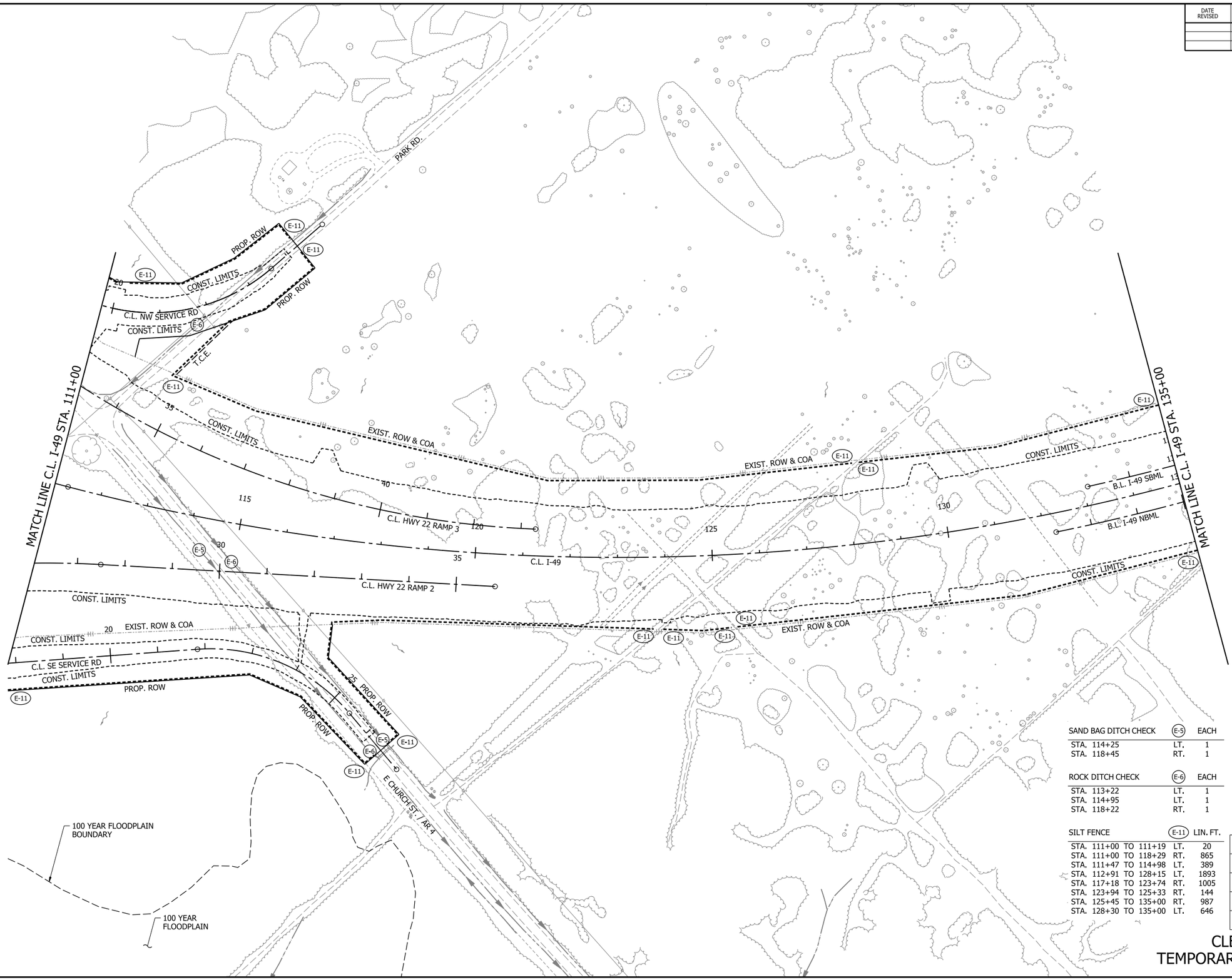
CLEARING AND GRUBBING TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	62	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
- (E-13) FILTER SOCK

NOTES:
1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.
2. EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION. DEVICES PLACED IN PREVIOUS STAGES TO REMAIN ARE DISPLAYED HALF-TONED.
3. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

SAND BAG DITCH CHECK	(E-5)	EACH
STA. 114+25	LT.	1
STA. 118+45	RT.	1

ROCK DITCH CHECK	(E-6)	EACH
STA. 113+22	LT.	1
STA. 114+95	LT.	1
STA. 118+22	RT.	1

SILT FENCE	(E-11)	LIN. FT.
STA. 111+00 TO 111+19	LT.	20
STA. 111+00 TO 118+29	RT.	865
STA. 111+47 TO 114+98	LT.	389
STA. 112+91 TO 128+15	LT.	1893
STA. 117+18 TO 123+74	RT.	1005
STA. 123+94 TO 125+33	RT.	144
STA. 125+45 TO 135+00	RT.	987
STA. 128+30 TO 135+00	LT.	646

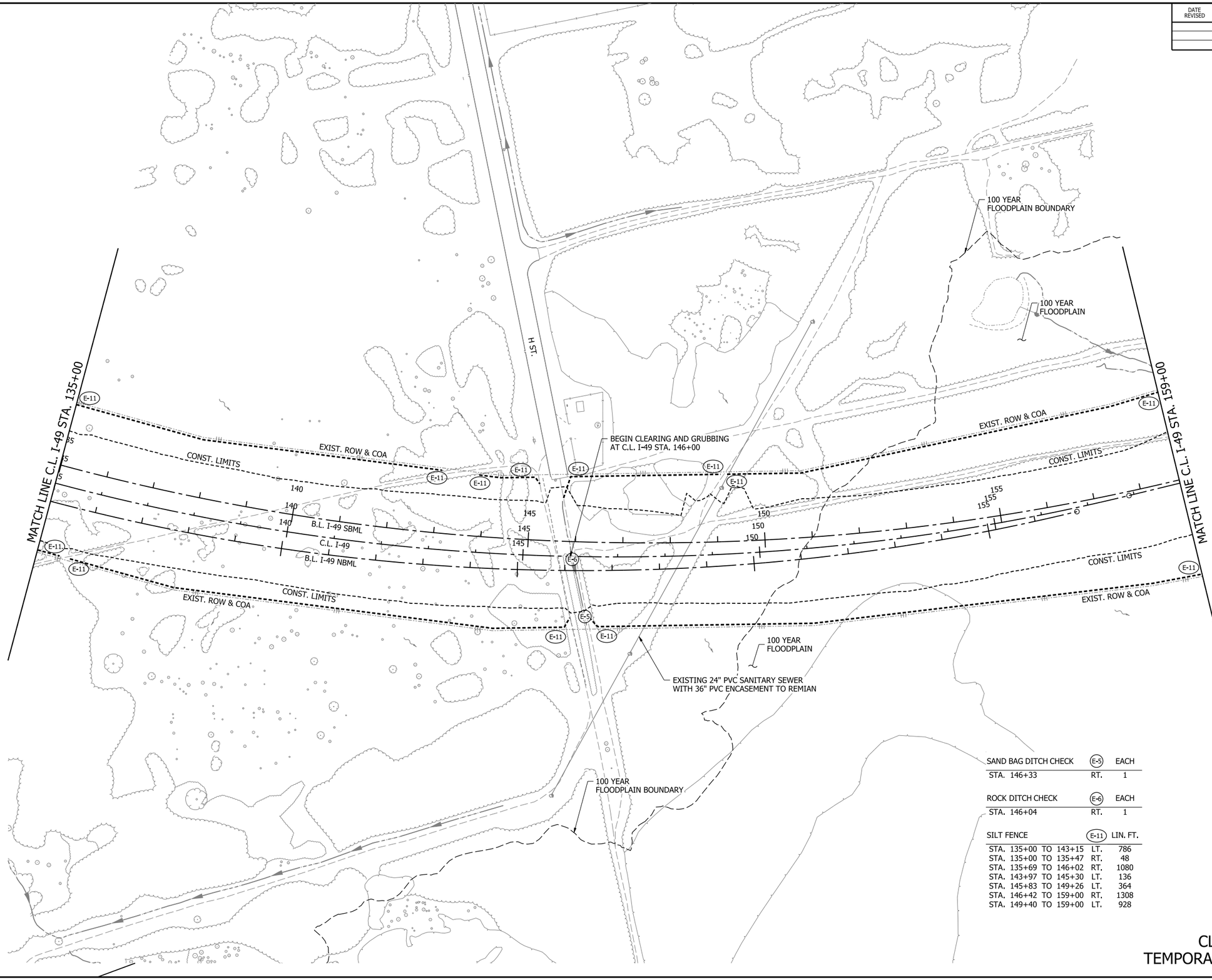
DATE OF REVISION	REVISIONS

CLEARING AND GRUBBING TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	63	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24



0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

N

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
- (E-13) FILTER SOCK

NOTES:
1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.
2. EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION. DEVICES PLACED IN PREVIOUS STAGES TO REMAIN ARE DISPLAYED HALF-TONED.
3. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

SAND BAG DITCH CHECK	(E-5)	EACH
STA. 146+33	RT.	1

ROCK DITCH CHECK	(E-6)	EACH
STA. 146+04	RT.	1

SILT FENCE			(E-11) LIN. FT.
STA. 135+00	TO 143+15	LT.	786
STA. 135+00	TO 135+47	RT.	48
STA. 135+69	TO 146+02	RT.	1080
STA. 143+97	TO 145+30	LT.	136
STA. 145+83	TO 149+26	LT.	364
STA. 146+42	TO 159+00	RT.	1308
STA. 149+40	TO 159+00	LT.	928

DATE OF REVISION	REVISIONS

CLEARING AND GRUBBING TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	64	809

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

MATCH LINE C.L. I-49 STA. 159+00

MATCH LINE C.L. I-49 STA. 183+00

100 YEAR FLOODPLAIN BOUNDARY

100 YEAR FLOODPLAIN

SPRINGHILL PARK EXISTING TRAIL

DO NOT DISTURB EXISTING GAS WELL FACILITY

EXIST. ROW & COA

EXIST. ROW & PROP. COA

CONST. LIMITS

LIMITS OF PRESERVED VEGETATION, STA. 166+68 TO STA. 171+22

LIMITS OF PRESERVED VEGETATION, STA. 171+33 TO STA. 179+71

LIMITS OF PRESERVED VEGETATION, STA. 179+67 TO 181+65

79'-6"

79'-3"

150'-0"

160 165 170 175 180

C.L. I-49

RELOCATED SPRINGHILL PARK TRAIL (SUBSIDIARY TO CLEARING AND GRUBBING)

LIMITS OF PRESERVED VEGETATION, STA. 166+35 TO STA. 171+08

LIMITS OF PRESERVED VEGETATION, STA. 171+15 TO STA. 181+57

79'-9"

79'-11"

100 YEAR FLOODPLAIN

25' BUFFER ZONE, REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN"

EXIST. P ST.

UNNAMED STREAM

ARKANSAS RIVER

SPRINGHILL PARK EXISTING TRAIL

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
- (E-13) FILTER SOCK

NOTES:
1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.
2. EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION. DEVICES PLACED IN PREVIOUS STAGES TO REMAIN ARE DISPLAYED HALF-TONED.
3. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

WATTLE	(E-1)	LIN. FT.
STA. 166+38 TO 171+08	RT.	624
STA. 166+43 TO 171+17	LT.	603
STA. 171+21 TO 178+20	RT.	918
STA. 171+32 TO 176+61	LT.	580
STA. 175+01 TO 179+47	LT.	713
STA. 177+19 TO 181+58	RT.	643
STA. 179+67 TO 181+60	LT.	343

ROCK DITCH CHECK	(E-6)	EACH
STA. 161+13	LT.	1

SILT FENCE	(E-11)	LIN. FT.
STA. 159+00 TO 166+35	LT.	972
STA. 159+00 TO 165+93	RT.	904

DATE OF REVISION	REVISIONS

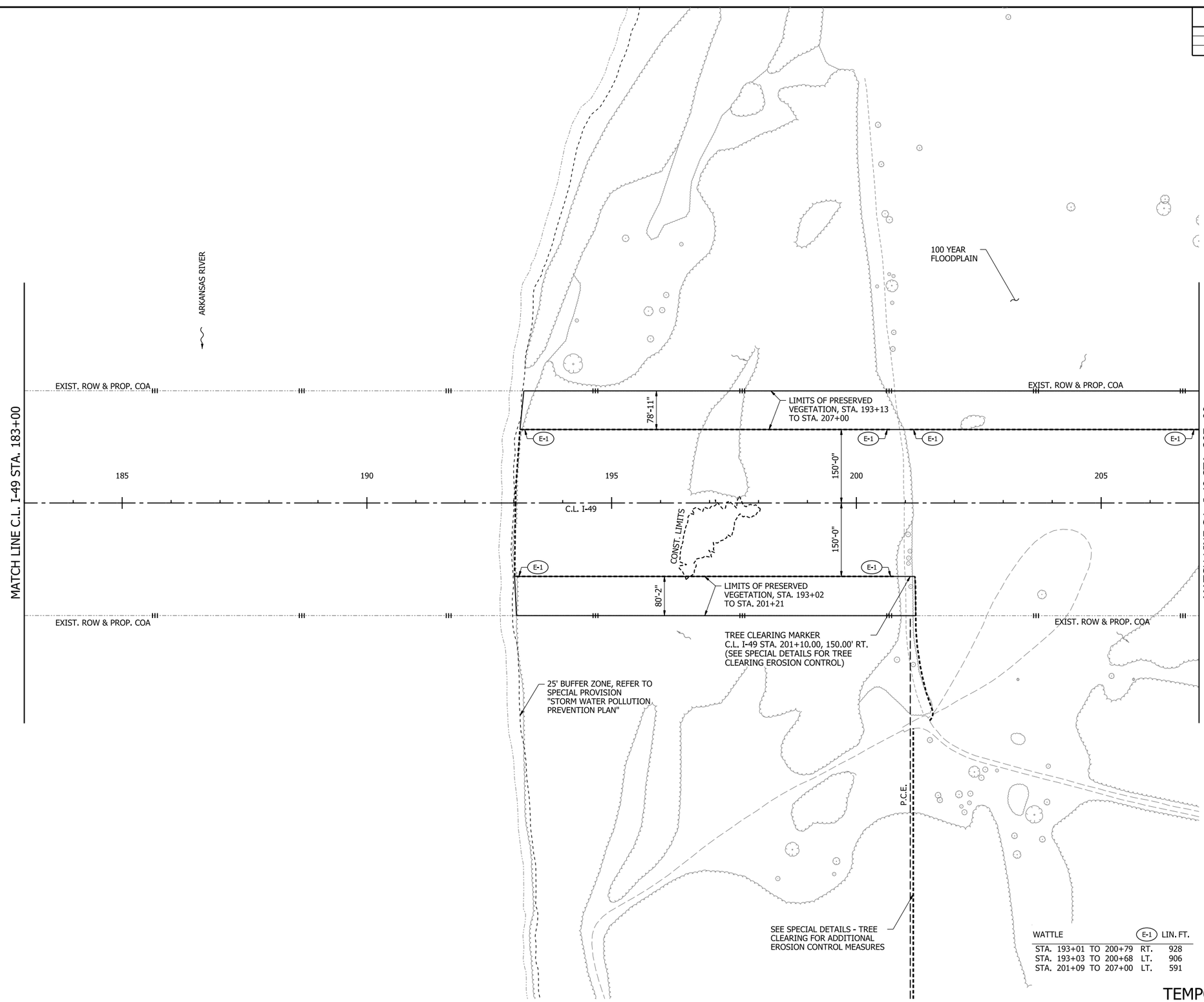
CLEARING AND GRUBBING
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	65	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
- (E-13) FILTER SOCK

NOTES:
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3. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

WATTLE	(E-1)	LIN. FT.
STA. 193+01 TO 200+79	RT.	928
STA. 193+03 TO 200+68	LT.	906
STA. 201+09 TO 207+00	LT.	591

DATE OF REVISION	REVISIONS

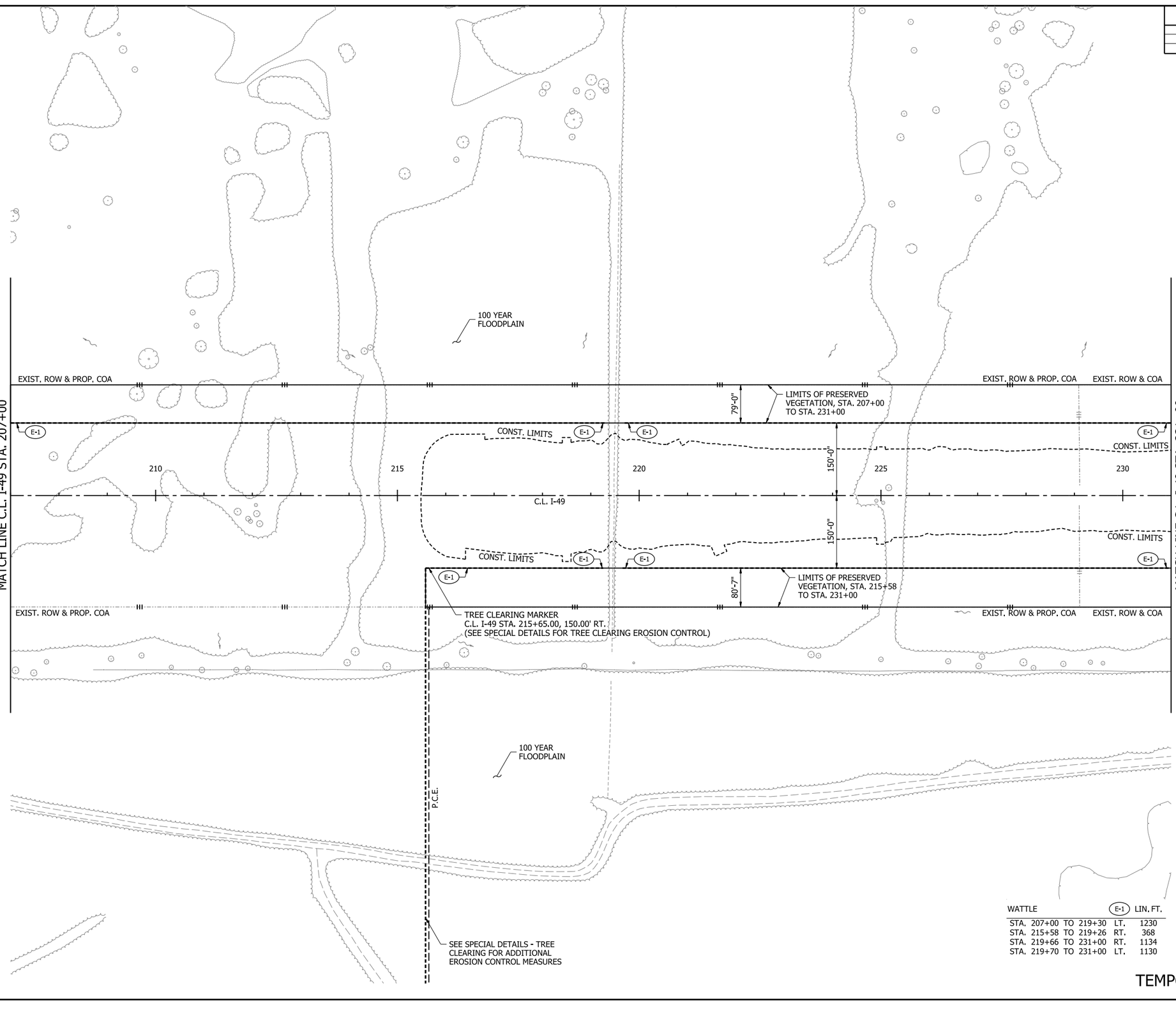
CLEARING AND GRUBBING TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	66	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- E-1 WATTLE
- E-5 SAND BAG DITCH CHECK
- E-6 ROCK DITCH CHECK
- E-8 DIVERSION DITCH
- E-9 DUMPED RIPRAP
- E-11 SILT FENCE
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WATTLE				E-1 LIN. FT.
STA. 207+00	TO	219+30	LT.	1230
STA. 215+58	TO	219+26	RT.	368
STA. 219+66	TO	231+00	RT.	1134
STA. 219+70	TO	231+00	LT.	1130

DATE OF REVISION	REVISIONS

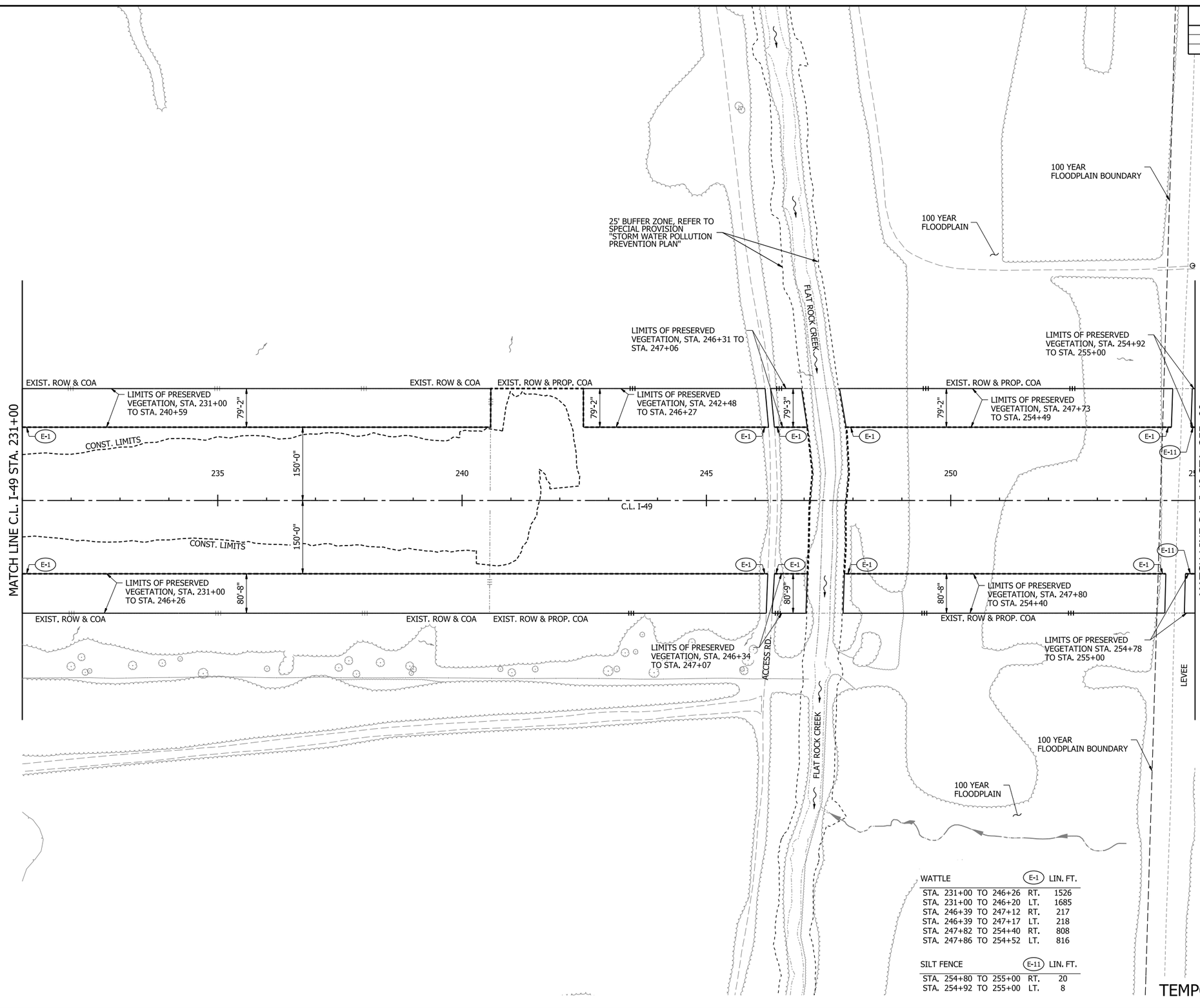
CLEARING AND GRUBBING TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	67	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
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- (E-9) DUMPED RIPRAP
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WATTLE	(E-1)	LIN. FT.
STA. 231+00 TO 246+26	RT.	1526
STA. 231+00 TO 246+20	LT.	1685
STA. 246+39 TO 247+12	RT.	217
STA. 246+39 TO 247+17	LT.	218
STA. 247+82 TO 254+40	RT.	808
STA. 247+86 TO 254+52	LT.	816

SILT FENCE	(E-11)	LIN. FT.
STA. 254+80 TO 255+00	RT.	20
STA. 254+92 TO 255+00	LT.	8

DATE OF REVISION	REVISIONS

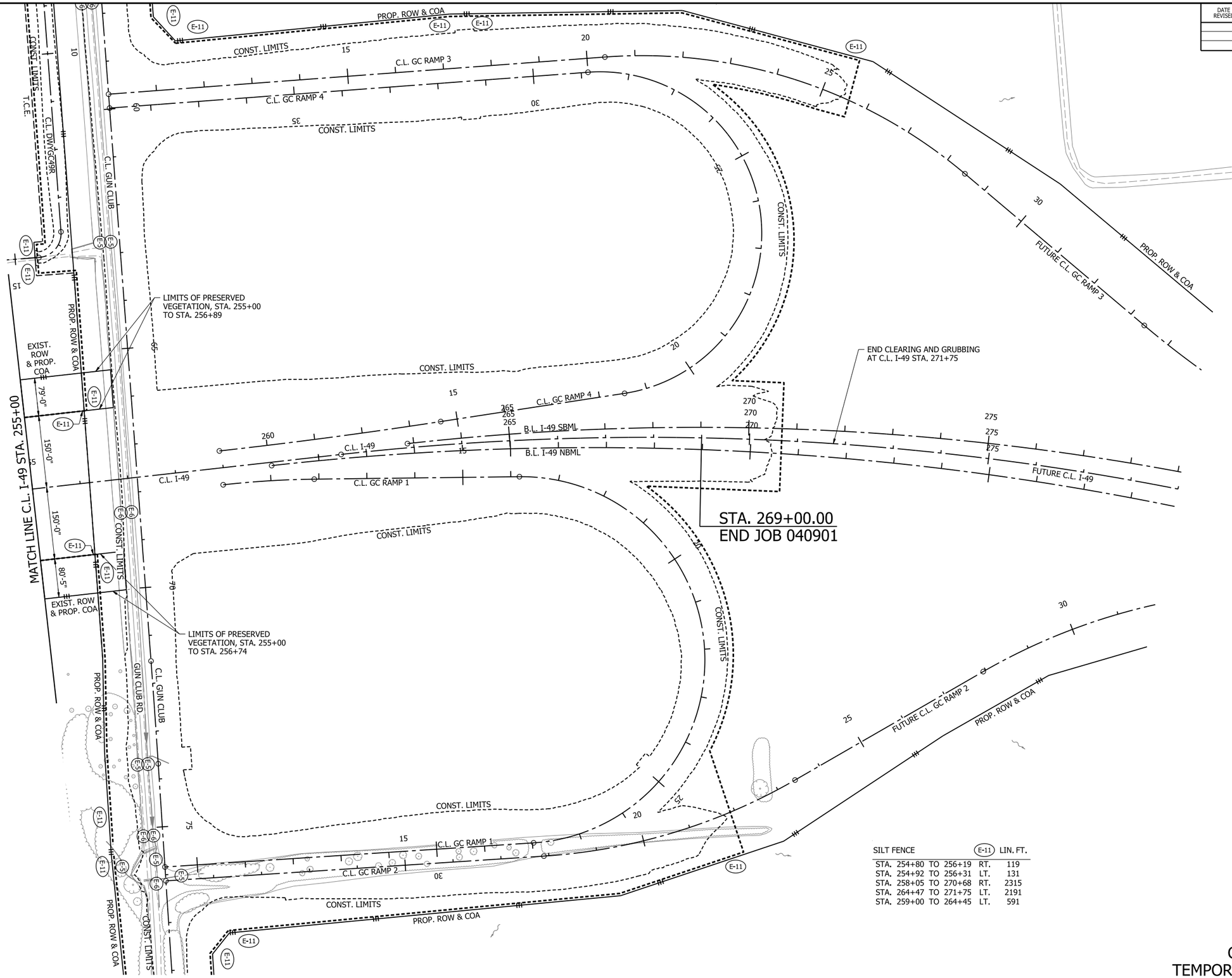
CLEARING AND GRUBBING TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	68	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

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- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- E-1 WATTLE
- E-5 SAND BAG DITCH CHECK
- E-6 ROCK DITCH CHECK
- E-8 DIVERSION DITCH
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SILT FENCE			E-11	LIN. FT.
STA. 254+80	TO	256+19	RT.	119
STA. 254+92	TO	256+31	LT.	131
STA. 258+05	TO	270+68	RT.	2315
STA. 264+47	TO	271+75	LT.	2191
STA. 259+00	TO	264+45	LT.	591

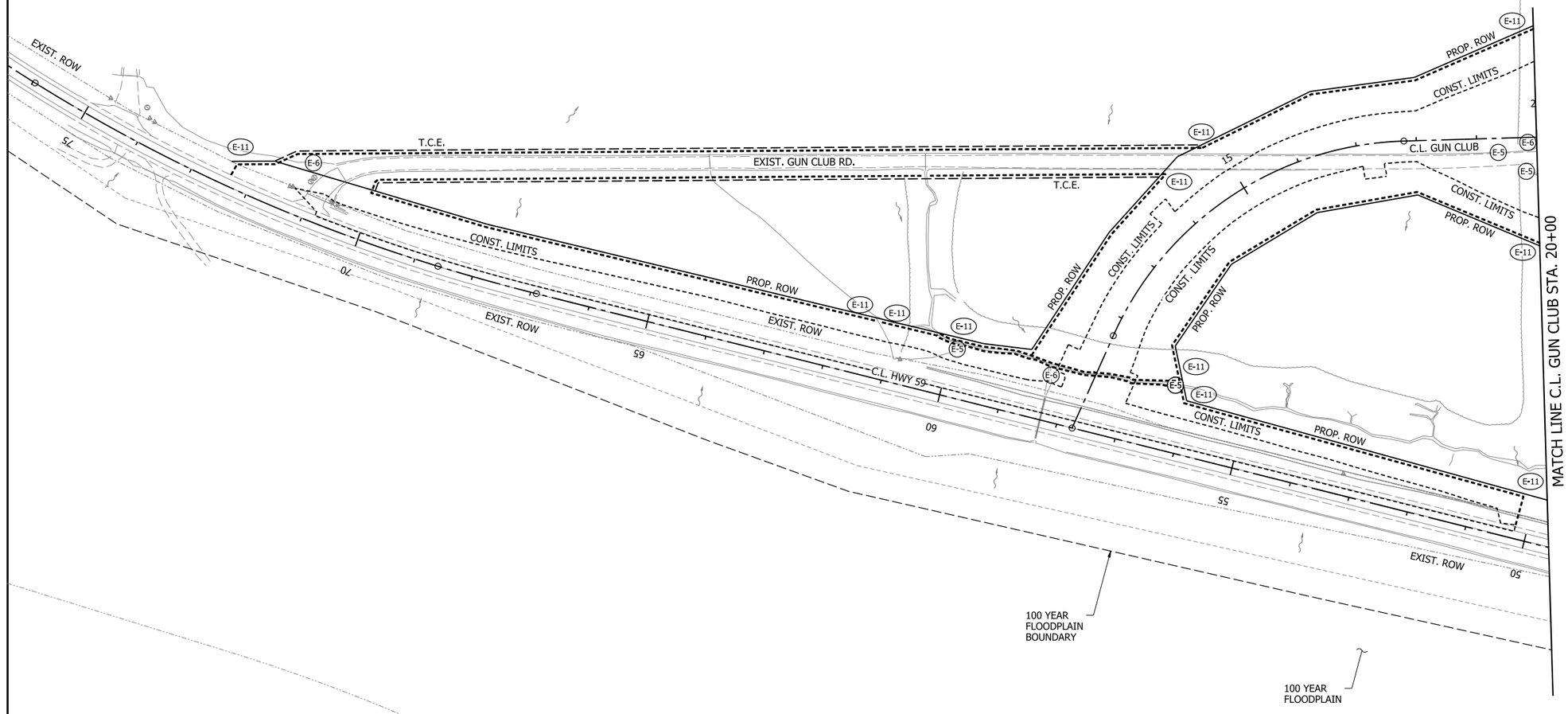
DATE OF REVISION	REVISIONS

CLEARING AND GRUBBING TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	69	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24



0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

N

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
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SAND BAG DITCH CHECK		(E-5)	EACH
C.L. GUN CLUB STA.	11+34	RT.	1
C.L. GUN CLUB STA.	19+36	RT.	1
C.L. GUN CLUB STA.	19+81	RT.	1
C.L. HWY 59 STA.	59+90	RT.	1

ROCK DITCH CHECK		(E-6)	EACH
C.L. GUN CLUB STA.	19+85	RT.	1
C.L. HWY 59 STA.	58+29	RT.	1
C.L. HWY 59 STA.	71+16	RT.	1

SILT FENCE				(E-11) LIN. FT.
C.L. GUN CLUB STA.	10+82	TO	14+15	LT. 376
C.L. GUN CLUB STA.	11+44	TO	20+00	RT. 787
C.L. GUN CLUB STA.	14+79	TO	20+00	LT. 590
C.L. HWY 59 STA.	50+19	TO	58+33	RT. 880
C.L. HWY 59 STA.	56+19	TO	60+24	RT. 409
C.L. HWY 59 STA.	57+25	TO	61+04	RT. 392
C.L. HWY 59 STA.	56+77	TO	72+36	RT. 1626
C.L. HWY 59 STA.	58+35	TO	59+84	RT. 150
C.L. HWY 59 STA.	59+88	TO	61+22	RT. 135
C.L. HWY 59 STA.	61+18	TO	70+05	RT. 1791

DATE OF REVISION	REVISIONS

CLEARING AND GRUBBING TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	70	809
		TEMPORARY EROSION CONTROL DETAILS				

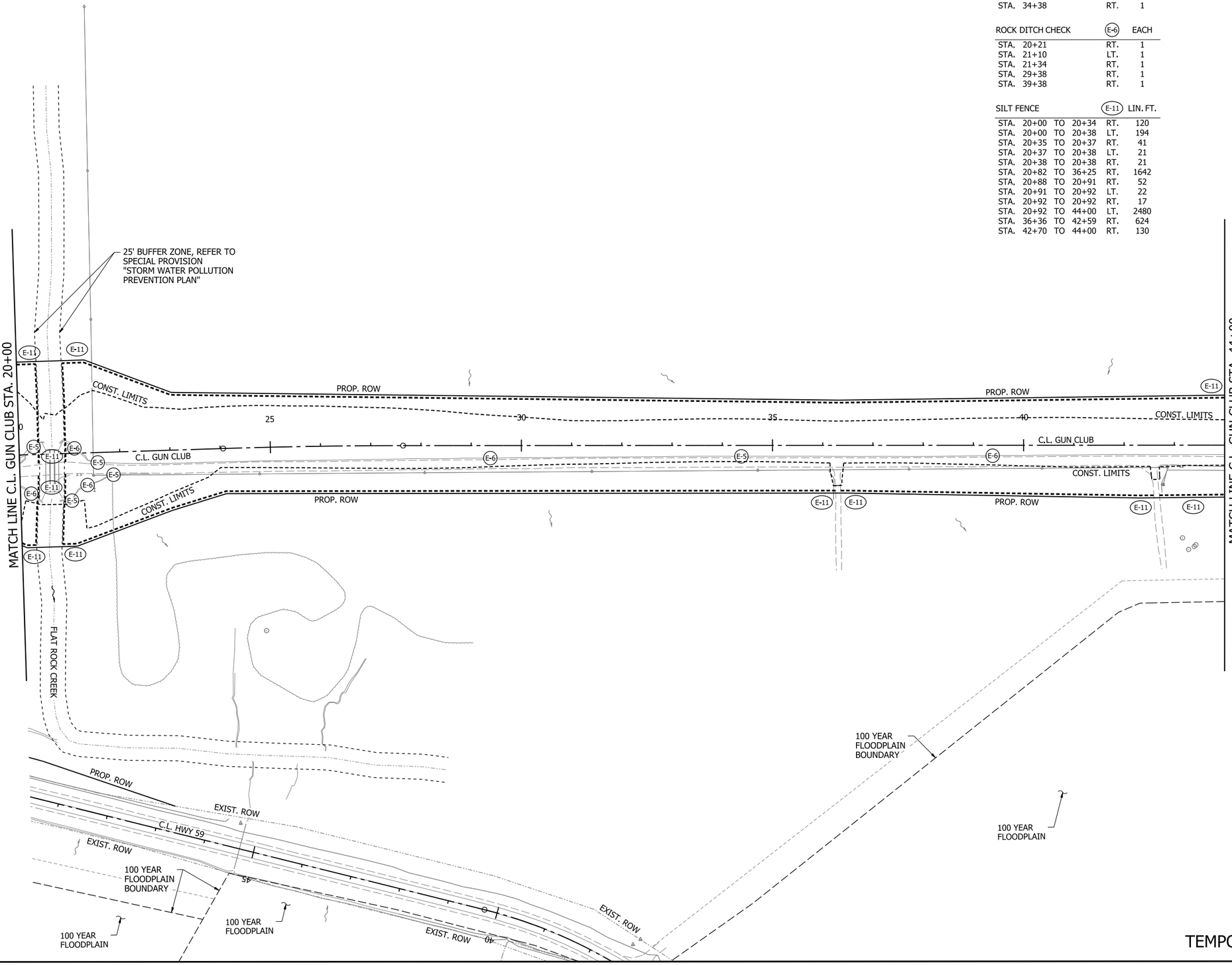
SAND BAG DITCH CHECK			E-5	EACH
STA.	20+29		LT.	1
STA.	21+02	TO 21+86	RT.	2
STA.	21+56		RT.	1
STA.	34+38		RT.	1

ROCK DITCH CHECK			E-6	EACH
STA.	20+21		RT.	1
STA.	21+10		LT.	1
STA.	21+34		RT.	1
STA.	29+38		RT.	1
STA.	39+38		RT.	1

SILT FENCE			E-11	LIN. FT.
STA.	20+00	TO 20+34	RT.	120
STA.	20+00	TO 20+38	LT.	194
STA.	20+35	TO 20+37	RT.	41
STA.	20+37	TO 20+38	LT.	21
STA.	20+38	TO 20+38	RT.	21
STA.	20+82	TO 36+25	RT.	1642
STA.	20+88	TO 20+91	RT.	52
STA.	20+91	TO 20+92	LT.	22
STA.	20+92	TO 20+92	RT.	17
STA.	20+92	TO 44+00	LT.	2480
STA.	36+36	TO 42+59	RT.	624
STA.	42+70	TO 44+00	RT.	130

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



N

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- E-1 WATTLE
- E-5 SAND BAG DITCH CHECK
- E-6 ROCK DITCH CHECK
- E-8 DIVERSION DITCH
- E-9 DUMPED RIPRAP
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DATE OF REVISION	REVISIONS

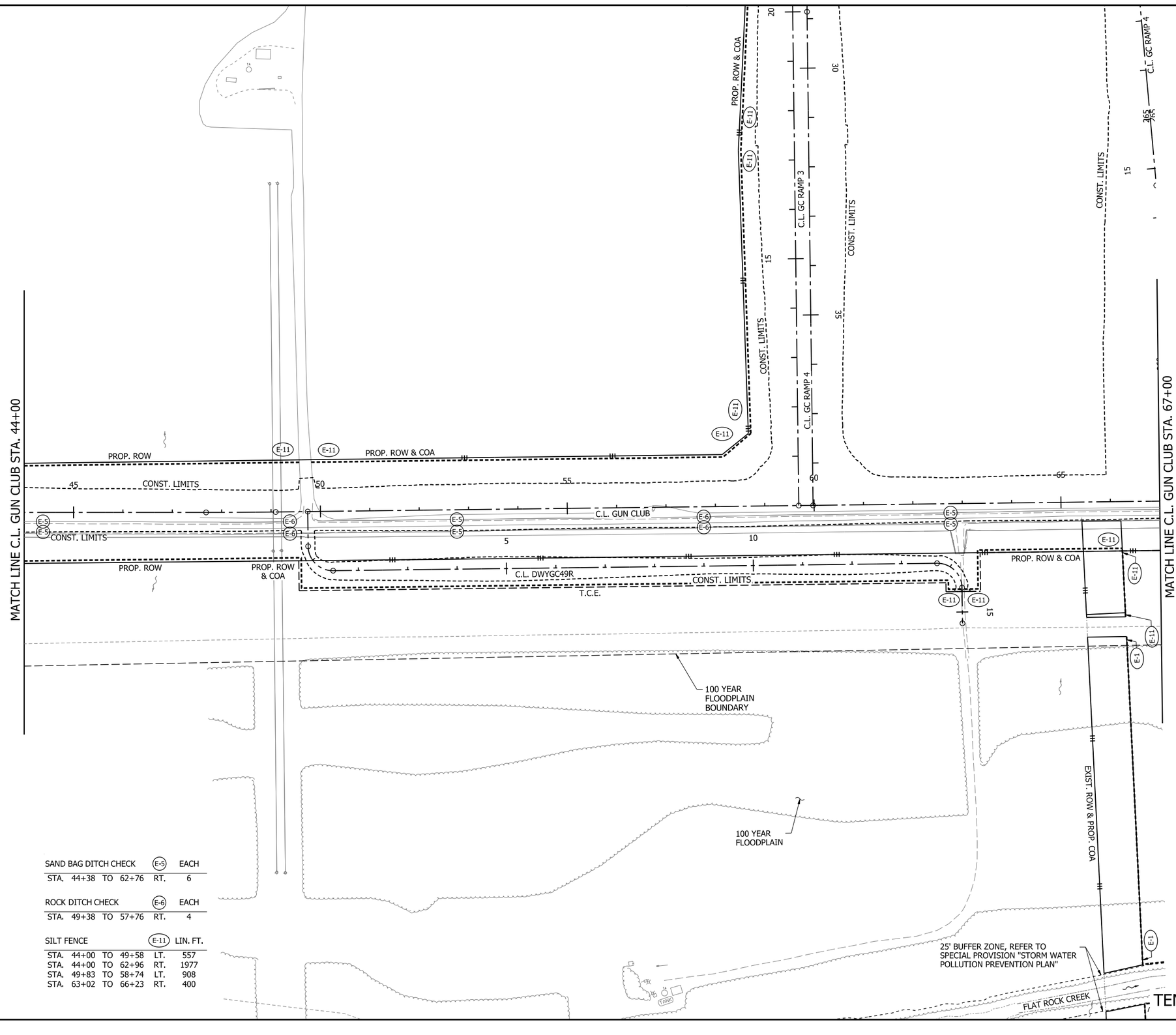
CLEARING AND GRUBBING TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	71	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



N

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- E-1 WATTLE
- E-5 SAND BAG DITCH CHECK
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SAND BAG DITCH CHECK				(E-5)	EACH
STA.	44+38	TO	62+76	RT.	6

ROCK DITCH CHECK				(E-6)	EACH
STA.	49+38	TO	57+76	RT.	4

SILT FENCE				(E-11)	LIN. FT.
STA.	44+00	TO	49+58	LT.	557
STA.	44+00	TO	62+96	RT.	1977
STA.	49+83	TO	58+74	LT.	908
STA.	63+02	TO	66+23	RT.	400

DATE OF REVISION	REVISIONS

CLEARING AND GRUBBING
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	72	809

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

N

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
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B.L. I-49 SBML
B.L. I-49 NBML
C.L. I-49
C.L. GC RAMP 4
C.L. GC RAMP 1
C.L. GC RAMP 3
C.L. GC RAMP 2
CONST. LIMITS
PROP. ROW & COA
EXIST. ROW & PROP. COA
C.L. GUN CLUB
MATCH LINE C.L. GUN CLUB STA. 67+00
100 YEAR FLOODPLAIN BOUNDARY
100 YEAR FLOODPLAIN
25' BUFFER ZONE, REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN"
FLAT ROCK CREEK

SAND BAG DITCH CHECK	(E-5)	EACH
STA. 73+67	RT.	2
STA. 75+67	RT.	1
STA. 75+77	RT.	1
STA. 76+04	LT.	1
STA. 79+00	RT.	1

ROCK DITCH CHECK	(E-6)	EACH
STA. 68+41	RT.	2
STA. 75+17	RT.	2
STA. 76+17	RT.	1

SILT FENCE			(E-11)	LIN. FT.
STA. 69+23	TO	75+30	RT.	606
STA. 75+53	TO	82+25	RT.	708
STA. 77+25	TO	82+25	RT.	622

DATE OF REVISION	REVISIONS

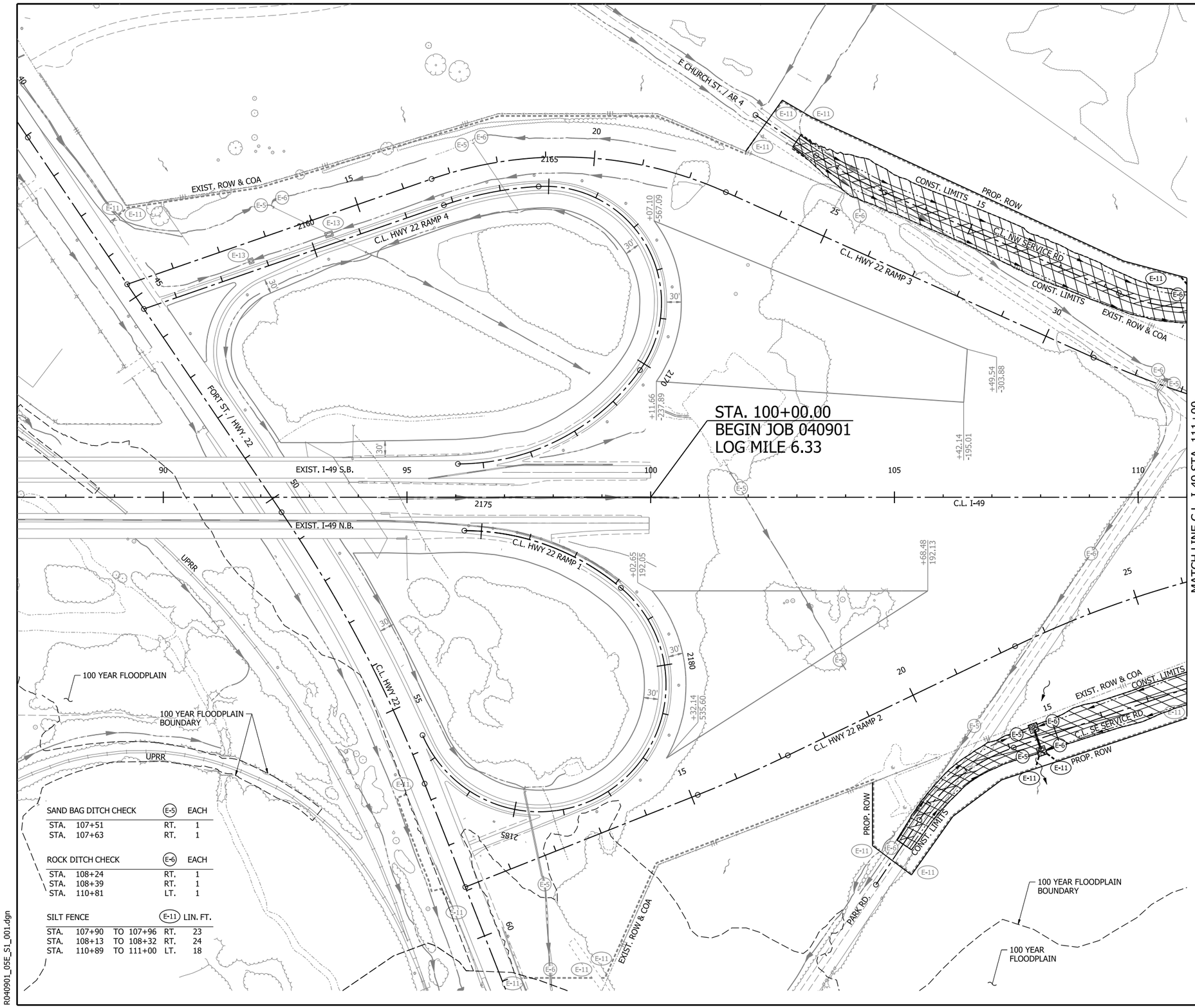
CLEARING AND GRUBBING
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
5/1/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



SAND BAG DITCH CHECK	(E-5)	EACH
STA. 107+51	RT.	1
STA. 107+63	RT.	1

ROCK DITCH CHECK	(E-6)	EACH
STA. 108+24	RT.	1
STA. 108+39	RT.	1
STA. 110+81	LT.	1

SILT FENCE	(E-11)	LIN. FT.
STA. 107+90 TO 107+96	RT.	23
STA. 108+13 TO 108+32	RT.	24
STA. 110+89 TO 111+00	LT.	18

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
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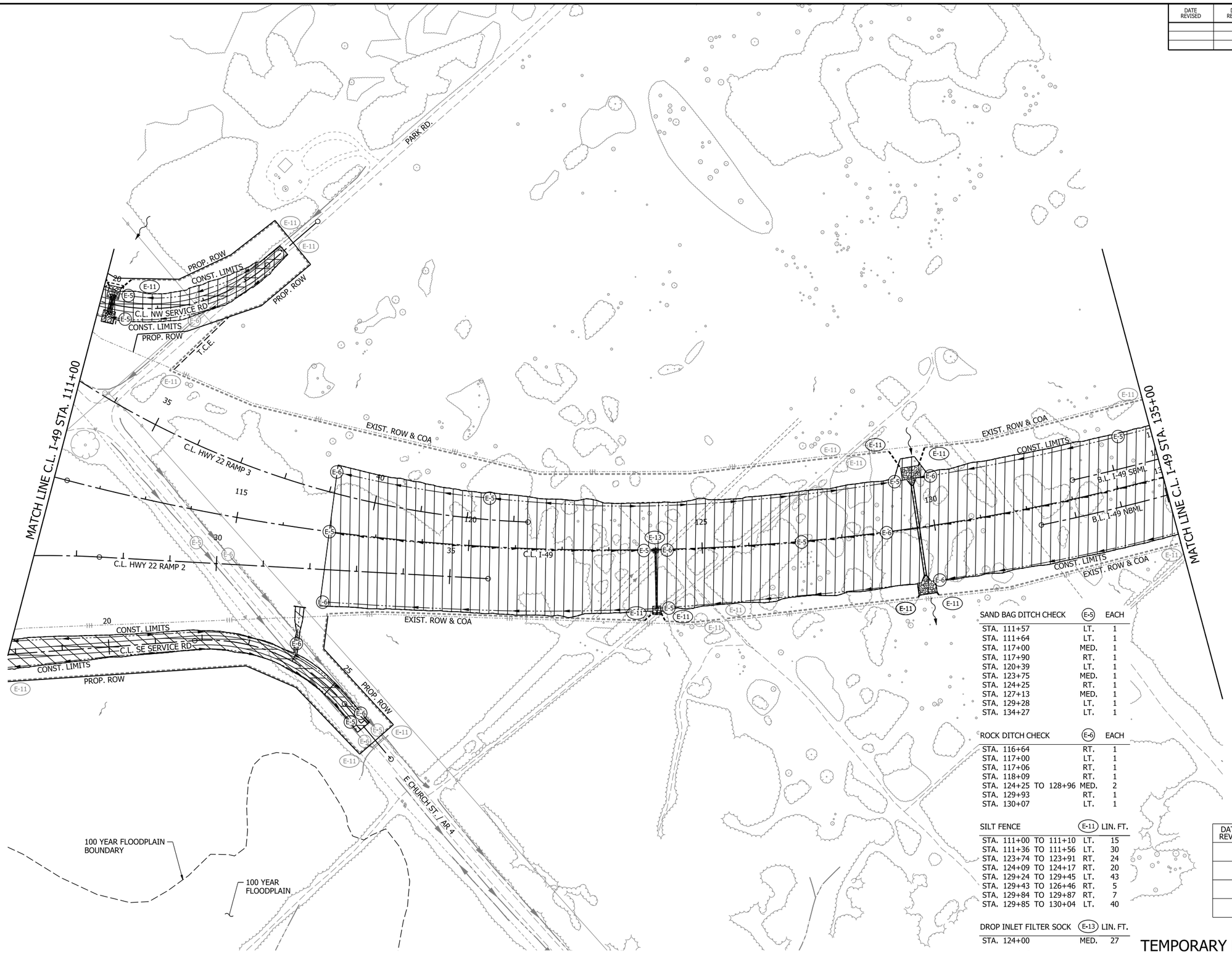
STAGE 1
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	74	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
- (E-13) FILTER SOCK

NOTES:
1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.
2. EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION. DEVICES PLACED IN PREVIOUS STAGES TO REMAIN ARE DISPLAYED HALF-TONED.
3. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

SAND BAG DITCH CHECK (E-5)			EACH
STA. 111+57		LT.	1
STA. 111+64		LT.	1
STA. 117+00		MED.	1
STA. 117+90		RT.	1
STA. 120+39		LT.	1
STA. 123+75		MED.	1
STA. 124+25		RT.	1
STA. 127+13		MED.	1
STA. 129+28		LT.	1
STA. 134+27		LT.	1

ROCK DITCH CHECK (E-6)			EACH
STA. 116+64		RT.	1
STA. 117+00		LT.	1
STA. 117+06		RT.	1
STA. 118+09		RT.	1
STA. 124+25	TO 128+96	MED.	2
STA. 129+93		RT.	1
STA. 130+07		LT.	1

SILT FENCE (E-11)			LIN. FT.
STA. 111+00	TO 111+10	LT.	15
STA. 111+36	TO 111+56	LT.	30
STA. 123+74	TO 123+91	RT.	24
STA. 124+09	TO 124+17	RT.	20
STA. 129+24	TO 129+45	LT.	43
STA. 129+43	TO 126+46	RT.	5
STA. 129+84	TO 129+87	RT.	7
STA. 129+85	TO 130+04	LT.	40

DROP INLET FILTER SOCK (E-13)			LIN. FT.
STA. 124+00		MED.	27

DATE OF REVISION	REVISIONS

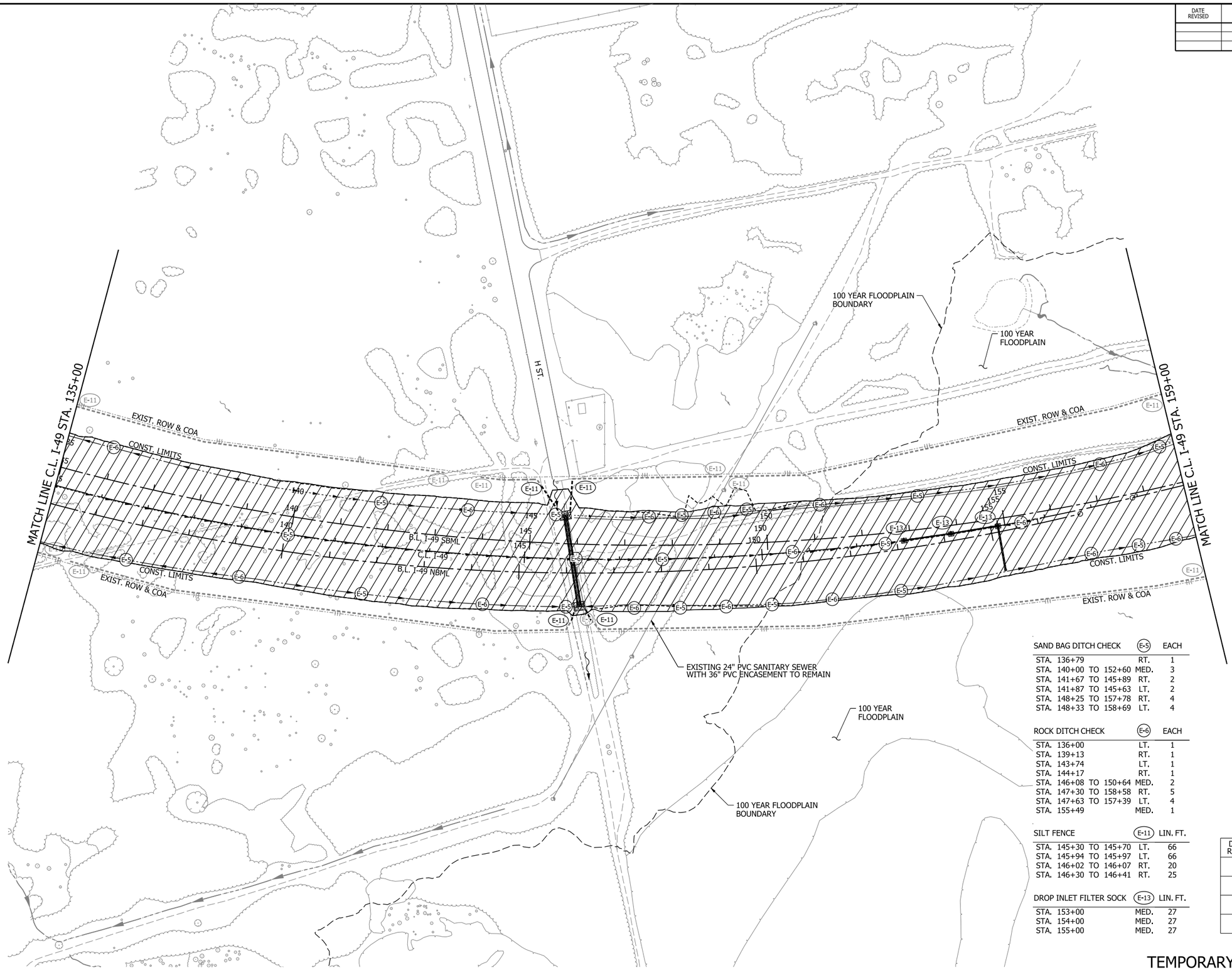
STAGE 1
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	75	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
- (E-13) FILTER SOCK

SAND BAG DITCH CHECK (E-5)			EACH
STA. 136+79		RT.	1
STA. 140+00	TO 152+60	MED.	3
STA. 141+67	TO 145+89	RT.	2
STA. 141+87	TO 145+63	LT.	2
STA. 148+25	TO 157+78	RT.	4
STA. 148+33	TO 158+69	LT.	4

ROCK DITCH CHECK (E-6)			EACH
STA. 136+00		LT.	1
STA. 139+13		RT.	1
STA. 143+74		LT.	1
STA. 144+17		RT.	1
STA. 146+08	TO 150+64	MED.	2
STA. 147+30	TO 158+58	RT.	5
STA. 147+63	TO 157+39	LT.	4
STA. 155+49		MED.	1

SILT FENCE (E-11)			LIN. FT.
STA. 145+30	TO 145+70	LT.	66
STA. 145+94	TO 145+97	LT.	66
STA. 146+02	TO 146+07	RT.	20
STA. 146+30	TO 146+41	RT.	25

DROP INLET FILTER SOCK (E-13)		LIN. FT.
STA. 153+00	MED.	27
STA. 154+00	MED.	27
STA. 155+00	MED.	27

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DATE OF REVISION	REVISIONS

STAGE 1
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED
9-16-2024	

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	76	809

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
5/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

MATCH LINE C.L. I-49 STA. 159+00

100 YEAR FLOODPLAIN BOUNDARY

100 YEAR FLOODPLAIN

DO NOT DISTURB EXISTING GAS WELL FACILITY

EXIST. ROW & COA

EXIST. ROW & PROP. COA

CONST. LIMITS

C.L. I-49

TEMPORARY FENCE TO BE 6' X 10' CHAIN LINK FENCE PANELS, TO BE PAID FOR AS 6' STEEL CHAIN LINK FENCE.

25' BUFFER ZONE, REFER TO SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN"

UNNAMED STREAM

ARKANSAS RIVER

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
- (E-13) FILTER SOCK

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WATTLE (E-1)			LIN. FT.
STA. 176+30 TO 177+31		LT.	134
STA. 176+56 TO 177+07		LT.	71
STA. 177+31 TO 177+49		RT.	32

SAND BAG DITCH CHECK (E-5)			EACH
STA. 160+29 TO 164+40		LT.	2
STA. 161+01 TO 165+47		RT.	2
STA. 168+74		RT.	1

ROCK DITCH CHECK (E-6)			EACH
STA. 159+40 TO 165+61		LT.	3
STA. 163+52		RT.	1
STA. 166+67		RT.	1

DIVERSION DITCH (E-8)			LIN. FT.
STA. 159+50 TO 163+24		RT.	374
STA. 160+00 TO 163+24		LT.	324
STA. 176+30 TO 177+23		LT.	149
STA. 177+23 TO 177+31		RT.	71

PIPE FOR SLOPE DRAINS (E-12)		LIN. FT.
STA. 159+50	RT.	70
STA. 160+00	LT.	67
STA. 163+24	LT.	80
STA. 163+24	RT.	70

DROP INLET FILTER SOCK (E-13)		LIN. FT.
STA. 163+33	LT.	27
STA. 163+33	RT.	27
STA. 172+83	RT.	27
STA. 174+13	RT.	27
STA. 176+73	RT.	27

DATE OF REVISION	REVISIONS

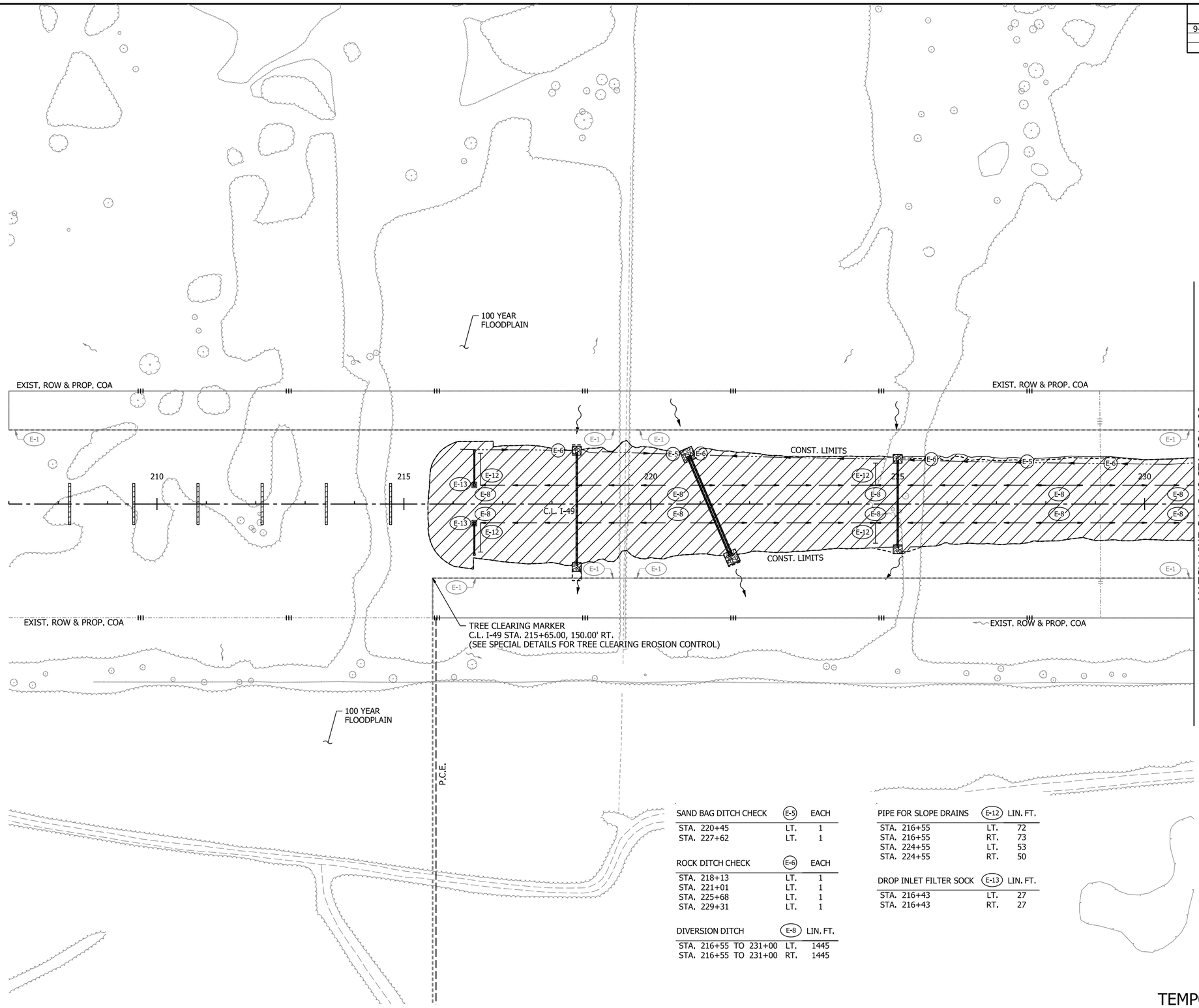
STAGE 1
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	77	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
5/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
- (E-13) FILTER SOCK

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SAND BAG DITCH CHECK	(E-5)	EACH
STA. 220+45	LT.	1
STA. 227+62	LT.	1

ROCK DITCH CHECK	(E-6)	EACH
STA. 218+13	LT.	1
STA. 221+01	LT.	1
STA. 225+68	LT.	1
STA. 229+31	LT.	1

DIVERSION DITCH	(E-8)	LIN. FT.
STA. 216+55 TO 231+00	LT.	1445
STA. 216+55 TO 231+00	RT.	1445

PIPE FOR SLOPE DRAINS	(E-12)	LIN. FT.
STA. 216+55	LT.	72
STA. 216+55	RT.	73
STA. 224+55	LT.	53
STA. 224+55	RT.	50

DROP INLET FILTER SOCK	(E-13)	LIN. FT.
STA. 216+43	LT.	27
STA. 216+43	RT.	27

DATE OF REVISION	REVISIONS

STAGE 1
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	78	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
5/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

MATCH LINE C.L. I-49 STA. 231+00

MATCH LINE C.L. I-49 STA. 255+00

EXIST. ROW & PROP. COA

CONST. LIMITS

C.L. I-49

235 240 245 250

100 YEAR FLOODPLAIN

100 YEAR FLOODPLAIN BOUNDARY

FLAT ROCK CREEK

25" BUFFER ZONE, REFER TO SPECIAL PROVISION "STORM WATER POLUTION PREVENTION PLAN"

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- E-1 WATTLE
- E-5 SAND BAG DITCH CHECK
- E-6 ROCK DITCH CHECK
- E-8 DIVERSION DITCH
- E-11 SILT FENCE
- E-12 SLOPE DRAIN (12")
- E-13 FILTER SOCK

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SAND BAG DITCH CHECK	(E-5)	EACH
STA. 231+61 TO 240+44	LT.	3

ROCK DITCH CHECK	(E-6)	EACH
STA. 233+00 TO 237+20	LT.	2

DIVERSION DITCH	(E-8)	LIN. FT.
STA. 231+00 TO 240+00	LT.	900
STA. 231+00 TO 240+00	RT.	900

PIPE FOR SLOPE DRAINS	(E-12)	LIN. FT.
STA. 232+00	LT.	51
STA. 232+00	RT.	42
STA. 240+00	LT.	85
STA. 240+00	RT.	64

DROP INLET FILTER SOCK	(E-13)	LIN. FT.
STA. 240+33	LT.	27
STA. 240+33	RT.	27

DATE OF REVISION	REVISIONS

STAGE 1
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	79	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
5/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- E-1 WATTLE
- E-5 SAND BAG DITCH CHECK
- E-6 ROCK DITCH CHECK
- E-8 DIVERSION DITCH
- E-11 SILT FENCE
- E-12 SLOPE DRAIN (12")
- E-13 FILTER SOCK

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PROP. ROW & COA
CONST. LIMITS
C.L. GC RAMP 3
C.L. GC RAMP 4
C.L. DWYGC49R
T.C.E.
C.L. FUTURE GC RAMP 3
EXIST. ROW & PROP. COA
MATCH LINE C.L. I-49 STA. 255+00
C.L. I-49
B.L. I-49 SBML
B.L. I-49 NBML
C.L. GC RAMP 1
C.L. GC RAMP 2
C.L. FUTURE I-49
C.L. FUTURE GC RAMP 2
C.L. GUN CLUB
STA. 269+00.00
END JOB 040901

DIVERSION DITCH	(E-8)	LIN. FT.
STA. 259+55 TO 265+55	LT.	600
STA. 259+55 TO 265+55	RT.	600

DROP INLET FILTER SOCK	(E-13)	LIN. FT.
STA. 259+33	LT.	27
STA. 259+33	RT.	27

PIPE FOR SLOPE DRAINS	(E-12)	LIN. FT.
STA. 259+55	LT.	111
STA. 259+55	RT.	115
STA. 263+55	LT.	78
STA. 263+55	RT.	69

ROCK DITCH CHECK	(E-6)	EACH
STA. 259+16	RT.	1
STA. 259+34 TO 267+67	LT.	2
STA. 260+27 TO 267+56	RT.	2
STA. 260+37 TO 267+84	LT.	2
STA. 263+16	RT.	1
STA. 264+09	RT.	1
STA. 264+25	LT.	1
STA. 267+61	LT.	1
STA. 268+31	RT.	1
STA. 269+20	RT.	1
STA. 269+58	LT.	1

SAND BAG DITCH CHECK	(E-5)	EACH
STA. 257+91 TO 269+21	LT.	3
STA. 258+16 TO 263+32	RT.	2
STA. 258+56	RT.	1
STA. 259+00 TO 267+53	RT.	2
STA. 259+66 TO 267+00	RT.	2
STA. 261+72	LT.	1
STA. 263+80	LT.	1
STA. 264+78 TO 270+63	LT.	2
STA. 268+20 TO 269+37	RT.	2
STA. 268+28	RT.	1
STA. 269+23	LT.	1
STA. 269+56	LT.	1
STA. 270+52	LT.	1

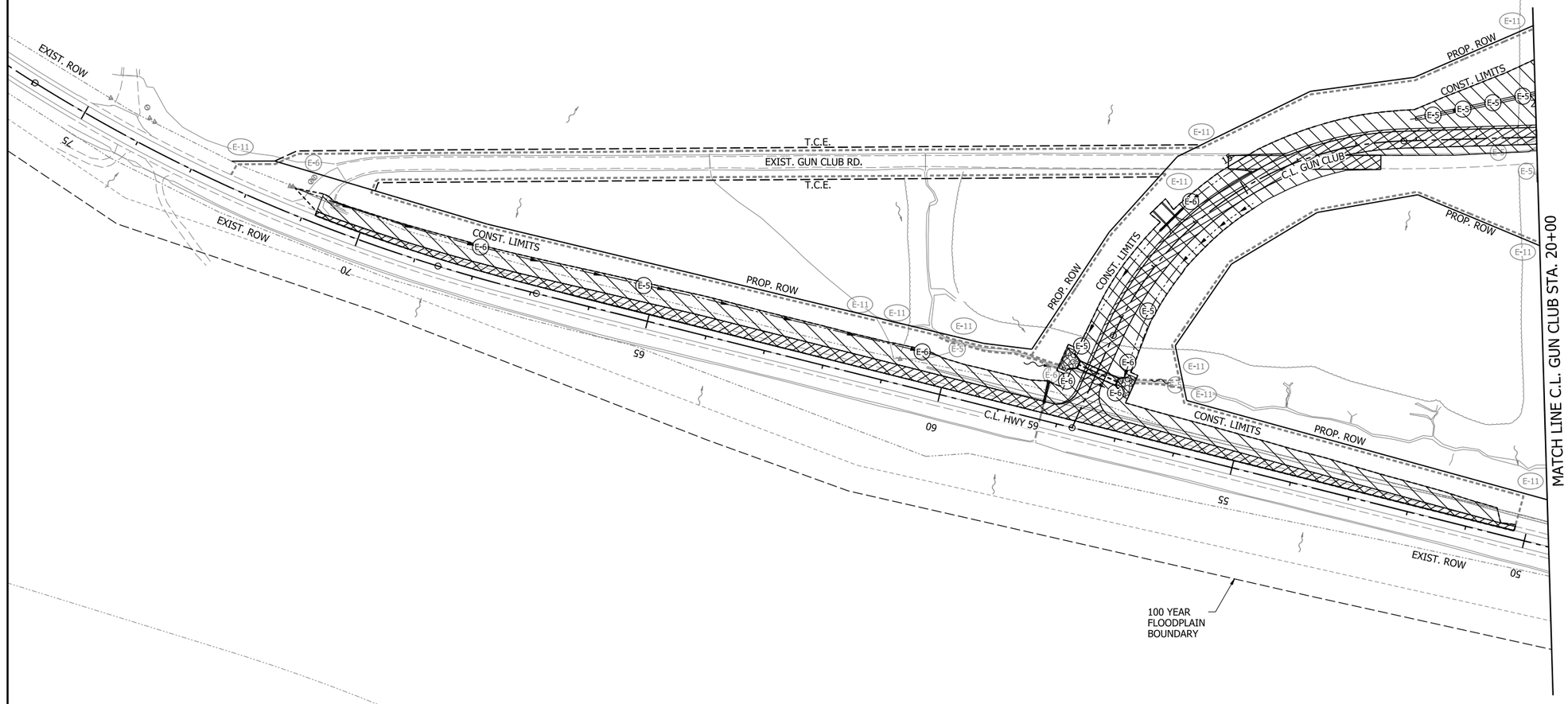
DATE OF REVISION	REVISIONS

STAGE 1
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	80	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
5/17/24



0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

N

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- E-1 WATTLE
- E-5 SAND BAG DITCH CHECK
- E-6 ROCK DITCH CHECK
- E-8 DIVERSION DITCH
- E-11 SILT FENCE
- E-12 SLOPE DRAIN (12")
- E-13 FILTER SOCK

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SAND BAG DITCH CHECK (E-5)					EACH
C.L. GUN CLUB STA.	11+30			LT.	1
C.L. GUN CLUB STA.	12+32			RT.	1
C.L. GUN CLUB STA.	18+29	TO	19+79	LT.	4
C.L. HWY 59 STA.	65+20			RT.	1

ROCK DITCH CHECK (E-6)					EACH
C.L. GUN CLUB STA.	10+67			LT.	1
C.L. GUN CLUB STA.	10+82			RT.	1
C.L. GUN CLUB STA.	11+37			RT.	1
C.L. GUN CLUB STA.	14+17			LT.	1
C.L. HWY 59 STA.	60+45	TO	68+00	RT.	2

DATE OF REVISION	REVISIONS

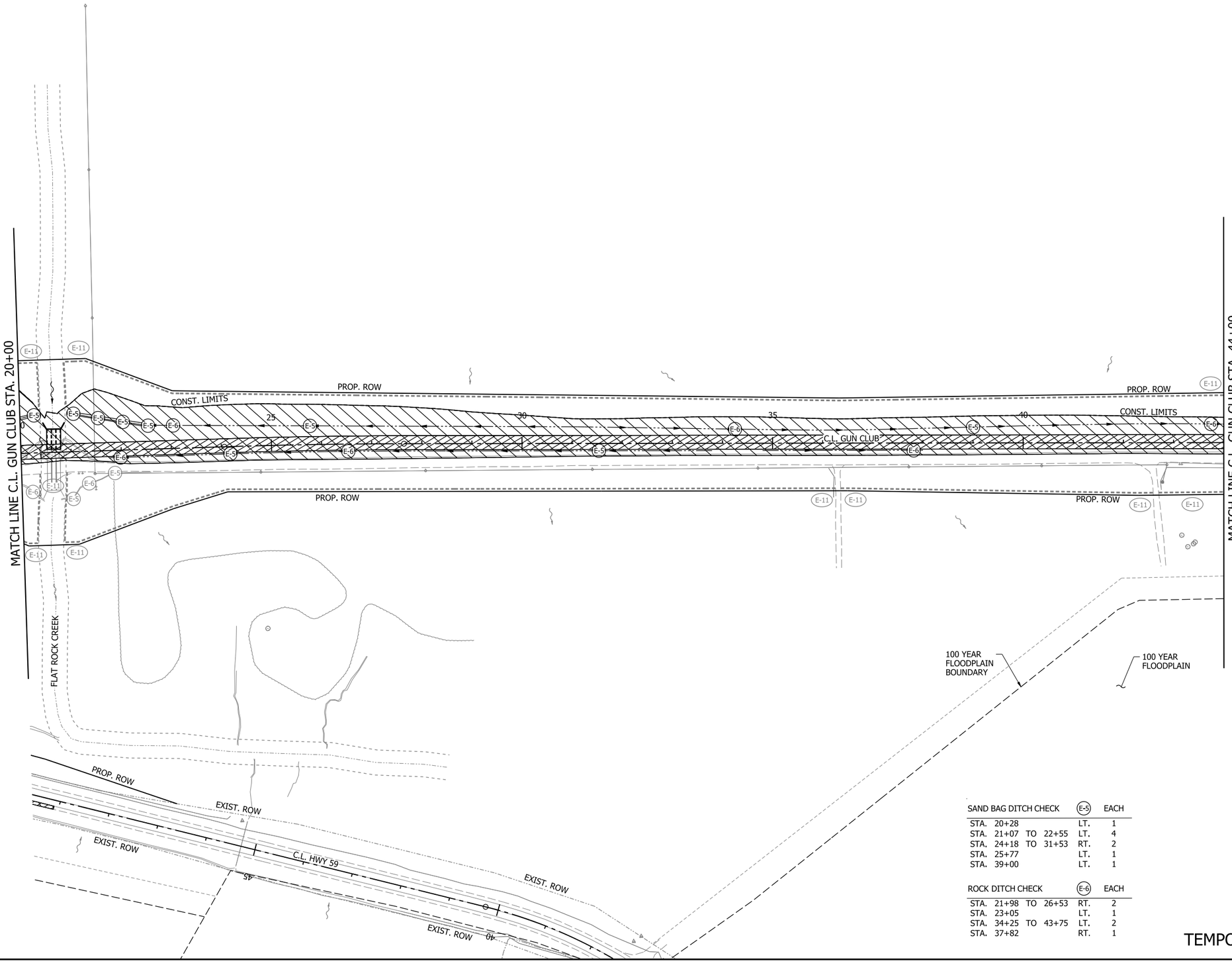
STAGE 1
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	81	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
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- E-6 ROCK DITCH CHECK
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SAND BAG DITCH CHECK			E-5	EACH
STA. 20+28			LT.	1
STA. 21+07	TO	22+55	LT.	4
STA. 24+18	TO	31+53	RT.	2
STA. 25+77			LT.	1
STA. 39+00			LT.	1

ROCK DITCH CHECK			E-6	EACH
STA. 21+98	TO	26+53	RT.	2
STA. 23+05			LT.	1
STA. 34+25	TO	43+75	LT.	2
STA. 37+82			RT.	1

DATE OF REVISION	REVISIONS

STAGE 1
TEMPORARY EROSION CONTROL DETAILS

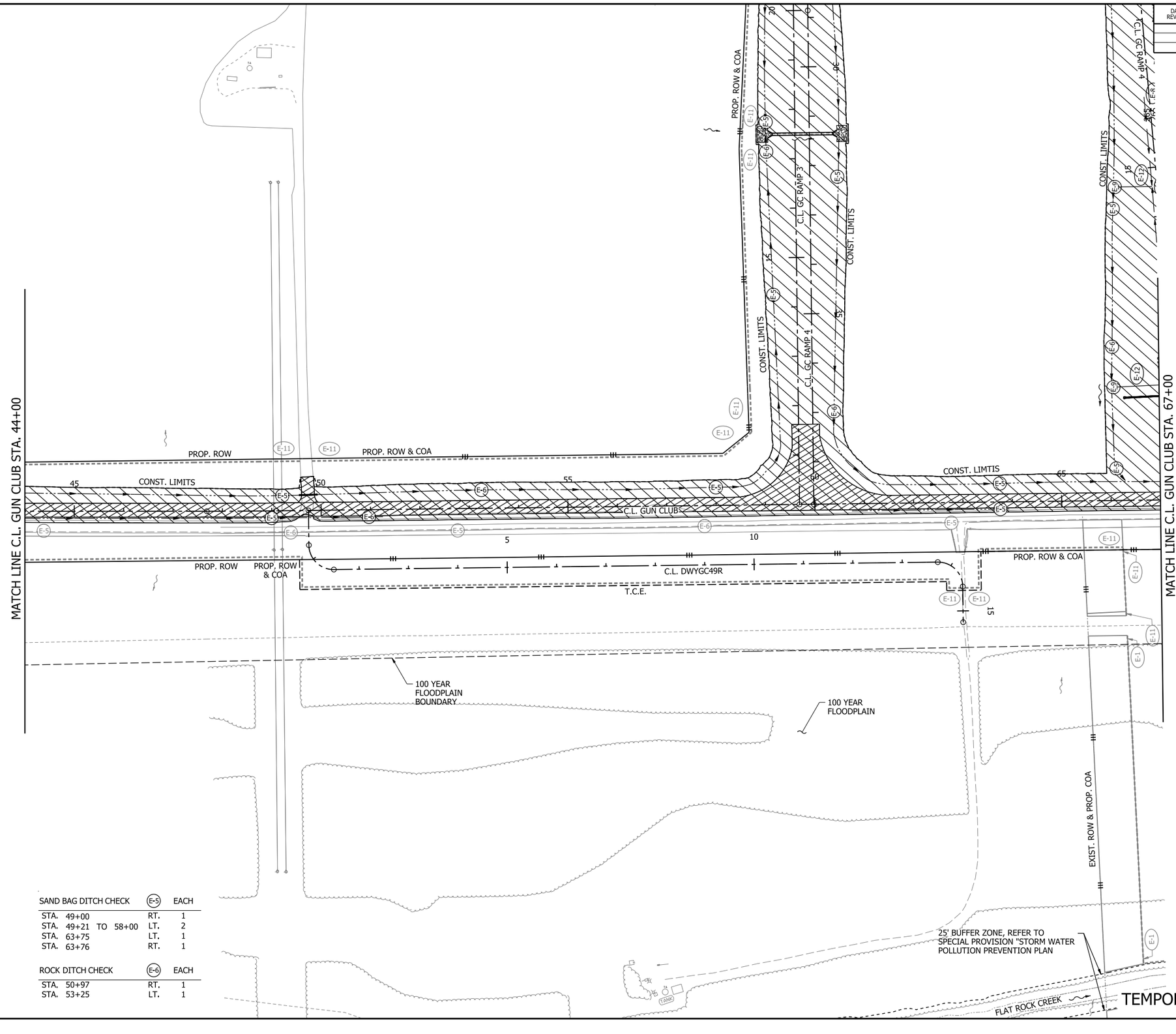
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	82	809

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



N

LEGEND

- GRADING AND EARTHWORK THIS STAGE
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- E-6 ROCK DITCH CHECK
- E-8 DIVERSION DITCH
- E-9 DUMPED RIPRAP
- E-11 SILT FENCE
- E-12 SLOPE DRAIN (12")
- E-13 FILTER SOCK

NOTES:
1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.
2. EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION. DEVICES PLACED IN PREVIOUS STAGES TO REMAIN ARE DISPLAYED HALF-TONED.
3. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

SAND BAG DITCH CHECK	(E-5)	EACH
STA. 49+00	RT.	1
STA. 49+21 TO 58+00	LT.	2
STA. 63+75	LT.	1
STA. 63+76	RT.	1

ROCK DITCH CHECK	(E-6)	EACH
STA. 50+97	RT.	1
STA. 53+25	LT.	1

DATE OF REVISION	REVISIONS

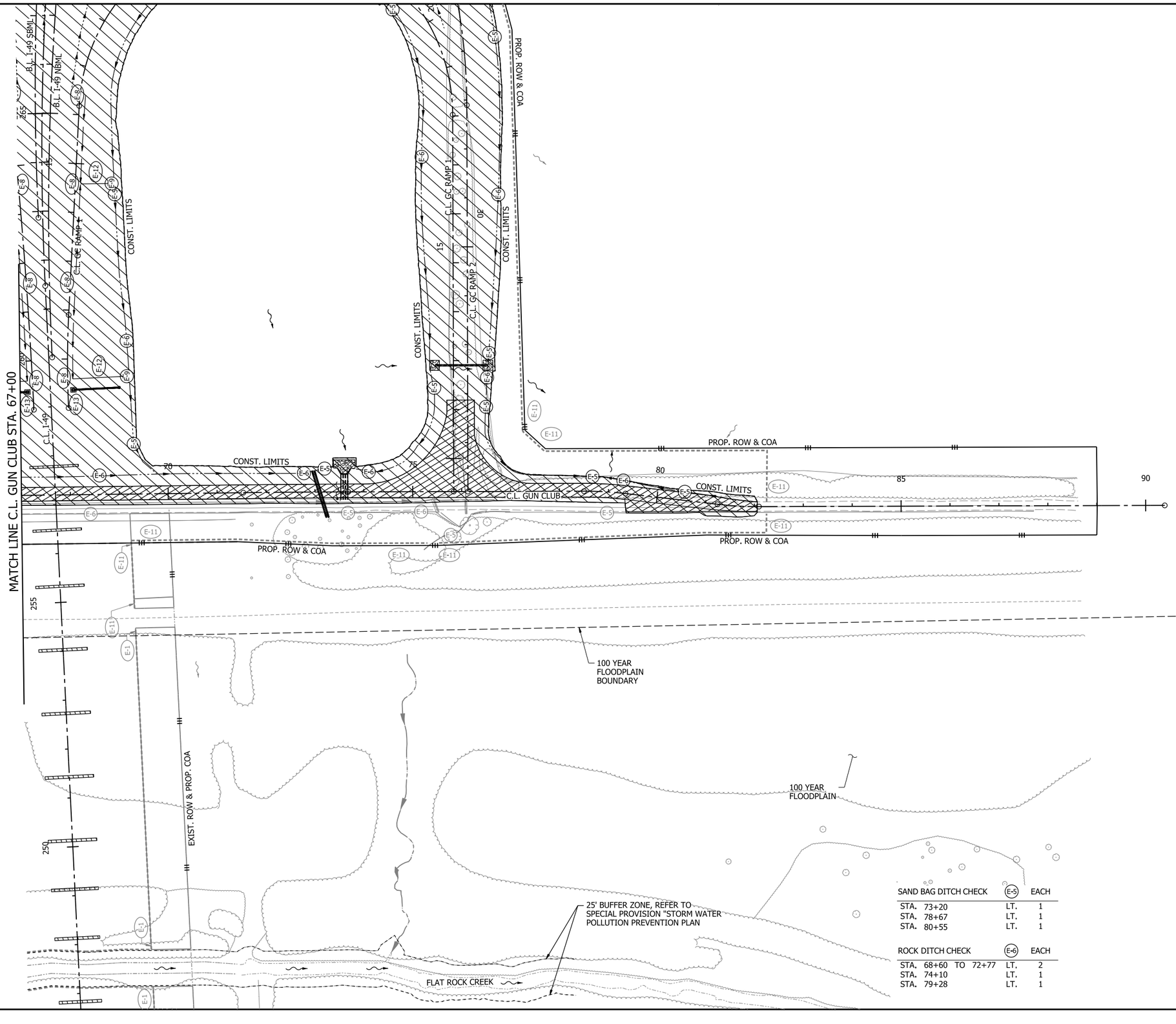
STAGE 1
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	83	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



N

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
- (E-13) FILTER SOCK

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SAND BAG DITCH CHECK	(E-5)	EACH
STA. 73+20	LT.	1
STA. 78+67	LT.	1
STA. 80+55	LT.	1

ROCK DITCH CHECK	(E-6)	EACH
STA. 68+60 TO 72+77	LT.	2
STA. 74+10	LT.	1
STA. 79+28	LT.	1

DATE OF REVISION	REVISIONS

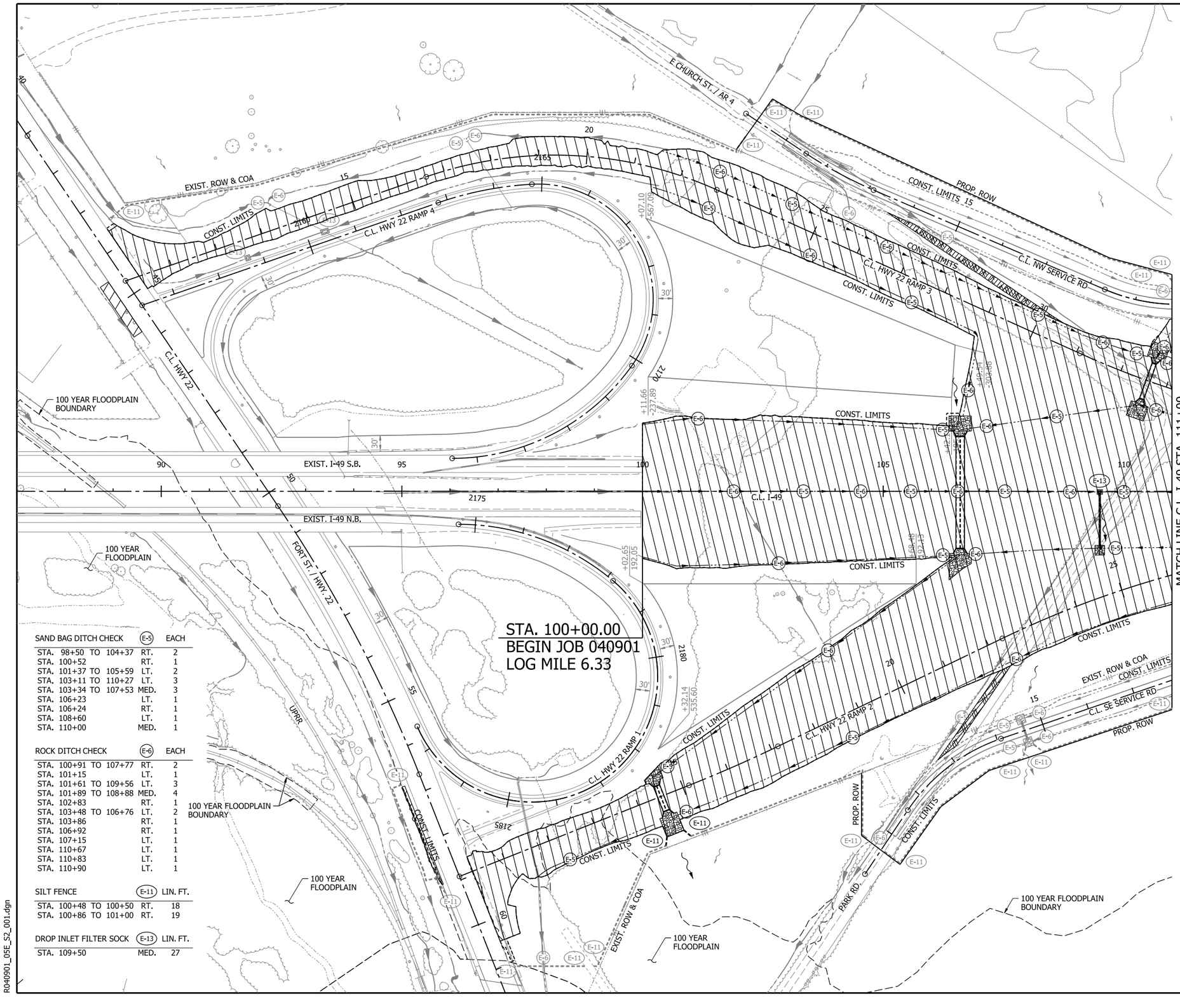
STAGE 1
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	84	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
KATHERINE LEE LEBLANC
No. 20314
5/1/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



SAND BAG DITCH CHECK	E-5	EACH
STA. 98+50 TO 104+37	RT.	2
STA. 100+52	RT.	1
STA. 101+37 TO 105+59	LT.	2
STA. 103+11 TO 110+27	LT.	3
STA. 103+34 TO 107+53	MED.	3
STA. 106+23	LT.	1
STA. 106+24	RT.	1
STA. 108+60	LT.	1
STA. 110+00	MED.	1

ROCK DITCH CHECK	E-6	EACH
STA. 100+91 TO 107+77	RT.	2
STA. 101+15	LT.	1
STA. 101+61 TO 109+56	LT.	3
STA. 101+89 TO 108+88	MED.	4
STA. 102+83	RT.	1
STA. 103+48 TO 106+76	LT.	2
STA. 103+86	RT.	1
STA. 106+92	RT.	1
STA. 107+15	LT.	1
STA. 110+67	LT.	1
STA. 110+83	LT.	1
STA. 110+90	LT.	1

SILT FENCE	E-11	LIN. FT.
STA. 100+48 TO 100+50	RT.	18
STA. 100+86 TO 101+00	RT.	19

DROP INLET FILTER SOCK	E-13	LIN. FT.
STA. 109+50	MED.	27

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- E-1 WATTLE
- E-5 SAND BAG DITCH CHECK
- E-6 ROCK DITCH CHECK
- E-8 DIVERSION DITCH
- E-9 DUMPED RIPRAP
- E-11 SILT FENCE
- E-12 SLOPE DRAIN (12")
- E-13 FILTER SOCK

NOTES:
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2. EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION. DEVICES PLACED IN PREVIOUS STAGES TO REMAIN ARE DISPLAYED HALF-TONED.
3. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

DATE OF REVISION	REVISIONS

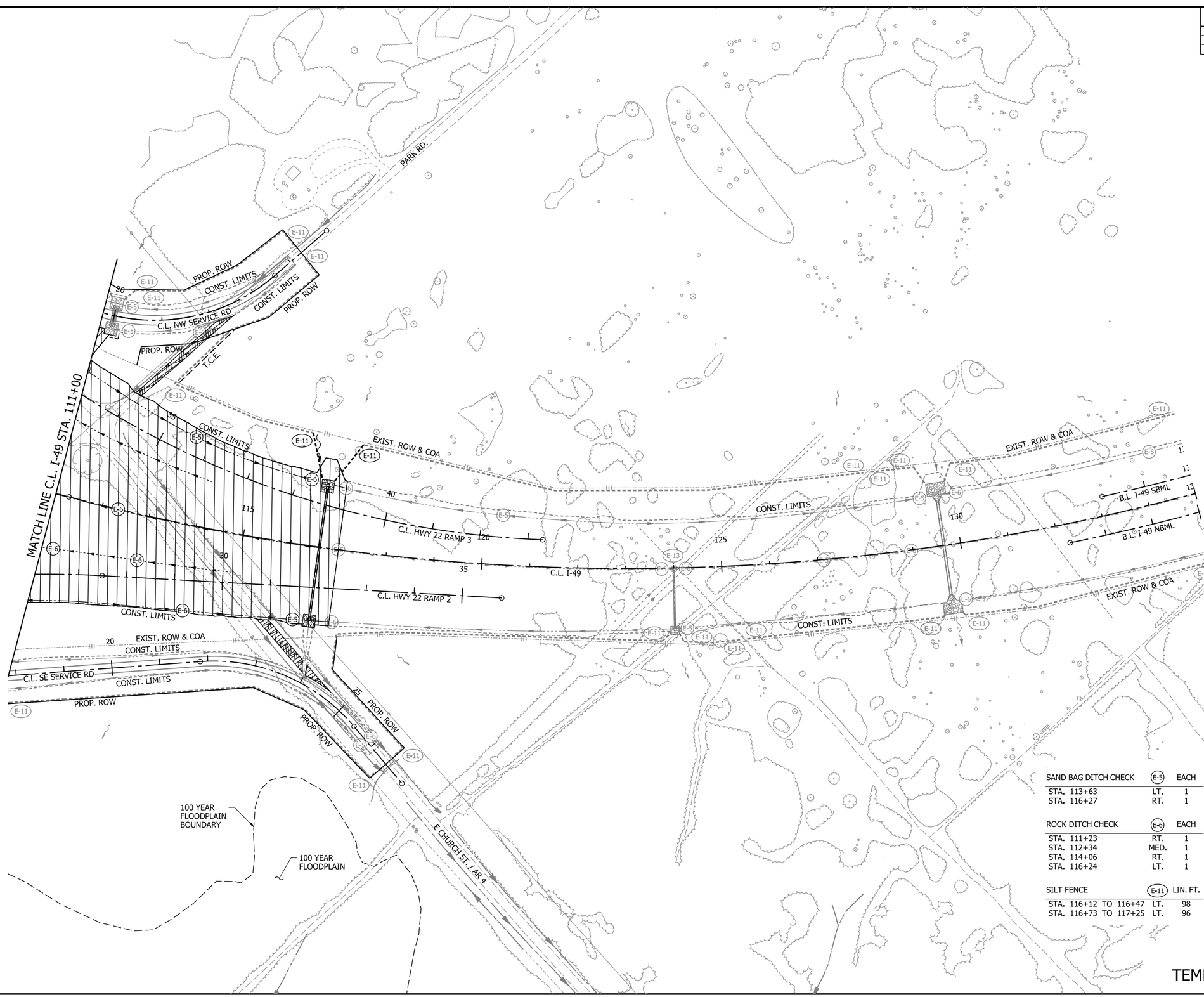
STAGE 2
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	85	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
- (E-13) FILTER SOCK

NOTES:
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3. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

SAND BAG DITCH CHECK	(E-5)	EACH
STA. 113+63	LT.	1
STA. 116+27	RT.	1

ROCK DITCH CHECK	(E-6)	EACH
STA. 111+23	RT.	1
STA. 112+34	MED.	1
STA. 114+06	RT.	1
STA. 116+24	LT.	1

SILT FENCE	(E-11)	LIN. FT.
STA. 116+12 TO 116+47	LT.	98
STA. 116+73 TO 117+25	LT.	96

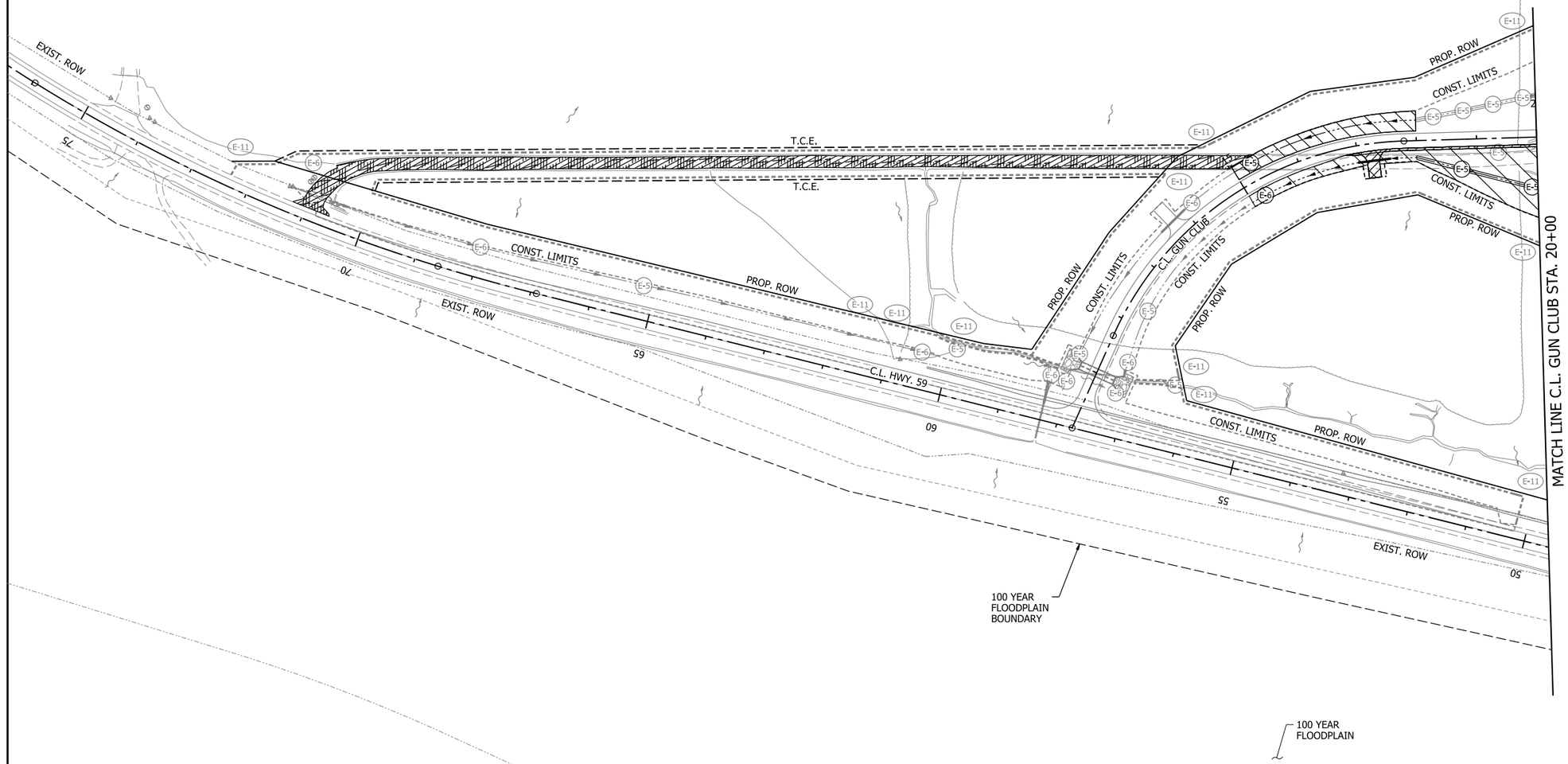
DATE OF REVISION	REVISIONS

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	86	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24



0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

N

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
- (E-13) FILTER SOCK

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SAND BAG DITCH CHECK			(E-5)	EACH
C.L. GUN CLUB STA.	15+29		LT.	1
C.L. GUN CLUB STA.	18+74 TO	19+90	RT.	2

ROCK DITCH CHECK		(E-6)	EACH
C.L. GUN CLUB STA.	15+26	RT.	1

DATE OF REVISION	REVISIONS

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

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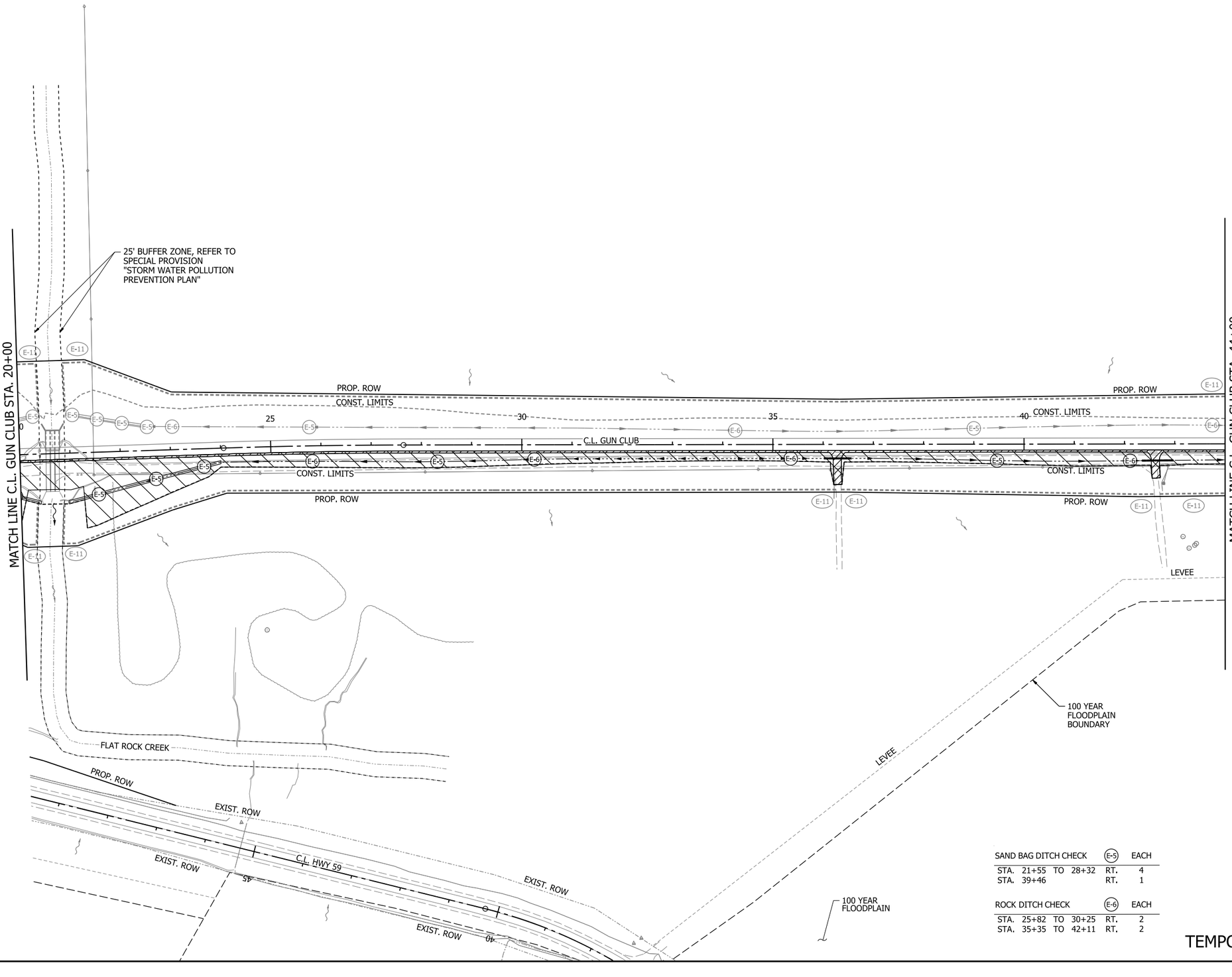
DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	87	809

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
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SAND BAG DITCH CHECK	(E-5)	EACH
STA. 21+55 TO 28+32	RT.	4
STA. 39+46	RT.	1

ROCK DITCH CHECK	(E-6)	EACH
STA. 25+82 TO 30+25	RT.	2
STA. 35+35 TO 42+11	RT.	2

DATE OF REVISION	REVISIONS

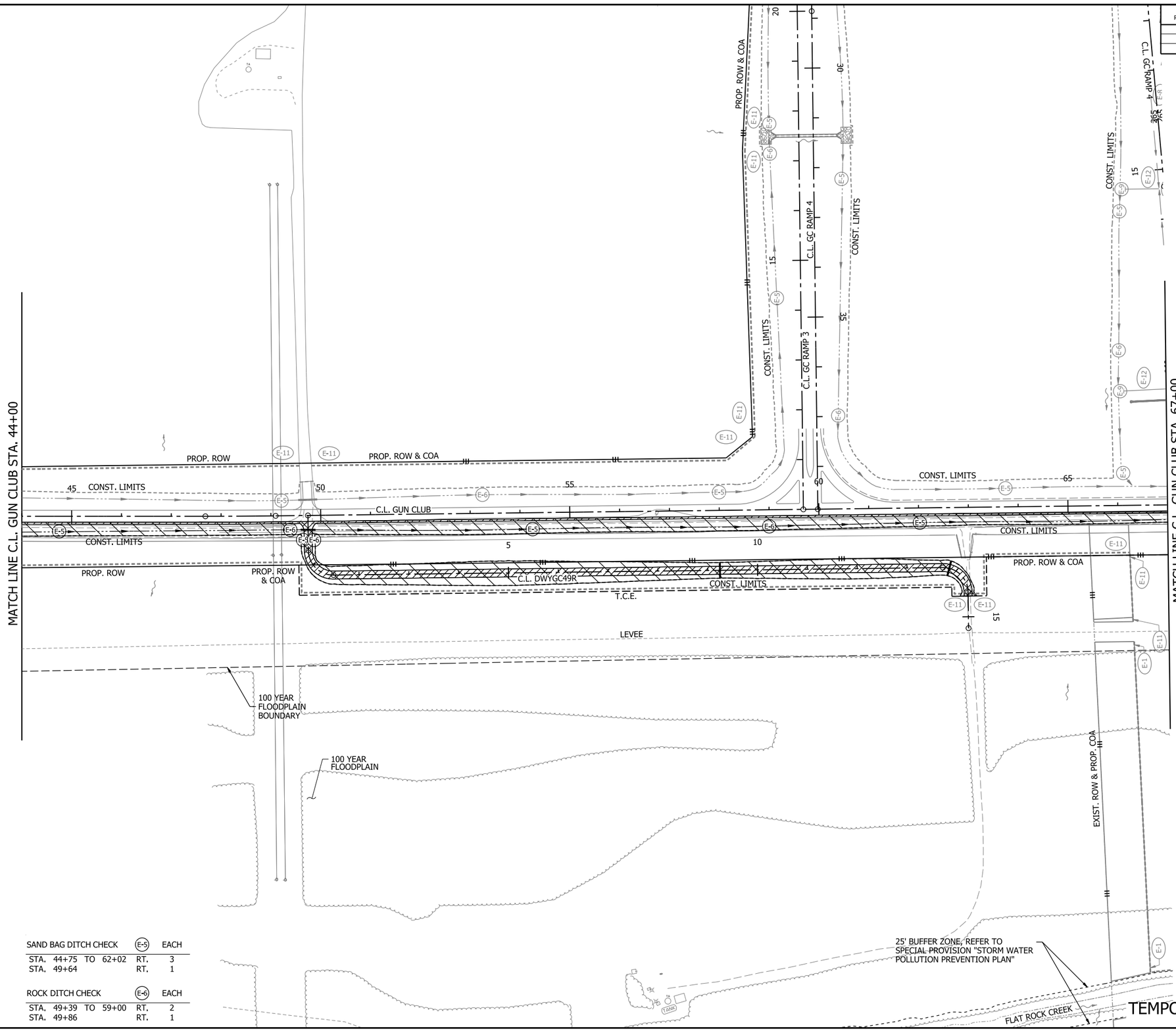
STAGE 2
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	88	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



N

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
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SAND BAG DITCH CHECK	(E-5)	EACH
STA. 44+75 TO 62+02	RT.	3
STA. 49+64	RT.	1

ROCK DITCH CHECK	(E-6)	EACH
STA. 49+39 TO 59+00	RT.	2
STA. 49+86	RT.	1

DATE OF REVISION	REVISIONS

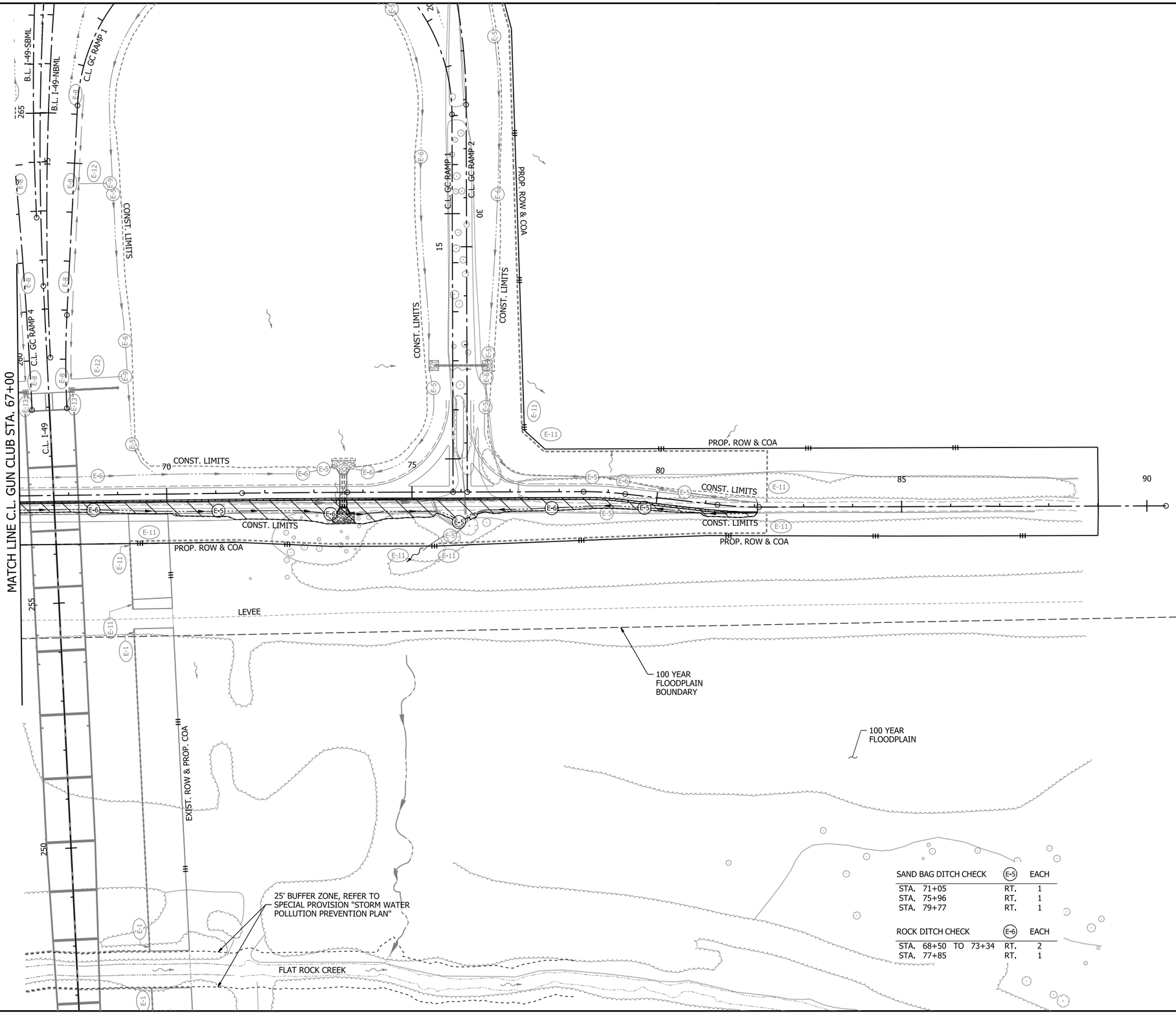
STAGE 2
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	89	809
		TEMPORARY EROSION CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



N

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- (E-1) WATTLE
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-8) DIVERSION DITCH
- (E-9) DUMPED RIPRAP
- (E-11) SILT FENCE
- (E-12) SLOPE DRAIN (12")
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SAND BAG DITCH CHECK	(E-5)	EACH
STA. 71+05	RT.	1
STA. 75+96	RT.	1
STA. 79+77	RT.	1

ROCK DITCH CHECK	(E-6)	EACH
STA. 68+50 TO 73+34	RT.	2
STA. 77+85	RT.	1

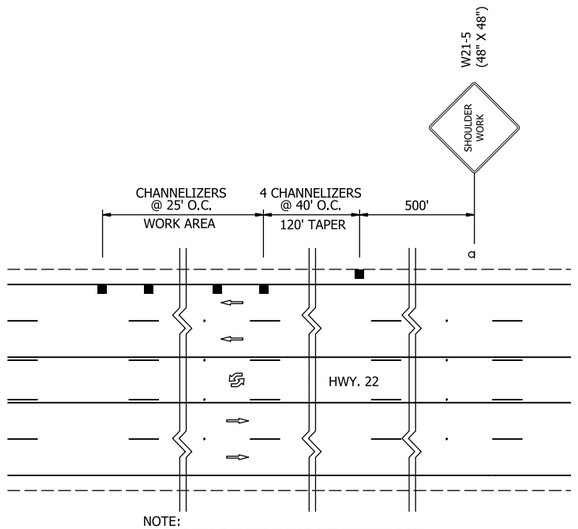
DATE OF REVISION	REVISIONS

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	90	809
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-16-2024



NOTE:
1. FOR USE DURING SHORT-TERM SHOULDER CLOSURE FOR SIGNAL INSTALLATION AT SITE 3.

TEMPORARY SHOULDER CLOSURE DETAIL
STAGE 2 -SITE 3
NOT TO SCALE

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ADVANCED WARNING DETAIL
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	91	809
		MAINTENANCE OF TRAFFIC DETAILS				



STAGE 0

CLEARING AND GRUBBING OPERATIONS MAY BEGIN AS INDICATED IN THE EARLY WORK ORDER SPECIAL PROVISION.
INSTALL ADVANCED WARNING SIGNS AND END ROADWORK SIGNS PER THE ADVANCED WARNING DETAILS FOR MAINTENANCE OF TRAFFIC, IN LOCATIONS NEEDED TO PERFORM THE WORK SHOWN IN THE STAGE 0 MAINTENANCE OF TRAFFIC PLANS.
CONSTRUCTION ON THE FOLLOWING ITEMS MAY BEGIN UNDER THE CURRENT TRAFFIC PATTERNS:

- SITE 5 - HWY. 59
  - CONSTRUCT RIGHT SHOULDER NOTCH AND WIDENING

CONTRACTOR SHALL NOT PERFORM CONCURRENT WORK ON BOTH ADJACENT SIDES OF A LANE SET AT A TIME AND SHALL ALTERNATE WORK ON ONE SIDE OR THE OTHER OF A LANE SET SEQUENTIALLY.

STAGE 1

INSTALL ADVANCED WARNING SIGNS AND END ROADWORK SIGNS PER THE ADVANCED WARNING DETAILS FOR MAINTENANCE OF TRAFFIC, IN LOCATIONS NEEDED TO PERFORM THE WORK SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC PLANS.
CONSTRUCTION ON THE FOLLOWING ITEMS MAY BEGIN UNDER THE CURRENT TRAFFIC PATTERNS:

- MAIN LANES - I-49
  - GRADING MAY BEGIN ALONG MAIN LANES AND MAIN LANE RAMPS:
    - FROM APPROX. I-49 STA. 117+00 TO END OF JOB
    - GC RAMP 1, GC RAMP 2, GC RAMP 3, AND GC RAMP 4
  - BEGIN CONSTRUCTION OF STRUCTURES 07684 AND 07685 OVER THE ARKANSAS RIVER AND RIVER FLOOD WAY AS SHOWN IN THE PLANS
- SITE 1 - SE SERVICE RD.
  - CONSTRUCT SERVICE ROAD AND TIES TO EXISTING AS SHOWN IN PLANS. MAINTAIN TRAFFIC ON EXISTING LANES
- SITE 2 - NW SERVICE RD.
  - CONSTRUCT SERVICE ROAD AND TIES TO EXISTING AS SHOWN IN PLANS. MAINTAIN TRAFFIC ON EXISTING LANES
- SITE 5 - HWY. 59
  - CONSTRUCT THE HWY. 59 WIDENING AND NEW TURNOUT TO GUN CLUB RD.
- SITE 6 - GUN CLUB RD
  - CONSTRUCT TWO LANES OF PROPOSED GUN CLUB RD. FROM HWY. 59 TURN OUT TO END OF PROPOSED GUN CLUB WITH NORTH SIDE FINAL GRADING AND DITCHES, AND TEMPORARY DITCHES ON THE SOUTH SIDE OF GUN CLUB BETWEEN EXISTING GUN CLUB AND PROPOSED
  - CONSTRUCT PROPOSED GUN CLUB CROSSING OVER EXISTING GUN CLUB UNDER TRAFFIC WITH AGGREGATE TIES LEFT AND RIGHT
  - CONSRUCT TIE AT END OF PROPOSED GUN CLUB TO EXISTING GUN CLUB UNDER TRAFFIC WITH AGGREGATE TIE TO EXISTING GUN CLUB
- SPRINGHILL PARK
  - GRADE, OVERLAY, INSTALL UTILITY CONNECTIONS AND OTHER IMPROVEMENTS AS SHOWN IN THE PLANS

CONTRACTOR SHALL NOT PERFORM CONCURRENT WORK ON BOTH ADJACENT SIDES OF A LANE SET AT A TIME AND SHALL ALTERNATE WORK ON ONE SIDE OR THE OTHER OF A LANE SET SEQUENTIALLY.

STAGE 2

INSTALL STAGE 2 MAINTENANCE OF TRAFFIC DEVICES AND CONSTRUCTION PAVEMENT MARKINGS, SHIFT TRAFFIC ONTO NEWLY CONSTRUCTED DETOURS, DRIVES, FRONTAGE ROADS, AND GUN CLUB RD. TO PERFORM WORK SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC PLANS.
CONSTRUCTION OF THE FOLLOWING ITEMS MAY PROCEED UNDER THE STAGE 2 TRAFFIC PATTERNS:

- MAIN LANES - I-49
  - GRADING MAY BEGIN ALONG MAIN LANES AND MAIN LANE RAMPS:
    - FROM BEGIN JOB AT END OF EXIST I-49 TO APPROX. I-49 STA. 117+00
    - HWY. 22 RAMP 2 AND HWY. 22 RAMP 3
    - CONTINUE GRADING OF AREAS STARTED IN PREVIOUS STAGE
    - CONTINUE CONSTRUCTION OF STRUCTURES 07684 AND 07685
- SITE 3 - HWY. 22 RAMP 2 INTERSECTION WITH HWY. 22
  - CONSTRUCT THE WIDENING AND NEW TURNOUT TO HWY. 22 RAMP 2
- SITE 4 - HWY. 22 RAMP 3 INTERSECTION WITH HWY. 22
  - CONSTRUCT THE WIDENING AND NEW TURNOUT TO HWY. 22 RAMP 3
- SITE 5 - HWY. 59
  - FINISH FINAL GRADING, DITCHES, STRUCTURES, STRIPING ANY REMAINING ITEMS SHOWN IN THE PLANS FOR HWY. 59
- SITE 6 - GUN CLUB RD.
  - CONSTRUCT SOUTH SIDE SHOULDER, GRADING, AND DITCHES FROM BEGINNING OF GUN CLUB AT HWY. 59 TO END OF GUN CLUB
  - CONSTRUCT REMAINDER OF BOX CULVERTS ON SOUTH SIDE OF GUN CLUB, AND CONSTRUCT DRIVES ON SOUTH SIDE OF GUN CLUB RD.

CONTRACTOR SHALL NOT PERFORM CONCURRENT WORK ON BOTH ADJACENT SIDES OF A LANE SET AT A TIME AND SHALL ALTERNATE WORK ON ONE SIDE OR THE OTHER OF A LANE SET SEQUENTIALLY.

STAGE 3

INSTALL STAGE 3 MAINTENANCE OF TRAFFIC DEVICES AND CONSTRUCTION PAVEMENT MARKINGS.
OPEN ALL NEWLY CONSTRUCTED SIDE ROADS AND DRIVEWAYS CONSTRUCTED IN PREVIOUS STAGES OF WORK. PERFORM WORK SHOWN IN THE STAGE 3 MAINTENANCE OF TRAFFIC PLANS.
CONSTRUCTION OF THE FOLLOWING ITEMS MAY PROCEED UNDER THE STAGE 3 TRAFFIC PATTERNS.

- MAIN LANES - I-49
  - FINALIZE CONSTRUCTION OF STRUCTURES 07684 AND 07685
  - FINALIZE GRADING OF DITCHES SLOPES AND SUBGRADE IN PREPARATION FOR PAVING OPERATIONS
  - CONSTRUCT PAVEMENT AS SHOWN IN THE PLANS FOR THE MAIN LANES AND RAMPS FROM THE BEGIN TO END OF PROJECT
- SITE 6 - GUN CLUB RD.
  - FINISH FINAL GRADING, DITCHES, STRUCTURES, STRIPING ANY REMAINING ITEMS SHOWN IN THE PLANS FOR GUN CLUB RD.

INSTALL FINAL GUARDRAIL AND BARRIER IN ALL LOCATIONS OF THE PROJECT.
REMOVE ANY REMAINING TEMP DETOUR PAVEMENT AND CONSTRUCT ANY REMAINING ROADWAY TIES AND DRAINAGE.
PERFORM ANY FINAL GRADING NEEDED TO MEET FINAL SLOPES AND CONDITIONS AS SHOWN IN THE PLANS AND CROSS SECTIONS.
INSTALL FINAL EROSION CONTROL MEASURES, INCLUDING PERMANENT SEEDING AND SOD TO PROJECT, AS DIRECTED BY THE ENGINEER, AND AS SHOWN IN THE PLANS AND DETAILS.
APPLY ROAD CLOSED SIGNS, BARRIERS, AND DEVICES TO BE LEFT IN PLACE TO ENSURE TRAVELING PUBLIC DOES NOT USE NEWLY CONSTRUCTED RAMPS AND LANES.
INSTALL FINAL SIGNAGE.
CONTRACTOR SHALL NOT PERFORM CONCURRENT WORK ON BOTH ADJACENT SIDES OF A LANE SET AT A TIME AND SHALL ALTERNATE WORK ON ONE SIDE OR THE OTHER OF A LANE SET SEQUENTIALLY. WORK FROM PREVIOUS STAGES MAY CONTINUE AS NEEDED UNTIL STAGED PATTERNS OF TRAFFIC REQUIRE USE OF PROPOSED WORK.

SEQUENCE OF CONSTRUCTION
MAINTENANCE OF TRAFFIC DETAILS

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STAGE 0

CLEARING AND GRUBBING OPERATIONS MAY BEGIN AS INDICATED IN THE EARLY WORK ORDER SPECIAL PROVISION.
INSTALL ADVANCED WARNING SIGNS AND END ROADWORK SIGNS PER THE ADVANCED WARNING DETAILS FOR MAINTENANCE OF TRAFFIC, IN LOCATIONS NEEDED TO PERFORM THE WORK SHOWN IN THE STAGE 0 MAINTENANCE OF TRAFFIC PLANS.
CONSTRUCTION ON THE FOLLOWING ITEMS MAY BEGIN UNDER THE CURRENT TRAFFIC PATTERNS:

- SITE 5 - HWY. 59
  - CONSTRUCT RIGHT SHOULDER NOTCH AND WIDENING

CONTRACTOR SHALL NOT PERFORM CONCURRENT WORK ON BOTH ADJACENT SIDES OF A LANE SET AT A TIME AND SHALL ALTERNATE WORK ON ONE SIDE OR THE OTHER OF A LANE SET SEQUENTIALLY.

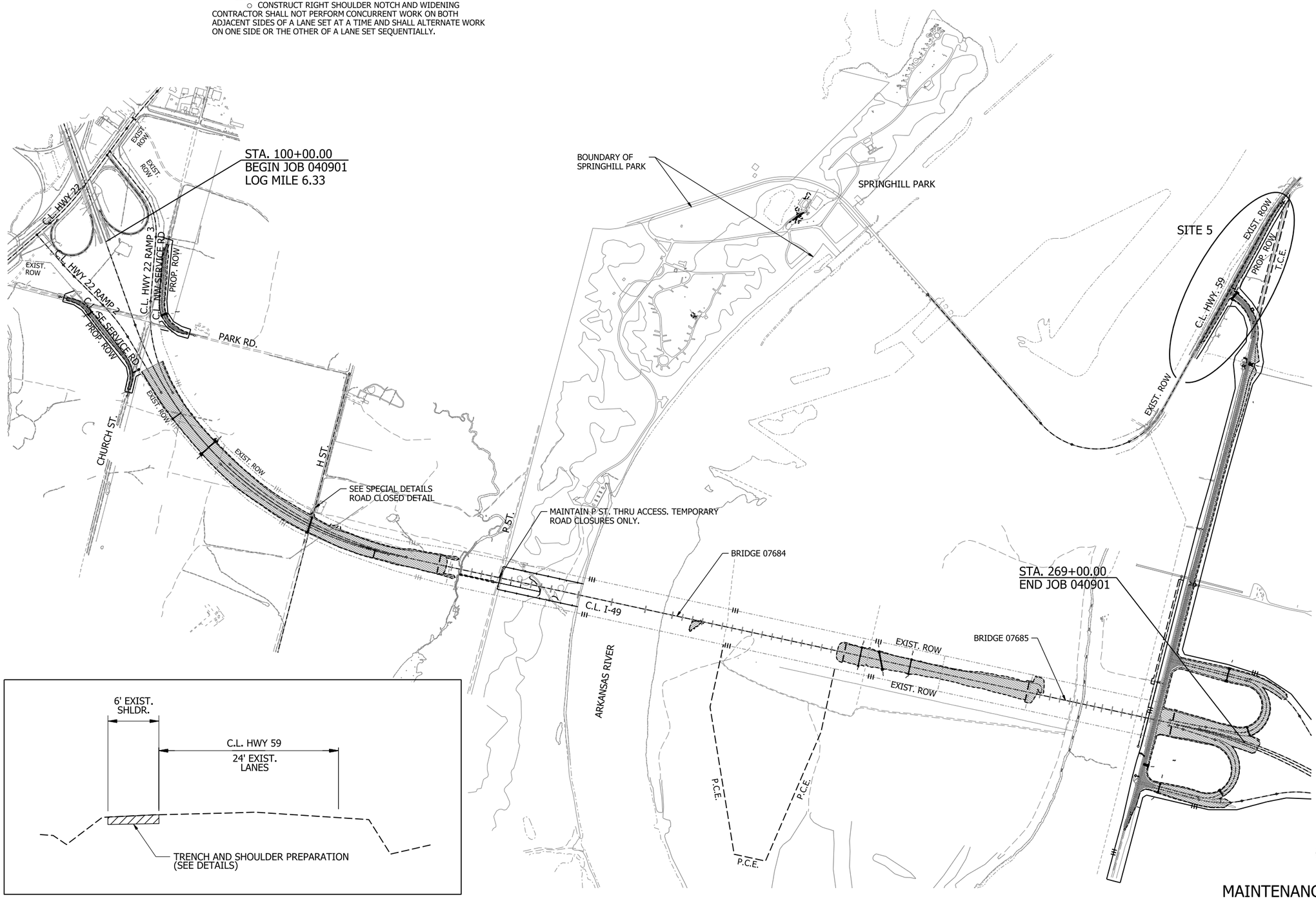
MOT DEVICES

BARRICADE, TYPE III	=	8 EA.
16' GATE	=	1 EA.
8' GATE	=	2 EA.
6' CHAINLINK FENCE	=	2406 LIN. FT.

SEE STAGE 1 MAINTENANCE OF TRAFFIC

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	91A	809
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-16-2024



0 625 1250 1875 2500

HORIZ. SCALE IN FEET: 1"=1250'

LEGEND

STAGE CONST. GRADING

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.

OVERVIEW
STAGE 0
MAINTENANCE OF TRAFFIC DETAILS

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STAGE 1

INSTALL ADVANCED WARNING SIGNS AND END ROADWORK SIGNS PER THE ADVANCED WARNING DETAILS FOR MAINTENANCE OF TRAFFIC, IN LOCATIONS NEEDED TO PERFORM THE WORK SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC PLANS. CONSTRUCTION ON THE FOLLOWING ITEMS MAY BEGIN UNDER THE CURRENT TRAFFIC PATTERNS:

- MAIN LANES - I-49
  - GRADING MAY BEGIN ALONG MAIN LANES AND MAIN LANE RAMPS:
    - FROM APPROX. I-49 STA. 117+00 TO END OF JOB
    - GC RAMP 1, GC RAMP 2, GC RAMP 3, AND GC RAMP 4
  - BEGIN CONSTRUCTION OF STRUCTURES 07684 AND 07685 OVER THE ARKANSAS RIVER AND RIVER FLOOD WAY AS SHOWN IN THE PLANS
- SITE 1 - SE SERVICE RD.
  - CONSTRUCT SERVICE ROAD AND TIES TO EXISTING AS SHOWN IN PLANS. MAINTAIN TRAFFIC ON EXISTING LANES
- SITE 2 - NW SERVICE RD.
  - CONSTRUCT SERVICE ROAD AND TIES TO EXISTING AS SHOWN IN PLANS. MAINTAIN TRAFFIC ON EXISTING LANES
- SITE 5 - HWY. 59
  - CONSTRUCT THE HWY. 59 WIDENING AND NEW TURNOUT TO GUN CLUB RD.
- SITE 6 - GUN CLUB RD
  - CONSTRUCT TWO LANES OF PROPOSED GUN CLUB RD. FROM HWY. 59 TURN OUT TO END OF PROPOSED GUN CLUB WITH NORTH SIDE FINAL GRADING AND DITCHES, AND TEMPORARY DITCHES ON THE SOUTH SIDE OF GUN CLUB BETWEEN EXISTING GUN CLUB AND PROPOSED
  - CONSTRUCT PROPOSED GUN CLUB CROSSING OVER EXISTING GUN CLUB UNDER TRAFFIC WITH AGGREGATE TIES LEFT AND RIGHT
  - CONSRUCT TIE AT END OF PROPOSED GUN CLUB TO EXISTING GUN CLUB UNDER TRAFFIC WITH AGGREGATE TIE TO EXISTING GUN CLUB
- SPRINGHILL PARK
  - GRADE, OVERLAY, INSTALL UTILITY CONNECTIONS AND OTHER IMPROVEMENTS AS SHOWN IN THE PLANS

CONTRACTOR SHALL NOT PERFORM CONCURRENT WORK ON BOTH ADJACENT SIDES OF A LANE SET AT A TIME AND SHALL ALTERNATE WORK ON ONE SIDE OR THE OTHER OF A LANE SET SEQUENTIALLY.

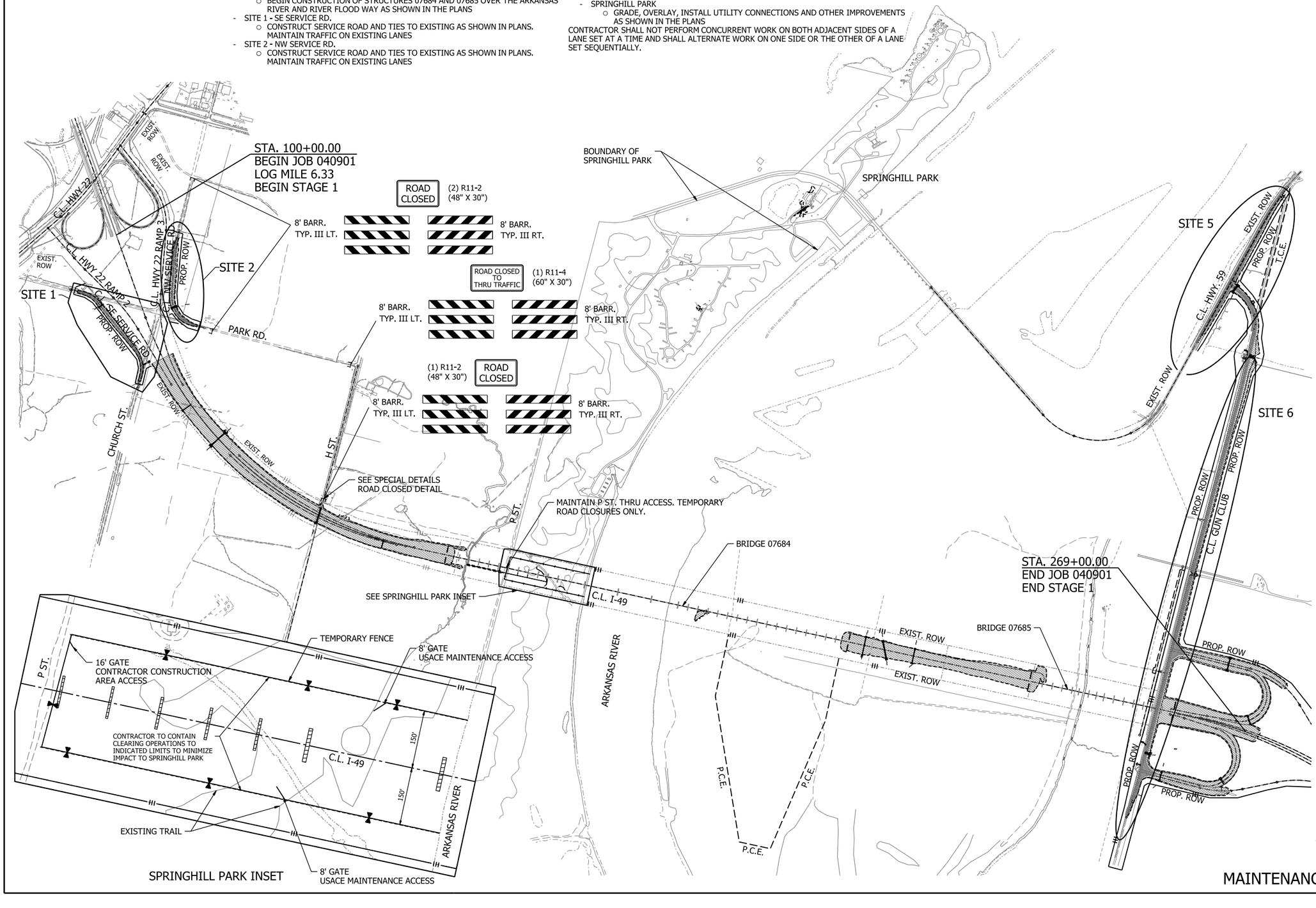
MOT DEVICES

BARRICADE, TYPE III	=	8 EA.
16' GATE	=	1 EA.
8' GATE	=	2 EA.
6' CHAINLINK FENCE	=	2406 LIN. FT.

SEE STAGE 1 MAINTENANCE OF TRAFFIC

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	92	809
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-16-2024



0 625 1250 1875 2500

HORIZ. SCALE IN FEET: 1"=1250'

LEGEND

STAGE CONST. GRADING

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.
2. ACCESS TO THE CONSTRUCTION SITE FOR CONSTRUCTION VEHICLES, CONSTRUCTION WORKERS, MATERIALS DELIVERIES AND ANY OTHER CONSTUCTION RELATED ACTIVITIES SHALL NOT PASS THROUGH DEVELOPED AREAS OF SPRINGHILL PARK. CONTRACTOR ACCESS TO ROADS AND WORK AREAS OTHER THAN THOSE INDICATED ON THE PLANS ARE SUBJECT TO USACE APPROVAL.
3. TEMPORARY FENCE TO BE 6' X 10' CHAIN LINK FENCE PANELS, TO BE PAID FOR AS 6' STEEL CHAIN LINK FENCE.

OVERVIEW
STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	93	809
		MAINTENANCE OF TRAFFIC DETAILS				

MOT DEVICES

BARRICADE, TYPE III = 4 EA.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 100 200 300 400

HORIZ. SCALE IN FEET: 1"=200'

EXIST. ROW
CHURCH ST.
PROP. ROW
STA. 11+00.00
C.L. NW SERVICE RD
BEGIN SITE 2
C.L. HWY 22 RAMP 3
CONST. LIMITS
C.L. NW SERVICE RD
STA. 24+05.00
C.L. NW SERVICE RD
END SITE 2
T.C.E.
C.L. HWY 22 RAMP 4
C.L. HWY 22
STA. 100+00.00
BEGIN JOB 040901
LOG MILE 6.33
(1) R11-2 (48" X 30") ROAD CLOSED
8' BARR. TYP. III LT.
8' BARR. TYP. III RT.
C.L. I-49
C.L. HWY 22 RAMP 1
C.L. HWY 22 RAMP 2
SEE TC-2 (E) FOR ADVANCED WARNING
E CHURCH ST. / AR 4
C.L. SE SERVICE RD
EXIST. ROW & COA
PARK RD.
STA. 11+00.00
C.L. SE SERVICE RD
BEGIN SITE 1
STA. 26+10.00
C.L. SE SERVICE RD
END SITE 1

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- TRAFFIC BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXISTING RIGHT OF WAY
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.

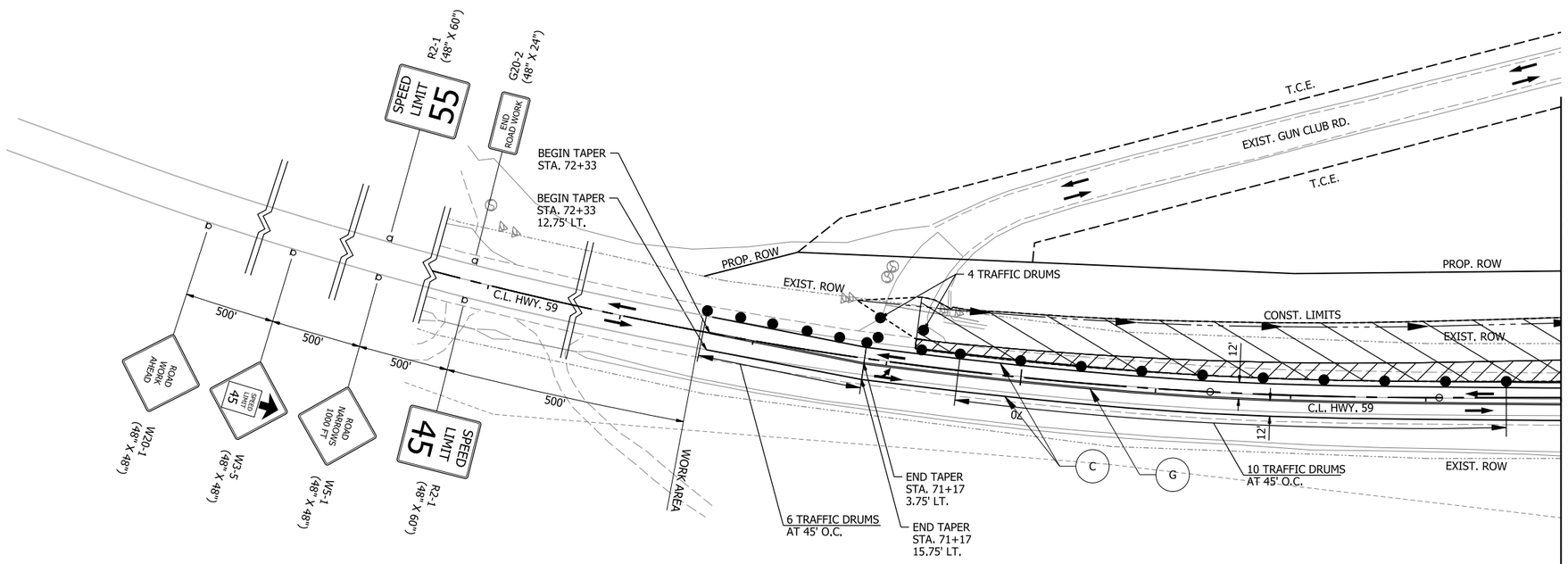
SITE 1 & 2
STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	94	809
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-16-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'



C.L. HWY. 59 PAVEMENT MARKINGS

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS

(C)	6" CONTINUOUS WHITE		
	STA. 66+00 TO STA. 72+33	=	611 LIN. FT.
	STA. 66+00 TO STA. 72+33	=	615 LIN. FT.
	6" DOUBLE YELLOW		
(G)	STA. 66+00 TO STA. 72+33	=	1266 LIN. FT.

MOT DEVICES

TRAFFIC DRUMS	=	20 EA.

LEGEND

- GRADING AND STRUCTURES THIS STAGE
- PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- PRECAST CONCRETE BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXIST. ROW
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

NOTES:

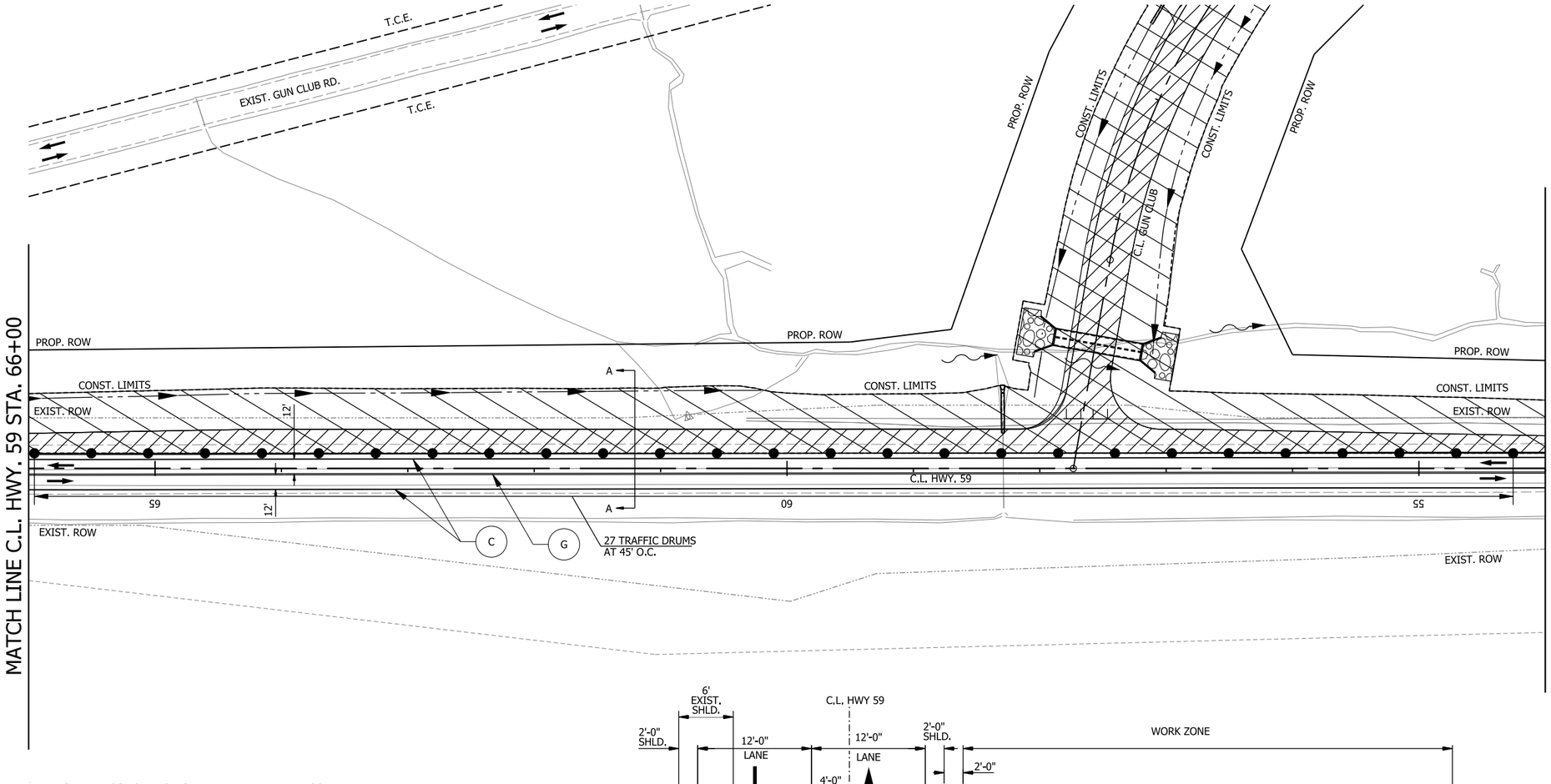
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2. REFER TO DETOUR PLAN AND PROFILE SHEETS FOR HORIZONTAL ALIGNMENT DATA.

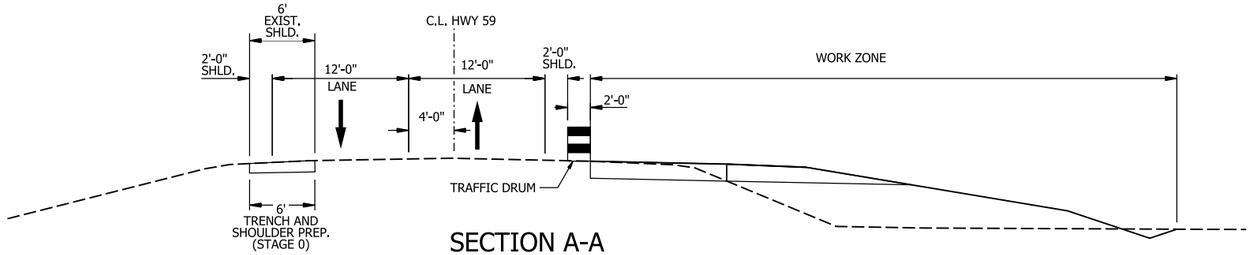
SITE 5 (HWY. 59)
STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	95	809
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-16-2024





SECTION A-A

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS

6" CONTINUOUS WHITE

(C) STA. 54+00 TO STA. 66+00 = 1200 LIN. FT.
STA. 54+00 TO STA. 66+00 = 1200 LIN. FT.

6" DOUBLE YELLOW

(G) STA. 54+00 TO STA. 66+00 = 2400 LIN. FT.

MOT DEVICES

TRAFFIC DRUMS = 27 EA.

0 50 100 150 200

HORIZ. SCALE IN FEET: 1"=100'

N

LEGEND

- GRADING AND STRUCTURES THIS STAGE
- PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- PRECAST CONCRETE BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXIST. ROW
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.
2. REFER TO DETOUR PLAN AND PROFILE SHEETS FOR HORIZONTAL ALIGNMENT DATA.

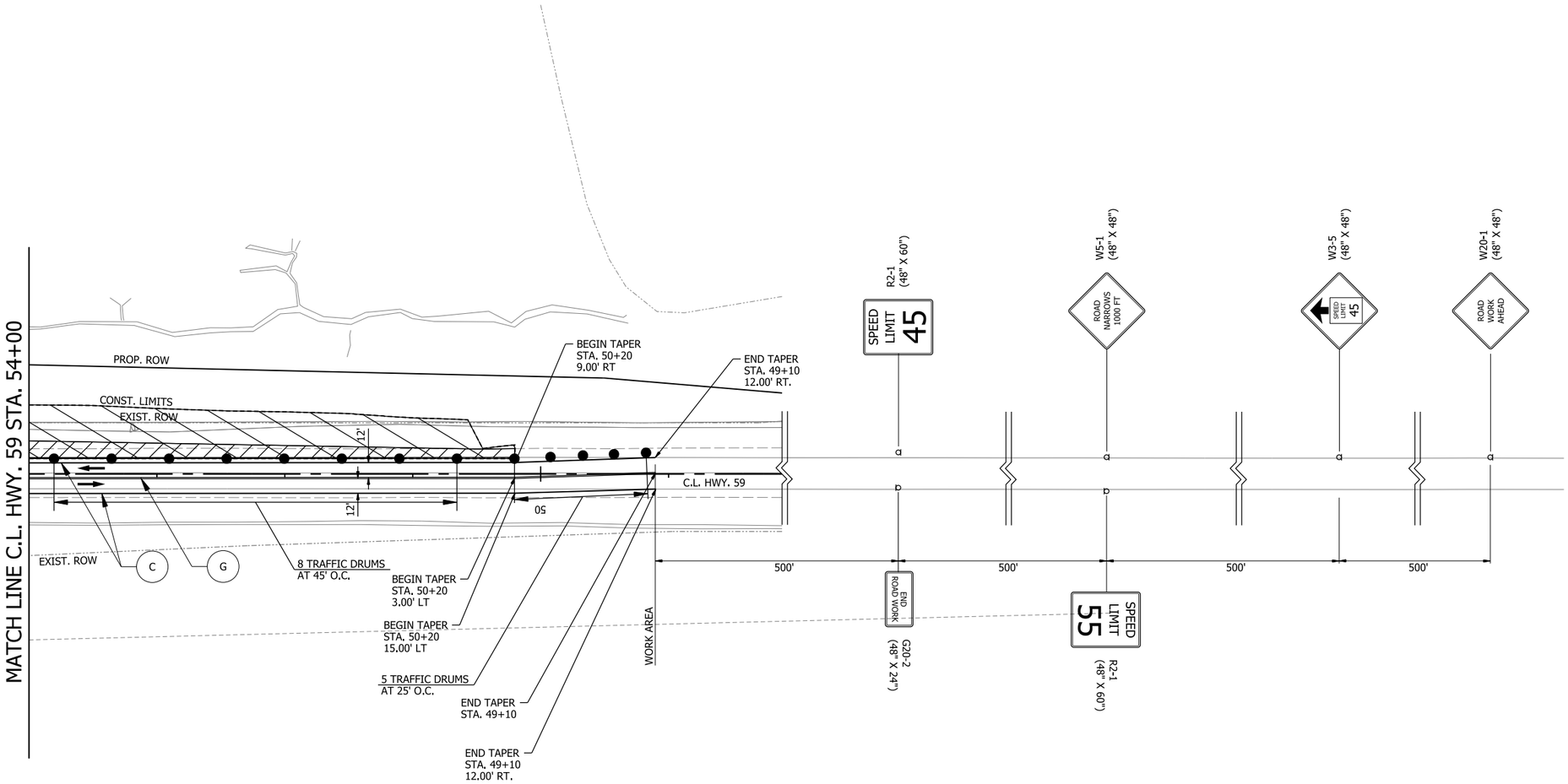
SITE 5 (HWY. 59)
STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	96	809
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-16-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'



C.L. HWY. 59 PAVEMENT MARKINGS

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
STA. 48+90 TO STA. 54+00 = 510 LIN. FT.
STA. 48+90 TO STA. 54+00 = 510 LIN. FT.

(G) 6" DOUBLE YELLOW
STA. 48+90 TO STA. 54+00 = 1020 LIN. FT.

MOT DEVICES

TRAFFIC DRUMS = 13 EA.

LEGEND

- GRADING AND STRUCTURES THIS STAGE
- PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- PRECAST CONCRETE BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXIST. ROW
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.
2. REFER TO DETOUR PLAN AND PROFILE SHEETS FOR HORIZONTAL ALIGNMENT DATA.

SITE 5 (HWY. 59)
STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

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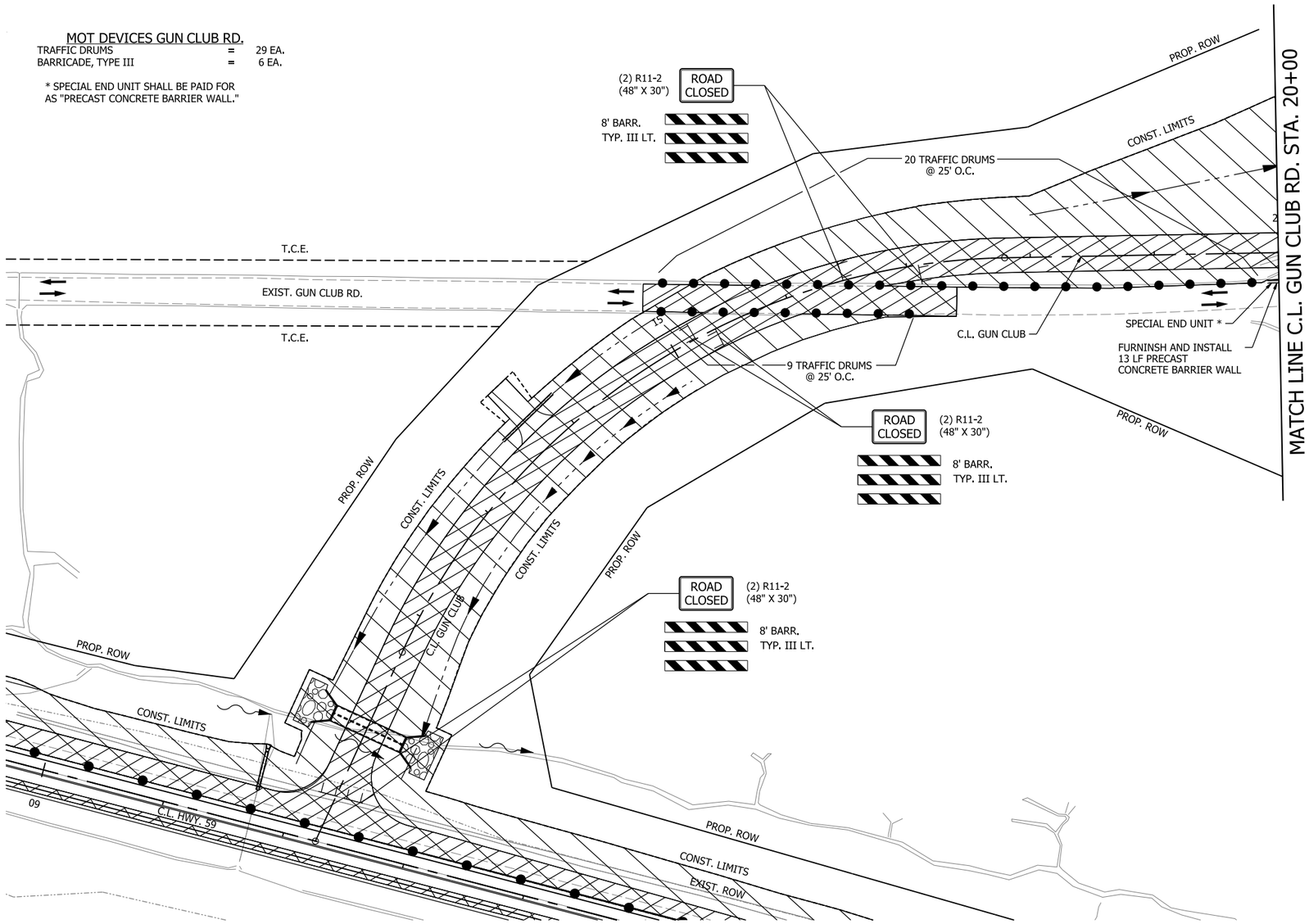
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	97	809
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-18-2024

MOT DEVICES GUN CLUB RD.

TRAFFIC DRUMS	=	29 EA.
BARRICADE, TYPE III	=	6 EA.

* SPECIAL END UNIT SHALL BE PAID FOR AS "PRECAST CONCRETE BARRIER WALL."



0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

LEGEND

- GRADING AND STRUCTURES THIS STAGE
- PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- PRECAST CONCRETE BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXIST. ROW
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

NOTES:

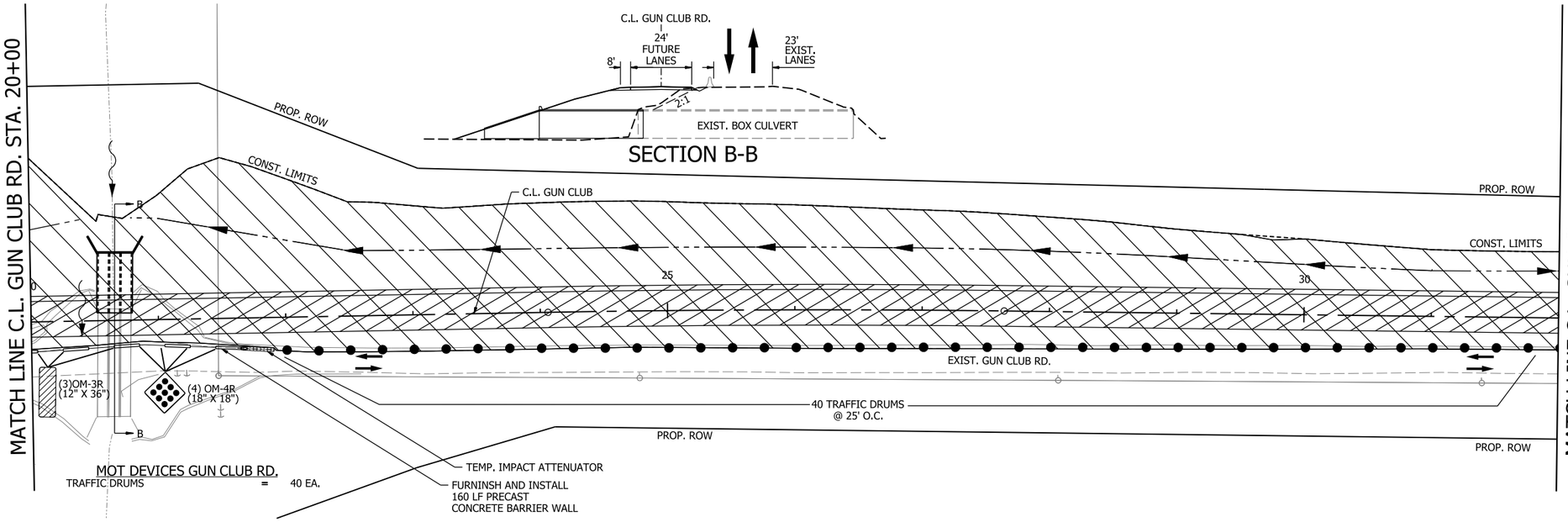
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2. REFER TO DETOUR PLAN AND PROFILE SHEETS FOR HORIZONTAL ALIGNMENT DATA.

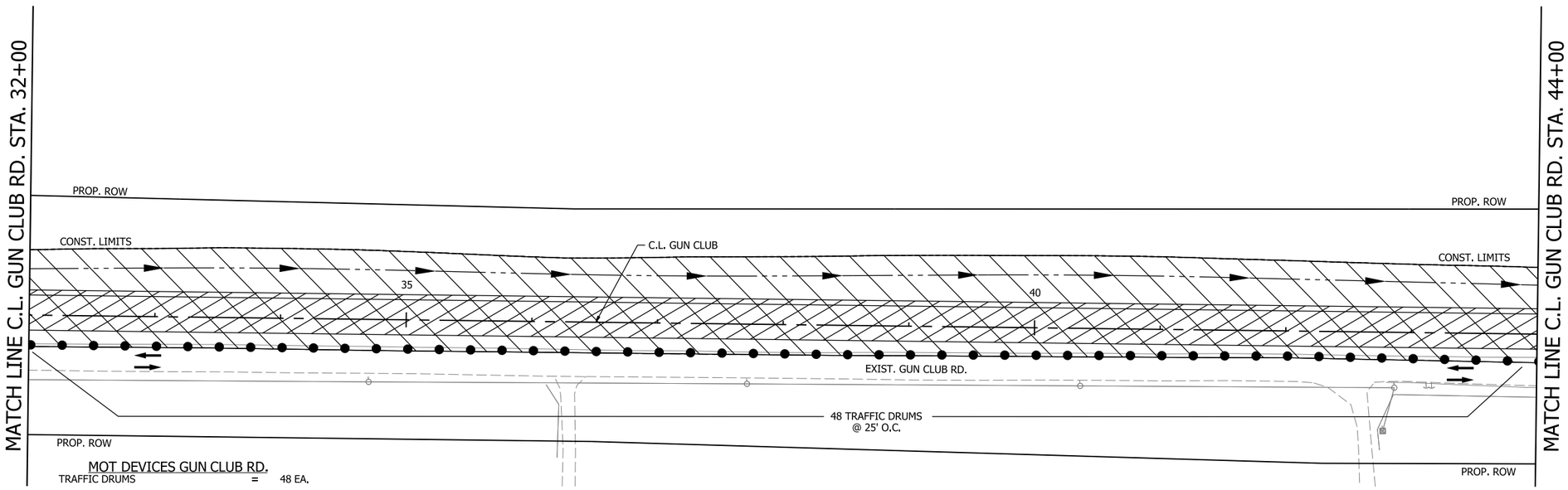
SITE 6 (GUN CLUB RD.)
STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	98	809
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-16-2024





0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

LEGEND

- GRADING AND STRUCTURES THIS STAGE
- PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- PRECAST CONCRETE BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXIST. ROW
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

NOTES:

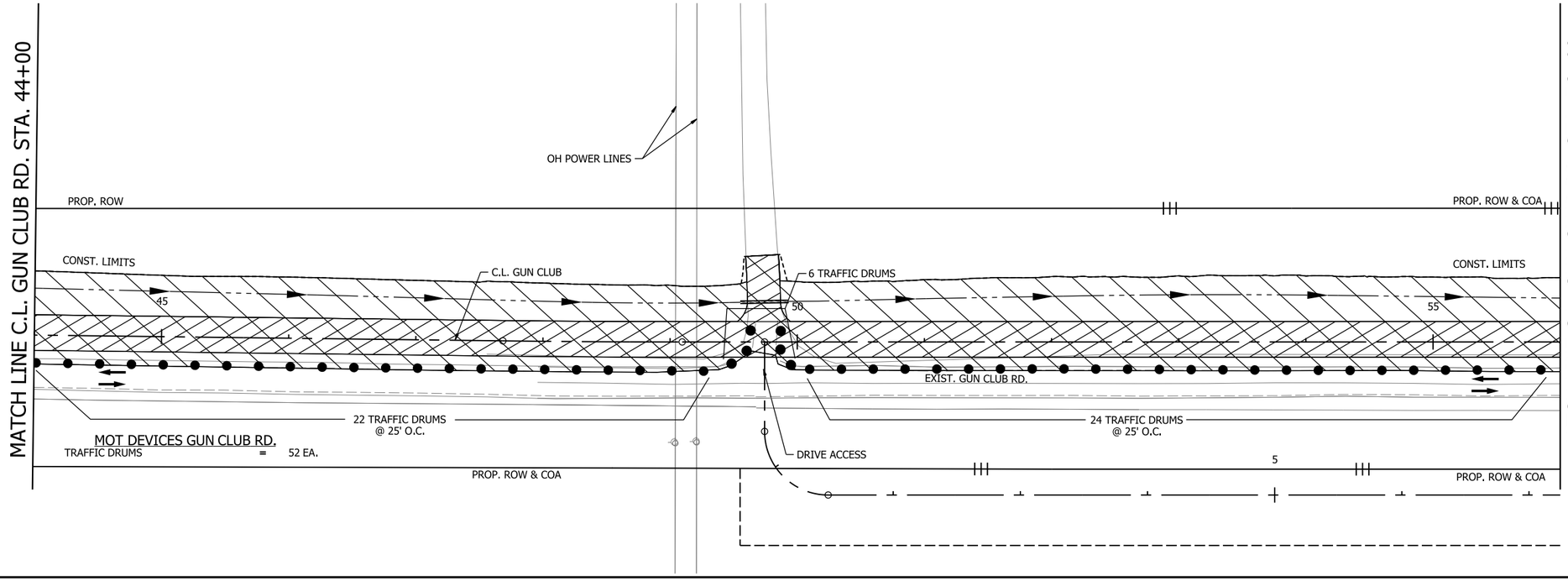
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2. REFER TO DETOUR PLAN AND PROFILE SHEETS FOR HORIZONTAL ALIGNMENT DATA.

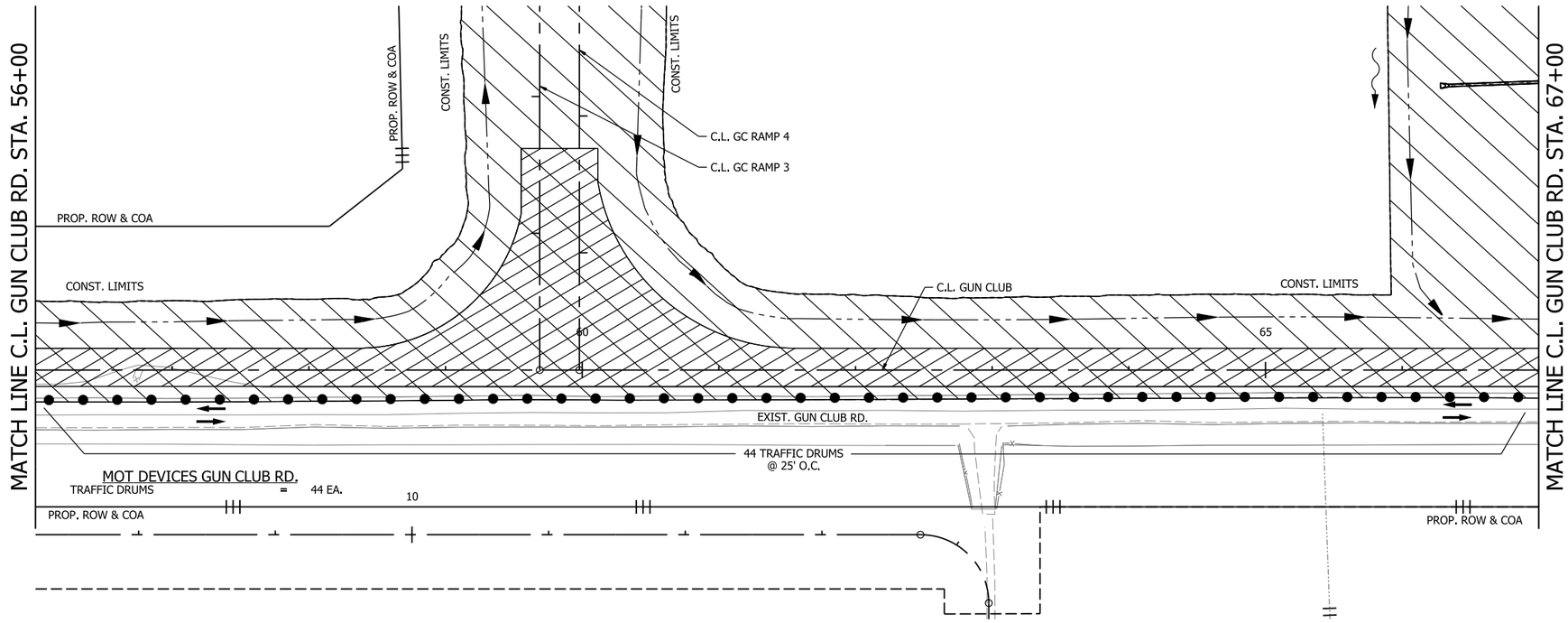
SITE 6 (GUN CLUB RD.)
STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	99	809
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-18-2024





0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

LEGEND

- GRADING AND STRUCTURES THIS STAGE
- PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- PRECAST CONCRETE BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXIST. ROW
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

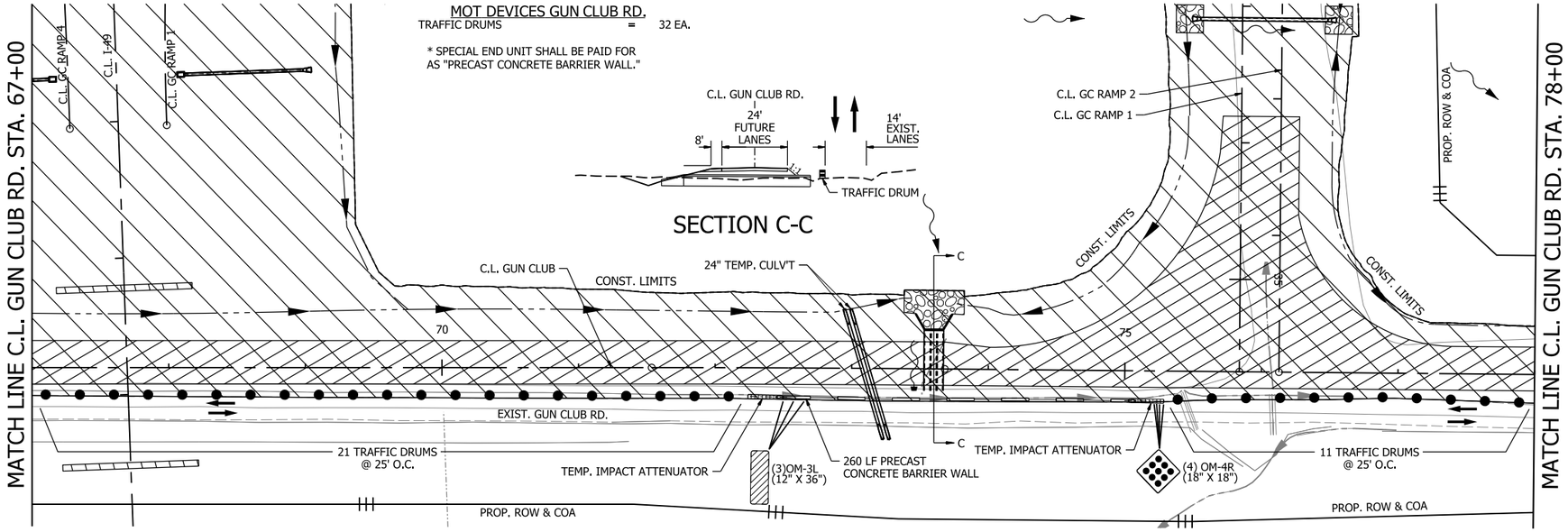
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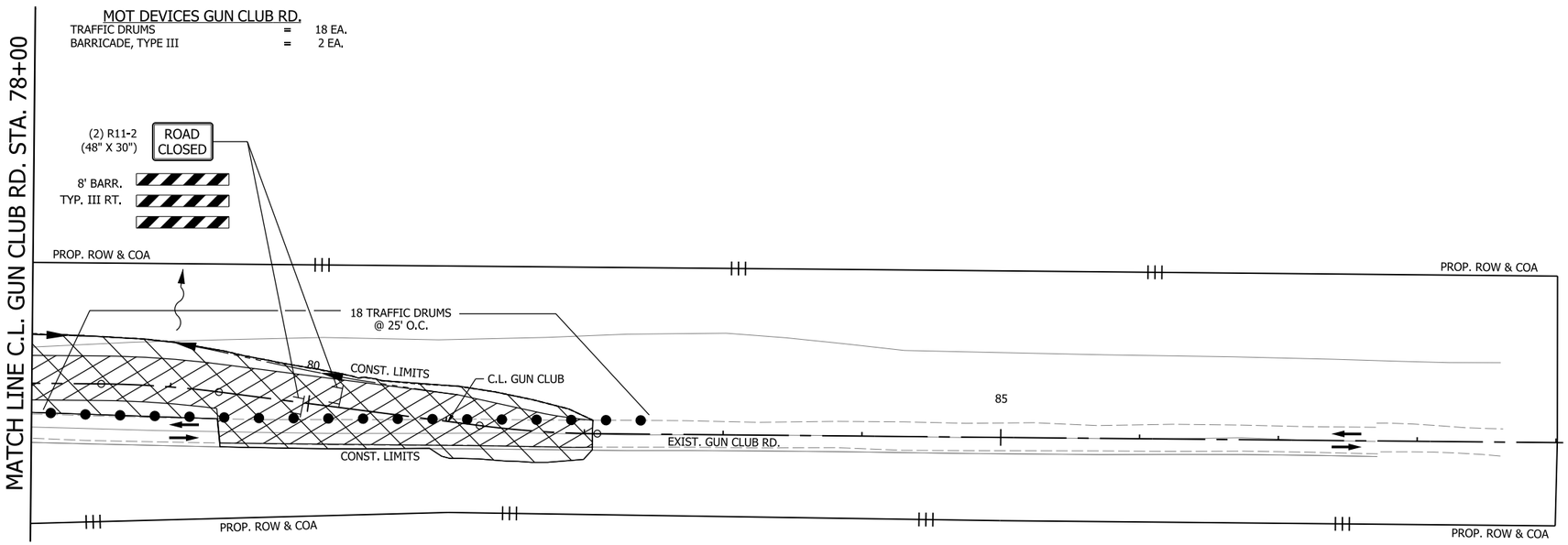
1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.
2. REFER TO DETOUR PLAN AND PROFILE SHEETS FOR HORIZONTAL ALIGNMENT DATA.

SITE 6 (GUN CLUB RD.)
STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	100	809
		MAINTENANCE OF TRAFFIC DETAILS				





STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
RON O. LAWRENCE
5-16-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

LEGEND

- GRADING AND STRUCTURES THIS STAGE
- PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- PRECAST CONCRETE BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXIST. ROW
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.
2. REFER TO DETOUR PLAN AND PROFILE SHEETS FOR HORIZONTAL ALIGNMENT DATA.

SITE 6 (GUN CLUB RD.)
STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	101	809
		MAINTENANCE OF TRAFFIC DETAILS				

STAGE 2

INSTALL STAGE 2 MAINTENANCE OF TRAFFIC DEVICES AND CONSTRUCTION PAVEMENT MARKINGS. SHIFT TRAFFIC ONTO NEWLY CONSTRUCTED DETOURS, DRIVES, FRONTAGE ROADS, AND GUN CLUB RD. TO PERFORM WORK SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC PLANS.
CONSTRUCTION OF THE FOLLOWING ITEMS MAY PROCEED UNDER THE STAGE 2 TRAFFIC PATTERNS:

- MAIN LANES - I-49
  - GRADING MAY BEGIN ALONG MAIN LANES AND MAIN LANE RAMPS:
    - FROM BEGIN JOB AT END OF EXIST I-49 TO APPROX. I-49 STA. 117+00
    - HWY. 22 RAMP 2 AND HWY. 22 RAMP 3
    - CONTINUE GRADING OF AREAS STARTED IN PREVIOUS STAGE
    - CONTINUE CONSTRUCTION OF STRUCTURES 07684 AND 07685
- SITE 3 - HWY. 22 RAMP 2 INTERSECTION WITH HWY. 22
  - CONSTRUCT THE WIDENING AND NEW TURNOUT TO HWY. 22 RAMP 2
- SITE 4 - HWY. 22 RAMP 3 INTERSECTION WITH HWY. 22
  - CONSTRUCT THE WIDENING AND NEW TURNOUT TO HWY. 22 RAMP 3
- SITE 5 - HWY. 59
  - FINISH FINAL GRADING, DITCHES, STRUCTURES, STRIPING ANY REMAINING ITEMS SHOWN IN THE PLANS FOR HWY. 59
- SITE 6 - GUN CLUB RD.
  - CONSTRUCT SOUTH SIDE SHOULDER, GRADING, AND DITCHES FROM BEGINNING OF GUN CLUB AT HWY. 59 TO END OF GUN CLUB
  - CONSTRUCT REMAINDER OF BOX CULVERTS ON SOUTH SIDE OF GUN CLUB, AND CONSTRUCT DRIVES ON SOUTH SIDE OF GUN CLUB RD.

CONTRACTOR SHALL NOT PERFORM CONCURRENT WORK ON BOTH ADJACENT SIDES OF A LANE SET AT A TIME AND SHALL ALTERNATE WORK ON ONE SIDE OR THE OTHER OF A LANE SET SEQUENTIALLY.

MOT DEVICES

8' BARRICADE, TYPE III	=	10 EA.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 625 1250 1875 2500
HORIZ. SCALE IN FEET: 1"=1250'

LEGEND

STAGE CONST. GRADING

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.
2. ACCESS TO THE CONSTRUCTION SITE FOR CONSTRUCTION VEHICLES, CONSTRUCTION WORKERS, MATERIALS DELIVERIES AND ANY OTHER CONSTUCTION RELATED ACTIVITIES SHALL NOT PASS THROUGH DEVELOPED AREAS OF SPRINGHILL PARK. CONTRACTOR ACCESS TO ROADS AND WORK AREAS OTHER THAN THOSE INDICATED ON THE PLANS ARE SUBJECT TO USACE APPROVAL.

SITE 4
EXIST. ROW
ROAD CLOSED
(2) R11-2 (48" X 30")
8' BARR. TYP. III LT.
8' BARR. TYP. III RT.
SITE 3
C.L. HWY 22
EXIST. ROW
STA. 100+00.00
BEGIN JOB 040901
LOG MILE 6.33
HWY 22 RAMP 3
HWY 22 RAMP 2
C.L. HWY 22 RAMP 2
SE SERVICE RD
PROP. ROW
PARK RD.
EXIST. ROW
CHURCH ST.
EXIST. ROW
H ST.
P ST.
SPRINGHILL PARK
BOUNDARY OF SPRINGHILL PARK
MAINTAIN P ST. THRU ACCESS. TEMPORARY ROAD CLOSURES ONLY.
ROAD CLOSED
(1) R11-2 (48" X 30")
8' BARR. TYP. III LT.
8' BARR. TYP. III RT.
C.L. I-49
BRIDGE 07684
ARKANSAS RIVER
EXIST. ROW
MAINTAIN GUN CLUB RD THRU ACCESS. TEMPORARY ROAD CLOSURES ONLY.
EXIST. ROW
BRIDGE 07685
P.C.E.
P.C.E.
P.C.E.
SITE 5
EXIST. ROW
C.L. HWY. 59
PROP. ROW
T.C.E.
EXIST. ROW
SITE 6
PROP. ROW
C.L. GUN CLUB
PROP. ROW
STA. 269+00.00
END JOB 040901
END STAGE 2
PROP. ROW
PROP. ROW
PROP. ROW
PROP. ROW
ROAD CLOSED
(2) R11-2 (48" X 30")
8' BARR. TYP. III LT.
8' BARR. TYP. III RT.

OVERVIEW
STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

5/1/2024 11:12:39 AM
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	102	809
		MAINTENANCE OF TRAFFIC DETAILS				

C.L. HWY. 22 PAVEMENT MARKINGS
MOT DEVICES

(C) TRAFFIC DRUMS = 72 EA.

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No. 13640
BYRON O. LAWRENCE
5-16-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

LEGEND

- STAGE CONST. AREA
- OBLITERATION OF PAVEMENT
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE

NOTE:
REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

STA. 43+00.00
END WORK AREA

8 TRAFFIC DRUMS AT 25' O.C.

STA. 44+50.00
C.L. HWY 22
BEGIN SITE 4

PROPOSED SIGNALS

EXIST. ROW & COA

CONST. LIMITS 15

CHURCH ST.

EXIST. ROW & COA

PROP. ROW

16 TRAFFIC DRUMS AT 60' O.C.

2 TRAFFIC DRUMS EACH SIDE OF RAMP

4 TRAFFIC DRUMS AT 80'

STA. 45+75.00
C.L. HWY 22
END SITE 4

5 TRAFFIC DRUMS AT 25' O.C.

12 TRAFFIC DRUMS AT 25' O.C.

C.L. HWY 22 RAMP 4

C.L. HWY 22 RAMP 3

PROP. ROW

CONST. LIMITS 15

C.L. NW SERVICE RD

CONST. LIMITS

PROP. ROW

CONST. LIMITS

PROP. ROW

(2) G20-2
(48" X 24")
END ROAD WORK

STA. 100+00.00
BEGIN JOB 040901
LOG MILE 6.33

(2) W20-1
(48" X 48")
ROAD WORK 1000FT

C.L. HWY 22 - L

C.L. I-49

T.C.E.

EXIST. ROW & COA

ROAD WORK 500FT

(2) W20-1
(48" X 48")

5 TRAFFIC DRUMS AT 25' O.C.

BEGIN LANE TAPER AT GORE

2 TRAFFIC DRUMS EACH SIDE OF RAMP

9 TRAFFIC DRUMS AT 60' O.C.

C.L. HWY 22 RAMP 1

C.L. HWY 22 RAMP 2

E CHURCH ST / AR 4

4 TRAFFIC DRUMS AT 80' O.C.

STA. 57+75.00
C.L. HWY 22
BEGIN SITE 3

PROPOSED SIGNALS

STA. 59+50.00
C.L. HWY 22
END SITE 3

12 TRAFFIC DRUMS AT 25' O.C.

CONST. LIMITS

STA. 15+00.00
C.L. HWY 22 RAMP 2
END SITE 3

EXIST. ROW & COA

PROP. ROW

PROP. ROW

C.L. SE SERVICE RD

CONST. LIMITS

PROP. ROW

CONST. LIMITS

EXIST. ROW & COA

PROP. ROW

PROP. ROW

STA. 61+12.75
BEGIN WORK AREA

RIGHT LANE CLOSURE DETIAL ON ADVANCED WARNING DETAIL SHEET

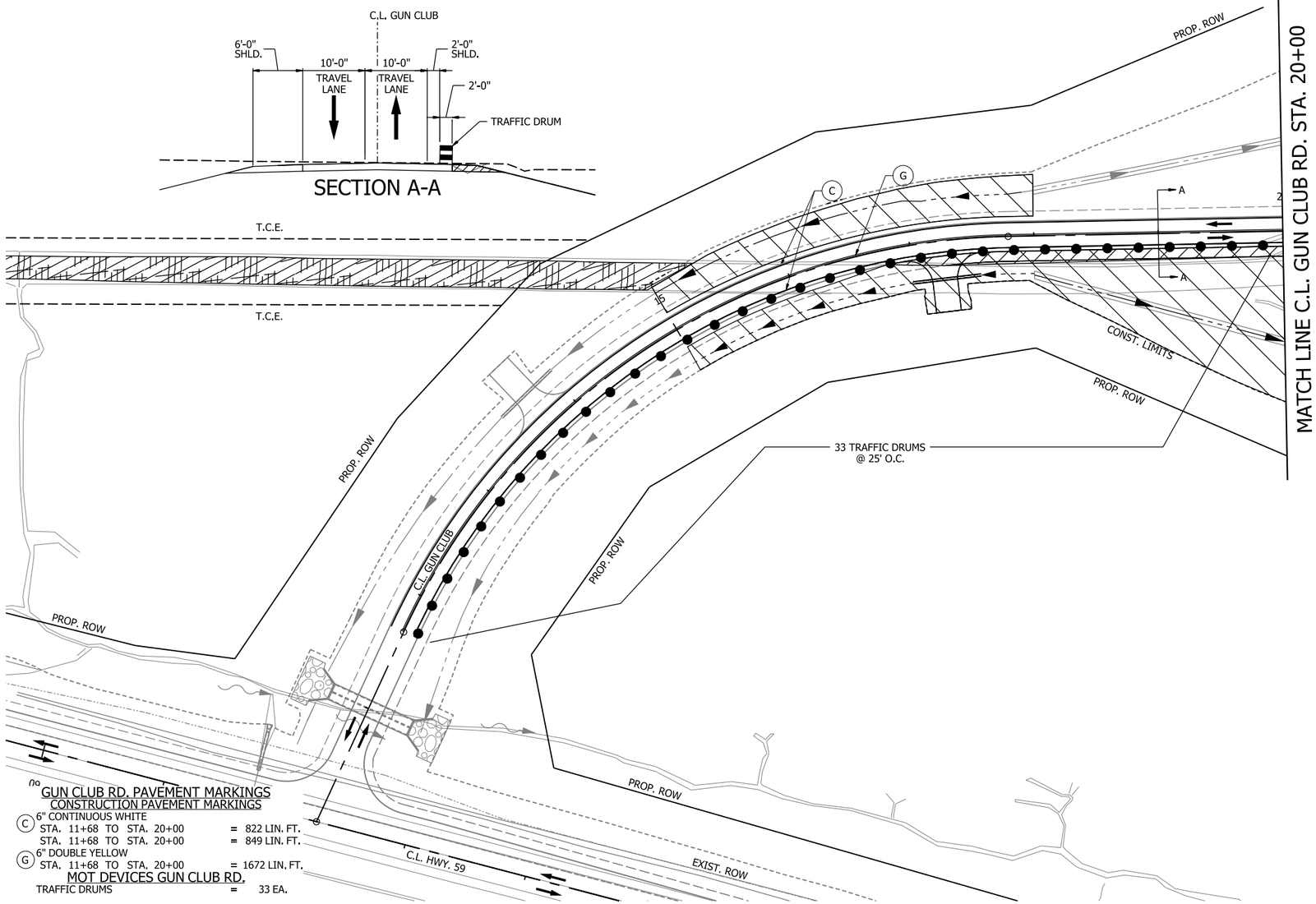
STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	103	809
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-16-2024

SECTION A-A



GUN CLUB RD. PAVEMENT MARKINGS
CONSTRUCTION PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
STA. 11+68 TO STA. 20+00 = 822 LIN. FT.
STA. 11+68 TO STA. 20+00 = 849 LIN. FT.

(G) 6" DOUBLE YELLOW
STA. 11+68 TO STA. 20+00 = 1672 LIN. FT.

MOT DEVICES GUN CLUB RD.
TRAFFIC DRUMS = 33 EA.

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

LEGEND

- GRADING AND STRUCTURES THIS STAGE
- PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- PRECAST CONCRETE BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXIST. ROW
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.
2. REFER TO DETOUR PLAN AND PROFILE SHEETS FOR HORIZONTAL ALIGNMENT DATA.

SITE 6 (GUN CLUB RD.)
STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	104	809
		MAINTENANCE OF TRAFFIC DETAILS				

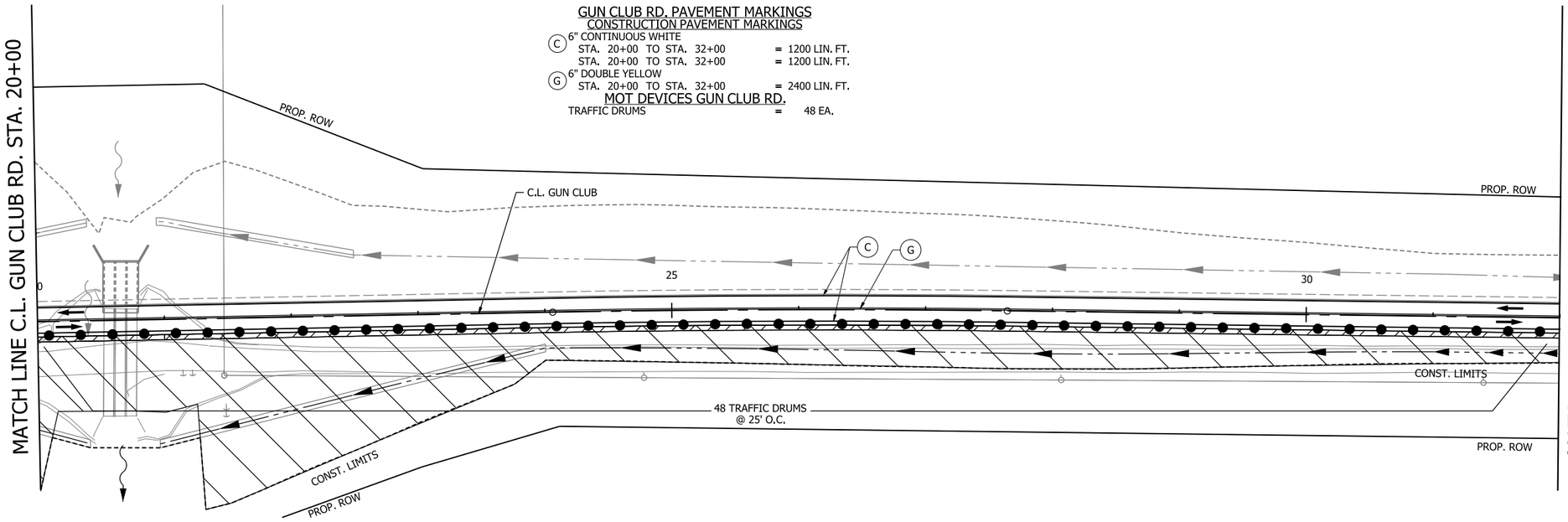
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-18-2024

GUN CLUB RD. PAVEMENT MARKINGS
CONSTRUCTION PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
STA. 20+00 TO STA. 32+00 = 1200 LIN. FT.
STA. 20+00 TO STA. 32+00 = 1200 LIN. FT.

(G) 6" DOUBLE YELLOW
STA. 20+00 TO STA. 32+00 = 2400 LIN. FT.

MOT DEVICES GUN CLUB RD.
TRAFFIC DRUMS = 48 EA.

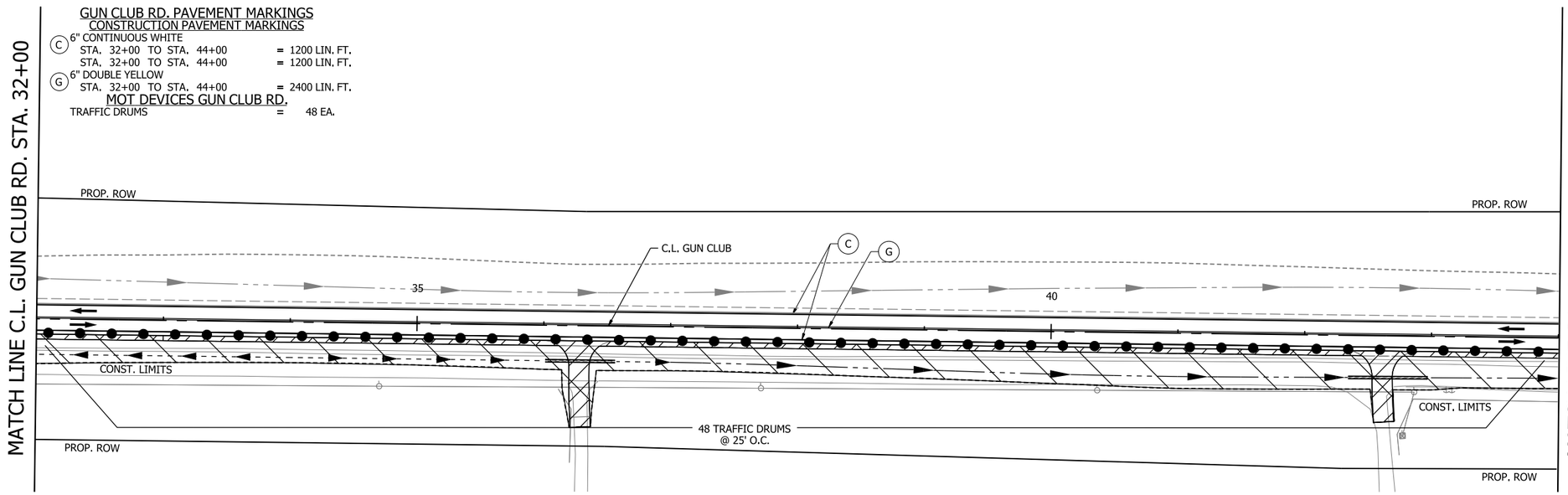


GUN CLUB RD. PAVEMENT MARKINGS
CONSTRUCTION PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
STA. 32+00 TO STA. 44+00 = 1200 LIN. FT.
STA. 32+00 TO STA. 44+00 = 1200 LIN. FT.

(G) 6" DOUBLE YELLOW
STA. 32+00 TO STA. 44+00 = 2400 LIN. FT.

MOT DEVICES GUN CLUB RD.
TRAFFIC DRUMS = 48 EA.



0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

LEGEND

- GRADING AND STRUCTURES THIS STAGE
- PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- PRECAST CONCRETE BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXIST. ROW
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.
2. REFER TO DETOUR PLAN AND PROFILE SHEETS FOR HORIZONTAL ALIGNMENT DATA.

SITE 6 (GUN CLUB RD.)
STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

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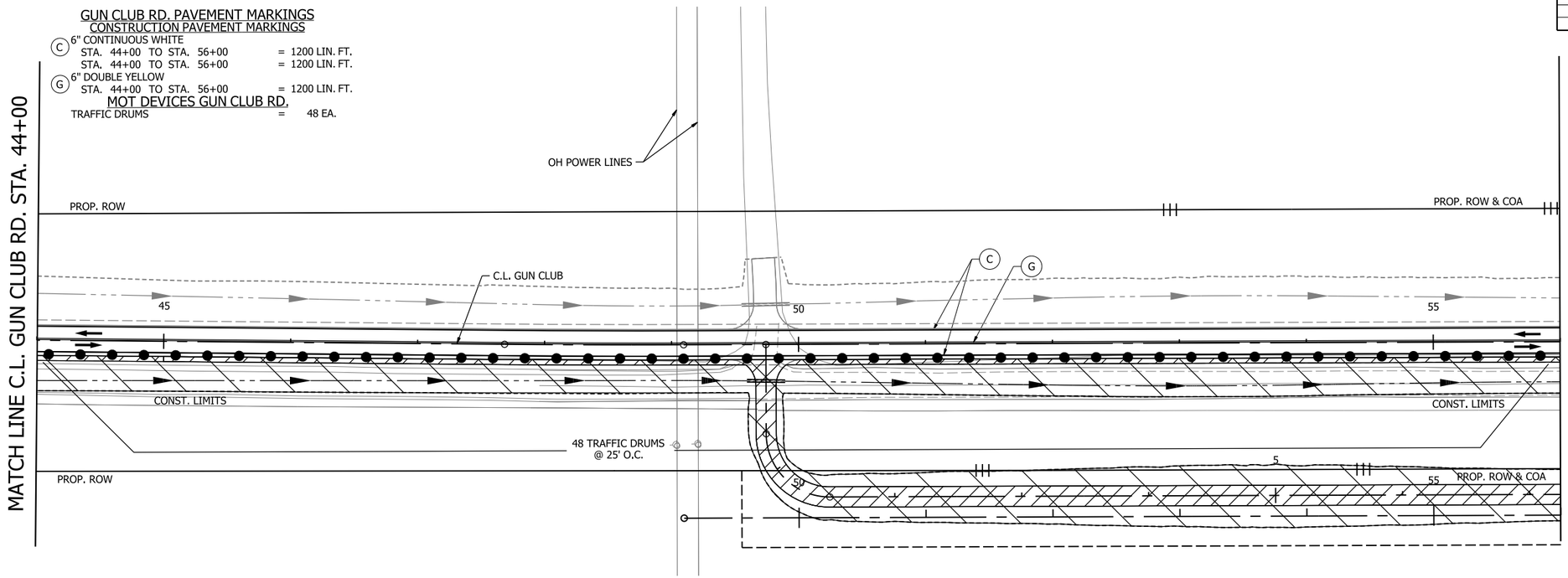
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	105	809
		MAINTENANCE OF TRAFFIC DETAILS				

GUN CLUB RD. PAVEMENT MARKINGS
CONSTRUCTION PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
- STA. 44+00 TO STA. 56+00 = 1200 LIN. FT.
- STA. 44+00 TO STA. 56+00 = 1200 LIN. FT.

(G) 6" DOUBLE YELLOW
- STA. 44+00 TO STA. 56+00 = 1200 LIN. FT.

MOT DEVICES GUN CLUB RD.
TRAFFIC DRUMS = 48 EA.



STATE OF ARKANSAS
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No. 13640
BYRON O. LAWRENCE
4-18-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

LEGEND

- GRADING AND STRUCTURES THIS STAGE
- PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- PRECAST CONCRETE BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXIST. ROW
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.
2. REFER TO DETOUR PLAN AND PROFILE SHEETS FOR HORIZONTAL ALIGNMENT DATA.

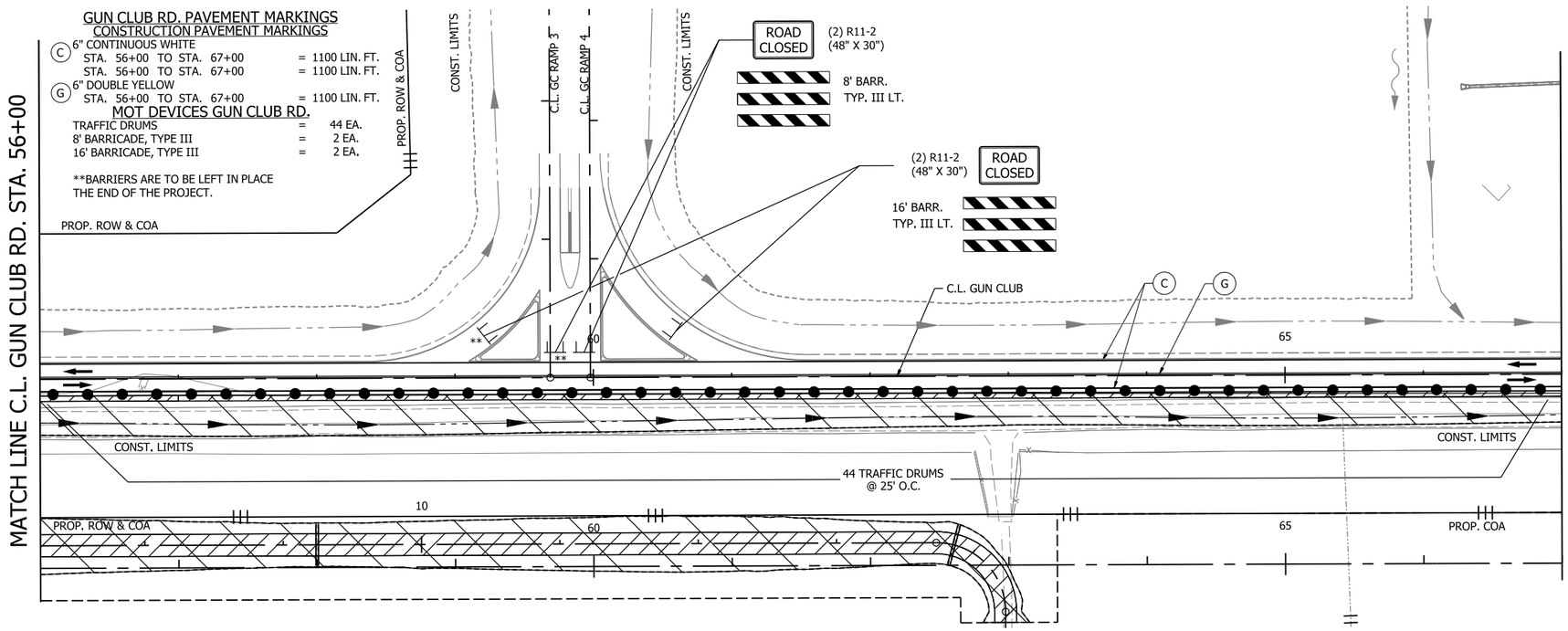
GUN CLUB RD. PAVEMENT MARKINGS
CONSTRUCTION PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
- STA. 56+00 TO STA. 67+00 = 1100 LIN. FT.
- STA. 56+00 TO STA. 67+00 = 1100 LIN. FT.

(G) 6" DOUBLE YELLOW
- STA. 56+00 TO STA. 67+00 = 1100 LIN. FT.

MOT DEVICES GUN CLUB RD.
- TRAFFIC DRUMS = 44 EA.
- 8' BARRICADE, TYPE III = 2 EA.
- 16' BARRICADE, TYPE III = 2 EA.

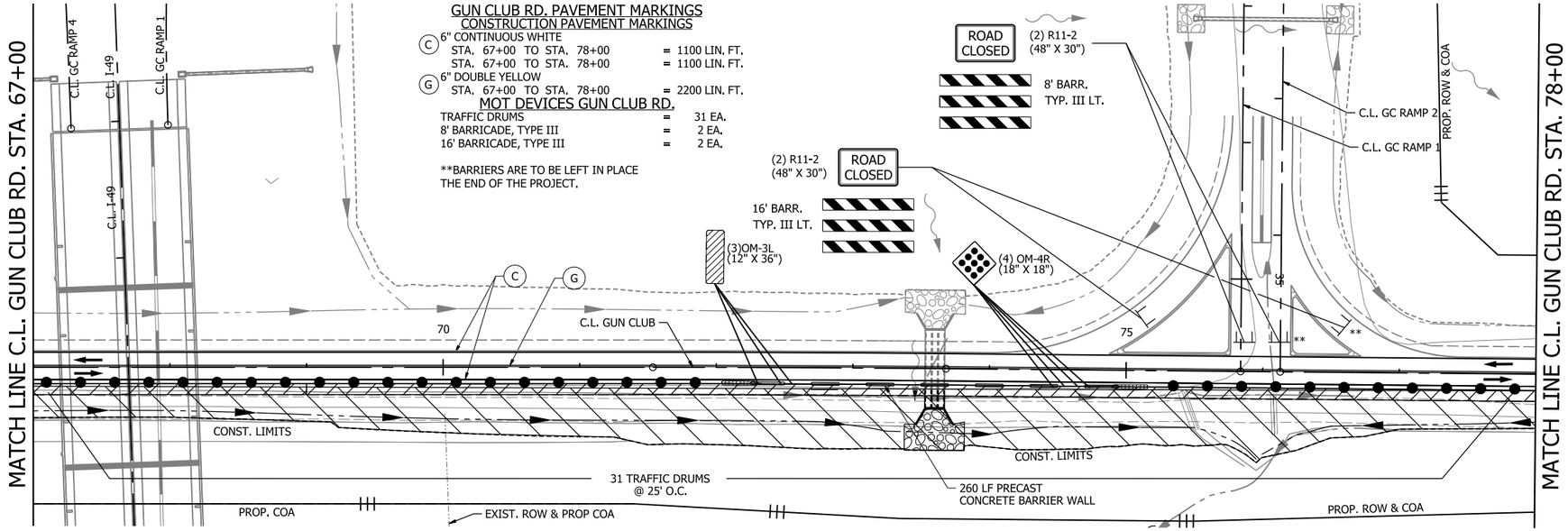
**BARRIERS ARE TO BE LEFT IN PLACE THE END OF THE PROJECT.

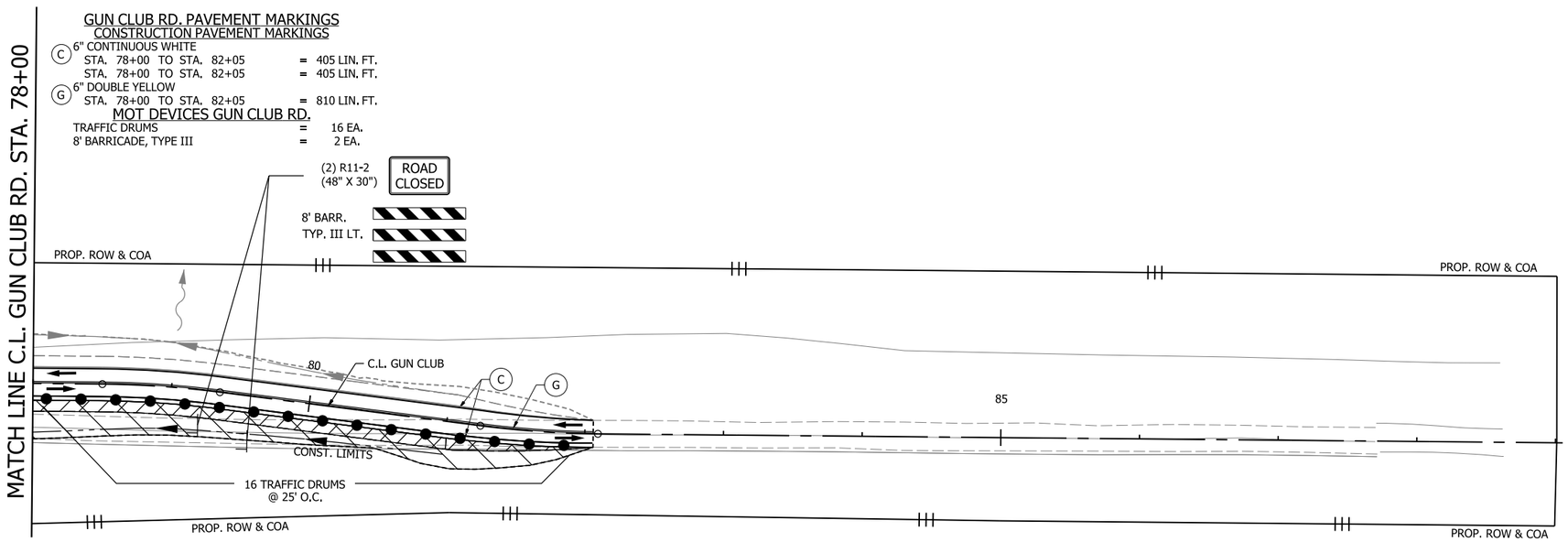


SITE 6 (GUN CLUB RD.)
STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	106	809
		MAINTENANCE OF TRAFFIC DETAILS				





STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-16-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

LEGEND

- GRADING AND STRUCTURES THIS STAGE
- PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- PRECAST CONCRETE BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXIST. ROW
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.
2. REFER TO DETOUR PLAN AND PROFILE SHEETS FOR HORIZONTAL ALIGNMENT DATA.

SITE 6 (GUN CLUB RD.)
STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	107	809
		MAINTENANCE OF TRAFFIC DETAILS				

STAGE 3

INSTALL STAGE 3 MAINTENANCE OF TRAFFIC DEVICES AND CONSTRUCTION PAVEMENT MARKINGS.
OPEN ALL NEWLY CONSTRUCTED SIDE ROADS AND DRIVEWAYS CONSTRUCTED IN PREVIOUS STAGES OF WORK. PERFORM WORK SHOWN IN THE STAGE 3 MAINTENANCE OF TRAFFIC PLANS.
CONSTRUCTION OF THE FOLLOWING ITEMS MAY PROCEED UNDER THE STAGE 3 TRAFFIC PATTERNS.

- MAIN LANES - I-49
  - FINALIZE CONSTRUCTION OF STRUCTURES 07684 AND 07685
  - FINALIZE GRADING OF DITCHES SLOPES AND SUBGRADE IN PREPARATION FOR PAVING OPERATIONS
  - CONSTRUCT PAVEMENT AS SHOWN IN THE PLANS FOR THE MAIN LANES AND RAMPS FROM THE BEGIN TO END OF PROJECT
- SITE 6 - GUN CLUB RD.
  - FINISH FINAL GRADING, DITCHES, STRUCTURES, STRIPING ANY REMAINING ITEMS SHOWN IN THE PLANS FOR GUN CLUB RD.

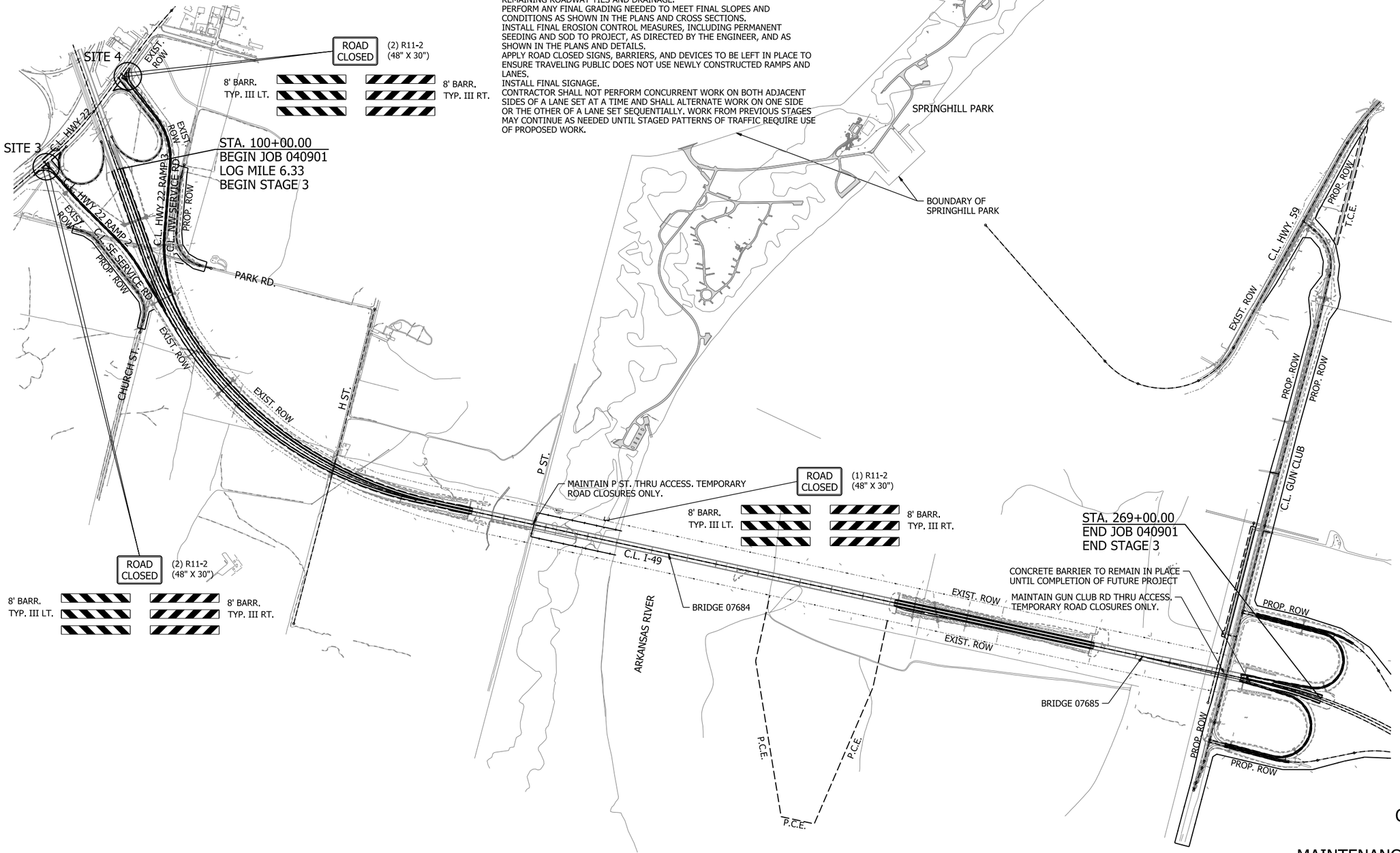
INSTALL FINAL GUARDRAIL AND BARRIER IN ALL LOCATIONS OF THE PROJECT.
REMOVE ANY REMAINING TEMP DETOUR PAVEMENT AND CONSTRUCT ANY REMAINING ROADWAY TIES AND DRAINAGE.
PERFORM ANY FINAL GRADING NEEDED TO MEET FINAL SLOPES AND CONDITIONS AS SHOWN IN THE PLANS AND CROSS SECTIONS.
INSTALL FINAL EROSION CONTROL MEASURES, INCLUDING PERMANENT SEEDING AND SOD TO PROJECT, AS DIRECTED BY THE ENGINEER, AND AS SHOWN IN THE PLANS AND DETAILS.
APPLY ROAD CLOSED SIGNS, BARRIERS, AND DEVICES TO BE LEFT IN PLACE TO ENSURE TRAVELING PUBLIC DOES NOT USE NEWLY CONSTRUCTED RAMPS AND LANES.
INSTALL FINAL SIGNAGE.
CONTRACTOR SHALL NOT PERFORM CONCURRENT WORK ON BOTH ADJACENT SIDES OF A LANE SET AT A TIME AND SHALL ALTERNATE WORK ON ONE SIDE OR THE OTHER OF A LANE SET SEQUENTIALLY. WORK FROM PREVIOUS STAGES MAY CONTINUE AS NEEDED UNTIL STAGED PATTERNS OF TRAFFIC REQUIRE USE OF PROPOSED WORK.

MOT DEVICES

BARRICADE, TYPE III = 10 EA.

STATE OF ARKANSAS
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BYRON O. LAWRENCE
5-1-2024

0 625 1250 1875 2500
HORIZ. SCALE IN FEET: 1"=1250'



LEGEND

STAGE CONST. GRADING

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.
2. ACCESS TO THE CONSTRUCTION SITE FOR CONSTRUCTION VEHICLES, CONSTRUCTION WORKERS, MATERIALS DELIVERIES AND ANY OTHER CONSTUCTION RELATED ACTIVITIES SHALL NOT PASS THROUGH DEVELOPED AREAS OF SPRINGHILL PARK. CONTRACTOR ACCESS TO ROADS AND WORK AREAS OTHER THAN THOSE INDICATED ON THE PLANS ARE SUBJECT TO USACE APPROVAL.

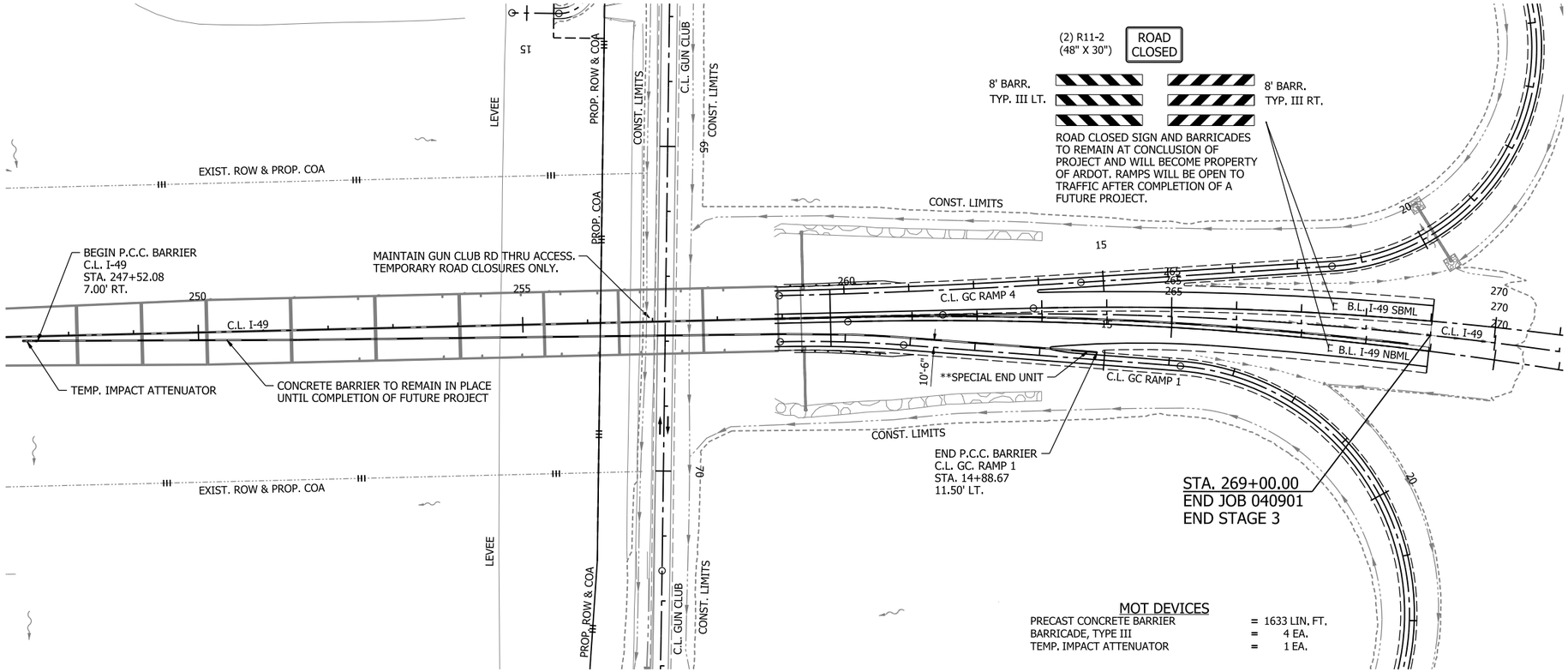
OVERVIEW
STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	108	809
		MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-18-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



MOT DEVICES

PRECAST CONCRETE BARRIER	=	1633 LIN. FT.
BARRICADE, TYPE III	=	4 EA.
TEMP. IMPACT ATTENUATOR	=	1 EA.

LEGEND

- GRADING AND EARTHWORK THIS STAGE
- PAVEMENT AND BRIDGE CONSTRUCTION THIS STAGE
- PREVIOUS STAGE BRIDGE
- TEMPORARY PAVEMENT CONSTRUCTION THIS STAGE
- PREVIOUS STAGE PAVEMENT
- OBLITERATION OF PAVEMENT
- TRAFFIC BARRIER
- TRAFFIC DRUM
- TRAFFIC FLOW ARROWS
- TEMPORARY TRAFFIC SIGN
- TYPE III BARRICADE
- EXISTING RIGHT OF WAY
- PROP. ROW
- PROP. ROW & COA
- DRAINAGE STRUCTURE

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL ALIGNMENT DATA.
2. ** SPECIAL END UNIT IS SUBSIDIARY TO PAY ITEM PRECAST CONCRETE BARRIER WALL.

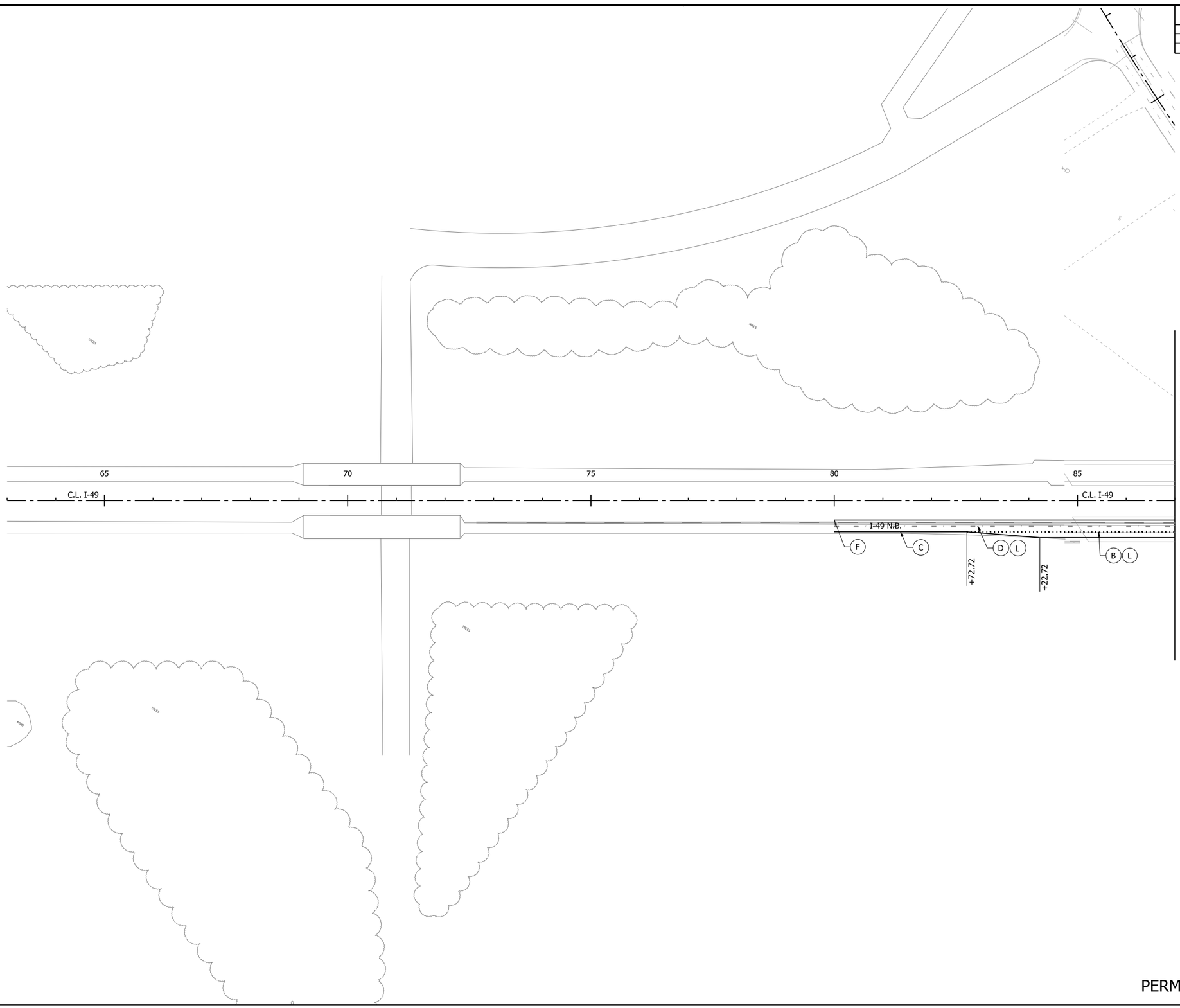
NORTH END
STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	109	809
		PERMANENT PAVEMENT MARKING DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
9-18-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



I-49 SHEET QUANTITY

ENHANCED THERMOPLASTIC PAVEMENT MARKINGS

(B) 12" DOTTED WHITE LANE LINE
STA. 82+72 TO STA. 87+00 RT. = 107 LIN. FT.

(C) 6" CONTINUOUS WHITE
STA. 80+00 TO STA. 87+00 RT. = 700 LIN. FT.

(D) 6" SKIP WHITE
STA. 80+00 TO STA. 87+00 RT. = 175 LIN. FT.

(F) 6" CONTINUOUS YELLOW
STA. 80+00 TO STA. 87+00 RT. = 700 LIN. FT.

RAISED PAVEMENT MARKINGS

(L) TYPE II RED/WHITE
STA. 80+00 TO STA. 87+00 RT. = 9 EA. @ 80'
STA. 82+72 TO STA. 87+00 RT. (DBL.) = 4 EA. @ 36'

NOTES:
1. SEE TYPICAL SECTIONS FOR TYPICAL LANE WIDTHS.
2. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR STRIPE PLACEMENT RELATIVE TO LONGITUDINAL JOINTS.
3. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR ADDITIONAL DIMENSIONS.
4. REFER TO SURVERY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

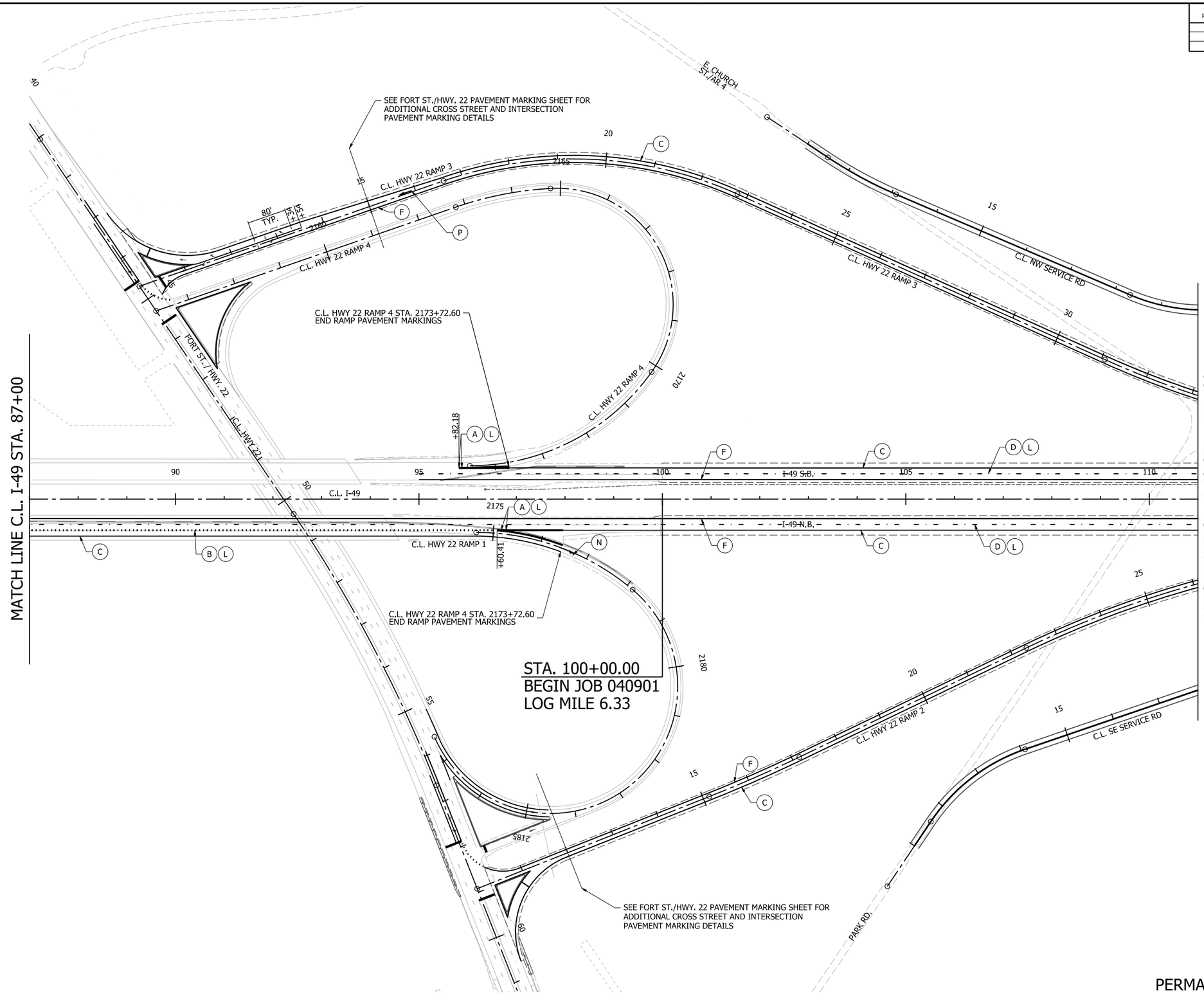
I-49
PERMANENT PAVEMENT MARKING DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	110	809
		PERMANENT PAVEMENT MARKING DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



I-49 SHEET QUANTITY

ENHANCED THERMOPLASTIC PAVEMENT MARKINGS

(A) 12" CONTINUOUS WHITE
- STA. 96+60 TO STA. 97+96 RT. = 275 LIN. FT.
- STA. 95+82 TO STA. 96+85 LT. = 205 LIN. FT.

(B) 12" DOTTED WHITE LANE LINE
- STA. 87+00 TO STA. 96+52 RT. = 239 LIN. FT.

(C) 6" CONTINUOUS WHITE
- STA. 87+00 TO STA. 97+91 RT. = 1,091 LIN. FT.
- STA. 97+96 TO STA. 111+00 RT. = 1,304 LIN. FT.
- STA. 96+85 TO STA. 111+00 LT. = 1,415 LIN. FT.

(D) 6" SKIP WHITE
- STA. 87+00 TO STA. 111+00 RT. = 600 LIN. FT.
- STA. 95+00 TO STA. 111+00 LT. = 400 LIN. FT.

(F) 6" CONTINUOUS YELLOW
- STA. 87+00 TO STA. 111+00 RT. = 2,400 LIN. FT.
- STA. 95+00 TO STA. 111+00 LT. = 1,600 LIN. FT.

RAISED PAVEMENT MARKINGS

(L) TYPE II RED/WHITE
- STA. 95+00 TO STA. 111+00 LT. = 20 EA. @ 80'
- STA. 87+00 TO STA. 111+00 RT. = 30 EA. @ 80'
- STA. 87+00 TO STA. 96+52 RT. (DBL.) = 80 EA. @ 24'
- STA. 96+52 TO STA. 97+96 RT. = 15 EA. @ 10'
- STA. 95+82 TO STA. 96+85 LT. = 10 EA. @ 10'

(N) TYPE II RED/WHITE DIRECTIONAL ARROW
- HWY 22 RAMP1 STA. 2176+71 = 19 EA.

HWY 22 RAMP 3 SHEET QUANTITY

ENHANCED THERMOPLASTIC PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
- STA. 15+00 TO STA. 33+10 LT. = 1,815 LIN. FT.

(F) 6" CONTINUOUS YELLOW
- STA. 15+00 TO STA. 33+15 RT. = 1,810 LIN. FT.

THERMOPLASTIC PAVEMENT MARKINGS

(P) WRONG WAY ARROW
- C.L. HWY 22 RAMP 3 STA. 15+78 LT. = 1 EA.

HWY 22 RAMP 2 SHEET QUANTITY

ENHANCED THERMOPLASTIC PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
- STA. 12+00 TO STA. 26+07 RT. = 1,406 LIN. FT.

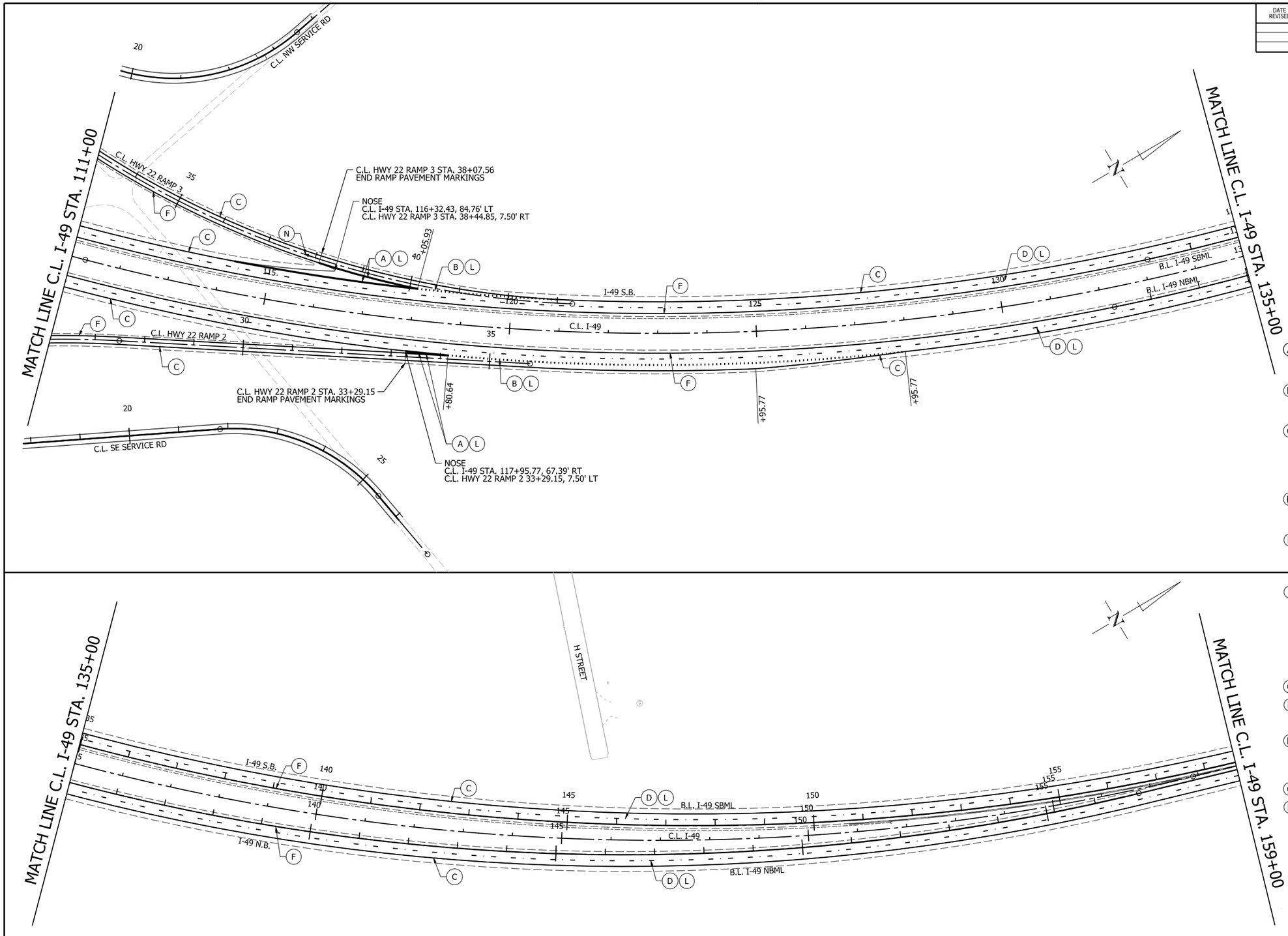
(F) 6" CONTINUOUS YELLOW
- STA. 12+00 TO STA. 26+11 LT. = 1,411 LIN. FT.

NOTES:
1. SEE TYPICAL SECTIONS FOR TYPICAL LANE WIDTHS.
2. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR STRIPE PLACEMENT RELATIVE TO LONGITUDINAL JOINTS.
3. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR ADDITIONAL DIMENSIONS.
4. REFER TO SURVERY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

I-49
PERMANENT PAVEMENT MARKING DETAILS

5/1/2024 11:12:49 AM
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	111	809
		PERMANENT PAVEMENT MARKING DETAILS				



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-18-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

I-49 SHEET QUANTITY

ENHANCED THERMOPLASTIC PAVEMENT MARKINGS

(A) 12" CONTINUOUS WHITE
- C.L. I-49 STA. 117+96 TO STA. 118+81 RT. = 172 LIN. FT.
- C.L. I-49 STA. 114+26 TO STA. 118+06 LT. = 582 LIN. FT.

(B) 12" DOTTED WHITE LANE LINE
- C.L. I-49 STA. 118+81 TO STA. 127+96 RT. = 232 LIN. FT.
- C.L. I-49 STA. 118+06 TO STA. 120+91 LT. = 70 LIN. FT.

(C) 6" CONTINUOUS WHITE
- C.L. I-49 STA. 111+00 TO STA. 117+96 RT. = 705 LIN. FT.
- C.L. I-49 STA. 117+97 TO STA. 159+00 RT. = 4,156 LIN. FT.
- C.L. I-49 STA. 111+00 TO STA. 114+26 LT. = 321 LIN. FT.
- C.L. I-49 STA. 116+00 TO STA. 159+00 LT. = 4,249 LIN. FT.

(D) 6" SKIP WHITE
- C.L. I-49 STA. 111+00 TO STA. 159+00 RT. = 1,200 LIN. FT.
- C.L. I-49 STA. 111+00 TO STA. 159+00 LT. = 1,200 LIN. FT.

(F) 6" CONTINUOUS YELLOW
- C.L. I-49 STA. 111+00 TO STA. 159+00 RT. = 4,800 LIN. FT.
- C.L. I-49 STA. 111+00 TO STA. 159+00 LT. = 4,800 LIN. FT.

RAISED PAVEMENT MARKINGS

(L) TYPE II RED/WHITE
- STA. 111+00 TO STA. 159+00 RT. = 60 EA. @ 80'
- STA. 117+96 TO STA. 118+81 RT. = 17 EA. @ 10'
- STA. 118+81 TO STA. 127+96 RT. (DBL.) = 77 EA. @ 24'
- STA. 118+06 TO STA. 120+91 LT. (DBL.) = 23 EA. @ 24'
- STA. 111+00 TO STA. 159+00 LT. = 60 EA. @ 80'
- STA. 114+26 TO STA. 118+06 LT. = 58 EA. @ 10'

HWY 22 RAMP 3 SHEET QUANTITY

ENHANCED THERMOPLASTIC PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
- STA. 33+12 TO STA. 38+08 LT. = 498 LIN. FT.

(F) 6" CONTINUOUS YELLOW
- STA. 33+12 TO STA. 38+08 RT. = 497 LIN. FT.

RAISED PAVEMENT MARKINGS

(N) TYPE II RED/WHITE DIRECTIONAL ARROW
- HWY 22 RAMP 3 STA. 37+78 = 19 EA.

HWY 22 RAMP 2 SHEET QUANTITY

ENHANCED THERMOPLASTIC PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
- STA. 26+07 TO STA. 33+29 RT. = 722 LIN. FT.

(F) 6" CONTINUOUS YELLOW
- STA. 26+11 TO STA. 33+29 LT. = 719 LIN. FT.

NOTES:
1. SEE TYPICAL SECTIONS FOR TYPICAL LANE WIDTHS.
2. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR STRIPE PLACEMENT RELATIVE TO LONGITUDINAL JOINTS.
3. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR ADDITIONAL DIMENSIONS.
4. REFER TO SURVERY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

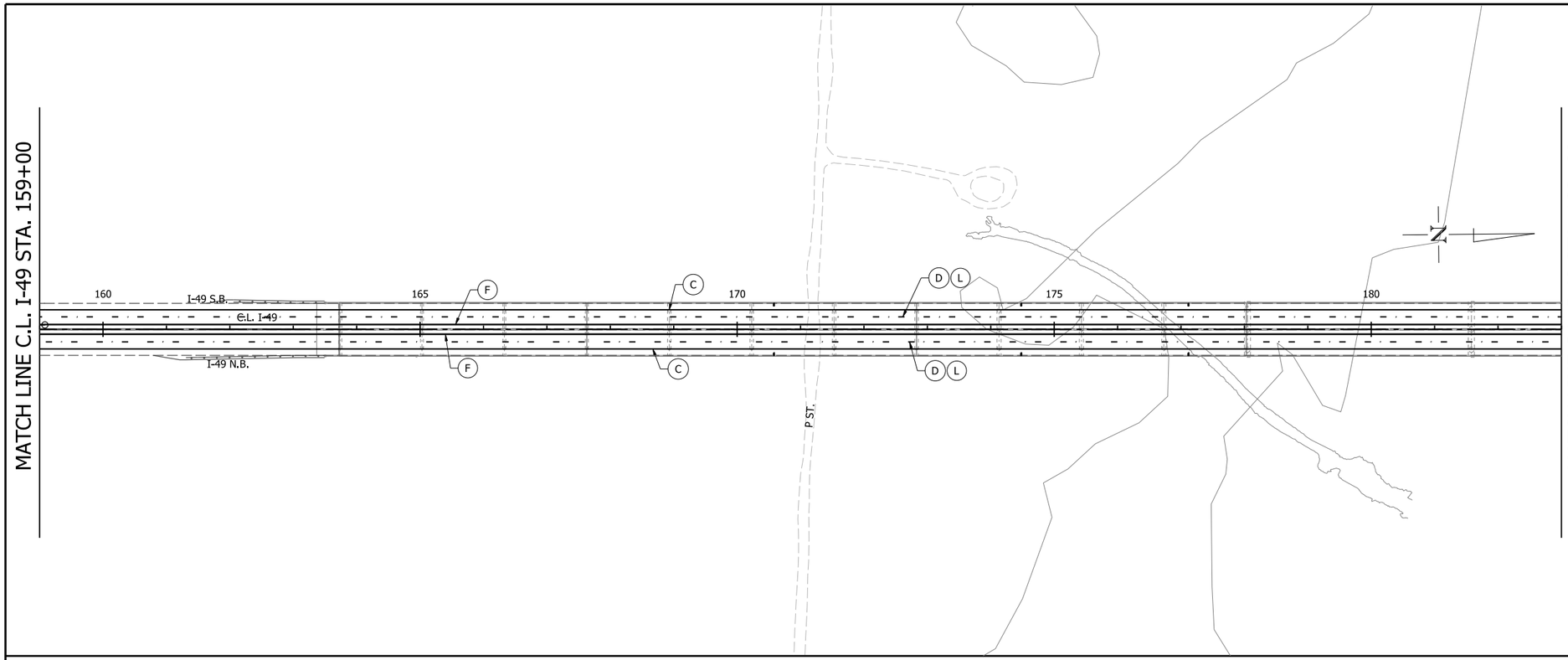
I-49
PERMANENT PAVEMENT MARKING DETAILS

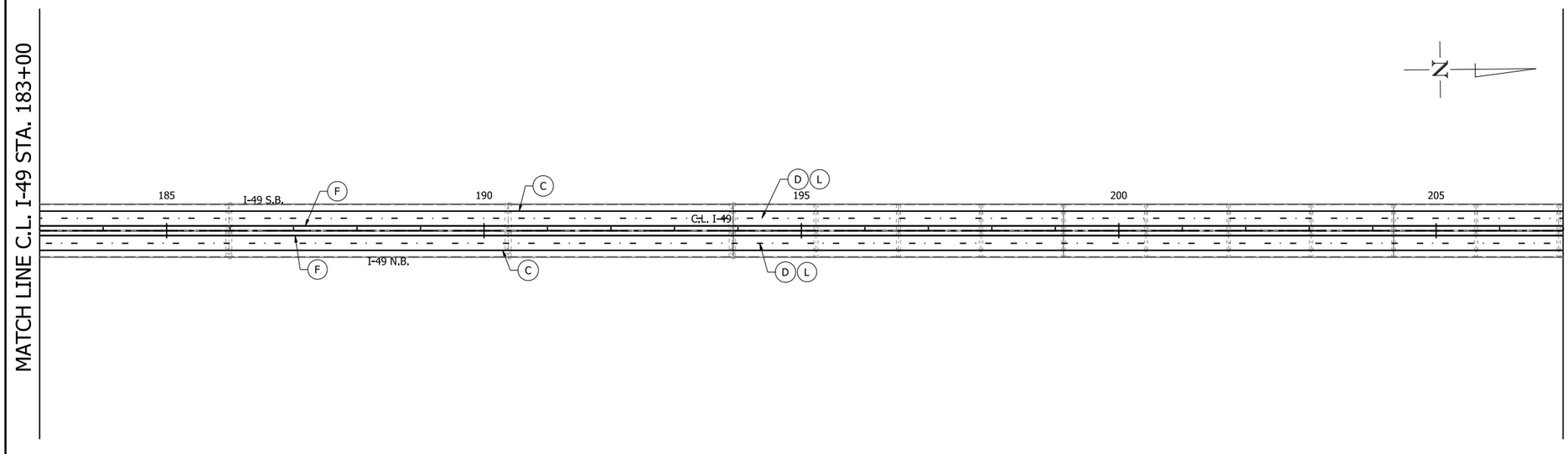
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DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	112	809

PERMANENT PAVEMENT MARKING DETAILS





STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-18-2024

0 100 200 300 400

HORIZ. SCALE IN FEET: 1"=200'

I-49 SHEET QUANTITY

ENHANCED THERMOPLASTIC PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
- STA. 159+00 TO STA. 207+00 RT. = 4,800 LIN. FT.
- STA. 159+00 TO STA. 207+00 LT. = 4,800 LIN. FT.

(D) 6" SKIP WHITE
- STA. 159+00 TO STA. 207+00 RT. = 1,200 LIN. FT.
- STA. 159+00 TO STA. 207+00 LT. = 1,200 LIN. FT.

(F) 6" CONTINUOUS YELLOW
- STA. 159+00 TO STA. 207+00 RT. = 4,800 LIN. FT.
- STA. 159+00 TO STA. 207+00 LT. = 4,800 LIN. FT.

RAISED PAVEMENT MARKINGS

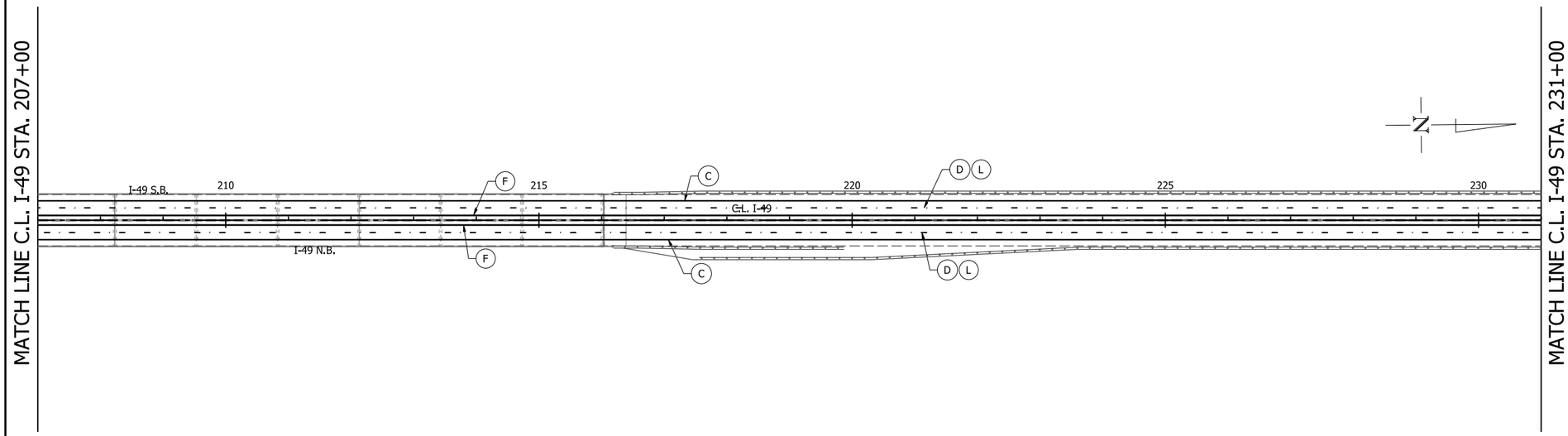
(L) TYPE II RED/WHITE
- STA. 159+00 TO STA. 207+00 RT. = 60 EA. @ 80'
- STA. 159+00 TO STA. 207+00 LT. = 60 EA. @ 80'

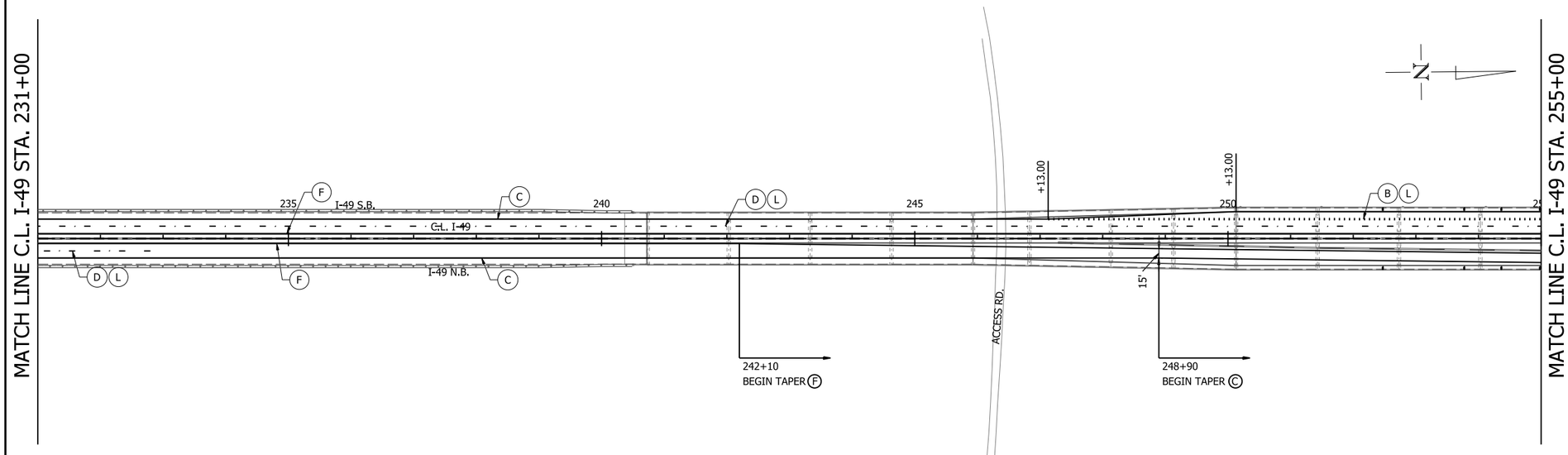
NOTES:
1. SEE TYPICAL SECTIONS FOR TYPICAL LANE WIDTHS.
2. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR STRIPE PLACEMENT RELATIVE TO LONGITUDINAL JOINTS.
3. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR ADDITIONAL DIMENSIONS.
4. REFER TO SURVERY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

I-49
PERMANENT PAVEMENT MARKING DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	113	809
		PERMANENT PAVEMENT MARKING DETAILS				





STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-18-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

I-49 SHEET QUANTITY

ENHANCED THERMOPLASTIC PAVEMENT MARKINGS

(B) 12" DOTTED WHITE LANE LINE
STA. 247+13 TO STA. 255+00 LT. = 197 LIN. FT.

(C) 6" CONTINUOUS WHITE
STA. 207+00 TO STA. 255+00 RT. = 4,800 LIN. FT.
STA. 207+00 TO STA. 255+00 LT. = 4,800 LIN. FT.

(D) 6" SKIP WHITE
STA. 207+00 TO STA. 232+80 RT. = 645 LIN. FT.
STA. 207+00 TO STA. 255+00 LT. = 1,200 LIN. FT.

(F) 6" CONTINUOUS YELLOW
STA. 207+00 TO STA. 255+00 RT. = 4,800 LIN. FT.
STA. 207+00 TO STA. 255+00 LT. = 4,800 LIN. FT.

RAISED PAVEMENT MARKINGS

(L) TYPE II RED/WHITE
STA. 207+00 TO STA. 232+80 RT. = 32 EA. @ 80'
STA. 207+00 TO STA. 255+00 LT. = 60 EA. @ 80'
STA. 254+43 TO STA. 255+00 LT. = 6 EA. @ 24'

NOTES:
1. SEE TYPICAL SECTIONS FOR TYPICAL LANE WIDTHS.
2. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR STRIPE PLACEMENT RELATIVE TO LONGITUDINAL JOINTS.
3. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR ADDITIONAL DIMENSIONS.
4. REFER TO SURVERY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

I-49
PERMANENT PAVEMENT MARKING DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	114	809
		PERMANENT PAVEMENT MARKING DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-18-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

SEE GUN CLUB SHEETS FOR CROSS STREET PAVEMENT MARKING

GUN CLUB RAMP 4 SHEET QUANTITY
ENHANCED THERMOPLASTIC PAVEMENT MARKINGS
- (C) 6" CONTINUOUS WHITE
  - STA. 13+98 TO STA. 37+86 LT. = 2,443 L.F.
- (F) 6" CONTINUOUS YELLOW
  - STA. 13+98 TO STA. 37+86 RT. = 2,486 L.F.

GUN CLUB RAMP 3 SHEET QUANTITY
ENHANCED THERMOPLASTIC PAVEMENT MARKINGS
- (C) 6" CONTINUOUS WHITE
  - STA. 11+00 TO STA. 24+00 LT. = 1,303 L.F.
- (F) 6" CONTINUOUS YELLOW
  - STA. 11+00 TO STA. 24+00 RT. = 1,303 L.F.

C.L. GC RAMP 3

C.L. GC RAMP 4 STA. 13+22.09
END RAMP PAVEMENT MARKINGS

NOSE
C.L. I-49 STA. 262+17.85, 33.05' LT.=
C.L. GC RAMP 4 STA. 13+22.09, 7.50' RT.

C.L. GC RAMP 4

PROJECT BY OTHERS (JOB 040902)

B.L. I-49 SBML

C.L. I-49

B.L. I-49 NBML

I-49 S.B.

I-49 N.B.

MATCH LINE C.L. I-49 STA. 255+00

C.L. GUN CLUB

+58.22

+03.22

260+02
END TAPER (F) (C)

C.L. GC RAMP 1

STA. 269+00.00
END JOB 040901

GUN CLUB RAMP 2 SHEET QUANTITY
ENHANCED THERMOPLASTIC PAVEMENT MARKINGS
- (C) 6" CONTINUOUS WHITE
  - STA. 11+68 TO STA. 20+00 RT. = 833 L.F.
- (F) 6" CONTINUOUS YELLOW
  - STA. 11+68 TO STA. 20+00 LT. = 833 L.F.

GUN CLUB RAMP 1 SHEET QUANTITY
ENHANCED THERMOPLASTIC PAVEMENT MARKINGS
- (A) 12" CONTINUOUS WHITE
  - STA. 14+16 TO STA. 14+54 LT. = 38 L.F.
- (C) 6" CONTINUOUS WHITE
  - STA. 14+16 TO STA. 34+00 RT. = 1,962 L.F.
- (F) 6" CONTINUOUS YELLOW
  - STA. 14+16 TO STA. 34+00 LT. = 1,969 L.F.

RAISED PAVEMENT MARKINGS
- (L) TYPE II RED/WHITE
  - STA. 14+16 TO STA. 14+54 = 4 EA. @ 10'
- (N) TYPE II RED/WHITE DIRECTION ARROW
  - C.L. GC RAMP 1 STA. 14+68 = 19 EA.

NOSE
C.L. I-49 STA. 263+13.07, 57.60' RT.=
C.L. GC RAMP 1 STA. 14+16.07, 7.50' RT.

GUN CLUB RD.

C.L. GC RAMP 2

SEE GUN CLUB SHEETS FOR CROSS STREET PAVEMENT MARKING

I-49 SHEET QUANTITY
ENHANCED THERMOPLASTIC PAVEMENT MARKINGS
- (A) 12" CONTINUOUS WHITE
  - STA. 260+03 TO STA. 263+13 RT. = 309 LIN. FT.
  - STA. 261+58 TO STA. 262+18 LT. = 60 LIN. FT.
- (B) 12" DOTTED WHITE LANE LINE
  - STA. 255+00 TO STA. 261+58 LT. = 165 LIN. FT.
- (C) 6" CONTINUOUS WHITE
  - STA. 255+00 TO STA. 263+12 RT. = 811 LIN. FT.
  - STA. 255+00 TO STA. 262+17 LT. = 718 LIN. FT.
- (D) 6" SKIP WHITE
  - STA. 255+00 TO STA. 261+58 LT. = 165 LIN. FT.
- (F) 6" CONTINUOUS YELLOW
  - STA. 255+00 TO STA. 260+02 RT. = 502 LIN. FT.
  - STA. 255+00 TO STA. 261+58 LT. = 658 LIN. FT.

RAISED PAVEMENT MARKINGS
- (L) TYPE II RED/WHITE
  - STA. 255+00 TO STA. 261+58 LT. = 8 EA. @ 80'
  - STA. 255+00 TO STA. 261+58 LT. (DBL) = 56 EA. @ 24'
  - STA. 260+03 TO STA. 263+13 RT. = 31 EA. @ 10'
  - STA. 261+58 TO STA. 262+18 LT. = 6 EA. @ 10'

NOTES:
1. SEE TYPICAL SECTIONS FOR TYPICAL LANE WIDTHS.
2. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR STRIPE PLACEMENT RELATIVE TO LONGITUDINAL JOINTS.
3. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR ADDITIONAL DIMENSIONS.
4. REFER TO SURVERY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

I-49
PERMANENT PAVEMENT MARKING DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	115	809
		PERMANENT PAVEMENT MARKING DETAILS				

HWY 22 RAMP 3 SHEET QUANTITY

ENHANCED THERMOPLASTIC PAVEMENT MARKINGS

(A) 12" CONTINUOUS WHITE
- STA. 10+44 TO STA. 10+51 RT. = 28 LIN. FT.

(C) 6" CONTINUOUS WHITE
- STA. 10+07 TO STA. 13+54 LT. = 382 LIN. FT.
- STA. 10+20 TO STA. 10+36 LT. = 63 LIN. FT.
- STA. 10+20 TO STA. 11+19 LT. = 118 LIN. FT.
- STA. 10+36 TO STA. 11+19 LT. = 83 LIN. FT.
- STA. 11+19 TO STA. 13+54 LT. = 235 LIN. FT.

(F) 6" CONTINUOUS YELLOW
- STA. 10+38 TO STA. 13+54 = 322 LIN. FT.

(E) WHITE YIELD
- STA. 10+34 TO STA. 10+46 = 18 LIN. FT.

THERMOPLASTIC PAVEMENT MARKINGS

(I) LEFT TURN ARROW
- STA. 11+38 AND STA. 12+86 = 2 EA.

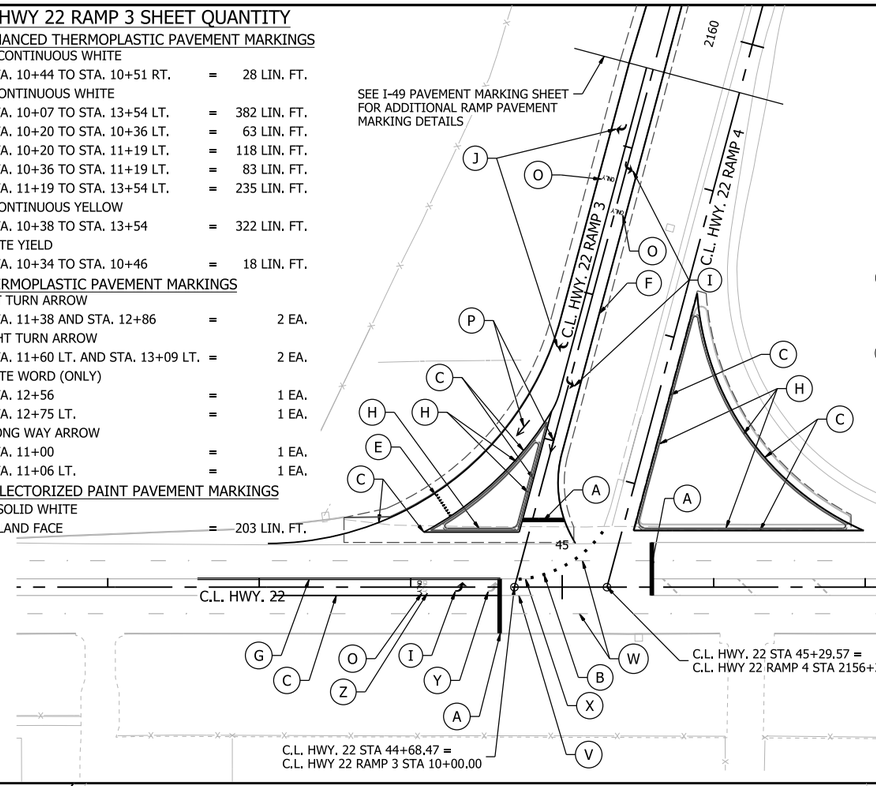
(J) RIGHT TURN ARROW
- STA. 11+60 LT. AND STA. 13+09 LT. = 2 EA.

(O) WHITE WORD (ONLY)
- STA. 12+56 = 1 EA.
- STA. 12+75 LT. = 1 EA.

(P) WRONG WAY ARROW
- STA. 11+00 = 1 EA.
- STA. 11+06 LT. = 1 EA.

REFLECTORIZED PAINT PAVEMENT MARKINGS

(H) 10" SOLID WHITE
- ISLAND FACE = 203 LIN. FT.



HWY 22 RAMP 4 SHEET QUANTITY

REFLECTORIZED PAINT PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
- STA. 2156+70 TO 2157+09 RT. = 152 LIN. FT.
- STA. 2156+70 TO 2158+32 RT. = 162 LIN. FT.
- STA. 2157+09 TO 2158+32 RT. = 201 LIN. FT.

(H) 10" SOLID WHITE
- ISLAND FACE = 473 LIN. FT.





FORT ST. / HWY 22 SHEET QUANTITY

REFLECTORIZED PAINT PAVEMENT MARKINGS

(A) 12" CONTINUOUS WHITE
- STA. 44+59 RT. = 36 LIN. FT.
- STA. 45+59 LT. = 35 LIN. FT.
- STA. 57+90 RT. = 35 LIN. FT.
- STA. 59+16 LT. = 35 LIN. FT.

(B) 12" DOTTED WHITE LANE LINE
- STA. 44+67 TO STA. 45+27 LT. = 18 LIN. FT.
- STA. 57+90 TO STA. 58+56 LT. = 17 LIN. FT.

(C) 6" CONTINUOUS WHITE
- STA. 43+06 TO STA. 43+46 LT. = 55 LIN. FT.
- STA. 43+09 TO STA. 44+59 RT. = 150 LIN. FT.
- STA. 55+13 TO STA. 55+86 LT. = 74 LIN. FT.
- STA. 56+40 TO STA. 57+90 RT. = 150 LIN. FT.
- STA. 60+17 TO STA. 60+64 LT. = 48 LIN. FT.

(G) 6" DOUBLE YELLOW
- STA. 42+59 TO STA. 44+59 LT. = 200 LIN. FT.
- STA. 55+90 TO STA. 57+90 LT. = 200 LIN. FT.

THERMOPLASTIC PAVEMENT MARKINGS

(I) LEFT TURN ARROW
- STA. 44+34 LT. = 1 EA.
- STA. 57+65 LT. = 1 EA.

(O) WHITE WORD (ONLY)
- STA. 44+07 LT. = 1 EA.
- STA. 57+38 LT. = 1 EA.

PAVEMENT MARKING REMOVAL

FORT ST./HWY. 22 QUANTITY

(V) 6" CONTINUOUS WHITE
- STA. 43+99 TO STA. 44+81 RT. = 82 LIN. FT.

(W) 6" SKIP WHITE
- STA. 44+59 TO STA. 45+59 LT. = 100 LIN. FT.
- STA. 44+59 TO STA. 45+59 RT. = 100 LIN. FT.
- STA. 57+90 TO STA. 59+16 RT. = 125 LIN. FT.

(X) 6" DOUBLE YELLOW
- STA. 42+59 TO STA. 44+81 LT. = 222 LIN. FT.
- STA. 55+90 TO STA. 57+90 LT. = 200 LIN. FT.
- STA. 55+90 TO STA. 57+90 RT. = 200 LIN. FT.

(Y) LEFT TURN ARROW
- STA. 44+56 = 1 EA.

(Z) WHITE WORD (ONLY)
- STA. 44+11 = 1 EA.

HWY 22 RAMP 1 SHEET QUANTITY

ENHANCED THERMOPLASTIC PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
- STA. 2184+53 TO STA. 2187+14 LT. = 268 LIN. FT.
- STA. 2184+55 TO STA. 2187+37 RT. = 274 LIN. FT.
- STA. 2186+64 TO STA. 2187+14 LT. = 55 LIN. FT.

REFLECTORIZED PAINT PAVEMENT MARKINGS

(H) 10" SOLID WHITE
- ISLAND FACE = 493 LIN. FT.

THERMOPLASTIC PAVEMENT MARKINGS

(P) WRONG WAY ARROW
- STA. 2184+88 = 1 EA.
- STA. 2184+91 LT. = 1 EA.

HWY 22 RAMP 2 SHEET QUANTITY

ENHANCED THERMOPLASTIC PAVEMENT MARKINGS

(A) 12" CONTINUOUS WHITE
- STA. 10+45 LT. = 15 LIN. FT.

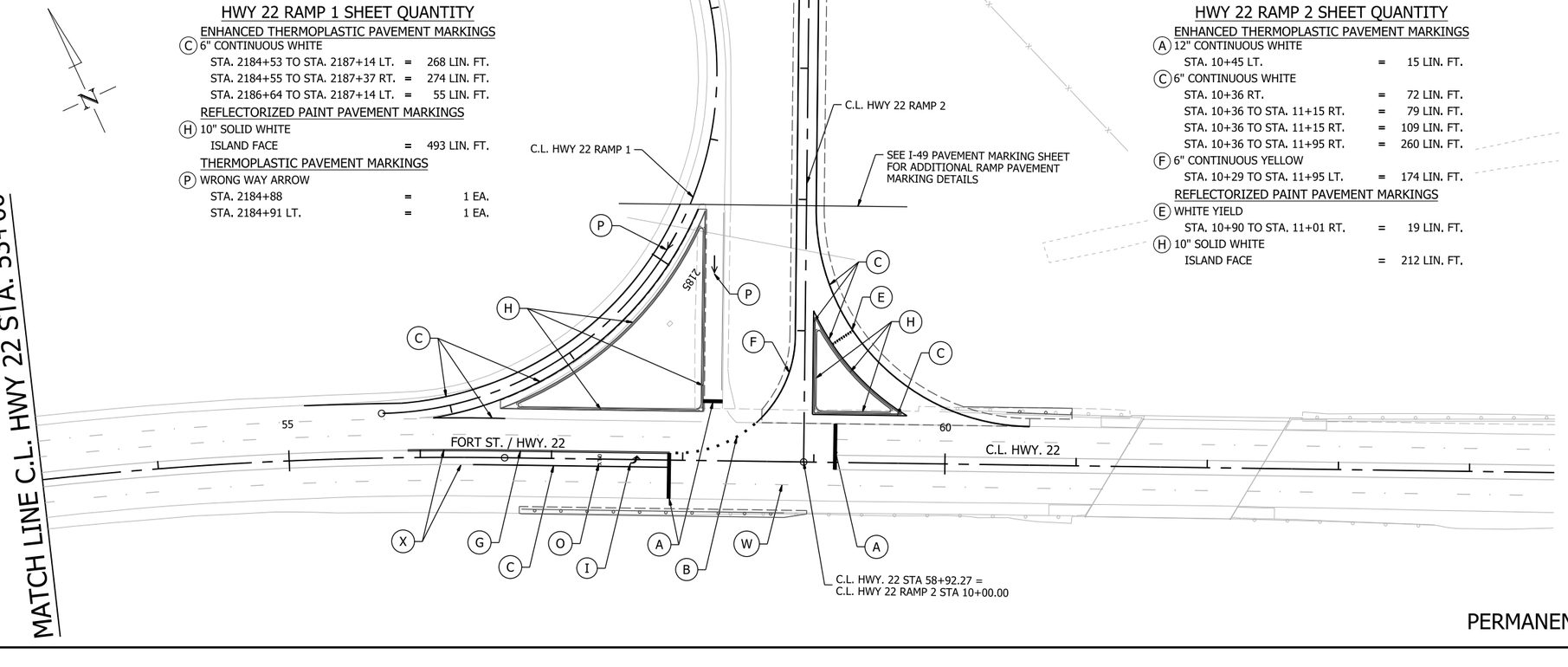
(C) 6" CONTINUOUS WHITE
- STA. 10+36 RT. = 72 LIN. FT.
- STA. 10+36 TO STA. 11+15 RT. = 79 LIN. FT.
- STA. 10+36 TO STA. 11+15 RT. = 109 LIN. FT.
- STA. 10+36 TO STA. 11+95 RT. = 260 LIN. FT.

(F) 6" CONTINUOUS YELLOW
- STA. 10+29 TO STA. 11+95 LT. = 174 LIN. FT.

REFLECTORIZED PAINT PAVEMENT MARKINGS

(E) WHITE YIELD
- STA. 10+90 TO STA. 11+01 RT. = 19 LIN. FT.

(H) 10" SOLID WHITE
- ISLAND FACE = 212 LIN. FT.

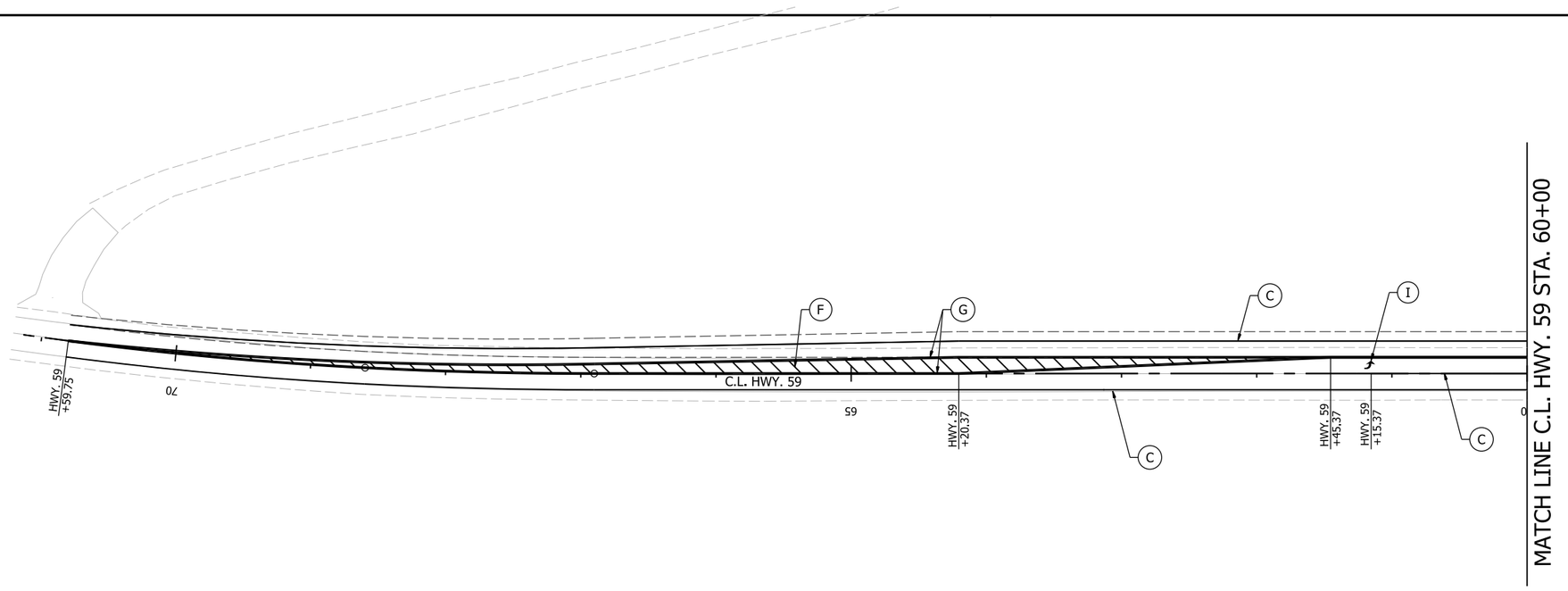


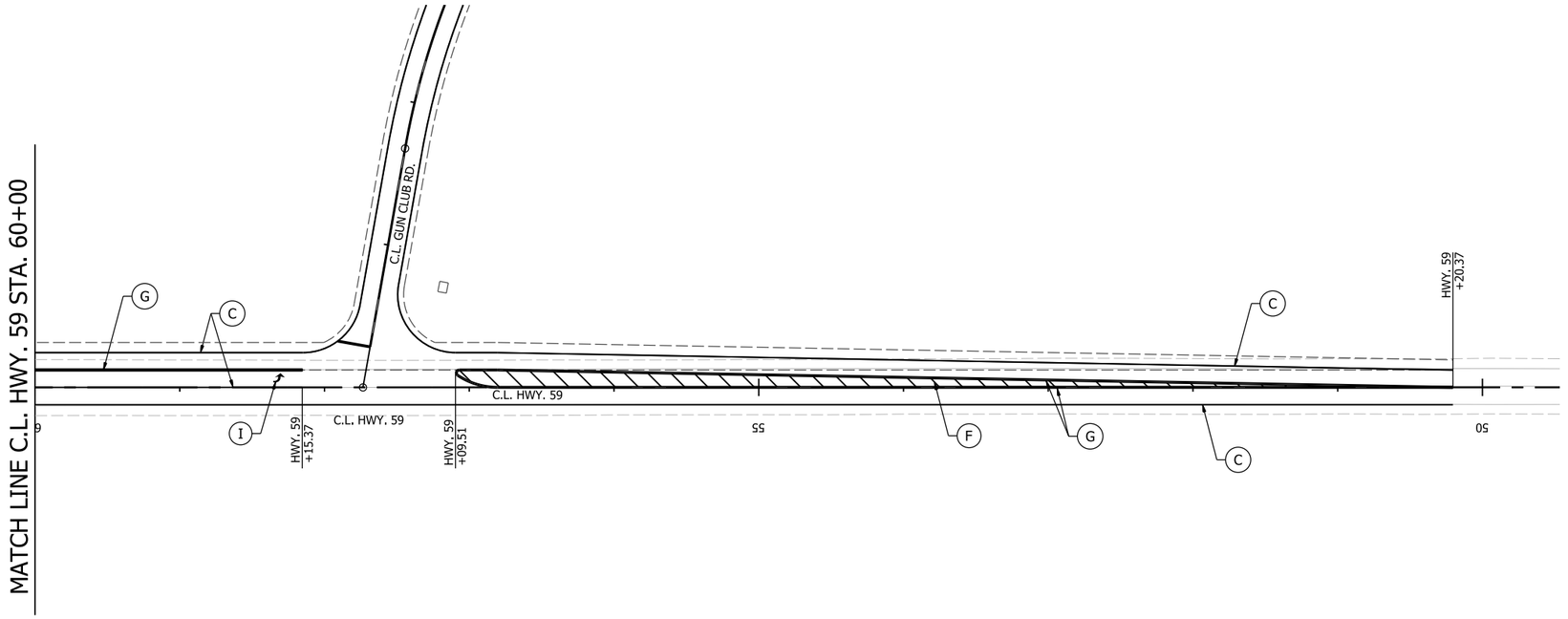
NOTES:
1. SEE TYPICAL SECTIONS FOR TYPICAL LANE WIDTHS.
2. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR STRIPE PLACEMENT RELATIVE TO LONGITUDINAL JOINTS.
3. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR ADDITIONAL DIMENSIONS.
4. REFER TO SURVERY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

FORT ST. / HWY. 22
PERMANENT PAVEMENT MARKING DETAILS

4/15/2024 6:40:01 PM
R040901_07_PM_006.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	116	809
		PERMANENT PAVEMENT MARKING DETAILS				





STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-8-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

HWY. 59 SHEET QUANTITY

REFLECTORIZED PAINT PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE

STA. 50+20 TO STA. 57+09 RT.	=	689 L.F.
STA. 50+20 TO STA. 70+80 LT.	=	2,062 L.F.
STA. 58+15 TO STA. 61+15	=	300 L.F.
STA. 58+15 TO STA. 70+80 LT.	=	1,265 L.F.

(F) 6" CONTINUOUS YELLOW
STRIPED MEDIAN (SPACED 10')

STA. 50+75 TO STA. 57+06 RT.	=	316 L.F.
STA. 61+68 TO STA. 70+32 RT.	=	471 L.F.

(G) 6" DOUBLE YELLOW
STRIPED MEDIAN

STA. 50+20 TO STA. 57+10 RT.	=	2,762 L.F.
STA. 58+15 TO STA. 70+80 RT.	=	4,401 L.F.

THERMOPLASTIC PAVEMENT MARKINGS

(I) LEFT TURN ARROW

C.L. HWY. 59 STA 58+30 RT.	=	1 EA.
C.L. HWY. 59 STA 61+15 RT.	=	1 EA.

NOTES:
1. SEE TYPICAL SECTIONS FOR TYPICAL LANE WIDTHS.
2. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR STRIPE PLACEMENT RELATIVE TO LONGITUDINAL JOINTS.
3. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR ADDITIONAL DIMENSIONS.
4. REFER TO SURVERY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY 59
PERMANENT PAVEMENT MARKING DETAILS

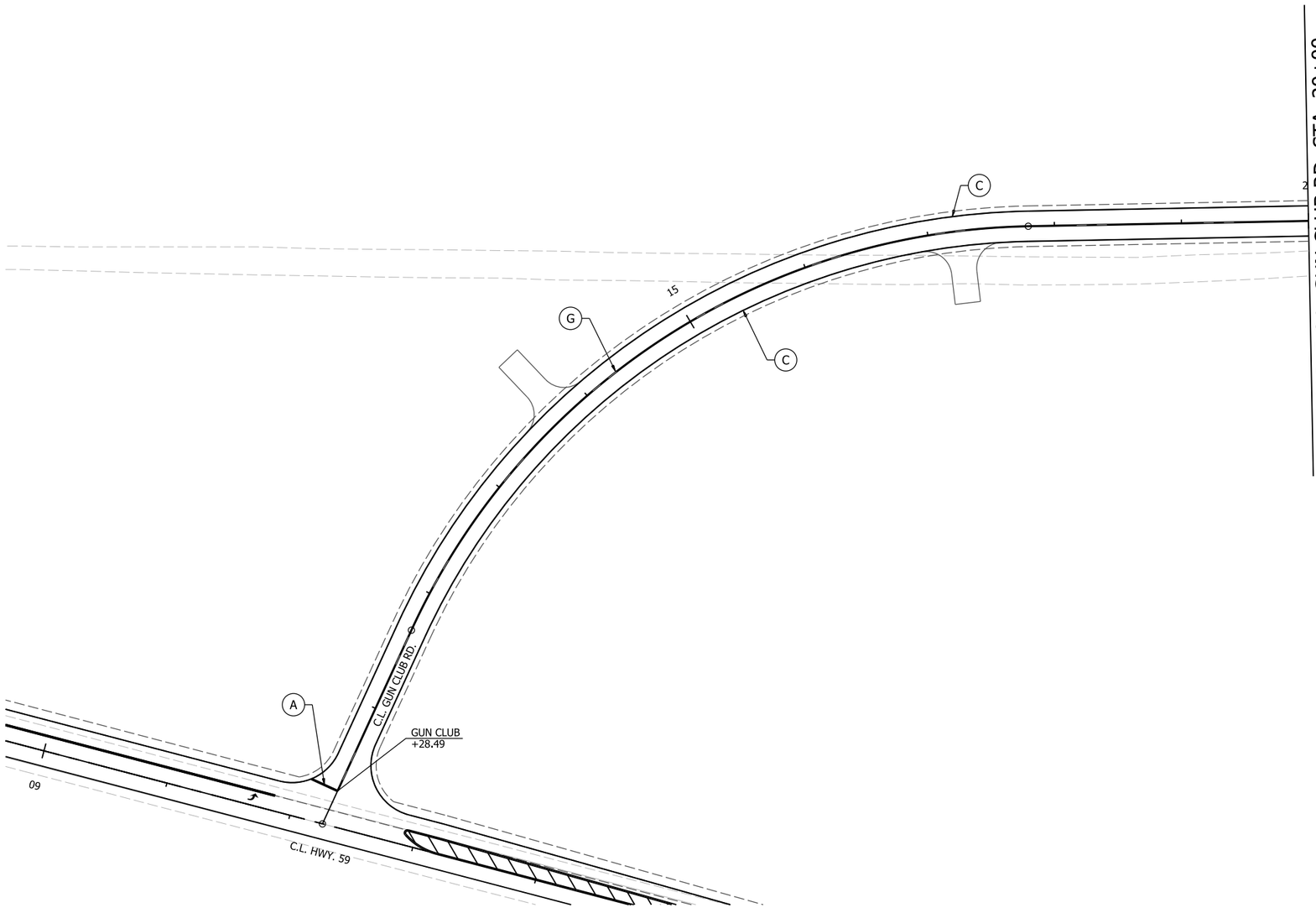
4/15/2024 6:40:03 PM
R040901_07_PM_007.dgn

DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	117	809

PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-18-2024



0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

GUN CLUB ROAD SHEET QUANTITY

REFLECTORIZED PAINT PAVEMENT MARKINGS

(A) 12" CONTINUOUS WHITE
- STA. 10+28 = 23 L.F.

(C) 6" CONTINUOUS WHITE
- STA. 10+35 TO STA. 20+00 RT. = 982 L.F.
- STA. 10+17 TO STA. 20+00 LT. = 1,013 L.F.

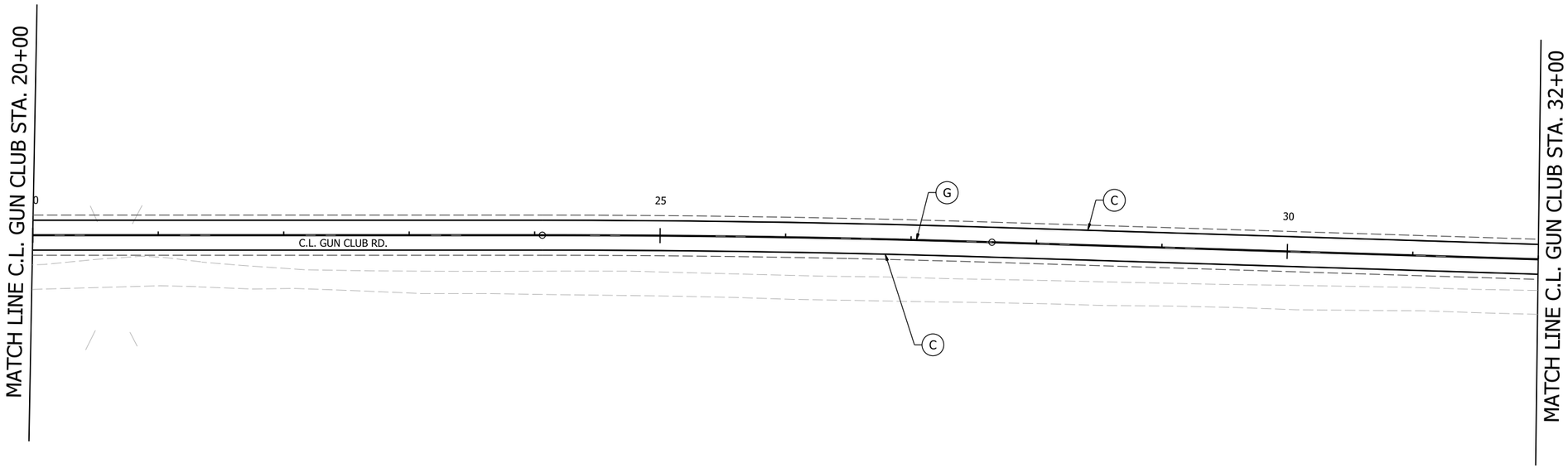
(G) 6" DOUBLE YELLOW
- STA. 10+28 TO STA. 20+00 = 1944 L.F.

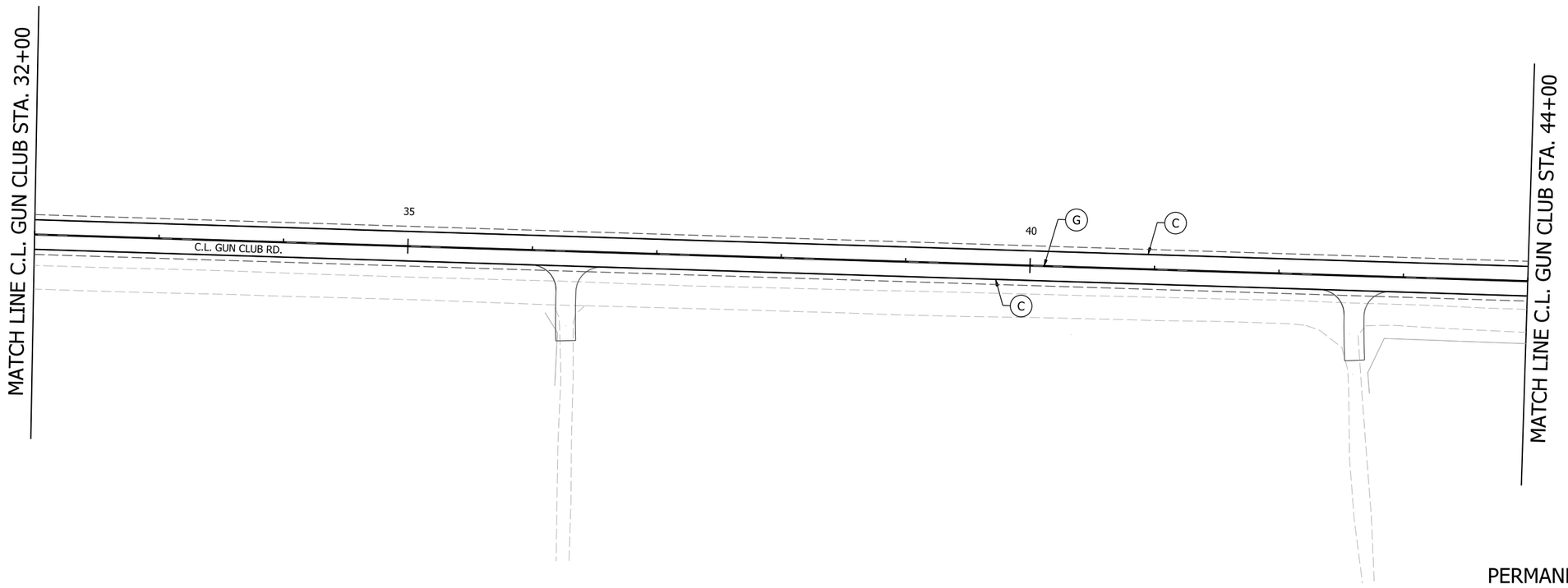
NOTES;
1. SEE TYPICAL SECTIONS FOR TYPICAL LANE WIDTHS.
2. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR STRIPE PLACEMENT RELATIVE TO LONGITUDINAL JOINTS.
3. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR ADDITIONAL DIMENSIONS.
4. REFER TO SURVERY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

GUN CLUB
PERMANENT PAVEMENT MARKING DETAILS

4/15/2024 6:40:07 PM
R040901_07_PM_008.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	118	809
		PERMANENT PAVEMENT MARKING DETAILS				





STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-18-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

GUN CLUB ROAD SHEET QUANTITY

REFLECTORIZED PAINT PAVEMENT MARKINGS

(C) 6" CONTINUOUS WHITE
- STA. 20+00 TO STA. 44+00 RT. = 2,400 L.F.
- STA. 20+00 TO STA. 44+00 LT. = 2,400 L.F.

(G) 6" DOUBLE YELLOW
- STA. 20+00 TO STA. 44+00 = 4,800 L.F.

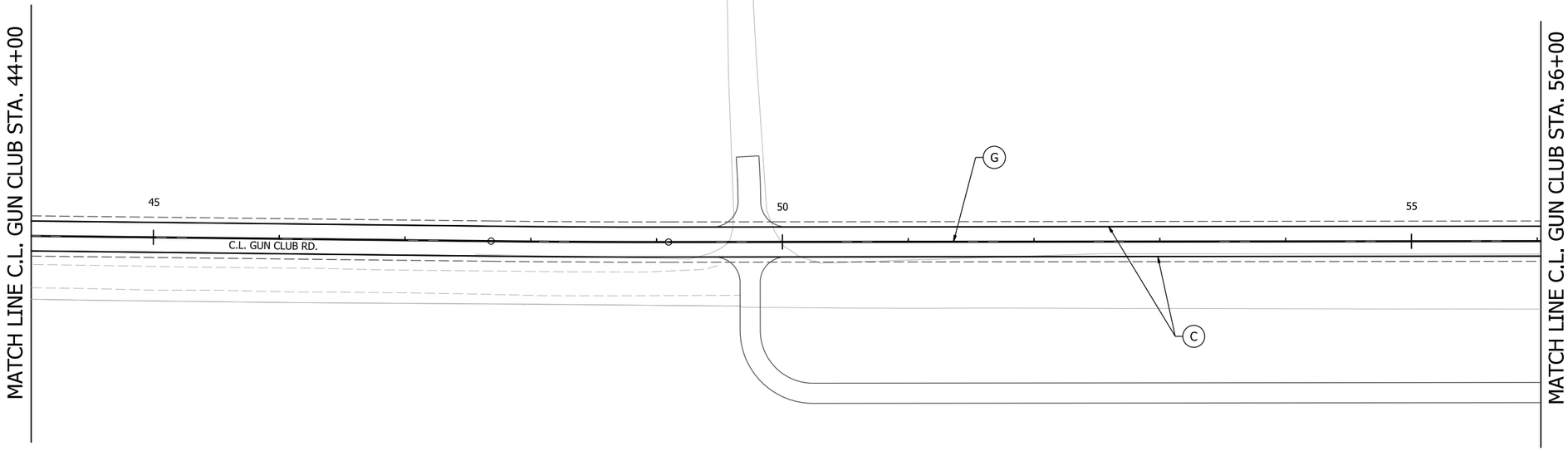
NOTE:
THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.

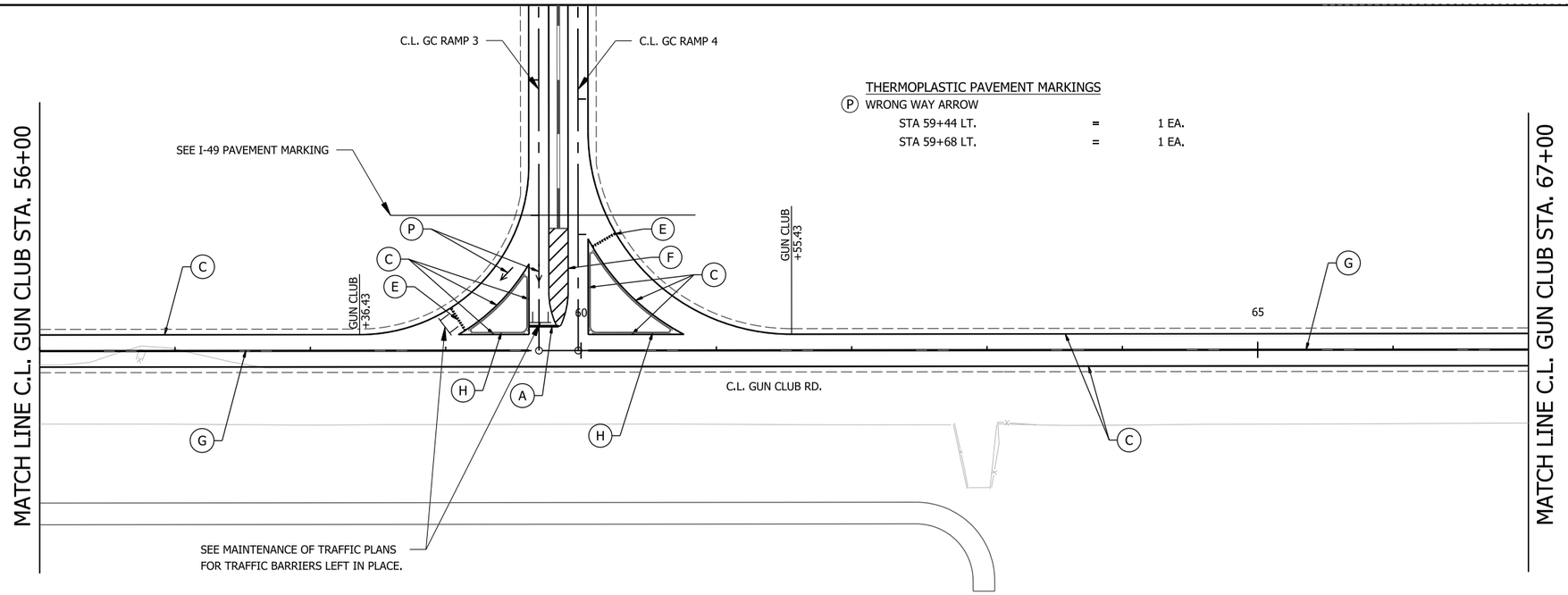
NOTES;
1. SEE TYPICAL SECTIONS FOR TYPICAL LANE WIDTHS.
2. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR STRIPE PLACEMENT RELATIVE TO LONGITUDINAL JOINTS.
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4. REFER TO SURVERY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

GUN CLUB
PERMANENT PAVEMENT MARKING DETAILS

4/15/2024 6:40:09 PM
R040901_07_PM_009.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	119	809
		PERMANENT PAVEMENT MARKING DETAILS				





THERMOPLASTIC PAVEMENT MARKINGS

(P) WRONG WAY ARROW
- STA 59+44 LT. = 1 EA.
- STA 59+68 LT. = 1 EA.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-8-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

GUN CLUB ROAD SHEET QUANTITY

REFLECTORIZED PAINT PAVEMENT MARKINGS

(A) 12" CONTINUOUS WHITE
- STA. 59+62 TO STA. 59+83 LT. = 22 L.F.

(C) 6" CONTINUOUS WHITE
- STA. 44+00 TO STA. 59+56 LT. = 1,595 L.F.
- STA. 60+19 TO STA. 67+00 LT. = 717 L.F.
- LANE LINES
- STA. 59+09 TO STA. 59+62 LT. = 179 L.F.
- STA. 60+05 TO STA. 60+76 LT. = 243 L.F.

(E) WHITE YIELD
- STA. 59+03 TO STA. 59+14 LT. = 20 L.F.
- STA. 60+08 TO STA. 60+25 LT. = 20 L.F.

(F) 6" CONTINUOUS YELLOW
- C.L. GUN CLUB RAMP 3
- STA. 10+18 TO STA. 11+00 = 303 L.F.

(G) 6" DOUBLE YELLOW
- STA. 44+00 TO STA. 59+62 = 3,124 L.F.
- STA. 60+05 TO STA. 67+00 = 1,390 L.F.

(H) 10" SOLID WHITE
- GC RAMP 3 ISLAND FACE = 151 L.F.
- GC RAMP 4 ISLAND FACE = 212 L.F.

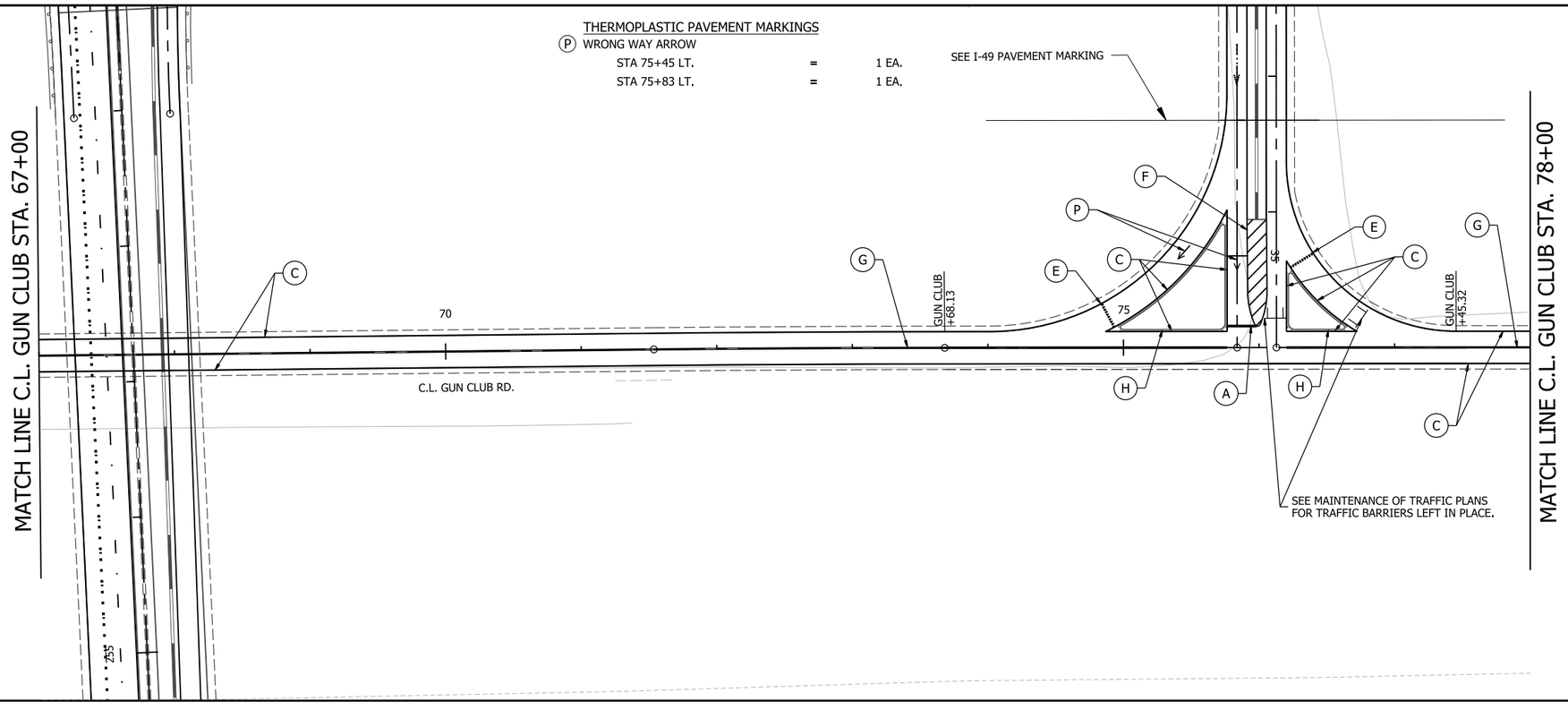
NOTE:
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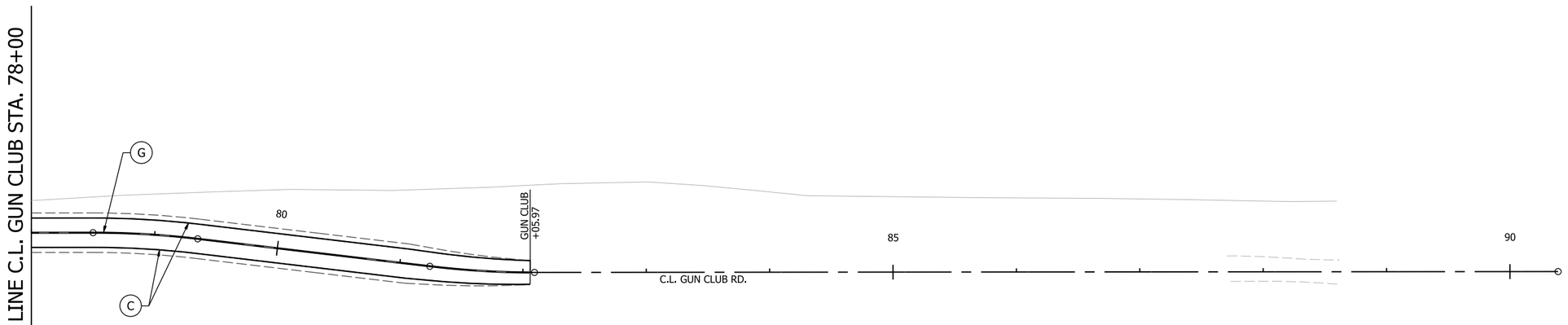
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4. REFER TO SURVERY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

GUN CLUB
PERMANENT PAVEMENT MARKING DETAILS

4/15/2024 6:40:13 PM
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	120	809
		PERMANENT PAVEMENT MARKING DETAILS				





STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
4-18-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

GUN CLUB ROAD SHEET QUANTITY

REFLECTORIZED PAINT PAVEMENT MARKINGS

(A) 12" CONTINUOUS WHITE
- STA. 75+76 TO STA. 75+98 = 22 L.F.

(C) 6" CONTINUOUS WHITE
- STA. 67+00 TO STA. 75+75 LT. = 1,506 L.F.
- STA. 67+00 TO STA. 82+06 RT. = 2,040 L.F.
- STA. 76+20 TO STA. 82+06 LT. = 688 L.F.
- LANE LINES
- STA. 74+87 TO STA. 75+76 = 309 L.F.
- STA. 76+20 TO STA. 76+72 = 179 L.F.

(E) WHITE YIELD
- STA. 74+83 TO STA. 74+93 = 20 L.F.
- STA. 76+23 TO STA. 76+40 = 20 L.F.

(F) 6" CONTINUOUS YELLOW
- C.L. GUN CLUB RAMP 1
- STA. 34+00 TO STA. 35+52 = 456 L.F.

(G) 6" DOUBLE YELLOW
- STA. 67+00 TO STA. 75+76 = 1,752 L.F.
- STA. 76+20 TO STA. 82+06 = 1,172 L.F.

(H) 10" SOLID WHITE
- GC RAMP 1 ISLAND FACE = 275 L.F.
- GC RAMP 2 ISLAND FACE = 151 L.F.

NOTE:
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NOTES:
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2. SEE PAVEMENT MARKING STANDARD DRAWINGS FOR STRIPE PLACEMENT RELATIVE TO LONGITUDINAL JOINTS.
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4. REFER TO SURVERY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

GUN CLUB
PERMANENT PAVEMENT MARKING DETAILS

4/15/2024 6:40:16 PM
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SUMMARY of CLASSIFICATION TEST RESULTS

PROJECT: 040901 Hwy. 22 - Gun Club Rd.
LOCATION: Crawford & Sebastian Counties, Arkansas

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	121	809
		SOIL LOG				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21612
MICHAEL JORDAN LEE DESTIGTER

BORING No.	NORTHING	EASTING	SAMPLE DEPTH (ft)	WATER CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	SIEVE ANALYSIS PERCENT PASSING 2 in.	1 in.	3/4 in.	3/8 in.	#4	#10	#40	#200	USCS CLASS.	AASHTO CLASS.
FB-4	373206.2780	632315.4970	0.5-1.5	24	39	20	19	---	---	---	---	---	---	---	---	CL	A-6
FB-4	373206.2780	632315.4970	29-30	22	---	---	---	100	100	100	99	98	97	90	1	SP	A-3
FB-5	373335.9360	632246.8090	2.5-3.5	24	---	---	---	100	100	100	100	100	100	99	96	ML	A-4
FB-5	373335.9360	632246.8090	19-20	20	---	---	---	100	100	100	99	99	99	91	2	SP	A-3
FB-5	373335.9360	632246.8090	34-35	---	---Non Plastic---			---	---	---	---	---	---	---	---	ML	A-4
FB-7	373595.9100	632249.2220	0.5-1.5	30	---	---	---	100	100	100	100	100	100	100	95	ML	A-4
FB-7	373595.9100	632249.2220	2.5-3.5	30	28	23	5	---	---	---	---	---	---	---	---	CL-ML	A-4
FB-7	373595.9100	632249.2220	4.5-5.5	39	---	---	---	100	100	100	100	100	100	100	99	CL-ML	A-4
FB-7	373595.9100	632249.2220	6.5-7.5	37	53	21	32	---	---	---	---	---	---	---	---	CH	A-7-6
FB-7	373595.9100	632249.2220	14-15	49	---	---	---	100	100	100	100	100	100	100	98	CH	A-7-6
FB-8	373725.2600	632310.5450	0.5-1.5	28	31	22	9	100	100	100	100	100	---	---	98	CL	A-4
FB-8	373725.2600	632310.5450	2.5-3.5	29	---	---	---	100	100	100	100	100	100	99	97	ML	A-4
FB-8	373725.2600	632310.5450	9-9.5	41	---	---	---	---	---	---	---	---	---	---	---	CL	A-7-6
FB-8	373725.2600	632310.5450	14-15	44	42	23	19	100	100	100	100	100	100	100	100	CL	A-7-6
FB-8	373725.2600	632310.5450	24-25	30	---	---	---	100	100	100	100	100	100	100	29	SM	A-2-4
FB-10	373986.3370	632252.8300	2.5-3.5	26	---	---	---	100	100	100	100	100	100	100	99	ML	A-4
FB-10	373986.3370	632252.8300	19-20	23	---	---	---	100	100	100	100	100	100	99	75	ML	A-4
FB-10	373986.3370	632252.8300	44-45	15	---	---	---	100	100	100	100	100	100	89	12	SHALE	
FB-11	374115.8840	632254.4010	0.5-1.5	17	---	---	---	100	100	100	100	100	100	100	74	ML	A-4
FB-11	374115.8840	632254.4010	14-15	30	33	25	8	100	100	100	100	100	100	100	99	ML	A-4
FB-11	374115.8840	632254.4010	29-30	11	---	---	---	100	100	100	93	80	58	20	3	SW	A-1-b
FB-11	374115.8840	632254.4010	39-40	19	---	---	---	100	100	100	100	100	100	83	26	SM	A-2-4
FB-12	374245.4010	632315.7530	2.5-3.5	23	---Non Plastic---			---	---	---	---	---	---	---	---	ML	A-4
FB-12	374245.4010	632315.7530	24-25	19	---Non Plastic---			---	---	---	---	---	---	---	---	SM	A-3
FB-13	374375.8820	632257.0140	0.5-1.5	18	---Non Plastic---			100	100	100	100	100	100	100	72	ML	A-4
FB-13	374375.8820	632257.0140	4.5-5.5	30	---	---	---	100	100	100	100	100	100	99	94	ML	A-4
FB-13	374375.8820	632257.0140	6.5-7.5	15	---	---	---	100	100	100	100	100	100	98	97	ML	A-4
FB-14	374505.2580	632318.3550	2.5-3.5	20	---	---	---	100	100	100	100	100	100	100	78	ML	A-4
FB-14	374505.2580	632318.3550	9-10	19	---	---	---	100	100	100	100	100	100	99	98	ML	A-4
FB-14	374505.2580	632318.3550	19-20	33	---	---	---	100	100	100	100	100	100	100	45	SM	A-4
FB-14	374505.2580	632318.3550	24-25	19	---	---	---	100	100	100	100	100	100	89	3	SP	A-3
FB-15	374636.0300	632257.7680	2.5-3.5	13	---	---	---	100	100	100	100	100	100	100	62	ML	A-4
FB-15	374636.0300	632257.7680	14-15	27	---	---	---	100	100	100	100	100	100	100	100	ML	A-4
FB-15	374636.0300	632257.7680	24-25	19	---	---	---	100	100	100	100	100	100	72	7	SM-SP	A-3
FB-16	374635.5170	632289.6390	0.5-1.5		---Non Plastic---			---	---	---	---	---	---	---	---	ML	A-4
FB-16	374635.5170	632289.6390	4.5-5.5	9	28	21	7	100	100	100	100	100	100	100	51	CL-ML	A-4
FB-16	374635.5170	632289.6390	9-10	13	---	---	---	100	100	100	100	100	100	100	99	ML	A-4
FB-16	374635.5170	632289.6390	24-25	20	---	---	---	100	100	100	100	100	97	79	4	SP	A-3
FB-17	374635.4970	632321.7090	2.5-3.5	13	---	---	---	100	100	100	100	100	100	100	48	SM	A-4
FB-17	374635.4970	632321.7090	14-15	27	---	---	---	100	100	100	100	100	100	100	100	ML	A-4
FB-18	374960.9000	632260.9100	2.5-3.5	14	---	---	---	100	100	100	100	100	100	99	31	SM	A-2-4
FB-18	374960.9000	632260.9100	14-15	23	---	---	---	100	100	100	96	91	82	31	2	SW	A-1-b
FB-19	374960.5380	632292.8890	4.5-5.5	8	---	---	---	100	100	100	100	100	100	100	22	SM	A-2-4
FB-19	374960.5380	632292.8890	14-15	3	---	---	---	100	100	100	92	89	80	30	2	SW	A-1-b
FB-19	374960.5380	632292.8890	34-35	---	---	---	---	100	100	100	100	95	92	66	5	SP	A-3
FB-20	374960.1200	632325.0230	2.5-3.5	19	---	---	---	100	100	100	100	100	100	95	56	ML	A-4
FB-21	675432.7620	632261.2550	2-2.5	8	---	---	---	100	100	100	86	72	53	32	20	SHALE	
FB-22	375425.4400	632295.1150	1.5-2.0	9	---	---	---	100	100	100	78	62	48	24	8	SM-SP	A-1-a
FB-22	375425.4400	632295.1150	2.5-3	9	---	---	---	100	100	100	100	100	100	42	25	SHALE	
FB-23	375433.6890	632330.0350	0.5-1	19	---	---	---	100	100	100	100	99	98	18	3	SW	A-1-b
FB-23	375433.6890	632330.0350	1-1.5	9	---	---	---	100	100	100	100	100	100	37	24	SHALE	

BORING No.	NORTHING	EASTING	SAMPLE DEPTH (ft)	WATER CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	SIEVE ANALYSIS PERCENT PASSING 2 in.	1 in.	3/4 in.	3/8 in.	#4	#10	#40	#200	USCS CLASS.	AASHTO CLASS.
FB-25	375869.4920	632299.8330	0.5-1.5	19	---	---	---	100	90	90	84	81	79	68	1	SP	A-3
FB-25	375869.4920	632299.8330	0-4.5	14	---	---	---	100	91	91	80	60	24	1	1	SW	A-1-a
FB-25	375869.4920	632299.8330	4.5-5	14	---	---	---	100	100	100	100	100	100	25	17	SHALE	
FB-26	375869.3270	632334.8320	0-4.5	12	---	---	---	100	100	95	64	47	23	3	2	GW	A-1-a
FB-26	375869.3270	632334.8320	4.5-5	10	---	---	---	100	100	100	100	100	100	42	32	SHALE	
FB-27	376225.8170	632273.4940	0.5-1.5	16	---	---	---	100	100	100	100	100	---	---	28	SM	A-3
FB-27	376225.8170	632273.4940	9-10	2	---	---	---	100	100	100	100	100	---	---	4	SP	A-3
FB-27	376225.8170	632273.4940	24-25	---	---	---	---	100	100	100	100	99	---	---	5	SP	A-3
FB-28	376225.5250	632305.4810	0.5-1.5	22	---	---	---	100	100	100	100	100	100	95	57	ML	A-4
FB-28	376225.5250	632305.4810	9-10	4	---	---	---	100	100	100	100	100	100	100	4	SP	A-3
FB-29	376225.1910	632337.4400	0.5-1.5	20	---Non Plastic---			---	---	---	---	---	---	---	---	ML	A-4
FB-29	376225.1910	632337.4400	4.5-5.5	20	---Non Plastic---			---	---	---	---	---	---	---	---	ML	A-4
FB-29	376225.1910	632337.4400	9-10	18	---	---	---	---	---	---	---	---	100	---	64	ML	A-4
FB-29	376225.1910	632337.4400	19-20	---	---	---	---	---	---	---	---	---	96	---	2	SP	A-3
FB-29	376225.1910	632337.4400	29-30	---	---	---	---	---	---	---	---	---	65	---	3	SW	A-1-b
FB-30	376355.1660	632336.7860	0.5-1.5	25	---Non Plastic---			---	---	---	---	---	---	---	---	ML	A-4
FB-30	376355.1660	632336.7860	4.5-5.5	3	---	---	---	100	100	100	100	100	100	95	4	SP	A-3
FB-31	376485.6820	632278.1220	4.5-5.5	2	---	---	---	100	100	100	100	100	100	58	2	SP	A-3
FB-34	376903.1860	632343.1700	2.5-3.5	3	---	---	---	100	100	100	100	100	100	82	1	SP	A-3
FB-34	376903.1860	632343.1700	6.5-7.5	25	---Non Plastic---			---	---	---	---	---	---	---	---	ML	A-4
FB-34	376903.1860	632343.1700	9-10	3	---	---	---	100	100	100	100	100	100	95	5	SP	A-3
FB-34	376903.1860	632343.1700	19-20	29	---	---	---	100	100	100	100	100	100	99	15	SM	A-3
FB-35	377005.8050	632283.2500	2.5-3.5	8	---	---	---	100	100	100	94	79	65	37	19	SM	A-1-b
FB-35	377005.8050	632283.2500	14-15	8	---	---	---	100	100	100	100	100	100	100	19	SP	A-2-4
FB-36	377135.1660	632344.5490	2.5-3.5	3	---	---	---	100	100	100	97	90	79	26	2	SW	A-1-b
FB-36	377135.1660	632344.5490	14-15	2	---	---	---	100	100	100	100	100	100	99	3	SP	A-3
FB-37	377265.7560	632285.8060	2.5-3.5	8	---	---	---	100	100	100	97	93	86	41	2	SP	A-1-b
FB-37	377265.7560	632285.8060	14-15	3	---	---	---	100	100	100	100	100	100	99	1	SP	A-3
FB-37	377265.7560	632285.8060	39-40	17	---	---	---	100	100	96	86	80	72	32	3	SP	A-1-b
FB-38	377395.1190	632347.1250	2.5-3.5	3	---	---	---	100	100	100	97	94	85	38	2	SP	A-1-b
FB-38	377395.1190	632347.1250	9-10	31	32	14	18	---	---	---	---	---	---	---	---	CL	A-6
FB-38	377395.1190	632347.1250	19-20	4	---	---	---	100	100	100	100	100	100	98	3	SP	A-3
FB-38	377395.1190	632347.1250	29-30	20	---	---	---	100	100	100	100	99	98	50	2	SP	A-1-b
FB-39	377525.7510	632288.3580	6.5-7.5	9	---	---	---	100	100	100	100	95	86	50	17	SM	A-1-b
FB-39	377525.7510	632288.3580	14-15	3	---	---	---	100	100	100	100	100	100	95	3	SP	A-3
FB-40	377655.0740	632349.6840	0.5-1.5	3	---	---	---	100	100	100	97	94	87	44	1	SP	A-1-b
FB-40	377655.0740	632349.6840	9-10	3	---	---	---	100	100	100	100	100	100	96	2	SP	A-3
FB-40	377655.0740	632349.6840	29-30	25	---	---	---	100	100	100	100	97	96	38	2	SP	A-1-b
FB-41	377785.7290	632290.9910	2.5-3.5	3	---	---	---	100	100	100	91	91	89	59	3	SP	A-3
FB-41	377785.7290	632290.9910	14-15	4	---	---	---	100	100	91	83	80	79	59	4	SP	A-3
FB-41	377785.7290	632290.9910	24-25	20	---	---	---	100	100	100	100	100	99	85	3	SP	A-3
FB-42	377915.1440	632352.2840	2.5-3.5	4	---	---	---	100	100	100	96	93	86	37	1	SP	A-1-b
FB-42	377915.1440	632352.2840	9-10	3	---	---	---	100	100	100	100	100	100	93	4	SP	A-3
FB-42	377915.1440	632352.2840	29-30	23	---	---	---	100	100	100	100	100	99	41	2	SP	A-1-b
FB-43	378045.6570	632293.5010	2.5-3.5	22	---Non Plastic---			---	---	---	---	---	---	---	---	SM	A-3
FB-43	378045.6570	632293.5010	6.5-7.5	2	---	---	---	100	100	100	100	100	---	---	1	SP	A-3
FB-43	378045.6570	632293.5010	29-30	---	---	---	---	100	100	100	100	99	93	58	3	SP	A-3
FB-45	378305.6100	632296.2360	0.5-1.5	6	---	---	---	100	100	100	100	100	100	95	11	SM-SP	A-3
FB-45	378305.6100	632296.2360	6.5-7.5	10	---	---	---	100	100	100	100	100	100	100	33	SM	A-3
FB-45	378305.6100	632296.2360	24-25	---	---	---	---	100	100	100	100	97	92	47	2	SP	A-1-b
FB-46	378433.9560	632360.4450	2.5-3.5	8	---	---	---	100	100	100	100	100	100	100	47	SM	A-4
FB-46	378433.9560	632360.4450	24-25	---	---	---	---	100	100	100	98	97	96	60	4	SP	A-3
FB-48	378694.9820	632362.9970	0.5-1.5	22	---	---	---	100	100	100	100	100	---	---	84	ML	A-4

SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE AT THE LOCATION OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMITS SHOWN. THESE DATA ARE SHOWN FOR INFORMATION ONLY. THE STATE WILL NOT BE RESPONSIBLE FOR VARIATIONS IN THE SOIL CHARACTERISTICS AND/OR EXTENT OF SAME DIFFERING FROM THE ABOVE TABULATIONS.

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SOIL LOG

SUMMARY of CLASSIFICATION TEST RESULTS

PROJECT: 040901 Hwy. 22 - Gun Club Rd.
LOCATION: Crawford & Sebastian Counties, Arkansas

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	122	809
		SOIL LOG				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21612
MICHAEL JORDAN LEE DESTIGTER

BORING No.	NORTHING	EASTING	SAMPLE DEPTH (ft)	WATER CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	SIEVE ANALYSIS PERCENT PASSING 2 in.	1 in.	3/4 in.	3/8 in.	#4	#10	#40	#200	USCS CLASS.	AASHTO CLASS.
FB-50	378954.7940	632365.8270	0.5-1.5	30		---Non Plastic---		---	---	---	---	---	---	---	---	ML	A-4
FB-50	378954.7940	632365.8270	29-30		---	---	---	---	---	---	---	88	---	---	3	SW	A-1-a
FB-53	379345.3030	632303.3450	4.5-5.5	2	---	---	---	---	---	---	---	---	---	---	3	SP	A-3
FB-53	379345.3030	632303.3450	24-25	2	---	---	---	---	---	---	---	---	---	---	3	SP	A-3
FB-57	379865.3370	632308.6870	0.5-1.5	17	---	---	---	100	100	100	100	100	---	---	67	ML	A-4
FB-57	379865.3370	632308.6870	6.5-7.5	5	---	---	---	100	100	100	100	100	---	---	39	SM	A-3
FB-60	380255.0260	632378.7570	0.5-1.5	14		---Non Plastic---		---	---	---	---	---	---	---	---	ML	A-4
FB-60	380255.0260	632378.7570	14-15	1	---	---	---	100	100	100	100	100	---	---	2	SP	A-3
FB-63	380645.3900	632316.8390	0.5-1.5	13		---Non Plastic---		---	---	---	---	---	---	---	---	ML	A-4
FB-63	380645.3900	632316.8390	9-10	25	---	---	---	100	100	100	100	100	---	---	97	ML	A-4
FB-65	380905.5230	632319.2230	0.5-1.5	25	23	20	3	100	100	100	100	100	---	---	---	ML	A-4
FB-65	380905.5230	632319.2230	4.5-5.5	13	---	---	---	100	100	100	100	100	---	---	39	SM	A-3
FB-65	380905.5230	632319.2230	24-25	---	---	---	---	100	100	100	100	100	---	---	6	SM-SP	A-3
FB-66	381034.8810	632386.4590	0.5-1.5	32	47	19	28	---	---	---	---	---	---	---	---	CL	A-7-6
FB-66	381034.8810	632386.4590	4.5-5	28	47	21	26	100	100	100	100	100	100	100	99	CL	A-7-6
FB-66	381034.8810	632386.4590	6.5-7.5	22	---	---	---	100	100	100	100	100	100	100	64	ML	A-4
FB-66	381034.8810	632386.4590	14-15	23	---	---	---	100	100	100	100	100	100	100	71	ML	A-4
FB-66	381034.8810	632386.4590	29-30	23	---	---	---	100	100	100	93	91	88	31	4	SW	A-1-b
FB-69	381445.9310	632323.6650	6-6.5	17	---	---	---	100	100	100	100	100	100	100	46	SM	A-4
FB-69	381445.9310	632323.6650	6.5-7	17		---Non Plastic---		100	100	100	100	100	---	---	45	SM	A-4
FB-71	381645.5990	632326.3050	2.5-3.5	9	---	---	---	100	100	100	100	100	100	97	21	SM	A-2-4
FB-71	381645.5990	632326.3050	4.5-5.5	24	24	20	4	---	---	---	---	---	---	---	---	CL-ML	A-4
FB-71	381645.5990	632326.3050	6.5-7.5	26		---Non Plastic---		---	---	---	---	---	---	---	---	ML	A-4
FB-71	381645.5990	632326.3050	9-10			---Non Plastic---		---	---	---	---	---	---	---	---	SP	A-3
FB-71	381645.5990	632326.3050	24-25	21	---	---	---	100	100	100	94	94	94	57	4	SP	A-3
FB-72	381744.7990	632400.8520	2-3.5	9	30	22	8	---	---	---	---	---	---	---	---	CL	A-4
FB-72	381744.7990	632400.8520	14-15	36		---Non Plastic---		---	---	---	---	---	---	---	---	ML	A-4
FB-72	381744.7990	632400.8520	24-25	---	---	---	---	100	100	93	83	78	68	23	4	SW	A-1-b
FB-73	381845.5870	632320.8770	2.5-3.5	---	54	22	32	---	---	---	---	---	---	---	---	CH	A-7-6
FB-73	381845.5870	632320.8770	14-15	25		---Non Plastic---		---	---	---	---	---	---	---	---	ML	A-4
FB-73	381845.5870	632320.8770	19-20	33	---	---	---	100	100	100	100	100	100	100	98	ML	A-4
FB-74	381974.7470	632403.1560	2-2.5	32	51	29	22	---	---	---	---	---	---	---	89	MH	A-7-6
FB-74	381974.7470	632403.1560	2.5-3	28	42	27	15	---	---	---	---	---	---	---	90	ML	A-7-6
FB-74	381974.7470	632403.1560	3-3.5	29	40	22	18	---	---	---	---	---	---	---	91	CL	A-7-6
FB-74	381974.7470	632403.1560	6.5-7	---		---Non Plastic---		---	---	---	---	---	---	---	---	ML	A-4
FB-74	381974.7470	632403.1560	29-30	9	---	---	---	100	100	92	72	56	49	29	6	SM-SP	A-3
FB-75	382105.3390	632323.2750	4-4.5	27	44	22	22	---	---	---	---	---	---	---	99	CL	A-7-6
FB-75	382105.3390	632323.2750	9-10		70	26	44	---	---	---	---	---	---	---	---	CH	A-7-6
FB-75	382105.3390	632323.2750	24-25	26	---	---	---	100	100	100	100	100	100	95	6	SM-SP	A-3
FB-75	382105.3390	632323.2750	34-35	18	---	---	---	100	100	100	100	100	100	49	2	SP	A-1-b
FB-77	382365.6190	632326.0130	0.5-1.5	24	26	20	6	---	---	---	---	---	---	---	---	CL	A-7-6
FB-77	382365.6190	632326.0130	5-5.5	23	26	19	7	100	100	100	100	100	---	---	98	CL-ML	A-4
FB-77	382365.6190	632326.0130	24-25	25	---	---	---	100	100	100	100	100	100	98	18	SM	A-3
FB-77	382365.6190	632326.0130	34-35	22	---	---	---	100	100	100	97	92	91	69	7	SM-SP	A-3
FB-78	382464.8090	632407.9820	2.5-3	23	24	19	5	100	100	100	100	100	---	---	94	CL-ML	A-4
FB-78	382464.8090	632407.9820	3-3.5	23	26	20	6	100	100	100	100	100	---	---	94	CL-ML	A-4
FB-78	382464.8090	632407.9820	14-15	10	---	---	---	100	100	100	100	100	100	100	43	SM	A-4
FB-79	382595.6440	632328.3010	0.5-1	18	23	20	3	---	---	---	---	---	---	---	---	ML	A-4
FB-79	382595.6440	632328.3010	4.5-5.5	22	25	18	7	100	100	100	100	100	---	---	90	CL-ML	A-4
FB-79	382595.6440	632328.3010	9-10	20	24	19	5	---	---	---	---	---	---	---	---	CL-ML	A-4
FB-79	382595.6440	632328.3010	13.5-14	24		---Non Plastic---		100	100	100	100	100	---	---	54	ML	A-4
FB-79	382595.6440	632328.3010	19-20	24	---	---	---	100	100	100	100	100	100	100	12	SM	A-2-4
FB-79	382595.6440	632328.3010	24-25	22		---Non Plastic---		---	---	---	---	---	---	---	---	ML	A-4

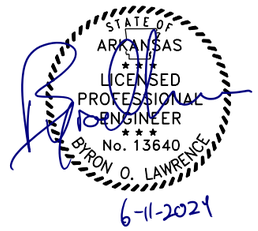
BORING No.	NORTHING	EASTING	SAMPLE DEPTH (ft)	WATER CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	SIEVE ANALYSIS PERCENT PASSING 2 in.	1 in.	3/4 in.	3/8 in.	#4	#10	#40	#200	USCS CLASS.	AASHTO CLASS.
FB-80	382725.5440	632323.5510	0.5-1.5	20		---Non Plastic---		---	---	---	---	---	---	---	---	ML	A-4
FB-80	382725.5440	632323.5510	6-6.5	23	44	20	24	100	100	100	100	100	---	---	97	CL	A-7-6
FB-80	382725.5440	632323.5510	9-10	20	27	17	10	---	---	---	---	---	---	---	---	CL	A-4
FB-80	382725.5440	632323.5510	14-15	11	---	---	---	100	100	100	100	100	---	---	44	SM	A-4
FB-80	382725.5440	632323.5510	29-30	20	---	---	---	100	100	100	100	100	---	---	10	SM-SP	A-3
FB-81	382724.6750	632415.2140	2.5-3	18	41	17	24	---	---	---	---	---	---	---	---	CL	A-7-6
FB-81	382724.6750	632415.2140	4.5-5.5	23	46	20	26	---	---	---	---	---	---	---	---	CL	A-7-6
FB-81	382724.6750	632415.2140	19-20	19	---	---	---	100	100	100	100	100	---	---	7	SM-SP	A-3
FB-81	382724.6750	632415.2140	29-30	24	---	---	---	100	100	100	100	100	---	---	10	SM-SP	A-3
FE-8	371539.9250	632129.0740	2.5-3.5	29	72	23	49	---	---	---	---	---	---	---	---	CH	A-7-6
FE-8	371539.9250	632129.0740	14-15	21	64	23	41	---	---	---	---	---	---	---	---	CH	A-7-6
FE-9	371957.3410	632214.5930	6.5-7.5	22	43	17	26	---	---	---	---	---	---	---	---	CL	A-76
FE-10	383659.5740	632884.5610	2-2.5	23		---Non Plastic---		100	100	100	100	100	---	---	80	ML	A-4
FE-10	383659.5740	632884.5610	2.5-3	21		---Non Plastic---		100	100	100	100	100	---	---	78	ML	A-4
FE-10	383659.5740	632884.5610	3-3.5	19		---Non Plastic---		---	---	---	---	---	---	---	---	ML	A-4
FE-10	383659.5740	632884.5610	4.5-5.5	18	40	20	20	---	---	---	---	---	---	---	---	CL	A-6
FE-10	383659.5740	632884.5610	9-10	22	44	18	26	---	---	---	---	---	---	---	---	CL	A-7-6
FE-10	383659.5740	632884.5610	14-15	8	---	---	---	100	100	100	100	100	100	100	24	SM	A-2-4
FE-11	383901.9010	632000.3640	2.5-3.5	22	30	18	12	---	---	---	---	---	---	---	---	CL	A-6
FE-11	383901.9010	632000.3640	6-6.5	22	33	17	16	100	100	100	100	100	---	---	93	CL	A-6
FE-11	383901.9010	632000.3640	14-15	34	48	19	29	---	---	---	---	---	---	---	---	CL	A-7-6
FE-11	383901.9010	632000.3640	21.5-22	17	43	20	23	100	100	100	100	100	---	---	92	CL	A-7-6
FE-11	383901.9010	632000.3640	34-35	20		---Non Plastic---		---	---	---	---	---	---	---	---	SM	A-3
FE-12	384290.9850	632963.4950	0.5-1	22	30	19	11	100	100	100	100	100	---	---	95	CL	A-6
FE-12	384290.9850	632963.4950	1.5-2	24	36	20	16	---	---	---	---	---	---	---	---	CL	A-6
FE-12	384290.9850	632963.4950	9-10	21	40	18	22	---	---	---	---	---	---	---	---	CL	A-6
FE-13	384375.1580	631998.5000	2-2.5	21		---Non Plastic---		100	100	100	100	100	---	---	75	ML	A-4
FE-13	384375.1580	631998.5000	6.5-7.5	18		---Non Plastic---		---	---	---	---	---	---	---	---	ML	A-4
FE-13	384375.1580	631998.5000	8-8.5	18		---Non Plastic---		100	100	100	100	100	---	---	71	ML	A-4
FE-13	384375.1580	631998.5000	19-20	26	---	---	---	100	100	100	100	100	100	100	16	SM	A-2-4
FE-13	384375.1580	631998.5000	24-25	26	---	---	---	100	100	100	100	100	100	100	5	SM-SP	A-3
FE-14	384917.6050	632733.7010	0.5-1.5	28.1		---Non Plastic---		---	---	---	---	---	---	---	---	ML	A-4
FE-14	384917.6050	632733.7010	4.5-5	21	24	21	3	---	---	---	---	---	---	---	84	ML	A-4
FE-14	384917.6050	632733.7010	10.5-11	28	45	20	25	---	---	---	---	---	---	---	98	CL	A-7-6
FE-14	384917.6050	632733.7010	14-15	32	61	25	36	---	---	---	---	---	---	---	---	CH	A-7-6
FE-14	384917.6050	632733.7010	24-25	25	---	---	---	100	100	100	100	100	100	99	57	ML	A-4
FE-14	384917.6050	632733.7010	34-35	16	---	---	---	100	100	94	93	93	89	58	6	SM-SP	A-3
FE-14	384917.6050	632733.7010	39-40	16	---	---	---	100	100	100	98	94	80	22	7	SM-SW	A-1-b
FP-14	383026.8360	633239.8430	2-2.5	23	30	19	11	---	---	---	---	---	---	---	84	CL	A-6
FP-14	383026.8360	633239.8430	3.5-4	25	46	19	27	---	---	---	---	---	---	---	97	CL	A-7-6
FP-14	383026.8360	633239.8430	4.5-5	22	40	20	20	---	---	---	---	---	---	---	---	CL	A-6
FP-15	383374.5560	631638.3090	2.5-3.5	22	37	21	16	---	---	---	---	---	---	---	---	CL	A-6
FP-15	383374.5560	631638.3090	4.5-5.5	17	37	19	18	---	---	---	---	---	---	---	---	CL	A-6

SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE AT THE LOCATION OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMITS SHOWN. THESE DATA ARE SHOWN FOR INFORMATION ONLY. THE STATE WILL NOT BE RESPONSIBLE FOR VARIATIONS IN THE SOIL CHARACTERISTICS AND/OR EXTENT OF SAME DIFFERING FROM THE ABOVE TABULATIONS.

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SOIL LOG

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024		6	ARK.	040901	123	809
		QUANTITY SHEETS				



ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	STAGE 3	TOTAL END OF JOB*	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TOTAL SIGNS LEFT IN PLACE*		TRAFFIC DRUMS	BARRICADES (TYPE III)		BARRICADES LEFT IN PLACE*		FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONC. BARRIER	FURNISHING & INSTALLING AND LEAVING IN PLACE PRECAST CONC. BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMP. IMPACT ATTEN.BARR. (REPAIR)	CONSTRUCTION PROJECT INFORMATION SIGN UPDATE
													RIGHT	LEFT	RIGHT	LEFT					
			LIN. FT. - EACH					NO.	SQ. FT.	NO.	SQ. FT.	EACH					LIN. FT.			EACH	
W20-1	ROAD WORK 500 FT.	48"x48"	2	2			2	2	32.0												
W20-0	ROAD WORK 1000 FT.	48"x48"	2	2			2	2	32.0												
W20-1	ROAD WORK 1500 FT.	48"x48"	1	2			2	2	32.0												
W20-1	ROAD WORK 1/2 MILE	48"x48"	1	2			2	2	32.0												
W20-1	ROAD WORK 1 MILE	48"x48"	1	2			2	2	32.0												
W20-1	ROAD WORK AHEAD	48"x48"	2				2	2	32.0												
W20-5R	RIGHT LANE CLOSED 1500 FT.	48"x48"	1				1	1	16.0												
W20-5R	RIGHT LANE CLOSED 1/2 MILE	48"x48"	1	2			2	2	32.0												
W20-5R	RIGHT LANE CLOSED 1 MILE	48"x48"	1	2			2	2	32.0												
W20-5R	RIGHT LANE CLOSED AHEAD	48"x48"	2	3			3	3	48.0												
G20-2	END ROAD WORK	48"x24"	2	4			4	4	32.0												
W3-5	REDUCED SPEED LIMIT AHEAD	48"x48"	2				2	2	32.0												
R2-1	SPEED LIMIT	36"x48"	4	2			4	4	48.0												
W13-1	SPEED LIMIT (ADVISORY)	24"x24"	2	2			2	2	8.0												
R11-2	ROAD CLOSED	48"x30"	12	6	7		12	12	120.0												
R11-2	ROAD CLOSED (LEFT IN PLACE)	48"x30"		4	2	6	6			6	60.0										
R11-4	ROAD CLOSED TO THRU TRAFFIC	60"x30"	1				1	1	12.5												
W1-6	LARGE ARROW	48"x24"	3	3			3	3	24.0												
R4-1	DO NOT PASS	36"x48"	1	2			2	2	24.0												
W21-5	SHOULDER WORK	48"x48"	2	1			2	2	32.0												
W4-2R	RIGHT LANE ENDS	48"x48"	3	3			3	3	48.0												
W5-1	ROAD NARROWS	36"x36"	2				2	2	32.0												
OM-3R	OBJECT MARKER	12"x36"	6	3			6	6	96.0												
OM-4R	OBJECT MARKER	18"x18"	8	4			8	8	128.0												
	SPECIAL CONCTRUCTION PROJECT INFORMATION SIGN	48"x96"	1	1	1	1	1	1	32.0												
	TRAFFIC DRUMS		322	327			327					327									
	TYPE III BARRICADE-RT. (8')		7	5	7		7						56								
	TYPE III BARRICADE-RT. (8') - LEFT IN PLACE				2	2	2								16						
	TYPE III BARRICADE-LT. (8')		11	17	7		17							136							
	TYPE III BARRICADE-LT. (8) - LEFT IN PLACE			4	2	6	6									48					
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		433				433										433				
	REMOVE AND RELOCATE PRECAST CONCRETE BARRIER			260			260											260			
	FURNISHING, INSTALLING AND LEAVING IN PLACE CONCRETE BARRIER				1633	1633	1633												1633		
	TEMPORARY IMPACT ATTENUATION BARRIER		4		1		4													4	
	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)		4		1		4														4
	CONSTRUCTION PROJECT INFORMATION SIGN UPDATE						1														1
TOTALS:								988.5		6		327	56	136	16	48	433	260	1633	4	4	1

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

* ITEMS TO BE LEFT IN PLACE AT END OF JOB

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 1	STAGE 2	END OF JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	REMOVAL OF PERMANENT PAVEMENT MARKINGS (WORDS)	REMOVAL OF PERMANENT PAVEMENT MARKINGS (ARROWS)	CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	ENHANCED THERMOPLASTIC PAVEMENT MARKING			THERMOPLASTIC PAVEMENT MARKING		REFLECTORIZED PAINT PAVEMENT MARKING			
									TYPE II	6"		12"	WORDS	ARROWS	6"		12"	YIELD LINE
									(WHITE/RED)	WHITE	YELLOW	WHITE			WHITE	YELLOW	WHITE	WHITE
	LIN. FT. - EACH			LIN. FT.	EACH		LIN. FT.		EACH	LIN. FT.			EACH		LIN. FT.			
REMOVAL OF PERMANENT PAVEMENT MARKINGS			1028	1028														
REMOVAL OF PERMANENT PAVEMENT MARKINGS (WORDS)			1		1													
REMOVAL OF PERMANENT PAVEMENT MARKINGS (ARROWS)			1			1												
CONSTRUCTION PAVEMENT MARKINGS		28613					28613											
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	9332							9332										
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)			882						882									
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")			56154							56154								
ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")			46184								46184							
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12")			2694									2694						
THERMOPLASTIC PAVEMENT MARKING (WORDS)			8										8					
THERMOPLASTIC PAVEMENT MARKING (ARROWS)			23											23				
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (6")			17961												17961			
REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (6")			25351													25351		
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (12")			423														423	
REFLECTORIZED PAINT PAVEMENT MARKING YIELD LINE WHITE			117															117
TOTALS:				**1028**	**1**	**1**	**28613**	**9332**	**882**	**56154**	**46184**	**2694**	**8**	**23**	**17961**	**25351**	**423**	**117**

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

NOTE: THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT.

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-06-2024		6	ARK.	040901	124	809
		QUANTITY SHEETS				

EROSION CONTROL (BOX 1 OF 2)

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL							
			SEEDING	SPECIAL SEEDING	LIME	MULCH COVER	SPECIAL MULCH COVER	WATER	SECOND SEEDING APPLICATION	SPECIAL SECOND SEEDING APPLICATION
			ACRE		TON	ACRE		M.GAL.	ACRE	
ENTIRE	PROJECT	CLEARING AND GRUBBING	185.04	53.57	370.08	185.04	53.57	18874.1	185.04	53.57
ENTIRE	PROJECT	CLEARING AND GRUBBING - TREE CLEARING	67.60							
ENTIRE	PROJECT	STAGE 1	126.80	53.91	253.60	126.80	53.91	12933.6	126.80	53.91
ENTIRE	PROJECT	STAGE 2	181.21	53.91	362.42	181.21	53.91	18483.4	181.21	53.91
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			36.24	10.78	72.48	36.24	10.78	3696.5	36.24	10.78
TOTALS:			**596.89**	**172.17**	**1058.58**	**529.29**	**172.17**	**53987.6**	**529.29**	**172.17**

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION
FILTER SOCKS.....23 LIN. FT./ 4' DIA. INLET
27 LIN. FT. / 5' DIA. INLET
30 LIN. FT. / 6' DIA. INLET

NOTE: THE TEMPORARY EROSION CONTROL DEVICES SHOWN ABOVE AND ON THE PLANS SHALL BE INSTALLED IN SUCH A SEQUENCE AS TO DETER EROSION AND SEDIMENTATION ON U.S. WATERWAYS AS EXPLAINED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT.

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

CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING	CLEARING	GRUBBING
			STATION		ACRE	
100+00	146+00	C.L. I-49		46		
146+00	181+62	C.L. I-49	36	36		
201+10	215+65	C.L. I-49 - TREE CLEARING			67.60	67.60
193+00	271+00	C.L. I-49	78	78		
TOTALS:			**114**	**160**	**67.60**	**67.60**

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
5/17/24

EROSION CONTROL (BOX 2 OF 2)

STATION	STATION	LOCATION	TEMPORARY EROSION CONTROL																	
			TEMPORARY SEEDING	SPECIAL TEMPORARY SEEDING	MULCH COVER	SPECIAL MULCH COVER	WATER	WATTLE (20")	SAND BAG DITCH CHECKS	ROCK DITCH CHECKS	SILT FENCE	DIVERSION DITCH	PIPE FOR SLOPE DRAINS	DUMPED RIPRAP	DROP INLET FILTER SOCK (12")	FILTER SOCK (12")	TRIANGULAR SILT DIKE	SEDIMENT BASIN	OBLITERATION OF SEDIMENT BASIN	*SEDIMENT REMOVAL & DISPOSAL
								(E-1)	(E-5)	(E-6)	(E-11)	(E-8)	SLOPE DRAIN (E-12)		(E-13)	(E-13)		(E-14)		
			ACRE		ACRE		M.GAL.	LIN. FT.	BAG	CU.YD.	LIN. FT.	LIN. FT.	LIN. FT.	CU.YD.	LIN. FT.	LIN. FT.	LIN. FT.	CU.YD.	CU.YD.	CU. YD.
ENTIRE	PROJECT	CLEARING AND GRUBBING	370.08	107.14	370.08	107.14	9735.3	15981	660	90	40456				54					1558
ENTIRE	PROJECT	CLEARING AND GRUBBING - TREE CLEARING	135.20				2758.1	5866												
ENTIRE	PROJECT	STAGE 1	253.60	107.82	253.60	107.82	7373.0	237	1804	210	426	6808	1150	32	405					168
ENTIRE	PROJECT	STAGE 2	362.42	107.82	362.42	107.82	9592.9		704	102	231				27					75
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			72.48	21.56	72.48	21.56	1478.6	500	110	15	900	200	30	5	10	4000	2300	4278	4278	4321
TOTALS:			**1193.78**	**344.34**	**1058.58**	**344.34**	**30937.9**	**22584**	**3278**	**417**	**42013**	**7008**	**1180**	**37**	**496**	**4000**	**2300**	**4278**	**4278**	**6122**

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION
FILTER SOCKS.....23 LIN. FT./ 4' DIA. INLET
27 LIN. FT. / 5' DIA. INLET
30 LIN. FT. / 6' DIA. INLET

NOTE: THE TEMPORARY EROSION CONTROL DEVICES SHOWN ABOVE AND ON THE PLANS SHALL BE INSTALLED IN SUCH A SEQUENCE AS TO DETER EROSION AND SEDIMENTATION ON U.S. WATERWAYS AS EXPLAINED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT.

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

REMOVAL AND DISPOSAL OF ITEMS

STATION	STATION	LOCATION	CONCRETE PAVEMENT	CONCRETE ISLANDS	GUARDRAIL	SIGNS
			SQ. YD.	SQ. YD.	LIN. FT.	EACH
45+51	46+94	C.L. HWY 22	46	957		
58+28	58+78	C.L. HWY 22			50	
40+52	40+52	C.L. HWY 22				3
46+27	46+27	C.L. HWY 22				3
54+27	54+27	C.L. HWY 22				3
58+24	58+24	C.L. HWY 22				3
2178+83	2178+85	C.L. HWY 22 RAMP 1				2
2184+51	2186+64	C.L. HWY 22 RAMP 1	23			
2185+35	2185+56	C.L. HWY 22 RAMP 1				8
TOTALS:			**69**	**957**	**50**	**22**

NOTE: THE QUANTITY SHOWN ABOVE FOR THE REMOVAL AND DISPOSAL OF GUARDRAIL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL GUARDRAIL TERMINALS AND TERMINAL ANCHOR POSTS.

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-06-2024		6	ARK.	040901	125	809
		QUANTITY SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20119
VIVEK SINGH
5/17/2023

CULVERT CLEAN OUT

STATION	LOCATION	EACH
11+61.03	HWY 22 RAMP 2	1
13+86.67	HWY 22 RAMP 3	1
17+79.62	HWY 22 RAMP 3	1
58+28.78	HWY 59	1
TOTAL:		**4**

REMOVAL AND DISPOSAL OF CULVERTS AND DROP INLETS

STATION	DESCRIPTION	PIPE CULVERTS	BOX CULVERTS
		EACH	EACH
32+54.76	C.L. HWY 22 RAMP 3		1
58+29.00	C.L. HWY 59	1	
70+08.00	C.L. HWY 59	1	
75+42.48	C.L. GUN CLUB	1	
76+07.92	C.L. GUN CLUB	1	
TOTALS:		**4**	**1**

NOTE: QUANTITIES SHOWN ABOVE SHALL INCLUDE REMOVAL & DISPOSAL OF ALL HEADWALLS AND FLARED END SECTIONS IF APPLICABLE.

DUMPED RIPRAP AND FILTER BLANKET

STATION	LOCATION	DUMPED RIPRAP	FILTER BLANKET
		CU. YD.	SQ. YD.
106+60	OUTLET OF PIPE CULVERT I-49 LT.	94	188
106+60	OUTLET OF PIPE CULVERT I-49 RT.	107	214
109+50	OUTLET OF PIPE CULVERT I-49 RT.	22	44
116+60	OUTLET OF PIPE CULVERT I-49 LT.	38	75
116+60	OUTLET OF PIPE CULVERT I-49 RT.	38	75
124+00	OUTLET OF PIPE CULVERT I-49 LT.	18	36
129+65	OUTLET OF PIPE CULVERT I-49 LT.	66	132
129+65	OUTLET OF PIPE CULVERT I-49 RT.	66	132
145+98	OUTLET OF PIPE CULVERT I-49 LT.	24	48
145+98	OUTLET OF PIPE CULVERT I-49 RT.	24	48
218+50	OUTLET OF PIPE CULVERT I-49 LT.	18	36
218+50	OUTLET OF PIPE CULVERT I-49 RT.	18	36
221+18	OUTLET OF PIPE CULVERT I-49 LT.	38	75
221+18	OUTLET OF PIPE CULVERT I-49 RT.	38	75
225+00	OUTLET OF PIPE CULVERT I-49 LT.	18	36
225+00	OUTLET OF PIPE CULVERT I-49 RT.	18	36
14+50	OUTLET OF PIPE CULVERT HWY 22 RAMP 2 LT.	48	95
14+50	OUTLET OF PIPE CULVERT HWY 22 RAMP 2 RT.	97	193
32+60	OUTLET OF PIPE CULVERT HWY 22 RAMP 3 LT.	38	75
32+60	OUTLET OF PIPE CULVERT HWY 22 RAMP 3 RT.	38	75
24+87	OUTLET OF PIPE CULVERT GC RAMP 1 RT.	23	45
12+58	OUTLET OF PIPE CULVERT GC RAMP 2 LT.	23	45
12+58	OUTLET OF PIPE CULVERT GC RAMP 2 RT.	23	45
20+00	OUTLET OF PIPE CULVERT GC RAMP 4 LT.	23	45
20+00	OUTLET OF PIPE CULVERT GC RAMP 4 RT.	23	45
31+36	OUTLET OF PIPE CULVERT GC RAMP 4 LT.	41	82
31+36	OUTLET OF PIPE CULVERT GC RAMP 4 RT.	42	84
11+00	OUTLET OF PIPE CULVERT GUN CLUB LT.	43	86
11+00	OUTLET OF PIPE CULVERT GUN CLUB RT.	43	86
20+00	OUTLET OF PIPE CULVERT NW SERVICE RD LT.	38	75
20+00	OUTLET OF PIPE CULVERT NW SERVICE RD RT.	38	75
14+60	OUTLET OF PIPE CULVERT SE SERVICE RD LT.	18	36
14+60	OUTLET OF PIPE CULVERT SE SERVICE RD RT.	18	36
73+60	OUTLET OF PIPE CULVERT GUN CLUB LT.	54	108
73+60	OUTLET OF PIPE CULVERT GUN CLUB RT.	59	118
TOTALS:		**1375**	**2735**

NOTE: FILTER BLANKET SHALL BE GEOTEXTILE FABRIC (TYPE 5).

4" PIPE UNDERDRAIN

	STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS	UNDERDRAIN OUTLET PROTECTORS
				LIN. FT.	EACH
*	100+00	163+37	C.L. I-49	12674	54
*	216+39	240+37	C.L. I-49	4796	22
*	259+29	269+00	C.L. I-49	1942	10
*	10+30	33+29	C.L. HWY 22 RAMP 2	2299	11
*	10+33	38+45	C.L. HWY 22 RAMP 3	2812	13
*	14+16	27+98	C.L. GC RAMP 1	1382	7
*	10+12	17+70	C.L. GC RAMP 2	1516	10
*	17+70	20+00	C.L. GC RAMP 2	230	2
*	20+00	24+00	C.L. GC RAMP 3	400	3
*	13+98	28+86	C.L. GC RAMP 4	1488	7
*	28+86	38+74	C.L. GC RAMP 4	1976	10
	TOTALS:			**31515**	**149**

* NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

UNDERDRAINS SHALL BE STUBBED INTO THE PROPOSED DROP INLET IF AND WHERE DIRECTED BY THE ENGINEER, PAYMENT FOR THIS TO BE INCLUDED IN THE UNIT PRICE BID FOR 4" PIPE UNDERDRAIN.

SELECTED PIPE BEDDING

	LOCATION	SELECTED PIPE BEDDING
		CU.YD.
*	STA. 145+98 C.L. I-49 ML	620
*	STA. 218+50 C.L. I-49 ML	130
*	STA. 221+18 C.L. I-49 ML	700
*	STA. 225+00 C.L. I-49 ML	100
		5
	ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	270
	TOTAL:	**1825**

* NOTE: UNDERCUT OF THE PIPE FROM BELOW THE STRUCTURAL BEDDING BOTTOM OF EXCAVATION LEVEL TO A DEPTH OF 4 FEET AND REPLACE WITH SELECTED PIPE BEDDING

DRAINAGE STRUCTURES

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE (CLASS III) 18"	24"	30"	36"	SIDE DRAIN 18"	FLARED END SECTIONS FOR R.C. PIPE CULVERTS 18"	24"	30"	36"	TEMPORARY CULVERTS 24"	DROP INLETS TYPE N-3	RM	JUNCT. BOXES (TYPE E)	(TYPE ST)	SPAN	HEIGHT	LENGTH	CLASS S CONCRETE - ROADWAY	REINF. STEEL - ROADWAY (GRADE 60)	UNCL.EXC. FOR STR. - ROADWAY	SOLID SODDING	WATER	STD. DWG. NOS.
		LIN. FT.				EACH					LIN. FT.	EACH				LIN. FT.			CU.YD.	POUND	CU.YD.	SQ.YD.	M.GAL.	
106+60	C.L. I-49 MAINLANES - DOUBLE 8'x4' R.C. BOX CULVERT															8	4	234	298.56	45338	148	37	0.47	RCB-1, RCB-2, PBC-1, SPECIAL DETAILS
109+50	C.L. I-49 MAINLANES INLET IN MEDIAN		108					1					1	1								8	0.10	FES-1,FES-2,FPC-9D,FPC9N, PCC-1
116+60	C.L. I-49 MAINLANES				266					2												34	0.43	FES-1,FES-2, PCC-1
124+00	C.L. I-49 MAINLANES INLET IN MEDIAN		118					1					1	1								8	0.10	FES-1,FES-2,FPC-9D,FPC9N, PCC-1
129+65	C.L. I-49 MAINLANES - SINGLE 4'x4' R.C. BOX CULVERT															4	4	196	80.48	6934	45	26	0.33	RCB-1, RCB-2, PBC-1, SPECIAL DETAILS
145+98	C.L. I-49 MAINLANES		368					4														36	0.45	FES-1,FES-2, PCC-1
153+00	C.L. I-49 MAINLANES INLET IN MEDIAN		96										1	1										FES-1,FES-2,FPC-9D,FPC9N, PCC-1
154+00	C.L. I-49 MAINLANES INLET IN MEDIAN		96										1	1										FES-1,FES-2,FPC-9D,FPC9N, PCC-1
155+00	C.L. I-49 MAINLANES INLET IN MEDIAN		88					1					1	1								8	0.10	FES-1,FES-2,FPC-9D,FPC9N, PCC-1
163+33	C.L. I-49 MAINLANES LT. & RT.	130					2					2		2								10	0.13	FES-1,FES-2,FPC-9D,FPC9N, PCC-1
172+83	C.L. I-49 MAINLANES RT.		190					1							1							8	0.10	FES-1, FES-2, FPC-9S, PCC-1
174+13	C.L. I-49 MAINLANES RT.		128												1									FES-1, FES-2, FPC-9S, PCC-1
176+73	C.L. I-49 MAINLANES RT.		258												1									FES-1, FES-2, FPC-9S, PCC-1
216+43	C.L. I-49 MAINLANES LT. & RT.	120					2					2		2								10	0.13	FES-1,FES-2,FPC-9D,FPC9N, PCC-1
218+50	C.L. I-49 MAINLANES		218					2														16	0.20	FES-1,FES-2, PCC-1
221+18	C.L. I-49 MAINLANES		416					4														36	0.45	FES-1,FES-2, PCC-1
225+00	C.L. I-49 MAINLANES		166					2						2								16	0.20	FES-1,FES-2,FPC-9D,FPC9N, PCC-1
240+33	C.L. I-49 MAINLANES LT. & RT.	132					2					2		2								10	0.13	FES-1,FES-2,FPC-9D,FPC9N, PCC-1
259+33	C.L. I-49 MAINLANES LT. & RT.	168					2					2										10	0.13	FES-1,FES-2, PCC-1
14+50	C.L. HWY 22 RAMP 2 - DOUBLE 6'x4' R.C. BOX CULVERT															6	4	58	65.44	8379	39	34	0.43	RCB-1, RCB-2, PBC-1, SPECIAL DETAILS
32+60	C.L. HWY 22 RAMP 3 - SINGLE 8'x4' R.C. BOX CULVERT															8	4	79	52.43	6265	35	13	0.16	RCB-1, RCB-2, PBC-1, SPECIAL DETAILS
20+00	C.L. NW SERVICE ROAD			64					4													56	0.71	FES-1,FES-2, PCC-1
14+60	C.L. SE SERVICE ROAD		28					2														16	0.20	FES-1,FES-2, PCC-1
24+87	C.L. GUN CLUB RAMP 1		58					2														16	0.20	FES-1,FES-2, PCC-1
12+58	C.L. GUN CLUB RAMP 2		94					2														16	0.20	FES-1,FES-2, PCC-1
20+20	C.L. GUN CLUB RAMP 4		90					2														16	0.20	FES-1,FES-2, PCC-1
31+36	C.L. GUN CLUB RAMP 4 - SINGLE 4'x3' R.C. BOX CULVERT															4	3	124	47.16	4054	31	22	0.28	RCB-1, RCB-2, PBC-1, SPECIAL DETAILS
11+00	C.L. GUN CLUB ROAD - DOUBLE 6'x3' R.C. BOX CULVERT															6	3	72	72.93	9592	41	30	0.38	RCB-1, RCB-2, PBC-1, SPECIAL DETAILS
73+10	C.L. GUN CLUB ROAD										196													
73+60	C.L. GUN CLUB ROAD - TRIPLE 4'x3' R.C. BOX CULVERT															4	3	60	70.95	6976	47	36	0.45	RCB-1, RCB-2, PBC-1, SPECIAL DETAILS
9+25	C.L. DRIVEWAY					30																		PCC-1
13+85	C.L. DRIVEWAY					30																		PCC-1
SUBTOTALS:		**550**	**2520**	**64**	**266**	**60**	**8**	**24**	**4**	**2**	**196**	**8**	**5**	**13**	**3**				**687.95**	**87538**	**386**	**528**	**6.66**	
	STRUCTURES OVER 20' - 0" SPAN																							
20+65.46	C.L. GUN CLUB ROAD - TRIPLE 8'x10' R.C. BOX CULVERT															8	10	43	141.14	17962	62	36	0.45	W-X003-2, R-300X-X2, SPECIAL DETAILS
SUBTOTALS:																			**141.14**	**17962**	**62**	**36**	**0.45**	
TOTALS:		**550**	**2520**	**64**	**266**	**60**	**8**	**24**	**4**	**2**	**196**	**8**	**5**	**13**	**3**				**829.09**	**105500**	**448**	**564**	**7.11**	

BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.

NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-6-2024		6	ARK.	040901	126	809
9-16-2024		QUANTITY SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
9/20/2024

REMOVAL AND DISPOSAL OF FENCE

STATION	STATION	LOCATION	FENCE
			LIN. FT.
42+76	44+00	C.L. GUN CLUB RT.	124
44+00	56+00	C.L. GUN CLUB RT.	1200
56+00	62+73	C.L. GUN CLUB RT.	673
62+75	62+85	C.L. GUN CLUB RT.	10
62+76	62+86	C.L. GUN CLUB RT.	10
63+02	63+07	C.L. GUN CLUB RT.	5
63+03	68+00	C.L. GUN CLUB RT.	497
68+00	71+37	C.L. GUN CLUB RT.	337
TOTAL:			**2856**

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH	"W"	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
			LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
96+35.81	150+84.38	C.L. I-49 LT.	5448.57	6.00	3632.38	2421.59	30.51
100+00.00	101+00.00	C.L. I-49 LT.	100.00	6.00	66.67	44.44	0.56
100+00.00	100+70.00	C.L. I-49 RT.	70.00	6.00	46.67	31.11	0.39
149+00.00	151+00.00	C.L. I-49 LT.	200.00	6.00	133.33	88.89	1.12
150+84.38	159+08.29	C.L. I-49 MEDIAN	823.91	15.05	1377.76	366.18	4.61
260+00.93	269+00.00	C.L. I-49 MEDIAN	899.07	17.41	1739.20	399.59	5.03
11+00.00	12+50.00	C.L. NW SERVICE RD LT.	150.00	6.00	100.00	66.67	0.84
11+00.00	12+50.00	C.L. NW SERVICE RD RT.	150.00	6.00	100.00	66.67	0.84
10+74.23	10+81.40	C.L. GUN CLUB RT.	7.17	6.00	4.78	3.19	0.04
18+00.00	20+40.00	C.L. GUN CLUB LT.	240.00	6.00	160.00	106.67	1.34
18+00.00	20+40.00	C.L. GUN CLUB RT.	240.00	6.00	160.00	106.67	1.34
20+95.00	22+50.00	C.L. GUN CLUB LT.	155.00	6.00	103.33	68.89	0.87
20+95.00	24+00.00	C.L. GUN CLUB RT.	305.00	6.00	203.33	135.56	1.71
TOTALS:					**7827.45**	**3906.12**	**49.20**

BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING.

SOIL STABILIZATION

STATION	STATION	LOCATION / DESCRIPTION	SOIL STABILIZATION
			TON
* ENTIRE	PROJECT	TO BE USED IF AND WHERE	500
		DIRECTED BY THE ENGINEER	
TOTAL:			**500**

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

FENCING

STATION	STATION	LOCATION	WIRE FENCE (TYPE A)	*6' CHAIN LINK	*8'-0" GATES	* 16'-0" GATES
			LIN. FT.	LIN. FT.	EACH	
103+94	111+00	C.L. I-49 LT.	791			
105+90	111+00	C.L. I-49 RT.	548			
111+00	135+00	C.L. I-49 LT.	2221			
111+00	135+00	C.L. I-49 RT.	2418			
135+00	159+00	C.L. I-49 LT.	2278			
135+00	159+00	C.L. I-49 RT.	2443			
159+00	163+72	C.L. I-49 LT.	953			
159+00	163+72	C.L. I-49 RT.	954			
216+03	231+00	C.L. I-49 LT.	1454			
216+03	231+00	C.L. I-49 RT.	1455			
231+00	240+72	C.L. I-49 LT.	1454			
231+00	240+72	C.L. I-49 RT.	1455			
10+84	22+00	C.L. GC RAMP 2	1266			
21+12	32+00	C.L. GC RAMP 3	1151			
28+00	37+84	C.L. GC RAMP 4	1044			
50+03	56+00	C.L. GUN CLUB LT.	597			
50+03	56+00	C.L. GUN CLUB RT.	597			
56+00	58+16	C.L. GUN CLUB LT.	216			
56+00	67+00	C.L. GUN CLUB RT.	1100			
77+70	78+00	C.L. GUN CLUB LT.	30			
67+00	73+50	C.L. GUN CLUB RT.	650			
73+73	78+00	C.L. GUN CLUB RT.	458			
78+00	89+00	C.L. GUN CLUB LT.	1100			
78+00	89+00	C.L. GUN CLUB RT.	1100			
171+31	181+95	SPRINGHILL PARK TEMP. FENCE		2406	2	1
TOTALS:			**27733**	**2406**	**2**	**1**

* DENOTES ALTERNATE BID ITEM.

ROCK FILL

STATION	STATION	LOCATION / DESCRIPTION	ROCK FILL	GEOTEXTILE FABRIC (TYPE 8)	GEOTEXTILE FABRIC (TYPE 10)
			CU. YD.	SQ. YD.	SQ. YD.
150+09.23	263+00.00	C.L. I-49	198833	70451	91806
TOTAL:			**198833**	**70451**	**91806**

EARTHWORK

	STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT	COMPACTED EMBANKMENT (WEDGE)	STONE BACKFILL
				CU. YD.			TON
*	100+00.00	270+55.44	I-49	31955	372928	1148	2275
	166+23.44	170+86.80	I-49 SPRINGHILL SPDT	321			
	10+29.60	33+29.15	HWY 22 RAMP 2	3182	35587	268	
	10+32.03	38+44.85	HWY 22 RAMP 3	16460	3492	187	
	14+16.07	27+97.58	GC RAMP 1	1848	16185		
	10+12.00	21+80.04	GC RAMP 2	3712	19717	425	
	20+00.00	25+47.42	GC RAMP 3	532	4263		
	13+98.24	38+73.80	GC RAMP 4	12232	25042	388	
	11+00.00	24+05.00	NW SERVICE RD.	4705	1356		
	11+00.00	26+10.00	SE SERVICE RD.	903	1815		
	50+00.00	70+60.15	HWY. 59	857	4629		
	10+24.43	82+06.00	STAGE 1 GUN CLUB	35536	6971		
	10+24.43	82+06.00	STAGE 2 GUN CLUB	15508	4429		
			OBLITERATION EXISTING PARK RD.	124			
			OBLITERATION EXISTING PARK RD.	109			
			OBLITERATION EXISTING E CHURCH ST.	103			
			OBLITERATION EXISTING E CHURCH ST.	176			
			OBLITERATION EXISTING GUN CLUB RD.	1230			
			OBLITERATION EXISTING HWY 22 RAMP 1 ISLAND	375			
			OBLITERATION EXISTING HWY 22 RAMP 4 ISLAND	14			
	ENTIRE	PROJECT	APPROACHES	40	235		
	TOTALS:			**129922**	**496649**	**2416**	**2275**

* NOTE: STONE BACKFILL NEEDED FOR BOX CULVERTS AT C.L. I-49 STA. 106+60 AND 129+65. UNDERCUT FULL WIDTH AND LENGTH OF BOX CULVERT FROM BELOW THE BOTTOM SLAB STRUCTURAL EXCAVATION LEVEL TO A DEPTH OF 4 FEET AND BACKFILL WITH STONE BACKFILL.

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	GUARDRAIL (TYPE C)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
			LIN. FT.		EACH		
161+30.69	163+49.52	RT. SIDE OF MAIN LANES	150		1	1	
162+05.69	163+49.52	LT. SIDE OF MAIN LANES	75		1	1	
216+18.48	231+00.00	RT. SIDE OF MAIN LANES	1475		1		
216+18.48	220+00.00	LT. SIDE OF MAIN LANES	375		1		1
217+50.00	231+00.00	RT. SIDE OF MAIN LANES	1350				1
231+00.00	240+50.52	RT. SIDE OF MAIN LANES	925		1		
231+00.00	240+50.52	LT. SIDE OF MAIN LANES	925		1		
259+14.48	260+58.93	RT. SIDE OF MAIN LANES	75		1	1	
259+14.48	260+47.01	LT. SIDE OF MAIN LANES	75		1	1	
56+77.76	58+77.76	RT. SIDE OF HWY 22	150			1	
60+46.36	60+96.36	LT. SIDE OF HWY 22				1	
145+59.28	145+79.65	LT. SIDE OF I-49		25			
TOTALS:			**5575**	**25**	**8**	**6**	**2**

WIRE ROPE SAFETY FENCE

STATION	STATION	LOCATION	WIRE ROPE SAFETY FENCE	WIRE ROPE SAFETY FENCE ANCHORS*	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS
			LIN. FT.	EACH	LUMP SUM
96+36	151+70	I-49 LT.	5534	2	
ENTIRE	PROJECT				1.00
TOTALS:			**5534**	**2**	**1.00**

* DENOTES FOR INFORMATION ONLY

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	127	809
		QUANTITY SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

DRIVEWAYS & TURNOUTS

STATION	SIDE	LOCATION	WIDTH	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)		AGGREGATE BASE COURSE (CLASS 7)	SIDE DRAINS 18"	STANDARD DRAWINGS
			FEET	SQ. YD.	TON	TON	LIN. FT.	
13+75	LT.	C.L. GUN CLUB	20	121.12	13.32	49.46	40	DR-1,DR-2,PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
17+25	RT.	C.L. GUN CLUB	20	97.72	10.75	39.90	32	DR-1,DR-2,PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
36+28	RT.	C.L. GUN CLUB	16	122.43	13.47	49.99	30	DR-1,DR-2,PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
42+61	RT.	C.L. GUN CLUB	16	101.15	11.13	41.30	46	DR-1,DR-2,PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
49+74	LT.	C.L. GUN CLUB	18	112.56	12.38	45.96	38	DR-1,DR-2,PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
49+74	RT.	C.L. GUN CLUB	16	63.68	7.00	26.00	30	DR-1,DR-2,PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
TOTALS:				**618.66**	**68.05**	**252.61**	**216**	

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.7% MIN. AGGR.....5.3% ASPHALT BINDER

RUMBLE STRIPS IN ASPHALT SHOULDERS

STATION	STATION	LOCATION	* RUMBLE STRIPS IN ASPHALT SHOULDERS
			LIN.FT.
100+00	163+37	C.L. I-49	25348
216+39	240+37	C.L. I-49	9592
259+29	269+00	C.L. I-49	3884
TOTAL:			**38824**

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

PORTLAND CEMENT CONCRETE CORRUGATIONS (CONCRETE ALTERNATE)

STATION	STATION	LOCATION	PORTLAND CEMENT CONCRETE CORRUGATIONS
			SQ. YDS.
38+02.40	38+45.56	HWY 22 RAMP 3 EXIT	54
14+15.83	14+96.59	GC RAMP 1EXIT	109
TOTAL:			**163**

CONCRETE BARRIER WALL

STATION	STATION	LOCATION	MEDIAN TYPE A	MEDIAN TYPE B
			LIN. FT.	LIN. FT.
150+84	156+00	I-49 LT.	516	
156+00	159+00	I-49 LT.		300
159+00	160+52	I-49 MEDIAN		152
160+52	163+37	I-49 MEDIAN	285	
216+39	231+00	I-49 MEDIAN	1461	
231+00	240+37	I-49 MEDIAN	937	
259+29	262+00	I-49 MEDIAN		271
262+00	268+67	I-49 MEDIAN	667	
10+94	19+51	GC RAMP 2 LT.	857	
27+47	28+00	GC RAMP 4 RT.	53	
28+00	37+96	GC RAMP 4 RT.	996	
TOTALS:			**5772**	**723**

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
50+20.00	51+20.00	C.L. HWY. 59	24.00	266.67
69+80.00	70+80.00	C.L. HWY. 59	24.00	266.67
TOTAL:				**533.34**

NOTE: AVERAGE MILLING DEPTH 1".

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-6-2024		6	ARK.	040901	128	809
10-03-2024		QUANTITY SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
10-3-2024

CONCRETE ISLAND

STATION	LOCATION	CURB FACE TYPE	CONCRETE ISLAND SQ.YD.
2185+58	C.L. HWY 22 RAMP 1	A	1098
10+68	C.L. HWY 22 RAMP 2	A	192
10+60	C.L. HWY 22 RAMP 3	A	151
2157+48	C.L. HWY 22 RAMP 4	A	1062
35+30	C.L. GUN CLUB RAMP 1	A	306
10+35	C.L. GUN CLUB RAMP 2	A	101
10+35	C.L. GUN CLUB RAMP 3	A	101
38+44	C.L. GUN CLUB RAMP 4	A	190
TOTAL:			3201

JOINT SUPPORT

STATION	LOCATION	AVG. WIDTH	CLASS S CONCRETE-ROADWAY
		FEET	CU.YD.
163+06.92	C.L. I-49 LT. & RT. SIDE (APPROACH SLABS)	82.00	9.11
163+21.92	C.L. I-49 LT. & RT. SIDE (APPROACH SLABS)	82.00	9.11
216+54.08	C.L. I-49 LT. & RT. SIDE (APPROACH SLABS)	82.00	9.11
216+69.08	C.L. I-49 LT. & RT. SIDE (APPROACH SLABS)	82.00	9.11
240+06.92	C.L. I-49 LT. & RT. SIDE (APPROACH SLABS)	82.00	9.11
240+21.92	C.L. I-49 LT. & RT. SIDE (APPROACH SLABS)	82.00	9.11
259+44.17	C.L. I-49 LT. & RT. SIDE (APPROACH SLABS)	82.00	9.11
259+59.17	C.L. I-49 LT. & RT. SIDE (APPROACH SLABS)	82.00	9.11
269+00.00	C.L. I-49 LT. & RT. SIDE	80.00	8.89
20+00.00	GC RAMP 2	19.00	2.11
24+00.00	GC RAMP 3	19.00	2.11
TOTAL:			85.99

NOTE: REFER TO STANDARD DRAWING CPTJ-6A FOR JOINT SPACING FROM APPROACH SLABS

APPROACH GUTTERS AND SLABS

STATION	STATION	LOCATION	APPROACH GUTTER (TYPE F)	APPROACH SLAB (TYPE F)	APPROACH SLAB (TYPE 1)	REINFORCING STEEL-RDWY. (GR. 60)	AGGREGATE BASE CRS. (CLASS 7) [APPROACH GUTTER]	AGGREGATE BASE CRS. (CLASS 7) [APPROACH SLAB]	AGGREGATE BASE CRS. (CLASS 7) [MEDIAN SLAB]
			CU.YD.	CU.YD.	CU.YD.	POUND	TON	TON	TON
163+36.92	163+71.92	LT. SIDE	3.80	71.10	18.10	8757	2.25	42.59	6.76
163+36.92	163+71.92	RT. SIDE	3.80	71.10		8757	2.25	42.59	6.76
216+04.08	216+39.08	LT. SIDE	4.10	71.10	18.10	8769	2.25	42.59	6.76
216+04.08	216+39.08	RT. SIDE	4.10	71.10		8769	2.25	42.59	6.76
240+36.92	240+71.92	LT. SIDE	3.80	71.10	18.10	8759	2.25	42.59	6.76
240+36.92	240+71.92	RT. SIDE	3.80	71.10		8759	2.25	42.59	6.76
258+94.17	259+29.17	LT. SIDE	3.90	83.60	18.10	10631	2.25	49.62	6.76
258+94.17	259+29.17	RT. SIDE	3.90	83.60		10631	2.25	49.62	6.76
TOTALS:			31.20	666.20		73832	426.86		

NOTE: USE T =18.5" FOR 6' INSIDE AND 10' OUTSIDE SHOULDER.

BASE AND SURFACING (BASE QUANTITY)

STATION	STATION	LOCATION	LENGTH	TRENCHING AND SHOULDER PREPARATION	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")							
							(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)															
					TON / STATION	TON	TOTAL WID	SQ.YD.	GALLON	TOTAL WID.	SQ.YD.	GALLON	TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	PG 70-22	TOTAL PG 64-22	TOTAL PG 70-22
			FEET	STATION			FEET			FEET				FEET			TON	FEET			TON	TON	TON	TON
GUN CLUB																									
10+24.43	82+05.51	C.L. GUN CLUB	7181.08		93.25	6696.36	48.75	38897.52	1944.88				1944.88	24.50	19548.50	330.00	3225.50	24.25	19349.02	220.00	2128.39	40.00	31915.91	220.00		3510.75		5639.14
10+24.43	82+05.51	GUN CLUB LT. & RT. SHOULDER AGGR.	7181.08		132.50	9514.93																			
HWY. 59																									
50+20.00	51+20.00	C.L. HWY. 59 - TRANSITION	100.00							30.00	333.33	56.67	56.67									30.00	333.33	220.00		36.67		36.67
51+20.00	56+80.00	C.L. HWY. 59 - TAPER	560.00		23.38		13.00	808.89	40.44				40.44	6.25	388.89	330.00	64.17	6.13	381.42	220.00	41.96	43.00	2675.56	220.00		294.31		336.27
56+80.00	64+20.00	C.L. HWY. 59	740.00		46.75	345.95	19.00	1562.22	78.11				78.11	12.25	1007.22	330.00	166.19	12.13	997.36	220.00	109.71	49.00	4028.89	220.00		443.18		552.89
64+20.00	69+80.00	C.L. HWY. 59 - TAPER	560.00		23.38		13.00	808.89	40.44				40.44	6.25	388.89	330.00	64.17	6.13	381.42	220.00	41.96	43.00	2675.56	220.00		294.31		336.27
69+80.00	70+60.00	C.L. HWY. 59 - TRANSITION	80.00							30.00	266.67	45.33	45.33									30.00	266.67	220.00		29.33		29.33
50+20.00	70+60.00	HWY. 59 RT. SHOULDER AGGR	2040.00		69.75	1422.90																			
CROSS STREETS																									
11+00.00	26+10.00	SE SERVICE RD	1510.00		90.75	1370.33																20.00	3355.56	220.00	369.11		369.11	
11+00.00	26+10.00	SE SERVICE RD LT. & RT. AGGR	1510.00		38.00	573.80																			
11+00.00	24+05.00	NW SERVICE RD	1305.00		90.75	1184.29																20.00	2900.00	220.00	319.00		319.00	
11+00.00	24+05.00	NW SERVICE RD LT. & RT. AGGR	1305.00		38.00	495.90																			
10+12.00	14+58.37	DRIVEWAY	446.37		72.50	323.62																16.00	793.55	220.00	87.29		87.29	
ADDITIONAL FOR SUPERELEVATION																									
10+55.00	18+92.00	C.L. GUN CLUB	837.00																						
ADDITIONAL FOR MOT																									
49+09.86	72+32.62	HWY 59 LT. SHOULDER	2322.76	23.23	5.29	122.87	6.00	1548.51	77.43				77.43	6.00	1548.51	330.00	255.50					6.00	1548.51	220.00		170.34		170.34
14+90.00	17+30.00	C.L. GUN CLUB RD. (EXIST TIES)	240.00																			22.00	586.67	220.00	64.53		64.53	
ADDITIONAL FOR CULVERT RESTORATION																									
171+06.13	171+29.66	EXIST. P. ST. (STA. I-49)	4.00		154.50	6.18																			
ADDITIONAL FOR LEVELING																									
51+20.00	69+80.00	C.L. HWY. 59	1860.00				24.00	4960.00	248.00	24.00	4960.00	843.20	1091.20									24.00	4960.00	VAR.		272.80		272.80
TOTALS:				23.23		22057.13		48586.03	2429.30		5560.00	945.20	3374.50		22882.01		3775.53		21109.22		2322.02		56040.21		839.93	5051.69	839.93	7373.71

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.7% MIN. AGGR.....5.3% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.8% MIN. AGGR.....4.2% ASPHALT BINDER
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	129	809
		QUANTITY SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024

BASE AND SURFACING (CONCRETE ALTERNATE) (BOX 1 OF 2)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		ACHM SURFACE COURSE (1/2")				
				TON / STATION	TON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	TOTAL PG 64-22
			FEET			FEET			TON	TON
MAIN LANES										
100+00.00	150+84.38	I-49 M.L. LT. & RT. SHOULDERS WITH WRSF	5084.38	160.75	8173.14	24.00	13558.35	220.00	1491.42	1491.42
150+84.38	151+69.59	I-49 M.L. LT. & RT. SHOULDERS WITH WRSF	85.21	160.75	136.98	20.00	189.36	220.00	20.83	20.83
151+69.59	160+52.00	I-49 M.L. LT. & RT. SHOULDERS	882.41	163.00	1438.33	20.00	1960.91	220.00	215.70	215.70
160+52.00	163+36.92	I-49 M.L. LT. & RT. SHOULDERS	284.92	101.00	287.77	16.00	506.52	220.00	55.72	55.72
216+39.08	240+36.92	I-49 M.L. LT. SHOULDER	2397.84	142.50	3416.92	13.50	3596.76	220.00	395.64	395.64
259+29.08	260+00.93	I-49 M.L. LT. & RT. SHOULDERS	71.85			23.00	183.62	220.00	20.20	20.20
260+00.93	263+00.00	I-49 M.L. LT. & RT. SHOULDERS	299.07			16.00	531.68	220.00	58.48	58.48
263+00.00	269+00.00	I-49 M.L. LT. & RT. SHOULDERS	600.00			12.00	800.00	220.00	88.00	88.00
RAMPS										
10+29.60	33+29.15	C.L. HWY 22 RAMP 2 LT. & RT. SHOULDERS	2299.55	135.25	3110.14	10.00	2555.06	220.00	281.06	281.06
10+32.55	13+53.80	C.L. HWY 22 RAMP 3 LT. & RT. SHOULDERS	321.25	135.25	434.49	10.00	356.94	220.00	39.26	39.26
13+53.80	16+53.80	C.L. HWY 22 RAMP 3 LT. & RT. SHOULDERS	300.00	135.25	405.75	10.00	333.33	220.00	36.67	36.67
16+53.80	38+44.85	C.L. HWY 22 RAMP 3 LT. & RT. SHOULDERS	2191.05	135.25	2963.40	10.00	2434.50	220.00	267.80	267.80
14+16.07	27+97.58	C.L. GC RAMP 1LT. & RT. SHOULDERS	1381.51	135.25	1868.49	10.00	1535.01	220.00	168.85	168.85
27+97.58	29+85.00	C.L. GC RAMP 1 & 3 W/ BARRIER LT. & RT. SHOULDERS	187.42	148.50	278.32	12.00	249.89	220.00	27.49	27.49
29+85.00	35+55.58	C.L. GC RAMP 1 W/ BARRIER LT. & RT. SHOULDERS	570.58	148.50	847.31	12.00	760.77	220.00	83.68	83.68
10+12.00	15+65.00	C.L. GC RAMP 2 W/ BARRIER LT. & RT. SHOULDERS	553.00	148.50	821.21	12.00	737.33	220.00	81.11	81.11
15+65.00	17+70.00	C.L. GC RAMP 2 W/ BARRIER LT. & RT. SHOULDERS	205.00	148.50	304.43	12.00	273.33	220.00	30.07	30.07
17+70.00	19+51.45	C.L. GC RAMP 2 & 4 W/ BARRIER LT. & RT. SHOULDERS	181.45	148.50	269.45	12.00	241.93	220.00	26.61	26.61
19+51.45	20+00.00	C.L. GC RAMP 2 LT. & RT. SHOULDERS	48.55	135.25	65.66	10.00	53.94	220.00	5.93	5.93
10+12.00	17+94.00	C.L. GC RAMP 3 W/ BARRIER LT. & RT. SHOULDERS	782.00	148.50	1161.27	12.00	1042.67	220.00	114.69	114.69
17+94.00	20+00.00	C.L. GC RAMP 3 W/ BARRIER LT. & RT. SHOULDERS	206.00	148.50	305.91	12.00	274.67	220.00	30.21	30.21
21+44.75	24+00.00	C.L. GC RAMP 3 LT. & RT. SHOULDERS	255.25	135.25	345.23	10.00	283.61	220.00	31.20	31.20
13+98.24	16+66.00	C.L. GC RAMP 4 LT. & RT. SHOULDERS	267.76	135.25	362.15	10.00	297.51	220.00	32.73	32.73
16+66.00	27+47.43	C.L. GC RAMP 4 LT. & RT. SHOULDERS	1081.43	135.25	1462.63	10.00	1201.59	220.00	132.17	132.17
28+85.87	30+73.00	C.L. GC RAMP 4 W/ BARRIER LT. & RT. SHOULDERS	187.13	148.50	277.89	12.00	249.51	220.00	27.45	27.45
30+73.00	38+73.80	C.L. GC RAMP 4 W/ BARRIER LT. & RT. SHOULDERS	800.80	148.50	1189.19	12.00	1067.73	220.00	117.45	117.45
ADDITIONAL FOR SUPERELEVATION										
108+65.00	117+95.77	I-49 N.B. ML	930.77	128.41	1195.20					
108+65.00	127+95.77	I-49 S.B. ML	1930.77	64.55	1246.31					
117+95.77	127+95.77	I-49 N.B. ML WITH AUX LANE	1000.00	69.35	693.50					
127+95.77	150+84.38	I-49 N.B. ML	2288.61	128.41	2938.80					
127+95.77	150+84.38	I-49 S.B. ML	2288.61	64.55	1477.30					
150+84.38	160+52.00	I-49 ML	967.62	129.11	1249.29					
259+29.08	260+00.93	I-49 ML	71.85	60.64	43.57					
260+00.93	263+00.00	I-49 ML	299.07	60.78	181.77					
263+00.00	269+00.00	I-49 ML	600.00	112.43	674.58					
10+29.60	10+90.00	C.L. HWY 22 RAMP 2 INTERSECTION	60.40	41.84	25.27					
12+88.00	20+70.77	C.L. HWY 22 RAMP 2 R2-1	782.77	41.84	327.51					
20+70.77	28+96.21	C.L. HWY 22 RAMP 2 R2-2	825.44	50.79	419.24					
28+96.21	33+29.15	C.L. HWY 22 RAMP 2 R2-2	432.94	44.03	190.62					
10+31.99	16+53.80	C.L. HWY 22 RAMP 3 INTERSECTION	621.81	146.47	910.77					
16+53.80	25+42.00	C.L. HWY 22 RAMP 3 R3-1	888.20	146.47	1300.95					
28+82.00	38+44.85	C.L. HWY 22 RAMP 3 R3-2	962.85	53.29	513.10					
14+16.07	27+97.58	C.L. GC RAMP 1 R1-2	1381.51	77.17	1066.11					
15+65.00	17+70.00	C.L. GC RAMP 2 BEGIN RAMP W/ BARRIER	205.00	115.22	236.20					
17+70.00	19+51.45	C.L. GC RAMP 2 BEGIN RAMP W/ BARRIER	181.45	66.95	121.48					
19+51.45	20+00.00	C.L. GC RAMP 2 R2-1	48.55	77.17	37.47					
20+00.00	24+00.00	C.L. GC RAMP 3 R3-1	400.00	84.01	336.04					
18+53.16	27+47.43	C.L. GC RAMP 4 R4-2	894.27	84.01	751.28					
28+85.87	30+73.00	C.L. GC RAMP 4 END RAMP W/ BARRIER	187.13	125.58	235.00					
ADDITIONAL FOR GUARDRAIL WIDENING										
161+30.69	163+49.52	RT. SIDE OF N.B. ML	218.83	19.44	42.54	5.50	133.73	220.00	14.71	14.71
162+05.69	163+49.52	RT. SIDE OF S.B. ML	143.83	19.44	27.96	5.50	87.90	220.00	9.67	9.67
216+18.48	231+00.00	RT. SIDE OF N.B. ML	1481.52	19.44	288.01	5.50	905.37	220.00	99.59	99.59
216+18.48	231+00.00	RT. SIDE OF S.B. ML	1481.52	19.44	288.01	5.50	905.37	220.00	99.59	99.59
231+00.00	240+50.52	RT. SIDE OF N.B. ML	950.52	19.44	184.78	5.50	580.87	220.00	63.90	63.90
231+00.00	240+50.52	RT. SIDE OF S.B. ML	950.52	19.44	184.78	5.50	580.87	220.00	63.90	63.90
259+14.48	260+59.93	RT. SIDE OF N.B. ML	145.45	19.44	28.28	5.50	88.89	220.00	9.78	9.78
259+14.48	260+47.01	LT. SIDE OF N.B. ML	132.53	19.44	25.76	5.50	80.99	220.00	8.91	8.91
56+77.76	58+77.76	RT. SIDE OF HWY 22	200.00	19.44	38.88	5.50	122.22	220.00	13.44	13.44
60+46.36	60+96.36	LT. SIDE OF HWY 22	50.00	19.44	9.72	5.50	30.56	220.00	3.36	3.36
145+59.28	145+79.65	LT. SIDE OF I-49	20.37	19.44	3.96	5.50	12.45	220.00	1.37	1.37
ADDITIONAL FOR ITS WIDENING										
161+01.86	163+49.44	RT. SIDE OF S.B. ML	247.58	38.89	96.28	10.00	275.09	220.00	30.26	30.26
259+17.02	261+62.42	RT. SIDE OF N.B. ML	245.40	38.89	95.44	10.00	272.67	220.00	29.99	29.99
TOTALS:					**47411.82**		**39353.50**		**4328.89**	**4328.89**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.7% MIN. AGGR.....5.3% ASPHALT BINDER
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-06-2024		6	ARK.	040901	130	809
		QUANTITY SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024

BASE AND SURFACING (CONCRETE ALTERNATE) (BOX 2 OF 2)

STATION	STATION	LOCATION	LENGTH	CEMENT STABILIZED CRUSHED STONE BASE COURSE				GEOTEXTILE FABRIC (TYPE SPECIAL)		PORTLAND CEMENT CONCRETE PAVEMENT	
				AVG. WID.	PROCESSING	CEMENT	AGGREGATE	AVG. WID.	SQ. YD.	AVG. WID.	9" U.T.
			FEET	FEET	SQ. YD.	TON	TON	FEET		FEET	SQ. YD.
100+00.00	160+52.00	I-49 S.B. ML	6052.00	30.00	20173.33	423.64	6637.03	30.00	20173.33	26.00	17483.56
100+00.00	160+52.00	I-49 N.B. ML	6052.00	30.00	20173.33	423.64	6637.03	30.00	20173.33	26.00	17483.56
114+65.95	120+08.75	I-49 S.B. ML - HWY 22 RAMP 3 GORE	542.80	11.69	705.04	14.81	231.96	11.69	705.04	11.69	705.04
116+11.98	118+80.64	I-49 N.B. ML - HWY 22 RAMP 2 GORE	268.66	7.89	235.53	4.95	77.49	7.89	235.53	7.89	235.53
116+11.98	124+95.77	I-49 N.B. ML - HWY 22 RAMP 2 AUX LANE	883.79	10.00	981.99	20.62	323.07	10.00	981.99	10.00	981.99
124+95.77	127+95.77	I-49 N.B. ML - HWY 22 RAMP 2 AUX LANE TRANSITION	300.00	6.09				6.09	203.00	6.09	203.00
150+84.38	160+52.00	I-49 S.B. ML (INT. SHLD CONCRETE BARRIER WALL)	967.62	7.00	752.59	15.80	247.60	7.00	752.59	6.00	645.08
160+52.00	163+36.83	I-49 S.B. ML	284.83	35.00	1107.67	23.26	364.42	35.00	1107.67	31.00	981.08
160+52.00	163+36.83	I-49 N.B. ML	284.83	35.00				35.00	1107.67	31.00	981.08
160+52.00	163+36.83	I-49 M.L. MEDIAN TAPER TO BRIDGE APPROACH	284.83							2.00	63.30
216+39.08	240+36.92	I-49 S.B. ML	2397.84	35.00	9324.93	195.82	3067.90	35.00	9324.93	31.00	8259.23
216+39.08	240+36.92	I-49 N.B. ML	2397.84	35.00	9324.93	195.82	3067.90	35.00	9324.93	31.00	8259.23
216+39.08	240+36.92	I-49 M.L. MEDIAN BETWEEN BRIDGES	2397.84							2.00	532.85
259+29.08	269+00.00	I-49 N.B. ML	970.92	30.00	3236.40	67.96	1064.78	30.00	3236.40	26.00	2804.88
259+29.08	263+50.97	I-49 N.B. ML - GC RAMP 1 AUX LANE	421.89	10.00	468.77	9.84	154.23	10.00	468.77	10.00	468.77
258+96.00	265+62.03	I-49 N.B. ML - GC RAMP 1 GORE	666.03	9.71	718.57	15.09	236.41	9.71	718.57	9.71	718.57
259+29.08	269+00.00	I-49 S.B. ML	970.92	30.00	3236.40	67.96	1064.78	30.00	3236.40	26.00	2804.88
259+29.08	262+93.62	I-49 N.B. ML - GC RAMP 4 AUX LANE	364.54	10.00	405.04	8.51	133.26	10.00	405.04	10.00	405.04
259+29.08	265+17.38	I-49 S.B. ML - GC RAMP 4 GORE	588.30	4.64	303.30	6.37	99.79	4.64	303.30	4.64	303.30
260+00.93	263+00.00	I-49 N.B. ML	299.07	60.08	1996.46	41.93	656.84	60.08	1996.46	54.08	1797.08
269+00.00	270+00.00	I-49 N.B. & S.B. ML END JOB TRANSITION	100.00	60.00	666.67	14.00	219.33	60.00	666.67		
10+29.60	33+29.15	C.L. HWY 22 RAMP 2	2299.55	19.00	4854.61	101.95	1597.17	19.00	4854.61	15.00	3832.58
10+32.55	13+53.80	C.L. HWY 22 RAMP 3	321.25	28.00	999.44	20.99	328.82	28.00	999.44	24.00	856.67
13+53.80	16+53.80	C.L. HWY 22 RAMP 3 W/ VARIED WIDTHS	300.00	23.50	783.33	16.45	257.72	23.50	783.33	19.50	650.00
16+53.80	38+44.85	C.L. HWY 22 RAMP 3	2191.05	19.00	4625.55	97.14	1521.81	19.00	4625.55	15.00	3651.75
14+16.07	27+97.58	C.L. GC RAMP 1	1381.51	19.00	2916.52	61.25	959.54	19.00	2916.52	15.00	2302.52
27+97.58	29+85.00	C.L. GC RAMP 1 & 3 W/ BARRIER VAR. WIDTH	187.42	58.00	1207.82	25.36	397.37	58.00	1207.82	56.00	1166.17
29+85.00	35+55.58	C.L. GC RAMP 1 W/ BARRIER	570.58	24.00	1521.55	31.95	500.59	24.00	1521.55	22.00	1394.75
10+12.00	15+65.00	C.L. GC RAMP 2 W/ BARRIER	553.00	24.00	1474.67	30.97	485.17	24.00	1474.67	22.00	1351.78
15+65.00	17+70.00	C.L. GC RAMP 2 W/ BARRIER	205.00	24.00	546.67	11.48	179.85	24.00	546.67	20.00	455.56
17+70.00	19+51.45	C.L. GC RAMP 2 & 4 W/ BARRIER VAR. WIDTH	181.45	58.00	1169.34	24.56	384.71	58.00	1169.34	56.00	1129.02
19+51.45	20+00.00	C.L. GC RAMP 2	48.55	19.00	102.49	2.15	33.72	19.00	102.49	15.00	80.92
20+00.00	21+00.00	C.L. GC RAMP 2 END JOB TRANSITION	100.00	19.00	211.11	4.43	69.46	19.00	211.11		
10+12.00	17+94.00	C.L. GC RAMP 3 W/ BARRIER	782.00	24.00	2085.33	43.79	686.07	24.00	2085.33	22.00	1911.56
17+94.00	20+00.00	C.L. GC RAMP 3 W/ BARRIER	206.00	24.00	549.33	11.54	180.73	24.00	549.33	20.00	457.78
21+44.75	24+00.00	C.L. GC RAMP 3	255.25	19.00	538.86	11.32	177.28	19.00	538.86	15.00	425.42
24+00.00	25+00.00	C.L. GC RAMP 3 END JOB TRANSITION	100.00	19.00	211.11	4.43	69.46	19.00	211.11		
13+98.24	16+66.00	C.L. GC RAMP 4	267.76	19.00	565.27	11.87	185.97	19.00	565.27	15.00	446.27
16+66.00	27+47.43	C.L. GC RAMP 4	1081.43	19.00	2283.02	47.94	751.11	19.00	2283.02	15.00	1802.38
28+85.87	30+73.00	C.L. GC RAMP 4 W/ BARRIER	187.13	24.00	499.01	10.48	164.17	24.00	499.01	20.00	415.84
30+73.00	38+73.80	C.L. GC RAMP 4 W/ BARRIER	800.80	24.00	2135.47	44.84	702.57	24.00	2135.47	22.00	1957.51
11+05.02	16+57.99	C.L. GC RAMP 1 GORE	552.97	14.15	869.39	18.26	286.03	14.15	869.39	10.15	623.63
10+12.00	10+68.87	C.L. GC RAMP 2 GORE	56.87	18.00	113.74	2.39	37.42	18.00	113.74	14.00	88.46
10+12.00	10+64.69	C.L. GC RAMP 3 GORE	52.69	18.00	105.38	2.21	34.67	18.00	105.38	14.00	81.96
10+78.13	16+24.43	C.L. GC RAMP 4 GORE	546.30	8.60	522.02	10.96	171.74	8.60	522.02	4.60	279.22
		C.L. GUN CLUB/GC RAMP 3 RADIUS RETURN	108.00	24.00	288.00	6.05	94.75	24.00	288.00	20.00	240.00
		C.L. GUN CLUB/GC RAMP 4 RADIUS RETURN	138.00	24.00	368.00	7.73	121.07	24.00	368.00	20.00	306.67
		C.L. HWY 22 RAMP 2 RADIUS RETURN	135.00	24.00	360.00	7.56	118.44	24.00	360.00	20.00	300.00
		C.L. HWY 22 RAMP 3 RADIUS RETURN	122.00	24.00	325.33	6.83	107.03	24.00	325.33	20.00	271.11
TOTALS:					**106043.31**	**2226.90**	**34888.26**		**107353.98**		**92596.58**

BASIS OF ESTIMATE:
CEMENT STABILIZED CRUSHED STONE BASE COURSE = 94.0% AGGR, 6.0% CEMENT
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULISIFED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-06-2024		6	ARK.	040901	131	809
		QUANTITY SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024

BASE AND SURFACING (ASPHALT ALTERNATE)(BOX 1 OF 2)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT				ACHM BASE COURSE (1 1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")								
						(0.05 GAL. PER SQ. YD.)																				
				TON / STATION	TON	TOTAL WID.	SQ.YD.	GALLON	TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	TOTAL PG 76-22
			FEET			FEET				FEET			TON	FEET			TON	FEET			TON	FEET			TON	TON
MAIN LANES																										
100+00.00	163+36.92	I-49 S.B. ML	6336.92	101.00	6400.29	79.60	56046.54	2802.33	2802.33	26.85	18905.14	495.00	4679.02	26.50	18658.71	440.00	4104.92	26.25	18482.68	220.00	2033.09	26.00	18306.66	220.00	2013.73	4046.82
100+00.00	163+36.92	I-49 N.B. ML	6336.92	101.00	6400.29	79.60	56046.54	2802.33	2802.33	26.85	18905.14	495.00	4679.02	26.50	18658.71	440.00	4104.92	26.25	18482.68	220.00	2033.09	26.00	18306.66	220.00	2013.73	4046.82
100+00.00	151+69.59	I-49 S.B. ML RT. SHLD. WITH WRSF	5169.59	115.00	5945.03																	6.00	3446.39	220.00	379.10	379.10
100+00.00	115+88.09	I-49 S.B. ML LT. SHLD.	1588.09	131.50	2088.34																	8.00	1411.64	220.00	155.28	155.28
100+00.00	116+11.98	I-49 N.B. ML RT. SHLD.	1611.98	131.50	2119.75																	8.00	1432.87	220.00	157.62	157.62
100+00.00	160+52.00	I-49 N.B. ML LT. SHLD.	6052.00	117.75	7126.23																	4.00	2689.78	220.00	295.88	295.88
114+65.95	120+08.75	I-49 S.B. ML - HWY 22 RAMP 3 GORE	542.80	45.50	246.76	35.07	2115.11	105.76	105.76	11.69	705.04	495.00	174.50	11.69	705.04	440.00	155.11	11.69	705.04	220.00	77.55	11.69	705.04	220.00	77.55	155.10
116+11.98	120+45.34	I-49 N.B. ML - HWY 22 RAMP 2 GORE	433.36	19.00	82.39	14.67	706.38	35.32	35.32	4.89	235.46	495.00	58.28	4.89	235.46	440.00	51.80	4.89	235.46	220.00	25.90	4.89	235.46	220.00	25.90	51.80
116+32.43	119+60.44	I-49 S.B. ML - HWY 22 RAMP 3 GORE LT. SHLD.	328.01	115.00	377.21																	6.00	218.67	220.00	24.05	24.05
117+95.77	124+95.77	I-49 N.B. ML - HWY 22 RAMP 2 AUX LANE	700.00	39.00	273.00	36.00	2800.00	140.00	140.00	12.00	933.33	495.00	231.00	12.00	933.33	440.00	205.33	12.00	933.33	220.00	102.67	12.00	933.33	220.00	102.67	205.34
117+95.77	124+95.77	I-49 N.B. ML - HWY 22 RAMP 2 AUX LANE RT. SHLD.	700.00	115.00	805.00																	6.00	466.67	220.00	51.33	51.33
119+60.44	120+08.75	I-49 S.B. ML - HWY 22 RAMP 3 GORE TRANSITION LT. SHLD.	48.31	123.25	59.54																	7.00	37.57	220.00	4.13	4.13
120+08.75	160+52.00	I-49 S.B. ML LT. SHLD.	4043.25	131.50	5316.87																	8.00	3594.00	220.00	395.34	395.34
124+95.77	127+95.77	I-49 N.B. ML - HWY 22 RAMP 2 AUX LANE TANSITION	300.00	19.50	58.50	18.00	600.00	30.00	30.00	6.00	200.00	495.00	49.50	6.00	200.00	440.00	44.00	6.00	200.00	220.00	22.00	6.00	200.00	220.00	22.00	44.00
124+95.77	127+95.77	I-49 N.B. ML - HWY 22 RAMP 2 AUX LANE TRANSITION RT. SHLD.	300.00	123.25	369.75																	7.00	233.33	220.00	25.67	25.67
127+95.77	160+52.00	I-49 N.B. ML RT. SHLD.	3256.23	131.50	4281.94																	8.00	2894.43	220.00	318.39	318.39
150+84.38	163+36.92	I-49 S.B. ML ADT'L FOR P.C.C. BARRIER	1252.54	15.50	194.14																					
151+69.59	160+52.00	I-49 S.B. ML RT. SHLD.	882.41	117.25	1034.63																	4.00	392.18	220.00	43.14	43.14
160+52.00	163+36.92	I-49 S.B. ML RT. SHLD.	284.92	19.50	55.42	15.00	474.87	23.74	23.74	5.00	158.29	495.00	39.18	5.00	158.29	440.00	34.82	5.00	158.29	220.00	17.41	5.00	158.29	220.00	17.41	34.82
160+52.00	163+36.92	I-49 S.B. ML LT. SHLD.	284.92	148.50	423.11																	8.00	253.26	220.00	27.86	27.86
160+52.00	163+36.92	I-49 N.B. ML RT. SHLD.	284.92	148.50	423.11																	8.00	253.26	220.00	27.86	27.86
160+52.00	163+36.92	I-49 N.B. ML LT. SHLD.	284.92	19.50	55.42	15.00	474.87	23.74	23.74	5.00	158.29	495.00	39.18	5.00	158.29	440.00	34.82	5.00	158.29	220.00	17.41	5.00	158.29	220.00	17.41	34.82
216+39.08	240+36.92	I-49 S.B. ML	2397.84	101.00	2421.82	79.60	21207.56	1060.38	1060.38	26.85	7153.56	495.00	1770.51	26.50	7060.31	440.00	1553.27	26.25	6993.70	220.00	769.31	26.00	6927.09	220.00	761.98	1531.29
216+39.08	240+36.92	I-49 N.B. ML	2397.84	101.00	2421.82	79.60	21207.56	1060.38	1060.38	26.85	7153.56	495.00	1770.51	26.50	7060.31	440.00	1553.27	26.25	6993.70	220.00	769.31	26.00	6927.09	220.00	761.98	1531.29
216+39.08	240+36.92	I-49 S.B. ML RT. SHLD.	2397.84	19.50	466.40	15.00	3996.40	199.82	199.82	5.00	1332.13	495.00	329.70	5.00	1332.13	440.00	293.07	5.00	1332.13	220.00	146.53	5.00	1332.13	220.00	146.53	293.06
216+39.08	240+36.92	I-49 S.B. ML LT. SHLD.	2397.84	115.00	2757.52																	8.00	2131.41	220.00	234.46	234.46
216+39.08	240+36.92	I-49 N.B. ML RT. SHLD.	2397.84	115.00	2757.52																	8.00	2131.41	220.00	234.46	234.46
216+39.08	240+36.92	I-49 N.B. ML LT. SHLD.	2397.84	19.50	466.40	15.00	3996.40	199.82	199.82	5.00	1332.13	495.00	329.70	5.00	1332.13	440.00	293.07	5.00	1332.13	220.00	146.53	5.00	1332.13	220.00	146.53	293.06
216+39.08	240+36.92	I-49 MED. ML ADT'L FOR P.C.C. BARRIER	2397.84	15.50	371.67																					
259+29.08	269+00.00	I-49 S.B. ML	970.92	101.00	980.63	79.60	8587.25	429.36	429.36	26.85	2896.58	495.00	716.90	26.50	2858.82	440.00	628.94	26.25	2831.85	220.00	311.50	26.00	2804.88	220.00	308.54	620.04
259+29.08	269+00.00	I-49 N.B. ML	970.92	101.00	980.63	79.60	8587.25	429.36	429.36	26.85	2896.58	495.00	716.90	26.50	2858.82	440.00	628.94	26.25	2831.85	220.00	311.50	26.00	2804.88	220.00	308.54	620.04
259+29.08	262+93.50	I-49 S.B. ML - GUN CLUB RAMP 4 AUX LANE	364.42	39.00	142.12	36.00	1457.68	72.88	72.88	12.00	485.89	495.00	120.26	12.00	485.89	440.00	106.90	12.00	485.89	220.00	53.45	12.00	485.89	220.00	53.45	106.90
259+29.08	263+13.07	I-49 S.B. ML - GUN CLUB RAMP 1 AUX LANE	383.99	39.00	149.76	36.00	1535.96	76.80	76.80	12.00	511.99	495.00	126.72	12.00	511.99	440.00	112.64	12.00	511.99	220.00	56.32	12.00	511.99	220.00	56.32	112.64
259+29.08	265+17.16	I-49 S.B. ML - GUN CLUB RAMP 4 GORE	588.08	18.00	106.20	13.92	909.56	45.48	45.48	4.64	303.19	495.00	75.04	4.64	303.19	440.00	66.70	4.64	303.19	220.00	33.35	4.64	303.19	220.00	33.35	66.70
259+29.08	265+62.03	I-49 N.B. ML - GUN CLUB RAMP 1 GORE	632.95	39.75	251.58	30.66	2156.25	107.81	107.81	10.22	718.75	495.00	177.89	10.22	718.75	440.00	158.13	10.22	718.75	220.00	79.06	10.22	718.75	220.00	79.06	158.12
259+29.08	260+00.93	I-49 S.B. ML RT. SHLD.	71.85	19.50	14.01	15.00	119.75	5.99	5.99	5.00	39.92	495.00	9.88	5.00	39.92	440.00	8.78	5.00	39.92	220.00	4.39	5.00	39.92	220.00	4.39	8.78
259+29.08	262+93.50	I-49 S.B. ML LT. SHLD.	364.42	68.50	249.63																	4.00	161.96	220.00	17.82	17.82
259+29.08	263+13.07	I-49 N.B. ML RT. SHLD.	383.99	68.50	263.03																	4.00	170.66	200.00	17.07	17.07
259+29.08	269+00.00	I-49 N.B. ML LT. SHLD.	970.92	19.50	188.64	15.00	1618.20	80.91	80.91	5.00	539.40	495.00	133.50	5.00	539.40	440.00	118.67	5.00	539.40	220.00	59.33	5.00	539.40	220.00	59.33	118.66
259+29.08	269+00.00	I-49 N.B. ML ADT'L FOR P.C.C. BARRIER	970.92	15.50	150.49																					
260+00.93	269+00.00	I-49 S.B. ML RT. SHLD.	899.07	117.75																		4.00	399.59	220.00	43.95	43.95
263+94.72	269+00.00	I-49 N.B. ML RT. SHLD.	505.28	131.50	664.44																	8.00	449.14	220.00	49.41	49.41
265+17.16	269+00.00	I-49 S.B. ML LT. SHLD.	382.84	131.50	503.43																	8.00	340.30	220.00	37.43	37.43
269+00.00	269+25.00	I-49 N.B. & S.B. ML END JOB TRANSITION	25.00	700.50	175.13	106.71	296.42	14.82	14.82	53.71	149.19	495.00	36.92	53.00	147.22	440.00	32.39					52.50	145.83	220.00	16.04	16.04
269+25.00	269+50.00	I-49 N.B. & S.B. ML END JOB TRANSITION	25.00	700.50	175.13	106.71	296.42	14.82	14.82	53.71	149.19	495.00	36.92	53.00	147.22	440.00	32.39									
269+50.00	269+75.00	I-49 N.B. & S.B. ML END JOB TRANSITION	25.00	700.50	175.13	53.71	149.19	7.46	7.46	53.71	149.19	495.00	36.92													
269+75.00	270+00.00	I-49 N.B. & S.B. ML END JOB TRANSITION	25.00	700.50	175.13																					
RAMPS																										
10+29.60	33+29.15	HWY 22 RAMP 2	2299.55	58.25	1339.49	46.60	11906.56	595.33	595.33	15.85	4049.76	495.00	1002.32	15.50	3960.34	440.00	871.27	15.25	3896.46	220.00	428.61	15.00	3832.58	220.00	421.58	850.19
10+29.60	10+95.78	HWY 22 RAMP 2 LT. RADIUS RETURN	66.18	34.25	22.67	26.49	194.79	9.74	9.74	8.83	64.93	495.00	16.07	8.83	64.93	440.00	14.28	8.83	64.93	220.00	7.14	8.83	64.93	220.00	7.14	14.28
10+29.60	11+94.01	HWY 22 RAMP 2 RT. RADIUS RETURN	164.41	96.25	158.24	74.34	1358.03	67.90	67.90	24.78	452.68	495.00	112.04	24.78	452.68	440.00	99.59	24.78	452.68	220.00	49.79	24.78	452.68	220.00	49.79	99.58
10+29.60	11+94.01	HWY 22 RAMP 2 RT. RADIUS RETURN SHLD.	164.41	85.50	140.57																	9.27	169.34	220.00	18.63	18.63
10+29.60	31+41.85	HWY 22 RAMP 2 LT. SHLD.	2112.25	98.25	2075.29																	4.00	938.78	220.00	103.27	103.27
11+94.01	33+29.15	HWY 22 RAMP 2 RT. SHLD.	2135.14	115.00	2455.41																	6.00	1423.43	220.00	156.58	156.58
10+32.55	38+44.85	HWY 22 RAMP 3	2812.30	58.25	1638.16	46.60	14561.46	728.07	728.07	15.85	4952.77	495.00	1225.81	15.50	4843.41	440.00	1065.55	15.25	4765.29	220.00	524.18	15.00	4687.17	220.00	515.59	1039.77
10+32.55	13+53.80	HWY 22 RAMP 3 AUX. LANE	321.25	35.00	112.44	27.00	963.75	48.19	48.19	9.00	321.25	495.00	79.51	9.00	321.25	440.00	70.68	9.00	321.25	220.00	35.34	9.00	321.25	220.00	35.34	70.68
10+32.55	11+79.58	HWY 22 RAMP 3 LT. RADIUS RETURN	147.03	97.00	142.62	74.76	1221.33	61.07	61.07	24.92	407.11	495.00	100.76	24.92	407.11	440.00	89.56	24.92	407.11	220.00	44.78	24.92	407.11	220.00	44.78	89.56
10+32.55	10+93.54	HWY 22 RAMP 3 RT. RADIUS RETURN	60.99	30.25	18.45	23.28	157.76	7.89	7.89	7.76	52.59	495.00	13.02	7.76	52.59	440.00	11.57	7.76	52.59	220.00	5.78	7.76	52.59	221.00	5.81	11.59
10+32.55	38+44.85	HWY 22 RAMP 3 RT. SHLD.	2812.30	115.00	3234.15																	6.00	1874.87	220.00	206.24	206.24
10+32.55	11+79.58	HWY 22 RAMP 3 LT. RADIUS RETURN SHLD.	147.03	81.75	120.20																	7.76	126.77	220.00	13.94	13.94
11+79.58	38+01.01	HWY 22 RAMP 3 LT. SHLD.	2621.43	98.25	2575.55																	4.00	1165.08	220.00	128.16	128.16
13+53.80	16+53.80	HWY 22 RAMP 3 AUX. LANE TRANSITION	300.00	17.50	52.50	13.50	450.00	22.50	22.50	4.50	150.00	495.00	37.13	4.50	150.00	440.00	33.00	4.50	150.00	220.00	16.50	4.50	150.00	220.00	16.50	33.00
14+16.07	35+55.58	GC RAMP 1	2139.51	58.25	1246.26	46.60	11077.91	553.90	553.90	15.85	3767.91	495.00	932.56	15.50	3684.71	440.00	810.64	15.25	3625.28	220.00	398.78	15.00	3565.85	220.00	392.24	791.02
14+16.07	33+80.58	GC RAMP 1 RT. SHLD.	1964.51	115.00	2259.19																	6.00	1309.67	220.00	144.06	144.06
14+96.79	26+29.97	GC RAMP 1 LT. SHLD.	1133.18	98.25	1113.35																	4.00	503.64	220.00	55.40	55.40
26+29.97	35+55.58	GC RAMP 1 LT. SHLD.	925.61	19.50	180.49	15.00	1542.68	77.13	77.13	5.00	514.23	495.00	127.27	5.00	514.23	440.00	113.13	5.00	514.23	220.00	56.57	5.00	514.23	220.00	56.57	113.14
26+29.97	27+77.47	GC RAMP 1 LT. GORE	147.50	34.50	50.89	26.70	437.58	21.88	21.88	8.90	145.86	495.00	36.10	8.90	145.86	440.00	32.09	8.90	145.86	220.00	16.04	8.90	145.86	220.00	16.04	32.08
33+80.58	35+55.58	GC RAMP 1 RT. RADIUS RETURN	175.00	84.75	148.31	65.43	1272.25	63.61	63.61	21.81	424.08	495.00	104.96	21.81	424.08	440.00	93.30	21.81	424.08	220.00	46.65	21.81	424.08	220.00	46.65	93.30
33+80.58	35+55.58	GC RAMP 1 RT. RADIUS RETURN SHLD.	175.00	78.50	137.38																	6.41	124.64	220.00	13.71	13.71
10+12.00	20+00.00	GC RAMP 2	988.00	58.25	575.51	46.60	5115.64	255.78	255.78	15.85	1739.98	495.00	430.65	15.50	1701.56	440.00	374.34	15.25	1674.11	220.00	184.15	15.00	1646.67	220.00	181.13	365.28
10+12.00	11+37.00	GC RAMP 2 RT. RADIUS RETURN	125.00	76.00	95.00	58.65	814.58	40.73	40.73	19.55	271.53	495.00	67.20	19.55	271.53	440.00	59.74	19.55	271.53	220.00	29.87	19.55	271.53	220.00	29.87	59.74
10+12.00	11+37.00	GC RAMP 2 RT. RADIUS RETURN SHLD.	125.00	78.50	98.13																	6.42	89.17	220.00	9.81	9.81
10+12.00	19+51.45	GC RAMP 2 LT. SHLD.	939.45	19.50	183.19	15.00	1565.75	78.29	78.29	5.00	521.92	495.00	129.18	5.00	521.92	440.00	114.82	5.00	521.92	220.00	57.41	5.00	521.92	220.00	57.41	114.82
10+12.00	19+51.45	GC RAMP 2 ADT'L FOR P.C.C. BARRIER	939.45	15.50	145.61																					
SUBTOTALS (BOX 1 of 2):					**81464.03**		**248026.23**	**12401.32**	**12401.32**		**83848.54**		**20752.53**		**82620.13**		**18176.44**		**81557.59**		**8971.29**		**111769.26**		**12292.93**	**21264.22**

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024		6	ARK.	040901	132	809
		QUANTITY SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
06/11/2024

BASE AND SURFACING (ASPHALT ALTERNATE)(BOX 2 OF 2)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT				ACHM BASE COURSE (1 1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")								
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.) TOTAL WID.	SQ.YD.	GALLON	TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	TOTAL PG 76-22
			FEET			FEET				FEET			TON	FEET			TON	FEET			TON	FEET			TON	TON
RAMPS - CONTINUED																										
11+37.00	20+00.00	GC RAMP 2 RT. SHLD.	863.00	115.00	992.45																	6.00	575.33	220.00	63.29	63.29
17+54.59	19+51.45	GC RAMP 2 RT. GORE	196.86	9.00	17.72	6.96	152.24	7.61	7.61	2.32	50.75	495.00	12.56	2.32	50.75	440.00	11.17	2.32	50.75	220.00	5.58	2.32	50.75	220.00	5.58	11.16
19+51.45	20+00.00	GC RAMP 2 LT. SHLD.	48.55	98.25	47.70																	4.00	21.58	220.00	2.37	2.37
20+00.00	20+25.00	GC RAMP 2 END JOB TRANSITION	25.00	271.50	67.88	31.35	87.08	4.35	4.35	15.85	44.03	495.00	10.90	15.50	43.06	440.00	9.47					15.25	42.36	220.00	4.66	4.66
20+25.00	20+50.00	GC RAMP 2 END JOB TRANSITION	25.00	271.50	67.88	31.35	87.08	4.35	4.35	15.85	44.03	495.00	10.90	15.50	43.06	440.00	9.47									
20+50.00	20+75.00	GC RAMP 2 END JOB TRANSITION	25.00	271.50	67.88	15.85	44.03	2.20	2.20	15.85	44.03	495.00	10.90													
20+75.00	21+00.00	GC RAMP 2 END JOB TRANSITION	25.00	271.50	67.88																					
10+12.00	24+00.00	GC RAMP 3	1388.00	58.25	808.51	46.60	7186.76	359.34	359.34	15.85	2444.42	495.00	604.99	15.50	2390.44	440.00	525.90	15.25	2351.89	220.00	258.71	15.00	2313.33	220.00	254.47	513.18
10+12.00	11+37.00	GC RAMP 3 RT. RADIUS RETURN	125.00	76.00	95.00	58.65	814.58	40.73	40.73	19.55	271.53	495.00	67.20	19.55	271.53	440.00	59.74	19.55	271.53	220.00	29.87	19.55	271.53	220.00	29.87	59.74
10+12.00	11+37.00	GC RAMP 3 RT. RADIUS RETURN SHLD.	125.00	78.50	98.13																	6.42	89.17	220.00	9.81	9.81
10+12.00	21+44.75	GC RAMP 3 LT. SHLD.	1132.75	19.50	220.89	15.00	1887.92	94.40	94.40	5.00	629.31	495.00	155.75	5.00	629.31	440.00	138.45	5.00	629.31	220.00	69.22	5.00	629.31	220.00	69.22	138.44
11+37.00	24+00.00	GC RAMP 3 RT. SHLD.	1263.00	115.00	1452.45																	6.00	842.00	220.00	92.62	92.62
19+99.93	21+44.75	GC RAMP 3 LT. GORE	144.82	32.25	46.70	24.90	400.67	20.03	20.03	8.30	133.56	495.00	33.06	8.30	133.56	440.00	29.38	8.30	133.56	220.00	14.69	8.30	133.56	220.00	14.69	29.38
21+44.75	24+00.00	GC RAMP 3 LT. SHLD.	255.25	98.25	250.78																	4.00	113.44	220.00	12.48	12.48
24+00.00	24+25.00	GC RAMP 3 END JOB TRANSITION	25.00	271.50	67.88	31.35	87.08	4.35	4.35	15.85	44.03	495.00	10.90	15.50	43.06	440.00	9.47					15.25	42.36	220.00	4.66	4.66
24+25.00	24+50.00	GC RAMP 3 END JOB TRANSITION	25.00	271.50	67.88	31.35	87.08	4.35	4.35	15.85	44.03	495.00	10.90	15.50	43.06	440.00	9.47									
24+50.00	24+75.00	GC RAMP 3 END JOB TRANSITION	25.00	271.50	67.88	15.85	44.03	2.20	2.20	15.85	44.03	495.00	10.90													
24+75.00	25+00.00	GC RAMP 3 END JOB TRANSITION	25.00	271.50	67.88																					
13+98.24	38+73.80	GC RAMP 4	2475.56	58.25	1442.01	46.60	12817.90	640.90	640.90	15.85	4359.74	495.00	1079.04	15.50	4263.46	440.00	937.96	15.25	4194.70	220.00	461.42	15.00	4125.93	220.00	453.85	915.27
13+98.24	37+23.80	GC RAMP 4 LT. SHLD.	2325.56	115.00	2674.39																	6.00	1550.37	220.00	170.54	170.54
16+24.09	27+47.43	GC RAMP 4 RT. SHLD.	1123.34	98.25	1103.68																	4.00	499.26	220.00	54.92	54.92
27+47.43	38+73.80	GC RAMP 4 RT. SHLD.	1126.37	19.50	219.64	15.00	1877.28	93.86	93.86	5.00	625.76	495.00	154.88	5.00	625.76	440.00	137.67	5.00	625.76	220.00	68.83	5.00	625.76	220.00	68.83	137.66
27+47.43	38+73.80	GC RAMP 4 ADT'L FOR P.C.C. BARRIER	1126.37	15.50	174.59																					
37+23.80	38+73.80	GC RAMP 4 LT. RADIUS RETURN	150.00	81.00	121.50	62.46	1041.00	52.05	52.05	20.82	347.00	495.00	85.88	20.82	347.00	440.00	76.34	20.82	347.00	220.00	38.17	20.82	347.00	220.00	38.17	76.34
37+23.80	38+73.80	GC RAMP 4 LT. RADIUS RETURN SHLD.	150.00	78.50	117.75																	6.41	106.83	220.00	11.75	11.75
ADDITIONAL FOR SUPERELEVATION																										
108+65.00	160+52.00	I-49 N.B. ML	5187.00	113.75	5900.21																					
108+65.00	160+52.00	I-49 S.B. ML	5187.00	82.75	4292.24																					
258+95.00	260+00.93	I-49 S.B. ML	105.93	80.25	85.01																					
260+00.93	263+00.00	I-49 S.B. ML	299.07	126.50	378.32																					
263+00.00	269+00.00	I-49 N.B. ML	600.00	10.00	60.00																					
263+00.00	269+00.00	I-49 S.B. ML	600.00	152.50	915.00																					
269+00.00	270+00.00	I-49 N.B. & S.B. ML END JOB TRANSITION	100.00	162.50	162.50																					
12+88.00	20+70.77	HWY 22 RAMP 2 R2-1	782.77	75.50	590.99																					
20+70.77	28+96.21	HWY 22 RAMP 2 R2-2	825.44	64.75	534.47																					
28+96.21	33+29.15	HWY 22 RAMP 2 - MATCH I-49 SUPER	432.94	81.75	353.93																					
13+98.00	25+42.00	HWY 22 RAMP 3 R3-1	1144.00	184.75	2113.54																					
28+82.00	38+44.85	HWY 22 RAMP 3 R3-2	962.85	68.50	659.55																					
14+16.07	27+97.58	GC RAMP 1R1-2	1381.51	102.00	1409.14																					
27+97.58	29+85.00	GC RAMP 1R1-2 W/ BARRIER	187.42	35.00	65.60																					
15+65.00	19+51.45	GC RAMP 2 R2-1W/ BARRIER	386.45	131.75	509.15																					
19+51.45	20+00.00	GC RAMP 2 R2-1	48.55	144.50	70.15																					
17+94.00	21+44.75	GC RAMP 3 R3-1W/ BARRIER	350.75	86.00	301.65																					
21+44.75	24+00.00	GC RAMP 3 R3-1	255.25	158.50	404.57																					
13+99.00	15+39.00	GC RAMP 4 R4-1	140.00	47.75	66.85																					
16+66.00	27+47.43	GC RAMP 4 R4-2	1081.43	112.00	1211.20																					
27+47.43	30+73.00	GC RAMP 4 END RAMP W/ BARRIER	325.57	41.50	135.11																					
ADDITIONAL FOR GUARDRAIL WIDENING																										
161+30.69	163+49.52	RT. SIDE OF N.B. ML	218.83	58.75	128.56																	5.50	133.73	220.00	14.71	14.71
162+05.69	163+49.52	LT. SIDE OF S.B. ML	143.83	58.75	84.50																	5.50	87.90	220.00	9.67	9.67
216+18.48	231+00.00	RT. SIDE OF N.B. ML	1481.52	58.75	870.39																	5.50	905.37	220.00	99.59	99.59
216+18.48	231+00.00	LT. SIDE OF S.B. ML	1481.52	58.75	870.39																	5.50	905.37	220.00	99.59	99.59
231+00.00	240+50.52	RT. SIDE OF N.B. ML	950.52	58.75	558.43																	5.50	580.87	220.00	63.90	63.90
231+00.00	240+50.52	LT. SIDE OF S.B. ML	950.52	58.75	558.43																	5.50	580.87	220.00	63.90	63.90
259+14.48	260+59.93	RT. SIDE OF N.B. ML	145.45	58.75	85.45																	5.50	88.89	220.00	9.78	9.78
259+14.48	260+47.01	LT. SIDE OF S.B. ML	132.53	58.75	77.86																	5.50	80.99	220.00	8.91	8.91
56+77.76	58+77.76	RT. SIDE OF HWY 22	200.00	58.75	117.50																	5.50	122.22	220.00	13.44	13.44
60+46.36	60+96.36	LT. SIDE OF HWY 22	50.00	58.75	29.38																	5.50	30.56	220.00	3.36	3.36
145+59.28	145+79.65	LT. SIDE OF I-49	20.37	58.75	11.97																	5.50	12.45	220.00	1.37	1.37
ADDITIONAL FOR ITS WIDENING																										
161+01.86	163+49.44	LT. SIDE OF S.B. ML	247.58	107.00	264.91																	10.00	275.09	220.00	30.26	30.26
216+19.17	223+06.09	RT. SIDE OF N.B. ML	686.92	130.50	896.43																	12.19	930.39	220.00	102.34	102.34
259+17.02	261+62.42	RT. SIDE OF N.B. ML	245.40	107.00	262.58																	10.00	272.67	220.00	29.99	29.99
SUBTOTALS (BOX 2 OF 2):					**35462.89**		**26614.73**	**1330.72**	**1330.72**		**9126.25**		**2258.76**		**8884.05**		**1954.49**		**8604.50**		**946.49**		**17387.24**		**1912.59**	**2859.08**
SUBTOTALS (BOX 1 OF 2):					**81464.03**		**248026.23**	**12401.32**	**12401.32**		**83848.54**		**20752.53**		**82620.13**		**18176.44**		**81557.59**		**8971.29**		**111769.26**		**12292.93**	**21264.22**
SUBTOTALS (BOX 2 OF 2):					**35462.89**		**26614.73**	**1330.72**	**1330.72**		**9126.25**		**2258.76**		**8884.05**		**1954.49**		**8604.50**		**946.49**		**17387.24**		**1912.59**	**2859.08**
TOTALS:					**116926.92**		**274640.96**	**13732.04**	**13732.04**		**92974.79**		**23011.29**		**91504.18**		**20130.93**		**90162.09**		**9917.78**		**129156.50**		**14205.52**	**24123.30**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.7% MIN. AGGR.....5.3% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.8% MIN. AGGR.....4.2% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....96.1% MIN. AGGR.....3.9% ASPHALT BINDER
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

⚠ MINOR REVISIONS

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/16/2024		6	ARK.	040901	133	809
		WATER LINE PLANS				

LINE ITEMS	UNITS	QUANTITIES
STEEL WATER LINE (36-INCH)	LIN. FT.	1558
FLEXIBLE EXPANSION JOINT - 36-INCH EBAA IRON - FORCE BALANCED FLEX-TEND	EACH	2
BLIND FLANGES (24-INCH)	EACH	2
BALL VALVE (2-INCH)	EACH	6
ADJUSTABLE PIPE ROLLER SUPPORT	EACH	180
CATHODIC PROTECTION	LUMP SUM	1.00 ⚠

FOR INFORMATION ONLY (INCLUDED IN THE BRIDGE QUANTITIES TABLE)

LINE ITEMS	UNITS	QUANTITIES
STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GR50W) (1)	LBS	4500
CLASS S CONCRETE- BRIDGE (2)	CU YD	7.00 ⚠
REINFORCING STEEL - BRIDGE (GRADE 60)	LBS	1711
UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	CU YD	450
PORTS - SUBSIDIARY WITH BALL VALVE (2 INCH)	--	--
EPOXY COATING ON DRILLED SHAFT - SUBSIDIARY TO PERMANENT CASING	--	--
EPOXY COATING ON THE STEEL CORBEL - SUBSIDIARY TO STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GR50W)	--	--

(1) STEEL FOR CORBEL BENT 12 &16, PIPE SUPPORT AT BENT 14, ANCHOR BOLTS, WEAR PLATE, CAST IN ANCHOR PLATES FOR INTERMEDIATE COLUMN SUPPORTS

(2) CONCRETE SADDLE FOR BENT 14 PIPE SUPPORT

CERTIFICATE OF AUTHORIZATION
BURNS & McDONNELL ENGINEERING COMPANY, INC.
No.17
ARKANSAS-ENGINEER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 17595
JEFFREY WARREN HEIDRICK
9/16/24
CIVIL ENGINEER

36" STEEL WATER LINE
QUANTITIES
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 ⚠ SEC. 6 ⚠

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TWM DATE: 02/2024
CHECKED BY: KBH DATE: 03/2024
DESIGNED BY: BDM DATE: 02/2024
FILENAME: 040748-BR-BMCD-04.dgn
SCALE: NONE

BRIDGE NO. 07684
DRAWING NO.

PRINT DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	134	809
		07684 & 07685 - QUANTITIES - 67366				

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 040901 - ALTERNATE NO. 1

BRIDGE NUMBER	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NUMBER	SS & 619	801	SP, SS, & 802	SP, SS, & 802	SP, SS, & 802	SP & 803	SS & 804	SS & 804	SS & 805	SP, SS, & 807	SP, SS, & 807	SS & 807	SS & 808	SS & 809	812	815	SS & 816	SS & 816	SP JOB 040901	SP JOB 040901
			ITEM	6' STEEL CHAIN LINK FENCE	UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE	CLASS S CONCRETE-BRIDGE	CLASS S(AE) CONCRETE-BRIDGE (2)	PRESTRESSED CONCRETE GIRDERS (TYPE BT-72)	CLASS 2 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL-BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	STEEL PILING (HP 14X89) (1)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (3) (M270-GR50W) (4)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GRHPS70W)	PAINTING STRUCTURAL STEEL	ELASTOMERIC BEARINGS	ARMORED JOINT WITH NEOPRENE STRIP SEAL	BRIDGE NAME PLATE (TYPE D)	MEMBRANE WATERPROOFING (TYPE C)	FILTER BLANKET (3)	CONCRETE RIPRAP	ABUTMENT STONE (3)	CLEARANCE GAUGES
			UNIT	LIN. FT.	CU. YD.	CU. YD.	CU. YD.	LIN. FT.	SQ. YD.	POUND	POUND	LIN. FT.	POUND	POUND	TON	CU. IN.	LIN. FT.	EACH	SQ. FT.	SQ. YD.	CU. YD.	CU. YD.	LUMP SUM
07684 - ALTERNATE NO. 1	1-49 OVER THE ARKANSAS RIVER	END BENT NO. 1				134.59	6.40		32.5	19,911	1,127	1,077	1,139		0.5	11,050.0	84	1	20	3,876		2,584	
		BENT NO. 2				96.62				31,124			332			9,165.3							
		BENT NO. 3				111.42				33,004					0.3	14,812.8							
		BENT NO. 4				144.53				37,046			35,888		0.9	25,894.4							
		BENT NO. 5				156.28				39,183					0.3	14,812.8							
		BENT NO. 6				163.15				41,083						9,622.6							
		BENT NO. 7				169.49				42,275						9,622.6							
		BENT NO. 8				195.54				42,576			39,058		0.9	29,688.8							
		BENT NO. 9				242.04				53,185			3,725		0.3	14,812.8							
		BENT NO. 10				248.89				55,021						9,622.6							
		BENT NO. 11				273.69				59,357			4,021			9,622.6							
		BENT NO. 12				567.60				119,711			3,219		3.7	14,844.4							
		BENT NO. 13			3,615	1,035.53				131,566	50,312				1.6								
		BENT NO. 14				1,057.74				135,476	50,312				1.6								1
		BENT NO. 15				1,033.56				131,156	50,312				1.6								
		BENT NO. 16				633.06				131,514			3,219		3.7	14,844.4							
		BENT NO. 17				292.99				62,806						9,191.4							
		BENT NO. 18				283.57				61,108						9,191.4							
		BENT NO. 19				200.70				47,539					0.3	14,812.8							
		BENT NO. 20				216.83				46,585			35,922		0.9	29,688.8							
		BENT NO. 21				195.12				46,947						9,191.4							
		BENT NO. 22				166.27				41,692						9,191.4							
		BENT NO. 23				162.12				40,172					0.3	14,812.8							
		BENT NO. 24				174.84				38,770			35,888		0.9	25,894.3							
		BENT NO. 25				151.07				38,589						9,178.1							
		BENT NO. 26				144.44				37,344						9,178.1							
		BENT NO. 27				139.10				35,978			35,854		0.9	22,100.0							
		BENT NO. 28				106.12				32,411						9,178.1							
		BENT NO. 29				104.58				32,152						9,178.1							
		BENT NO. 30				137.74				35,702			35,854		0.9	22,100.0							
		BENT NO. 31				108.62				32,879						9,178.1							
		BENT NO. 32				104.37				32,086			332			9,178.1							
		END BENT NO. 33				125.29	4.27		24.8	17,651	861	1,308	1,139		0.5	11,050.0	84		20	2,425		1,617	
		390'-0" CONT. PRSTRS. CONC. GIRDER UNIT 1					1,358.04	3,867.5	4,177.4		319,631		16,071										
		520'-0" CONT. PRSTRS. CONC. GIRDER UNIT 2		266			1,795.43	5,155.0	5,569.4		431,551		23,181										
		520'-0" CONT. PRSTRS. CONC. GIRDER UNIT 3		1,040			1,813.74	5,155.0	5,553.2		435,207		29,141										
		1590'-0" CONT. COMP. PLATE GIRDER UNIT 4		734			4,372.15		17,019.3		1,112,519		10,257,449	2,364,540	745.0								
		CITY OF FORT SMITH WATERLINE (UNIT 4) (5)			450	7.00				1,711			426,054										
		520'-0" CONT. PRSTRS. CONC. GIRDER UNIT 5					1,805.13	5,155.0	5,548.3		434,863		21,314										
		520'-0" CONT. PRSTRS. CONC. GIRDER UNIT 6					1,791.53	5,155.0	5,567.6		431,176		21,314										
		390'-0" CONT. PRSTRS. CONC. GIRDER UNIT 7					1,345.85	3,865.0	4,173.3		319,711		16,072										
		390'-0" CONT. PRSTRS. CONC. GIRDER UNIT 8					1,345.85	3,865.0	4,173.3		319,711		16,072										
		390'-0" CONT. PRSTRS. CONC. GIRDER UNIT 9					1,347.11	3,867.5	4,177.4		319,537		16,072										
		TOTAL FOR BRIDGE NO. 07684 - ALTERNATE NO. 1 (5)		2,040	4,065	9,084.50	16,985.50	36,085.0	56,016.5	1,785,310	4,276,830	2,385	11,078,330	2,364,540	765.1	420,709.0	168	1	40	6,301	0	4,201	1

Note:

For Bridge Navigation Lighting pay item, see Illumination Plans.

SUPPLEMENTAL WATERLINE BRIDGE QUANTITIES (FOR INFORMATION ONLY)		
STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GR50W)		
INSPECTION ACCESS (SUPERSTRUCTURE)	13,160	POUND
INSPECTION ACCESS (SUBSTRUCTURE)	205,124	POUND
WATERLINE SUPPORTS (SUPERSTRUCTURE)	203,270	POUND
	421,554	POUND

(1) Steel Piles are required to be Grade 50 and have approved driving points which will not be paid for directly, but shall be considered subsidiary to item "Steel Piling (HP 14x89)". All piles shall conform to Std. Dwg. No. 55020.

(2) Rail conduits, conduit expansion joints, and junction boxes are subsidiary to the traffic rail concrete.

(3) Alternate No. 2 is used to calculate the quantity of the filter blanket, abutment stone, and deck drainage components.

(4) Includes weight of girders, stiffeners, crossframes, shear studs, field splices, deck drainage components, finger plate expansion joints, barrier plates, bolts, anchor bolts, pipe sleeves, nuts, washers, waterline and inspection access supports, pier mounted inspection access, ITS and Utility bank supports,embed plates, and bearing steel as specified in the plans.

(5) Includes the following City of Fort Smith Waterline Quantities:
- Supplemental Waterline Bridge Quantities to access and support the Waterline: See Table on this sheet.
- Bridge Quantities identified in the 36" Steel Waterline Plans: See Table on Sheet 133.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19996
BRENT T. JONES

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 3
SCHEDULE OF BRIDGE QUANTITIES
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: NAM DATE: 1/24/24
CHECKED BY: CPS DATE: 1/24/24
DESIGNED BY: BTJ DATE: 1/23/24
FILENAME: b04090111_q1.dgn
SCALE: NO SCALE

BRIDGE NO. 07684 & 07685 DRAWING NO. 67366

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	135	809
		07684 & 07685 - QUANTITIES - 67367				

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 040901 - ALTERNATE NO. 1

BRIDGE NUMBER	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NUMBER	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901
			ITEM	DRILLED SHAFT (54" DIAMETER)	DRILLED SHAFT (66" DIAMETER)	DRILLED SHAFT (78" DIAMETER)	DRILLED SHAFT (108" DIAMETER)	PERMANENT STEEL CASING (60" DIAMETER)	PERMANENT STEEL CASING (72" DIAMETER)	PERMANENT STEEL CASING (84" DIAMETER)	PERMANENT STEEL CASING (114" DIAMETER)	HLMR BEARING ASSEMBLY	MODULAR JOINT	CORING DRILLED SHAFT	CROSSHOLE SONIC LOGGING (54" DIAMETER)	CROSSHOLE SONIC LOGGING (66" DIAMETER)	CROSSHOLE SONIC LOGGING (78" DIAMETER)	CROSSHOLE SONIC LOGGING (108" DIAMETER)	THERMAL INTEGRITY PROFILING (108" DIAMETER)	REVETMENT STONE (GRADATION A) - ARKANSAS RIVER	SHORING (SITE NO. 1)
			UNIT	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	CU. YD.	LUMP SUM
07684 - ALTERNATE NO. 1	I-49 OVER THE ARKANSAS RIVER	END BENT NO. 1																			
		BENT NO. 2		159				111						40	3						
		BENT NO. 3		144				96						36	3						
		BENT NO. 4		138				90						35	3						
		BENT NO. 5			126				90					32		3					
		BENT NO. 6			168				129					42		3					
		BENT NO. 7			171				132					43		3					
		BENT NO. 8			189				150					47		3					
		BENT NO. 9				141				102				35			3				
		BENT NO. 10				147				108				37			3				
		BENT NO. 11				135				96				34			3				
		BENT NO. 12					192				(1) 123		82	48				3	3		
		BENT NO. 13					159				78			40				3	3	3,615	1
		BENT NO. 14					168				87			42				3	3		
		BENT NO. 15					156				75			39				3	3		
		BENT NO. 16					177				(1) 108		82	44				3	3		
		BENT NO. 17				150				96				38			3				
		BENT NO. 18				156				102				39			3				
		BENT NO. 19			147				102					37		3					
		BENT NO. 20			150				105					38		3					
		BENT NO. 21			144				99					36		3					
		BENT NO. 22			171				138					43		3					
		BENT NO. 23			168				135					42		3					
		BENT NO. 24			174				141					44		3					
		BENT NO. 25			177				144					44		3					
		BENT NO. 26			177				144					44		3					
		BENT NO. 27		180				150						45	3						
		BENT NO. 28		180				150						45	3						
		BENT NO. 29		168				138						42	3						
		BENT NO. 30		153				126						38	3						
		BENT NO. 31		147				120						37	3						
		BENT NO. 32		162				123						41	3						
		END BENT NO. 33																			
		390'-0" CONT. PRSTRS. CONC. GIRDER UNIT 1																			
		520'-0" CONT. PRSTRS. CONC. GIRDER UNIT 2																			
		520'-0" CONT. PRSTRS. CONC. GIRDER UNIT 3																			
		1590'-0" CONT. COMP. PLATE GIRDER UNIT 4										40									
		CITY OF FORT SMITH WATERLINE (UNIT 4) (2)																			
		520'-0" CONT. PRSTRS. CONC. GIRDER UNIT 5																			
		520'-0" CONT. PRSTRS. CONC. GIRDER UNIT 6																			
		390'-0" CONT. PRSTRS. CONC. GIRDER UNIT 7																			
		390'-0" CONT. PRSTRS. CONC. GIRDER UNIT 8																			
		390'-0" CONT. PRSTRS. CONC. GIRDER UNIT 9																			
TOTAL FOR BRIDGE NO. 07684 - ALTERNATE NO. 1 (2)				1,431	1,962	729	852	1,104	1,509	504	471	40	164	1,247	27	36	15	15	15	3,615	1

(1) Coating on Permanent Casing for Center and West columns is subsidiary to "PERMANENT STEEL CASING (114" DIAMETER)". See Waterline Plans for details.

(2) Includes the following City of Fort Smith Waterline Quantities:
- Supplemental Waterline Bridge Quantities to access and support the Waterline: See Table on Dwg. No. 67366.
- Bridge Quantities identified in the 36" Steel Waterline Plans: See Table on Sheet 133.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19996
BRENT T. JONES

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 3
SCHEDULE OF BRIDGE QUANTITIES
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: NAM DATE: 1/24/24
CHECKED BY: CPS DATE: 1/24/24
DESIGNED BY: BTJ DATE: 1/23/24
FILENAME: b04090111_q2.dgn
SCALE: NO SCALE

BRIDGE NO. 07684 & 07685 DRAWING NO. 67367

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	136	809
				07684 & 07685 - QUANTITIES - 67368		

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 040901 - ALTERNATE NO. 1

BRIDGE NUMBER	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NUMBER	SS & 619	801	SP, SS, & 802	SP, SS, & 802	SP, SS, & 802	SP & 803	SS & 804	SS & 804	SS & 805	SP, SS, & 807	SP, SS, & 807	SS & 807	SS & 808	SS & 809	812	815	SS & 816	SS & 816	SP JOB 040901	SP JOB 040901
			ITEM	6' STEEL CHAIN LINK FENCE	UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE	CLASS S CONCRETE-BRIDGE	CLASS S(AE) CONCRETE-BRIDGE (2)	PRESTRESSED CONCRETE GIRDERS (TYPE BT-72)	CLASS 2 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL-BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	STEEL PILING (HP 14X89) (1)	STRUCTURAL STEEL IN PLATE GIRDER (3) SPANS (4) (M270-GR50W)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GRHPS70W)	PAINTING STRUCTURAL STEEL	ELASTOMERIC BEARINGS	ARMORED JOINT WITH NEOPRENE STRIP SEAL	BRIDGE NAME PLATE (TYPE D)	MEMBRANE WATERPROOFING (TYPE C)	FILTER BLANKET (3)	CONCRETE RIPRAP	ABUTMENT STONE (3)	CLEARANCE GAUGES
			UNIT	LIN. FT.	CU. YD.	CU. YD.	CU. YD.	LIN. FT.	SQ. YD.	POUND	POUND	LIN. FT.	POUND	POUND	TON	CU. IN.	LIN. FT.	EACH	SQ. FT.	SQ. YD.	CU. YD.	CU. YD.	LUMP SUM
07685 - ALTERNATE NO. 1	I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.	END BENT NO. 1				134.16	6.13		31.5	19,727	1,083	1,350	1,174		0.5	14,844.3	84	1	20	3,387		2,258	
		BENT NO. 2				150.24				37,828			372			9,598.4							
		BENT NO. 3				154.22				38,703						9,620.6							
		BENT NO. 4				173.69				41,445					0.3	14,812.8							
		BENT NO. 5				195.67				50,585			36,005		0.9	23,656.8							
		BENT NO. 6				213.74				46,672						10,335.4							
		BENT NO. 7				223.74				48,844						10,055.3							
		BENT NO. 8				214.43				46,449					0.3	16,294.0							
		BENT NO. 9				243.19				61,854			43,448		1.4	30,677.1							
		BENT NO. 10				233.38				50,770						10,665.2							
		BENT NO. 11				236.13				51,301						10,665.2							
		BENT NO. 12				212.81				46,250			7,491		0.3	17,775.2					321		
		BENT NO. 13				186.55				35,456			48,198		1.2	27,426.8							
		BENT NO. 14				146.74				43,814			3,235			10,968.3							
		BENT NO. 15				143.46				43,133			3,512			11,401.1							
		END BENT NO. 16				151.75	5.87		32.3	20,009	1,037	1,929	1,310		0.5	9,613.5	100		20		206		
		520'-0" CONT. PRSTRS. CONC. GIRDER UNIT 1					1,801.11	5,157.5	5,571.7		431,787		21,699										
		420'-0" CONT. PRSTRS. CONC. GIRDER UNIT 2					1,615.69	4,570.8	4,867.9		410,045		16,571										
		520'-0" CONT. PRSTRS. CONC. GIRDER UNIT 3					2,087.47	6,186.0	6,491.8		497,933		33,847										
		360'-0" CONT. PRSTRS. CONC. GIRDER UNIT 4					1,442.43	4,281.0	4,496.7		349,315		31,408										
TOTAL FOR BRIDGE NO. 07685 - ALTERNATE NO. 1				0	0	3,013.90	6,958.70	20,195.3	21,491.9	682,840	1,691,200	3,279	248,270	0	5.4	238,410.0	184	1	40	3,387	527	2,258	0
TOTAL FOR BRIDGE NO. 07684 - ALTERNATE NO. 1 (See Sheet 1 of 3) (5)				2,040	4,065	9,084.50	16,985.50	36,085.0	56,016.5	1,785,310	4,276,830	2,385	11,078,330	2,364,540	765.1	420,709.0	168	1	40	6,301	0	4,201	1
TOTALS FOR JOB NO. 040901 - ALTERNATE NO. 1 (5)				2,040	4,065	12,098.40	23,944.20	56,280.3	77,508.4	2,468,150	5,968,030	5,664	11,326,600	2,364,540	770.5	659,119.0	352	2	80	9,688	527	6,459	1

BRIDGE NUMBER	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NUMBER	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901
			ITEM	DRILLED SHAFT (54" DIAMETER)	DRILLED SHAFT (66" DIAMETER)	DRILLED SHAFT (78" DIAMETER)	DRILLED SHAFT (108" DIAMETER)	PERMANENT STEEL CASING (60" DIAMETER)	PERMANENT STEEL CASING (72" DIAMETER)	PERMANENT STEEL CASING (84" DIAMETER)	PERMANENT STEEL CASING (114" DIAMETER)	HLMR BEARING ASSEMBLY	MODULAR JOINT	CORING DRILLED SHAFT	CROSSHOLE SONIC LOGGING (54" DIAMETER)	CROSSHOLE SONIC LOGGING (66" DIAMETER)	CROSSHOLE SONIC LOGGING (78" DIAMETER)	CROSSHOLE SONIC LOGGING (108" DIAMETER)	THERMAL INTEGRITY PROFILING (108" DIAMETER)	REVETMENT STONE (GRADATION A) - ARKANSAS RIVER	SHORING (SITE NO. 1)
			UNIT	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	CU. YD.	LUMP SUM
07685 - ALTERNATE NO. 1	I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.	END BENT NO. 1																				
		BENT NO. 2			195				117					49		3						
		BENT NO. 3			204				132					51		3						
		BENT NO. 4			189				117					47		3						
		BENT NO. 5			153				111					38		3						
		BENT NO. 6			216				156					54		4						
		BENT NO. 7			220				160					55		4						
		BENT NO. 8			244				176					61		4						
		BENT NO. 9			236				176					59		4						
		BENT NO. 10			228				168					57		4						
		BENT NO. 11			232				172					58		4						
		BENT NO. 12			272				212					68		4						
		BENT NO. 13		252				204						63	4							
		BENT NO. 14		264				216						66	4							
		BENT NO. 15		248				200						62	4							
		END BENT NO. 16																				
		520'-0" CONT. PRSTRS. CONC. GIRDER UNIT 1																				
		420'-0" CONT. PRSTRS. CONC. GIRDER UNIT 2																				
		520'-0" CONT. PRSTRS. CONC. GIRDER UNIT 3																				
		360'-0" CONT. PRSTRS. CONC. GIRDER UNIT 4																				
TOTAL FOR BRIDGE NO. 07685 - ALTERNATE NO. 1				764	2,389	0	0	620	1,697	0	0	0	0	788	12	40	0	0	0	0	0	
TOTAL FOR BRIDGE NO. 07684 - ALTERNATE NO. 1 (See Sheet 2 of 3) (5)				1,431	1,962	729	852	1,104	1,509	504	471	40	164	1,247	27	36	15	15	15	3,615	1	
TOTALS FOR JOB NO. 040901 - ALTERNATE NO. 1 (5)				2,195	4,351	729	852	1,724	3,206	504	471	40	164	2,035	39	76	15	15	15	3,615	1	

(1) Steel Piles are required to be Grade 50 and have approved driving points which will not be paid for directly, but shall be considered subsidiary to item "Steel Piling (HP 14x89)". All piles shall conform to Std. Dwg. No. 55020.

(2) Rail conduits, conduit expansion joints, and junction boxes are subsidiary to the traffic rail concrete.

(3) Alternate No. 2 is used to calculate the quantity of the filter blanket, abutment stone, and deck drainage components.

(4) Includes weight of girders, stiffeners, crossframes, shear studs, field splices, deck drainage components, finger plate expansion joints, barrier plates, bolts, nuts, washers, waterline and inspection access supports, pier mounted inspection access, ITS and Utility bank supports, embed plates, and bearing steel as specified in the plans.

(5) Includes the following City of Fort Smith Waterline Quantities:
- Supplemental Waterline Bridge Quantities to access and support the Waterline: See Table on Dwg. No. 67366.
- Bridge Quantities identified in the 36" Steel Waterline Plans: See Table on Sheet 133.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19996
BRENT T. JONES
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 3 OF 3
SCHEDULE OF BRIDGE QUANTITIES
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: NAM DATE: 1/24/24
CHECKED BY: CPS DATE: 1/24/24
DESIGNED BY: BTJ DATE: 1/23/24
FILENAME: b040901116_q1.dgn
SCALE: NO SCALE

BRIDGE NO. 07684 & 07685 DRAWING NO. 67368

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	137	809
		07684 & 07685 - QUANTITIES - 67369				

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 040901 - ALTERNATE NO. 2

BRIDGE NUMBER	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NUMBER	SS & 619	801	SP, SS, & 802	SP, SS, & 802	SP & 803	SS & 804	SS & 804	SS & 805	SP, SS, & 807	SP, SS, & 807	SS & 807	SS & 808	SS & 809	812	815	SS & 816	SS & 816	SP JOB 040901	SP JOB 040901
			ITEM	6' STEEL CHAIN LINK FENCE	UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE	CLASS S CONCRETE-BRIDGE	CLASS S(AE) CONCRETE-BRIDGE (2)	CLASS 2 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL-BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	STEEL PILING (HP 14X89) (1)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (3) (M270-GR50W) (4)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GRHPS70W)	PAINTING STRUCTURAL STEEL	ELASTOMERIC BEARINGS	ARMORED JOINT WITH NEOPRENE STRIP SEAL	BRIDGE NAME PLATE (TYPE D)	MEMBRANE WATERPROOFING (TYPE C)	FILTER BLANKET (3)	CONCRETE RIPRAP	ABUTMENT STONE (3)	CLEARANCE GAUGES
			UNIT	LIN. FT.	CU. YD.	CU. YD.	CU. YD.	SQ. YD.	POUND	POUND	LIN. FT.	POUND	POUND	TON	CU. IN.	LIN. FT.	EACH	SQ. FT.	SQ. YD.	CU. YD.	CU. YD.	LUMP SUM
07684 - ALTERNATE NO. 2	I-49 OVER THE ARKANSAS RIVER	END BENT NO. 1				124.21	6.40	32.5	15,454	1,127	1,096	1,320		0.5	9,180.0	84	1	15	3,876		2,584	
		BENT NO. 2				98.16			25,943			1,322		0.2	5,481.0							
		BENT NO. 3				113.28			28,777			1,023		0.2	7,371.0							
		BENT NO. 4				120.55			27,704			38,018		1.1	20,925.0							
		BENT NO. 5				158.64			34,663			1,028		0.2	9,072.0							
		BENT NO. 6				165.05			35,855			1,028		0.2	6,480.0							
		BENT NO. 7				171.39			37,047			1,023		0.2	7,371.0							
		BENT NO. 8				177.46			34,523			41,179		1.1	23,490.0							
		BENT NO. 9				245.61			47,783			4,753		0.2	9,072.0							
		BENT NO. 10				251.50			48,854			1,028		0.2	6,480.0							
		BENT NO. 11				276.50			53,243			5,044		0.2	7,371.0							
		BENT NO. 12				576.52			120,368			3,429		3.8	11,745.0							
		BENT NO. 13			3,615	1,035.53			131,566	50,312				1.6								
		BENT NO. 14				1,057.74			135,476	50,312				1.6								1
		BENT NO. 15				1,033.56			131,156	50,312				1.6								
		BENT NO. 16				641.93			132,174			3,429		3.8	11,745.0							
		BENT NO. 17				295.97			56,638			1,023		0.2	7,371.0							
		BENT NO. 18				286.22			54,940			1,028		0.2	6,480.0							
		BENT NO. 19				203.36			42,991			1,028		0.2	9,072.0							
		BENT NO. 20				198.64			38,506			38,083		1.1	23,490.0							
		BENT NO. 21				196.71			41,746			1,023		0.2	7,371.0							
		BENT NO. 22				168.13			36,465			1,028		0.2	6,480.0							
		BENT NO. 23				163.69			35,626			1,028		0.2	9,072.0							
		BENT NO. 24				157.10			30,761			38,018		1.1	20,925.0							
		BENT NO. 25				152.88			33,595			990		0.2	5,481.0							
		BENT NO. 26				146.24			32,375			990		0.2	5,481.0							
		BENT NO. 27				114.65			26,601			37,953		1.0	18,360.0							
		BENT NO. 28				107.01			27,611			990		0.2	5,481.0							
		BENT NO. 29				105.60			27,336			990		0.2	5,481.0							
		BENT NO. 30				113.07			26,327			37,953		1.0	18,360.0							
		BENT NO. 31				109.65			28,063			990		0.2	5,481.0							
		BENT NO. 32				105.41			27,286			1,322		0.2	5,481.0							
		END BENT NO. 33				114.84	4.27	24.8	13,216	764	1,327	1,320		0.5	9,180.0	84		15	2,425		1,617	
		390'-0" CONT. COMP. PLATE GIRDER UNIT 1					1,089.54	4,177.4		236,525		1,103,742		76.6								
		520'-0" CONT. COMP. PLATE GIRDER UNIT 2		266			1,449.68	5,569.4		317,332		1,523,957		98.0								
		520'-0" CONT. COMP. PLATE GIRDER UNIT 3		1,040			1,457.96	5,553.2		321,962		1,531,291		98.6								
		1590'-0" CONT. COMP. PLATE GIRDER UNIT 4		734			4,372.15	17,019.3		1,112,519		10,257,449	2,364,540	745.0								
		CITY OF FORT SMITH WATERLINE (UNIT 4) (5)			450	7.00			1,711			426,054										
		520'-0" CONT. COMP. PLATE GIRDER UNIT 5					1,455.66	5,548.3		321,274		1,523,457		98.6								
		520'-0" CONT. COMP. PLATE GIRDER UNIT 6					1,448.82	5,567.6		316,832		1,522,090		98.0								
		390'-0" CONT. COMP. PLATE GIRDER UNIT 7					1,090.52	4,173.3		235,670		1,104,202		76.9								
		390'-0" CONT. COMP. PLATE GIRDER UNIT 8					1,090.52	4,173.3		235,670		1,104,202		76.9								
		390'-0" CONT. COMP. PLATE GIRDER UNIT 9					1,089.18	4,177.4		236,389		1,103,745		76.6								
TOTAL FOR BRIDGE NO. 07684 - ALTERNATE NO. 2 (5)				2,040	4,065	8,993.80	14,554.70	56,016.5	1,622,380	3,487,000	2,423	21,469,570	2,364,540	1,469.0	304,830.0	168	1	30	6,301	0	4,201	1

Note:

For Bridge Navigation Lighting pay item, see Illumination Plans.

SUPPLEMENTAL WATERLINE BRIDGE QUANTITIES (FOR INFORMATION ONLY)		
STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GR50W)		
INSPECTION ACCESS (SUPERSTRUCTURE)	13,160	POUND
INSPECTION ACCESS (SUBSTRUCTURE)	205,124	POUND
WATERLINE SUPPORTS (SUPERSTRUCTURE)	203,270	POUND
	421,554	POUND

(1) Steel Piles are required to be Grade 50 and have approved driving points which will not be paid for directly, but shall be considered subsidiary to item "Steel Piling (HP 14x89)". All piles shall conform to Std. Dwg. No. 55020.

(2) Rail conduits, conduit expansion joints, and junction boxes are subsidiary to the traffic rail concrete.

(3) Alternate No. 2 is used to calculate the quantity of the filter blanket, abutment stone, and deck drainage components.

(4) Includes weight of girders, stiffeners, crossframes, shear studs, field splices, deck drainage components, finger plate expansion joints, barrier plates, bolts, nuts, washers, waterline and inspection access supports, pier mounted inspection access, ITS and Utility bank supports, embed plates, and bearing steel as specified in the plans.

(5) Includes the following City of Fort Smith Waterline Quantities:
- Supplemental Waterline Bridge Quantities to access and support the Waterline: See Table on this sheet.
- Bridge Quantities identified in the 36" Steel Waterline Plans: See Table on Sheet 133.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19996
BRENT T. JONES

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 2
SHEET 1 OF 3
SCHEDULE OF BRIDGE QUANTITIES
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: NAM DATE: 1/24/24
CHECKED BY: CPS DATE: 1/24/24
DESIGNED BY: BTJ DATE: 1/23/24
FILENAME: b04090121_q1.dgn
SCALE: NO SCALE

BRIDGE NO. 07684 & 07685 DRAWING NO. 67369

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	138	809
		07684 & 07685 - QUANTITIES - 67370				

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 040901 - ALTERNATE NO. 2

BRIDGE NUMBER	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NUMBER	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901
			ITEM	DRILLED SHAFT (54" DIAMETER)	DRILLED SHAFT (66" DIAMETER)	DRILLED SHAFT (78" DIAMETER)	DRILLED SHAFT (108" DIAMETER)	PERMANENT STEEL CASING (60" DIAMETER)	PERMANENT STEEL CASING (72" DIAMETER)	PERMANENT STEEL CASING (84" DIAMETER)	PERMANENT STEEL CASING (114" DIAMETER)	HLMR BEARING ASSEMBLY	MODULAR JOINT	CORING DRILLED SHAFT	CROSSHOLE SONIC LOGGING (54" DIAMETER)	CROSSHOLE SONIC LOGGING (66" DIAMETER)	CROSSHOLE SONIC LOGGING (78" DIAMETER)	CROSSHOLE SONIC LOGGING (108" DIAMETER)	THERMAL INTEGRITY PROFILING (108" DIAMETER)	REVETMENT STONE (GRADATION A) - ARKANSAS RIVER	SHORING (SITE NO. 1)
			UNIT	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	CU. YD.	LUMP SUM
07684 - ALTERNATE NO. 2	I-49 OVER THE ARKANSAS RIVER	END BENT NO. 1																			
		BENT NO. 2		159				111						40	3						
		BENT NO. 3		144				96						36	3						
		BENT NO. 4		138				90						35	3						
		BENT NO. 5			126				90					32		3					
		BENT NO. 6			168				129					42		3					
		BENT NO. 7			171				132					43		3					
		BENT NO. 8			189				150					47		3					
		BENT NO. 9				141				102				35			3				
		BENT NO. 10				147				108				37			3				
		BENT NO. 11				135				96				34			3				
		BENT NO. 12					192				(1) 123		82	48				3	3		
		BENT NO. 13					159				78			40				3	3	3,615	1
		BENT NO. 14					168				87			42				3	3		
		BENT NO. 15					156				75			39				3	3		
		BENT NO. 16					177				(1) 108		82	44				3	3		
		BENT NO. 17				150				96				38			3				
		BENT NO. 18				156				102				39			3				
		BENT NO. 19			147				102					37		3					
		BENT NO. 20			150				105					38		3					
		BENT NO. 21			144				99					36		3					
		BENT NO. 22			171				138					43		3					
		BENT NO. 23			168				135					42		3					
		BENT NO. 24			174				141					44		3					
		BENT NO. 25			177				144					44		3					
		BENT NO. 26			177				144					44		3					
		BENT NO. 27		180				150						45	3						
		BENT NO. 28		180				150						45	3						
		BENT NO. 29		168				138						42	3						
		BENT NO. 30		153				126						38	3						
		BENT NO. 31		147				120						37	3						
		BENT NO. 32		162				123						41	3						
		END BENT NO. 33																			
		390'-0" CONT. COMP. PLATE GIRDER UNIT 1																			
		520'-0" CONT. COMP. PLATE GIRDER UNIT 2																			
		520'-0" CONT. COMP. PLATE GIRDER UNIT 3																			
		1590'-0" CONT. COMP. PLATE GIRDER UNIT 4										40									
		CITY OF FORT SMITH WATERLINE (UNIT 4) (2)																			
		520'-0" CONT. COMP. PLATE GIRDER UNIT 5																			
		520'-0" CONT. COMP. PLATE GIRDER UNIT 6																			
		390'-0" CONT. COMP. PLATE GIRDER UNIT 7																			
		390'-0" CONT. COMP. PLATE GIRDER UNIT 8																			
		390'-0" CONT. COMP. PLATE GIRDER UNIT 9																			
TOTAL FOR BRIDGE NO. 07684 - ALTERNATE NO. 2 (2)				1,431	1,962	729	852	1,104	1,509	504	471	40	164	1,247	27	36	15	15	15	3,615	1

(1) Coating on Permanent Casing for Center and West columns is subsidiary to "PERMANENT STEEL CASING (114" DIAMETER)". See Waterline Plans for details.

(2) Includes the following City of Fort Smith Waterline Quantities:
- Supplemental Waterline Bridge Quantities to access and support the Waterline: See Table on Dwg. No. 67369.
- Bridge Quantities identified in the 36" Steel Waterline Plans: See Table on Sheet 133.

PRINT DATE: 4/10/2024

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19996
BRENT T. JONES

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 2
SHEET 2 OF 3
SCHEDULE OF BRIDGE QUANTITIES
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: NAM DATE: 1/24/24
CHECKED BY: JRG DATE: 1/24/24
DESIGNED BY: BTJ DATE: 1/23/24
FILENAME: b04090121_q2.dgn
SCALE: NO SCALE

BRIDGE NO. 07684 & 07685 DRAWING NO. 67370

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	139	809
		07684 & 07685 - QUANTITIES - 67371				

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 040901 - ALTERNATE NO. 2

BRIDGE NUMBER	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NUMBER	SS & 619	801	SP, SS, & 802	SP, SS, & 802	SP & 803	SS & 804	SS & 804	SS & 805	SP, SS, & 807	SP, SS, & 807	SS & 807	SS & 808	SS & 809	812	815	SS & 816	SS & 816	SP JOB 040901	SP JOB 040901
			ITEM	6' STEEL CHAIN LINK FENCE	UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE	CLASS S CONCRETE-BRIDGE	CLASS S(AE) CONCRETE-BRIDGE (2)	CLASS 2 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL-BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	STEEL PILING (HP 14X89) (1)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (3)(M270-GR50W)(4)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GRHPS70W)	PAINTING STRUCTURAL STEEL	ELASTOMERIC BEARINGS	ARMORED JOINT WITH NEOPRENE STRIP SEAL	BRIDGE NAME PLATE (TYPE D)	MEMBRANE WATERPROOFING (TYPE C)	FILTER BLANKET (3)	CONCRETE RIPRAP	ABUTMENT STONE (3)	CLEARANCE GAUGES
			UNIT	LIN. FT.	CU. YD.	CU. YD.	CU. YD.	SQ. YD.	POUND	POUND	LIN. FT.	POUND	POUND	TON	CU. IN.	LIN. FT.	EACH	SQ. FT.	SQ. YD.	CU. YD.	CU. YD.	LUMP SUM
07685 - ALTERNATE NO. 2	I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.	END BENT NO. 1				123.97	6.13	31.5	15,389	1,083	1,388	1,384		0.6	11,745.0	84	1	15	3,387		2,258	
		BENT NO. 2				152.02			33,037			1,395		0.2	7,371.0							
		BENT NO. 3				156.00			33,727			1,028		0.2	6,480.0							
		BENT NO. 4				175.43			37,149			1,028		0.2	9,072.0							
		BENT NO. 5				181.11			38,467			38,018		1.1	19,089.0							
		BENT NO. 6				216.73			43,964			1,250		0.2	7,078.5							
		BENT NO. 7				226.87			45,920			1,250		0.2	7,078.5							
		BENT NO. 8				218.24			45,649			1,257		0.2	7,920.0							
		BENT NO. 9				228.20			47,923			45,140		1.3	23,331.0							
		BENT NO. 10				235.73			48,829			1,257		0.2	8,712.0							
		BENT NO. 11				238.61			49,395			1,257		0.2	8,712.0							
		BENT NO. 12				216.16			45,258			8,748		0.2	9,900.0					321		
		BENT NO. 13				157.42			33,664			50,095		1.3	23,925.0							
		BENT NO. 14				148.11			43,658			4,445		0.2	5,742.0							
		BENT NO. 15				144.93			42,978			4,722		0.2	5,742.0							
		END BENT NO. 16				144.07	5.87	32.3	16,783	1,037	1,952	1,548		0.7	9,570.0	100		15		206		
		520'-0" CONT. COMP. PLATE GIRDER UNIT 1					1,447.18	5,571.7		317,563		1,521,995		97.8								
		420'-0" CONT. COMP. PLATE GIRDER UNIT 2					1,262.87	4,867.9		275,154		1,273,113		74.9								
		520'-0" CONT. COMP. PLATE GIRDER UNIT 3					1,677.99	6,491.8		369,985		1,727,739		97.0								
		360'-0" CONT. COMP. PLATE GIRDER UNIT 4					1,168.66	4,496.7		257,798		1,133,181		70.1								
TOTAL FOR BRIDGE NO. 07685 - ALTERNATE NO. 2				0	0	2,963.60	5,568.70	21,491.9	621,790	1,222,620	3,340	5,819,850	0	347.0	171,468.0	184	1	30	3,387	527	2,258	0
TOTAL FOR BRIDGE NO. 07684 - ALTERNATE NO. 2 (See Sheet 1 of 3) (5)				2,040	4,065	8,993.80	14,554.70	56,016.5	1,622,380	3,487,000	2,423	21,469,570	2,364,540	1,469.0	304,830.0	168	1	30	6,301	0	4,201	1
TOTALS FOR JOB NO. 040901 - ALTERNATE NO. 2 (5)				2,040	4,065	11,957.40	20,123.40	77,508.4	2,244,170	4,709,620	5,763	27,289,420	2,364,540	1,816.0	476,298.0	352	2	60	9,688	527	6,459	1

BRIDGE NUMBER	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NUMBER	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901	SP JOB 040901
			ITEM	DRILLED SHAFT (54" DIAMETER)	DRILLED SHAFT (66" DIAMETER)	DRILLED SHAFT (78" DIAMETER)	DRILLED SHAFT (108" DIAMETER)	PERMANENT STEEL CASING (60" DIAMETER)	PERMANENT STEEL CASING (72" DIAMETER)	PERMANENT STEEL CASING (84" DIAMETER)	PERMANENT STEEL CASING (114" DIAMETER)	HLMR BEARING ASSEMBLY	MODULAR JOINT	CORING DRILLED SHAFT	CROSSHOLE SONIC LOGGING (54" DIAMETER)	CROSSHOLE SONIC LOGGING (66" DIAMETER)	CROSSHOLE SONIC LOGGING (78" DIAMETER)	CROSSHOLE SONIC LOGGING (108" DIAMETER)	THERMAL INTEGRITY PROFILING (108" DIAMETER)	REVETMENT STONE (GRADATION A) - ARKANSAS RIVER	SHORING (SITE NO. 1)
			UNIT	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	CU. YD.	LUMP SUM
07685 - ALTERNATE NO. 2	I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.	END BENT NO. 1																				
		BENT NO. 2			195				117					49		3						
		BENT NO. 3			204				132					51		3						
		BENT NO. 4			189				117					47		3						
		BENT NO. 5			153				111					38		3						
		BENT NO. 6			216				156					54		4						
		BENT NO. 7			220				160					55		4						
		BENT NO. 8			244				176					61		4						
		BENT NO. 9			236				176					59		4						
		BENT NO. 10			228				168					57		4						
		BENT NO. 11			232				172					58		4						
		BENT NO. 12			272				212					68		4						
		BENT NO. 13		252				204						63	4							
		BENT NO. 14		264				216						66	4							
		BENT NO. 15		248				200						62	4							
		END BENT NO. 16																				
		520'-0" CONT. COMP. PLATE GIRDER UNIT 1																				
		420'-0" CONT. COMP. PLATE GIRDER UNIT 2																				
		520'-0" CONT. COMP. PLATE GIRDER UNIT 3																				
		360'-0" CONT. COMP. PLATE GIRDER UNIT 4																				
TOTAL FOR BRIDGE NO. 07685 - ALTERNATE NO. 2				764	2,389	0	0	620	1,697	0	0	0	0	788	12	40	0	0	0	0	0	
TOTAL FOR BRIDGE NO. 07684 - ALTERNATE NO. 2 (See Sheet 2 of 3) (5)				1,431	1,962	729	852	1,104	1,509	504	471	40	164	1,247	27	36	15	15	15	3,615	1	
TOTALS FOR JOB NO. 040901 - ALTERNATE NO. 2 (5)				2,195	4,351	729	852	1,724	3,206	504	471	40	164	2,035	39	76	15	15	15	3,615	1	

(1) Steel Piles are required to be Grade 50 and have approved driving points which will not be paid for directly, but shall be considered subsidiary to item "Steel Piling (HP 14x89)". All piles shall conform to Std. Dwg. No. 55020.

(2) Rail conduits, conduit expansion joints, and junction boxes are subsidiary to the traffic rail concrete.

(3) Alternate No. 2 is used to calculate the quantity of the filter blanket, abutment stone, and deck drainage components.

(4) Includes weight of girders, stiffeners, crossframes, shear studs, field splices, deck drainage components, finger plate expansion joints, barrier plates, bolts, nuts, washers, waterline and inspection access supports, pier mounted inspection access, ITS and Utility bank supports, embed plates, and bearing steel as specified in the plans.

(5) Includes the following City of Fort Smith Waterline Quantities:
- Supplemental Waterline Bridge Quantities to access and support the Waterline: See Table on Dwg. No. 67369.
- Bridge Quantities identified in the 36" Steel Waterline Plans: See Table on Sheet 133.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19996
BRENT T. JONES
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 2
SHEET 3 OF 3
SCHEDULE OF BRIDGE QUANTITIES
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: NAM DATE: 1/24/24
CHECKED BY: JRG DATE: 1/24/24
DESIGNED BY: BTJ DATE: 1/23/24
FILENAME: b040901216_q1.dgn
SCALE: NO SCALE

BRIDGE NO. 07684 & 07685 DRAWING NO. 67371

PRINT DATE: 4/10/2024

SUMMARY OF QUANTITIES (BOX 1 OF 3)

ITEM NUMBER	ITEM		BASE QUANTITY	CONCRETE ALTERNATE	ASPHALT ALTERNATE	BRIDGE ALTERNATE 1	BRIDGE ALTERNATE 2	CITY OF FORT SMITH WATER LINE (9030 FAP)	UNIT
SP & 201	CLEARING		67.60						ACRE
SP & 201	CLEARING		114						STATION
SP & 201	GRUBBING		67.60						ACRE
SP & 201	GRUBBING		160						STATION
202	REMOVAL AND DISPOSAL OF FENCE		2856						LIN. FT.
202	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT		69						SQ. YD.
202	REMOVAL AND DISPOSAL OF CONCRETE ISLANDS		957						SQ. YD.
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS		4						EACH
202	REMOVAL AND DISPOSAL OF BOX CULVERTS		1						EACH
202	REMOVAL AND DISPOSAL OF GUARDRAIL		50						LIN. FT.
202	REMOVAL AND DISPOSAL OF SIGNS		22						EACH
202	REMOVAL AND RELOCATION OF SIGN		21						EACH
SP & 207	STONE BACKFILL		2275						TON
SP, SS, & 210	UNCLASSIFIED EXCAVATION		129922						CU. YD.
SP & 210	COMPACTED EMBANKMENT			499065	496649				CU. YD.
SP & 210	ROCK FILL		198833						CU. YD.
SP & 210	SOIL STABILIZATION		500						TON
SP & 215	TRENCHING AND SHOULDER PREPARATION		23						STATION
SP, SS, & 303	AGGREGATE BASE COURSE (CLASS 7)			70149	139664				TON
SP, SS, & 308	AGGREGATE IN CEMENT STABILIZED CRUSHED STONE BASE COURSE			34888					TON
SP, SS, & 308	CEMENT IN CEMENT STABILIZED CRUSHED STONE BASE COURSE			2227					TON
SP, SS, & 308	PROCESSING CEMENT STABILIZED CRUSHED STONE BASE COURSE			106043					SQ. YD.
SS & 401	TACK COAT			14116	27848				GAL.
SP, SS, & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")				22114				TON
SP, SS, & 405	ASPHALT BINDER (PG 76-22) IN ACHM BASE COURSE (1 1/2")				897				TON
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")			3617	22902				TON
SP, SS, & 406	ASPHALT BINDER (PG 70-22) IN ACHM BINDER COURSE (1")			159	159				TON
SP, SS, & 406	ASPHALT BINDER (PG 76-22) IN ACHM BINDER COURSE (1")				846				TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")			16935	35679				TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")			557	328				TON
SP, SS, & 407	ASPHALT BINDER (PG 70-22) IN ACHM SURFACE COURSE (1/2")			391	391				TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")				1279				TON
SP & 412	COLD MILLING ASPHALT PAVEMENT		1195						SQ. YD.
SP, SS, & 501	PORTLAND CEMENT CONCRETE PAVEMENT (9" UNIFORM THICKNESS)			92597					SQ. YD.
SP, SS, & 504	APPROACH SLABS		666.20						CU. YD.
SP, SS, & 504	APPROACH GUTTERS		31.20						CU. YD.
506	PORTLAND CEMENT CONCRETE CORRUGATIONS			163					SQ. YD.
601	MOBILIZATION		1.00						LUMP SUM
SP & 602	FURNISHING FIELD OFFICE		1						EACH
SP, SS, & 603	MAINTENANCE OF TRAFFIC		1.00						LUMP SUM
603	24" TEMPORARY CULVERT		196						LIN. FT.
SS & 604	SIGNS		989						SQ. FT.
SP, SS, & 604	SIGNS LEFT IN PLACE		60						SQ. FT.
SP, SS, & 604	CONSTRUCTION PROJECT INFORMATION SIGN UPDATE		1						EACH
SS & 604	BARRICADES		192						LIN. FT.
SP, SS, & 604	BARRICADES LEFT IN PLACE		64						LIN. FT.
SS & 604	TRAFFIC DRUMS		327						EACH
SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		433						LIN. FT.
SP, SS, & 604	FURNISHING, INSTALLING AND LEAVING IN PLACE PRECAST CONCRETE BARRIER		1633						LIN. FT.
SS & 604	RELOCATING PRECAST CONCRETE BARRIER		260						LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS		28613						LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS		9332						LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS		1028						LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS (WORDS)		1						EACH
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS (ARROWS)		1						EACH
SP, SS, & 605	CONCRETE DITCH PAVING (TYPE B)		7827						SQ. YD.
SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		550						LIN. FT.
SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		2520						LIN. FT.
SS & 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		64						LIN. FT.
SS & 606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		266						LIN. FT.
SS & 606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		8						EACH
SS & 606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		24						EACH
SS & 606	30" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		4						EACH
SS & 606	36" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		2						EACH
SP	CULVERT CLEAN OUT		4						EACH
SP, SS, & 606	18" SIDE DRAIN		276						LIN. FT.
SS & 606	SELECTED PIPE BEDDING		1825						CU. YD.
SS & 609	DROP INLETS (TYPE N3)		8						EACH
SS & 609	DROP INLETS (TYPE RM)		5						EACH
SS & 609	JUNCTION BOXES (TYPE E)		13						EACH
SS & 609	JUNCTION BOXES (TYPE ST)		3						EACH
SS & 611	4" PIPE UNDERDRAINS		31515						LIN. FT.
SS & 611	UNDERDRAIN OUTLET PROTECTORS		149						EACH
SS & 617	GUARDRAIL (TYPE A)		5575						LIN. FT.
SS & 617	GUARDRAIL (TYPE C)		25						LIN. FT.
SS & 617	TERMINAL ANCHOR POSTS (TYPE 1)		2						EACH
SS & 617	GUARDRAIL TERMINAL (TYPE 2)		6						EACH
SS & 617	THRIE BEAM GUARDRAIL TERMINAL		8						EACH
SP	WIRE ROPE SAFETY FENCE		5534						LIN. FT.
SP	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS		1.00						LUMP SUM
SS & 619	WIRE FENCE (TYPE A)		27733						LIN. FT.
* SS & 619	6' STEEL CHAIN LINK FENCE	(ALTERNATE NO. 1)	2406						LIN. FT.
* SS & 619	6' ALUMINUM CHAIN LINK FENCE	(ALTERNATE NO. 2)	2406						LIN. FT.
* SS & 619	8' STEEL GATES	(ALTERNATE NO. 1)	2						EACH
* SS & 619	8' ALUMINUM GATES	(ALTERNATE NO. 2)	2						EACH
* SS & 619	16' STEEL GATES	(ALTERNATE NO. 1)	1						EACH
* SS & 619	16' ALUMINUM GATES	(ALTERNATE NO. 2)	1						EACH
620	LIME		1059						TON
620	SEEDING		596.89						ACRE
SP & 620	SPECIAL SEEDING		172.17						ACRE
SS & 620	MULCH COVER		1587.87						ACRE
SP, SS, & 620	SPECIAL MULCH COVER		516.51						ACRE
620	WATER		84981.8						M. GAL.
621	TEMPORARY SEEDING		1193.78						ACRE
SP & 621	SPECIAL TEMPORARY SEEDING		344.34						ACRE
621	SILT FENCE		42013						LIN. FT.
621	SAND BAG DITCH CHECKS		3278						BAG
621	DIVERSION DITCH		7008						LIN. FT.

* DENOTES ALTERNATE BID ITEMS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024		6	ARK.	040901	140	809
9-6-2024		SUMMARY OF QUANTITIES AND REVISIONS				
9-26-2024						

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
STON O. LAWRENCE
9-26-2024

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SUMMARY OF QUANTITIES AND REVISIONS

SUMMARY OF QUANTITIES (BOX 2 OF 3)

ITEM NUMBER	ITEM	BASE QUANTITY	CONCRETE ALTERNATE	ASPHALT ALTERNATE	BRIDGE ALTERNATE 1	BRIDGE ALTERNATE 2	CITY OF FORT SMITH WATER LINE (9030 FAP)	UNIT
621	SEDIMENT BASIN	4278						CU. YD.
621	OBLITERATION OF SEDIMENT BASIN	4278						CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL	6122						CU. YD.
621	PIPE FOR SLOPE DRAINS	1180						LIN. FT.
621	ROCK DITCH CHECKS	417						CU. YD.
SS & 621	FILTER SOCK (12")	4496						LIN. FT.
621	WATTLE (20")	22584						LIN. FT.
621	TRIANGULAR SILT DIKE	2300						LIN. FT.
623	SECOND SEEDING APPLICATION	529.29						ACRE
SP & 623	SPECIAL SECOND SEEDING APPLICATION	172.17						ACRE
624	SOLID SODDING	4470						SQ. YD.
SP & 625	GEOTEXTILE FABRIC (TYPE 8)	70451						SQ. YD.
SP & 625	GEOTEXTILE FABRIC (TYPE 10)	91806						SQ. YD.
SP & 625	GEOTEXTILE FABRIC (TYPE SPECIAL)		107354					SQ. YD.
SS & 631	CONCRETE BARRIER WALL (MEDIAN TYPE A)	5772						LIN. FT.
SS & 631	CONCRETE BARRIER WALL (MEDIAN TYPE B)	723						LIN. FT.
SP, SS, & 632	CONCRETE ISLAND	3201						SQ. YD.
635	ROADWAY CONSTRUCTION CONTROL	1.00						LUMP SUM
642	RUMBLE STRIPS IN ASPHALT SHOULDERS	38824						LIN. FT.
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	2						EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	2						EACH
SP	WIC FIBER ENCLOSURE	2						EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	16						EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	2						EACH
SP	LOUVERS	4						EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	910						LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	150						LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)	220						LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	760						LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	1920						LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	740						LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (ROADWAY LIGHTING) (2C/8 A.W.G., E.G.C.)	7196						LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	80						LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	3340						LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES (ROADWAY LIGHTING)	1835						LIN. FT.
SP	COMMUNICATION CABLE, FIBER (6 CHANNEL)	380						LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	40						LIN. FT.
SP & 709	GALVANIZED STEEL CONDUIT (4")	83641						LIN. FT.
710	NON-METALLIC CONDUIT (1.5")	2644						LIN. FT.
710	NON-METALLIC CONDUIT (2")	6597						LIN. FT.
710	NON-METALLIC CONDUIT (3")	830						LIN. FT.
SP & 710	NON-METALLIC CONDUIT (4")	11409						LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1)	2						EACH
SS & 711	CONCRETE PULL BOX (TYPE 2)	6						EACH
SS & 711	CONCRETE PULL BOX (TYPE 3)	2						EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	11						EACH
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	53						EACH
SP, SS, & 711	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	8						EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (0')	8						EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	3						EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (40')	2						EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (48')	1						EACH
SP	LED LUMINAIRE ASSEMBLY	14						EACH
SP	LED ROADWAY ILLUMINATION POLE (12,750 LUMENS, COBRA HEAD, BARRIER MOUNTED, 26.5')	7						EACH
SP	LED ROADWAY ILLUMINATION POLE (12,750 LUMENS, COBRA HEAD, BREAKAWAY BASE, 30')	34						EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	2						EACH
SP	PEDESTAL TYPE SERVICE POINT ASSEMBLY (2 CIRCUITS, 100 AMP)	7						EACH
718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (6")	17961						LIN. FT.
718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (12")	423						LIN. FT.
718	REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (6")	25351						LIN. FT.
718	REFLECTORIZED PAINT PAVEMENT MARKING (YIELD LINE)	117						LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	8						EACH
719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	23						EACH
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")	56154						LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12")	2694						LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	46184						LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)	882						EACH
SS & 725	GUIDE SIGN-ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)	731						SQ. FT.
SS & 726	STANDARD SIGN	1561						SQ. FT.
SP	18" STREET NAME SIGN	2						EACH
SS & 727	EXIT NUMBER PANEL (TYPE A)	143						SQ. FT.
SS & 728	DELINEATOR (TYPE 2)	37						EACH
SS & 729	CHANNEL POST SIGN SUPPORT (TYPE U-1)	5						EACH
SS & 730	BREAKAWAY SIGN SUPPORT (TYPE G-2)	9329						POUND
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-1)	68						EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-2)	35						EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-1)	16						EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-2)	5						EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-3)	3						EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-4)	1						EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-5)	7						EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER	4						EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	4						EACH
SP & 733	VIDEO DETECTOR (IP)	2						EACH
SP & 733	HYBRID VIDEO/RADAR DETECTOR	4						EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	1350						LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	2						EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	2						EACH
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY	386						CU. YD.
SP, SS, & 802	CLASS S CONCRETE-ROADWAY	773.94						CU. YD.
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	161370						POUND
SS & 816	FILTER BLANKET	2735						SQ. YD.
SS & 816	DUMPED RIPRAP	1412						CU. YD.
SP	NAVIGATION LIGHTING SYSTEM	1.00						LUMP SUM
SP	RIVER TRAFFIC SAFETY	1.00						LUMP SUM
SP	ITS ELECTRICAL JUNCTION BOX, METALLIC (32"X30"X18")	17						EACH
SP	ITS FIBER OPTIC JUNCTION BOX, METALLIC (32"X16"X18")	17						EACH
SP	SITE UTILITIES	1.00						LUMP SUM
SP	LANDSCAPING	1.00						LUMP SUM

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-6-2024		6	ARK.	040901	141	809
9-16-2024		SUMMARY OF QUANTITIES AND REVISIONS				
10-03-2024						

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
10-3-2024

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SUMMARY OF QUANTITIES AND REVISIONS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024	9-25-2024	6	ARK.	040901	142	809
9-6-2024		SUMMARY OF QUANTITIES AND REVISIONS				
9-16-2024						

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
9-25-2024

SUMMARY OF QUANTITIES (BOX 3 OF 3)

ITEM NUMBER	ITEM	BASE QUANTITY	CONCRETE ALTERNATE	ASPHALT ALTERNATE	BRIDGE ALTERNATE 1	BRIDGE ALTERNATE 2	CITY OF FORT SMITH WATER LINE (9030 FAP)	UNIT
SP	EXTERIOR ELECTRICAL DISTRIBUTION	1.00						LUMP SUM
SP	RESTROOM BUILDING	1.00						LUMP SUM
SP	FLEXIBLE EXPANSION JOINT - 36-INCH EBAA IRON - FORCE BALANCED FLEX-TEND						2	EACH
SP	BLIND FLANGES (24-INCH)						2	EACH
SP	BALL VALVE (2-INCH)						6	EACH
SP	ADJUSTABLE PIPE ROLLER SUPPORT						180	EACH
SP	STEEL WATER LINE (36-INCH)						1558	LIN. FT.
SP	CATHODIC PROTECTION						1.00	LUMP SUM
	STRUCTURES OVER 20' SPAN							
SS & 619	6' STEEL CHAIN LINK FENCE				2040	2040		LIN. FT.
636	BRIDGE CONSTRUCTION CONTROL				1.00	1.00		LUMP SUM
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE ①				4065	4065		CU. YD.
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY	62						CU. YD.
SP, SS, & 802	CLASS S CONCRETE-ROADWAY	141.14						CU. YD.
SP, SS, & 802	CLASS S CONCRETE-BRIDGE ②				12098.40	11957.40		CU. YD.
SP, SS, & 802	CLASS S(AE) CONCRETE-BRIDGE				23944.20	20123.40		CU. YD.
SP	ABUTMENT STONE				6459	6459		CU. YD.
SP	REVETMENT STONE (GRADATION A) - ARKANSAS RIVER				3615	3615		CU. YD.
SP, SS, & 802	PRESTRESSED CONCRETE GIRDERS (TYPE BT-72)				56280.3			LIN. FT.
SP & 803	CLASS 2 PROTECTIVE SURFACE TREATMENT				77508.4	77508.4		SQ. YD.
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	17962						POUND
SS & 804	REINFORCING STEEL-BRIDGE (GRADE 60) ③				2468150	2244170		POUND
SS & 804	EPOXY COATED REINFORCING STEEL (GRADE 60)				5968030	4709620		POUND
SS & 805	STEEL PILING (HP 14X89)				5664	5763		LIN. FT.
SP	CORING DRILLED SHAFT				2035	2035		LIN. FT.
SP	DRILLED SHAFT (54" DIAMETER)				2195	2195		LIN. FT.
SP	DRILLED SHAFT (66" DIAMETER)				4351	4351		LIN. FT.
SP	DRILLED SHAFT (108" DIAMETER)				852	852		LIN. FT.
SP	DRILLED SHAFT (78" DIAMETER)				729	729		LIN. FT.
SP	PERMANENT STEEL CASING (60" DIAMETER)				1724	1724		LIN. FT.
SP	PERMANENT STEEL CASING (72" DIAMETER)				3206	3206		LIN. FT.
SP	PERMANENT STEEL CASING (84" DIAMETER)				504	504		LIN. FT.
SP	PERMANENT STEEL CASING (114" DIAMETER)				471	471		LIN. FT.
SP	CROSSHOLE SONIC LOGGING (54" DIAMETER)				39	39		EACH
SP	CROSSHOLE SONIC LOGGING (66" DIAMETER)				76	76		EACH
SP	CROSSHOLE SONIC LOGGING (78" DIAMETER)				15	15		EACH
SP	CROSSHOLE SONIC LOGGING (108" DIAMETER)				15	15		EACH
SP	THERMAL INTEGRITY PROFILING (108" DIA.)				15	15		EACH
SP, SS, & 807	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GR50W) ④				11326600	27289420		POUND
SP, SS, & 807	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GRHPS70W)				2364540	2364540		POUND
SS & 807	PAINTING STRUCTURAL STEEL				770.5	1816.0		TON
SS & 808	ELASTOMERIC BEARINGS				659119.0	476298.0		CU. IN.
SP	HLMR BEARING ASSEMBLY				40	40		EACH
SS & 809	ARMORED JOINT WITH NEOPRENE STRIP SEAL				352	352		LIN. FT.
SP	MODULAR JOINT				164	164		LIN. FT.
812	BRIDGE NAME PLATE (TYPE D)				2	2		EACH
815	MEMBRANE WATERPROOFING (TYPE C)				80	60		SQ. FT.
SS & 816	FILTER BLANKET				9688	9688		SQ. YD.
SS & 816	CONCRETE RIPRAP				527	527		CU. YD.
SP	SHORING (SITE NO. 1)				1.00	1.00		LUMP SUM
SP	CLEARANCE GAUGES				1.00	1.00		LUMP SUM

① EACH ALTERNATE INCLUDES 450 CU. YD. FOR CITY OF FORT SMITH WATER LINE

② EACH ALTERNATE INCLUDES 7.00 CU. YD. FOR CITY OF FORT SMITH WATER LINE

③ EACH ALTERNATE INCLUDES 1711 POUNDS FOR CITY OF FORT SMITH WATER LINE

④ EACH ALTERNATE INCLUDES 426054 POUNDS FOR CITY OF FORT SMITH WATER LINE

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DATE REVISED	DATE REVISED	DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024	9-25-2024	10-03-2024		6	ARK.	040901	142A	809
9-6-2024	9-26-2024	10-03-2024		SUMMARY OF QUANTITIES AND REVISIONS				
9-16-2024	10-02-2024							



REVISIONS

DATE	REVISION	SHEET NUMBER
6-11-2024	REMOVED REFERENCE TO CEMENT STABILIZED CRUSHED STONE BASE COURSE SP, REMOVED PROSECUTION AND PROGRESS WITH BID SCHEDULE SP, REMOVED SITE USE (A+C METHOD) - CALENDAR DAY CONTRACT SP, ADDED PREQUALIFICATION OF BIDDERS, ADDED CONCRETE FOR STRUCTURES MIX DESIGN SP, ADDED PORTLAND CEMENT CONCRETE PAVEMENT MIX DESIGN SP, ADDED CONSTRUCTION PROJECT INFORMATION SIGN AND SIGN UPDATE TO ADVANCE WARNING SIGNS AND DEVICES BOX., UPDATED BASE AND SURFACING (ASPHALT ALTERNATE)(BOX 2 OF 2) WITH REFERENCE TO SUB TOTALS FROM (BOX 1 OF 1), UPDATED QUANTITIES FOR: TACK COAT, MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2"), MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2"), COLD MILLING ASPHALT PAVEMENT, & SIGNS, ADDED REVISIONS TO REVISION BOX, REVISED ITS QUANTITIES SUMMARY BOX TITLE, REVISED SIGNING SUMMARY OF QUANTITIES LINE ITEM NAMES FOR OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS, UPDATED REMOVAL AND RELOCATION OF SIGN TO ITEM NUMBER 202, REVISED LINE ITEM DESCRIPTIONS FOR LED ROADWAY ILLUMINATION POLE PAY ITEM.	6, 123, 132, 140, 142, 248, 256, 283, 285-286, & 292-295
8-09-2024	MODIFIED WATERLINE AND STRUCTURAL STEEL GENERAL NOTES, BRIDGE SHEETS - SLAB EXTENSION ADDED BELOW RAIL AND MEDIAN BARRIERS AT FINGER JOINT LOCATIONS	312, 372-373, 381, 384, 456-457, 464-466, 475-476, 483-484, 525-526, 534-535, 538, 578-579, 592-594, 602-603, & 610-611
9-06-2024	UPDATED INDEX OF SHEETS FOR SUMMARY OF QUANTITIES AND REVISIONS AND PLAN AND PROFILE SHEETS - HWY. 59, ADDED STANDARD DRAWING REFERENCE TO R-300X-X2 & W-X003-2, REMOVED: SS 307-1 CEMENT, SS 308-1 CEMENT, SS 501-2 CEMENT, SS 802-4 CEMENT, ARMY CORPS REQUIREMENTS, FLEXIBLE BEGINNING OF WORK – CALENDAR DAY CONTRACT SP, REACTIVE AGGREGATE TESTING SP, ADDED: SS 307-2 CEMENT TREATED BASE COURSE, SS 308-2 CEMENT STABILIZED CRUSHED STONE BASE COURSE, SS 501-3 PORTLAND CEMENT CONCRETE PAVEMENT, SS 619-1 FENCES, SS 802-5 CONCRETE FOR STRUCTURES, ADDED: ARMY CORPS - SPRINGHILL PARK REQUIREMENTS, CEMENT STABILIZED CRUSHED STONE BASE COURSE SP, COMPACTED EMBANKMENT ZONING SP, CULVERT CLEANOUT SP, DELAY IN RIGHT OF WAY OCCUPANCY SP, FLEXIBLE BEGINNING OF WORK – WORKING DAY CONTRACT SP, PORTLAND CEMENT CONCRETE PAVEMENT SP, PROSECUTION AND PROGRESS WITH BID SCHEDULE – WORKING DAY CONTRACT SP, TRENCHING AND SHOULDER PREPARATION FOR TEMPORARY SHOULDER WIDENING SP, UPDATED QTY BOXES: EROSION CONTROL (BOX 2 OF 2), REMOVAL AND DISPOSAL OF ITEMS, SELECTED PIPE BEDDING AND DRAINAGE STRUCTURES, CONCRETE DITCH PAVING AND EARTHWORK, BASE AND SURACING (BASE QUANTITY), BASE AND SURFACING (CONCRETE ALTERNATE) (BOX 2 OF 2), BASE AND SURFACING (ASPHALT ALTERNATE) (BOX 1 OF 2), ADDED QTY BOX: JOINT SUPPORT, UPDATED SUMMARY OF QUANTITIES - UPDATED ITEM VALUES FOR: UNCLASSIFIED EXCAVATION (BASE BID), COMPACTED EMBANKMENT (BASE BID), AGGREGATE BASE COURSE (CLASS 7) (BASE BID, CONCRETE ALT, ASPHALT ALT), AGGREGATE IN CEMENT STABILIZED CRUSHED STONE BASE COURSE, CEMENT IN AGGREGATE CRUSHED STONE BASE COURSE, PROCESSING CEMENT STABILIZED CRUSHED STONE BASE COURSE, ASPHALT BINDER (PG 76-22) IN ACHM BASE COURSE (1 1/2"), MINERAL AGGREGATE IN ACHM BINDER COURSE (1") (BASE BID, ASPHALT ALT.), ASPHALT BINDER (PG 70-22) IN ACHM BINDER COURSE (1"), ASPHALT BINDER (PG 76-22) IN ACHM BINDER COURSE (1"), MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2") (ASPHALT ALT.), ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2") (BASE BID), ASPHALT BINDER (PG 70-22) IN ACHM SURFACE COURSE (1/2"), ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2"), REMOVABLE CONSTRUCTION PAVEMENT MARKINGS, 24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III), SELECTED PIPE BEDDING, SILT FENCE, SAND BAG DITCH CHECKS, DIVERSION DITCH, SEDIMENT REMOVAL AND DISPOSAL, ROCK DITCH CHECKS, GEOTEXTILE FABRIC (TYPE SPECIAL), NON-METALLIC CONDUIT (4"), GUIDE SIGN ROADSIDE MOUNTED (DEMOUNTABLE LEGEND), TEMPORARY IMPACT ATTENUATION BARRIER, TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR), CLASS S CONCRETE - ROADWAY, REINFORCING STEEL ROADWAY (GRADE 60), DUMPED RIP RAP, CLASS S CONCRTE - ROADWAY (STRUCTURES OVER 20'), REINFORCING STEEL ROADWAY (GRADE 60) (STRUCTURES OVER 20'), ADDED LINE ITEMS FOR: RELOCATING CONCRETE BARRIER, OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-2), UPDATED LINE ITEMS: DROP INLETS (TYPE C) TO DROP INLETS (TYPE N-3) ADDED PAGE 142A FOR REVISIONS BOX	3, 5, 6, 124, 125, 126, 128, 130, 131, & 140-142A
9-16-2024	INDEX UPDATE, MEDIAN VARIES NOTE, REMOVED PAGE, 'REFERENCE SPECIAL DETAIL' NOTE ADDED, UPDATED GEOTEXTILE FABRIC NOTES, UPDATED END OF JOB TREATMENT NOTES, INCREASED SHOULDER WIDTH GUN CLUB ROAD, INCREASED SUBGRADE WIDTH AND ADDED BLEEDER DITCH NOTE, ADDED OVERLAY TO NOTCH AND WIDEN TYPICAL AND ADDED OVERLAY NOTES, FIXED NOTE LEADER, UPDATED END OF JOB DETAILS AND ADDED PAVEMENT TRANSITION DETAIL, UPDATED EMBANKMENT NOTE AND ADDED STATION RANGES TO DETAIL, INCREASED TURNOUT SHOULDER WIDTH, REMOVED TREE CLEARING NOTES, REMOVED DUMPED RIPRAP, REMOVED TRENCH AND SHOULDER PREP HATCH FROM HWY. 59, REMOVED LANE CLOSURE DETAIL, ADDED STAGE 0 TO NARRATIVE, ADDED NEW PAGE 91A FOR STAGE 0 OVERVIEW, UPDATED STAGE 1 NARRATIVE, REMOVED TRENCH & SHOULDER PREP, ADDED SIGNAGE TO BARRIERS, REMOVED LANE CLOSURE DEVICES, REVISED SECTION SHOULDER WIDTH, ADDED SIGNAGE TO BARRIERS, ADDED GEOTEXTILE FABRIC (TYPE 8) TO EARTHWORK QTY BOX, ADDED COLD MILLING QTY BOX, UPDATED QTY BOX , UPDATED BASE & SURFACING QTY BOX , WATER LINE PLANS, ADDED GEOTEXTILE FABRIC (TYPE 8) TO SUMMARY OF QUANTITIES AND UPDATED QUANTITY FOR GEOTEXTILE FABRIC (TYPE 10), UPDATED SUMMARY OF QUANTITIES, UPDATED DRIVE ALIGNMENT NAME, SUPER TO MATCH EXIST, UPDATED DRIVE ALIGNMENT NAME, UPDATED NORMAL POOL CALL & CLEARANCE, UPDATED SPECIAL DITCH LEFT, ADDED SPECIAL DITCH LINEWORK PLAN VIEW, UPDATED END OF GRADING NOTATIONS, UPDATED GUN CLUB RD WIDTH DATA, ADDED PROFILE VIEW, UPDATED GUN CLUB RD PROFILE & WIDTHS, UPDATED GUN CLUB RD. WIDTHS, UPDATED DRIVE NAME AND PROFILE, UPDATED SITE 1 QUANTITIES, REVISED SPRINGHILL PARK QUANTITITY BOXES, SHEET CLEAN UP ON MATCHLINE, POLE SCHEDULE OFFSET UPDATES, REVISED ARKANSAS RIVER ELEVATIONS, REVISED CLEARANCE ENVELOPE AND ARKANSAS RIVER ELEVATIONS, REVISED ARKANSAS RIVER ELEVATIONS, WATER LINE PLANS, SP DITCH CHANGE, GUN CLUB ROAD XS UPDATE, HWY. 59 XS UPDATE	3, 8, 10, 11-15, 17, 25, 26, 27, 28, 34, 35, 36, 58-59, 60, 76-79, 80, 90, 91, 91A, 92, 94-96, 98, 100, 102, 103, 106, 126, 127, 129, 133, 141, 143, 150-151, 153, 154-155, 160-161, 162, 163, 164, 175-176, 179, 180-182, 183, 184-189, 194-195, 196, 197, 254, 296-297, 317-318, 492, 493, 656-657, 658-669, 702-707, 774-801, & 802-809
9-25-2024	REFERENCE ADDED TO PRICE ADJUSTMENT FOR PORTLAND CEMENT SP, NOTES ADDED TO QUANTITIES FOR WATERLINE ITEMS, REVISIONS BOX UPDATE	6, 142, & 142A
9-26-2024	ADJUSTED QUANTITY VALUES FOR COMPACTED EMBANKMENT AND CONCRETE AND ASPHALT ITEMS IN BASE BID, CONCRETE ALT., & ASPHALT ALT., UPDATED REVISIONS BOX, REVISED PIER MOUNTED CONDUIT SIZE	141, 142A, & 311
10-02-2024	ADDED CROSS SECTION SHEET 747A FOR GC RAMP 2 STA. 17+70	142A & 747A
10-03-2024	UPDATED JOINT SUPPORT QUANTITY BOX, UPDATED SUMMARY OF QUANTITIES FOR CLASS S CONCRETE - ROADWAY, UPDATED REVISIONS BOX	128, 141, & 142A
10-03-2024	REMOVED REFERENCE TO SPECIAL PROVISION - IMMEDIATE WORK,UPDATED REVISIONS BOX	6 & 142A

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	143	809
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024

SURVEY CONTROL COORDINATES

Project Name: s040478
Date: 2/16/2022
Coordinate System: ARKANSAS STATE PLANE - NORTH/SOUTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

POINT NAME	NORTHING	EASTING	ELEV	FEATURE	DESCRIPTION
1	367859.8196	628587.2244	436.26	CTL	STD ARDOT MON STAMPED PN:1 49 BARLING
2	368011.4934	629001.8596	433.72	CTL	STD ARDOT MON STAMPED PN:2 49 BARLING
3	368145.0423	629505.7474	407.11	CTL	STD ARDOT MON STAMPED PN:3 JOB 040748
4	368291.4838	629924.6345	408.28	CTL	STD ARDOT MON STAMPED PN:4 549
5	368924.0214	629192.1157	425.96	CTL	STD ARDOT MON STAMPED PN:5 549
6	368900.2908	629971.7237	415.56	CTL	STD ARDOT MON STAMPED PN:6 549
7	368809.4022	631079.0906	404.88	CTL	STD ARDOT MON STAMPED PN:7 549
8	369421.6219	631142.0250	410.69	CTL	STD ARDOT MON STAMPED PN:8 549
9	370185.4079	631194.6547	417.87	CTL	STD ARDOT MON STAMPED PN:9 JOB 040748
10	370136.1855	631836.3495	411.39	CTL	STD ARDOT MON STAMPED PN:10 549
11	370563.0475	631848.9745	415.17	CTL	STD ARDOT MON STAMPED PN:11 549
12	371061.2051	631857.2940	421.83	CTL	STD ARDOT MON STAMPED PN:12 549
13	371420.6121	631894.2753	419.42	CTL	STD ARDOT MON STAMPED PN:13 549
14	371415.7328	632448.4563	409.06	CTL	STD ARDOT MON STAMPED PN:14 549
15	371881.4664	631954.6450	409.16	CTL	STD ARDOT MON STAMPED PN:15 549
16	372554.9407	631962.8147	397.31	CTL	STD ARDOT MON STAMPED PN:16 549
17	372958.2470	631971.6722	398.41	CTL	STD ARDOT MON STAMPED PN:17 549
18	373415.2135	631993.0237	392.96	CTL	STD ARDOT MON STAMPED PN:18 549
19	373957.2855	632016.5023	389.07	CTL	STD ARDOT MON STAMPED PN:19 549
20	373944.3087	632605.0507	389.58	CTL	STD ARDOT MON STAMPED PN:20 549
21	374284.6004	632054.1022	388.67	CTL	STD ARDOT MON STAMPED PN:21 549
22	374801.5747	632215.8153	395.10	CTL	STD ARDOT MON STAMPED PN:22 5/8 549
23	374972.5072	632188.5129	390.01	CTL	STD ARDOT MON STAMPED PN:23 549
24	374960.1668	632575.2965	391.93	CTL	STD ARDOT MON STAMPED PN:24 549
25	376157.7656	632498.2028	388.02	CTL	STD ARDOT MON STAMPED PN:25 549
26	376221.5177	632140.5676	394.72	CTL	STD ARDOT MON STAMPED PN:26 549
27	376549.2919	632233.0387	386.97	CTL	STD ARDOT MON STAMPED PN:27 549
28	376923.4810	632261.8058	400.58	CTL	STD ARDOT MON STAMPED PN:28 549
29	377389.6119	632184.7593	399.01	CTL	STD ARDOT MON STAMPED PN:29 549
30	377945.8415	632225.1752	399.81	CTL	STD ARDOT MON STAMPED PN:30 549
31	378399.3053	632250.8012	395.60	CTL	STD ARDOT MON STAMPED PN:31 549
32	378779.3537	632273.3146	396.48	CTL	STD ARDOT MON STAMPED PN:32 549
33	379341.9480	632232.0421	391.39	CTL	STD ARDOT MON STAMPED PN:33 549
34	379911.9924	632191.7016	399.17	CTL	STD ARDOT MON STAMPED PN:34 549
35	380524.9139	632157.1701	398.39	CTL	STD ARDOT MON STAMPED PN:35 549
36	381040.7106	632220.3772	395.16	CTL	STD ARDOT MON STAMPED PN:36 549
37	381470.7781	632283.6793	391.40	CTL	STD ARDOT MON STAMPED PN:37 549
38	381887.6562	632235.2631	392.01	CTL	STD ARDOT MON STAMPED PN:38 549
39	382304.3033	632225.7388	408.74	CTL	STD ARDOT MON STAMPED PN:39 549
40	382934.6836	633194.3501	398.03	CTL	STD ARDOT MON STAMPED PN:40 49
41	382980.8445	631863.3114	399.31	CTL	STD ARDOT MON STAMPED PN:41 49
42	383786.8399	633256.9869	399.09	CTL	STD ARDOT MON STAMPED PN:42 49
43	383800.3568	631918.9038	399.61	CTL	STD ARDOT MON STAMPED PN:43 1.2' DEEP
44	384543.3684	632454.8767	396.01	CTL	STD ARDOT MON STAMPED PN:44 49
45	385150.2576	632670.8810	391.99	CTL	STD ARDOT MON STAMPED PN:45 49
46	385853.1707	633083.8923	390.15	CTL	STD ARDOT MON STAMPED PN:46 49
47	386428.9491	633458.1363	390.86	CTL	STD ARDOT MON STAMPED PN:47 49
101	368816.2986	631833.8915	402.18	GPS	ARDOT GPS MON.650006A
102	382493.6126	632551.5896	398.51	GPS	ARDOT GPS MON.170028
103	382594.5742	631298.6766	401.34	GPS	ARDOT GPS MON.170008A
900	367844.9777	628635.1553	441.81	TBM	AHTD DISK 549 BARLING
901	368889.3688	629871.6732	417.45	TBM	SQUARE CUT IN SE EDG S HW 549 BARLING
902	370117.2781	631836.9638	411.13	TBM	STD ARDOT MON STAMPED PN:902 549
903	371485.6781	631927.2643	418.06	TBM	SQUARE CUT N CB 18.5' N OF CL 549
904	372870.4271	631975.9643	399.08	TBM	STD ARDOT MON STAMPED PN:904 549
905	374275.4793	632033.3388	389.56	TBM	X CUT IN BOLT ON GV GAS WELL 549
906	374851.2536	632030.5827	395.63	TBM	SQUARE CUT IN PILLAR 549 BARLING
907	376909.4449	632086.4301	399.70	TBM	STD ARDOT MON STAMPED PN:907 549
908	378768.5030	632690.2581	391.80	TBM	STD ARDOT MON STAMPED PN:908 549
909	381475.8751	632250.2861	389.81	TBM	3" BRASS CAP IN CONC 549 BARLING
910	383770.6209	633138.7907	403.97	TBM	X CUT TOP OF IRIG WELL 49 BARLING

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*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped
*(standard markings common to all caps), or as indicated
(other markings indicated in the point description of the individual point).
ALL DISTANCES ARE GROUND.
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT.
A PROJECT CAF OF 0.999938638 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME.s040748.CTL
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT.

REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL
IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.
REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 170031 - 170031A
CONVERGENCE ANGLE: 01-17-37 LEFT AT LT:35-25-09.76 LG:094-13-22.4
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

HORIZONTAL ALIGNMENT DATA

ALIGNMENT NAME: I-49

POINT	STATION	TYPE	NORTHING	EASTING
8000	46+00.28	POB	365367.3481	624472.4764
8001	111+27.98	PC	368745.3462	630058.1769
8002	136+82.71	PI	370067.3802	632244.2309
8003	157+89.31	PT	372621.9763	632269.6298
8004	261+47.40	PC	382979.5506	632372.6092
8005	294+48.78	PI	386280.7691	632405.4314
8006	321+37.50	P.T.	387907.9156	635277.9764

ALIGNMENT NAME: I-49-NBML

POINT	STATION	TYPE	NORTHING	EASTING
8023	132+23.97	PC	370173.9808	631579.8275
8024	144+90.54	PI	371240.5725	632262.8956
8025	156+90.64	PT	372507.0801	632275.4878
8029	260+00.93	PC	382833.0173	632378.1527
8030	273+59.75	PI	384191.7686	632391.6620
8031	286+73.94	PT	385413.4488	632986.5441

ALIGNMENT NAME: I-49-SBML

POINT	STATION	TYPE	NORTHING	EASTING
8026	133+09.02	PC	370288.5336	631557.2615
8027	146+33.31	PI	371416.7922	632250.6470
8028	158+92.66	PT	372741.0193	632263.8130
8032	262+87.05	PC	383119.4641	632367.0000
8033	275+74.65	PI	384407.0045	632379.8013
8034	288+16.00	PT	385553.0045	632966.8348

ALIGNMENT NAME: HWY 22 (EXISTING)

POINT	STATION	TYPE	NORTHING	EASTING
6709	26+96.21	POB	368826.0600	626392.6020
6710	34+91.68	PC	368417.9012	627075.3759
6711	37+98.48	PI	368260.4820	627338.7090
6712	41+04.69	PT	368132.0834	627617.3466
6713	50+33.41	PC	367743.4044	628460.8181
6714	53+50.14	PI	367610.8510	628748.4720
6715	56+64.30	PT	367418.6620	629000.2230
6716	69+79.22	PC	366620.7675	630045.3959
6717	72+65.45	PI	366447.0850	630272.9050
6718	75+42.32	PT	366387.4810	630552.8574
6719	78+77.29	POE	366317.7260	630880.4880

ALIGNMENT NAME: HWY 22 RAMP 1 (EXISTING)

POINT	STATION	TYPE	NORTHING	EASTING
6720	2174+64.94	PC	367905.1623	628801.2584
6721	2176+47.00	PI	367999.3747	628957.0416
6722	2178+14.04	PCC	367970.9529	629136.8655
6723			367713.7108	629096.2074
6724	2187+52.73	PT	367501.6725	628944.9911

ALIGNMENT NAME: HWY 22 RAMP 2

POINT	STATION	TYPE	NORTHING	EASTING
8100	10+00.00	POB	367280.3293	629181.4269
8101	15+13.06	PC	367689.0291	629491.5836
8102	16+14.08	PI	367769.4958	629552.6486
8103	17+15.01	PT	367854.0636	629607.8945
8104	22+32.26	PC	368287.1062	629890.7892
8105	24+92.03	PI	368504.5789	630032.8581
8106	27+49.13	PT	368680.5105	630223.9759
8107	35+82.30	POE	369244.7959	630836.9702

ALIGNMENT NAME: HWY 22 RAMP 3

POINT	STATION	TYPE	NORTHING	EASTING
8110	10+00.00	POB	367979.8403	627947.7290
8111	16+60.91	PC	368488.0412	628370.2661
8112	19+86.07	PI	368738.0661	628578.1461
8113	22+79.93	PT	368777.2836	628900.9286
8114	31+07.41	PC	368877.0867	629722.3636
8115	37+40.86	PI	368953.4890	630351.1973
8116	43+30.71	PT	369390.5459	630809.7279

ALIGNMENT NAME: HWY 22 RAMP 4 (EXISTING)

POINT	STATION	TYPE	NORTHING	EASTING
11609	2156+29.26	POB	367954.2666	628003.2265
6702	2162+80.53	PC	368455.0495	628419.5988
6703	2163+80.60	PI	368531.9996	628483.5786
6704	2164+79.39	PCC	368588.4652	628566.2004
6705	2169+75.86	PI	368868.5964	628976.0948
6706	2170+15.38	PCC	368373.5121	628938.9668
6707	2172+51.70	PI	368137.8596	628921.2945
6708	2174+51.76	PT	368015.5702	628719.0824

ALIGNMENT NAME: NW SERVICE RD

POINT	STATION	TYPE	NORTHING	EASTING
8130	10+00.00	POB	368944.2829	628871.0024
8131	11+50.00	PC	368937.8766	629020.8655
8132	12+30,01	PI	368934.4596	629100.7981
8133	13+09.57	PT	368945.4898	629180.0398
8134	18+32.44	PC	369017.5758	629697.9077
8135	21+46.09	PI	369060.8183	630008.5627
8136	23+57,64	PT	369373.9501	630026.5866
8137	25+00.00	POE	369516.0720	630034.7671

ALIGNMENT NAME: SE SERVICE RD

POINT	STATION	TYPE	NORTHING	EASTING
8120	10+00,00	POB	367720.4905	629899.8126
8121	11+60.00	PC	367880.3105	629907.3993
8122	12+88.69	PI	368008.8572	629913.5015
8123	14+08,26	PT	368107.5034	629996.1480
8124	21+84.12	PC	368702.2287	630494.4136
8125	23+79.45	PI	368851.9497	630619.8510
8126	25+45,23	PT	368837.9074	630814.6681
8127	27+00,00	POE	368826.7807	630969.0364

ALIGNMENT NAME: GC RAMP 1

POINT	STATION	TYPE	NORTHING	EASTING
8160	10+00.00	PC	382727.8139	632405.6081
8161	10+95,22	PI	382823.0268	632406.5548
8162	11+90.28	PT	382917.6735	632416.9670
8163	16+17.97	PC	383342.8038	632463.7364
8164	159+21.69	PI	397560.7382	634027.8788
8165	27+97.58	PT	383279.5883	633224.7870
8166	35+67.58	POE	382510.8026	633181.5548

ALIGNMENT NAME: GC RAMP 2

POINT	STATION	TYPE	NORTHING	EASTING
8170	10+00.00	POB	382509.1744	633210.5090
8171	17+89.62	PC	383297.5465	633254.8427
8172	20+70,39	PI	383577.8735	633270.6067
8173	23+41,33	PT	383836,3468	633160.9558
8174	27+94.04	PC	384253.0992	632984.1588
8175	32+50.45	PI	384673.2674	632805.9127
8176	36+70,53	PCC	385110.9889	632935.1910
8177	41+14,23	PI	385536,5180	633060.8683
8178	45+52.55	PT	385913.2493	633295.2684

ALIGNMENT NAME: GC RAMP 3

POINT	STATION	TYPE	NORTHING	EASTING
8180	10+00.00	POB	382589.3934	631568.5934
8181	20+37.43	PC	383625.6902	631617.1420
8182	24+63.58	PI	384051.3721	631637.0844
8183	28+46.46	PT	384341.0321	631949.6542
8184	33+36.08	PC	384673.8344	632308.7786
8185	36+01.60	PI	384854.3160	632503.5348
8186	38+63.75	PT	385081.0792	632641.6724
8187	48+61.00	POE	385932.7535	633160.4874

ALIGNMENT NAME: GC RAMP 4

POINT	STATION	TYPE	NORTHING	EASTING
8190	10+00.00	PC	383193.9039	632329.7870
8191	12+32.75	PI	382961.2608	632336.9257
8192	14+65.44	PT	382728.5198	632334.6116
8193	18+53.16	PC	383581.4390	632317.8955
8194	105+47.67	PI	392271.8589	632051.2306
8195	28+85.87	PT	383586.8741	631644.3553
8196	38+85.80	POE	382588.0363	631597.5617

ALIGNMENT NAME: GUN CLUB

POINT	STATION	TYPE	NORTHING	EASTING
8140	10+00.00	POB	382354.2929	626807.6568
8141	11+67.69	PC	382503.2180	626884.7311
8142	15+10.20	PI	382807.4087	627042.1611
8143	17+79.42	PT	382797.8723	627384.5428
8144	24+06.10	PC	382780.4243	628010.9730
8145	25+85.30	PI	382775.4348	628190.1088
8146	27+64.48	PT	382764.8462	628369.0010
8147	47+68.49	PC	382646.4370	630369.5093
8148	48+39.00	PI	382642.2706	630439.8992
8149	49+09.51	PT	682638.9708	630510.3351
8150	71+53.58	PC	382533.9554	632751.9491
8151	72+60.86	PI	382528.9353	632859.1053
8152	73+68.13	PT	382522.9124	632966.2098
8153	78+50.00	PC	382495.8575	633477.3198
8154	78+92.55	PI	382493.4685	633489.8027
8155	79+35.00	PT	382486.0661	633531.7038
8156	81+24.38	PC	382453.1194	633718.2000
8157	81+66.93	PI	382445.7170	633760.1012
8158	82+09.38	PT	382443.3280	633802.5840
8159	90+39.00	POE	382396.7487	634630.8912

ALIGNMENT NAME: HWY 59 (EXISTING)

POINT	STATION	TYPE	NORTHING	EASTING
6737	45+00.00	POB	381974.5227	628023.1343
6738	66+90.06	PC	382627.7535	625932.7616
6739	67+74.86	PI	382653.0462	625851.8238
6740	68+59.62	PCC	382682.4474	625772.2862
6741	72+29.94	PI	382810.8454	625424.9381
6742	75+96.08	PCC	383024.2432	625122.2863

ALIGNMENT NAME: UPRR-GC (FUTURE)

POINT	STATION	TYPE	NORTHING	EASTING
9000	49+09.51	POB	382502.4631	630503.9400
9001	71+53.58	POE	382397.4477	632745.5540

ALIGNMENT NAME: DRIVEWAY

POINT	STATION	TYPE	NORTHING	EASTING
9010	0+00.00	POB	382635.9385	630575.0615
9011	0+70.32	PC	382565.6943	630571.7704
9012	1+20.32	PI	382515.7489	630569.4304
9013	1+48.86	PT	382513.4091	630619.3758
9014	13+72.06	PC	382456.1674	631841.2322
9015	14+22.06	PI	382453.8276	631891.1775
9016	14+50.60	PT	382403.8823	631888.8376
9017	15+22.85	POE	382331.7101	631885.4565

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SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	144	809
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/1/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

HWY 22-1
P.I.= 37+98.48
Δ = 6°07'48" LT.
D = 1°00'00.0"
T = 306.80'
L = 613.01'
P.C. = 34+91.68
P.T. = 41+04.69
e = 0.021 '/'

HWY 22-2
P.I.= 53+50.14
Δ = 12°37'04" RT.
D = 2°00'00.0"
T = 316.73'
L = 630.89'
P.C. = 50+33.41
P.T. = 56+64.30
NO SUPER

HWY 22 R1-1
P.I.= 2176+47.00
Δ = 40°08'44" RT.
D = 11°30'00.0"
T = 182.06'
L = 349.09'
P.C. = 2174+64.94
P.C.C. = 2178+14.04
NO SUPER

HWY 22 R1-2
P.I.= 2182+69.89
Δ = 26°30'48" RT.
D = 206°30'47.8"
T = 506.99'
L = 938.70'
P.C. = 2178+14.04
P.T. = 2187+25.73
NO SUPER

HWY 22 R2-1
P.I.= 16+14.08
Δ = 4°02'20" LT.
D = 2°00'00.0"
T = 101.01'
L = 201.94'
P.C. = 15+13.06
P.T. = 17+15.01
e = 0.042 '/'
Ls P.C. = 300'
Ls P.T. = 430.77'

HWY 22 R2-2
P.I.= 24+92.03
Δ = 14°12'50" RT.
D = 2°45'00.0"
T = 259.77'
L = 516.86'
P.C. = 22+32.26
P.T. = 27+49.13
e = 0.054 '/'
Ls P.C. = 236.23'
Ls P.T. = 222.21'

HWY 22 R3-1
P.I.= 19+86.07
Δ = 43°19'52" RT.
D = 7°00'00.0"
T = 325.16'
L = 619.02'
P.C. = 16+60.91
P.T. = 22+79.93
e = 0.098 '/'
Ls = 350'

HWY 22 R3-2
P.I.= 37+40.86
Δ = 36°41'57" LT.
D = 3°00'00.0"
T = 633.46'
L = 1223.30'
P.C. = 31+07.41
P.T. = 43+30.71
e = 0.058 '/'
Ls = 300'

NW-1
P.I.= 12+30.01
Δ = 10°22'20" LT.
D = 6°30'00.0"
T = 80.01'
L = 159.57'
P.C. = 11+50.00
P.T. = 13+09.57
NO SUPER

NW-2
P.I.= 21+46.09
Δ = 78°46'52" LT.
D = 15°00'00.0"
T = 313.65'
L = 525.21'
P.C. = 18+32.44
P.T. = 23+57.64
NO SUPER

SE-1
P.I.= 12+88.69
Δ = 37°14'20" RT.
D = 15°00'00.0"
T = 128.69'
L = 248.26'
P.C. = 11+60.00
P.T. = 14+08.26
NO SUPER

HWY 22 R4-1
P.I.= 2163+80.60
Δ = 15°54'32" RT.
D = 8°00'00.0"
T = 100.07'
L = 198.86'
P.C. = 2162+80.53
P.C.C. = 2164+79.39
NO SUPER

HWY 22 R4-2
P.I.= 2169+75.86
Δ = 128°38'18" RT.
D = 24°00'00.0"
T = 496.47'
L = 535.99'
P.C.C. = 2164+79.39
P.C.C. = 2170+15.38
NO SUPER

HWY 22 R4-3
P.I.= 2172+51.70
Δ = 54°32'51" RT.
D = 12°30'00.0"
T = 236.31'
L = 436.38'
P.C.C. = 2170+15.38
P.T. = 2174+51.76
NO SUPER

C.L. HWY 22 RAMP 4 (EXISTING) STA. 2156+29.26 =
C.L. HWY 22 (EXISTING) STA. 45+29.57
C.L. HWY 22 RAMP 3 STA. 10+00.00 =
C.L. HWY 22 (EXISTING) STA. 44+68.47

C.L. I-49 STA. 92+21.84
C.L. HWY 22 (EXISTING) STA. 49+96.29

C.L. HWY 22 RAMP 2 STA. 10+00.00 =
C.L. HWY 22 (EXISTING) STA. 58+92.27

STA. 100+00.00
BEGIN JOB 040901
LOG MILE 6.33

MATCH LINE C.L. I-49 STA. 111+00

PN:1
PD:STD ARDOT MON STAMPED PN:1 49 BARLING

PN:2
PD:STD ARDOT MON STAMPED PN:2 49 BARLING

PN:3
PD:STD ARDOT MON STAMPED PN:3 JOB 040748

PN:4
PD:STD ARDOT MON STAMPED PN:4 549

PN:5
PD:STD ARDOT MON STAMPED PN:5 549

PN:900
PD:AHTD DISK
549 BARLING

PN:901
PD:SQUARE CUT IN SE EDG
S HW 549 BARLING

CURVE CENTER

C.L. I-49 N58°50'10"E 6527.70'

C.L. HWY 22 RAMP 3 N39°44'29"E 660.91'

C.L. HWY 22 RAMP 4 (EXISTING) N39°44'30"E 651.27'

C.L. NW SERVICE RD N82°04'32"E 522.86'

C.L. SE SERVICE RD N39°57'24"E 775.87'

C.L. HWY 22 (EXISTING) N37°11'40"E 513.06'

SURVEY BASELINE N69°54'27"E 441.51'

SURVEY BASELINE N75°09'21"E 521.29'

SURVEY BASELINE N70°43'50"E 443.75'

LEGEND

XXXX - X HORIZONTAL CURVE NO.

SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS
FOR POINT COORDINATES AND ADDITIONAL INFORMATION

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SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	145	809
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

HWY 22 R2-2
P.I.= 24+92.03
Δ = 14°12'50" RT.
D = 2°45'00.0"
T = 259.77'
L = 516.86'
P.C. = 22+32.26
P.T. = 27+49.13
e = 0.054 '/'
Ls P.C. = 236.23'
Ls P.T. = 222.21'

HWY 22 R3-2
P.I.= 37+40.86
Δ = 36°41'57" LT.
D = 3°00'00.0"
T = 633.46'
L = 1223.30'
P.C. = 31+07.41
P.T. = 43+30.71
e = 0.058 '/'
Ls = 300'

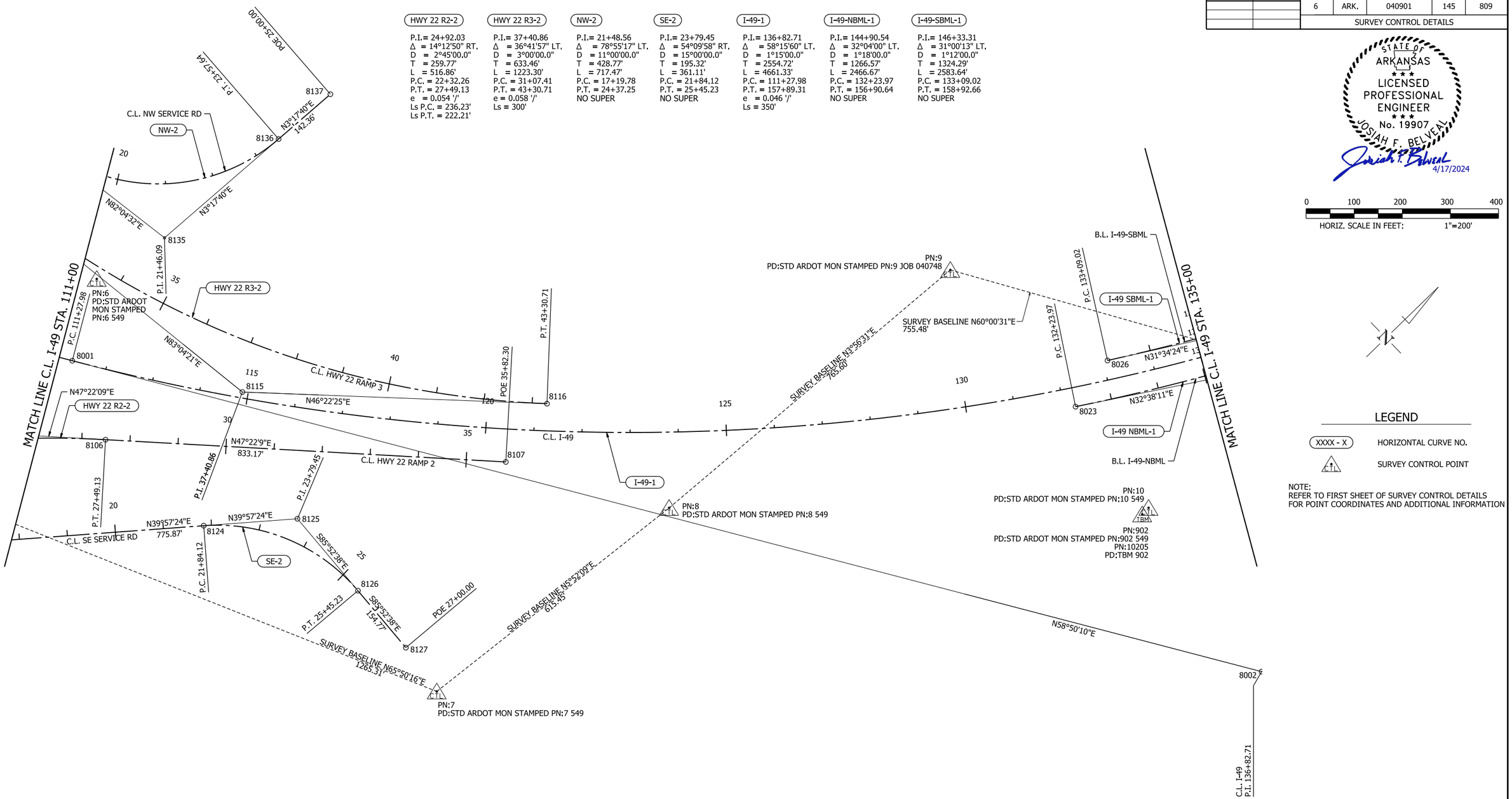
NW-2
P.I.= 21+48.56
Δ = 78°55'17" LT.
D = 11°00'00.0"
T = 428.77'
L = 717.47'
P.C. = 17+19.78
P.T. = 24+37.25
NO SUPER

SE-2
P.I.= 23+79.45
Δ = 54°09'58" RT.
D = 15°00'00.0"
T = 195.32'
L = 361.11'
P.C. = 21+84.12
P.T. = 25+45.23
NO SUPER

I-49-1
P.I.= 136+82.71
Δ = 58°15'60" LT.
D = 1°15'00.0"
T = 2554.72'
L = 4661.33'
P.C. = 111+27.98
P.T. = 157+89.31
e = 0.046 '/'
Ls = 350'

I-49-NBML-1
P.I.= 144+90.54
Δ = 32°04'00" LT.
D = 1°18'00.0"
T = 1266.57'
L = 2466.67'
P.C. = 132+23.97
P.T. = 156+90.64
NO SUPER

I-49-SBML-1
P.I.= 146+33.31
Δ = 31°00'13" LT.
D = 1°12'00.0"
T = 1324.29'
L = 2583.64'
P.C. = 133+09.02
P.T. = 158+92.66
NO SUPER



0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

LEGEND

XXXX - X — HORIZONTAL CURVE NO.

CTL — SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS FOR POINT COORDINATES AND ADDITIONAL INFORMATION

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SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	146	809
		SURVEY CONTROL DETAILS				

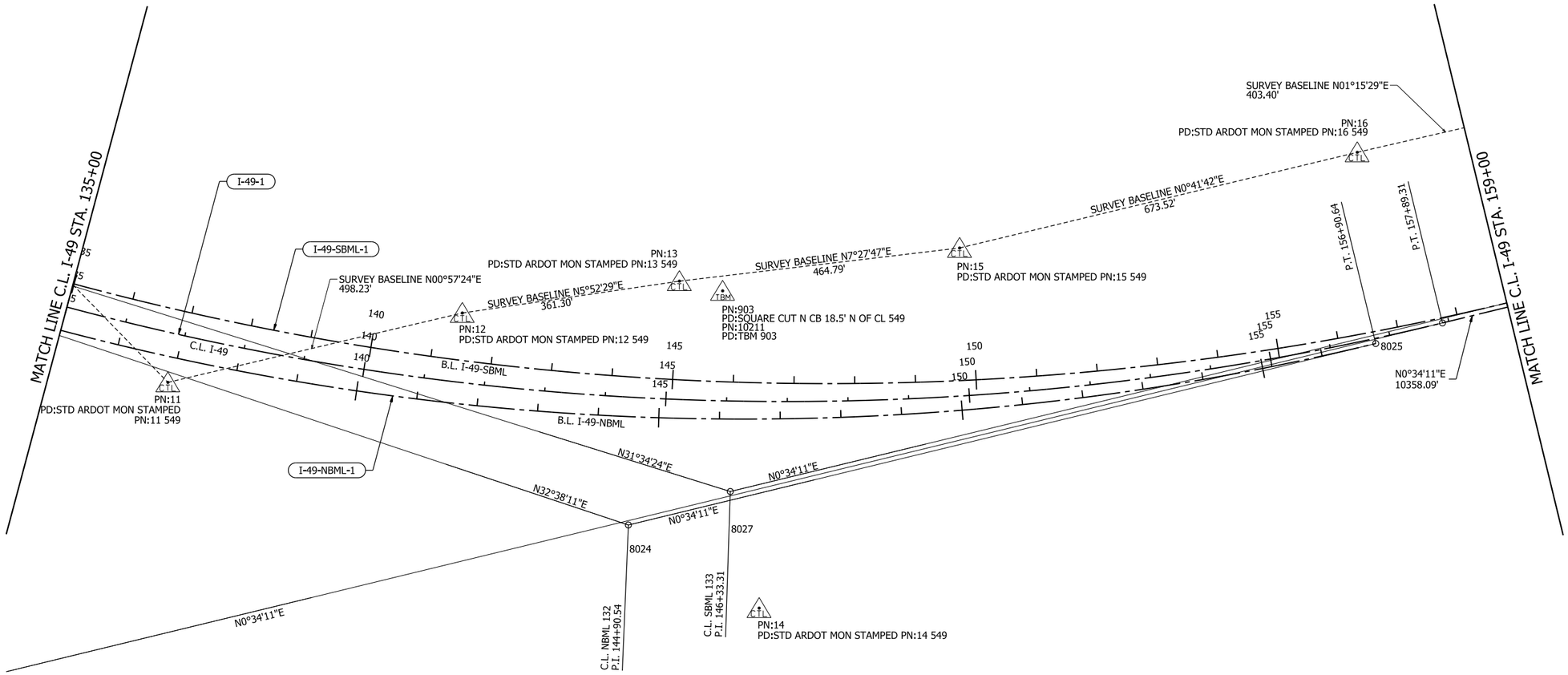
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

I-49-1
P.I.= 136+82.71
Δ = 58°15'60" LT.
D = 1°15'00.0"
T = 2554.72'
L = 4661.33'
P.C. = 111+27.98
P.T. = 157.89+31
e = 0.046 '/'
Ls = 350'

I-49-NBML-1
P.I.= 144+90.54
Δ = 32°04'00" LT.
D = 1°18'00.0"
T = 1266.57'
L = 2466.67'
P.C. = 132+23.97
P.T. = 156+90.64
NO SUPER

I-49-SBML-1
P.I.= 146+33.31
Δ = 31°00'13" LT.
D = 1°12'00.0"
T = 1324.29'
L = 2583.64'
P.C. = 133+09.02
P.T. = 158+92.66
NO SUPER



LEGEND

XXXX - X	HORIZONTAL CURVE NO.
CTL	SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS
FOR POINT COORDINATES AND ADDITIONAL INFORMATION

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SURVEY CONTROL DETAILS

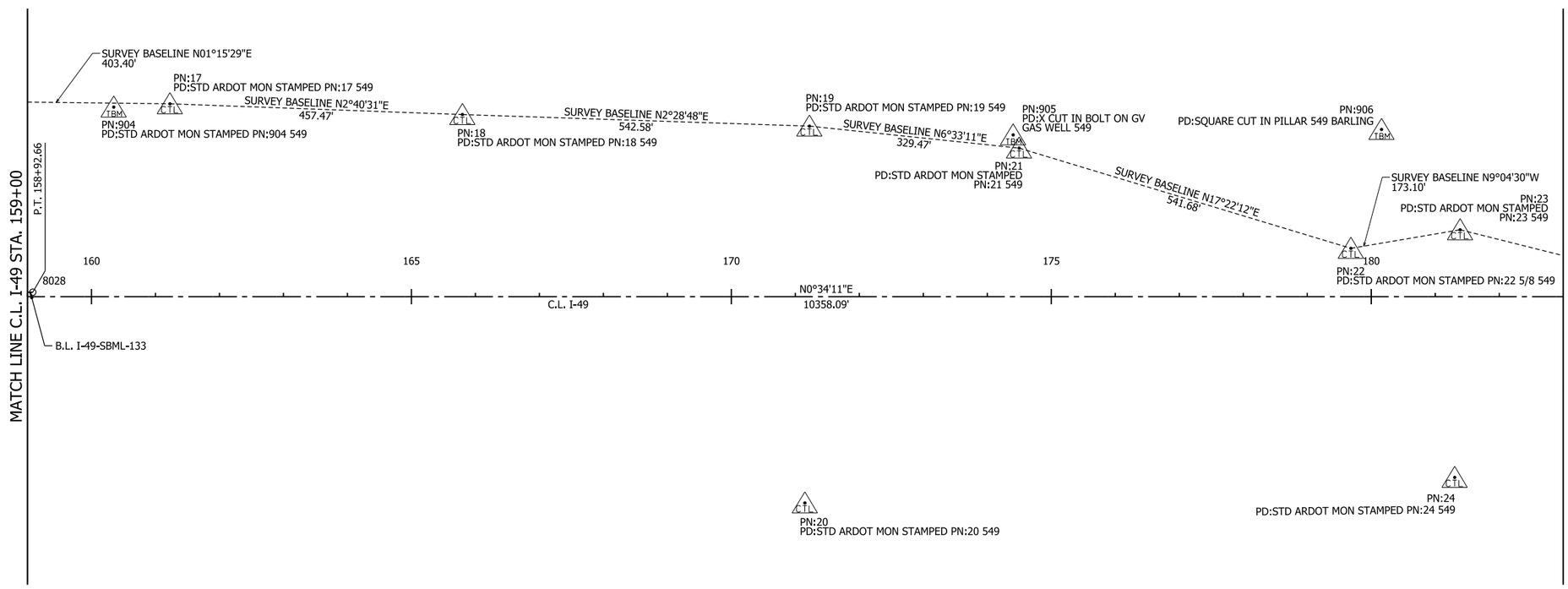
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	147	809
		SURVEY CONTROL DETAILS				

I-49-SBML-1

P.I.= 146+33.31
Δ = 31°00'13" LT.
D = 1°12'00.0"
T = 1324.29'
L = 2583.64'
P.C. = 133+09.02
P.T. = 158+92.66
NO SUPER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

XXXX - X — HORIZONTAL CURVE NO.

SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS
FOR POINT COORDINATES AND ADDITIONAL INFORMATION

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SURVEY CONTROL DETAILS

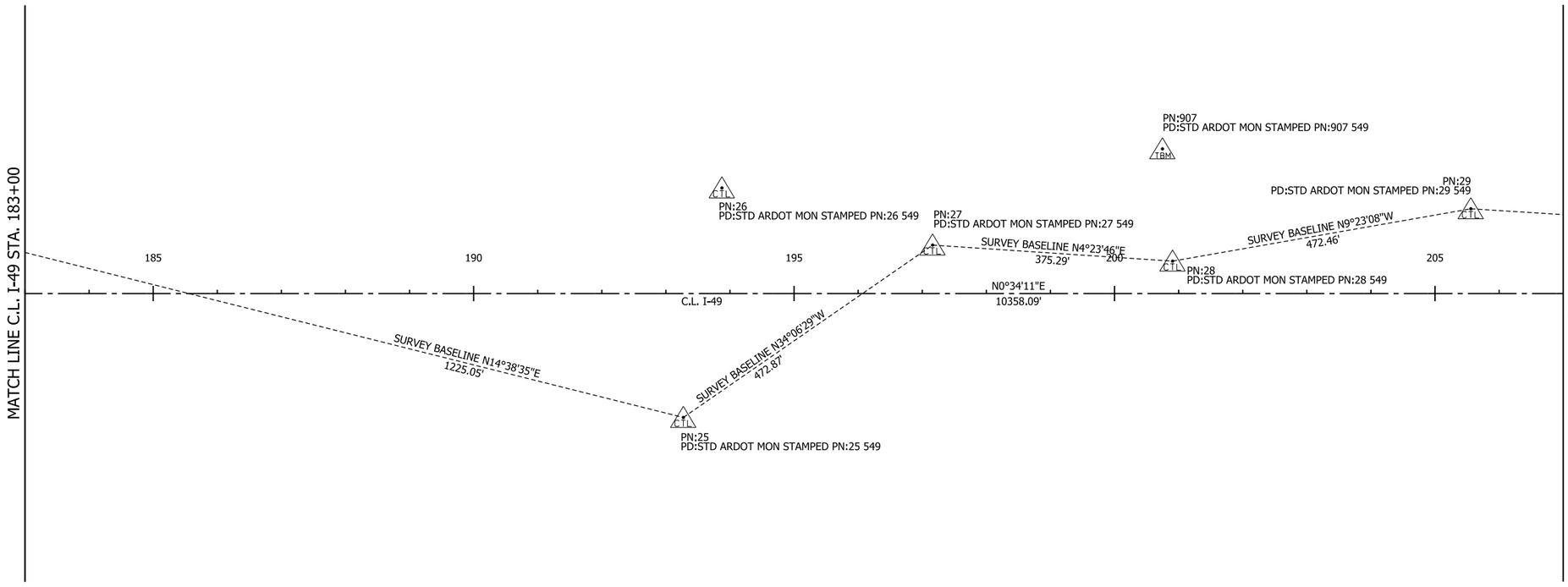
DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	148	809

SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

XXXX - X	HORIZONTAL CURVE NO.
CTL	SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS
FOR POINT COORDINATES AND ADDITIONAL INFORMATION

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SURVEY CONTROL DETAILS

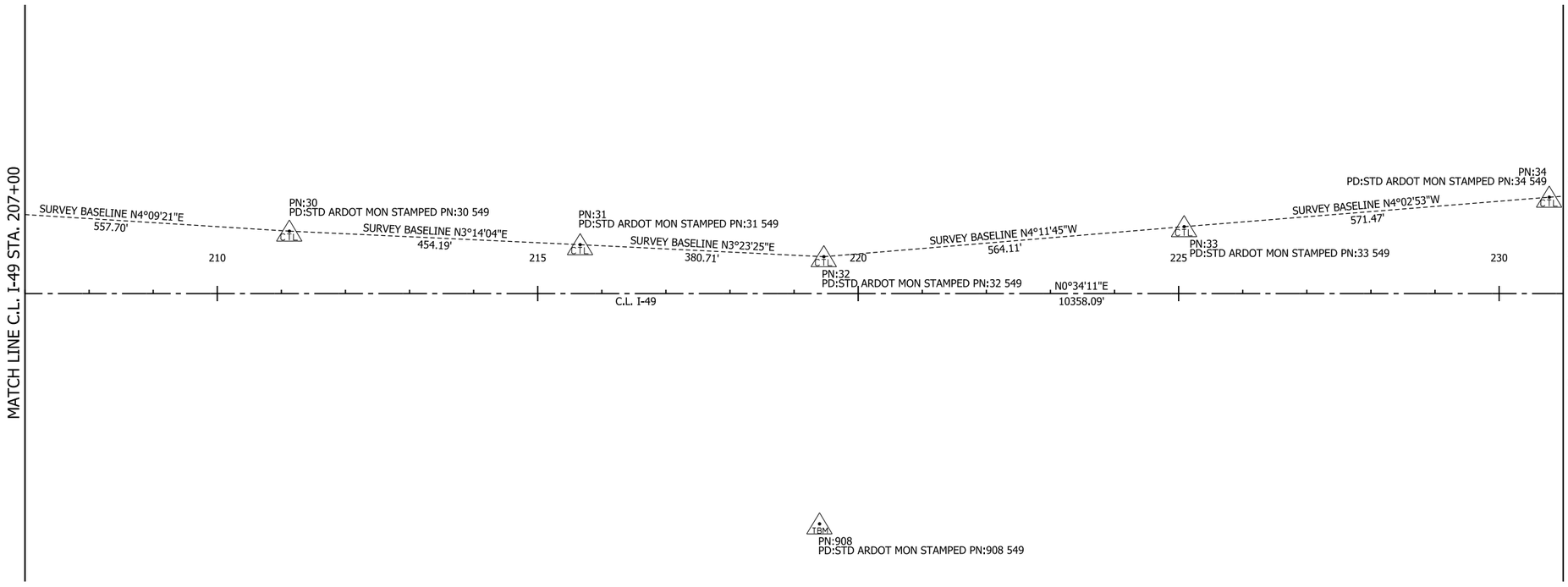
DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	149	809

SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

XXXX - X	HORIZONTAL CURVE NO.
CTL	SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS
FOR POINT COORDINATES AND ADDITIONAL INFORMATION

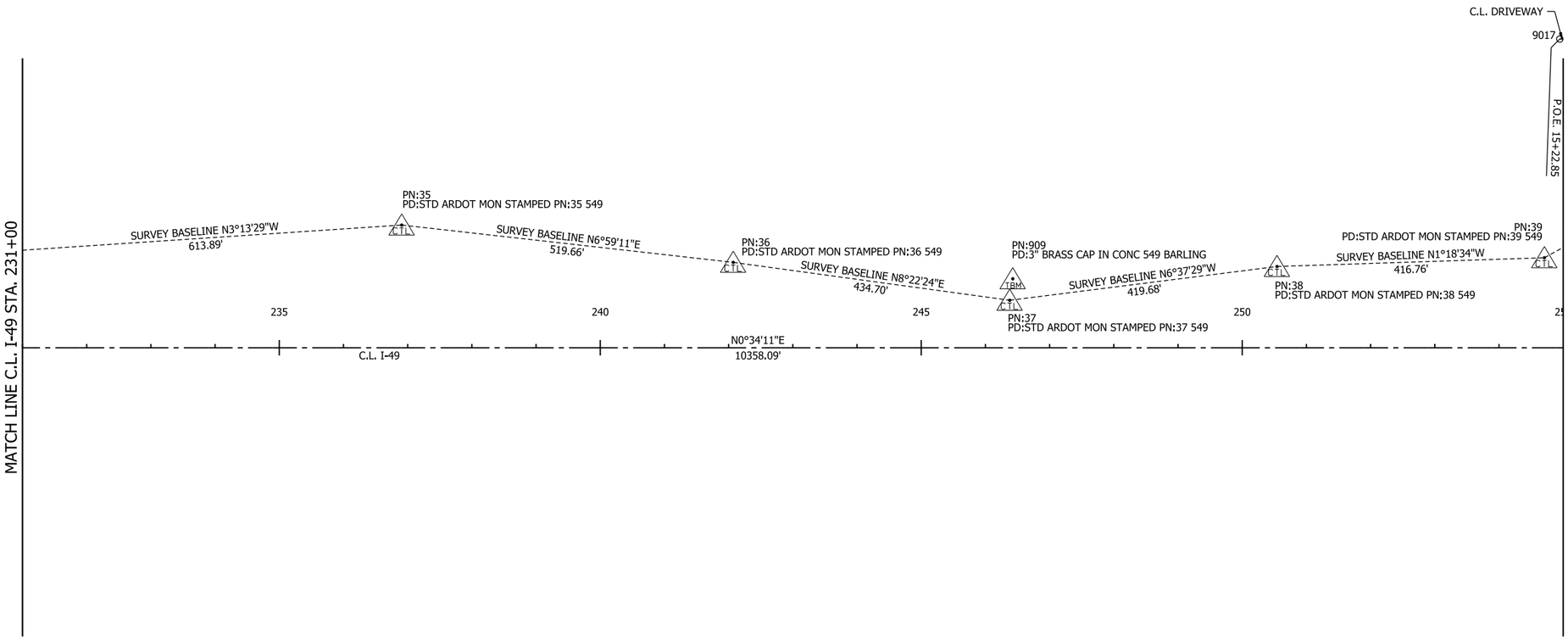
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SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	150	809
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



LEGEND

XXXX - X	HORIZONTAL CURVE NO.
C.T.L.	SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS
FOR POINT COORDINATES AND ADDITIONAL INFORMATION

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SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	151	809
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

LEGEND

XXXX - X — HORIZONTAL CURVE NO.

SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS FOR POINT COORDINATES AND ADDITIONAL INFORMATION

DRIVEWAY-2
P.I.= 14+22.06
Δ = 90°00'00" RT.
D =114°35'29.6"
T = 50.00'
L = 78.54'
P.C. = 13+72.06
P.T. = 14+50.60
NO SUPER

GC R3-1
P.I.= 24+63.58
Δ = 44°29'46.8" RT.
D = 5°30'00.0"
T = 426.15'
L = 809.02'
P.C. = 20+37.43
P.T. = 28+46.46
e = 0.088'/'
Ls = 350'

GC R3-2
P.I.= 36+01.60
D = 15°49'48" LT.
D = 3°00'00.0"
T = 265.53'
L = 527.67'
P.C. = 33+36.08
P.T. = 38+63.75
e = 0.058'/'
Ls = 300'

GC R4-1
P.I.= 12+32.75
Δ = 2°19'38" LT.
D = 0°30'00.0"
T = 232.75'
L = 465.44'
P.C. = 10+00.00
P.T. = 14+65.44
NO SUPER

GC R4-2
P.I.= 105+47.67
Δ = 175°33'37" LT.
D = 17°00'00.0"
T = 8694.5102'
L = 1032.71'
P.C. = 18+53.16
P.T. = 28+85.87
NO SUPER

I-49-2
P.I.= 294+48.78
Δ = 59°54'04" RT.
D = 1°00'00.0"
T = 3301.38'
L = 5990.11'
P.C. = 261+47.40
P.T. = 321+37.50
e = 0.038 '/'
Ls = 350'

I-49 SBML-2
P.I.= 275+74.65
Δ = 26°33'14" RT.
D = 1°03'00.0"
T = 1287.60'
L = 2528.95'
P.C. = 262+87.05
P.T. = 288+16.00
NO SUPER

I-49 NBML-2
P.I.= 273+59.75
Δ = 25°23'37" RT.
D = 0°57'00.0"
T = 1358.82'
L = 2673.01'
P.C. = 260+00.93
P.T. = 286+73.94
NO SUPER

GC R2-1
P.I.= 20+70.39
Δ = 26°12'23.4" LT.
D = 4°45'00.0"
T = 280.77'
L = 551.72'
P.C. = 17+89.62
P.T. = 23+41.33
e = 0.082'/'
Ls = 300'

GC R2-2
P.I.= 32+50.45
D = 39°26'31" RT.
D = 4°30'00.0"
T = 456.41'
L = 876.49'
P.C. = 27+94.04
P.C.C. = 36+70.53
e = 0.078'/'
Ls = 300'

GC-4
P.I.= 72+60.86
Δ = 0°32'11" RT.
D = 0°15'00.0"
T = 107.27'
L = 214.55'
P.C. = 71+53.58
P.T. = 72+60.86
NO SUPER

GC R1-1
P.I.= 10+95.22
Δ = 5°42'30" RT.
D = 3°00'00.0"
T = 95.22'
L = 190.28'
P.C. = 10+00.00
P.T. = 11+90.28
NO SUPER

GC R1-2
P.I.= 159+21.69
Δ = 176°56'26" RT.
D = 15°00'00.0"
T = 14303.71'
L = 1179.60'
P.C. = 16+17.97
P.T. = 27+97.58
NO SUPER

STA. 269+00.00
END JOB 040901

SURVEY CONTROL DETAILS

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DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	152	809

SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

I-49-2
P.I.= 294+48.78
Δ = 59°54'04" RT.
D = 1°00'00.0"
T = 3301.38'
L = 5990.11'
P.C. = 261+47.40
P.T. = 321+37.50
e = 0.038'/'
Ls = 350'

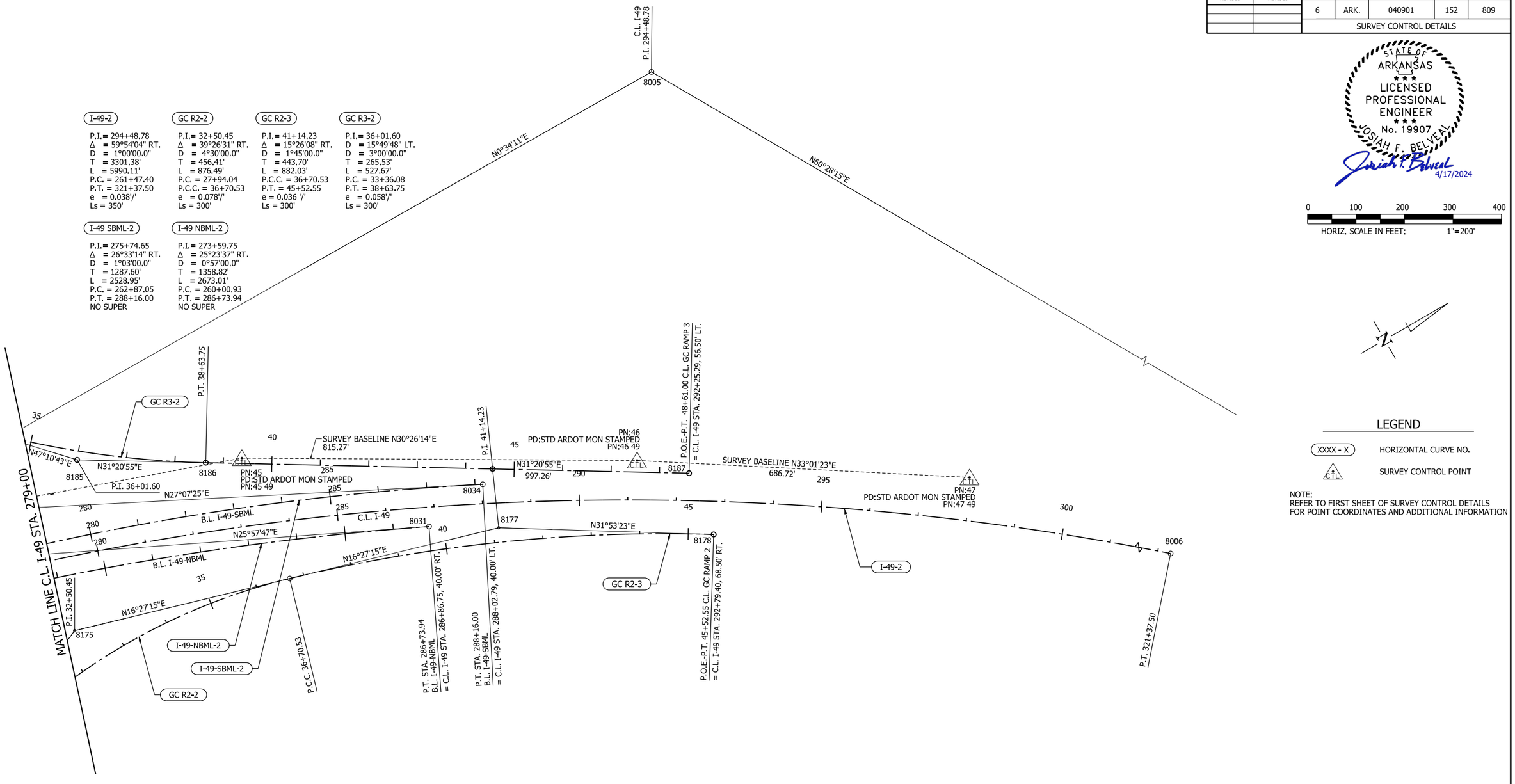
GC R2-2
P.I.= 32+50.45
Δ = 39°26'31" RT.
D = 4°30'00.0"
T = 456.41'
L = 876.49'
P.C. = 27+94.04
P.C.C. = 36+70.53
e = 0.078'/'
Ls = 300'

GC R2-3
P.I.= 41+14.23
Δ = 15°26'08" RT.
D = 1°45'00.0"
T = 443.70'
L = 882.03'
P.C.C. = 36+70.53
P.T. = 45+52.55
e = 0.036 '/'
Ls = 300'

GC R3-2
P.I.= 36+01.60
D = 15°49'48" LT.
D = 3°00'00.0"
T = 265.53'
L = 527.67'
P.C. = 33+36.08
P.T. = 38+63.75
e = 0.058'/'
Ls = 300'

I-49 SBML-2
P.I.= 275+74.65
Δ = 26°33'14" RT.
D = 1°03'00.0"
T = 1287.60'
L = 2528.95'
P.C. = 262+87.05
P.T. = 288+16.00
NO SUPER

I-49 NBML-2
P.I.= 273+59.75
Δ = 25°23'37" RT.
D = 0°57'00.0"
T = 1358.82'
L = 2673.01'
P.C. = 260+00.93
P.T. = 286+73.94
NO SUPER



LEGEND

XXXX - X — HORIZONTAL CURVE NO.

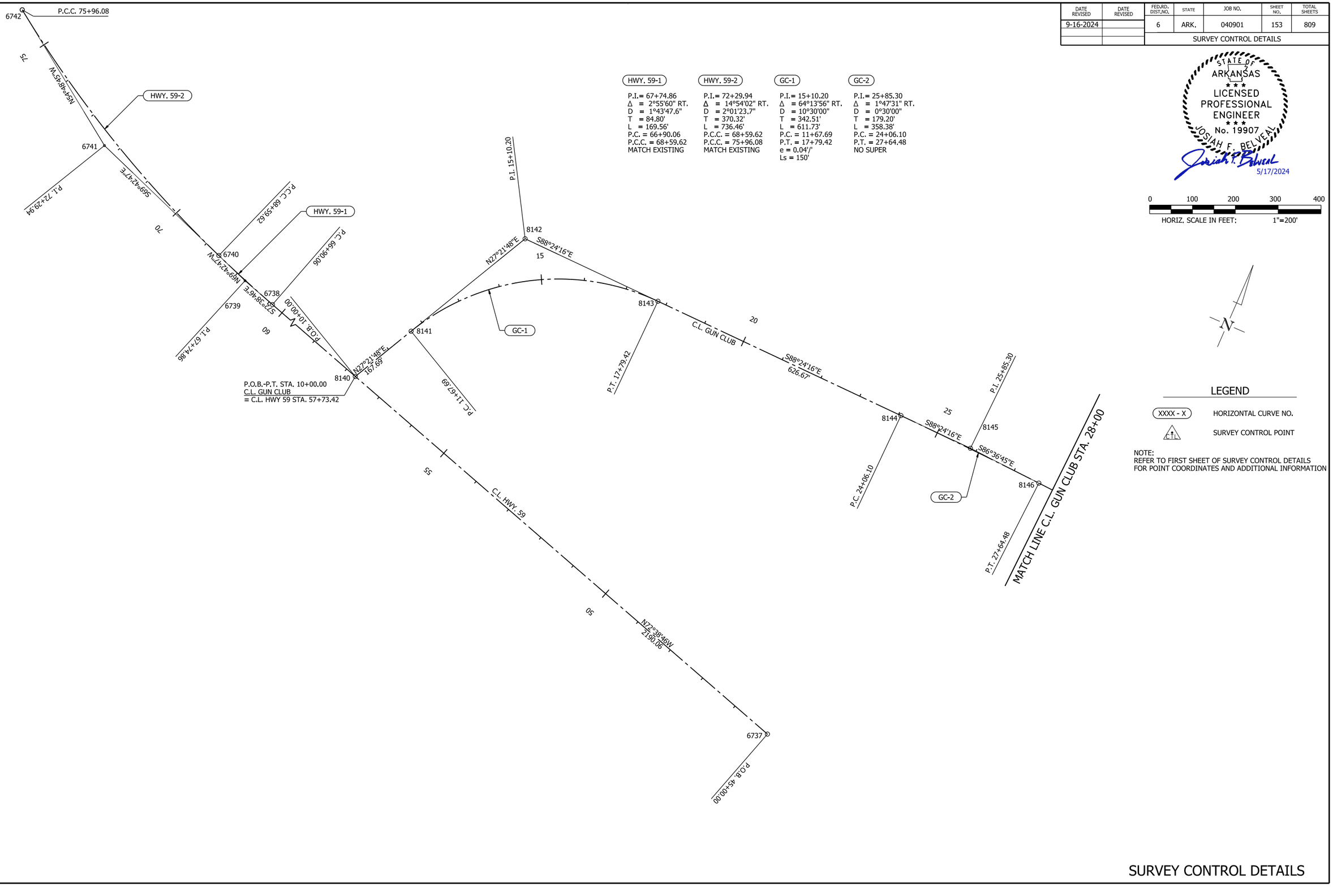
SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS
FOR POINT COORDINATES AND ADDITIONAL INFORMATION

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SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	153	809
		SURVEY CONTROL DETAILS				



HWY. 59-1
P.I.= 67+74.86
Δ = 2°55'60" RT.
D = 1°43'47.6"
T = 84.80'
L = 169.56'
P.C. = 66+90.06
P.C.C. = 68+59.62
MATCH EXISTING

HWY. 59-2
P.I.= 72+29.94
Δ = 14°54'02" RT.
D = 2°01'23.7"
T = 370.32'
L = 736.46'
P.C.C. = 68+59.62
P.C.C. = 75+96.08
MATCH EXISTING

GC-1
P.I.= 15+10.20
Δ = 64°13'56" RT.
D = 10°30'00"
T = 342.51'
L = 611.73'
P.C. = 11+67.69
P.T. = 17+79.42
e = 0.04'/'
Ls = 150'

GC-2
P.I.= 25+85.30
Δ = 1°47'31" RT.
D = 0°30'00"
T = 179.20'
L = 358.38'
P.C. = 24+06.10
P.T. = 27+64.48
NO SUPER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

LEGEND

XXXX - X — HORIZONTAL CURVE NO.

SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS
FOR POINT COORDINATES AND ADDITIONAL INFORMATION

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SURVEY CONTROL DETAILS

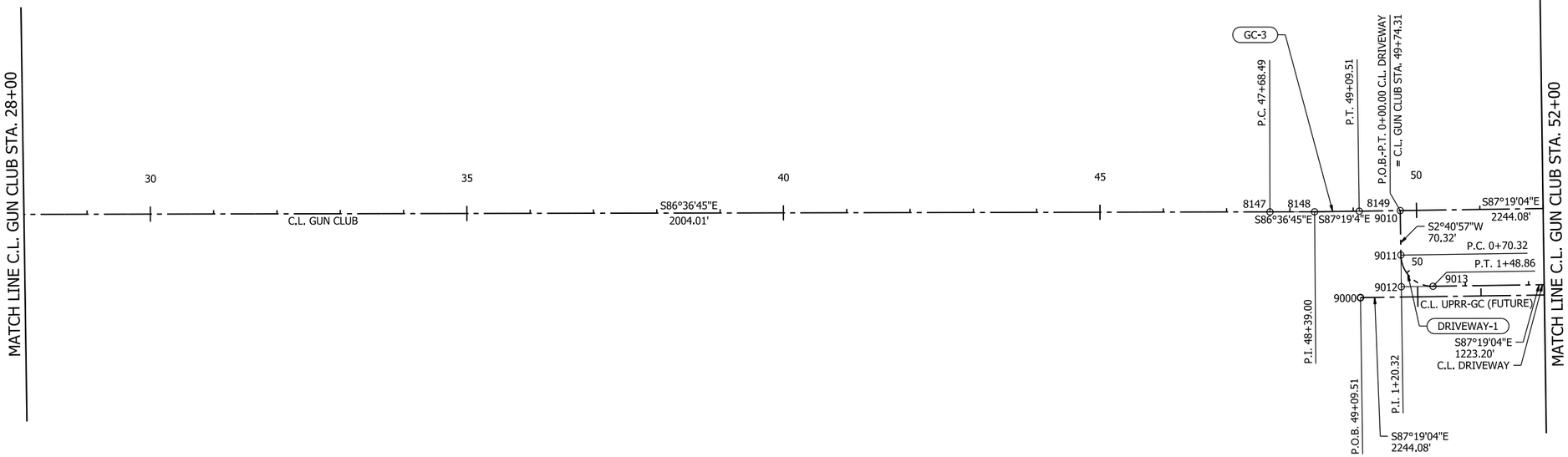
DATE REVISED	DATE REVISED
9-16-2024	

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	154	809

SURVEY CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



N

LEGEND

XXXX - X	HORIZONTAL CURVE NO.
C.T.L.	SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS
FOR POINT COORDINATES AND ADDITIONAL INFORMATION

DRIVEWAY-1

P.I.= 1+20.32
Δ = 90°00'01" LT.
D =114°35'29.6"
T = 50.00'
L = 78.54'
P.C. = 0+70.32
P.T. = 1+48.86
NO SUPER

GC-3

P.I.= 48+39.00
Δ = 0°42'18" LT.
D = 0°30'00"
T = 70.51'
L = 141.02'
P.C. = 47+68.49
P.T. = 49+09.51
NO SUPER

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SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	155	809
		SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

N

LEGEND

XXXX - X — HORIZONTAL CURVE NO.

SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS FOR POINT COORDINATES AND ADDITIONAL INFORMATION

MATCH LINE C.L. GUN CLUB STA. 52+00

MATCH LINE C.L. GUN CLUB STA. 75+00

P.T. 28+85.87
8195

C.L. GC RAMP 3

C.L. GC RAMP 4

S2°40'56"W
999.94'

N2°40'56"E
1037.44'

SURVEY BASELINE N03°35'51"E
821.40'

I-49 SBML

I-49 SBML-2

GC R1-2

I-49-2

P.C. 16+17.97
8163

N1°45'27"W
387.72'

I-49 NBML-2

I-49 NBML

N6°16'41"E
427.70'

P.T. 14+65.44
8192

P.C. STA. 262+87.05 B.L. I-49-SBML
= C.L. I-49 STA. 262+87.05, 8.70' LT.

GC R4-1

8004 P.C. 261+47.40

8191 P.I. 12+32.75

8162 P.T. 11+90.28

P.I. 10+95.22

P.C. 260+00.93
8161

GC R1-1

PN:41
PD:STD ARDOT MON STAMPED PN:41 49

SURVEY BASELINE N28°10'42"W
167.50'

P.O.B.-P.C. 10+00.00 C.L. GC RAMP 4
= C.L. I-49 STA. 258+96.00, 35.50' LT. 8190

P.O.B.-P.C. 10+00.00 C.L. GC RAMP 1
8160 = C.L. I-49 STA. 258+96.00, 35.50' RT.

C.L. GUN CLUB STA. 67+69.57 =
C.L. I-49 STA. 257+19.75

P.I. 72+60.86

P.O.B.-P.T. 10+00 C.L. GC RAMP 3
= C.L. GUN CLUB STA. 59+68.93

P.O.E.-P.T. 38+85.80 C.L. GC RAMP 4
= C.L. GUN CLUB STA. 59+97.93

8180 8196

S87°19'04"E
2244.08'

C.L. GUN CLUB

S87°19'04"E 8150
S86°46'53"E 8151
S86°46'53"E 8152
S86°46'53"E 481.87'

PN:103
PD:ARDOT GPS MON.170008A

PN:102
PD:ARDOT GPS MON.170028

C.L. DRIVEWAY

S87°19'04"E
1223.20'

DRIVEWAY-2

P.I. 14+22.06

9014 9015 9016

S87°19'04"E
2244.08'

S2°40'56"
72.25'

P.O.E. 15+22.85
9017

9001

P.C. 71+53.58

P.O.E. 71+53.58

P.T. 73+68.13

GC-4

C.L. UPRR-GC (FUTURE)

C.L. UPRR-GC (FUTURE) STA. 67+74.61
C.L. I-49 STA. 255+83.05

P.C. 13+72.06

P.T. 14+50.60

PN:39
PD:STD ARDOT MON STAMPED PN:39 549

N0°34'11"E
10358.11'

C.L. I-49

SURVEY BASELINE N01°18'34"W
416.76'

PN:38
PD:STD ARDOT MON STAMPED PN:38 549

SURVEY BASELINE N06°37'29"W
419.85'

GC-4
P.I.= 72+60.86
Δ = 0°32'11" RT.
D = 0°15'00"
T = 107.28'
L = 214.55'
P.C. = 71+53.58
P.T. = 73+68.13
NO SUPER

GC R1-1
P.I.= 10+95.22
Δ = 5°42'30" RT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. = 10+00.00
P.T. = 11+90.28
NO SUPER

GC R1-2
P.I.= 159+21.69
Δ = 176°56'26" RT.
D = 15°00'00"
T = 14303.72'
L = 1179.61'
P.C. = 16+17.97
P.T. = 27+97.58
e = 0.082'/'
Ls = 300'

GC R4-1
P.I.= 12+32.75
Δ = 2°19'38" LT.
D = 0°30'00"
T = 232.75'
L = 465.44'
P.C. =10+00.00
P.T. =14+65.44
NO SUPER

I-49-2
P.I.= 294+48.78
Δ = 59°54'04" RT.
D = 1°00'00"
T = 3301.38'
L = 5990.10'
P.C. =261+47.40
P.T. =321+37.50
e = 0.038'/'
Ls = 350'

I-49 SBML-1
P.I.= 275+74.65
Δ = 26°33'14" RT.
D = 1°03'00"
T = 1287.60'
L = 2528.95'
P.C. =262+87.05
P.T. =288+16.00
NO SUPER

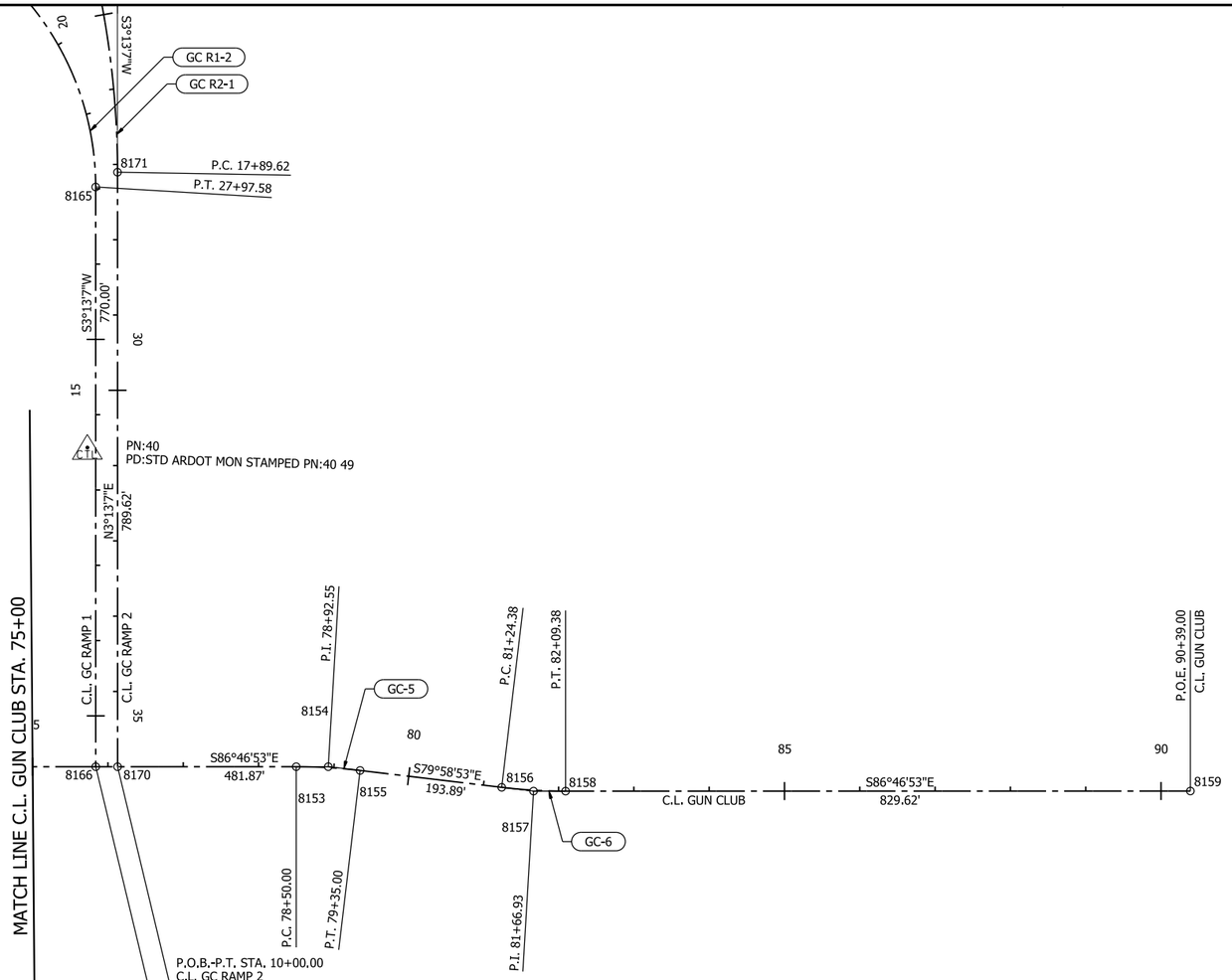
I-49 NBML-2
P.I.= 273+59.75
Δ = 25°23'37" RT.
D = 0°57'00"
T = 1358.82'
L = 2673.01'
P.C. =260+00.93
P.T. =286+73.94
NO SUPER

DRIVEWAY-2
P.I.= 14+22.06
Δ = 90°00'00" RT.
D =114°35'29.6"
T = 50.00'
L = 78.54'
P.C. = 13+72.06
P.T. = 14+50.60
NO SUPER

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SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	156	809
		SURVEY CONTROL DETAILS				



GC R1-2

P.I.= 159+21.69
Δ = 176°56'26" RT.
D = 15°00'00"
T = 14303.72'
L = 1179.61'
P.C. = 16+17.97
P.T. = 27+97.58
e = 0.082'/'
Ls = 250'

GC R2-1

P.I.= 20+70.39
Δ = 26°12'23" LT.
D = 4°45'00"
T = 280.77'
L = 551.71'
P.C. = 17+89.62
P.T. = 23+41.33
e = 0.082'/'
Ls = 300'

GC-5

P.I.= 78+92.55
Δ = 6°48'00" RT.
D = 8°00'00.0"
T = 42.55'
L = 85.00'
P.C. = 78+50.00
P.T. = 79+35.00
e = 0.082'/'
Ls = 250'

GC-6

P.I.= 81+66.93
Δ = 6°48'00" LT.
D = 8°00'00.0"
T = 42.55'
L = 85.00'
P.C. = 81+24.38
P.T. = 82+09.38
NO SUPER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

N

LEGEND

XXXX - X — HORIZONTAL CURVE NO.

SURVEY CONTROL POINT

NOTE:
REFER TO FIRST SHEET OF SURVEY CONTROL DETAILS
FOR POINT COORDINATES AND ADDITIONAL INFORMATION

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SURVEY CONTROL DETAILS

DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	157	809

PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/1/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

0 20 40 60 80
VERT. SCALE IN FEET: 1"=40'

SH22 RAMP 4
STA. 2170+69.85 IN PLACE
158' R.C. PIPE CULVERT
RETAIN

C.L. HWY 22 RAMP 3
C.L. HWY 22 RAMP 4
FORT ST. / HWY. 22
C.L. HWY 22
100 YEAR FLOODPLAIN BOUNDARY
C.L. I-49 STA. 92+21.84 = C.L. HWY 22 (EXISTING) STA. 49+96.29
BEGIN WRSF STA. 96+35.81 20.00' LT
C.L. HWY 22 RAMP 4
C.L. I-49
C.L. HWY 22 RAMP 1
100 YEAR FLOODPLAIN
UPRR

STA. 100+00.00
BEGIN JOB 040901
LOG MILE 6.33

STA. 106+60.00
CONSTRUCT DOUBLE 8' x 4' x 234' R.C. BOX CULVERT WITH 3:1 WINGS LT. & RT.
Q50=259.4 CFS D.A.=122.03 ACRES
DUMPED RIPPAP LT. & RT. = 201 CU. YD.

STA. 109+50.00 CONSTRUCT TYPE RM DROP INLET IN MEDIAN 4'-0" x 3'-0" x H=3'-0" WITH 24" x 108' R.C. PIPE OUTLET RT. (CLASS III) (TYPE 3 BEDDING) WITH FES.
DUMPED RIPPAP RT. = 22 CU. YD.

CONST. LIMITS
I-49 S.B.
I-49 N.B.
N58°50'10"E
C.L. HWY 22 RAMP 3
N83°04'21"E
C.L. NW SERVICE RD
EXIST. ROW & COA
PROP. ROW
PARK RD.
N33°09'20"E
C.L. HWY 22 RAMP 2
C.L. SE SERVICE RD
N39°57'24"E

MATCH LINE C.L. I-49 STA. 111+00

I-49

FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
103+94	111+00	LT.	A	791
105+90	111+00	RT.	A	548

WIRE ROPE SAFETY FENCE

STA.	STA.	SIDE	LIN. FT.
96+36	111+00	LT.	1464

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN. FT.
95+59	95+78	RT.	50

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	LENGTH	"W"	SQ. YDS.
96+35.81	111+00.00	LT.	1464	6'-0"	976.13
100+00.00	100+70.00	RT.	70	6'-0"	46.67
100+00.00	101+00.00	LT.	100	6'-0"	66.67

STA. 108+65.00 BEGIN SUPERELEVATION
STA. 112+15.00 MAX. SUPERELEVATION (0.046 '/')
STA. 157+02.00 MAX. SUPERELEVATION (0.046 '/')
STA. 160+52.00 END SUPERELEVATION

EXISTING I-49
EXISTING GROUND AT C.L.
STA. 100+00.00 ELEV. 433.29
P.V.C. 100+40.00 ELEV. 433.29
P.V.I. 103+00.00 ELEV. 430.99
P.V.C. 107+20.00 ELEV. 422.39
P.V.T. 105+60.00 ELEV. 425.66
P.V.I. 110+20.00 ELEV. 416.24
PROPOSED PG I-49
(-0.89%)
-0.89%
K=448.28 VC=520' e=-0.76'
-2.05%
K=235.29 VC=600' e=1.91'
0.13% MED. DT. GR.
0.50%
-5.16% LT. DT. GR.
-0.10% LT. DT. GR.
-0.30% RT. DT. GR.
0.51% LT. DT. GR.
0.20% RT. DT. GR.
-9.88% RT. DT. GR.
+00.00 RT. 415.39
+00.00 LT. 414.50
+70.00 RT. 408.48
+00.00 LT. 409.34
+60
+60.00 RT. 406.71
+60.00 LT. 408.78
+50.00 LT. 413.09
±90.00 RT. 407.56
FL IN LT. = 408.78
FL OUT RT. = 406.71
50yr WS = 412.17
100yr WS = 412.46
STA. 109+50.00
TOP ELEV.=413.09
FL OUT RT.=410.09

MATCH LINE C.L. I-49 STA. 111+00

510 490 470 450 430 410 390 370 350 330
90+00 95+00 100+00 105+00 110+00

LEGEND

- CONCRETE BARRIER
- WIRE FENCE (WRSF)
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- ROCK FILL
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

I-49
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	158	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/1/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

0 20 40 60 80
VERT. SCALE IN FEET: 1"=40'

I-49-1
P.I.= 136+82.71
Δ = 58°15'59.6" LT.
D = 1°15'00.0"
T = 2554.72'
L = 4661.33'
P.C. = 111+27.98
P.T. = 157+89.31
e = 0.046 '/'
Ls = 350'

I-49-NBML-1
P.I.= 144+90.54
Δ = 32°04'00.2" LT.
D = 1°18'00.0"
T = 1266.57'
L = 2466.67'
P.C. = 132+23.97
P.T. = 156+90.64

I-49-SBML-1
P.I.= 146+33.31
Δ = 31°00'13.3" LT.
D = 1°12'00.0"
T = 1324.29'
L = 2583.64'
P.C. = 133+09.02
P.T. = 158+92.66

STA. 116+60.00 CONSTRUCT
36" x 266' R.C. PIPE CULVERT
(CLASS III) (TYPE 3 BEDDING)
WITH 3:1 FES LT. & RT.
Q50=29.9 CFS D.A.=16.96 ACRES
DUMPED RIPPAP LT. & RT. = 76 CU. YD.

STA. 124+00.00 CONSTRUCT
TYPE RM DROP INLET IN MEDIAN
4'-0" x 3'-0" x H= 3'-0"
WITH 24" x 118' R.C. PIPE OUTLET RT.
(CLASS III) (TYPE 3 BEDDING) WITH FES.
DUMPED RIPPAP RT. = 18 CU. YD.

STA. 129+65.00 CONSTRUCT
4' x 4' x 196' R.C. BOX CULVERT
WITH 3:1 WINGS LT. & RT.
Q50=78.9 CFS D.A.=52.41 ACRES
DUMPED RIPPAP LT. & RT. = 132 CU. YD.

BEGIN MEDIAN TAPER

MATCH LINE C.L. I-49 STA. 111+00

MATCH LINE C.L. I-49 STA. 135+00

PROP. ROW
CONST. LIMITS
C.L. NW SERVICE RD
T.C.E.
C.L. HWY 22 RAMP 3
P.C. 111+27.98
EXIST. ROW & COA
NOSE +32.43 84.76' LT
I-49 S.B.
C.L. I-49
I-49 N.B.
N47°22'09"E
C.L. HWY 22 RAMP 2
NOSE +95.77 67.89' RT.
N39°57'24"E
C.L. SE SERVICE RD
700' ACCELERATION LANE
N58°50'10"E
P.C. 132+23.97
P.C. 133+09.02
I-49 SBML-1
B.L. I-49 SBML
B.L. I-49 NBML
I-49 NBML-1
I-49-1

I-49

LEGEND
- CONCRETE BARRIER
- WIRE FENCE (WRSF)
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- ROCK FILL
- OBLITERATION OF PAVEMENT

WIRE ROPE SAFETY FENCE

STA.	STA.	SIDE	LIN. FT.
111+00	135+00	LT.	2400

FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
111+00	135+00	LT.	A	2221
111+00	135+00	RT.	A	2418

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	LENGTH	"W"	SQ. YDS.
111+00.00	135+00.00	LT.	2400	6'-0"	1600.00

STA. 108+65.00 BEGIN SUPERELEVATION
STA. 112+15.00 MAX. SUPERELEVATION (0.046 '/')
STA. 157+02.00 MAX. SUPERELEVATION (0.046 '/')
STA. 160+52.00 END SUPERELEVATION

MATCH LINE C.L. I-49 STA. 111+00

MATCH LINE C.L. I-49 STA. 135+00

P.V.T. 113+20.00 ELEV. 417.74
PROPOSED PG I-49
0.50%
0.13% MED. DT. GR.
0.51% LT. DT. GR.
EXISTING GROUND AT C.L.
+10.00 LT. 412.63
-0.30% LT. DT. GR.
+32.43 LT. 410.24
+60.00 LT. 410.16
+60
+25.00 LT. 414.10
FL IN LT. = 410.16
FL OUT RT. = 407.04
50yr WS = 412.84
100yr WS = 413.07
+95.77 RT. 407.46
P.V.C. 118+10.00 ELEV. 420.19
K=247.93
VC=300'
e=-0.45'
P.V.I. 119+60.00 ELEV. 420.94
0.57% LT. DT. GR.
P.V.T. 121+10.00 ELEV. 419.88
-0.71%
P.V.C. 122+90.00 ELEV. 418.60
+70.00 LT. 413.65
STA. 124+00.00 TOP ELEV.=412.49 FL OUT RT.=408.78
K=243.90
VC=300'
e=0.46'
P.V.T. 124+40.00 ELEV. 417.54
P.V.T. 125+90.00 ELEV. 418.32
-0.30% LT. DT. GR.
0.28% RT. DT. GR.
+00.00 MED. 414.26
+15.00 RT. 410.54
5.13% SP. DITCH MED.
+65.00 MED. 417.60
+65
+65.00 LT. 411.56
+65.00 RT. 410.68
+00.00 MED. 414.78
FL IN LT. = 411.56
FL OUT RT. = 410.68
50yr WS = 415.44
100yr WS = 415.91
-8.05% SP. DITCH MED.
0.52%
0.30% LT. DT. GR.
0.12% RT. DT. GR.
K=294.12
VC=300'
e=-0.38'
P.V.C. 133+70.00 ELEV. 422.37

500 480 460 440 420 400 380 360 340 320
115+00 120+00 125+00 130+00 135+00

NOTES:
1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

I-49
PLAN AND PROFILE SHEETS

4/30/2024 3:45:14 PM
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	159	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/1/2024

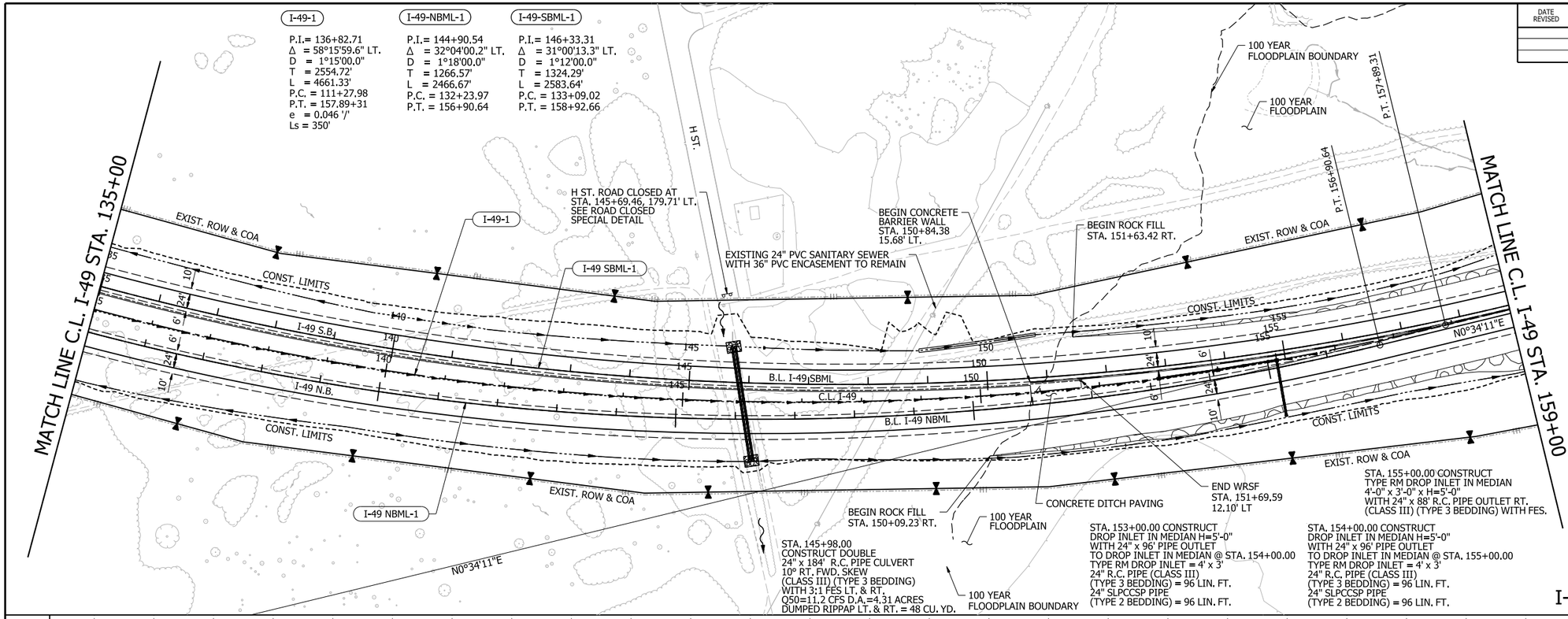
HORIZ. SCALE IN FEET: 0 100 200 300 400 — 1"=200'

VERT. SCALE IN FEET: 0 20 40 60 80 — 1"=40'

I-49-1: P.I.= 136+82.71, Δ = 58°15'59.6" LT., D = 1°15'00.0", T = 2554.72', L = 4661.33', P.C. = 111+27.98, P.T. = 157.89+31, e = 0.046 '/', Ls = 350'

I-49-NBML-1: P.I.= 144+90.54, Δ = 32°04'00.2" LT., D = 1°18'00.0", T = 1266.57', L = 2466.67', P.C. = 132+23.97, P.T. = 156+90.64

I-49-SBML-1: P.I.= 146+33.31, Δ = 31°00'13.3" LT., D = 1°12'00.0", T = 1324.29', L = 2583.64', P.C. = 133+09.02, P.T. = 158+92.66



I-49

LEGEND
- CONCRETE BARRIER
- WIRE FENCE (WRSF)
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- ROCK FILL
- OBLITERATION OF PAVEMENT

STA. 108+65.00 BEGIN SUPERELEVATION
STA. 112+15.00 MAX. SUPERELEVATION (0.046 '/')
STA. 157+02.00 MAX. SUPERELEVATION (0.046 '/')
STA. 160+52.00 END SUPERELEVATION

FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
135+00	159+00	LT.	A	2278
135+00	159+00	RT.	A	2443

GUARDRAIL (TYPE C)

STA.	STA.	LOCATION	25 LIN. FT.
145+59.28	145+79.65	C.L. I-49 LT.	

CONCRETE DITCH PAVING (TYPE B)

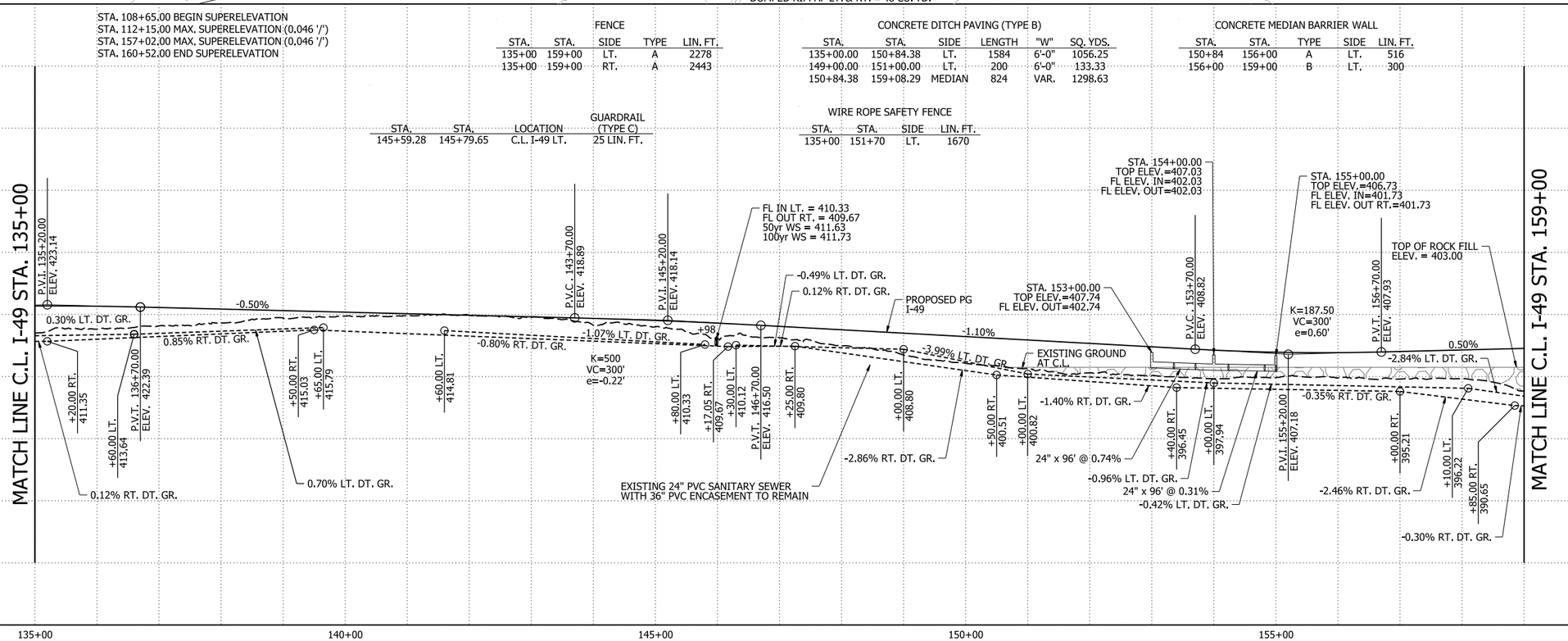
STA.	STA.	SIDE	LENGTH	"W"	SQ. YDS.
135+00.00	150+84.38	LT.	1584	6'-0"	1056.25
149+00.00	151+00.00	LT.	200	6'-0"	133.33
150+84.38	159+08.29	MEDIAN	824	VAR.	1298.63

WIRE ROPE SAFETY FENCE

STA.	STA.	SIDE	LIN. FT.
135+00	151+70	LT.	1670

CONCRETE MEDIAN BARRIER WALL

STA.	STA.	TYPE	SIDE	LIN. FT.
150+84	156+00	A	LT.	516
156+00	159+00	B	LT.	300



NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.
2. SEE EARTHWORK QUANTITY TABLE

I-49
PLAN AND PROFILE SHEETS

4/30/2024 3:46:27 PM
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	160	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

0 20 40 60 80
VERT. SCALE IN FEET: 1"=40'

I-49-SBML-1

END MEDIAN TAPER

P.I.= 146+33.31
D = 31°00'13.3" LT.
D = 1°12'00.0"
T = 1324.29'
L = 2583.64'
P.C. = 133+09.02
P.T. = 158+92.66

P.T. 158+92.66

STA. 163+33.33 CONSTRUCT TYPE N-3 DROP INLET LT. WITH 18" x 70' R.C. PIPE OUTLET LT. (CLASS III) (TYPE 3 BEDDING) WITH FES.

END CONCRETE BARRIER WALL C.L. I-49 STA. 163+36.92

END ROCK FILL 164+09.06

BEGIN I-49 BRIDGE C.L. I-49 STA. 163+71.92

EXIST. ROW & COA

REFER TO BRIDGE PLANS FOR ABUTMENT STONE AT ABUTMENT

CONST. LIMITS

STA. 163+71.92 INSTALL 1897 CU. YD. DUMPED RIPRAP AT BRIDGE BEGIN

160 165 170 175 180

C.L. I-49 I-49 S.B.

I-49 N.B.

CONST. LIMITS

I-49 SBML-1

END ROCK FILL 164+09.06

EXIST. ROW & COA

END EXIST. COA BEGIN PROP. COA

STA. 163+33.33 CONSTRUCT TYPE N-3 DROP INLET RT. WITH 18" x 60' R.C. PIPE OUTLET RT. (CLASS III) (TYPE 3 BEDDING) WITH FES.

STA. 162+50, 49' LT. FUTURE ITS CAMERA LOCATION REFER TO ROCK FILL SPECIAL DETAIL SHEET FOR MORE INFORMATION.

MATCH LINE C.L. I-49 STA. 159+00

100 YEAR FLOODPLAIN

EXIST. ROW & PROP. COA

DO NOT DISTURB EXISTING GAS WELL FACILITY

400'-0" NAVIGATION CHANNEL AT NORMAL POOL

N0°34'11"E

CONST. LIMITS

STA. 171+06.13 TO STA. 171+29.66, 64' RT. RESTORE P. ST.

EXIST. P ST.

SPRINGHILL PARK BOUNDARY

24" PIPE (TYP.)

JUNCTION BOX

BRIDGE BENT PIPE TIE INLET (TYP.)

RELOCATED SPRINGHILL PARK TRAIL

EXISTING SPRINGHILL PARK TRAIL

RELOCATED SPRINGHILL PARK TRAIL

SPRINGHILL PARK BOUNDARY

ARKANSAS RIVER

EXIST. ROW & PROP. COA

MATCH LINE C.L. I-49 STA. 183+00

100 YEAR FLOODPLAIN

STA. 172+83.00, 66.00.' RT. CONSTRUCT JUNCTION BOX H=4'-1" WITH 24" PIPE INLET WITH 8" BRIDGE BENT PIPE TIE INLET* WITH 24" X 196' PIPE OUTLET TO FES @ STA. 172+86.00 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 196' LIN. FT. 24" SLPCCSP PIPE (TYPE 2 BEDDING) = 196' LIN. FT.

STA. 174+13.00, 66.00.' RT. CONSTRUCT JUNCTION BOX H=4'-0" WITH 24" PIPE INLET WITH 8" BRIDGE BENT PIPE TIE INLET* WITH 24" X 128' PIPE OUTLET TO JUNCTION BOX @ STA. 172+83.00 JUNCTION BOX (TYPE ST) = 3'-0" X 3'-0" 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 128' LIN. FT. 24" SLPCCSP PIPE (TYPE 2 BEDDING) = 128' LIN. FT.

STA. 176+73.00, 66.00' RT. CONSTRUCT JUNCTION BOX H=5'-6" WITH 8" BRIDGE BENT PIPE TIE INLET* WITH 24" X 258' PIPE OUTLET TO JUNCTION BOX @ STA. 174+13.00 JUNCTION BOX (TYPE ST) = 3'-0" X 3'-0" 24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 258' LIN. FT. 24" SLPCCSP PIPE (TYPE 2 BEDDING) = 258' LIN. FT.

I-49

LEGEND

- CONCRETE BARRIER
- WIRE FENCE (WRSF)
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- ROCK FILL
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

* SEE BRIDGE BENT TIE DETAIL SPECIAL DETAIL

STA. 108+65.00 BEGIN SUPERELEVATION
STA. 112+15.00 MAX. SUPERELEVATION (0.046 '/')
STA. 157+02.00 MAX. SUPERELEVATION (0.046 '/')
STA. 160+52.00 END SUPERELEVATION

FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
159+00	163+72	LT.	A	953
159+00	163+72	RT.	A	954

STA.	STA.	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
161+30.69	163+49.52	C.L. I-49 RT.	150 LIN. FT.	1 EA.	1 EA.
162+05.69	163+49.52	C.L. I-49 LT.	75 LIN. FT.	1 EA.	1 EA.

CONCRETE MEDIAN BARRIER WALL

STA.	STA.	TYPE	LIN. FT.
159+00	160+52	B	152
160+52	163+37	A	285

MATCH LINE C.L. I-49 STA. 159+00

BEGIN I-49 BRIDGE C.L. I-49 STA. 163+71.92

SEE BRIDGE PLANS FOR SPECIAL FILL REQUIREMENTS AROUND END BENTS

STA. 163+33.33 RT. TOP ELEV.=411.27 F.L. ELEV. OUT=408.27

STA. 163+33.33 LT. TOP ELEV.=411.27 F.L. ELEV. OUT=408.27

K=200.00 VC=500' e=1.56'

P.V.C. 163+75.00 ELEV. 411.45

P.V.I. 166+25.00 ELEV. 412.70

P.V.T. 168+75.00 ELEV. 420.20

PROPOSED PG I-49

3.00%

K=262.58 VC=1200' e=-6.85'

P.V.C. 178+00.00 ELEV. 447.95

TOP OF ROCK FILL ELEV. = 403.00

0.50%

-2.84% LT. DT. GR.

-0.30% LT. DT. GR.

-1.72% RT. DT. GR.

-1.58% LT. DT. GR.

0.19% RT. DT. GR.

V.C. = 31.00' (CONC)

EXISTING P STREET

EXISTING GROUND AT C.L.

TRAIL

+50.00 LT. 389.40

+73.00 LT. 388.44

+75.00 LT. 385.25

+75.00 RT. 385.72

+23.44 RT. 383.77

+86.80 RT. 384.67

24"x 196' @ 0.50%

STA. 172+83.00 TOP ELEV.=389.74 FL ELEV. IN=385.64 FL ELEV. OUT=385.64

24"x 128' @ 0.50%

STA. 174+13.00 TOP ELEV.=390.28 FL ELEV. IN=386.28 FL ELEV. OUT=386.28

24"x 258' @ 0.40%

STA. 176+73.00 TOP ELEV.=392.71 FL ELEV. OUT=387.30

EXISTING GROUND AT BOX

500 YEAR ELEV. 404.58' Q=565,525 CFS OF 600,000 CFS

100 YEAR ELEV. 402.66' Q=453,722 CFS OF 480,000 CFS

2% FLOWLINE ELEV. 389.38' Q = 153,000 CFS

NORMAL POOL ELEV. 372.82'

50 YEAR ELEV. 400.69' Q=394,364 CFS OF 415,000 CFS

FUTURE PARK ROAD EXTENSION

MIN. VC=70.00'

NORMAL POOL ELEV. 372.82'

400' MIN. HORIZONTAL CLEARANCE

MATCH LINE C.L. I-49 STA. 183+00

ROCK FILL

-0.30% RT. DT. GR.

510 490 470 450 430 410 390 370 350 330

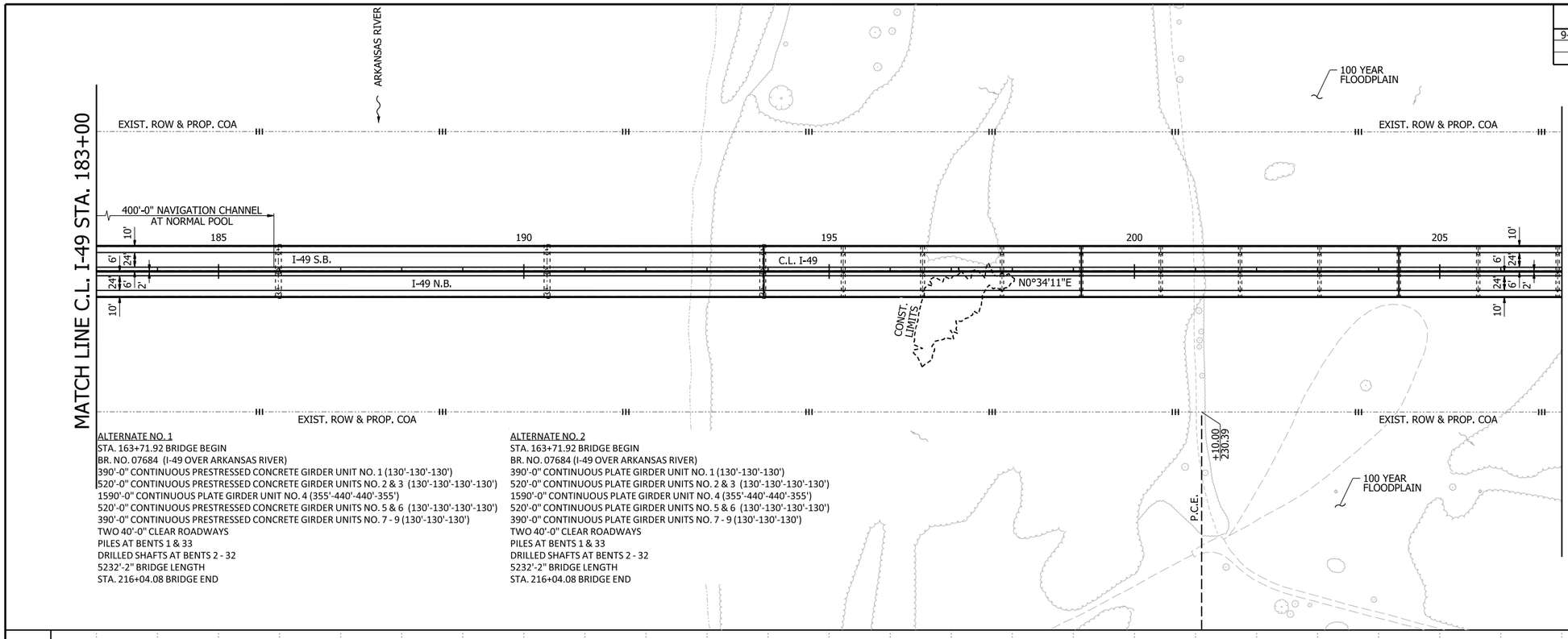
160+00 165+00 170+00 175+00 180+00

I-49
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	161	809
		PLAN AND PROFILE SHEETS				





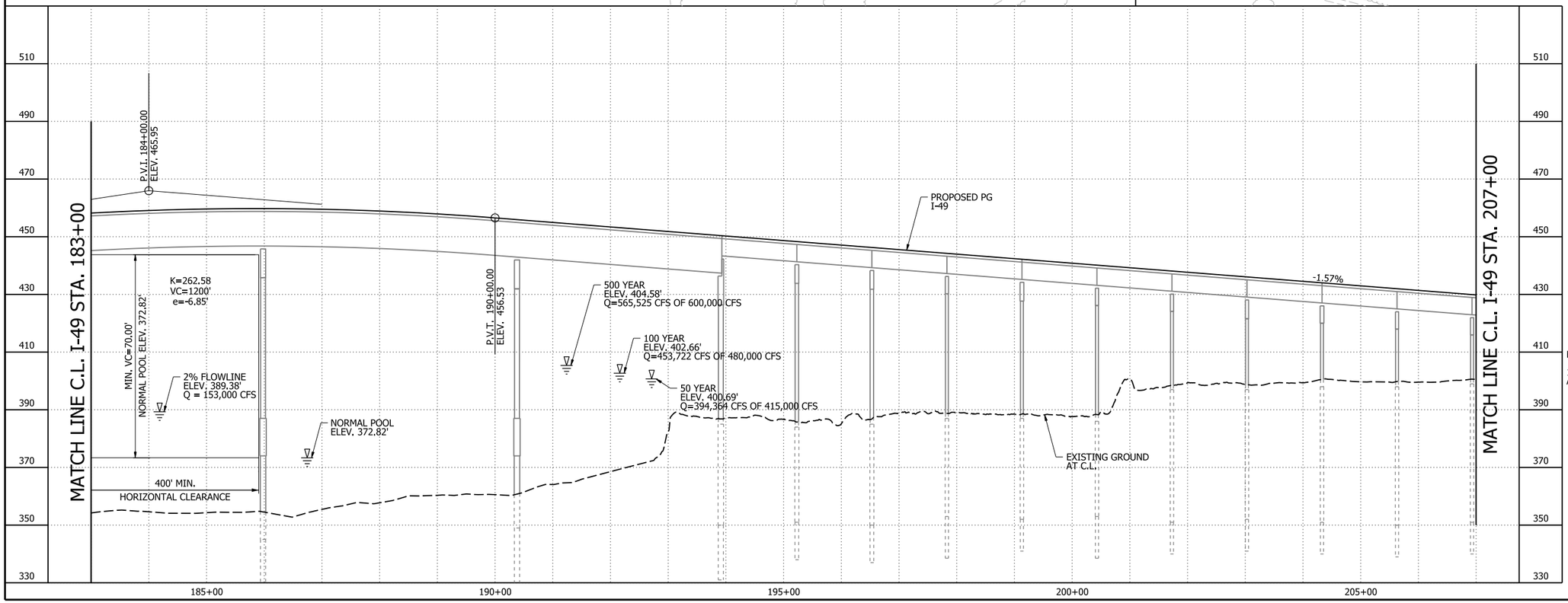
ALTERNATE NO. 1
STA. 163+71.92 BRIDGE BEGIN
BR. NO. 07684 (I-49 OVER ARKANSAS RIVER)
390'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNIT NO. 1 (130'-130'-130')
520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS NO. 2 & 3 (130'-130'-130'-130')
1590'-0" CONTINUOUS PLATE GIRDER UNIT NO. 4 (355'-440'-440'-355')
520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS NO. 5 & 6 (130'-130'-130'-130')
390'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS NO. 7 - 9 (130'-130'-130')
TWO 40'-0" CLEAR ROADWAYS
PILES AT BENTS 1 & 33
DRILLED SHAFTS AT BENTS 2 - 32
5232'-2" BRIDGE LENGTH
STA. 216+04.08 BRIDGE END

ALTERNATE NO. 2
STA. 163+71.92 BRIDGE BEGIN
BR. NO. 07684 (I-49 OVER ARKANSAS RIVER)
390'-0" CONTINUOUS PLATE GIRDER UNIT NO. 1 (130'-130'-130')
520'-0" CONTINUOUS PLATE GIRDER UNITS NO. 2 & 3 (130'-130'-130'-130')
1590'-0" CONTINUOUS PLATE GIRDER UNIT NO. 4 (355'-440'-440'-355')
520'-0" CONTINUOUS PLATE GIRDER UNITS NO. 5 & 6 (130'-130'-130'-130')
390'-0" CONTINUOUS PLATE GIRDER UNITS NO. 7 - 9 (130'-130'-130')
TWO 40'-0" CLEAR ROADWAYS
PILES AT BENTS 1 & 33
DRILLED SHAFTS AT BENTS 2 - 32
5232'-2" BRIDGE LENGTH
STA. 216+04.08 BRIDGE END

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

0 20 40 60 80
VERT. SCALE IN FEET: 1"=40'

I-49



LEGEND

- CONCRETE BARRIER
- WIRE FENCE (WRSF)
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- ROCK FILL
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

I-49
PLAN AND PROFILE SHEETS

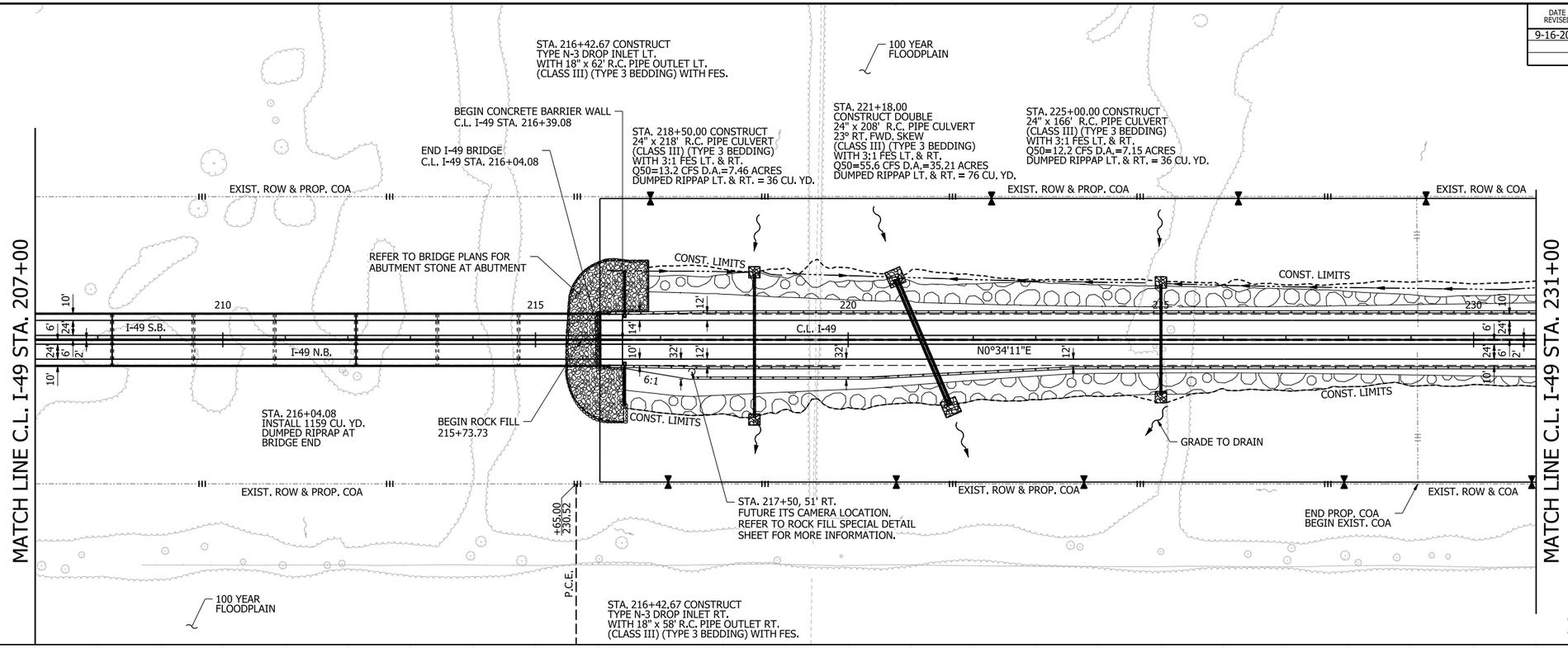
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	162	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

0 20 40 60 80
VERT. SCALE IN FEET: 1"=40'



I-49

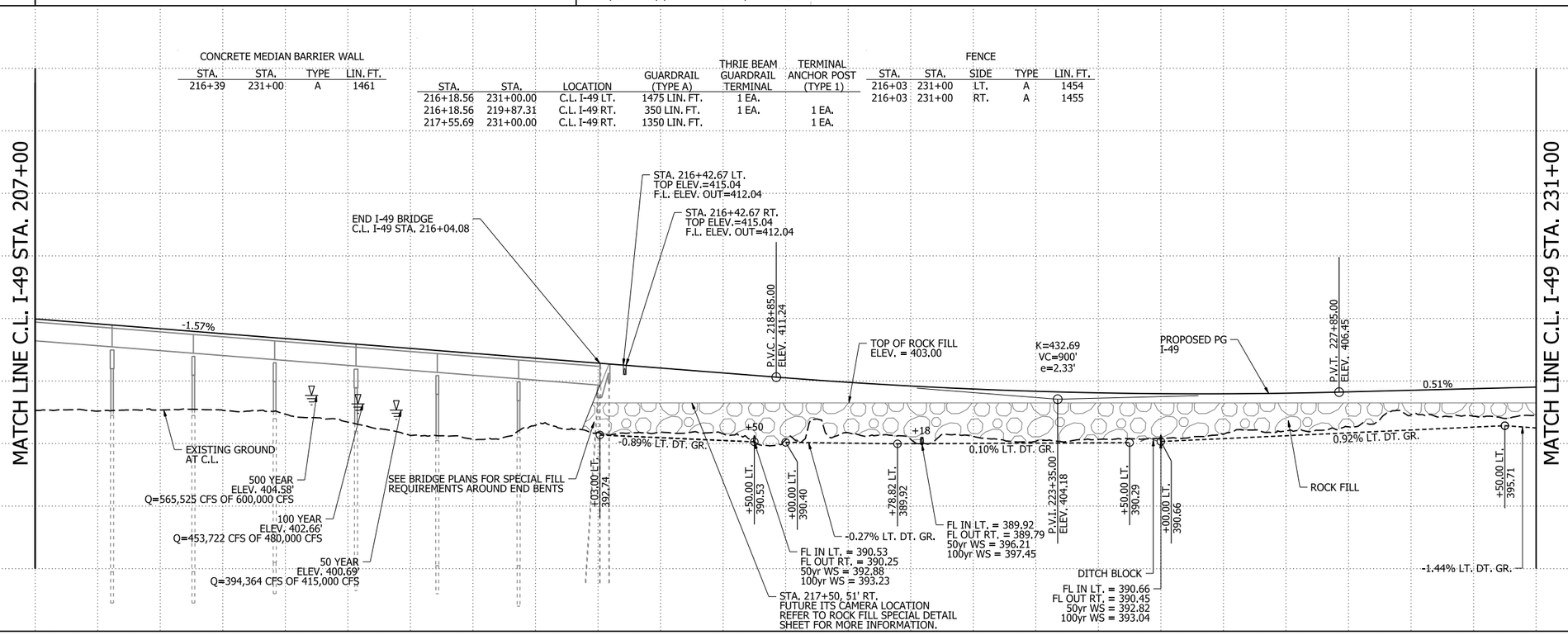
CONCRETE MEDIAN BARRIER WALL

STA.	STA.	TYPE	LIN. FT.
216+39	231+00	A	1461

STA.	STA.	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POST (TYPE 1)
216+18.56	231+00.00	C.L. I-49 LT.	1475 LIN. FT.	1 EA.	
216+18.56	219+87.31	C.L. I-49 RT.	350 LIN. FT.	1 EA.	1 EA.
217+55.69	231+00.00	C.L. I-49 RT.	1350 LIN. FT.		1 EA.

FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
216+03	231+00	LT.	A	1454
216+03	231+00	RT.	A	1455



LEGEND

- CONCRETE BARRIER
- WIRE FENCE (WRSF)
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- ROCK FILL
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

I-49
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	163	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

0 20 40 60 80
VERT. SCALE IN FEET: 1"=40'

MATCH LINE C.L. I-49 STA. 231+00

MATCH LINE C.L. I-49 STA. 255+00

STA. 240+33.33 CONSTRUCT TYPE N-3 DROP INLET LT. WITH 18" x 78' R.C. PIPE OUTLET LT. (CLASS III) (TYPE 3 BEDDING) WITH FES.

END CONCRETE BARRIER WALL C.L. I-49 STA. 240+36.92

REFER TO BRIDGE PLANS FOR ABUTMENT STONE AT ABUTMENT

BEGIN I-49 BRIDGE C.L. I-49 STA. 240+71.92

EXIST. ROW & COA

CONST. LIMITS

I-49 S.B.

C.L. I-49

I-49 N.B.

END ROCK FILL 241+36.18

STA. 240+71.92 INSTALL 1629 CU. YD. DUMPED RIPRAP AT BRIDGE BEGIN

END EXIST. COA BEGIN PROP. COA

END ROCK FILL 240+35.17

EXIST. ROW & PROP. COA

EXISTING ACCESS RD.

FLAT ROCK CREEK

100 YEAR FLOODPLAIN BOUNDARY

100 YEAR FLOODPLAIN

420' TRANSITION LENGTH

GC RAMP 4 ACCELERATION

GC RAMP 4 DECELERATION

+93.00

+13.00

N0°34'11"E

REFER TO BRIDGE PLANS FOR CONCRETE RIPRAP AT LEVEE

LEVEE

ALTERNATE NO. 1
STA. 240+71.92 BRIDGE BEGIN
BR. NO. 07685 (I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.)
520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNIT NO. 1 (130'-130'-130'-130')
420'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNIT NO. 2 (90'-130'-100'-100')
520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNIT NO. 3 (130'-130'-130'-130')
360'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNIT NO. 4 (115'-130'-115')
TWO CLEAR ROADWAYS VARIES (40'-0" TO 48'-0")
PILES AT BENTS 1 & 16
DRILLED SHAFTS AT BENTS 2 - 15
1822'-2" BRIDGE LENGTH
STA. 258+94.08 BRIDGE END

ALTERNATE NO. 2
STA. 240+71.92 BRIDGE BEGIN
BR. NO. 07685 (I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.)
520'-0" CONTINUOUS PLATE GIRDER UNIT NO. 1 (130'-130'-130'-130')
420'-0" CONTINUOUS PLATE GIRDER UNIT NO. 2 (90'-130'-100'-100')
520'-0" CONTINUOUS PLATE GIRDER UNIT NO. 3 (130'-130'-130'-130')
360'-0" CONTINUOUS PLATE GIRDER UNIT NO. 4 (115'-130'-115')
TWO CLEAR ROADWAYS VARIES (40'-0" TO 48'-0")
PILES AT BENTS 1 & 16
DRILLED SHAFTS AT BENTS 2 - 15
1822'-2" BRIDGE LENGTH
STA. 258+94.08 BRIDGE END

STA. 240+33.33 CONSTRUCT TYPE N-3 DROP INLET RT. WITH 18" x 54' R.C. PIPE OUTLET RT. (CLASS III) (TYPE 3 BEDDING) WITH FES.

I-49

CONCRETE MEDIAN BARRIER WALL

STA.	STA.	TYPE	LIN. FT.
231+00	240+37	A	937

STA.	STA.	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL
231+00.00	240+49.44	C.L. I-49 LT.	925 LIN. FT.	1 EA.
231+00.00	240+49.44	C.L. I-49 RT.	925 LIN. FT.	1 EA.

FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
231+00	240+72	LT.	A	1454
231+00	240+72	RT.	A	1455

MATCH LINE C.L. I-49 STA. 231+00

MATCH LINE C.L. I-49 STA. 255+00

BEGIN I-49 BRIDGE C.L. I-49 STA. 240+71.92

P.V.C. 236+70.00 ELEV. 410.93

PROPOSED PG I-49

K=201.61 VC=500' e=1.55'

P.V.I. 241+70.00 ELEV. 419.67

2.99%

P.V.I. 252+00.00 ELEV. 450.50

K=250.42 VC=1500' e=-11.23'

0.51%

-1.44% LT. DT. GR.

-0.20% LT. DT. GR.

TOP OF ROCK FILL ELEV. = 403.00

ROCK FILL

+75.00 LT. 389.60

EXISTING GROUND AT C.L.

P.V.I. 239+20.00 ELEV. 412.19

+75.00 LT. 388.40

SEE BRIDGE PLANS FOR SPECIAL FILL REQUIREMENTS AROUND END BENTS

P.V.C. 244+50.00 ELEV. 428.05

500 YEAR ELEV. 404.58' Q=34,475 CFS OF 600,000 CFS

100 YEAR ELEV. 402.66' Q=26,278 CFS OF 480,000 CFS

50 YEAR ELEV. 400.69' Q=20,636 CFS OF 415,000 CFS

V.C.=33.67' (CONC)

EXISTING ACCESS ROAD

FLAT ROCK CREEK

V.C.=20.83' (CONC)

EXISTING LEVEE

PROPOSED LEVEE PAVEMENT

STA. 240+33.33 LT. TOP ELEV.=416.08 F.L. ELEV. OUT=413.08

STA. 240+33.33 RT. TOP ELEV.=416.08 F.L. ELEV. OUT=413.08

500 480 460 440 420 400 380 360 340 320

235+00 240+00 245+00 250+00 255+00

LEGEND

- CONCRETE BARRIER
- WIRE FENCE (WRSF)
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- ROCK FILL
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

I-49
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	164	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

HORIZ. SCALE IN FEET: 0 100 200 300 400 — 1"=200'

VERT. SCALE IN FEET: 0 20 40 60 80 — 1"=40'

MATCH LINE C.L. I-49 STA. 255+00

C.L. I-49 STA. 255+83.00= C.L. FUTURE UPRR
C.L. I-49 STA. 257+19.75= C.L. GUN CLUB STA. 67+69.57
STA. 259+31.17 CONSTRUCT TYPE N-3 DROP INLET LT. WITH 18" x 80' R.C. PIPE OUTLET LT. (CLASS III) (TYPE 3 BEDDING) WITH FES.

I-49-2	I-49 SBML-2	I-49 NBML-2
P.I.= 294+48.78	P.I.= 275+74.65	P.I.= 273+59.75
Δ = 59°54'04" RT.	Δ = 26°33'14" RT.	Δ = 25°23'37" RT.
D = 1°00'00.0"	D = 1°03'00.0"	D = 0°57'00.0"
T = 3301.38'	T = 1287.60'	T = 1358.82'
L = 5990.11'	L = 2528.95'	L = 2673.01'
P.C. = 261+47.40	P.C. = 262+87.05	P.C. = 260+00.93
P.T. = 321+37.50	P.T. = 288+16.00	P.T. = 286+73.94
e = 0.038 '/'		
Ls = 350'		

BEGIN ROCK FILL 258+22.70
REFER TO BRIDGE PLANS FOR CONCRETE RIPRAP AT ABUTMENT
END I-49 BRIDGE C.L. I-49 STA. 258+94.08
BEGIN CONCRETE BARRIER WALL C.L. I-49 STA. 259+29.08
END ROCK FILL 263+00.00
CONST. LIMITS
NOSE +93.50 36.80' LT
C.L. GC RAMP 4
B.L. I-49 SBML
B.L. I-49 NBML
C.L. I-49
I-49 S.B.
I-49 N.B.
C.L. GC RAMP 1
PROJECT BY OTHERS JOB 040902
I-49-2
I-49-NBML-2
I-49-SBML-2
FUTURE C.L. GC RAMP 3
N0°38'11"E
S87°19'04"E
+44.18 100.00 EXIST. ROW & PROP. COA
PROP. ROW & COA
P.O.E. 71+53.58
+03.77 100.00
+40.11 100.00
C.L. GUN CLUB
CONCRETE DITCH PAVING
END CONCRETE BARRIER WALL STA. 268+67.25, 16.86' RT.
END ROCK FILL 263+00.00
NOSE +57.50 80.00' RT.
P.C. 260+00.93 B.L. I-49-NBML = C.L. I-49 STA. 260+00.93, 7.00' RT
P.C. 261+47.40
P.C. STA. 262+87.05 B.L. I-49-SBML = C.L. I-49 STA. 262+87.05, 8.70' LT.
BEGIN MEDIAN TAPER
STA. 259+31.17 CONSTRUCT TYPE N-3 DROP INLET RT. WITH 18" x 88' R.C. PIPE OUTLET RT. (CLASS III) (TYPE 3 BEDDING) WITH FES.
STA. 269+00.00 END JOB 040901
FUTURE C.L. GC RAMP 2
PROP. ROW & COA
+95.00 430.00

I-49

LEGEND
- CONCRETE BARRIER
- WIRE FENCE (WRSF)
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- ROCK FILL
- OBLITERATION OF PAVEMENT

STA. 258+95.00 BEGIN SUPERELEVATION
STA. 262+45.00 MAX. SUPERELEVATION (0.038 '/')
STA. 320+50.00 MAX. SUPERELEVATION (0.038 '/')
STA. 324+00.00 END SUPERELEVATION

CONCRETE MEDIAN BARRIER WALL

STA.	STA.	TYPE	LIN. FT.
259+29	262+00	B	271
262+00	268+67	A	667

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	LENGTH	"W"	SQ. YDS.
260+00.93	269+00.00	MEDIAN	899	VAR.	1428.00

STA.	STA.	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
259+14.48	260+47.01	C.L. I-49 LT.	75 LIN. FT.	1 EA.	1 EA.
259+14.48	260+58.93	C.L. I-49 RT.	75 LIN. FT.	1 EA.	1 EA.

MATCH LINE C.L. I-49 STA. 255+00

FUTURE RR ENVELOPE (BY OTHERS)
PROPOSED PG I-49
END I-49 BRIDGE C.L. I-49 STA. 258+94.08
V.C. = 24.00' (CONC)
FUTURE RR
C.L. GUN CLUB V.C. =26.50' (CONC)
19'-0"
TOP OF RAIL ASSUMED ELEV. 404.28
TOP OF ROCK FILL ELEV. = 405.00
ROCK FILL
-3.00%
-0.50%
10:1
0.20% LT. DT. GR.
0.10% RT. DT. GR.
0.30% RT. DT. GR.
0.19% LT. DT. GR.
EXISTING GROUND AT C.L.
END PAVEMENT BEGIN INTERIM GRADING
END INTERIM GRADING
GRADING AND BASE COURSE ONLY
GRADING ONLY
PROJECT BY OTHERS JOB 040902
P.V.C. 263+10.00 ELEV. 417.22
P.V.I. 265+60.00 ELEV. 409.72
P.V.T. 259+50.00 ELEV. 428.01
P.V.T. 268+10.00 ELEV. 408.47
STA. 269+00.00 ELEV. 408.02
STA. 270+00.00 ELEV. 406.53
STA. 270+25.00 ELEV. 405.90
STA. 270+75.10 ELEV. 400.88
+52.31 RT. 394.57
+62.19 LT. 394.89
+85.00 LT. 395.94
+10.00 RT. 395.13
+45.06 RT. 399.47
+12.06 LT. 397.47
+00.00 LT. 397.64
+00.00 RT. 400.24
C.L. I-49 STA. 257+19.75= C.L. GUN CLUB STA. 67+69.57
STA. 259+32.67 RT. TOP ELEV.=428.52 F.L. ELEV. OUT=425.52
STA. 259+32.67 LT. TOP ELEV.=428.52 F.L. ELEV. OUT=425.52
SEE BRIDGE PLANS FOR SPECIAL FILL REQUIREMENTS AROUND END BENTS

NOTES:
1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

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I-49
PLAN AND PROFILE SHEETS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	165	809
		INTERCHANGE LAYOUT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

0 250 500 750 1000
HORIZ. SCALE IN FEET: 1"=500'

HWY 22 R3-1
P.I.= 19+86.07
Δ = 43°19'52" RT.
D = 7°00'00.0"
T = 325.16'
L = 619.02'
P.C. = 16+60.91
P.T. = 22+79.93
e = 0.098 '/'
Ls = 350'

HWY 22 R3-2
P.I.= 37+40.86
Δ = 36°41'57" LT.
D = 3°00'00.0"
T = 633.46'
L = 1223.30'
P.C. = 31+07.41
P.T. = 43+30.71
e = 0.058 '/'
Ls = 300'

HWY 22 R4-1
P.I.= 2163+80.60
Δ = 15°54'32" RT.
D = 8°00'00.0"
T = 100.07'
L = 198.86'
P.C. = 2162+80.53
P.C.C. = 2164+79.39
NO SUPER

HWY 22 R4-2
P.I.= 2169+75.86
Δ =128°38'18" RT.
D = 24°00'00.0"
T = 496.47'
L = 535.99'
P.C.C. = 2164+79.39
P.C.C. = 2170+15.38
NO SUPER

HWY 22 R4-3
P.I.= 2172+51.70
Δ = 54°32'51" RT.
D = 12°30'00.0"
T = 236.31'
L = 436.38'
P.C.C. = 2170+15.38
P.T. = 2174+51.76
NO SUPER

NW-1
P.I.= 12+30.01
Δ = 10°22'20" LT.
D = 6°30'00.0"
T = 80.01'
L = 159.57'
P.C. = 11+50.00
P.T. = 13+09.57
NO SUPER

NW-2
P.I.= 21+46.09
Δ = 78°46'52" LT.
D = 15°00'00.0"
T = 313.65'
L = 525.21'
P.C. = 18+32.44
P.T. = 23+57.64
NO SUPER

SE-1
P.I.= 12+88.69
Δ = 37°14'20" RT.
D = 15°00'00.0"
T = 128.69'
L = 248.26'
P.C. = 11+60.00
P.T. = 14+08.26
NO SUPER

SE-2
P.I.= 23+79.45
Δ = 54°09'58" RT.
D = 15°00'00.0"
T = 195.32'
L = 361.11'
P.C. = 21+84.12
P.T. = 25+45.23
NO SUPER

N

LEGEND

XXXX - X HORIZONTAL CURVE NO.

NOTE:
REFER TO SURVEY CONTORL DETAILS FOR ADDITIONAL INFORMATION AND CURVE DATA

STA. 100+00
BEGIN JOB 040901
LOG MILE 6.07

HWY 22-1
P.I.= 37+98.48
Δ = 6°07'48" LT.
D = 1°00'00.0"
T = 306.80'
L = 613.01'
P.C. = 34+91.68
P.T. = 41+04.69
e = 0.021 '/'

HWY 22-2
P.I.= 53+50.14
Δ = 12°37'04" RT.
D = 2°00'00.0"
T = 316.73'
L = 630.89'
P.C. = 50+33.41
P.T. = 56+64.30
NO SUPER

HWY 22 R1-1
P.I.= 2176+47.00
Δ = 40°08'44" RT.
D = 11°30'00.0"
T = 182.06'
L = 349.09'
P.C. = 2174+64.94
P.C.C. = 2178+14.04
NO SUPER

HWY 22 R1-2
P.I.= 2182+69.89
Δ = 26°30'48" RT.
D = 206°30'47.8"
T = 506.99'
L = 938.70'
P.C. = 2178+14.04
P.T. = 2187+25.73
NO SUPER

HWY 22 R2-1
P.I.= 16+14.08
Δ = 4°02'20" LT.
D = 2°00'00.0"
T = 101.01'
L = 201.94'
P.C. = 15+13.06
P.T. = 17+15.01
e = 0.042 '/'
Ls P.C. = 300'
Ls P.T. = 430.77'

HWY 22 R2-2
P.I.= 24+92.03
Δ = 14°12'50" RT.
D = 2°45'00.0"
T = 259.77'
L = 516.86'
P.C. = 22+32.26
P.T. = 27+49.13
e = 0.054 '/'
Ls P.C. = 236.23'
Ls P.T. = 222.21'

HWY 22
INTERCHANGE LAYOUT

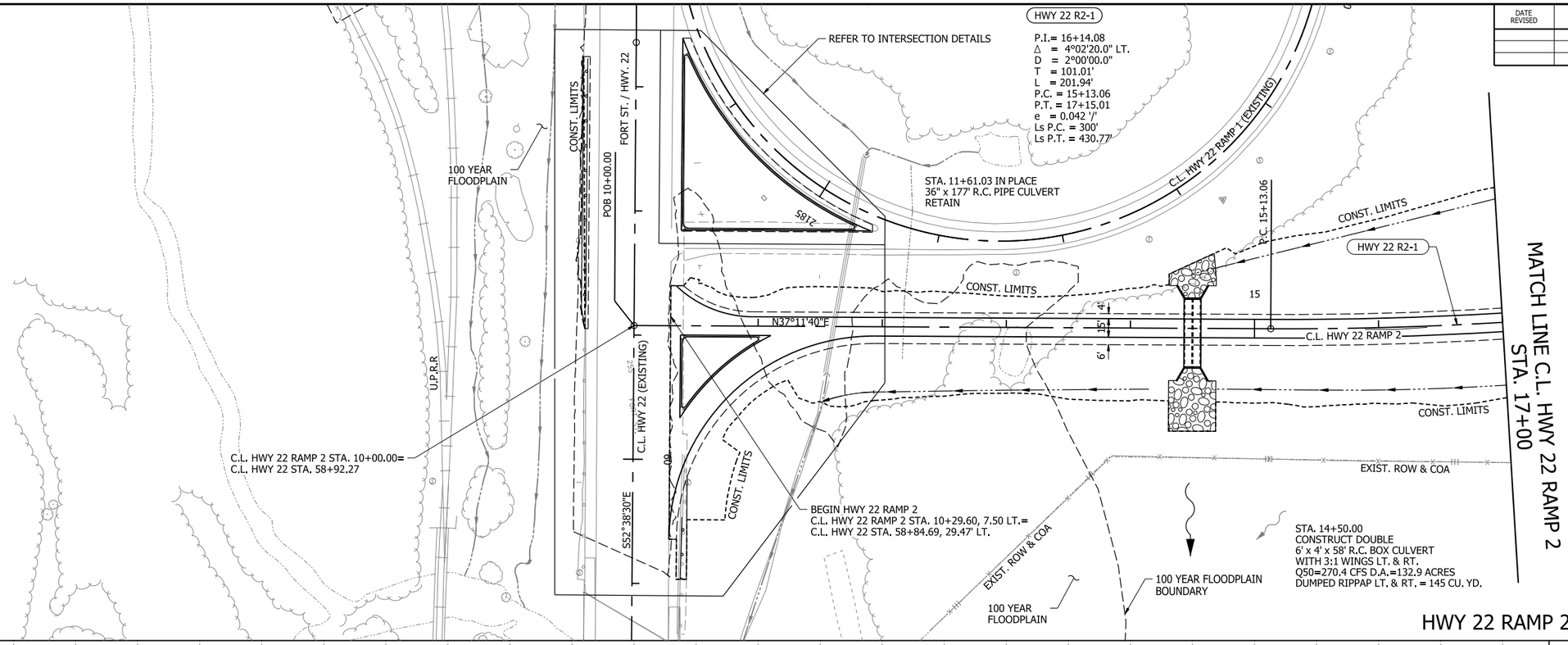
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	166	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

HORIZ. SCALE IN FEET: 0 50 100 150 200 — 1"=100'

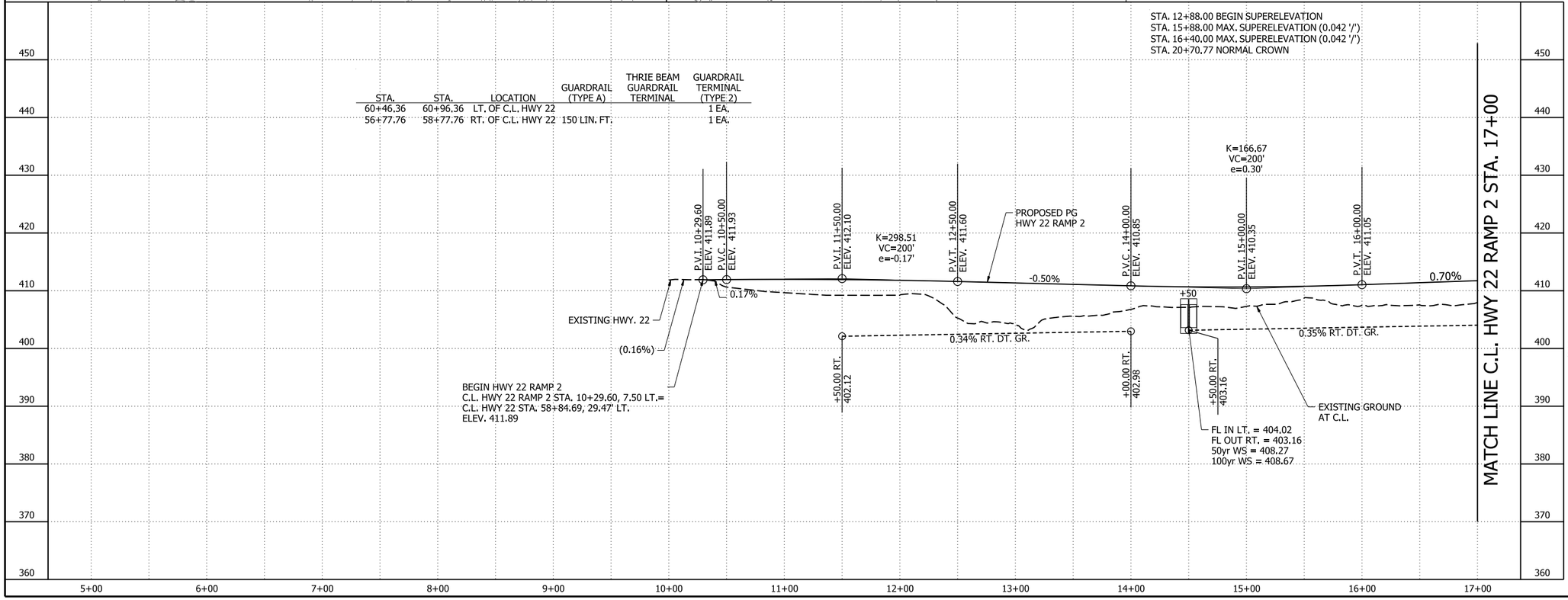
VERT. SCALE IN FEET: 0 10 20 30 40 — 1"=20'



HWY 22 RAMP 2

STA. 12+88.00 BEGIN SUPERELEVATION
STA. 15+88.00 MAX. SUPERELEVATION (0.042 '/')
STA. 16+40.00 MAX. SUPERELEVATION (0.042 '/')
STA. 20+70.77 NORMAL CROWN

STA.	STA.	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
60+46.36	60+96.36	LT. OF C.L. HWY 22			1 EA.
56+77.76	58+77.76	RT. OF C.L. HWY 22	150 LIN. FT.		1 EA.



LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X — HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

RAMP
PLAN AND PROFILE SHEETS

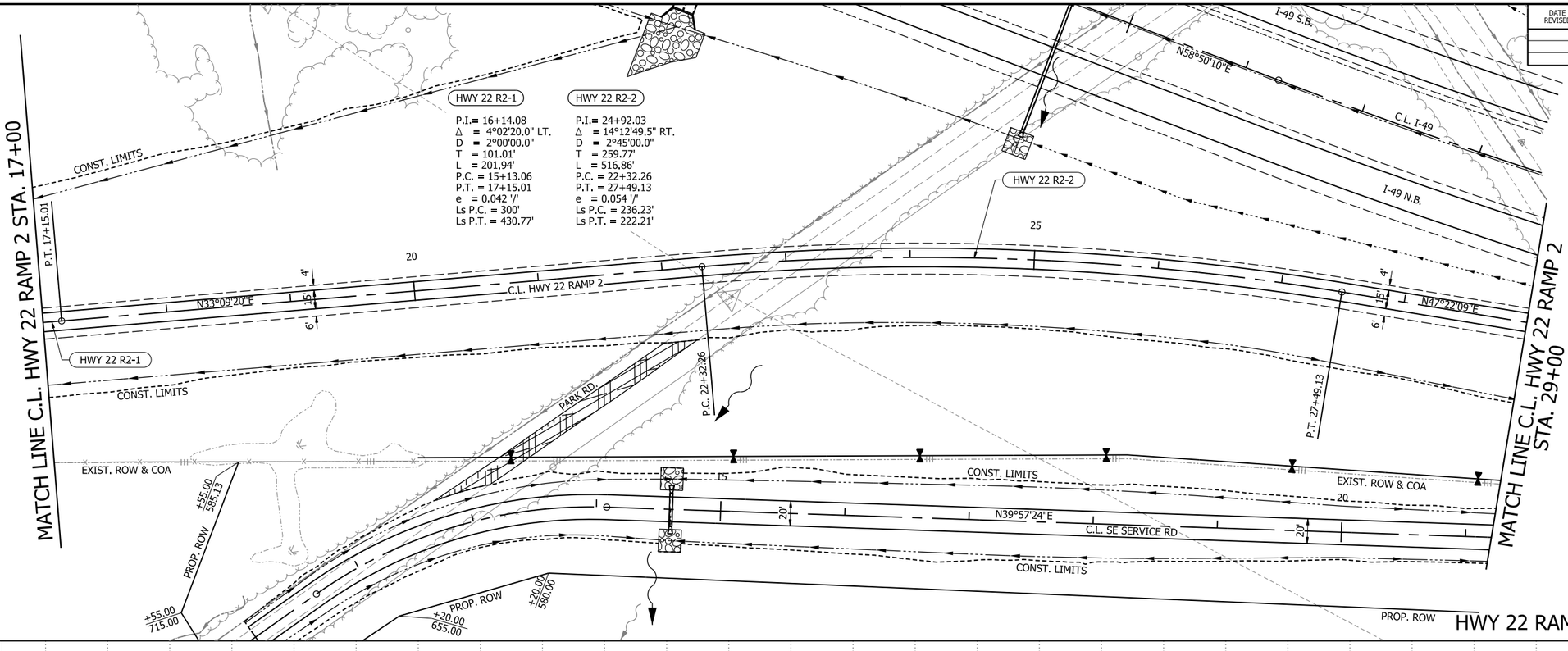
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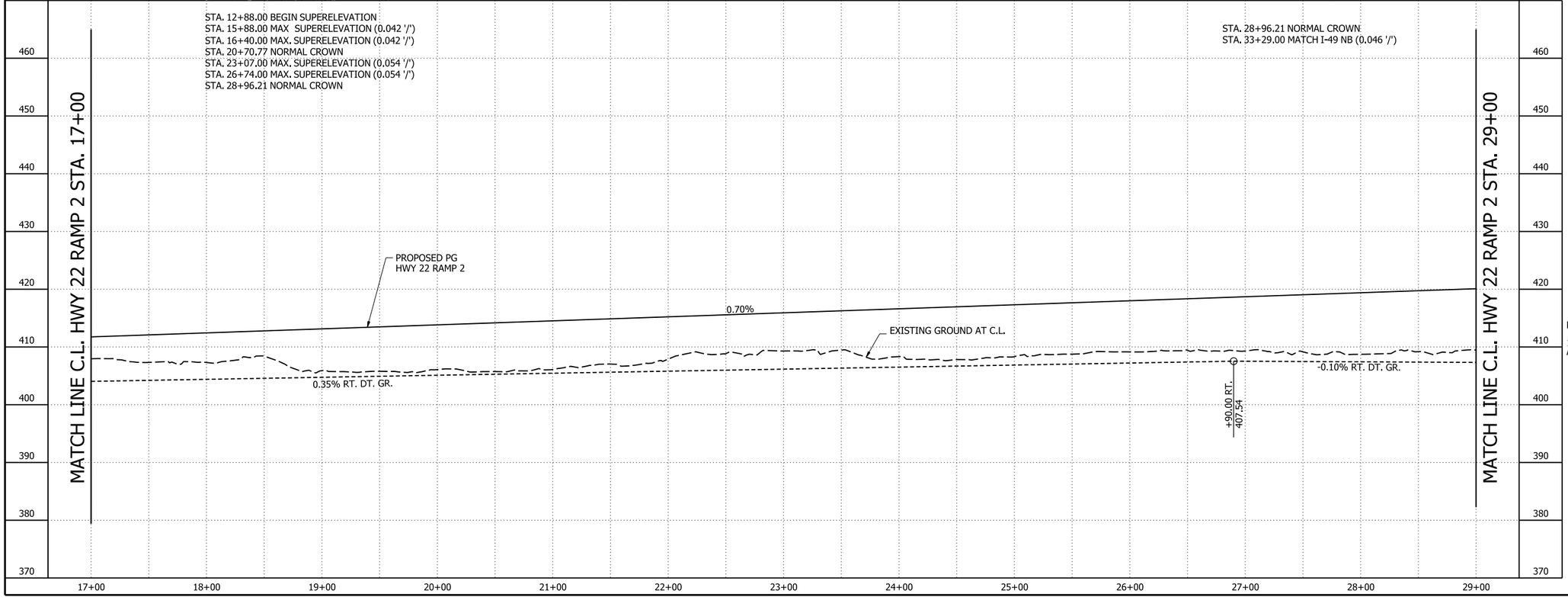
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	167	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024

HORIZ. SCALE IN FEET: 0 50 100 150 200 — 1"=100'

VERT. SCALE IN FEET: 0 10 20 30 40 — 1"=20'





LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X — HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

RAMP
PLAN AND PROFILE SHEETS

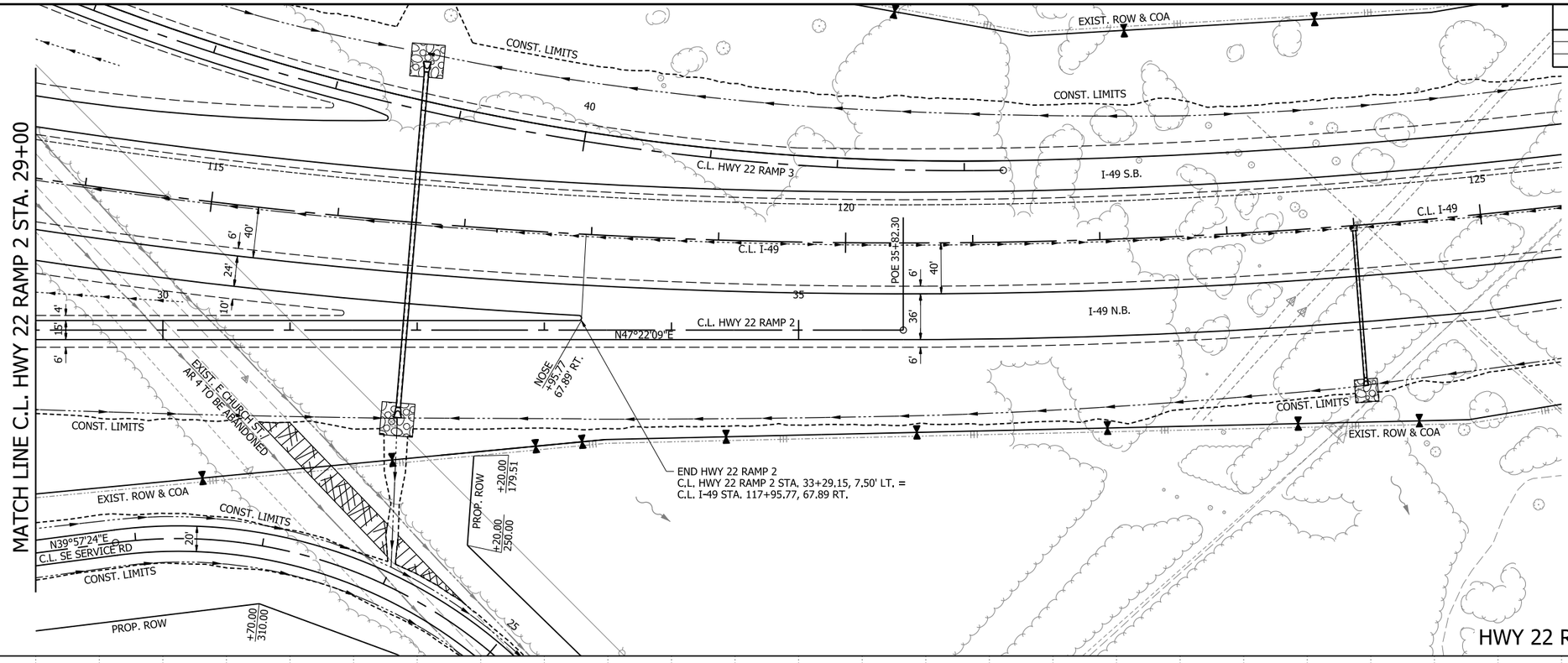
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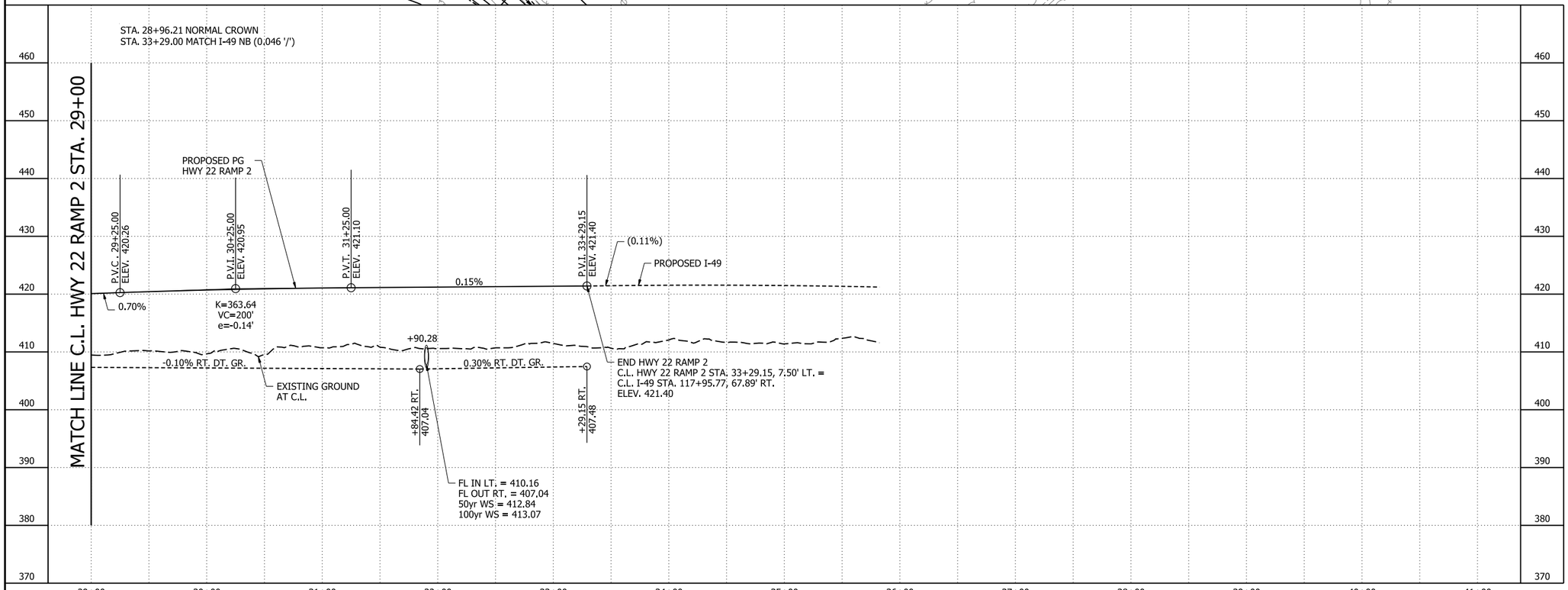
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	168	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'





LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X — HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

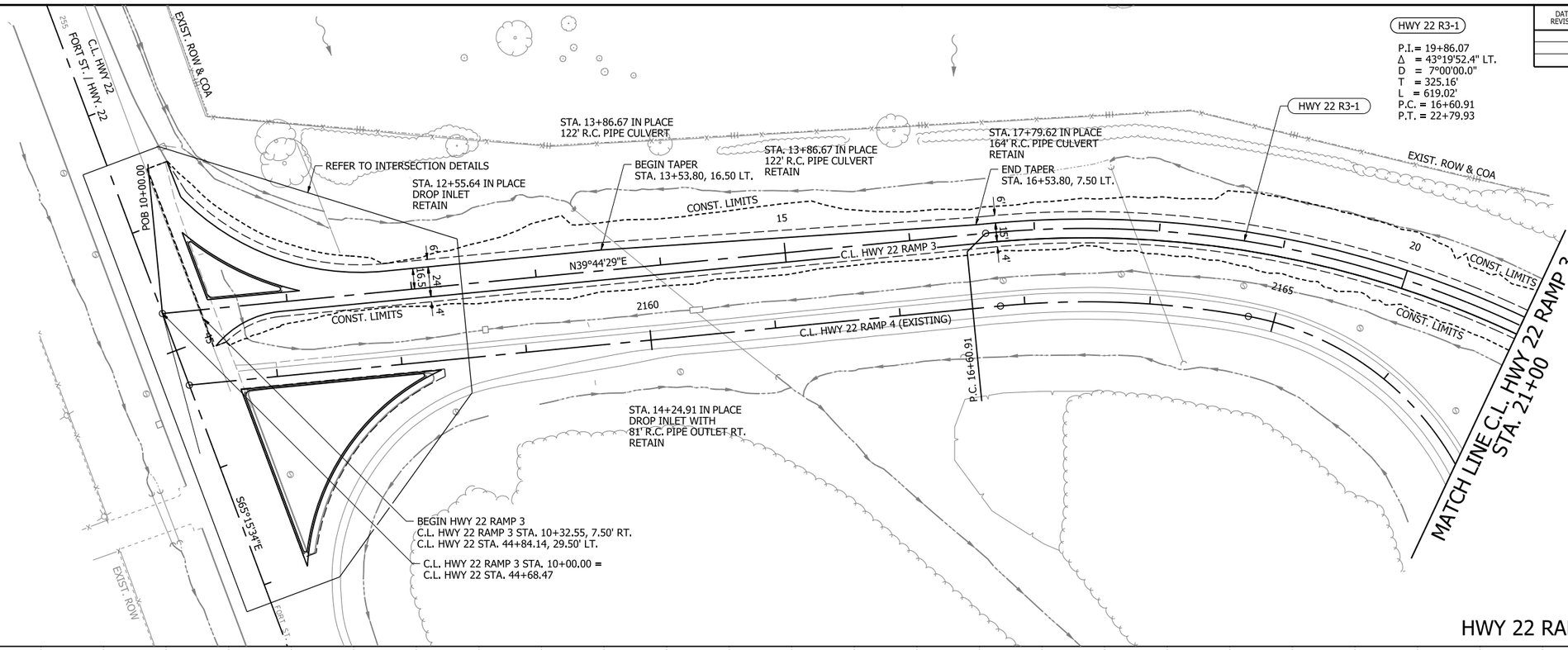
1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

RAMP
PLAN AND PROFILE SHEETS

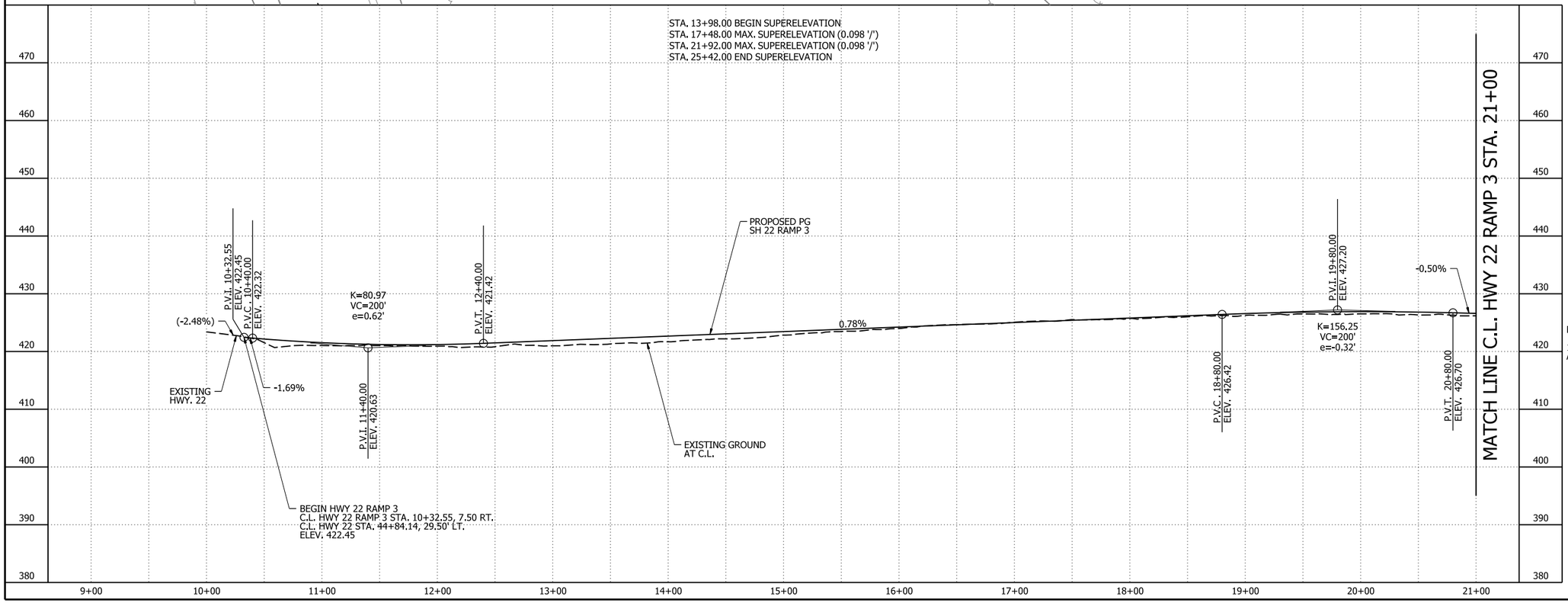
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	169	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024



HWY 22 RAMP 3



0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'

LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

RAMP
PLAN AND PROFILE SHEETS

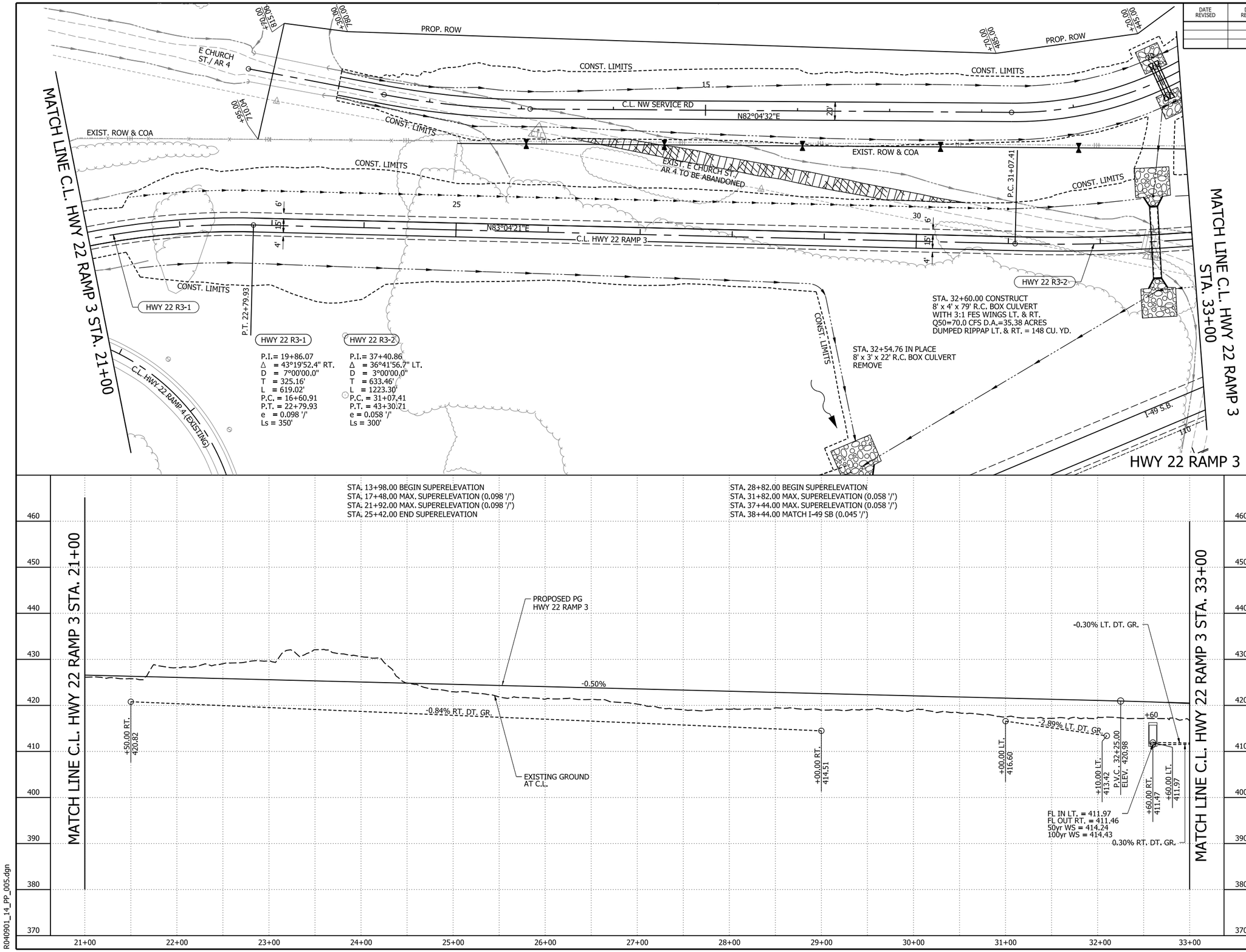
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	170	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'



LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

RAMP
PLAN AND PROFILE SHEETS

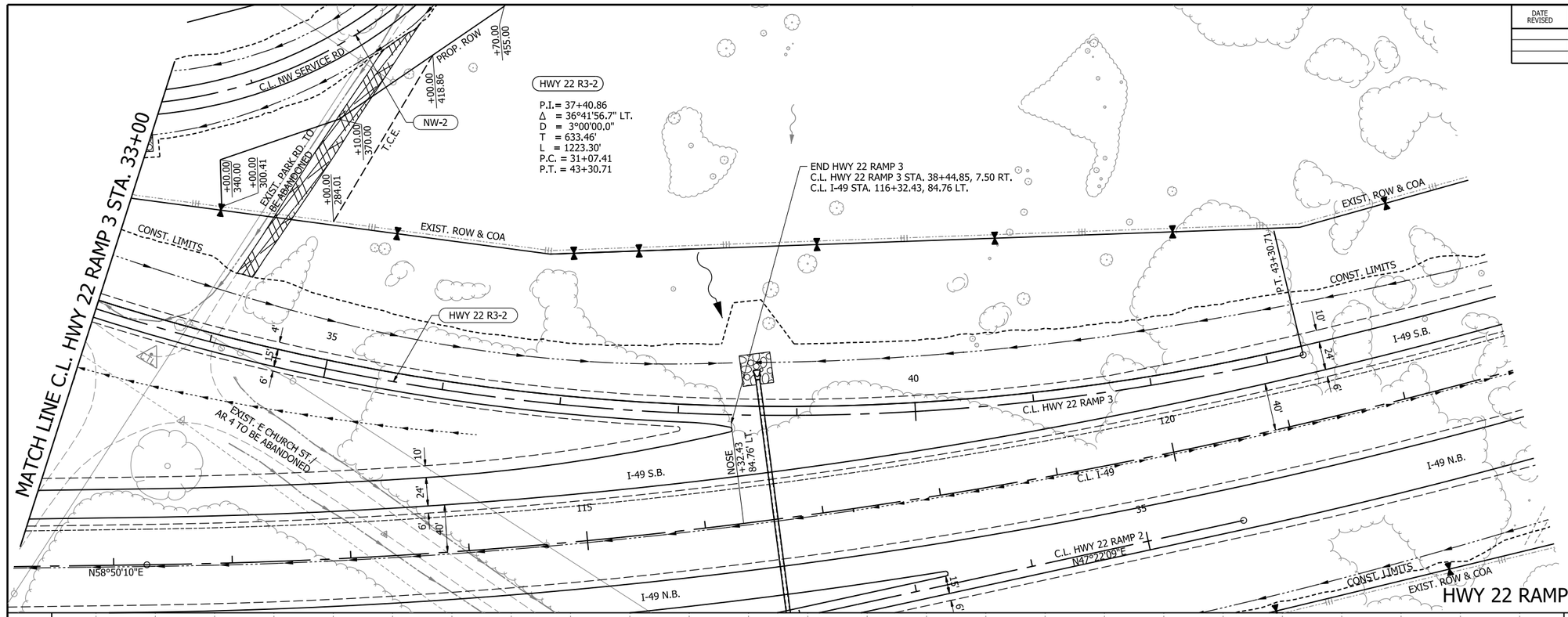
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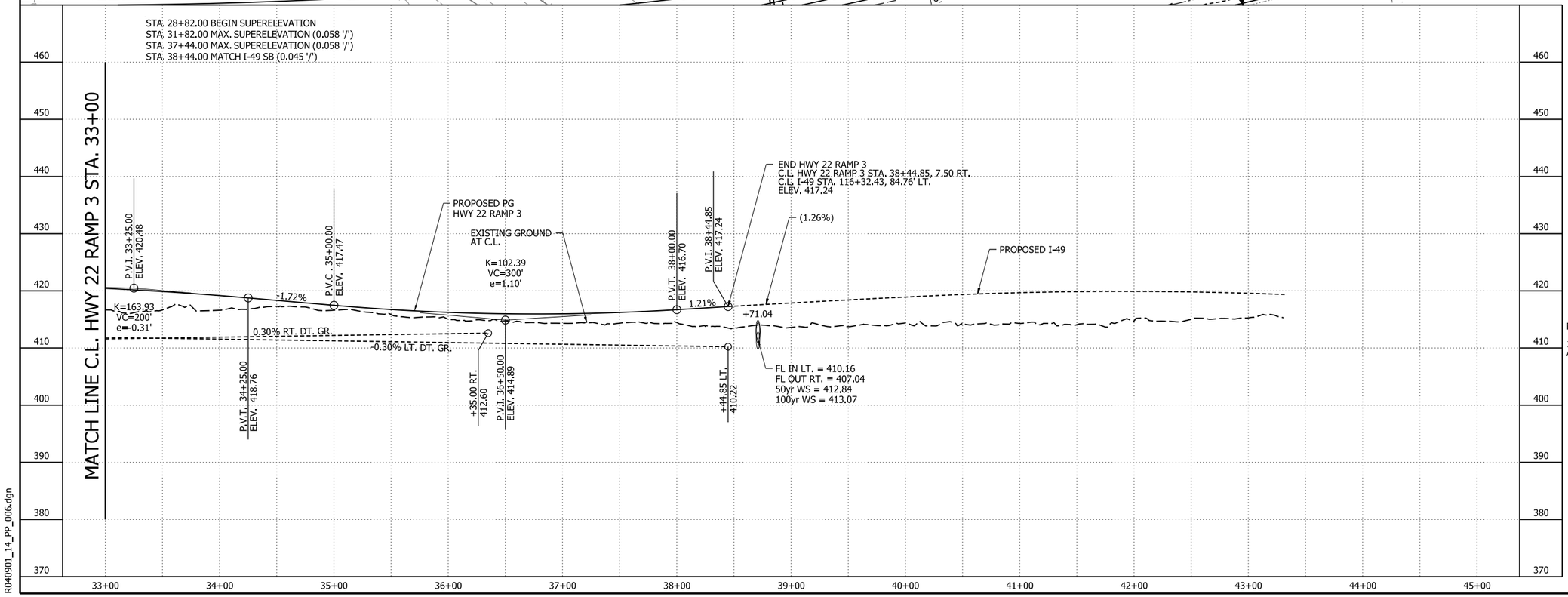
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	171	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'





LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X — HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

RAMP
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	172	809
		INTERCHANGE LAYOUT				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024

0 250 500 750 1000
HORIZ. SCALE IN FEET: 1"=500'

I-49-2
P.I.= 294+48.78
Δ = 59°54'04" RT.
D = 1°00'00.0"
T = 3301.38'
L = 5990.11'
P.C. = 261+47.40
P.T. = 321+37.50
e = 0.038 '/'
Ls = 350'

I-49 SBML-2
P.I.= 275+74.65
Δ = 26°33'14" RT.
D = 1°03'00.0"
T = 1287.60'
L = 2528.95'
P.C. = 262+87.05
P.T. = 288+16.00

I-49 NBML-2
P.I.= 273+59.75
Δ = 25°23'37" RT.
D = 0°57'00.0"
T = 1358.82'
L = 2673.01'
P.C. = 260+00.93
P.T. = 286+73.94

GC R1-1
P.I.= 10+95.22
Δ = 5°42'30" RT.
D = 3°00'00.0"
T = 95.22'
L = 190.28'
P.C. = 10+00.00
P.T. = 11+90.28

GC R1-2
P.I.= 159+21.69
Δ = 176°56'26" RT.
D = 15°00'00.0"
T = 14303.71'
L = 1179.60'
P.C. = 16+17.97
P.T. = 27+97.58

GC R2-1
P.I.= 20+70.39
Δ = 26°12'23" LT.
D = 4°45'00"
T = 280.77'
L = 551.71'
P.C. = 17+89.62
P.T. = 23+41.33
e = 0.082'/'
Ls = 300'

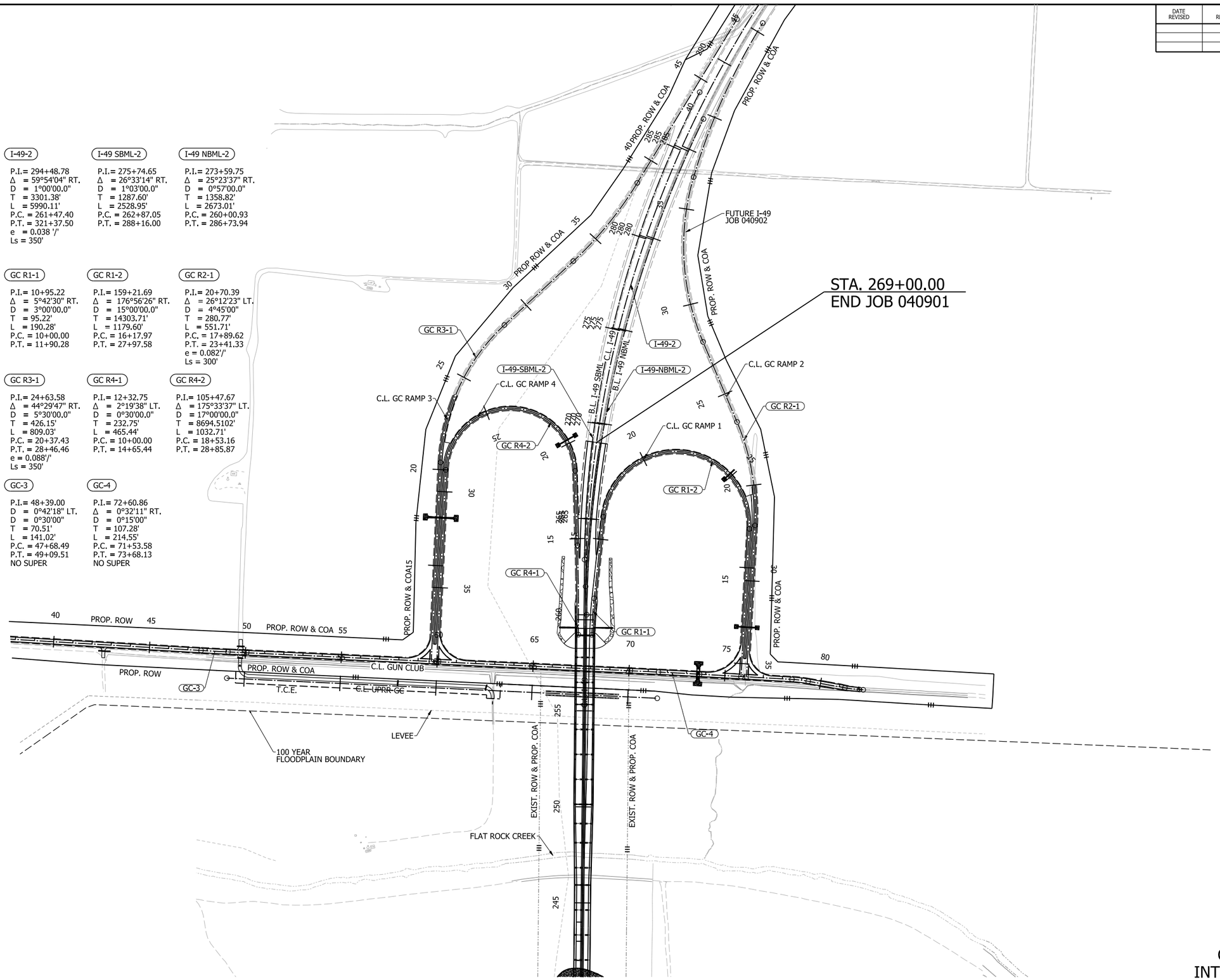
GC R3-1
P.I.= 24+63.58
Δ = 44°29'47" RT.
D = 5°30'00.0"
T = 426.15'
L = 809.03'
P.C. = 20+37.43
P.T. = 28+46.46
e = 0.088'/'
Ls = 350'

GC R4-1
P.I.= 12+32.75
Δ = 2°19'38" LT.
D = 0°30'00.0"
T = 232.75'
L = 465.44'
P.C. = 10+00.00
P.T. = 14+65.44

GC R4-2
P.I.= 105+47.67
Δ = 175°33'37" LT.
D = 17°00'00.0"
T = 8694.5102'
L = 1032.71'
P.C. = 18+53.16
P.T. = 28+85.87

GC-3
P.I.= 48+39.00
D = 0°42'18" LT.
D = 0°30'00"
T = 70.51'
L = 141.02'
P.C. = 47+68.49
P.T. = 49+09.51
NO SUPER

GC-4
P.I.= 72+60.86
Δ = 0°32'11" RT.
D = 0°15'00"
T = 107.28'
L = 214.55'
P.C. = 71+53.58
P.T. = 73+68.13
NO SUPER



N

LEGEND

XXXX - X HORIZONTAL CURVE NO.

NOTE:
REFER TO SURVEY CONTORL DETAILS FOR ADDITIONAL INFORMATION AND CURVE DATA

GUN CLUB ROAD
INTERCHANGE LAYOUT

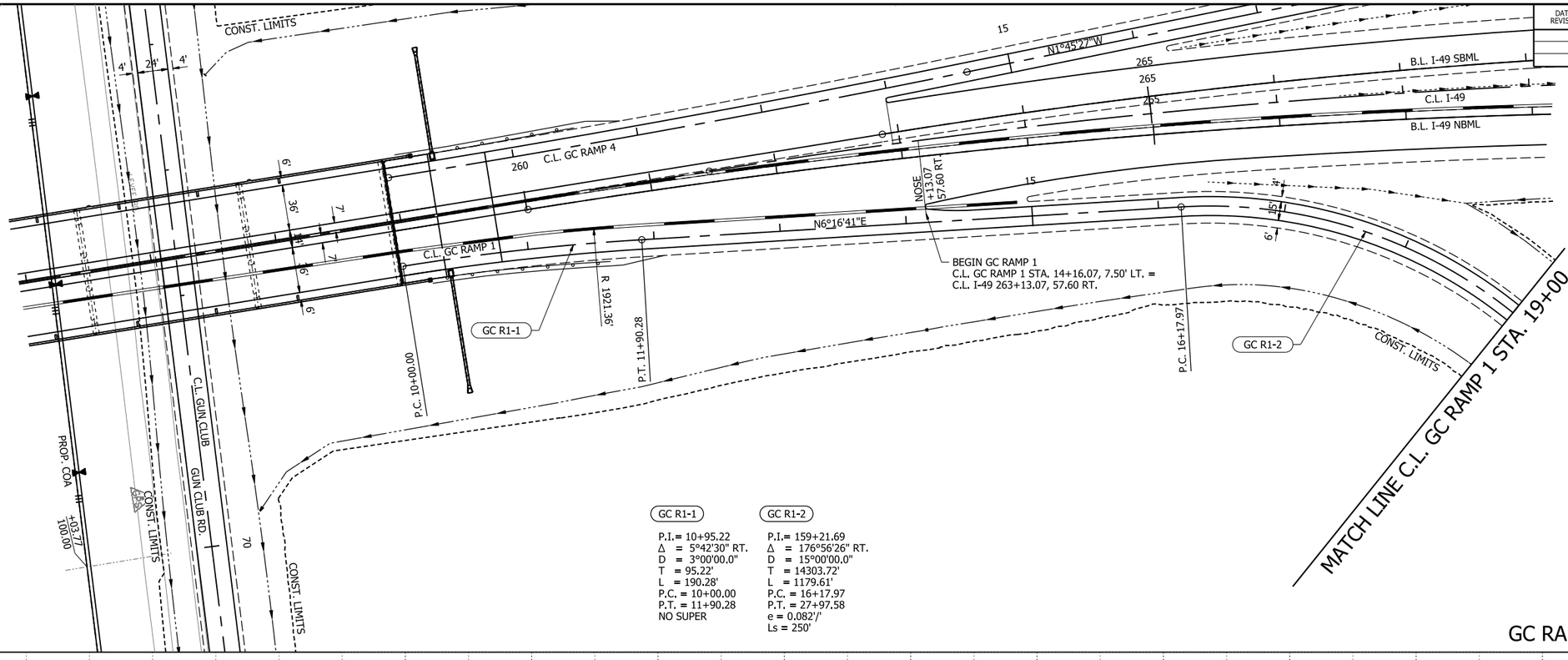
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	173	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024

HORIZ. SCALE IN FEET: 0 50 100 150 200 — 1"=100'

VERT. SCALE IN FEET: 0 10 20 30 40 — 1"=20'



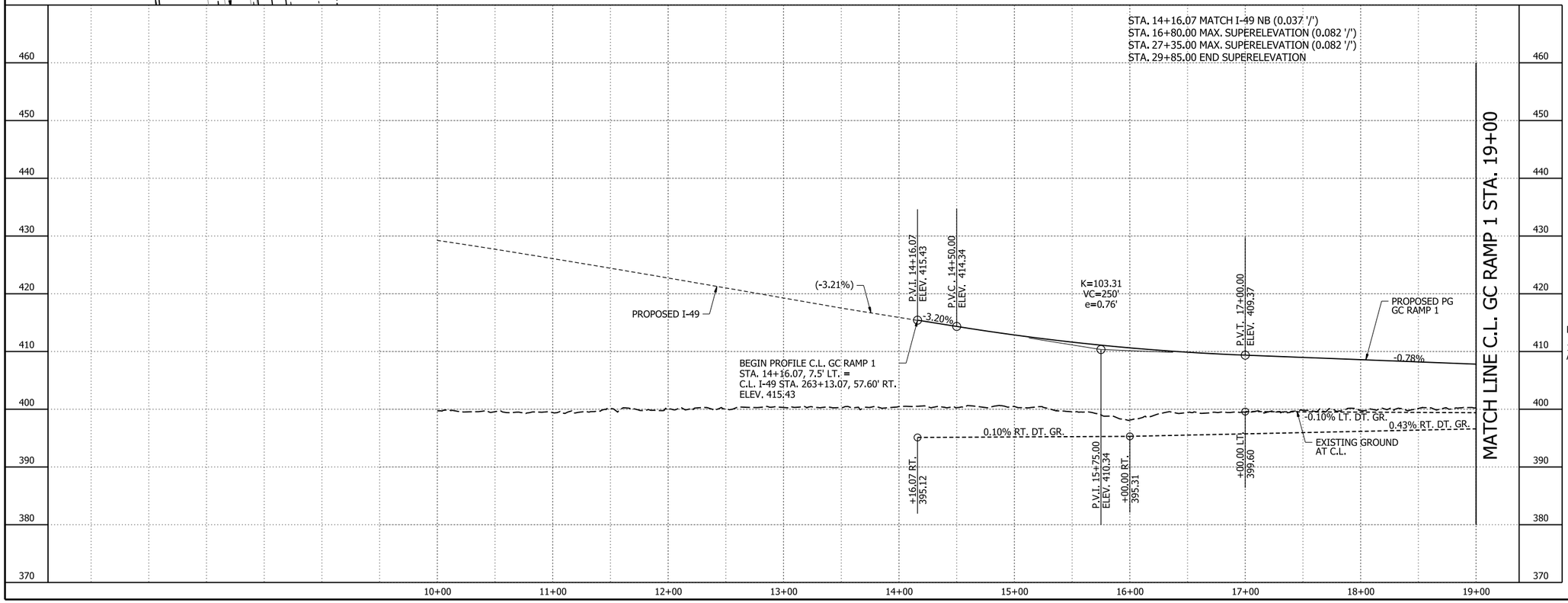
GC R1-1

P.I.= 10+95.22
Δ = 5°42'30" RT.
D = 3°00'00.0"
T = 95.22'
L = 190.28'
P.C. = 10+00.00
P.T. = 11+90.28
NO SUPER

GC R1-2

P.I.= 159+21.69
Δ = 176°56'26" RT.
D = 15°00'00.0"
T = 14303.72'
L = 1179.61'
P.C. = 16+17.97
P.T. = 27+97.58
e = 0.082'/'
Ls = 250'

GC RAMP 1



LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X — HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

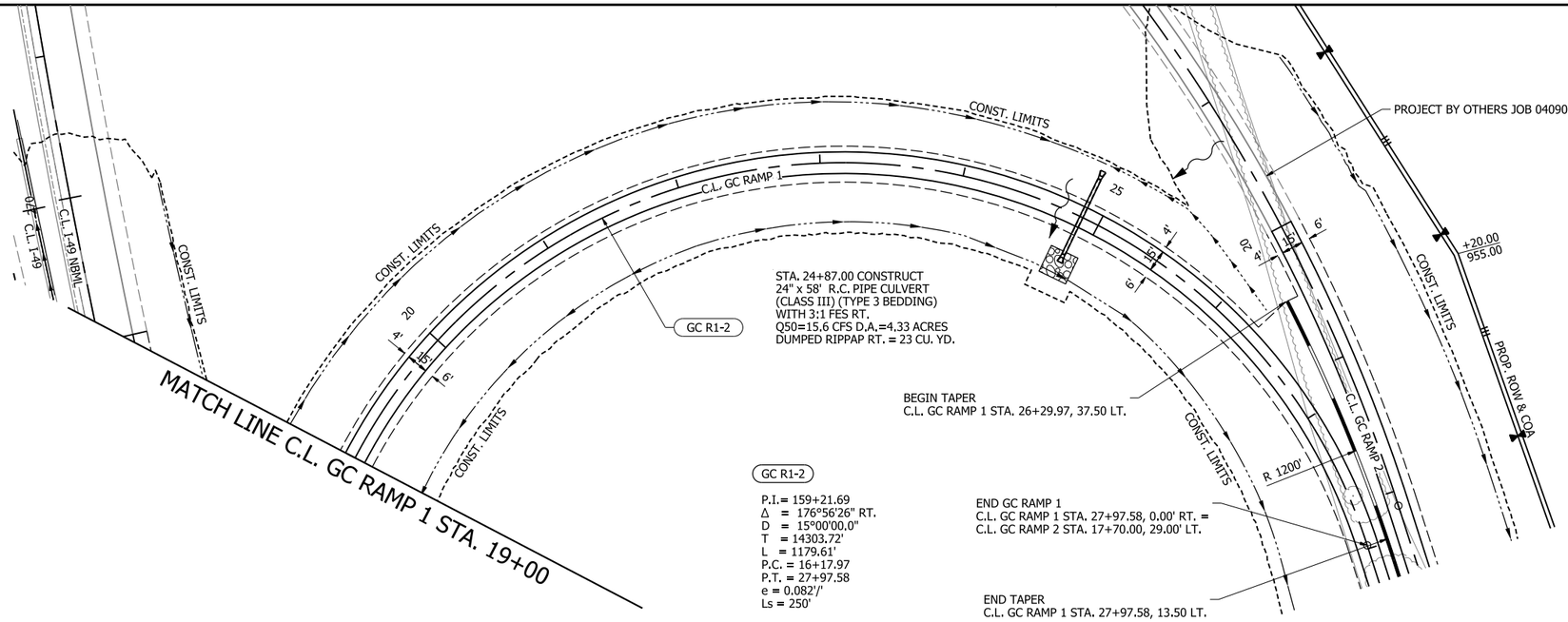
1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

RAMP
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	174	809
		PLAN AND PROFILE SHEETS				

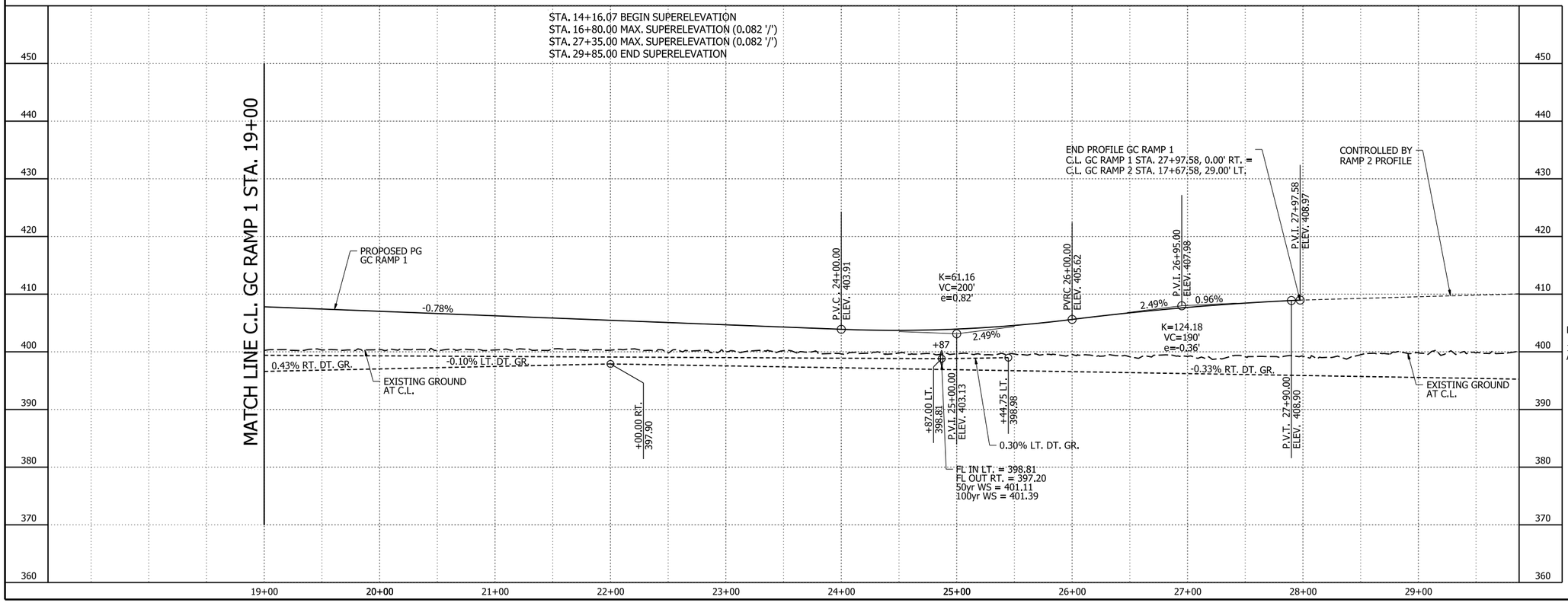
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024



0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'

GC RAMP 1



LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X — HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

RAMP
PLAN AND PROFILE SHEETS

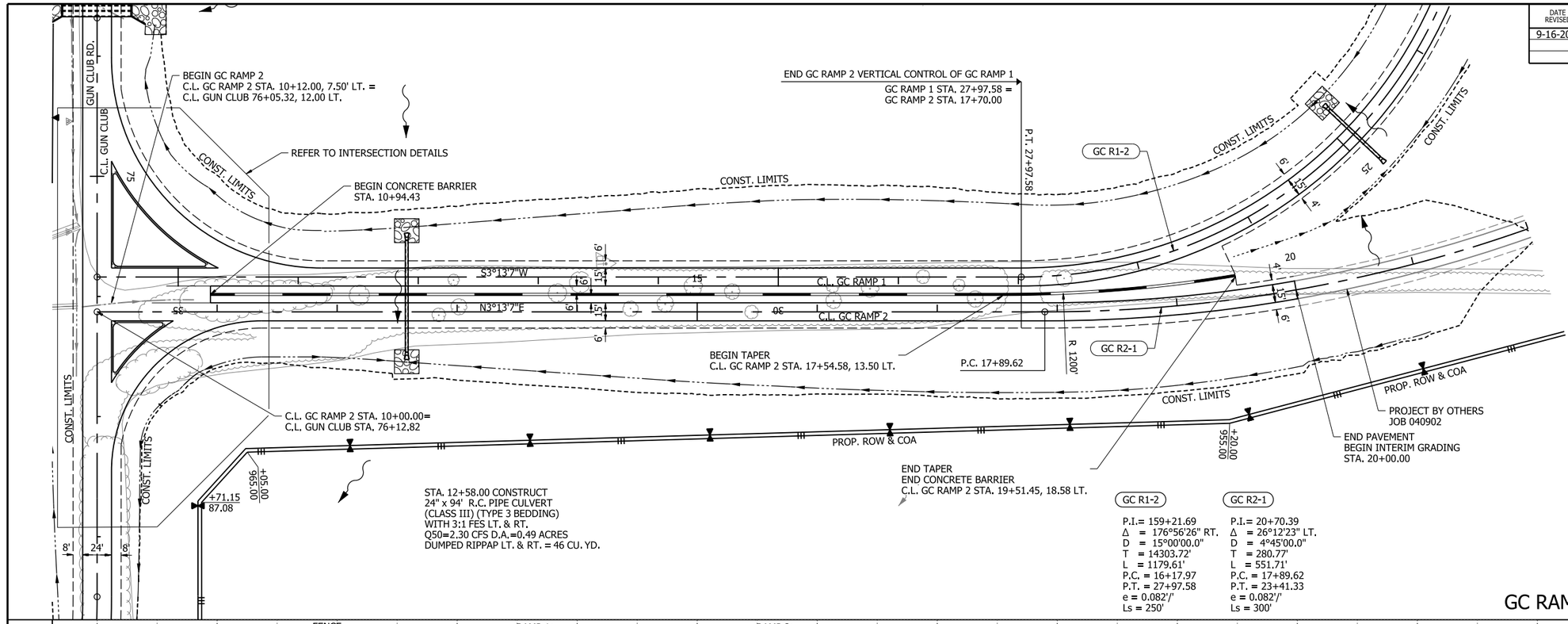
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	175	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024

HORIZ. SCALE IN FEET: 0 50 100 150 200 — 1"=100'

VERT. SCALE IN FEET: 0 10 20 30 40 — 1"=20'



GC R1-2
P.I.= 159+21.69
Δ = 176°56'26" RT.
D = 15°00'00.0"
T = 14303.72'
L = 1179.61'
P.C. = 16+17.97
P.T. = 27+97.58
e = 0.082'/'
Ls = 250'

GC R2-1
P.I.= 20+70.39
Δ = 26°12'23" LT.
D = 4°45'00.0"
T = 280.77'
L = 551.71'
P.C. = 17+89.62
P.T. = 23+41.33
e = 0.082'/'
Ls = 300'

GC RAMP 2

FENCE

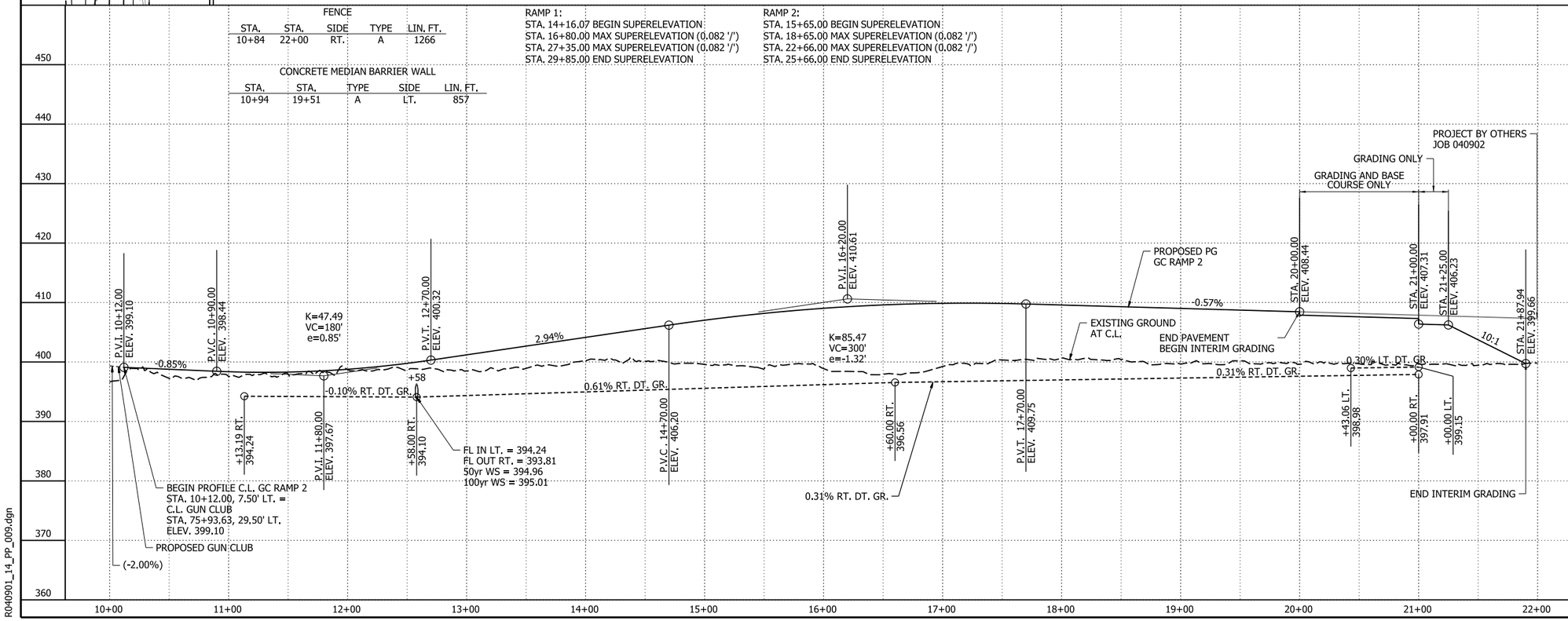
STA.	STA.	SIDE	TYPE	LIN. FT.
10+84	22+00	RT.	A	1266

CONCRETE MEDIAN BARRIER WALL

STA.	STA.	TYPE	SIDE	LIN. FT.
10+94	19+51	A	LT.	857

RAMP 1:
STA. 14+16.07 BEGIN SUPERELEVATION
STA. 16+80.00 MAX SUPERELEVATION (0.082 '/')
STA. 27+35.00 MAX SUPERELEVATION (0.082 '/')
STA. 29+85.00 END SUPERELEVATION

RAMP 2:
STA. 15+65.00 BEGIN SUPERELEVATION
STA. 18+65.00 MAX SUPERELEVATION (0.082 '/')
STA. 22+66.00 MAX SUPERELEVATION (0.082 '/')
STA. 25+66.00 END SUPERELEVATION



LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X — HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

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RAMP
PLAN AND PROFILE SHEETS

DATE REVISED	DATE REVISED
9-16-2024	

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	176	809

PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'

BEGIN GC RAMP 3
C.L. GC RAMP 3 STA. 20+00.00, 0.00' LT. =
C.L. GC RAMP 4 STA. 28+85.80, 29.00' RT.

END TAPER
C.L. GC RAMP 3 STA. 21+44.75, 37.50' RT.

GC R3-1

PROP. ROW & COA

CONST. LIMITS

PROJECT BY OTHERS JOB 040902

C.L. GC RAMP 3

END GRADING
STA. 25+00.00

END CEMENT STABILIZED
CRUSHED STONE BASE COURSE
STA. 24+30.00

END PAVEMENT
BEGIN INTERIM GRADING
STA. 24+00.00

P.T. 28+46.46

N47°10'43"E

GC R3-1
P.I.= 24+63.58
Δ = 44°29'47" RT.
D = 5°30'00.0"
T = 426.15'
L = 809.03'
P.C. = 20+37.43
P.T. = 28+46.46
e = 0.088'/'
Ls = 350'

C.L. GC RAMP 4

P.C. 20+37.43

BEGIN TAPER
C.L. GC RAMP 3 STA. 20+00.00, 13.50' RT.

GC RAMP 3

FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
21+12	32+00	RT.	A	1151

STA. 17+94.00 BEGIN SUPERELEVATION
STA. 21+19.00 MAX SUPERELEVATION (0.088 '/')
STA. 27+65.00 MAX SUPERELEVATION (0.088 '/')
STA. 30+90.00 END SUPERELEVATION

GRADING ONLY
GRADING AND BASE COURSE ONLY

P.V.I. 20+00.00 ELEV. 406.54
P.V.C. 20+50.00 ELEV. 406.12
K=236.22
VC=300'
e=0.47'
P.V.T. 23+50.00 ELEV. 405.54
STA. 24+00.00 ELEV. 405.76
STA. 25+00.00 ELEV. 405.16
STA. 25+25.00 ELEV. 404.77
STA. 25+60.08 ELEV. 401.26

(-1.19%)
-0.83%
0.44%
10:1

PROJECT BY OTHERS
JOB 040902

END PAVEMENT
BEGIN INTERIM GRADING

0.30% RT. DT. GR.
0.60% LT. DT. GR.

BEGIN PROFILE C.L. GC RAMP 3
STA 20+00.00, 0.00' LT =
C.L. GC RAMP 4 STA. 28+85.80, 29.00' RT

EXISTING GROUND AT C.L.

END INTERIM GRADING

CONTROLLED BY RAMP 4 PROFILE

P.V.I. 22+00.00 ELEV. 404.88
+15.03 RT. 399.85
+00.00 LT. 399.77
+00.00 RT. 400.71

450 440 430 420 410 400 390 380 370 360

20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00

LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

RAMP
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	177	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

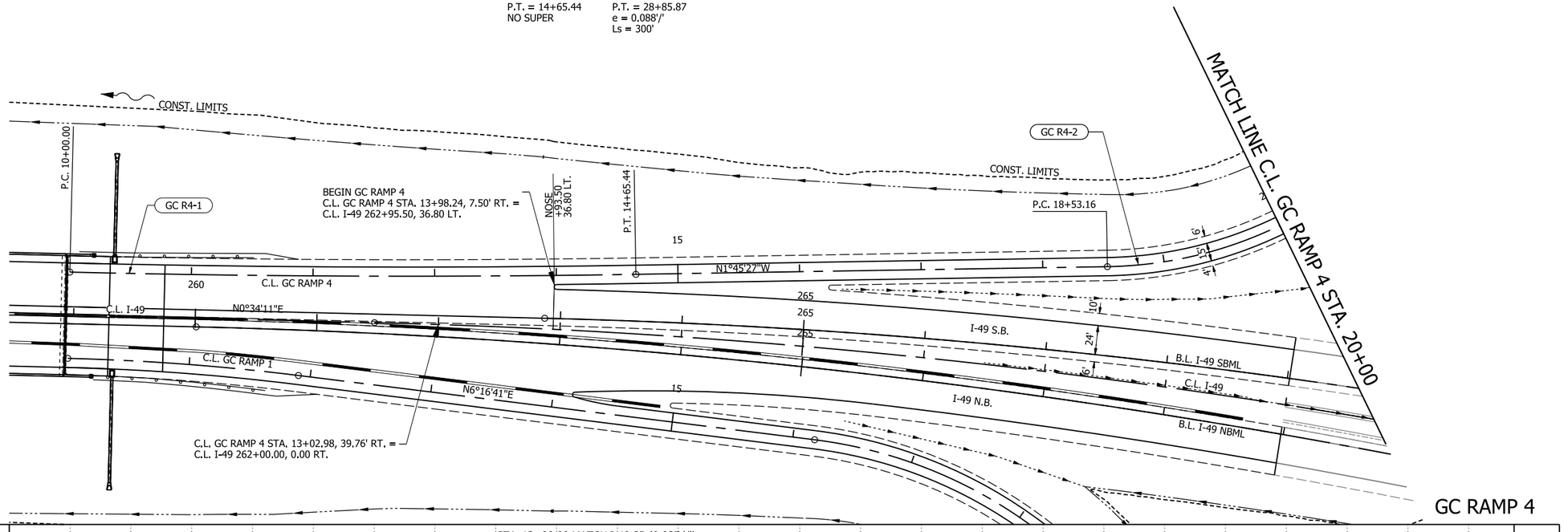
0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'

GC R4-1

P.I.= 12+32.75
Δ = 2°19'38" LT.
D = 0°30'00.0"
T = 232.75'
L = 465.44'
P.C. = 10+00.00
P.T. = 14+65.44
NO SUPER

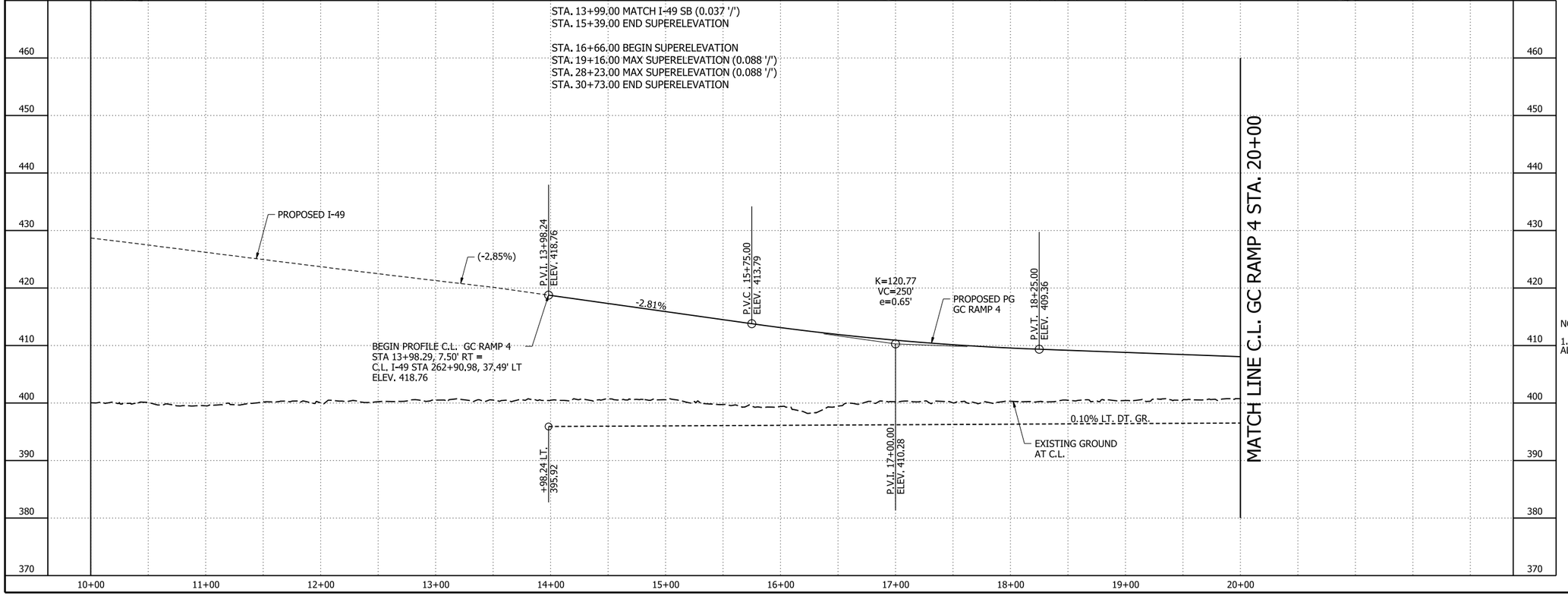
GC R4-2

P.I.= 105+47.67
Δ = 175°33'37" LT.
D = 17°00'00.0"
T = 8694.5102'
L = 1032.71'
P.C. = 18+53.16
P.T. = 28+85.87
e = 0.088'/'
Ls = 300'



STA. 13+99.00 MATCH I-49 SB (0.037 '/')
STA. 15+39.00 END SUPERELEVATION

STA. 16+66.00 BEGIN SUPERELEVATION
STA. 19+16.00 MAX SUPERELEVATION (0.088 '/')
STA. 28+23.00 MAX SUPERELEVATION (0.088 '/')
STA. 30+73.00 END SUPERELEVATION



LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

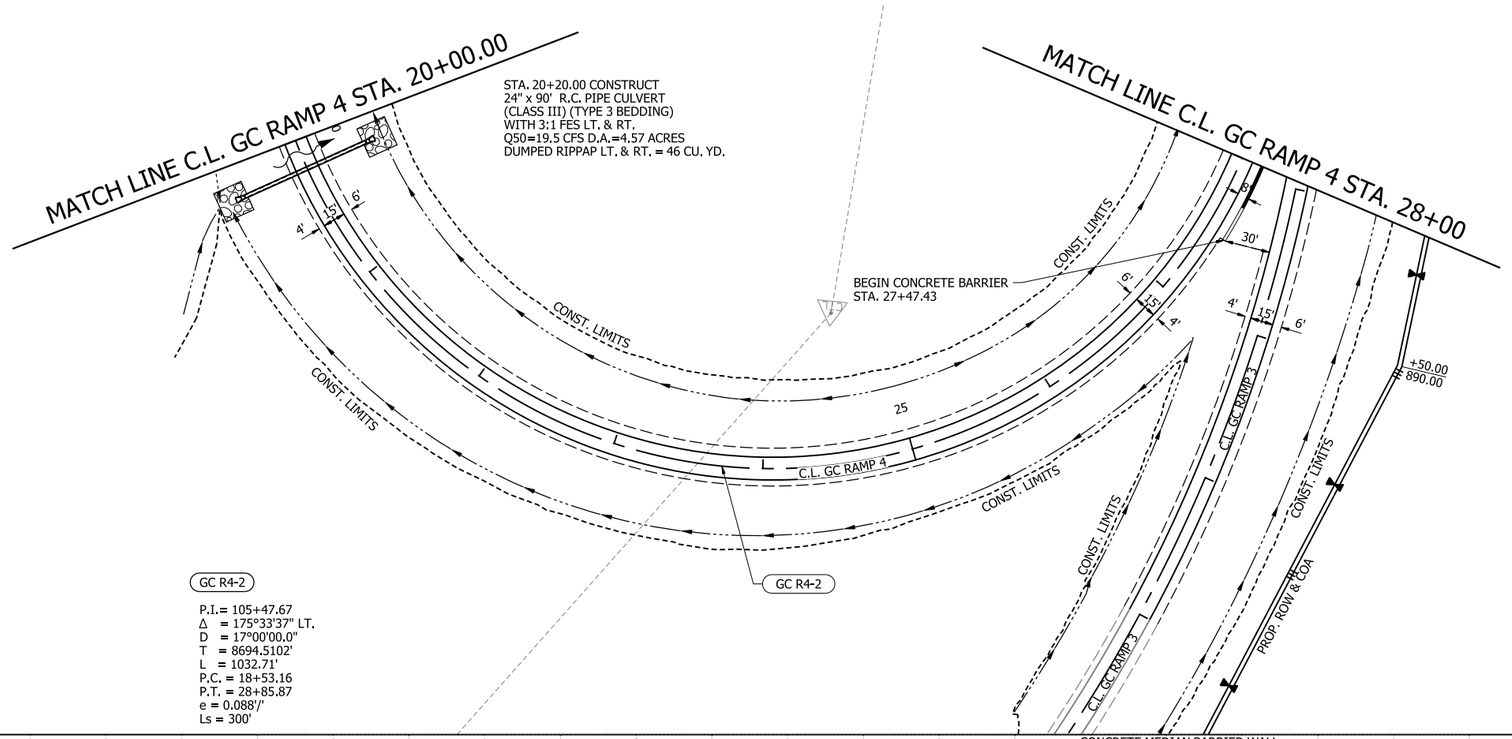
RAMP
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	178	809
PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

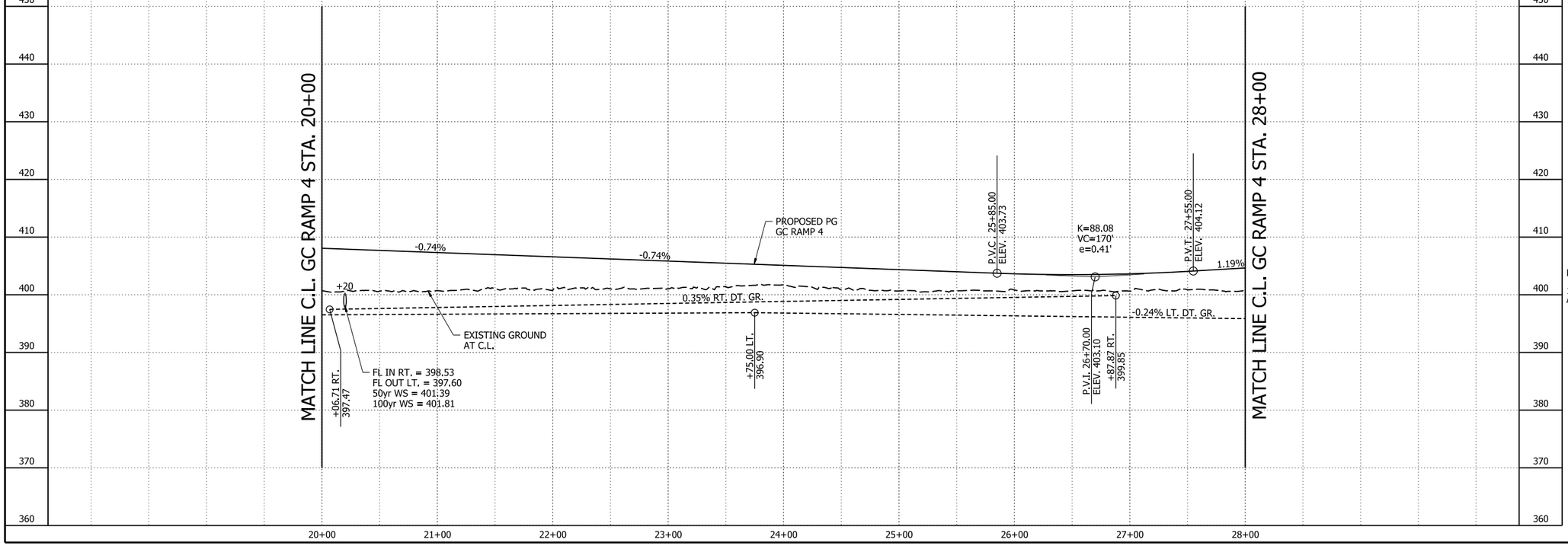


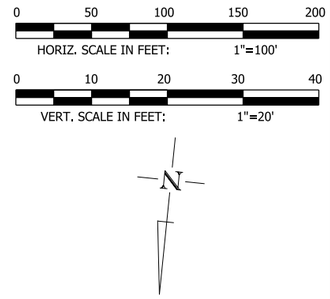
GC RAMP 4

STA. 16+66.00 BEGIN SUPERELEVATION
STA. 19+16.00 MAX SUPERELEVATION (0.088 '/')
STA. 28+23.00 MAX SUPERELEVATION (0.088 '/')
STA. 30+73.00 END SUPERELEVATION

CONCRETE MEDIAN BARRIER WALL

STA.	STA.	TYPE	SIDE	LIN. FT.
27+47	28+00	A	RT.	53





LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

RAMP
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	179	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

STA. 31+35.81 CONSTRUCT
4' x 3' x 124' R.C. BOX CULVERT
WITH 3:1 WINGS LT. & RT.
Q50=100.0 CFS D.A.=109.18 ACRES
DUMPED RIPPAP LT. & RT. = 83 CU. YD.

GC R3-1
P.I.= 24+63.58
Δ = 44°29'47" RT.
D = 5°30'00.0"
T = 426.15'
L = 809.03'
P.C. = 20+37.43
P.T. = 28+46.46
e = 0.088'/'
Ls = 350'

GC R4-2
P.I.= 105+47.67
Δ = 175°33'37" LT.
D = 17°00'00.0"
T = 8694.5102'
L = 1032.71'
P.C. = 18+53.16
P.T. = 28+85.87
e = 0.088'/'
Ls = 300'

C.L. GC RAMP 4 STA. 38+85.80=
C.L. GUN CLUB STA. 59+97.93

END GC RAMP 4
C.L. GC RAMP 4 STA. 38+73.80, 7.50' RT. =
C.L. GUN CLUB 59+90.43, 12.00 LT.

REFER TO INTERSECTION DETAILS

END CONCRETE BARRIER
STA. 37+95.55

MATCH LINE C.L. GC RAMP 4 STA. 28+00

GC R4-2

P.T. 28+85.87

BEGIN GC RAMP 4 VERTICAL CONTROL OF GC RAMP 3
GC RAMP 3 STA. 20+00.00 =
GC RAMP 4 STA. 28+85.87

CONST. LIMITS

30 | 35 | 20 | 15

6' | 15' | 6' | 6' | 15' | 6'

C.L. GC RAMP 4 S2°40'56"W
C.L. GC RAMP 3 N2°40'56"E

R 352'

P.C. 20+37.43

GC R3-1

PROP. ROW & COA

+30.00
895.00

+00.00
895.00

+15.05
105.13

8' | 24' | 8'

GUN CLUB RD.

C.L. GUN CLUB

LEVEE RD.

C.L. DWYGC49R

PROP. ROW & COA

10

GC RAMP 4

CONCRETE MEDIAN BARRIER WALL

STA.	STA.	TYPE	SIDE	LIN. FT.
28+00	37+96	A	RT.	996

FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
28+00	37+84	RT.	A	1044

C.L. GC RAMP 4:
STA. 16+66.00 BEGIN SUPERELEVATION
STA. 19+16.00 MAX SUPERELEVATION (0.088 '/')
STA. 28+23.00 MAX SUPERELEVATION (0.088 '/')
STA. 30+73.00 END SUPERELEVATION

C.L. GC RAMP 3:
STA. 17+94.00 BEGIN SUPERELEVATION
STA. 21+19.00 MAX SUPERELEVATION (0.088 '/')
STA. 27+65.00 MAX SUPERELEVATION (0.088 '/')
STA. 30+90.00 END SUPERELEVATION

MATCH LINE C.L. GC RAMP 4 STA. 28+00

P.V.C. 29+50.00
ELEV. 406.44

P.V.I. 30+75.00
ELEV. 407.92

P.V.T. 32+00.00
ELEV. 406.51

PROPOSED PG
GC RAMP 4

1.19%

K=107.76
VC=250'
e=-0.72'

-1.13%

P.V.C. 37+30.00
ELEV. 400.54

K=50.54
VC=140'
e=0.48'

P.V.T. 38+70.00
ELEV. 400.90

P.V.I. 38+73.80
ELEV. 400.96

1.64%

+35.81

0.41% RT. DT. GR.

-0.11% LT. DT. GR.

+00.00 LT.
395.13

+35.81 RT.
395.27

FL IN RT. = 395.27
FL OUT LT. = 395.08
50yr WS = 400.40
100yr WS = 401.30

EXISTING GROUND
AT C.L.

+23.80 LT.
394.46

+48.08 RT.
397.78

P.V.I. 38+00.00
ELEV. 399.75

END PROFILE C.L. GC RAMP 4
STA. 38+73.80, 7.5' RT. =
C.L. GUN CLUB STA. 59+78.74, 29.50' LT.
ELEV. 400.96

(2.00%)

PROPOSED GUN CLUB

450 | 440 | 430 | 420 | 410 | 400 | 390 | 380 | 370 | 360

28+00 | 29+00 | 30+00 | 31+00 | 32+00 | 33+00 | 34+00 | 35+00 | 36+00 | 37+00 | 38+00 | 39+00

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'

N

LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT DATA AND VERTICAL CONTROL.

RAMP
PLAN AND PROFILE SHEETS

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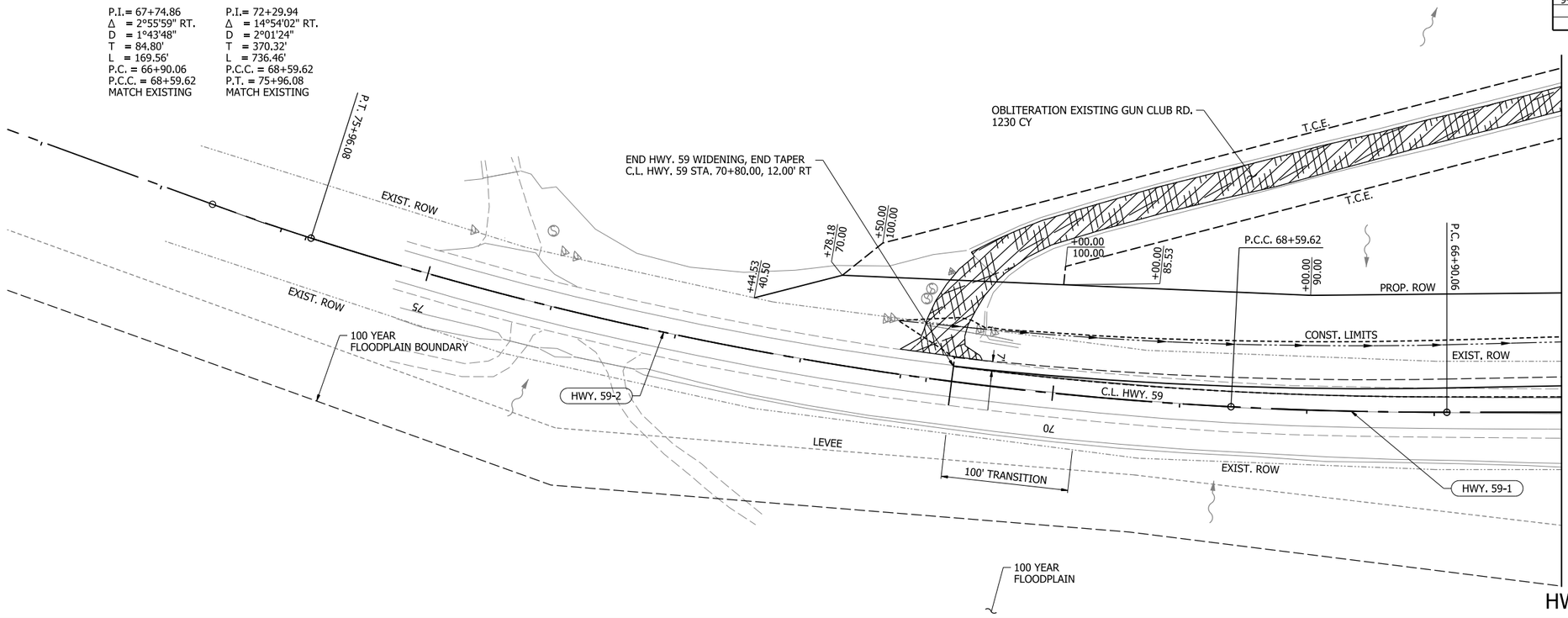
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	180	809
		PLAN AND PROFILE SHEETS				

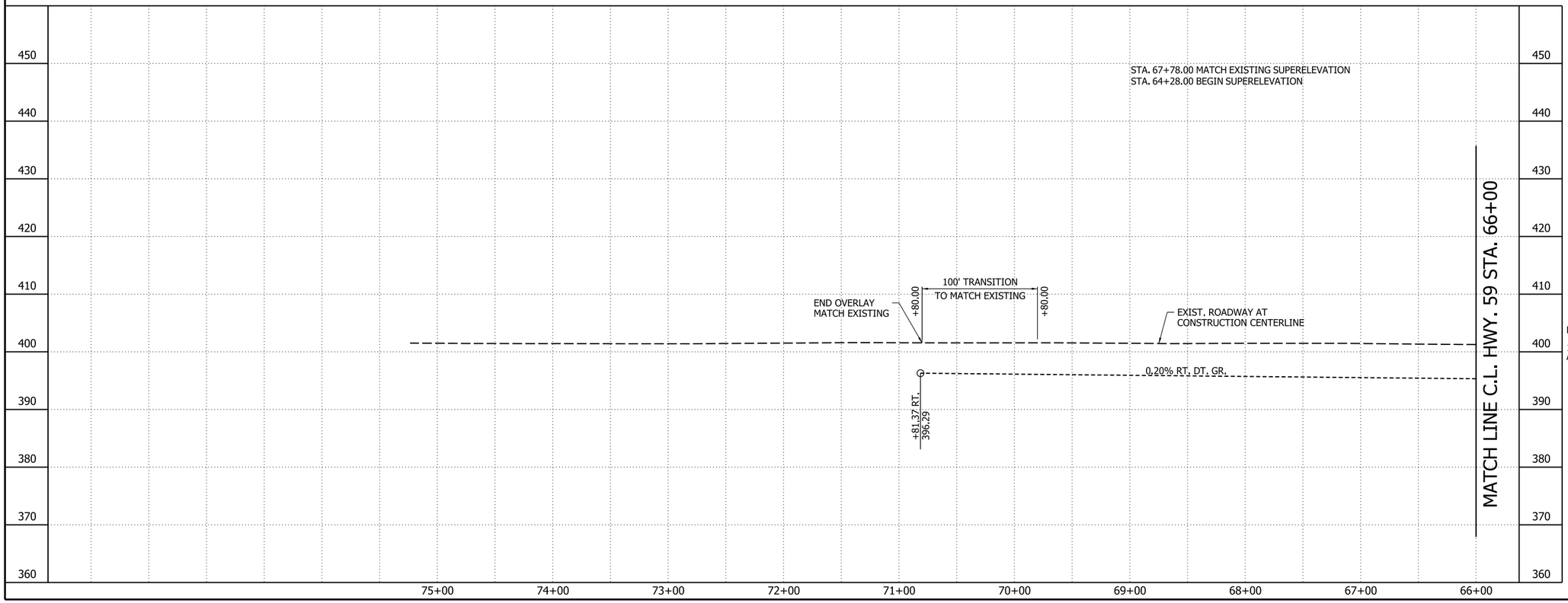
HWY. 59-1

P.I.= 67+74.86
Δ = 2°55'59" RT.
D = 1°43'48"
T = 84.80'
L = 169.56'
P.C. = 66+90.06
P.C.C. = 68+59.62
MATCH EXISTING

HWY. 59-2

P.I.= 72+29.94
Δ = 14°54'02" RT.
D = 2°01'24"
T = 370.32'
L = 736.46'
P.C.C. = 68+59.62
P.T. = 75+96.08
MATCH EXISTING





STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'

N

LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

HWY. 59
PLAN AND PROFILE SHEETS

5/16/2024 2:07:01 PM
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	181	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

HORIZ. SCALE IN FEET: 0 50 100 150 200 — 1"=100'

VERT. SCALE IN FEET: 0 10 20 30 40 — 1"=20'

MATCH LINE C.L. HWY. 59 STA. 66+00

MATCH LINE C.L. HWY. 59 STA. 54+00

C.L. HWY. 59
STA. 64+63.97 IN PLACE
OFFSET 281.67' RT.
18" x 24' C.M. PIPE CULVERT
REMOVE

C.L. HWY. 59
STA. 61+16.72 IN PLACE
OFFSET 368.71' RT.
18" x 30' C.M. PIPE CULVERT
REMOVE

T.C.E.

T.C.E.

BEGIN TAPER
C.L. HWY. 59 STA. 64+20.00, 31.00' RT.

PROP. ROW

CONST. LIMITS

EXIST. ROW

N72°38'46"W

C.L. HWY. 59

79°59'26"

GUN CLUB 10+55.87
12.00' LT. EL. 400.15

GUN CLUB 10+16.48
45.05' LT. EL. 401.03

GUN CLUB 10+74.23
12.00' RT. EL. 399.62

GUN CLUB 10+34.83
58.95' RT. EL. 401.21

R 40'

N27°21'48"E

C.L. GUN CLUB

+00.00 95.00

+50.00 100.00

+70.00 110.00

+00.00 100.00

+00.00 90.00

+00.00 90.00

C.L. HWY. 59 STA. 57+73.41, 0.00' LT.
C.L. GUN CLUB RD STA. 10+00.00, 0.00' LT

END TAPER
C.L. HWY. 59 STA. 56+80.00, 24.00' RT.

STA. 58+28.78 IN PLACE
24" X 139' R.C. PIPE CULVERT
WITH FES LT. & RT.
REMOVE 10' AND FES RT.
EXTEND R.C. PIPE 32' RT.
(CLASS III)(TYPE 3 BEDDING)
WITH FES RT.
24" R.C. PIPE = 32 FT.
24" FES = 1 EACH

LEVEE

100 YEAR FLOODPLAIN

100 YEAR FLOODPLAIN BOUNDARY

HWY. 59

STA. 67+78.00 MATCH EXISTING SUPERELEVATION
STA. 64+28.00 BEGIN SUPERELEVATION

EXIST. ROADWAY AT CONSTRUCTION CENTERLINE

0.20% RT. DT. GR.

+20.37 RT.
394.17

450 440 430 420 410 400 390 380 370 360

66+00 65+00 64+00 63+00 62+00 61+00 60+00 59+00 58+00 57+00 56+00 55+00 54+00

LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

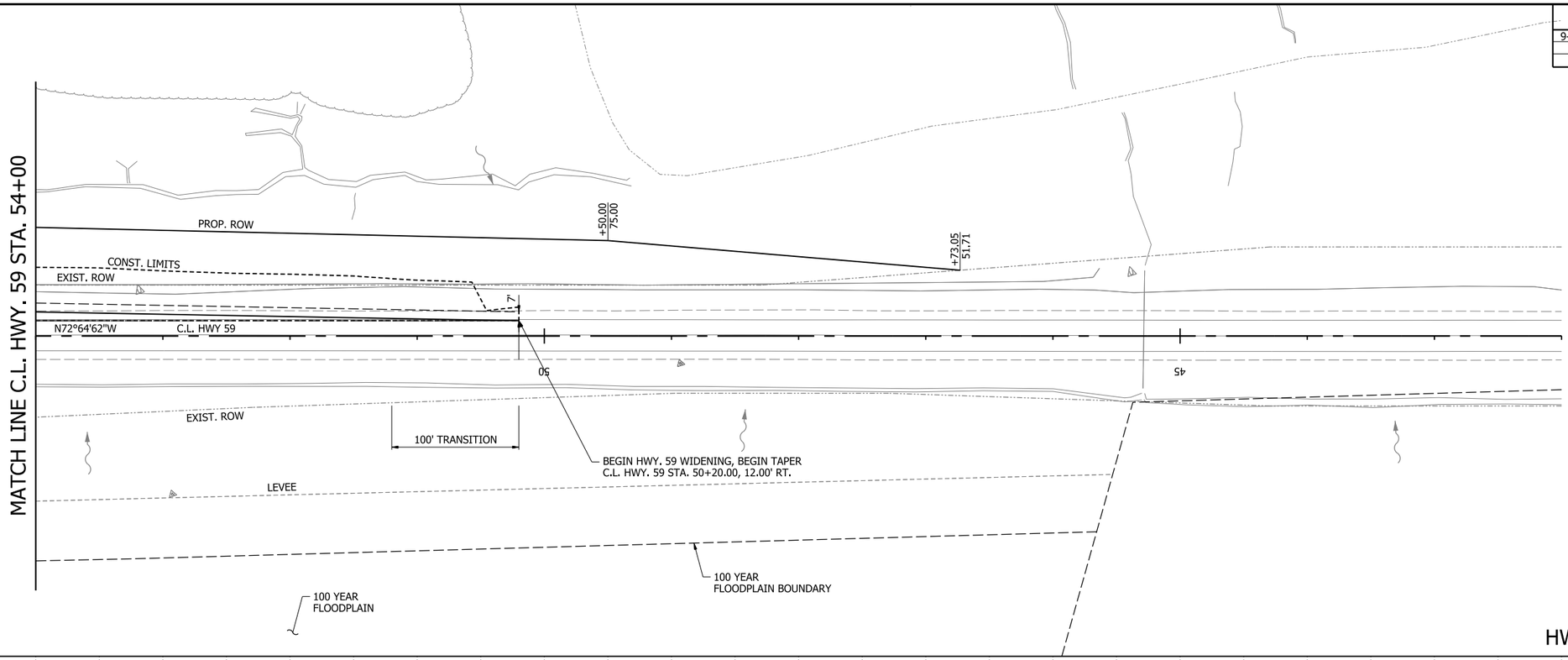
1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

HWY. 59
PLAN AND PROFILE SHEETS

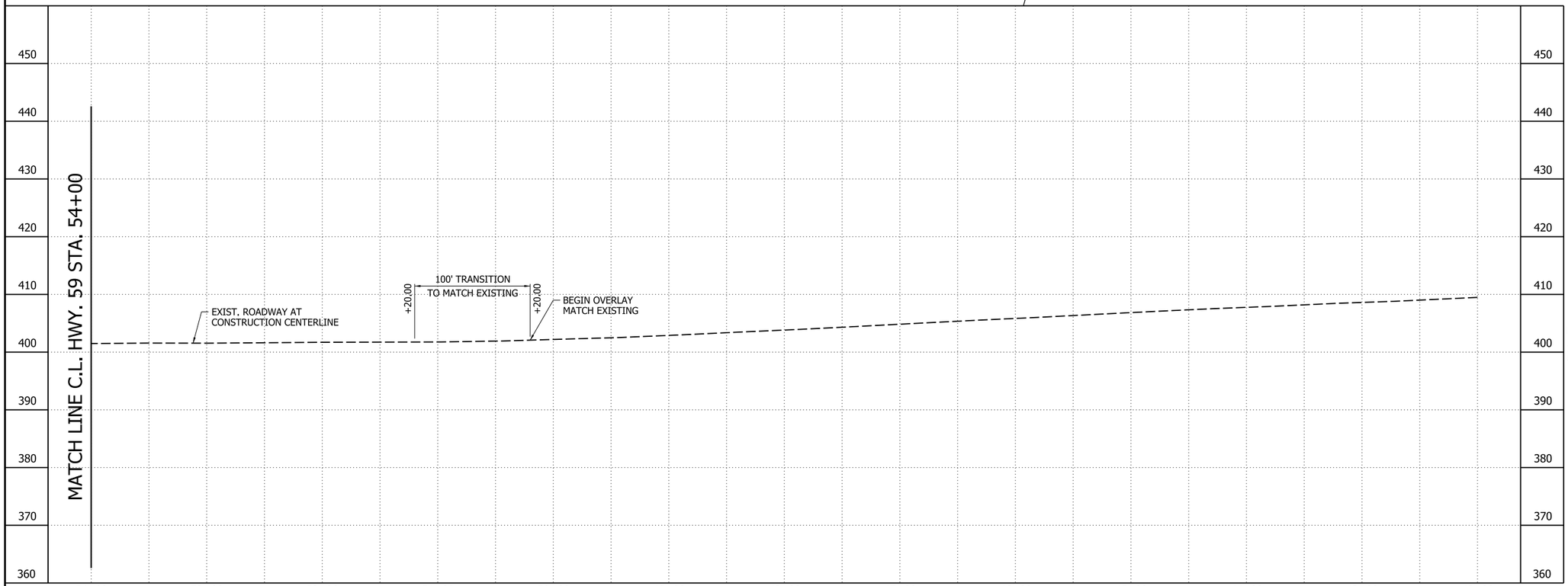
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	182	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024



HWY. 59



0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'

N

LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

HWY. 59
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	183	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

HORIZ. SCALE IN FEET: 0 50 100 150 200 — 1"=100'

VERT. SCALE IN FEET: 0 10 20 30 40 — 1"=20'

STA. 11+00.00
CONSTRUCT DOUBLE
6' x 3' x 72' R.C. BOX CULVERT
WITH 3:1 WINGS LT. & RT.
Q50=127.7 CFS D.A.=152.88 ACRES
DUMPED RIPPAP LT. & RT. = 86 CU. YD.

STA. 13+75.00 INSTALL
18" x 55' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH = 80 CU. YDS.

STA. 17+25.00 INSTALL
18" x 55' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH = 25 CU. YDS.

GUN CLUB 10+16.48
45.05' LT. EL. 401.03

GUN CLUB 10+55.87
12.00' LT. EL. 400.15

GUN CLUB 10+74.23
12.00' RT. EL. 399.62

GUN CLUB 10+34.83
58.95' RT. EL. 401.21

P.I. 15+10.20

GC-1
P.I.= 15+10.20
Δ = 64°13'56" RT.
D = 10°30'00"
T = 342.51'
L = 611.73'
P.C. = 11+67.69
P.T. = 17+79.42
e = 0.04'/'
Ls = 150'

P.C. 11+67.69
P.T. 17+79.42

N72°38'46"W
C.L. HWY. 59
N27°21'48"E
S88°24'16"E
79°59'26"

R 40'
R 20'
20'
15
24'
18'

CONST. LIMITS
PROP. ROW
C.L. GUN CLUB
100 YEAR FLOODPLAIN BOUNDARY
100 YEAR FLOODPLAIN
LEVEE
HWY. 59

C.L. GUN CLUB STA. 10+00.00=
C.L. HWY. 59 STA 57+73.42

BEGIN GUN CLUB
C.L. GUN CLUB STA. 10+24.43

MATCH LINE C.L. GUN CLUB STA. 20+00

GUN CLUB

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	LENGTH	"W"	SQ. YDS.
10+74.23	10+81.40	RT.	7	6'-0"	4.78
18+00.00	20+00.00	LT.	200	6'-0"	133.33
18+00.00	20+00.00	RT.	200	6'-0"	133.33

STA. 10+24.43 MATCH EDGE PAVEMENT - HWY. 59 (0.002 '/')
STA. 10+55.00 NORMAL CROWN
STA. 12+05.00 MAX SUPERELEVATION (0.040 '/')
STA. 17+42.00 MAX SUPERELEVATION (0.040 '/')
STA. 18+92.00 END SUPERELEVATION

FL IN LT. = 392.41
FL OUT RT. = 390.56
50yr WS = 394.94
100yr WS = 395.20

EXISTING GROUND AT C.L.

K=70.18
VC=200'
e=0.71'

P.V.I. 10+24.00
ELEV. 401.04
-2.76%

P.V.I. 10+75.00
ELEV. 399.63
-2.35%

P.V.C. 11+60.00
ELEV. 397.63

P.V.I. 12+60.00
ELEV. 395.28

P.V.T. 13+60.00
ELEV. 395.78

PROP. PG GUN CLUB
0.50%
0.16% LT. DT. GR.
0.66% RT. DT. GR.

PROPOSED HWY. 59 WIDENING
(-2.31%)

BEGIN GUN CLUB
C.L. GUN CLUB STA. 10+24.43
ELEV. 401.04
MATCH HWY. 59

+55.87 LT.
393.18
-1.74% LT. DT. GR.

+74.23 RT.
391.65
-4.24% RT. DT. GR.

+00.00 LT.
392.41

+00.00 RT.
390.56

+25.00 RT.
392.05

+15.00 LT.
393.41

+00.00 LT.
393.52

+00.00 RT.
394.58
-6.68% RT. DT. GR.
-5.69% LT. DT. GR.

MATCH LINE C.L. GUN CLUB STA. 20+00

440 430 420 410 400 390 380 370 360 350

8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00

LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

GUN CLUB
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	184	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

STA. 20+65.46 IN PLACE
TRIPLE 8' x 10' x 92' R.C. BOX CULVERT
WITH 3:1 WINGS LT. & RT.
REMOVE LT. WING.
RETAIN & EXTEND 43' LT.
3:1 WINGS LT.
Q50=8,200 CFS D.A.=18,816 ACRES

GC-2
P.I.= 25+85.30
Δ = 1°47'30" RT.
D = 0°30'00"
T = 179.20'
L = 358.38'
P.C. = 24+06.10
P.T. = 27+64.48
NO SUPER

+00.00 185.00
+35.00 185.00
+05.92 115.00
MATCH LINE C.L. GUN CLUB STA. 20+00
CONST. LIMITS
PROP. ROW
8'
24'
S88°24'16"E
C.L. GUN CLUB
S86°36'45"E
MATCH LINE C.L. GUN CLUB STA. 32+00
+10.00 185.00
+10.00 185.00
+00.87 120.00
P.C. 24+06.10
+10.00 90.00
P.I. 27+64.48
GC-2

GUN CLUB

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'
0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'

N

LEGEND
- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:
1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	LENGTH	"W"	SQ. YDS.
20+00.00	20+40.00	LT.	40	6'-0"	26.67
20+00.00	20+40.00	RT.	40	6'-0"	26.67
20+95.00	22+50.00	LT.	155	6'-0"	103.33
20+95.00	24+00.00	RT.	305	6'-0"	203.33

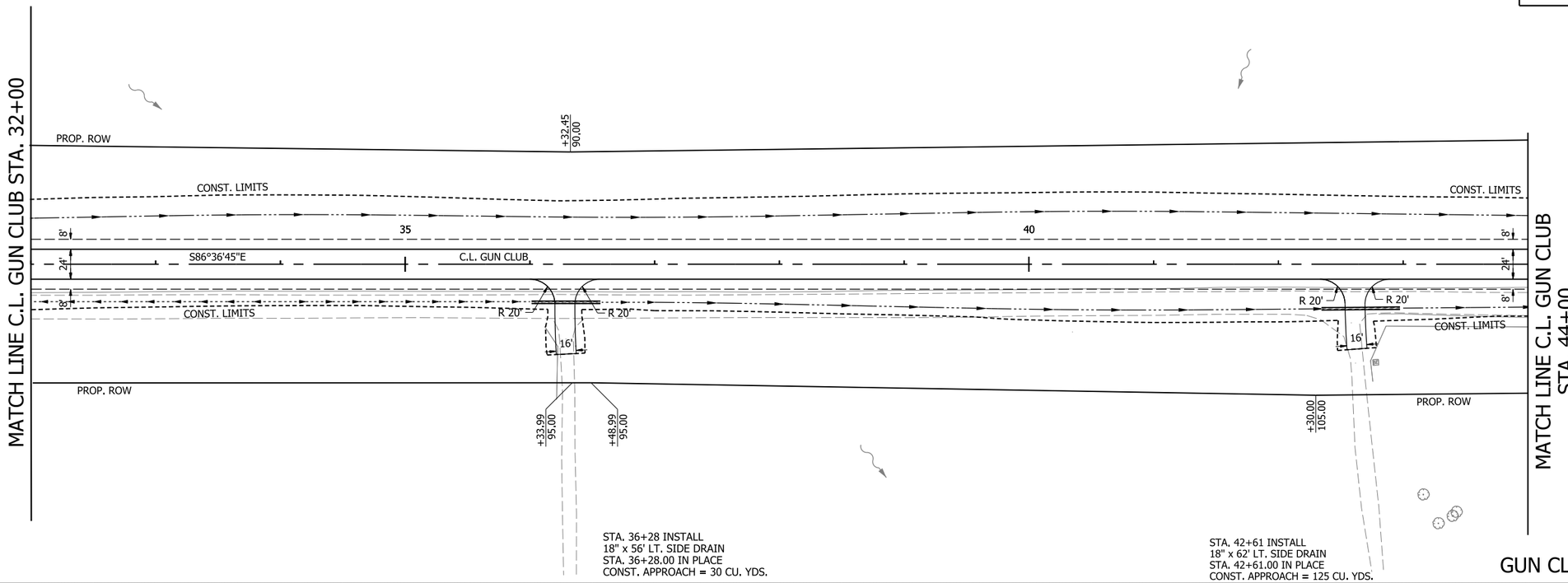
440 430 420 410 400 390 380 370 360 350
20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00

MATCH LINE C.L. GUN CLUB STA. 20+00
MATCH LINE C.L. GUN CLUB STA. 32+00
FL IN LT. = 378.61
FL OUT RT. = 378.55
50yr WS = 392.63
100yr WS = 393.98
P.V.C. 22+00.00 ELEV. 399.98
K=588.24 VC=200' e=0.08'
P.V.T. 24+00.00 ELEV. 401.31
EXISTING GROUND AT C.L.
0.50%
0.84%
0.84%
P.V.I. 28+00.00 ELEV. 404.65
-0.50%
P.V.C. 30+00.00 ELEV. 403.65
K=200.00 VC=200' e=0.25'
P.V.T. 32+00.00
0.30% RT. DT. GR.
PROP. PG GUN CLUB
0.98% LT. DT. GR.
K=149.25 VC=200' e=-0.33'
P.V.C. 27+00.00 ELEV. 403.83
P.V.T. 29+00.00 ELEV. 404.15
+00.00 RT. 400.00
P.V.I. 31+00.00 ELEV. 403.15
+00.00 LT. 398.73
-0.10% LT. DT. GR.
6.81% LT. DT. GR.
6.35% RT. DT. GR.
+50.00 LT. 390.42
P.V.I. 23+00.00 ELEV. 400.48
+00.00 RT. 397.91
+40.00 LT. 379.87
+40.00 RT. 378.55
+95.00 LT. 379.87
+95.00 RT. 378.55
0.00% RT. DT. GR.
0.00% LT. DT. GR.
-5.69% LT. DT. GR.
-6.68% RT. DT. GR.

GUN CLUB
PLAN AND PROFILE SHEETS

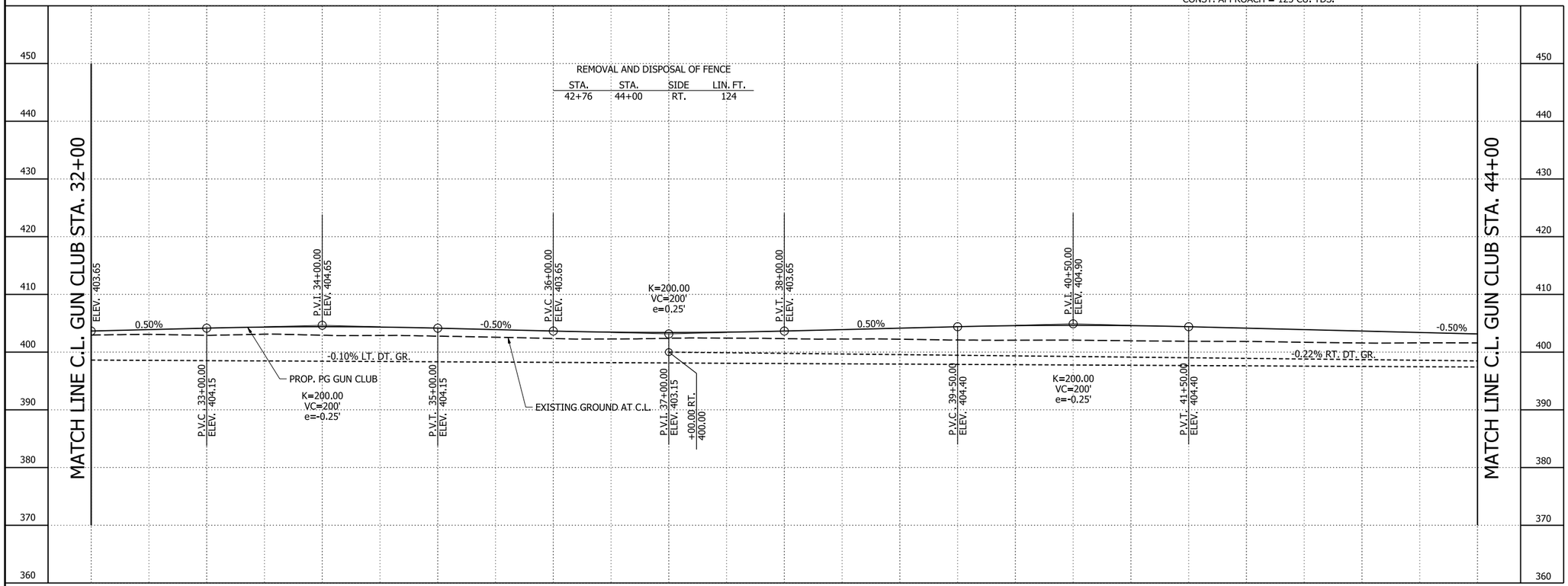
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	185	809
		PLAN AND PROFILE SHEETS				



REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.
42+76	44+00	RT.	124





0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'

N

LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

GUN CLUB
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	186	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

GC-3

P.I.= 48+39.00
D = 0°42'18" LT.
D = 0°30'00"
T = 70.51'
L = 141.02'
P.C. = 47+68.49
P.T. = 49+09.51
NO SUPER

STA. 49+74 INSTALL
18" x 38' LT. SIDE DRAIN
STA. 49+74.31 IN PLACE
CONSTRUCT APPROACH = 55 CU. YDS.

MATCH LINE C.L. GUN CLUB STA. 44+00

PROP. ROW

CONST. LIMITS

8' 45 24' C.L. GUN CLUB S86°36'45"E 8'

CONST. LIMITS

P.C. 47+68.49

P.T. 49+09.51

+62.86
105.00

18'

R 20' 50 R 20'

R 20' 15 R 20'

C.L. GUN CLUB STA. 47+74.31 =
C.L. DRIVEWAY STA. 0+00.00

GC-3

PROP. ROW & COA

CONST. LIMITS

55 8' S87°19'04"E 24' 8'

CONST. LIMITS

CONST. LIMITS

5

PROP. ROW & COA

C.L. DRIVEWAY

15'

CONST. LIMITS

PROP. ROW

+54.00
99.37

+55.00
160.00

T.C.E.

MATCH LINE C.L. GUN CLUB STA. 56+00

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'

N

GUN CLUB

FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
50+03	56+00	RT.	A	597
50+03	56+00	LT.	A	597

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.
44+00	56+00	RT.	1200

MATCH LINE C.L. GUN CLUB STA. 44+00

PROP. PG GUN CLUB

-0.50%

EXISTING GROUND AT C.L.

P.V.C. 48+00.00
ELEV. 401.15

K=200.00
VC=200'
e=0.25'

P.V.T. 50+00.00
ELEV. 401.15

+50.00 RT.
397.51

P.V.I. 49+00.00
ELEV. 400.65

-0.10% LT. DT. GR.

0.50%

-0.22% RT. DT. GR.

P.V.C. 52+00.00
ELEV. 402.15

P.V.I. 53+00.00
ELEV. 402.65

K=200.00
VC=200'
e=-0.25'

P.V.T. 54+00.00
ELEV. 402.15

-0.50%

P.V.C. 55+00.00
ELEV. 401.65

K=200.00
VC=200'
e=0.25'

P.V.I. 56+00.00
ELEV. 401.15

MATCH LINE C.L. GUN CLUB STA. 56+00

450 440 430 420 410 400 390 380 370 360

44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00 55+00 56+00

LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

GUN CLUB
PLAN AND PROFILE SHEETS

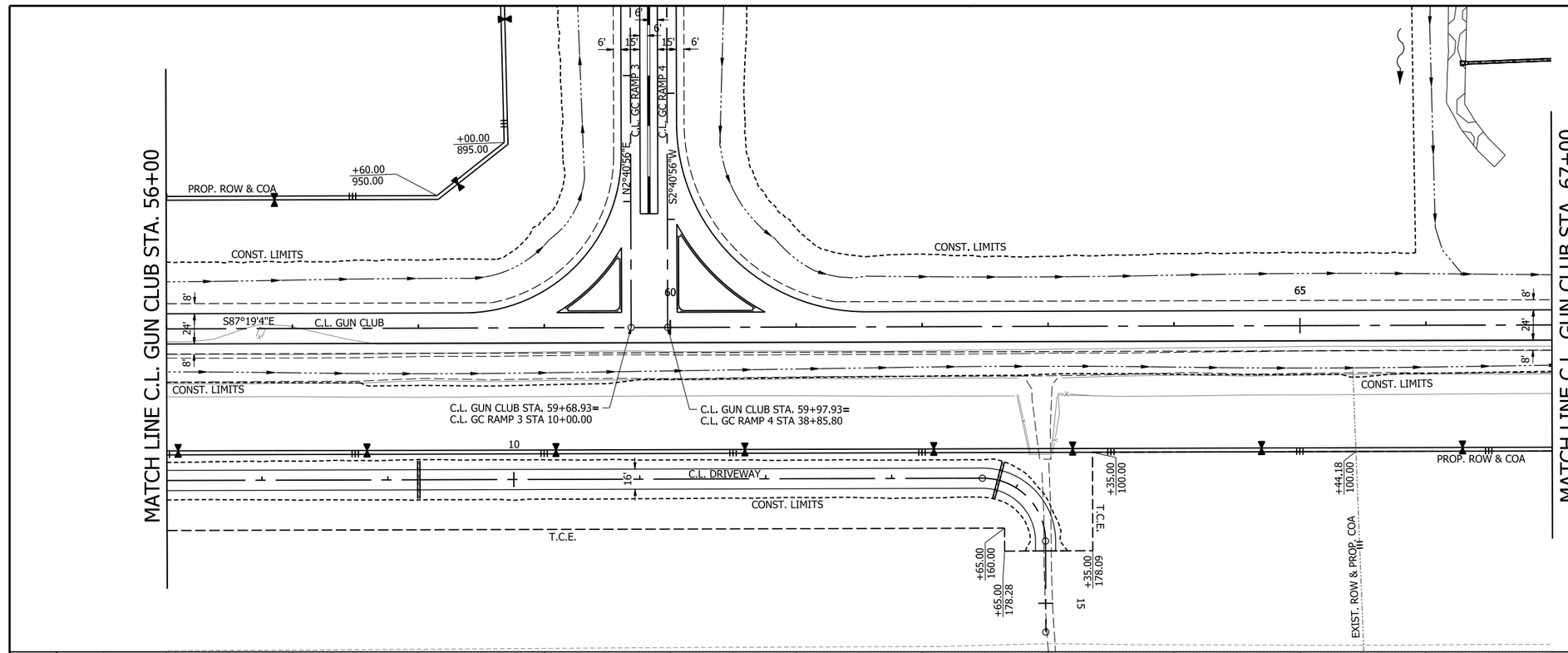
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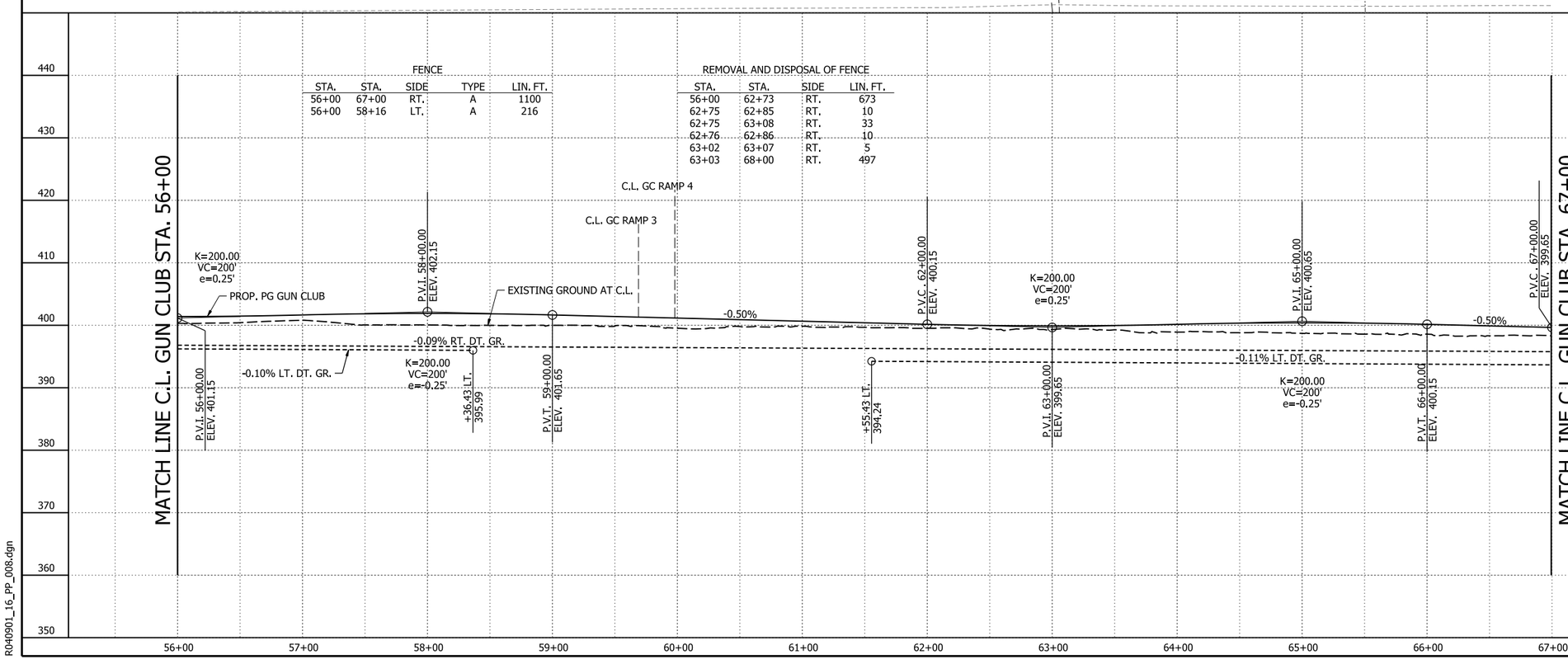
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	187	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

HORIZ. SCALE IN FEET: 0 50 100 150 200 — 1"=100'

VERT. SCALE IN FEET: 0 10 20 30 40 — 1"=20'





LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

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GUN CLUB
PLAN AND PROFILE SHEETS

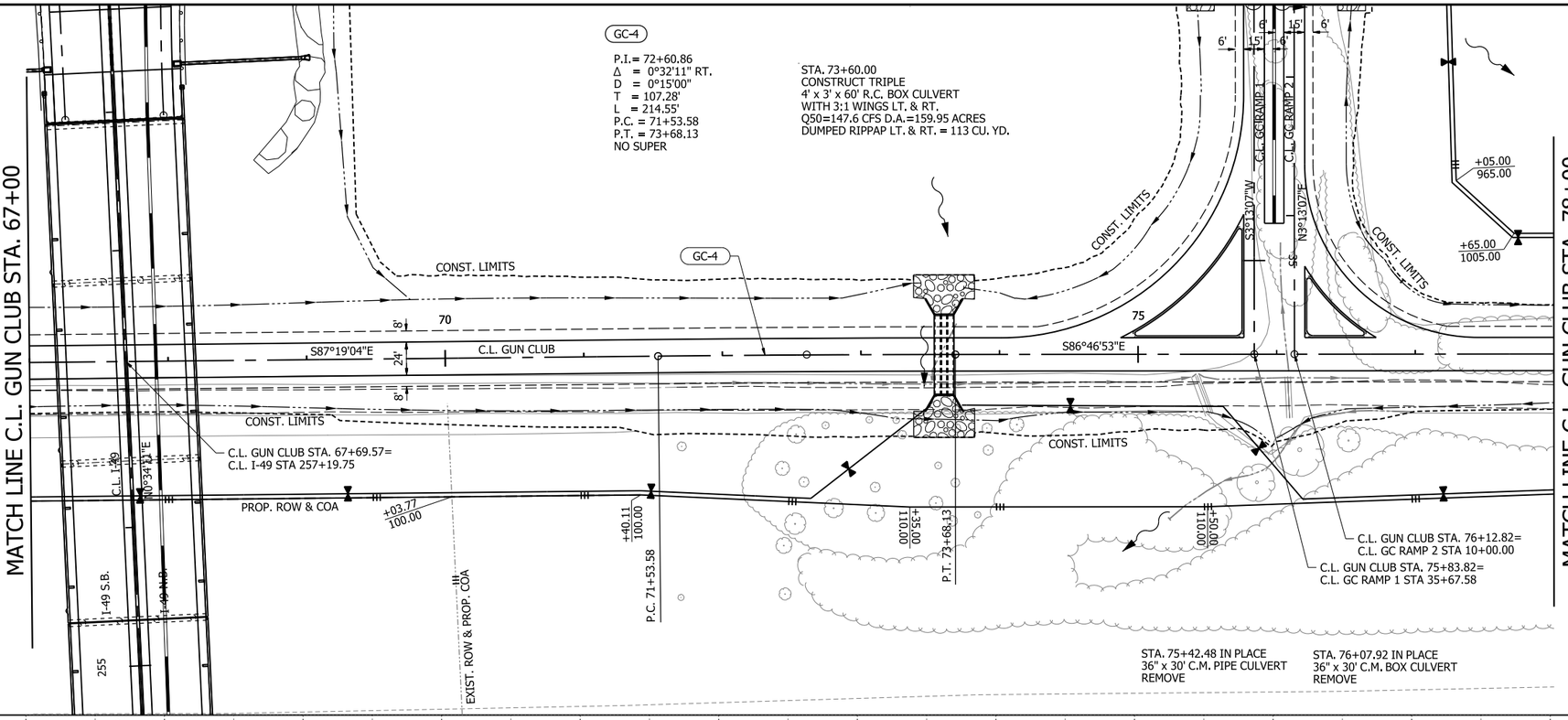
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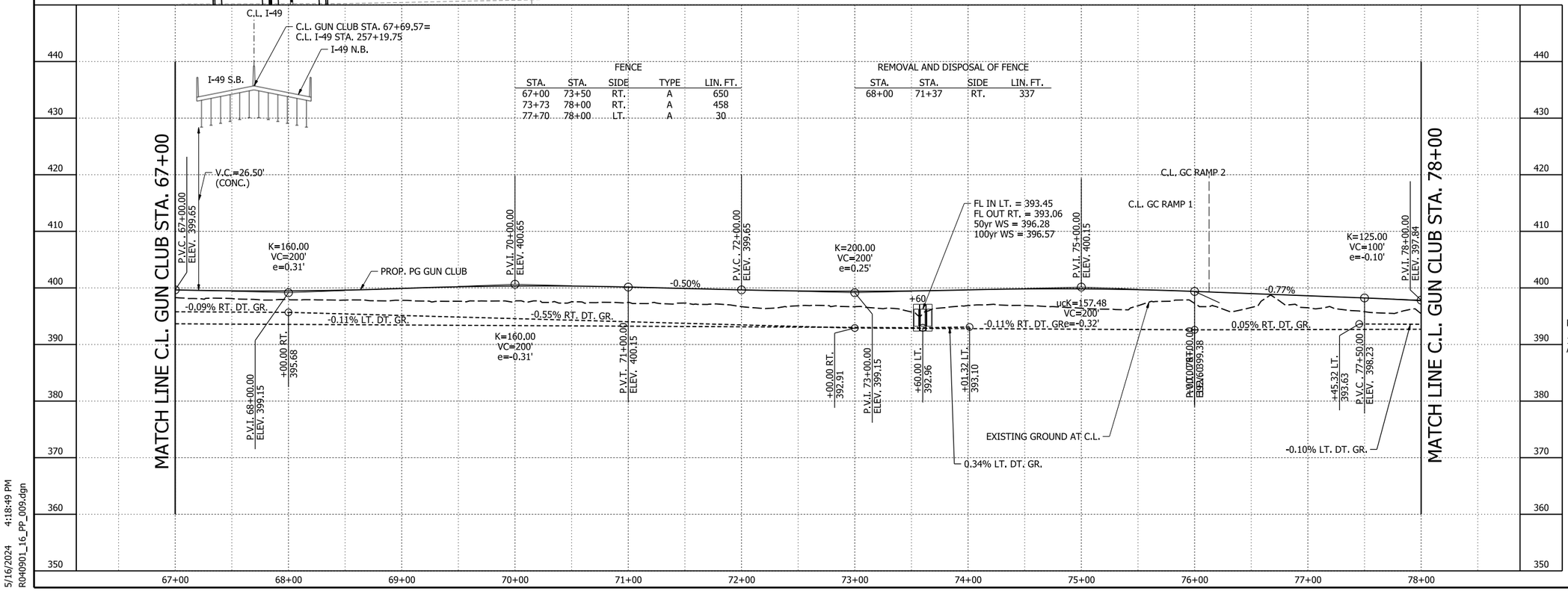
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	188	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/17/2024

HORIZ. SCALE IN FEET: 0 50 100 150 200 — 1"=100'

VERT. SCALE IN FEET: 0 10 20 30 40 — 1"=20'





LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

GUN CLUB
PLAN AND PROFILE SHEETS

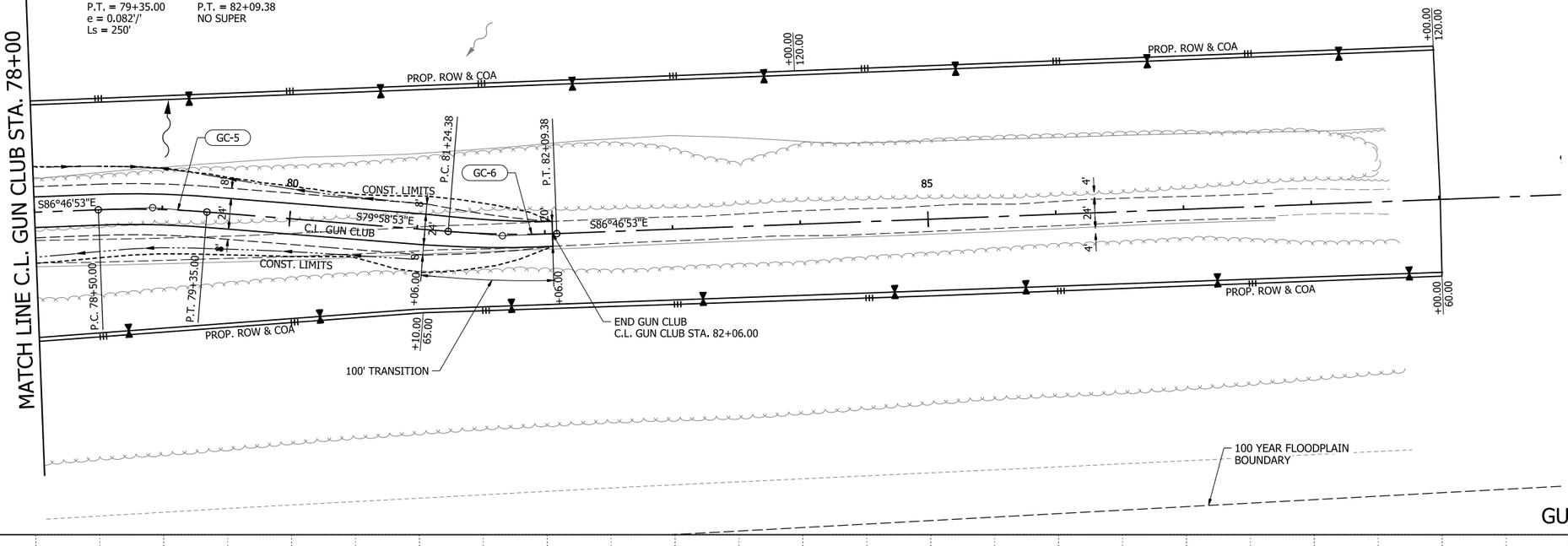
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	189	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

GC-5
P.I.= 78+92.55
Δ = 6°48'00" RT.
D = 8°00'00.0"
T = 42.55'
L = 85.00'
P.C. = 78+50.00
P.T. = 79+35.00
e = 0.082'/'
Ls = 250'

GC-6
P.I.= 81+66.93
Δ = 6°48'00" LT.
D = 8°00'00.0"
T = 42.55'
L = 85.00'
P.C. = 81+24.38
P.T. = 82+09.38
NO SUPER



HORIZ. SCALE IN FEET: 0 50 100 150 200 — 1"=100'

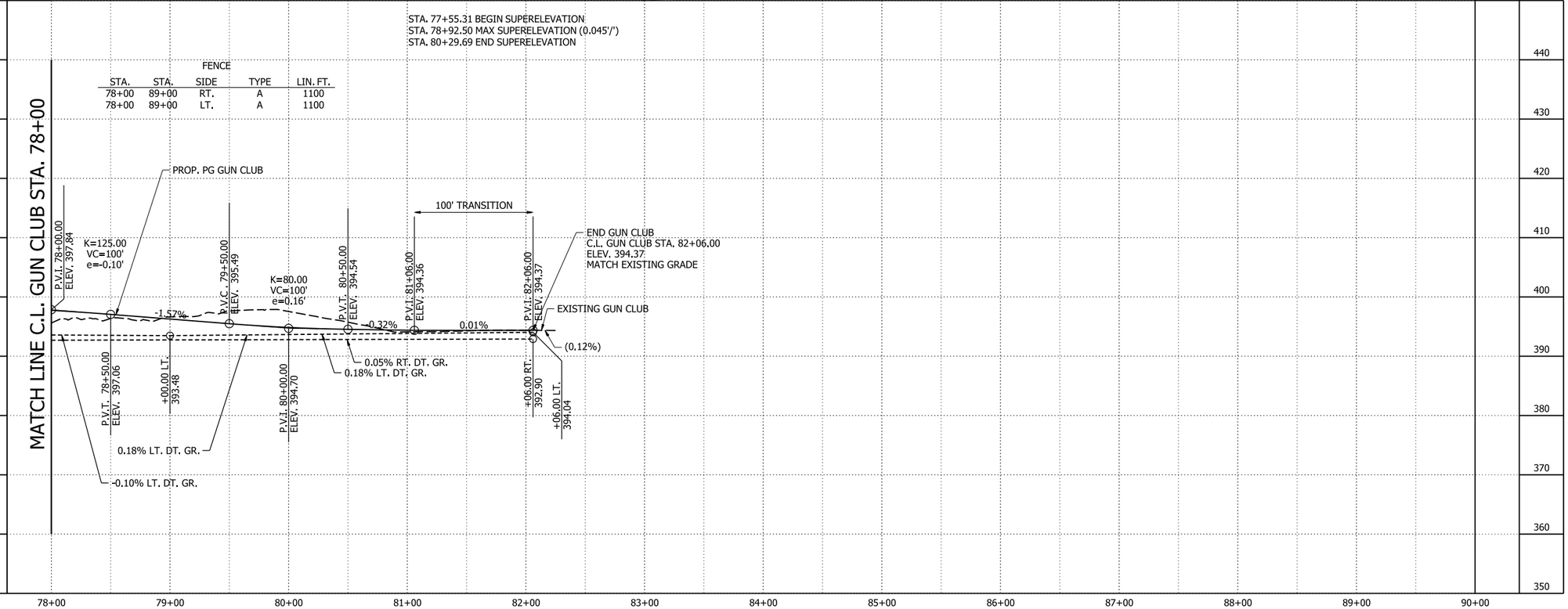
VERT. SCALE IN FEET: 0 10 20 30 40 — 1"=20'

N

STA. 77+55.31 BEGIN SUPERELEVATION
STA. 78+92.50 MAX SUPERELEVATION (0.045'/')
STA. 80+29.69 END SUPERELEVATION

FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
78+00	89+00	RT.	A	1100
78+00	89+00	LT.	A	1100



LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X — HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

GUN CLUB
PLAN AND PROFILE SHEETS

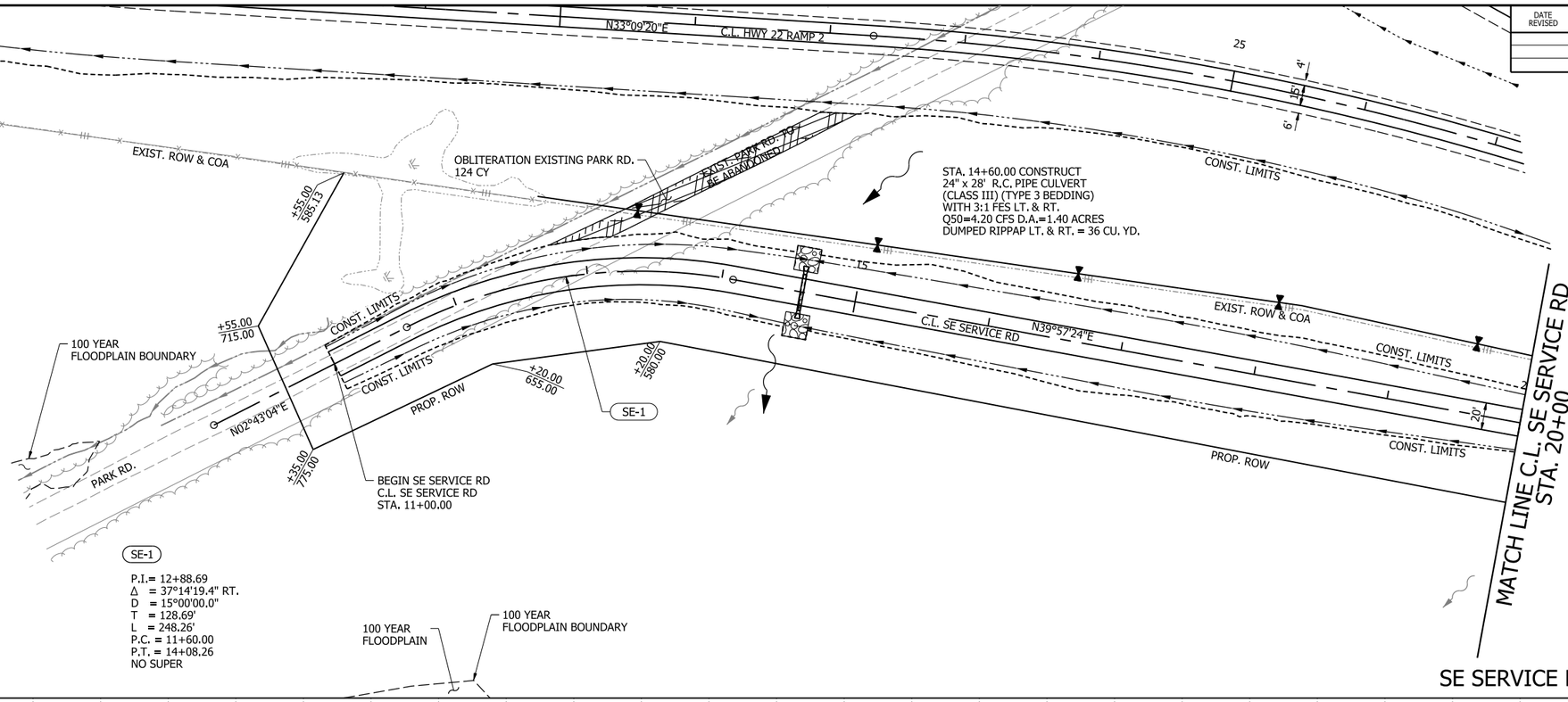
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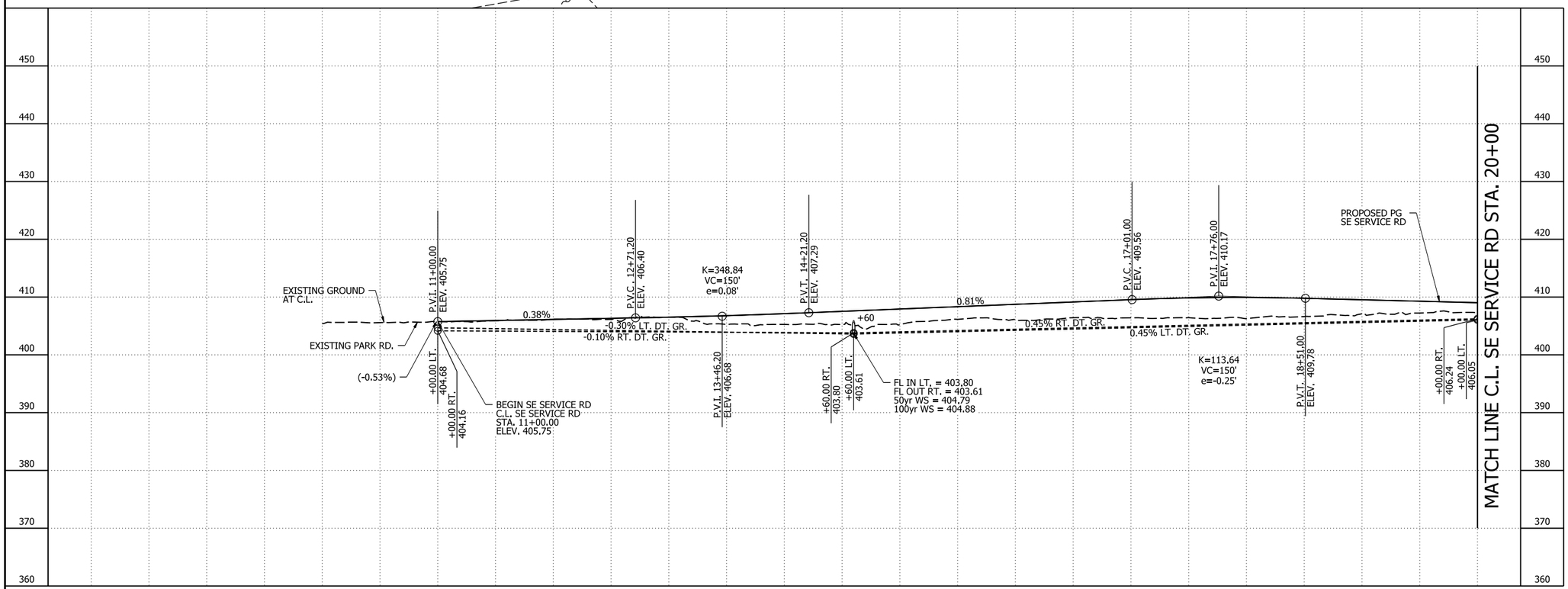
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	190	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/1/2024

HORIZ. SCALE IN FEET: 0 50 100 150 200 — 1"=100'

VERT. SCALE IN FEET: 0 10 20 30 40 — 1"=20'





LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
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- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

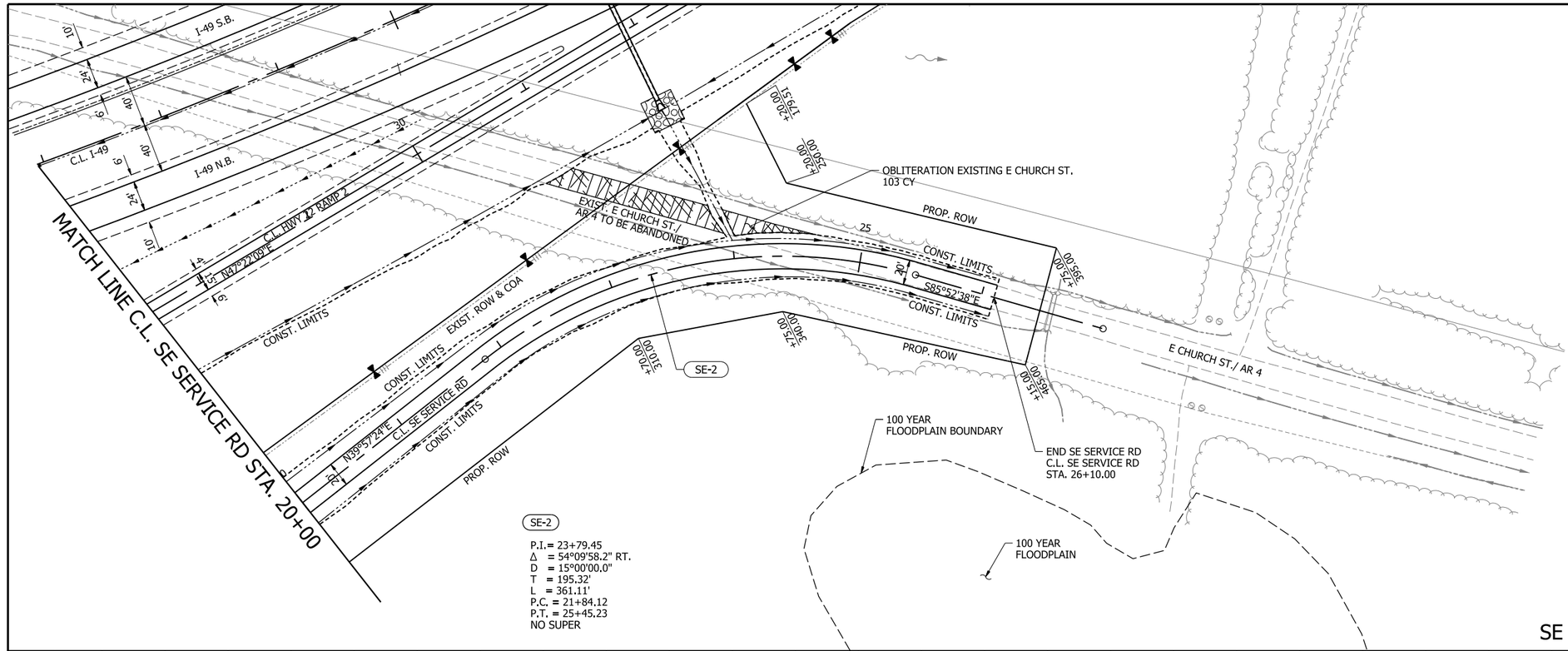
SERVICE ROAD
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	191	809
PLAN AND PROFILE SHEETS				

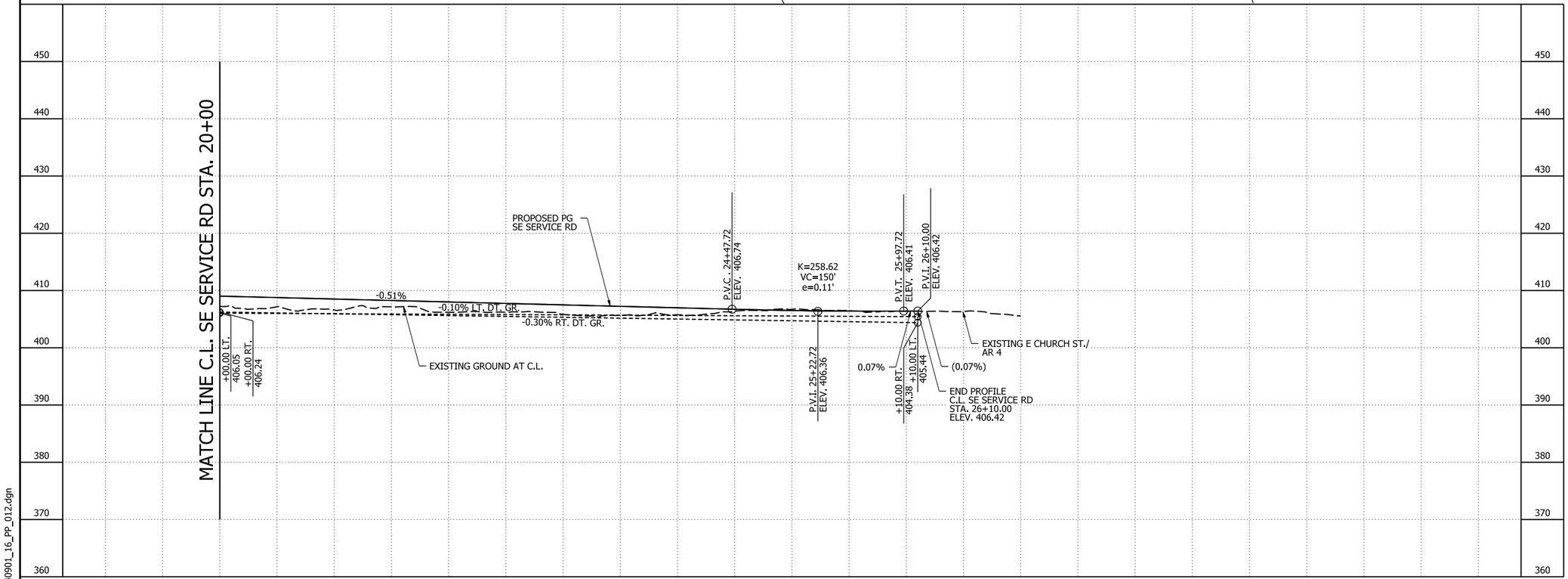
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/1/2024



SE-2

P.I.= 23+79.45
Δ = 54°09'58.2" RT.
D = 15°00'00.0"
T = 195.32'
L = 361.11'
P.C. = 21+84.12
P.T. = 25+45.23
NO SUPER

SE SERVICE RD



0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'

N

LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

SERVICE ROAD
PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	192	809
		PLAN AND PROFILE SHEETS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/1/2024

HORIZ. SCALE IN FEET: 0 50 100 150 200 — 1"=100'

VERT. SCALE IN FEET: 0 10 20 30 40 — 1"=20'

N

NW-1
P.I.= 12+30.01
Δ = 10°22'20.3" LT.
D = 6°30'00.0"
T = 80.01'
L = 159.57'
P.C. = 11+50.00
P.T. = 13+09.57
NO SUPER

NW-2
P.I.= 21+46.09
Δ = 78°46'52.2" LT.
D = 15°00'00.0"
T = 313.65'
L = 525.21'
P.C. = 18+32.44
P.T. = 23+57.64
NO SUPER

BEGIN NW SERVICE RD
C.L. NW SERVICE RD
STA. 11+00.00

MATCH LINE C.L. NW SERVICE RD STA. 19+00

CHURCH ST.
PROP. ROW
CONST. LIMITS
EXIST. ROW & COA
C.L. NW SERVICE RD
N82°12'56"E
S87°33'8"E
OBLITERATION EXISTING E CHURCH ST.
176 CY
C.L. HWY. 22 RAMP 3
N83°04'21"E

NW SERVICE RD

CONCRETE DITCH PAVING (TYPE B)

STA.	STA.	SIDE	LENGTH	"W"	SQ. YDS.
11+00.00	12+50.00	LT.	150	6'-0"	100.00
11+00.00	12+50,00	RT.	150	6'-0"	100.00

P.V.I. 11+00.00 ELEV. 431.73
P.V.C. 11+10.00 ELEV. 431.16
-5.75%
(-6.17%)
-5.35% RT. DT. GR.
K=37.68
VC=240'
e=1.91'
-4.96% LT. DT. GR.
BEGIN PROFILE C.L. NW SERVICE RD STA. 11+00.00 ELEV. 431.73
+00.00 LT. 430.19
+00.00 RT. 430.70
P.V.I. 12+30.00 ELEV. 424.26
+50.00 LT. 422.75
+50.00 RT. 422.67
P.V.T. 13+50.00 ELEV. 425.00
EXISTING GROUND AT C.L.
PROPOSED PG NW SERVICE RD
0.62%
-0.30% LT. DT. GR.
-0.36% RT. DT. GR.
P.V.C. 16+00.00 ELEV. 426.55
K=138.89
VC=200'
e=-0.36'
P.V.I. 17+00.00 ELEV. 427.17
P.V.T. 18+00.00 ELEV. 426.35

470 460 450 440 430 420 410 400 390 380

7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00

MATCH LINE C.L. NW SERVICE RD STA. 19+00

LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

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SERVICE ROAD PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED

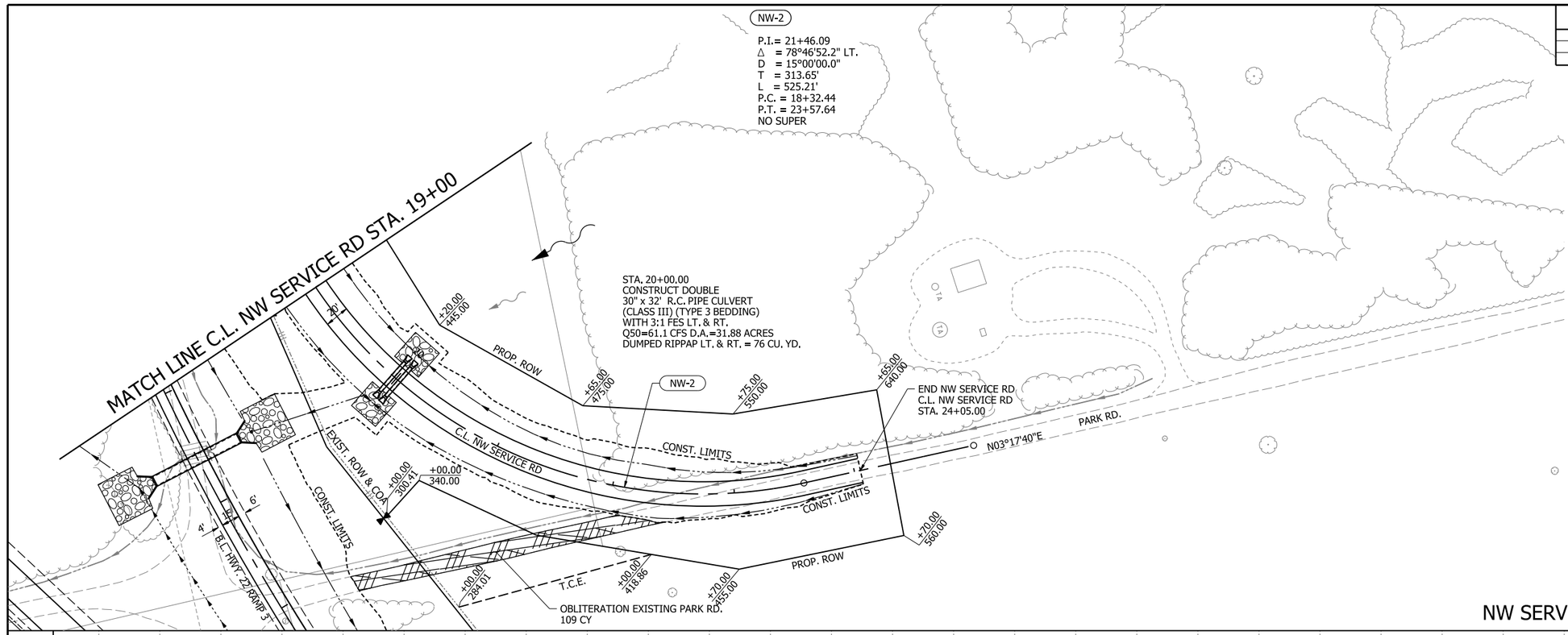
FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	193	809

PLAN AND PROFILE SHEETS

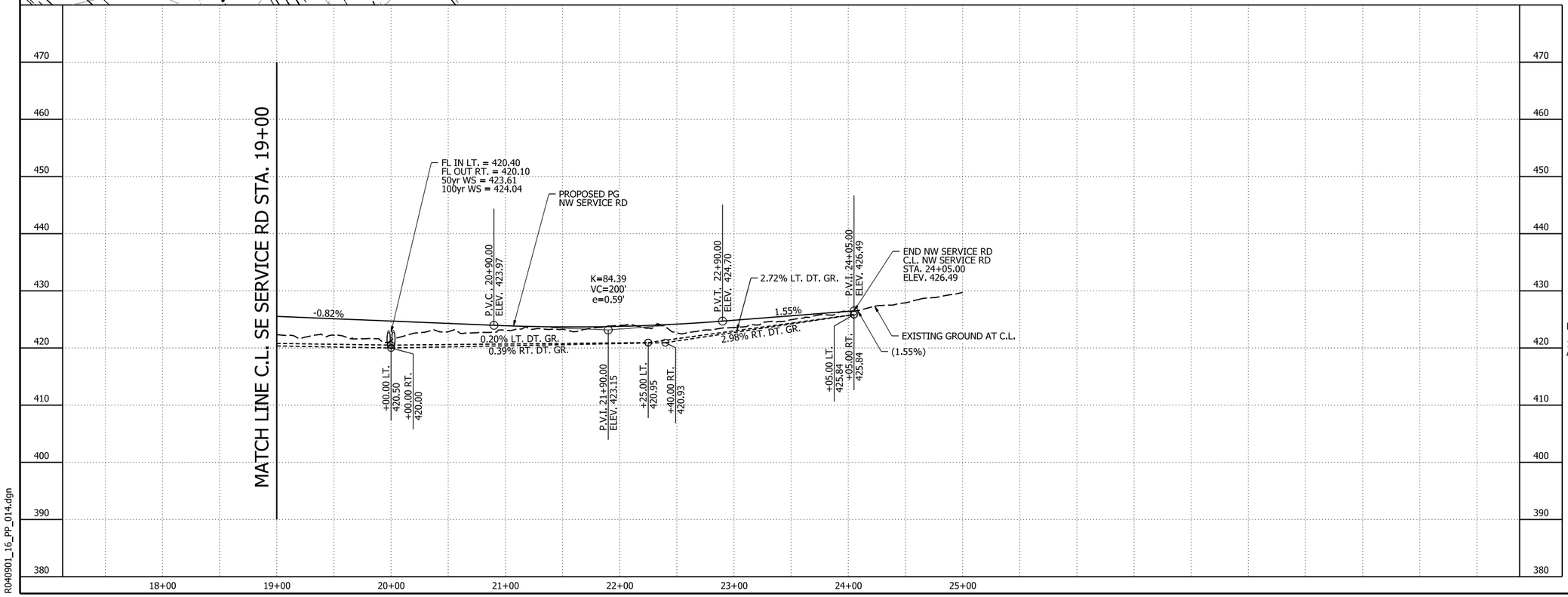
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
5/1/2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'



NW SERVICE RD



LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
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- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

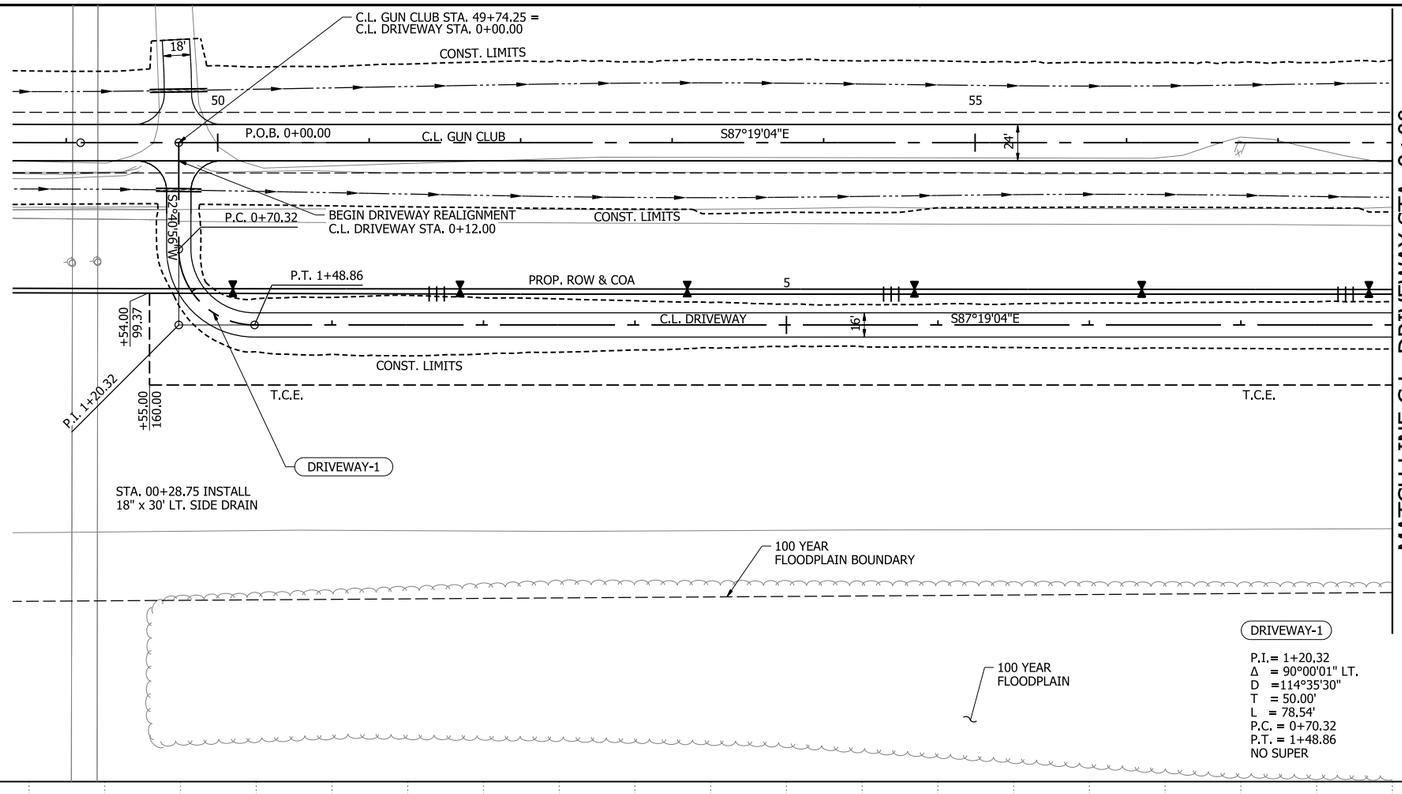
NOTES:

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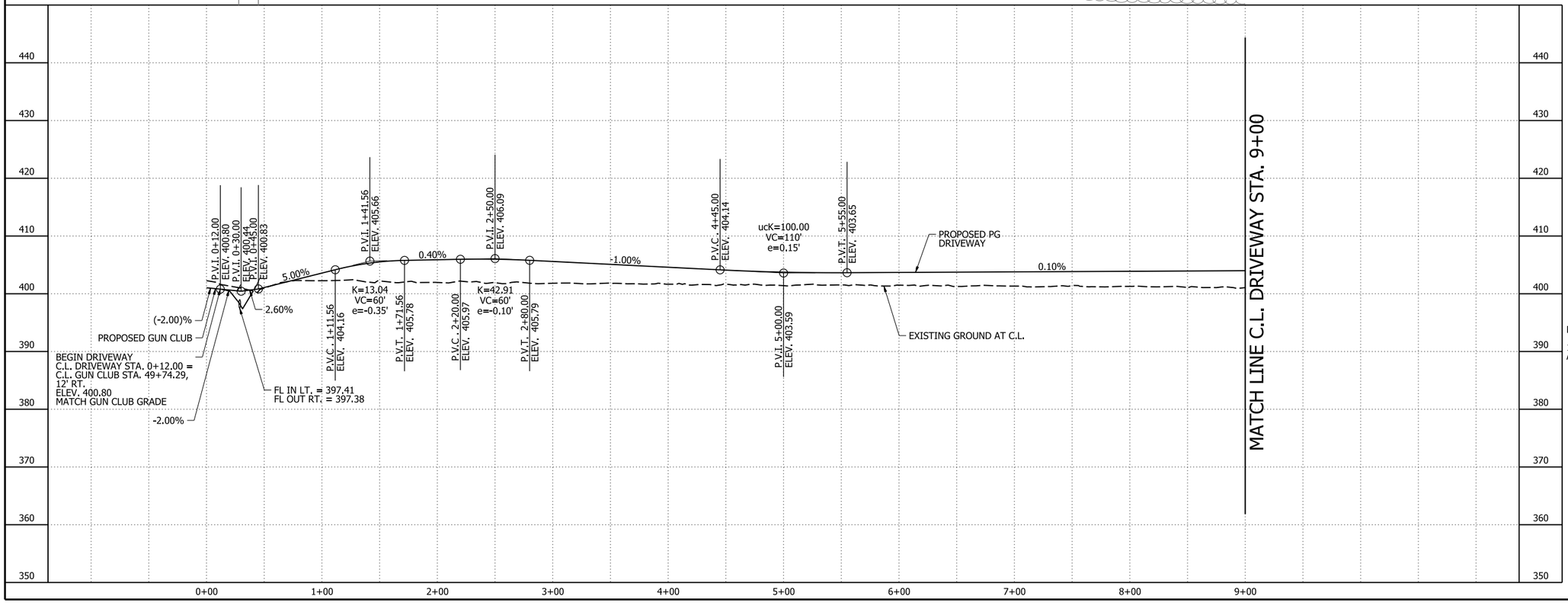
SERVICE ROAD PLAN AND PROFILE SHEETS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	194	809
		PLAN AND PROFILE SHEETS				



DRIVEWAY



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'

N

LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X — HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

DRIVEWAY
PLAN AND PROFILE SHEETS

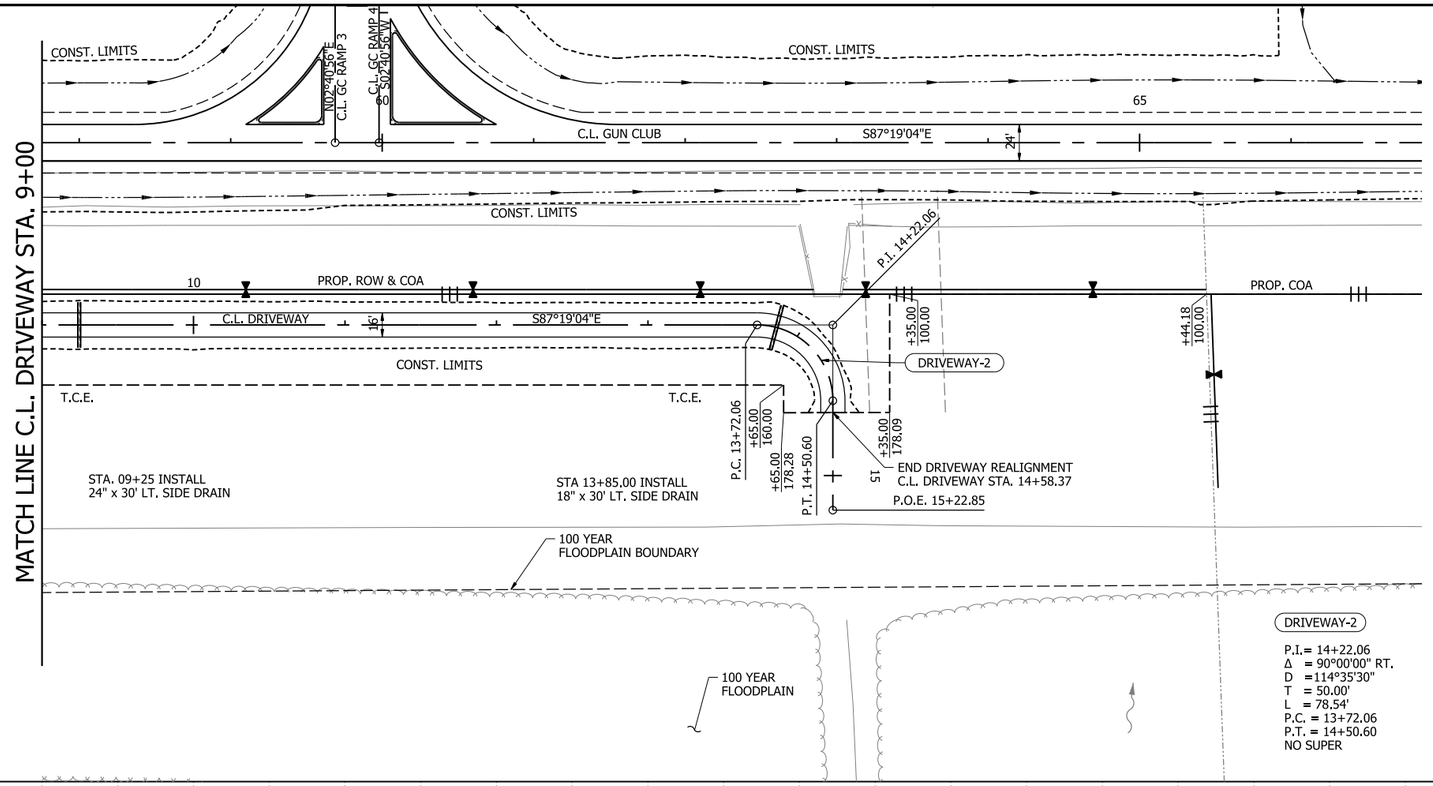
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	195	809
		PLAN AND PROFILE SHEETS				

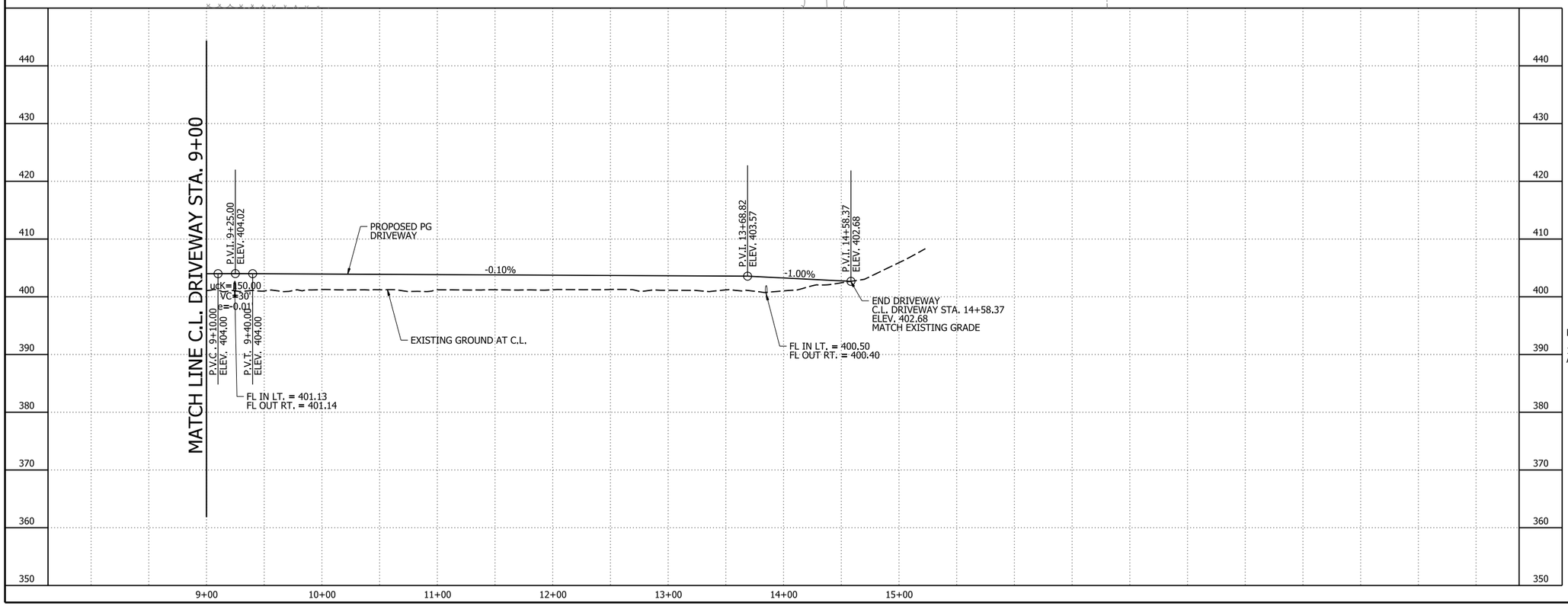
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
5/17/2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

0 10 20 30 40
VERT. SCALE IN FEET: 1"=20'



DRIVEWAY



LEGEND

- TRAFFIC BARRIER
- WIRE FENCE
- GUARDRAIL
- I-49 CONSTRUCTION LIMITS
- CONTROL OF ACCESS (COA)
- PROPOSED FENCE
- EXISTING RIGHT OF WAY
- CENTERLINE/ BASELINE
- XXXX - X HORIZONTAL CURVE NO.
- DRAINAGE STRUCTURE
- STANDARD DITCH GRADE
- SPECIAL DITCH PROFILE
- RIPRAP
- OBLITERATION OF PAVEMENT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS FOR HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA.

DRIVEWAY PLAN AND PROFILE SHEETS

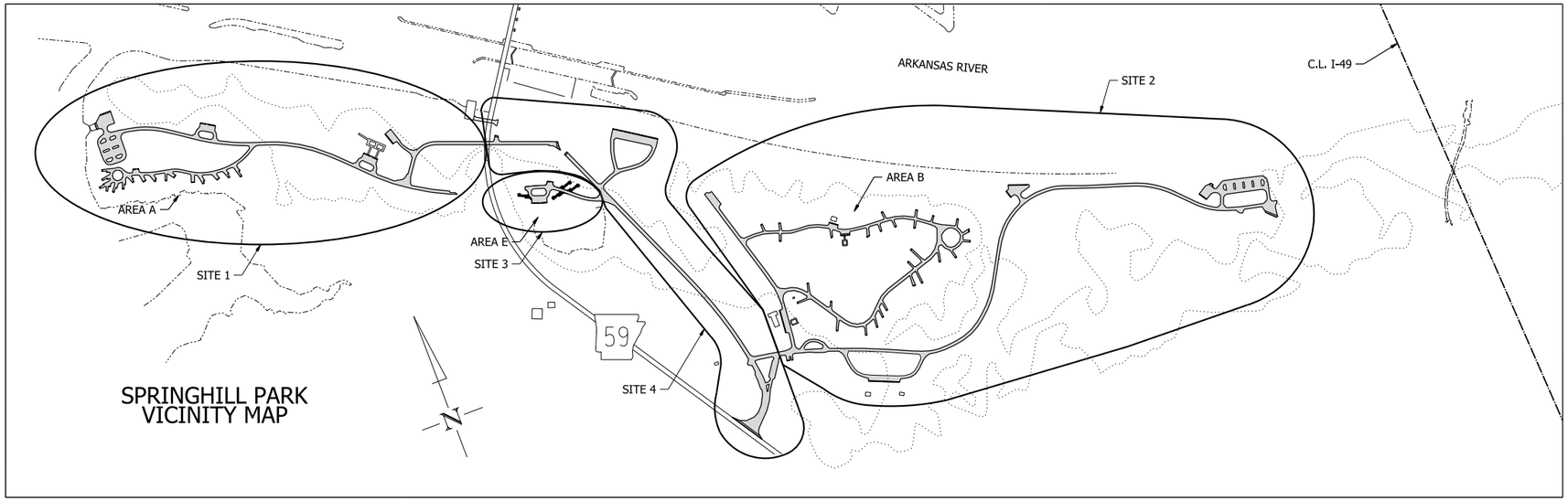
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	196	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
5/17/24

SUMMARY OF SPRINGHILL PARK QUANTITIES

ITEM NUMBER	ITEM	SITE 1	SITE 2	SITE 3	SITE 4	QUANTITY	UNIT
SS & 401	TACK COAT	2977	5294	409	2061	10741	GAL.
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	1368	2433	244	947	4992	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")	77	136	14	53	280	TON
SP & 412	COLD MILLING ASPHALT PAVEMENT	54	218		390	662	SQ. YD.
SP	SITE UTILITIES		0.13	0.87		1.00	LUMP SUM
SP	LANDSCAPING	0.07	0.57	0.33	0.03	1.00	LUMP SUM
SP	EXTERIOR ELECTRICAL DISTRIBUTION	0.74	0.02	0.24		1.00	LUMP SUM
SP	RESTROOM BUILDING		1.00			1.00	LUMP SUM



SPRINGHILL PARK
VICINITY MAP

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SUMMARY OF QUANTITIES
SPRINGHILL PARK DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	197	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
5/17/24

SPRINGHILL PARK BASE AND SURFACING

SHEET		LOCATION	TACK COAT (0.17 GAL. PER SQ. YD.)			ACHM SURFACE COURSE (1/2")			
			SQ.YD.	GALLON	TOTAL GALLONS	SQ.YD.	POUND / SQ.YD.	PG 64-22 TON	TOTAL PG 64-22 TON
SITE 1									
MATCH LINE	A	LOOP A & LOCK AND DAM RD.	11565.12	1966.07	1966.07	11565.12	165.00	954.12	954.12
MATCH LINE	A TO B	LOCK AND DAM RD.	5645.56	959.75	959.75	5645.56	165.00	465.76	465.76
MATCH LINE	B TO C	LOCK AND DAM RD.	300.18	51.03	51.03	300.18	165.00	24.76	24.76
SUBTOTALS (SITE 1):			**17510.86**	**2976.85**	**2976.85**	**17510.86**		**1444.64**	**1444.64**
SITE 2									
MATCH LINE	D TO E	LOOP B	3627.07	616.60	616.60	3627.07	165.00	299.23	299.23
MATCH LINE	D	LOOP B	9196.62	1563.43	1563.43	9196.62	165.00	758.72	758.72
MATCH LINE	E TO F	LOCK AND DAM RD., DUMP STATION, AND PICNIC AREA	6793.88	1154.96	1154.96	6793.88	165.00	560.50	560.50
MATCH LINE	F TO G	MCALLISTER CEMETERY AREA	4050.37	688.56	688.56	4050.37	165.00	334.16	334.16
MATCH LINE	G	BOAT LAUNCH AREA	7474.29	1270.63	1270.63	7474.29	165.00	616.63	616.63
SUBTOTALS (SITE 2):			**31142.23**	**5294.18**	**5294.18**	**31142.23**		**2569.24**	**2569.24**
SITE 3									
MATCH LINE	B TO C	LOOP E CAMPGROUND	2406.26	409.06	409.06	2406.26	165.00	198.52	198.52
MATCH LINE	B TO C	SPRINGHILL PARK CAMP SPUR 1				126.00	220.00	13.86	13.86
MATCH LINE	B TO C	SPRINGHILL PARK CAMP SPUR 2				125.92	220.00	13.85	13.85
MATCH LINE	B TO C	SPRINGHILL PARK CAMP SPUR 3				149.96	220.00	16.50	16.50
MATCH LINE	B TO C	SPRINGHILL PARK CAMP SPUR 4				140.97	220.00	15.51	15.51
SUBTOTALS (SITE 3):			**2406.26**	**409.06**	**409.06**	**2949.11**		**258.24**	**258.24**
SITE 4									
MATCH LINE	B TO C	LOCK AND DAM RD.	6063.14	1030.73	1030.73	6063.14	165.00	500.21	500.21
MATCH LINE	C TO E	LOCK AND DAM RD.	2835.04	481.96	481.96	2835.04	165.00	233.89	233.89
MATCH LINE	E TO F	LOCK AND DAM RD.	3224.38	548.14	548.14	3224.38	165.00	266.01	266.01
SUBTOTALS (SITE 4):			**12122.56**	**2060.83**	**2060.83**	**12122.56**		**1000.11**	**1000.11**
TOTALS:			**63181.91**	**10740.92**	**10740.92**	**63724.76**		**5272.23**	**5272.23**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.7% MIN. AGGR.....5.3% ASPHALT BINDER
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

SPRINGHILL PARK COLD MILLING ASPHALT PAVEMENT

SHEET		LOCATION	COLD MILLING ASPHALT PAVEMENT SQ. YD.
SITE 1			
MATCH LINE	A	LOOP A BOAT LAUNCH	53.50
SUBTOTAL (SITE 1):			**53.50**
SITE 2			
MATCH LINE	D	LOOP B	74.36
MATCH LINE	G	BOAT LAUNCH	40.84
MATCH LINE	G	PULIC USE AREA PARKING	102.63
SUBTOTAL (SITE 2):			**217.83**
SITE 4			
MATCH LINE	B TO C	LOCK AND DAM RD.(TO LOCK AND DAM)	24.61
MATCH LINE	B TO C	LOCK AND DAM RD. (TO LOOOP A)	70.11
MATCH LINE	B TO C	LOCK AND DAM RD. (TO CAMP ENTRANCE)	26.04
MATCH LINE	E TO F	LOCK AND DAM RD. (TO HWY. 59)	269.72
SUBTOTAL (SITE 4):			**390.48**
TOTAL:			**661.81**

NOTE: AVERAGE MILLING DEPTH 0.75".

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	198	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20314
KATHERINE LEE LEBLANC
4/17/24

SUMMARY OF SPRINGHILL PARK EXTERIOR ELECTRICAL DISTRIBUTION QUANTITIES

	ITEM NUMBER	ITEM	SITE 1	SITE 2	SITE 3	TOTAL QUANTITY	UNIT
*	SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/500 KCMIL)	70			70	LIN. FT.
*	SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/350 KCMIL)			25	25	LIN. FT.
*	SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/350 KCMIL, #4 E.G.C.)			347	347	LIN. FT.
*	SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/#4/0 A.W.G., #4 E.G.C.)	25			25	LIN. FT.
*	SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/#3/0 A.W.G., #6 E.G.C.)	2140			2140	LIN. FT.
*	SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/#3/0 A.W.G., #6 E.G.C.)	1206			1206	LIN. FT.
*	SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/#1 A.W.G., #6 E.G.C.)			231	231	LIN. FT.
*	SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/#3 A.W.G., #6 E.G.C.)		75		75	LIN. FT.
*	SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (3C/#4 A.W.G., #8 E.G.C.)			477	477	LIN. FT.
*	709	GALVANIZED STEEL CONDUIT (2")	30			30	LIN. FT.
*	709	GALVANIZED STEEL CONDUIT (3")			15	15	LIN. FT.
*	710	NON-METALLIC CONDUIT (2")	3141	45	668	3854	LIN. FT.
*	710	NON-METALLIC CONDUIT (3")			322	322	LIN. FT.
*	710	NON-METALLIC CONDUIT (4")	30			30	LIN. FT.
	711	CONCRETE PULL BOX (TYPE 2)	5		2	7	EACH
*	SP	ELECTRIC UTILITY SUPPLY	1		1	2	EACH
*	SP	ELECTRIC UTILITY CT CABINET	1		1	2	EACH
*	SP	ELECTRIC UTILITY METER AND SOCKET	1		1	2	EACH
*	SP	FUSED DISCONNECT (480V, 2P, 200A, NEMA 3R)	2			2	EACH
*	SP	FUSED DISCONNECT (240V, 2P, 300A, NEMA 3R)			1	1	EACH
*	SP	STEP-DOWN TRANSFORMER W/CONCRETE PAD (480V-120/240V, 75 KVA, NEMA 3R)	2			2	EACH
*	SP	PANELBOARD W/CONCRETE PAD AND SUPPORT RACK (120/240V, SINGLE-PHASE, 400A MCB, NEMA 3R, SPD)	2			2	EACH
*	SP	PANELBOARD W/CONCRETE PAD AND SUPPORT RACK (120/240V, SINGLE-PHASE, 300A MCB, NEMA 3R, SPD)			1	1	EACH
*	SP	RV POWER PEDESTAL	16		4	20	EACH
*	SP	DEMOLITION OF EXISTING RV POWER DISTRIBUTION	1			1	LUMP SUM

* FOR INFORMATION ONLY
TO BE PAID FOR AS EXTERIOR ELECTRICAL DISTRIBUTION (SEE MEASUREMENT AND PAYMENT SPECIAL PROVISION)

SPRINGHILL PARK CAMPSITE & SIDE DRAINS

	LOCATION	WIDTH	AGGREGATE BASE COURSE (CLASS 7)	SIDE DRAINS	STANDARD DRAWINGS
				21"X15"	
		FEET	TON	LIN. FT.	
	SITE 2				
*	SPRINGHILL PARK RESTROOM AREA B	VARIES	96.57		
	SITE 2 TOTALS:		**96.57**		
	SITE 3				
*	SPRINGHILL PARK CAMP SPUR 1	12	51.70	40	PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
*	SPRINGHILL PARK CAMP SPUR 1 LIVING AREA	20	23.33		
*	SPRINGHILL PARK CAMP SPUR 2	12	51.42	40	PCC-1, PCM-1, PCP-1, PCP-2, PCP-3
*	SPRINGHILL PARK CAMP SPUR 2 LIVING AREA	20	23.33		
*	SPRINGHILL PARK CAMP SPUR 3	12	61.23		
*	SPRINGHILL PARK CAMP SPUR 3 LIVING AREA	20	23.33		
*	SPRINGHILL PARK CAMP SPUR 4	12	57.02		
*	SPRINGHILL PARK CAMP SPUR 4 LIVING AREA	20	23.33		
	SITE 3 TOTALS:		**314.69**	**80**	

* FOR INFORMATION ONLY; TO BE PAID FOR AS SPRINGHILL PARK SITE LANDSCAPING (SEE SPRINHILL PARK SPECIAL PROVISION)

SPRINGHILL PARK EROSION CONTROL

	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL						
		SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECKS (E-5)	ROCK DITCH CHECKS (E-6)	SILT FENCE (E-11)	*SEDIMENT REMOVAL & DISPOSAL
		ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	BAG	CU.YD.	LIN. FT.	CU. YD.
	SITE 2												
*	CLEARING AND GRUBBING	0.06	0.12	0.06	6.1	0.06	0.12	0.12	2.4	44	6	1331	53
*	STAGE 1	0.03	0.06	0.03	3.1	0.03	0.06	0.06	1.2				
	SITE 2 TOTALS:	**0.06**	**0.12**	**0.06**	**6.10**	**0.06**	**0.12**	**0.12**	**2.4**	**44**	**6**	**1331**	**53**
	SITE 3												
*	CLEARING AND GRUBBING	0.27	0.54	0.27	27.5	0.27	0.54	0.54	11.0			258	10
*	STAGE 1	0.11	0.22	0.11	11.2	0.11	0.22	0.22	4.5				
	SITE 3 TOTALS:	**0.38**	**0.76**	**0.38**	**38.70**	**0.38**	**0.76**	**0.76**	**15.5**			**258**	**10**

* FOR INFORMATION ONLY
TO BE PAID FOR AS LANDSCAPING (SEE SPRINGHILL PARK MEASUREMENT AND PAYMENT SPECIAL PROVISION)
BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION
NOTE: THE TEMPORARY EROSION CONTROL DEVICES SHOWN ABOVE AND ON THE PLANS SHALL BE INSTALLED IN SUCH A SEQUENCE AS TO DETER EROSION AND SEDIMENTATION ON U.S. WATERWAYS AS EXPLAINED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT.
*QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

SPRINGHILL PARK WHEEL STOPS

	SHEET		LOCATION	WHEEL STOP EACH
	SITE 1			
*	MATCH LINE	A	BOAT LAUNCH PARKING	5
*	MATCH LINE	A	LOOP A CAMPSITES	31
*	MATCH LINE	A	LOOP A PICNIC AREA PARKING	3
*	MATCH LINE	A	LOOP A RESTROOM PARKING	9
*	MATCH LINE	A TO B	RESTROOM PARKING	9
*	MATCH LINE	A TO B	PLAYGROUND PARKING	9
	SITE 1 TOTAL:			**66**
	SITE 2			
*	MATCH LINE	B TO C	LOCK AND DAM PARKING	30
	SITE 2 TOTAL:			**30**
	SITE 3			
*	MATCH LINE	B TO C	LOOP E RESTROOM PARKING	3
*	MATCH LINE	B TO C	LOOP E PICNIC PARKING	9
*	MATCH LINE	B TO C	LOOP E PROPOSED CAMPSITES	8
	SITE 3 TOTAL:			**20**
	SITE 4			
*	MATCH LINE	D TO E	PLAYGROUND PARKING	15
*	MATCH LINE	D	LOOP B CAMPSITES	30
*	MATCH LINE	D	LOOP B PAVILION PARKING	6
*	MATCH LINE	D	LOOP B RESTROOM PARKING	5
*	MATCH LINE	E TO F	PARK ENTRANCE CAMPSITES	3
*	MATCH LINE	E TO F	PICNIC PARKING	21
*	MATCH LINE	F TO G	MCALLISTER CEMETERY PARKING	18
*	MATCH LINE	G	BOAT RAMP PARKING	6
	SITE 4 TOTAL:			**104**

* FOR INFORMATION ONLY
TO BE PAID FOR AS LANDSCAPING (SEE SPRINGHILL PARK MEASUREMENT AND PAYMENT SPECIAL PROVISION)

SPRINGHILL PARK EARTHWORK

	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
		CU. YD.	
	SITE 2		
*	RESTROOM AREA B	175	75
	SITE 2 TOTALS:	**175**	**75**
	SITE 4		
*	CAMPSITE AREA E	15	5
	SITE 4 TOTALS:	**15**	**5**

* FOR INFORMATION ONLY
TO BE PAID FOR AS LANDSCAPING (SEE SPRINGHILL PARK MEASUREMENT AND PAYMENT SPECIAL PROVISION)

SPRINGHILL PARK REMOVAL AND DISPOSAL OF ITEMS

	LOCATION	WALKS
		SQ. YD.
	SITE 2	
*	RESTROOM AREA B	42
	SITE 2 TOTAL:	**42**

* FOR INFORMATION ONLY
TO BE PAID FOR AS LANDSCAPING
(SEE SPRINGHILL PARK MEASUREMENT
AND PAYMENT SPECIAL PROVISION)

SPRINGHILL PARK CONCRETE WALKS & HAND RAILING

	LOCATION	CONCRETE WALKS SQ.YD.
	SITE 2	
*	RESTROOM AREA B (5" U.T.)	16
	SITE 2 TOTAL:	**16**

* FOR INFORMATION ONLY
TO BE PAID FOR AS LANDSCAPING
(SEE SPRINGHILL PARK MEASUREMENT
AND PAYMENT SPECIAL PROVISION)

SUMMARY OF SPRINGHILL PARK SITE UTILITIES

	ITEM NUMBER	ITEM	QUANTITY	UNIT
	SPRINGHILL PARK SITE 2 (RESTROOM - AREA B)			
*	SP	WATER SERVICE PIPE - 2" TYPE K COPPER, EXCAVATION, BEDDING AND BACKFILL	47	LIN. FT.
*	SP	SANITARY SERVICE PIPE - 4" PVC SDR26 PVC EXCAVATION, BEDDING AND BACKFILL	18	LIN. FT.
*	SP	UTILITY SERVICE CONNECTION	2	EACH
	SPRINGHILL PARK SITE 3 (CAMPSITE - AREA E)			
*	SP	WATER SERVICE PIPE - 1" IPS SCHEDULE 40 PVC, EXCAVATION, BEDDING AND BACKFILL	211	LIN. FT.
*	SP	WATER FAUCET PEDESTAL, FAUCET, FITTING, INSULATION, AND INSTALLATION	4	EACH
*	SP	WATER SERVICE TAP INTO EXISTING MAIN, 1" BALL VALVE, ACCESS RISER, AND INSTALLATION	3	EACH
*	SP	SANITARY SERVICE PIPE - 4" PVC SDR26 PVC, EXCAVATION, BEDDING OR ENCAPSULATION, AND BACKFILL	412	LIN. FT.
*	SP	SANITARY CAMPSITE SUMP HATCH CAP AND INSTALLATION	4	EACH
*	SP	SANITARY DUAL CLEANOUT ASSEMBLY AND INSTALLATION	1	EACH

* FOR INFORMATION ONLY
TO BE PAID FOR AS SITE UTILITIES (SEE SPRINGHILL PARK MEASUREMENT AND PAYMENT SPECIAL PROVISION)

FOR INFORMATION ONLY
QUANTITY SHEETS
SPRINGHILL PARK DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	199	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024

EXISTING SURFACE
10'-0"
1.5" MILL AND ASPHALT OVERLAY
EXISITING SURFACE
1.5" ASPHALT OVERLAY

SECTION A-A
TRANSITION MILL ACHM OVERLAY DETAIL

4'-0"
4" (TYPICAL)
4'-4"
3'-4½"
1'R
1.0'
3'-0"
8.0' USUAL MATCH EXISTING WIDTHS
PARKING STALL MARKINGS
PARKING STALL MARKINGS

ACCESSIBLE PARKING SYMBOL
TYPICAL APPLICATION WHERE REQUIRED TO REPLACE EXISTING LOCATIONS
N.T.S.

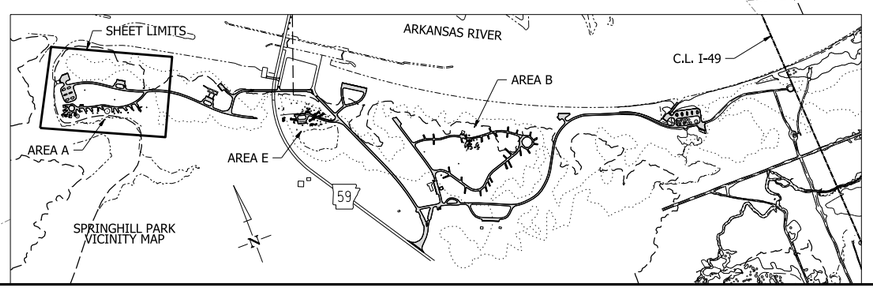
ARKANSAS RIVER
100 YEAR FLOODPLAIN BOUNDARY
100 YEAR FLOODPLAIN
LOCK AND DAM RD.
SPRINGHILL LOOP A
WOOD SHED
WOOD GARAGE
100 YEAR FLOODPLAIN BOUNDARY
100 YEAR FLOODPLAIN
MASSARD CREEK

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

MATCH LINE A

LEGEND
- CONSTRUCTION LIMITS
- DRAINAGE STRUCTURE
- ASPHALT OVERLAY (165 LB/SY)
- MILL AND ASPHALT OVERLAY
- FULL DEPTH PAVEMENT
- CONCRETE WHEELSTOP

NOTES:
1. 1.5" ASPHALT SURFACE OVERLAY AND TACK COAT TO BE APPLIED OVER EXISTING PAVEMENT WHERE NOTED.
2. ALL EXISITING CONCRETE WHEELSTOPS TO BE REMOVED PRIOR TO PAVING AND REPLACED AFTER PAVING IS COMPLETED.
3. SURVEY AND DOCUMENT THE LOCATION OF ALL EXISTING PAVEMENT MARKINGS AND DELINEATION PRIOR TO PAVING AND RESTORE ALL MARKINGS AND DELINEATION AFTER PAVING THE COMPLETE.

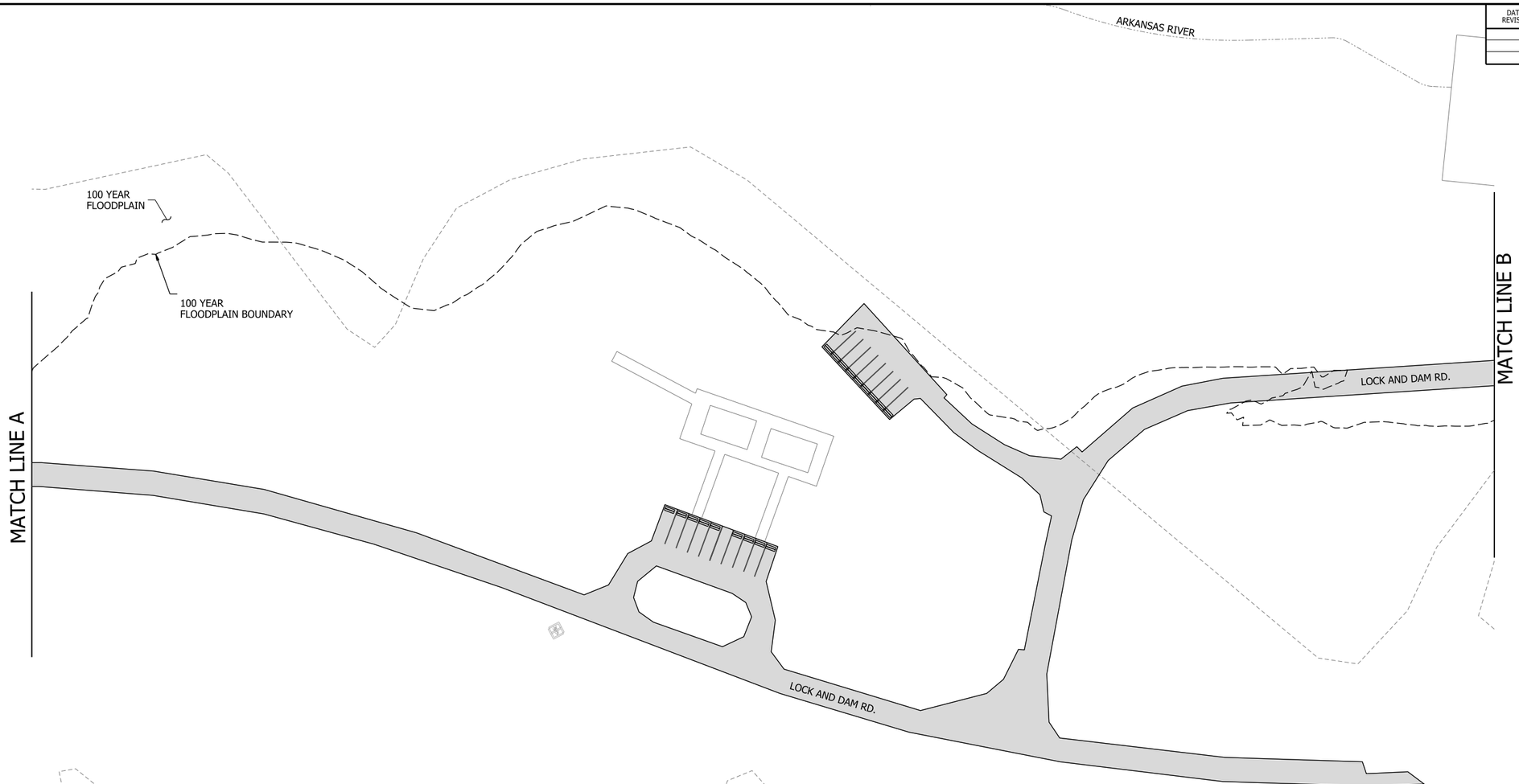


PAVEMENT PLAN
SPRINGHILL PARK DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	200	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024



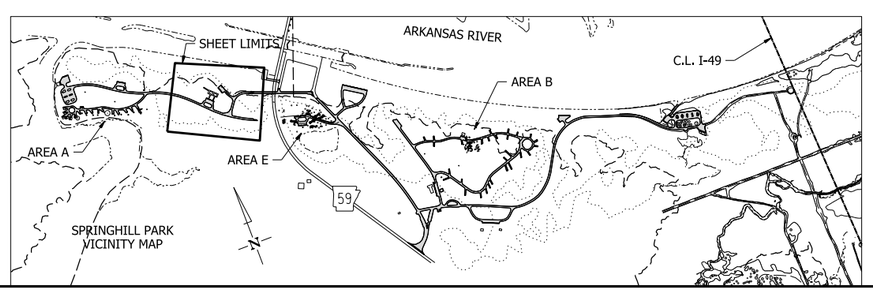
0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

LEGEND

- CONSTRUCTION LIMITS
- DRAINAGE STRUCTURE
- ASPHALT OVERLAY (165 LB/SY)
- MILL AND ASPHALT OVERLAY
- FULL DEPTH PAVEMENT
- CONCRETE WHEELSTOP

NOTES:

1. 1.5" ASPHALT SURFACE OVERLAY AND TACK COAT TO BE APPLIED OVER EXISTING PAVEMENT WHERE NOTED.
2. ALL EXISITING CONCRETE WHEELSTOPS TO BE REMOVED PRIOR TO PAVING AND REPLACED AFTER PAVING IS COMPLETED.
3. SURVEY AND DOCUMENT THE LOCATION OF ALL EXISTING PAVEMENT MARKINGS AND DELINEATION PRIOR TO PAVING AND RESTORE ALL MARKINGS AND DELINEATION AFTER PAVING THE COMPLETE.



PAVEMENT PLAN
SPRINGHILL PARK DETAILS

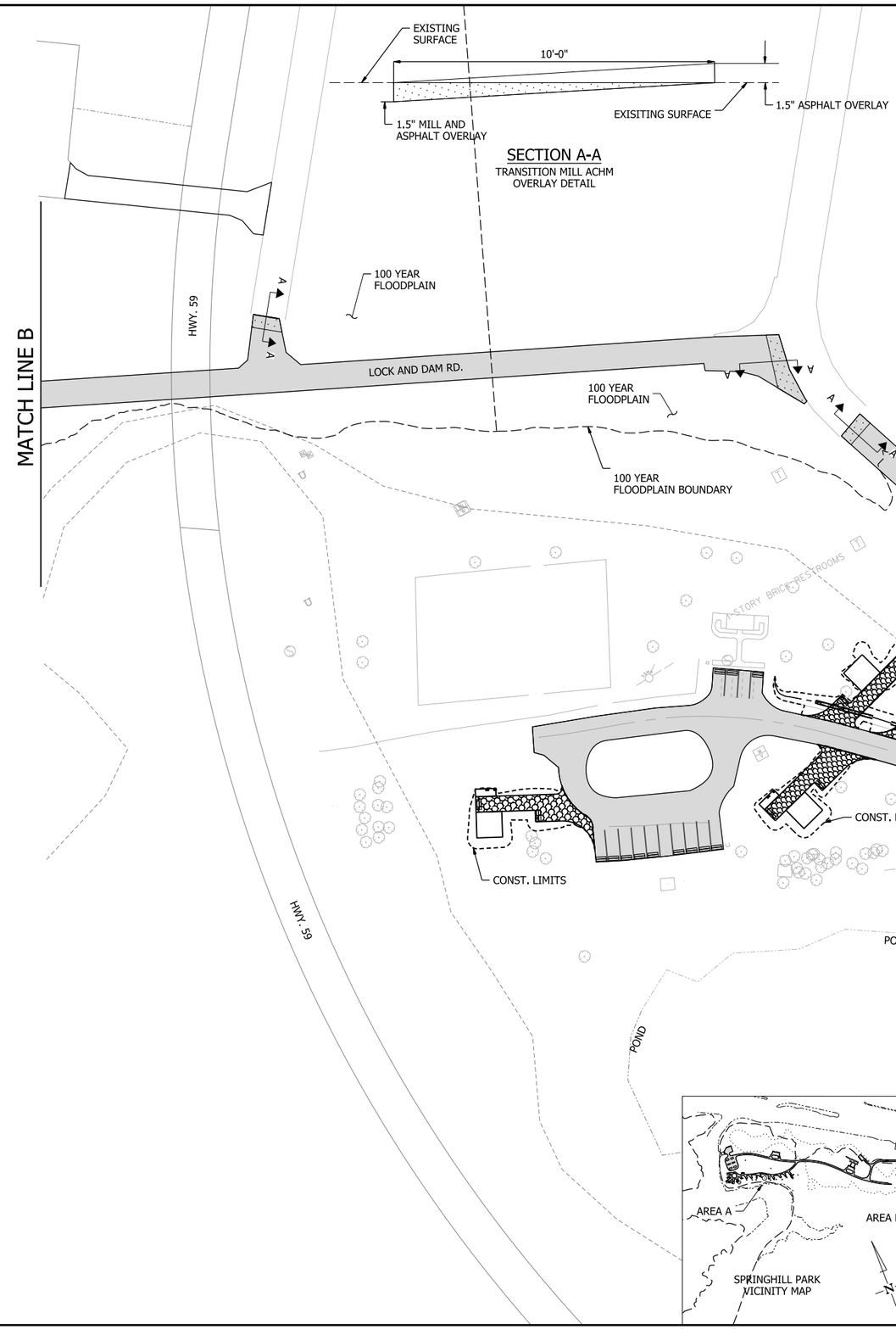
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DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	201	809

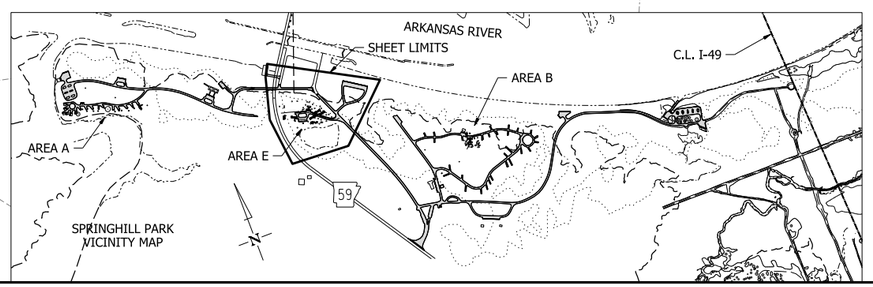
SPRINGHILL PARK DETAILS





NOTES:

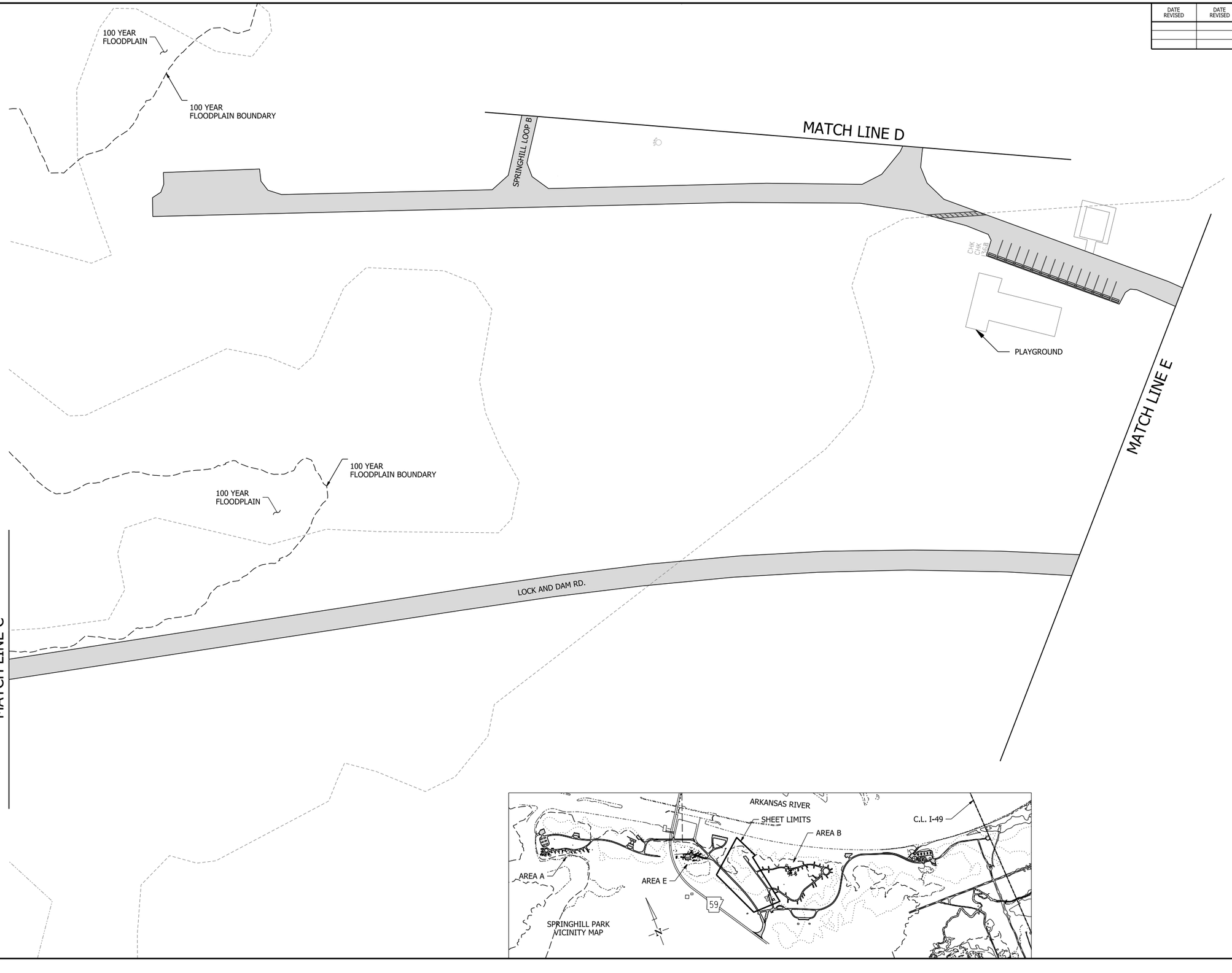
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3. SURVEY AND DOCUMENT THE LOCATION OF ALL EXISTING PAVEMENT MARKINGS AND DELINEATION PRIOR TO PAVING AND RESTORE ALL MARKINGS AND DELINEATION AFTER PAVING THE COMPLETE.
4. SEE SPRINGHILL PARK GRADING PLAN SPECIAL DETAILS FOR EROSION CONTROL DETAILS.



PAVEMENT PLAN
SPRINGHILL PARK DETAILS

4/15/2024 6:50:23 PM
R040901_16A_SITE_DETAILS_003

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	202	809
		SPRINGHILL PARK DETAILS				



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

LEGEND

- CONSTRUCTION LIMITS
- DRAINAGE STRUCTURE
- ASPHALT OVERLAY (165 LB/SY)
- MILL AND ASPHALT OVERLAY
- FULL DEPTH PAVEMENT
- CONCRETE WHEELSTOP

NOTES:

1. 1.5" ASPHALT SURFACE OVERLAY AND TACK COAT TO BE APPLIED OVER EXISTING PAVEMENT WHERE NOTED.
2. ALL EXISITING CONCRETE WHEELSTOPS TO BE REMOVED PRIOR TO PAVING AND REPLACED AFTER PAVING IS COMPLETED.
3. SURVEY AND DOCUMENT THE LOCATION OF ALL EXISTING PAVEMENT MARKINGS AND DELINEATION PRIOR TO PAVING AND RESTORE ALL MARKINGS AND DELINEATION AFTER PAVING THE COMPLETE.

PAVEMENT PLAN
SPRINGHILL PARK DETAILS

4/15/2024 6:50:27 PM
R040901_16A_SITE_DETAILS_004

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	203	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
4/17/2024

MATCH LINE D

100 YEAR FLOODPLAIN

100 YEAR FLOODPLAIN BOUNDARY

CONST. LIMITS

PROP. SIDEWALK

SPRINGHILL LOOP B

EXISTING SURFACE

10'-0"

1.5" MILL AND ASPHALT OVERLAY

EXISITING SURFACE

1.5" ASPHALT OVERLAY

SECTION A-A
TRANSITION MILL ACHM OVERLAY DETAIL

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

LEGEND

- CONSTRUCTION LIMITS
- DRAINAGE STRUCTURE
- ASPHALT OVERLAY (165 LB/SY)
- MILL AND ASPHALT OVERLAY
- FULL DEPTH PAVEMENT
- CONCRETE WHEELSTOP

NOTES:

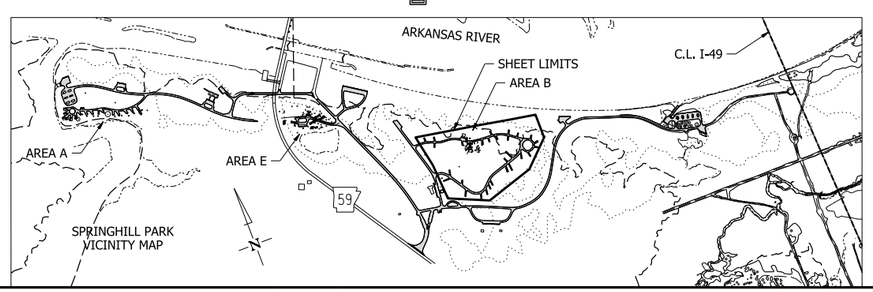
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3. SURVEY AND DOCUMENT THE LOCATION OF ALL EXISTING PAVEMENT MARKINGS AND DELINEATION PRIOR TO PAVING AND RESTORE ALL MARKINGS AND DELINEATION AFTER PAVING THE COMPLETE.
4. SEE SPRINGHILL PARK GRADING PLAN SPECIAL DETAILS FOR EROSION CONTROL DETAILS.

MATCH LINE D

100 YEAR FLOODPLAIN

100 YEAR FLOODPLAIN BOUNDARY

SPRINGHILL LOOP B



SPRINGHILL PARK VICINITY MAP

PAVEMENT PLAN
SPRINGHILL PARK DETAILS

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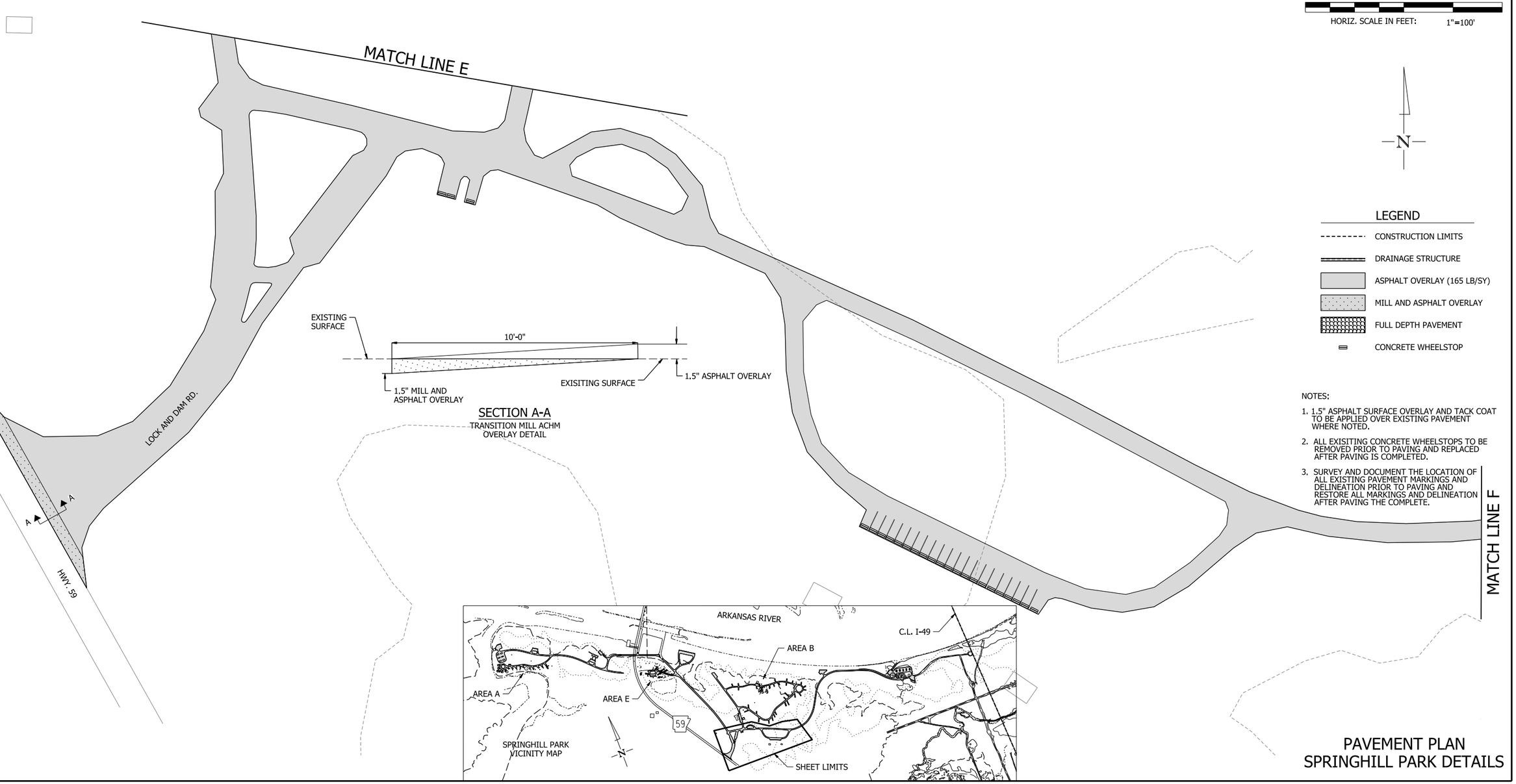
DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	204	809

SPRINGHILL PARK DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

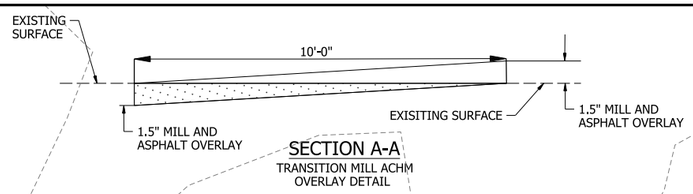
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HORIZ. SCALE IN FEET: 1"=100'



PAVEMENT PLAN
SPRINGHILL PARK DETAILS

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R040901_16A_SITE_DETAILS_006

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	205	809
		SPRINGHILL PARK DETAILS				



SECTION A-A
TRANSITION MILL ACHM OVERLAY DETAIL

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19907
JOSIAH F. BELVEAL
Josiah F. Belveal
4/17/2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

MATCH LINE F

100 YEAR FLOODPLAIN

100 YEAR FLOODPLAIN BOUNDARY

ARKANSAS RIVER

McALLISTER CEMETERY

100 YEAR FLOODPLAIN

100 YEAR FLOODPLAIN BOUNDARY

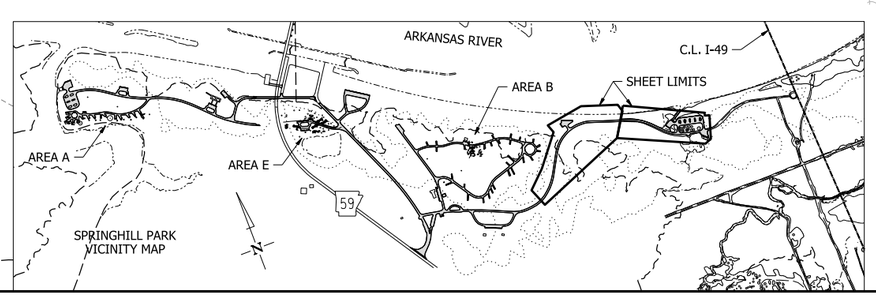
MATCH LINE G

ARKANSAS RIVER

MATCH LINE G

100 YEAR FLOODPLAIN BOUNDARY

100 YEAR FLOODPLAIN



SPRINGHILL PARK VICINITY MAP

LEGEND

- CONSTRUCTION LIMITS
- DRAINAGE STRUCTURE
- ASPHALT OVERLAY (165 LB/SY)
- MILL AND ASPHALT OVERLAY
- FULL DEPTH PAVEMENT
- CONCRETE WHEELSTOP

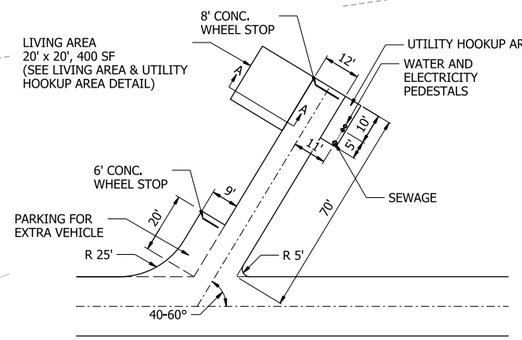
NOTES:

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2. ALL EXISITING CONCRETE WHEELSTOPS TO BE REMOVED PRIOR TO PAVING AND REPLACED AFTER PAVING IS COMPLETED.
3. SURVEY AND DOCUMENT THE LOCATION OF ALL EXISTING PAVEMENT MARKINGS AND DELINEATION PRIOR TO PAVING AND RESTORE ALL MARKINGS AND DELINEATION AFTER PAVING THE COMPLETE.

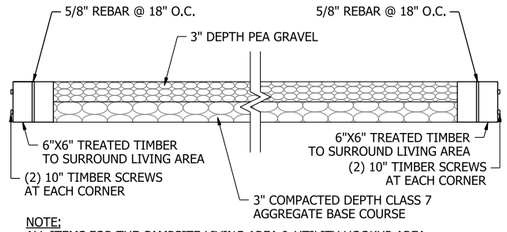
PAVEMENT PLAN
SPRINGHILL PARK DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		SPRINGHILL PARK DETAILS				

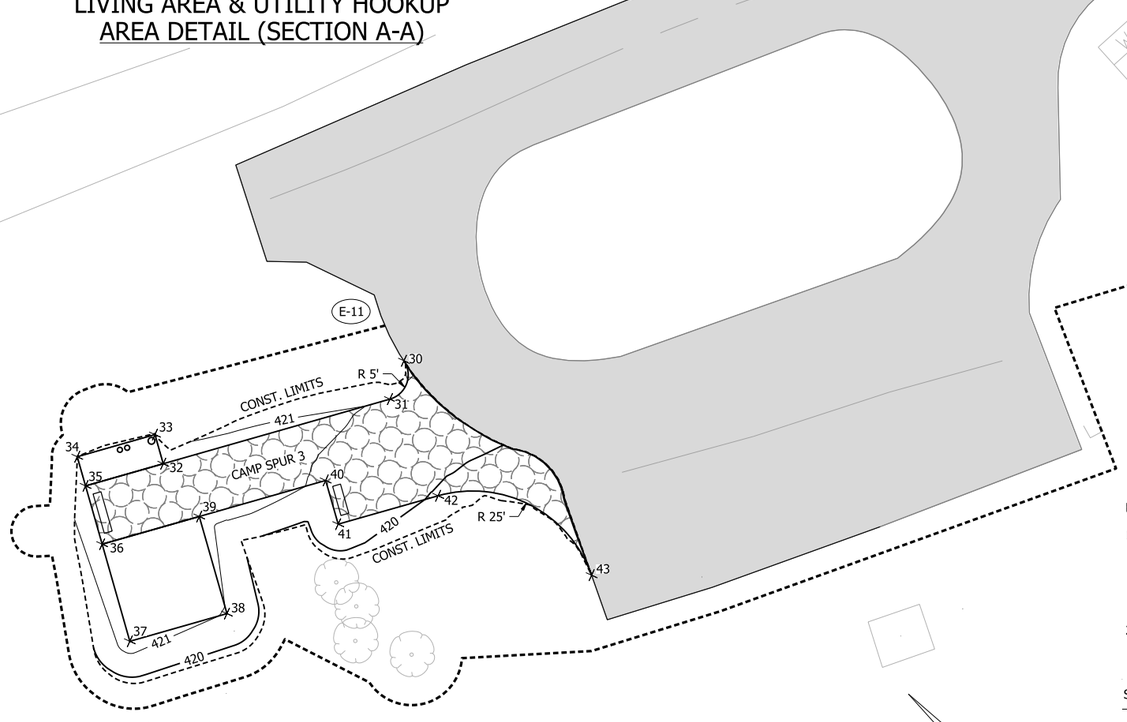


TYPICAL BACK-IN CAMPSITE

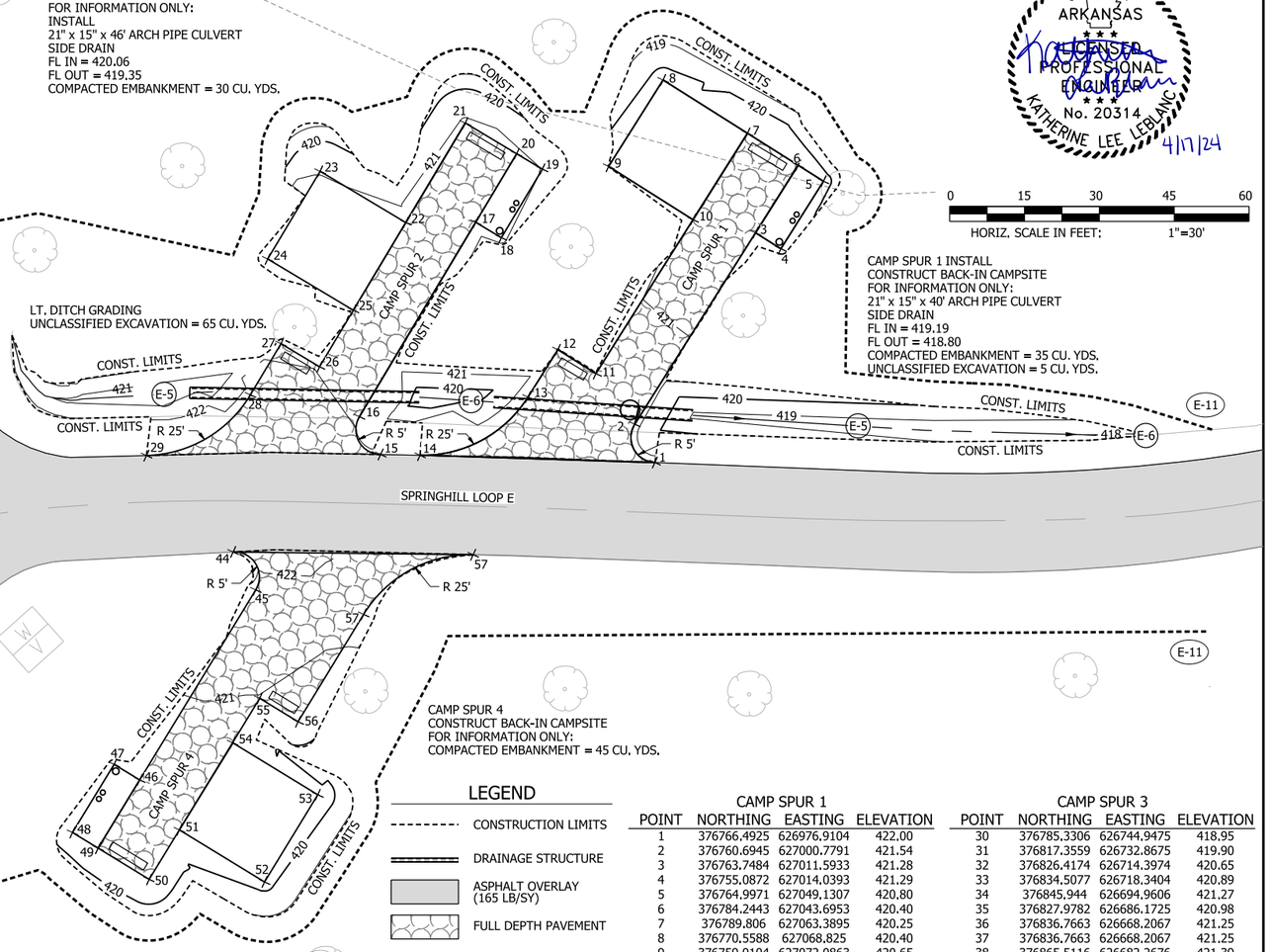


NOTE:
ALL ITEMS FOR THE CAMPSITE LIVING AREA & UTILITY HOOKUP AREA SHALL BE CONSIDERED SUBSIDIARY TO SPRINGHILL SITE LANDSCAPING

LIVING AREA & UTILITY HOOKUP AREA DETAIL (SECTION A-A)



CAMP SPUR 3
CONSTRUCT BACK-IN CAMPSITE
FOR INFORMATION ONLY:
COMPACTED EMBANKMENT = 65 CU. YDS.



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
KATHERINE LEE LEBLANC
No. 20314
4/17/24

0 15 30 45 60
HORIZ. SCALE IN FEET: 1"=30'

LEGEND

- CONSTRUCTION LIMITS
- DRAINAGE STRUCTURE
- ASPHALT OVERLAY (165 LB/SY)
- FULL DEPTH PAVEMENT
- CONCRETE WHEELSTOP
- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-11) SILT FENCE

EROSION CONTROL NOTES:

1. EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION. DEVICES PLACED IN PREVIOUS STAGES TO REMAIN ARE DISPLAYED HALF-TONED.
2. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

SAND BAG DITCH CHECK	(E-5)	EACH 2
ROCK DITCH CHECK	(E-6)	EACH 2
SILT FENCE	(E-11)	LIN. FT. 1331

NOTES:

1. THE CONTRACTOR IS REQUIRED TO NOTIFY THE ONE CALL CENTER AT 1-800-482-8998 48 HOURS PRIOR TO DIGGING SO THAT UNDEGROUND UTILITIES IN THE AREA CAN BE LOCATED.
2. THE LOCATION OF KNOWN SUBSURFACE STRUCTURES, UTILITY PIPING, GAS, FIBER, ETC. ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE AND OBTAIN FURTHER INFORMATION ON THE LOCATION OF SUBSURFACE STRUCTURES SHOWN AND NOT SHOWN. ALL REPAIRS TO DAMAGED UNDERGROUND STRUCTURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. ALL ITEMS DISTURBED DURING CONSTRUCTION, STREETS, DRIVES, FENCES, ETC. SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST OF REPAIRS IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. PAVEMENT DESIGN FOR THE CAMPGROUND SPURS SHALL CONFORM TO ARDOT'S DRIVEWAY PAVEMENT DESIGNS, SEE ARDOT STANDARD DRAWING DR-1.

CAMP SPUR 1

POINT	NORTHING	EASTING	ELEVATION
1	376766.4925	626976.9104	422.00
2	376760.6945	627000.7791	421.54
3	376763.7484	627011.5933	421.28
4	376755.0872	627014.0393	421.29
5	376764.9971	627049.1307	420.80
6	376784.2443	627043.6953	420.40
7	376789.806	627063.3895	420.25
8	376770.5588	627068.825	420.40
9	376759.0104	627072.0863	420.65
10	376753.2363	627073.7169	420.53
11	376748.888	627058.3193	420.65
12	376754.6621	627056.6885	420.77
13	376742.34	627013.0553	421.27
14	376733.9454	627010.9265	421.25

CAMP SPUR 2

POINT	NORTHING	EASTING	ELEVATION
15	376803.1186	626936.1158	422.74
16	376798.2273	626959.7187	422.39
17	376801.7431	626971.1368	421.98
18	376793.1426	626973.7887	421.97
19	376797.0305	626986.3976	421.60
20	376816.1426	626980.5046	421.41
21	376822.1725	627000.0605	420.88
22	376803.0604	627005.9536	421.28
23	376809.9117	627028.157	421.11
24	376798.4445	627031.6928	421.11
25	376792.7109	627033.4611	420.99
26	376787.9955	627018.172	421.11
27	376793.7289	627016.4035	421.23
28	376780.3596	626973.0408	421.96
29	376771.8892	626971.1386	422.12

CAMP SPUR 3

POINT	NORTHING	EASTING	ELEVATION
30	376785.3306	626744.9475	418.95
31	376817.3559	626732.8675	419.90
32	376826.4174	626714.3974	420.65
33	376834.5077	626718.3404	420.89
34	376845.944	626694.9606	421.27
35	376827.9782	626686.1725	420.98
36	376836.7663	626668.2067	421.25
37	376836.7663	626668.2067	421.25
38	376865.5116	626682.2676	421.39
39	376870.9013	626684.9041	421.39
40	376863.871	626699.2765	421.26
41	376858.4811	626696.6403	421.32
42	376837.9716	626738.5687	420.94
43	376841.762	626745.7163	421.20

CAMP SPUR 4

POINT	NORTHING	EASTING	ELEVATION
44	376777.1416	626936.1112	422.31
45	376768.4614	626934.3969	421.82
46	376755.7132	626891.6438	420.63
47	376761.463	626889.929	420.51
48	376756.8911	626874.5964	420.39
49	376751.1412	626876.3107	420.51
50	376739.6415	626879.7397	420.51
51	376742.9587	626890.8644	420.59
52	376723.7926	626896.5794	420.19
53	376729.6403	626916.1906	420.35
54	376748.8064	626910.4757	420.75
55	376748.8064	626910.4757	420.75
56	376743.1599	626923.0355	420.79
57	626947.1813	626947.1813	421.63
58	376744.5683	626971.5004	421.69

CAMPSITE AREA E GRADING PLAN SPRINGHILL PARK DETAILS

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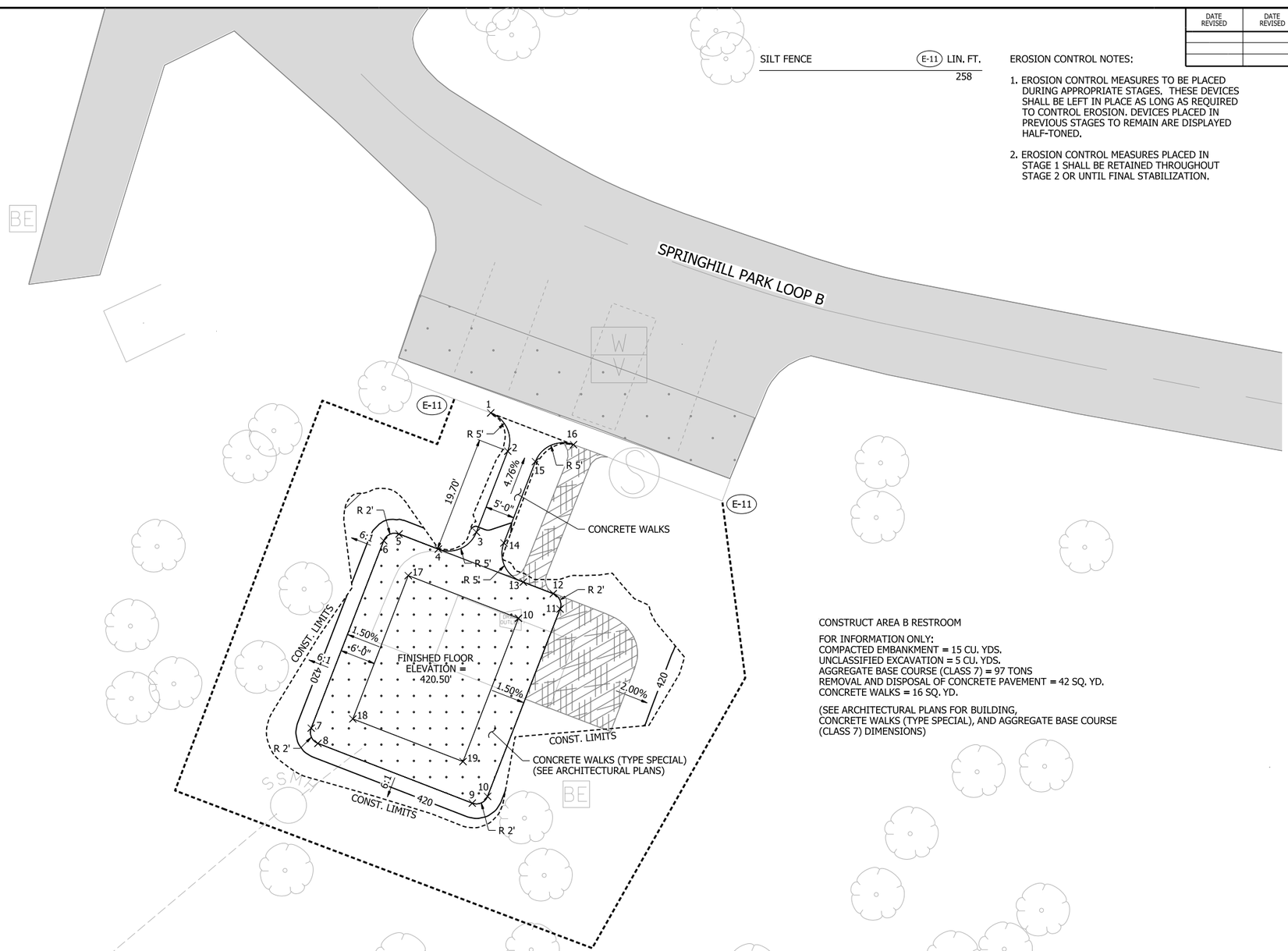
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	207	809
		SPRINGHILL PARK DETAILS				

SILT FENCE (E-11) LIN. FT. 258

EROSION CONTROL NOTES:

1. EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION. DEVICES PLACED IN PREVIOUS STAGES TO REMAIN ARE DISPLAYED HALF-TONED.
2. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 20314 KATHERINE LEE LEBLANC 4/17/24



0 10 20 30 40
HORIZ. SCALE IN FEET: 1"=20'

N

LEGEND
- CONSTRUCTION LIMITS
- ASPHALT OVERLAY (165 LB/SY)
- (E-11) SILT FENCE
- R&D OF PAVEMENT

CONSTRUCT AREA B RESTROOM

FOR INFORMATION ONLY:
COMPACTED EMBANKMENT = 15 CU. YDS.
UNCLASSIFIED EXCAVATION = 5 CU. YDS.
AGGREGATE BASE COURSE (CLASS 7) = 97 TONS
REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT = 42 SQ. YD.
CONCRETE WALKS = 16 SQ. YD.

(SEE ARCHITECTURAL PLANS FOR BUILDING, CONCRETE WALKS (TYPE SPECIAL), AND AGGREGATE BASE COURSE (CLASS 7) DIMENSIONS)

NOTES:

1. THE CONTRACTOR IS REQUIRED TO NOTIFY THE ONE CALL CENTER AT 1-800-482-8998 48 HOURS PRIOR TO DIGGING SO THAT UNDERGROUND UTILITIES IN THE AREA CAN BE LOCATED.
2. THE LOCATION OF KNOWN SUBSURFACE STRUCTURES, UTILITY PIPING, GAS, FIBER, ETC. ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE AND OBTAIN FURTHER INFORMATION ON THE LOCATION OF SUBSURFACE STRUCTURES SHOWN AND NOT SHOWN. ALL REPAIRS TO DAMAGED UNDERGROUND STRUCTURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. ALL ITEMS DISTURBED DURING CONSTRUCTION, STREETS, DRIVES, FENCES, ETC. SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST OF REPAIRS IS THE RESPONSIBILITY OF THE CONTRACTOR.

AREA B RESTROOM

POINT	NORTHING	EASTING	ELEVATION
1	375752.1941	628501.0286	419.27
2	375745.7211	628503.8998	419.47
3	375732.0177	628498.5950	420.17
4	375729.1553	628492.1391	420.41
5	375731.7063	628485.4987	420.41
6	375730.5632	628482.9116	420.41
7	375698.8562	628470.6372	420.41
8	375696.2690	628471.7803	420.41
9	375686.1607	628497.8920	420.41
10	375687.3038	628500.4791	420.41
11	375719.0108	628512.7535	420.41
12	375721.5980	628511.6104	420.41
13	375723.5653	628506.5283	420.41
14	375730.1955	628503.2512	420.17
15	375743.9562	628508.5782	419.47
16	375746.8192	628515.0326	419.29
17	375724.6669	628487.0629	420.50
18	375700.4203	628477.6766	420.50
19	375693.2001	628496.3278	420.50
20	375717.4466	628505.7141	420.50

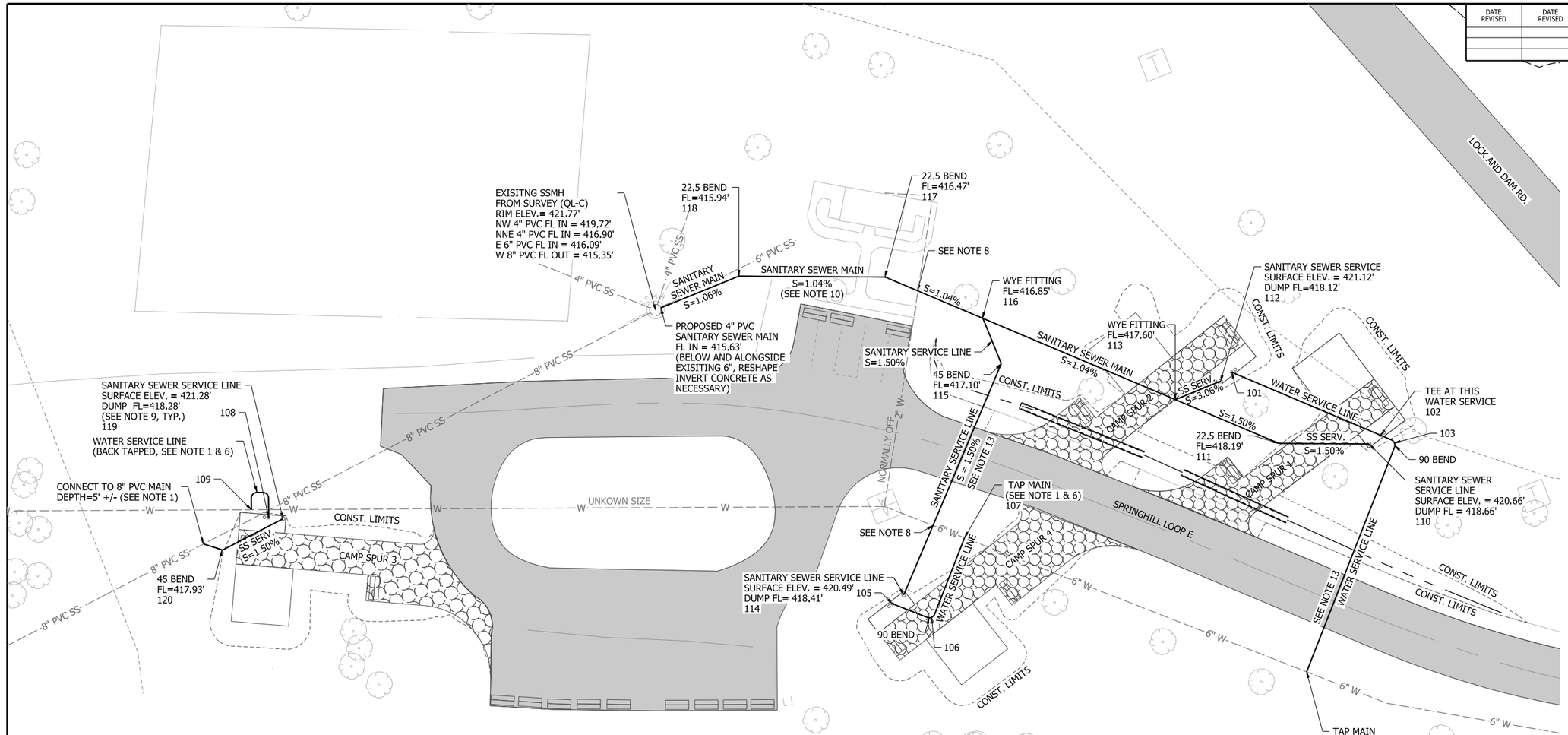
RESTROOM AREA B GRADING PLAN SPRINGHILL PARK DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	208	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20162
JOHN BLANCETT
4/17/2024

0 20 40 60 80
HORIZ. SCALE IN FEET: 1"=40



LEGEND

- CONSTRUCTION LIMITS
- DRAINAGE STRUCTURE
- SAWCUT
- ASPHALT OVERLAY (165 LB/SY)
- MILL AND ASPHALT OVERLAY
- FULL DEPTH PAVEMENT
- CONCRETE WHEELSTOP

NOTES:

1. POTHOLE THE EXISTING UTILITY PRIOR TO CROSSING OR CONNECTION, TO DETERMINE ACTUAL SEWER MAIN LOCATION AND TO ENSURE PROPOSED CLEARANCE OR FITMENT.
2. EMPLOY A CERTIFIED ARBORIST FOR EXCAVATION CONSULTATION AND PRUNING LIMBS OR ROOTS OF EXISTING TREES THAT ARE WITHIN THE CANOPY/DRIPLINE OF PROPOSED CONSTRUCTION.
3. MATERIALS AND EQUIPMENT STORAGE IS NOT PERMITTED WITHIN THE CANOPY OF THE EXISTING TREES.
4. WATER PIPE AND FITTINGS SHALL BE MADE OF 1" IPS SCHEDULE 40 PVC SOLVENT WELDED JOINTS AS DEFINED IN ASTM D1785 AND NSF61 CERTIFIED FOR POTABLE USE. MINIMUM COVER 3FT THROUGHOUT. INSTALL WATER FAUCET PEDESTAL (SEE DETAIL ON NEXT SHEET) AT LOCATION POINTS 101,102,105 AND 108.
5. DISINFECT AND TEST ALL PROPOSED WATERLINES IN ACCORDANCE WITH AWWA REQUIREMENTS.
6. TAPPING SADDLES ARE PERMITTED WATER SERVICE LINE CONNECTIONS. TAPPING SADDLES SHALL BE STAINLESS ROBAR 2616 OR APPROVED EQUAL. AND WITHIN 4FT OF TAP, ON WATER SERVICE LINE, INSTALL A PVC BALL VALVE AND INSTALL AN ACCESSIBLE POLYLOK RISER OR APPROVED EQUAL, WITH LID (SET TO GRADE).
7. SANITARY SEWER PIPE AND FITTINGS SHALL BE MADE OF 4" PVC SDR26 PLASTIC PIPE AS DEFINED IN ASTM D 2241 OR ASTM D 3034. JOINTS SHALL BE OF A PUSH-ON TYPE WITH A BELL-END GROOVED TO RECEIVE A SYNTHETIC RUBBER GASKET. SOLVENT WELDED JOINTS ARE NOT ALLOWED. THE JOINT SHALL BE IN ACCORDANCE WITH ASTM D 3212.
8. INSTALL SANITARY SEWER PIPE WITH MID-POINT OF PIPE SEGMENT AT WATERLINE CROSSING AND ENCAPSULATE SEWER SEGMENT IN 12"X12" LOW STRENGTH CONCRETE, IN-LIEU OF BEDDING.
9. CAMPSITE DUMP HATCH CAP FOR THE SANITARY SEWER SHALL BE A OPW 4" #269-0085 OR APPROVED EQUAL.
10. INSTALL DUAL CLEANOUT ASSEMBLY (SEE DETAIL NEXT SHEET) NEAR MID-POINT OF THIS SANITARY PIPE EXTENT.
11. WATER AND SANITARY PIPE BEDDING SHALL BE PEA GRAVEL OR SAND WITH THE EXTENTS AS: THE TRENCH WIDTH, 2" ABOVE AND 2" BELOW THE PIPE.
12. COORDINATES FOR LOCATION POINT NUMBERS 101 THROUGH 120 ARE SHOWN ON THE NEXT SHEET. COORDINATES FOR RADIUSED WATERLINE BENDS ARE AT THE POINT OF INTERSECTION NOT ON THE ARC/PIPE ITSELF.
13. REPAIR ASPHALT WHEN TRENCHING, OR BORE UNDER ROADWAY, AT SERVICE LINE CROSSINGS.

NOTES:

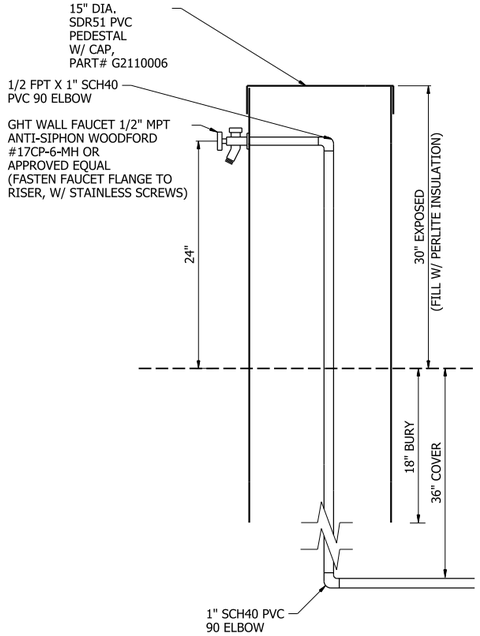
1. THE CONTRACTOR IS REQUIRED TO NOTIFY THE ONE CALL CENTER AT 1-800-482-8998 48 HOURS PRIOR TO DIGGING SO THAT UNDEGROUND UTILITIES IN THE AREA CAN BE LOCATED.
2. THE LOCATION OF KNOWN SUBSURFACE STRUCTURES, UTILITY PIPING, GAS, FIBER, ETC. ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE AND OBTAIN FURTHER INFORMATION ON THE LOCATION OF SUBSURFACE STRUCTURES SHOWN AND NOT SHOWN. ALL REPAIRS TO DAMAGED UNDERGROUND STRUCTURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. ALL ITEMS DISTURBED DURING CONSTRUCTION, STREETS, DRIVES, FENCES, ETC. SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST OF REPAIRS IS THE RESPONSIBILITY OF THE CONTRACTOR.

CAMPSITE AREA E
WATER SUPPLY AND SANITARY SEWER
SPRINGHILL PARK DETAILS

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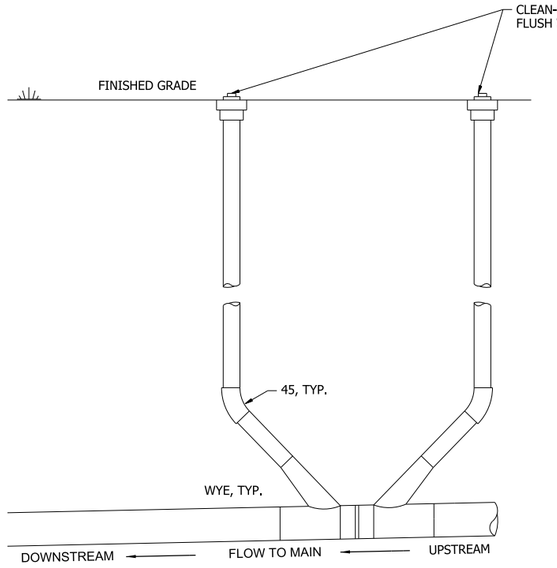
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	209	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20162
JOHN BLANCETT
4/17/2024



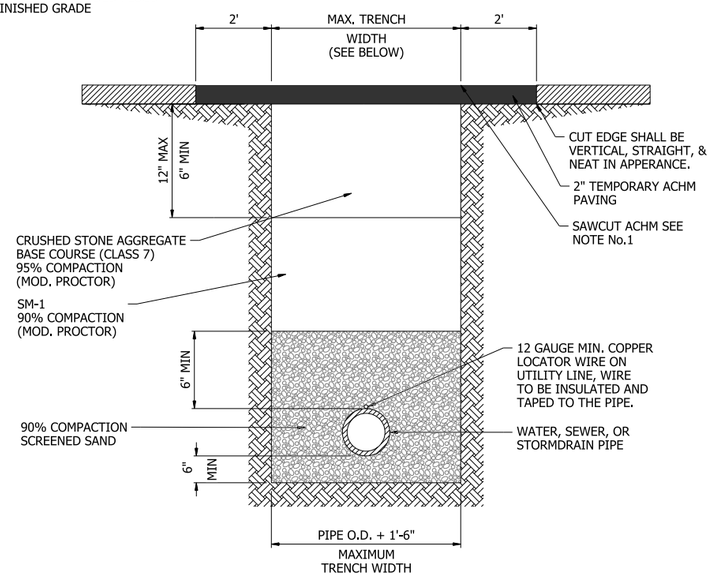
WATER FAUCET PEDESTAL

N.T.S.



DUAL CLEANOUT

N.T.S.



TEMPORARY TRENCH REPAIR

N.T.S.

WATER & SANITARY COORDINATES

POINT	NORTHING	EASTING
101	376790.7193	627023.6106
102	376751.4809	627063.8215
103	376747.2905	627068.1158
104	376684.3240	627009.9490
105	376758.7903	626884.4652
106	376748.6119	626895.4834
107	376770.9780	626916.1446
108	376865.6090	626693.4476
109	376870.3383	626688.8392
110	376750.1220	627059.0097
111	376761.7362	627029.8823
112	376789.2457	627018.8326
113	376789.0204	627001.8636
114	376760.2190	626889.2567
115	376822.6885	626950.0884
116	376839.6576	626949.8630
117	376865.3613	626923.4673
118	376884.2044	626876.2102
119	376863.4120	626697.9390
120	376860.9427	626674.4456

NOTES:

1. WHEN A TEMPORARY PATCH IS USED, THE INITIAL WIDTH OF THE SAWCUT SHALL BE NO GREATER THAN THAT NECESSARY TO CONDUCT THE EXCIVATION.
2. THE FINISHED SURFCE OF THE TEMPORARY PATCH SHALL, IN ALL CASES, BE LEVEL WITH, OR NO GREATER THAN $\frac{1}{2}$ INCH ABOVE THE ADJACENT GRADE OF THE EXISTING STREET.
3. A TEMPORARY PATCH WILL BE MONITORED ON A DAILY BASIS AND SHALL BE IMMEDIATELY RESTORED TO STANDARD AS IT COMPACTS.
4. IN NO CASE SHALL, A TEMPORARY PATCH BE LEFT WITHOUT PERMANENT REPAIR FOR MORE THAN 30 CALENDER DAYS, THE PERIOD OF THE TEMPORARY PATCH MAY BE REDUCED AS DETERMINED BY THE CITY ENGINEER. SUCH AS IN THE CASE OF ARTERIAL STREETS OR THOSE SERVING HIGH TRAFFIC VOLUMES.
5. No. 12 AWG LOCATOR WIRE IS REQUIRED ON ALL WATER MAINS AND SERVICES, TAPED TO TOP OF PIPE (AND SEWER FORCE MAINS).

CAMPSITE AREA E
WATER SUPPLY AND SANITARY SEWER
SPRINGHILL PARK DETAILS

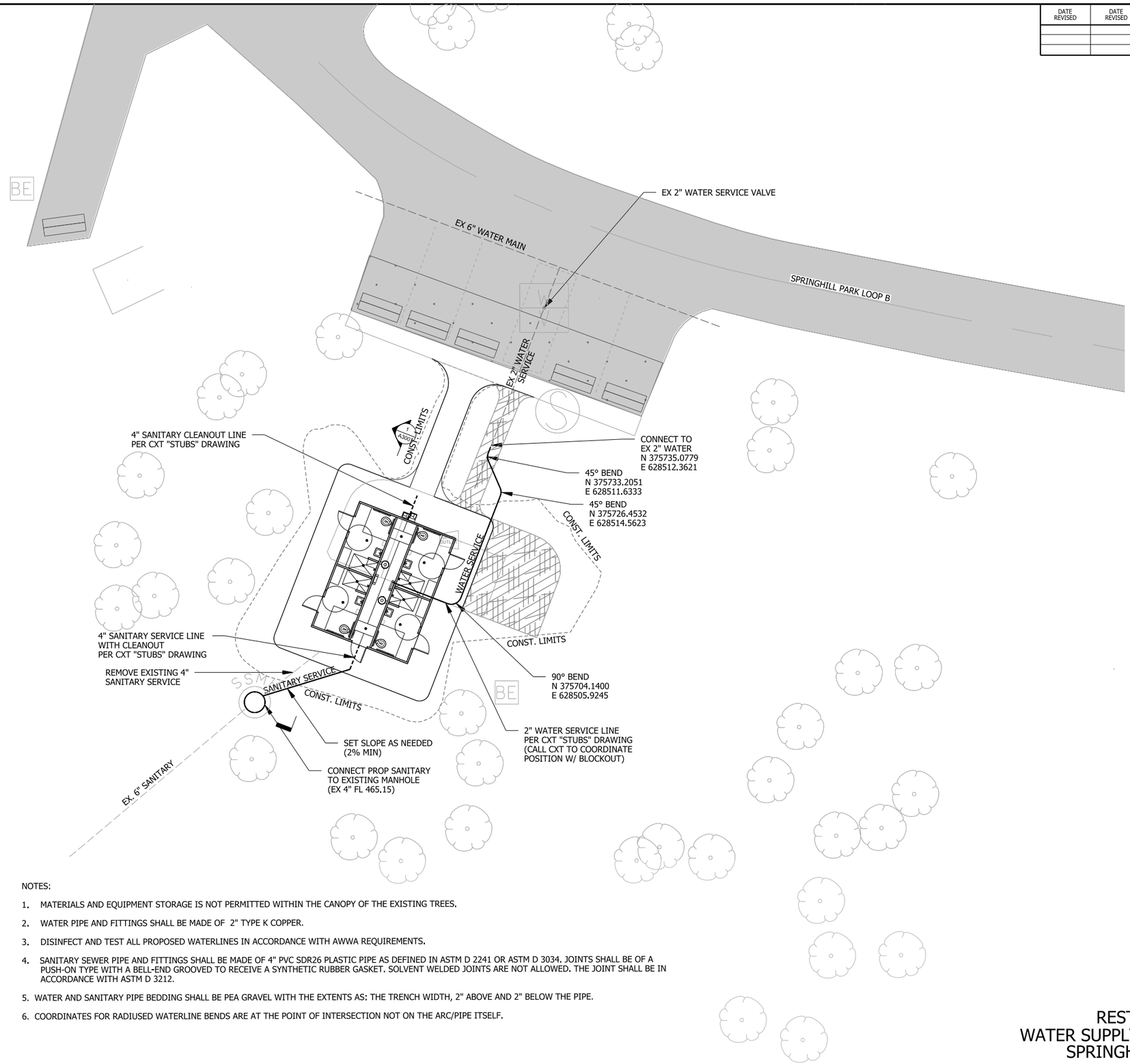
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DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	210	809

SPRINGHILL PARK DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20162
JOHN BLANCETT
4/17/2024



0 10 20 30 40

HORIZ. SCALE IN FEET: 1"=20'

N

LEGEND

- CONSTRUCTION LIMITS
- DRAINAGE STRUCTURE
- SAWCUT
- ASPHALT OVERLAY (165 LB/SY)
- MILL AND ASPHALT OVERLAY
- FULL DEPTH PAVEMENT
- CONCRETE WHEELSTOP

NOTES:

1. THE CONTRACTOR IS REQUIRED TO NOTIFY THE ONE CALL CENTER AT 1-800-482-8998 48 HOURS PRIOR TO DIGGING SO THAT UNDEGROUND UTILITIES IN THE AREA CAN BE LOCATED.
2. THE LOCATION OF KNOWN SUBSURFACE STRUCTURES, UTILITY PIPING, GAS, FIBER, ETC. ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE AND OBTAIN FURTHER INFORMATION ON THE LOCATION OF SUBSURFACE STRUCTURES SHOWN AND NOT SHOWN. ALL REPAIRS TO DAMAGED UNDERGROUND STRUCTURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. ALL ITEMS DISTURBED DURING CONSTRUCTION, STREETS, DRIVES, FENCES, ETC. SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST OF REPAIRS IS THE RESPONSIBILITY OF THE CONTRACTOR.

NOTES:

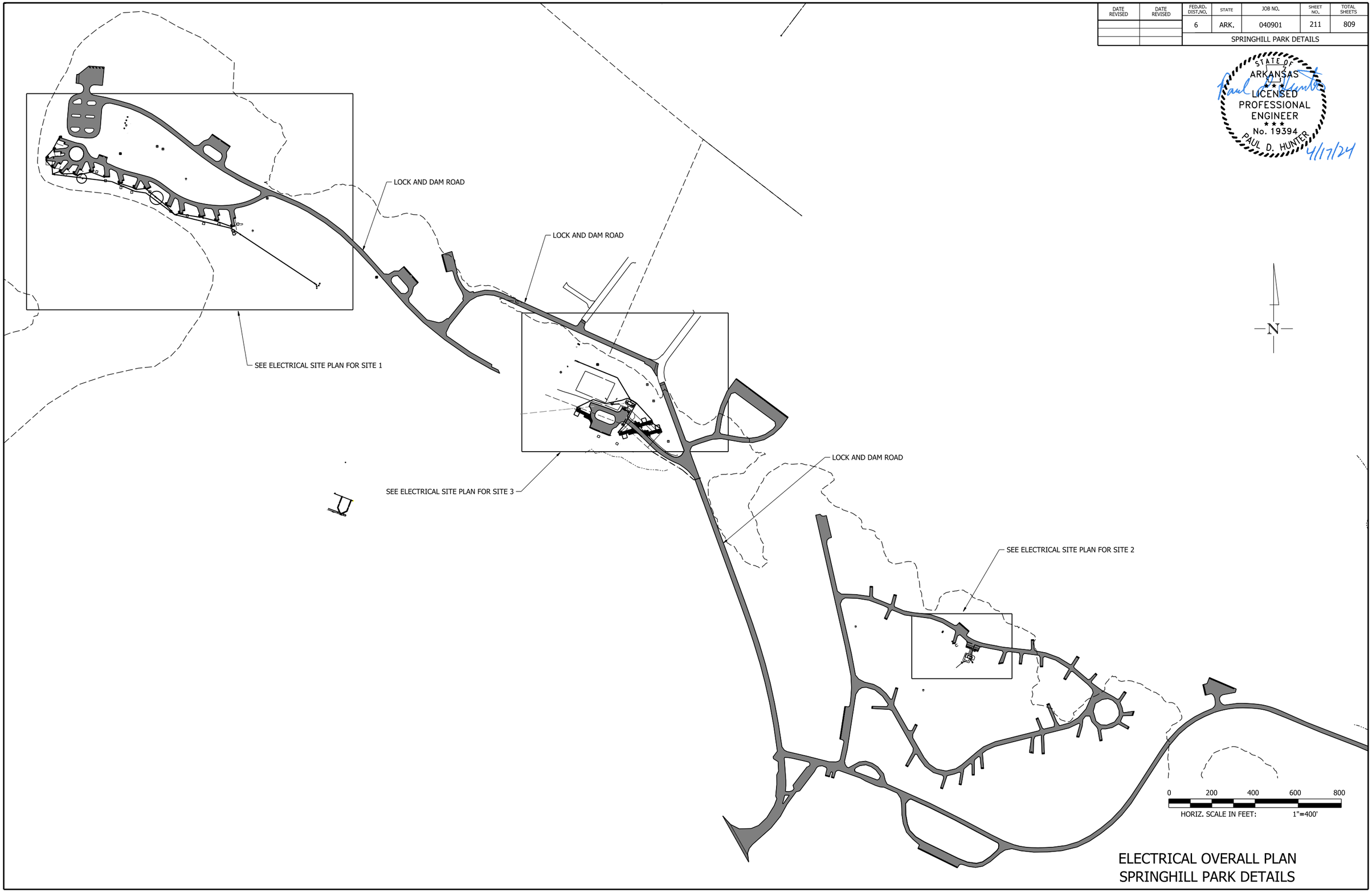
1. MATERIALS AND EQUIPMENT STORAGE IS NOT PERMITTED WITHIN THE CANOPY OF THE EXISTING TREES.
2. WATER PIPE AND FITTINGS SHALL BE MADE OF 2" TYPE K COPPER.
3. DISINFECT AND TEST ALL PROPOSED WATERLINES IN ACCORDANCE WITH AWWA REQUIREMENTS.
4. SANITARY SEWER PIPE AND FITTINGS SHALL BE MADE OF 4" PVC SDR26 PLASTIC PIPE AS DEFINED IN ASTM D 2241 OR ASTM D 3034. JOINTS SHALL BE OF A PUSH-ON TYPE WITH A BELL-END GROOVED TO RECEIVE A SYNTHETIC RUBBER GASKET. SOLVENT WELDED JOINTS ARE NOT ALLOWED. THE JOINT SHALL BE IN ACCORDANCE WITH ASTM D 3212.
5. WATER AND SANITARY PIPE BEDDING SHALL BE PEA GRAVEL WITH THE EXTENTS AS: THE TRENCH WIDTH, 2" ABOVE AND 2" BELOW THE PIPE.
6. COORDINATES FOR RADIUSED WATERLINE BENDS ARE AT THE POINT OF INTERSECTION NOT ON THE ARC/PIPE ITSELF.

RESTROOM AREA B
WATER SUPPLY AND SANITARY SEWER
SPRINGHILL PARK DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	211	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



ELECTRICAL OVERALL PLAN
SPRINGHILL PARK DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	212	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

RV POWER PEDESTAL LOCATE PER NEC 551.77 TYP.
CAMP SITE A16
CAMP SITE A15
CAMP SITE A14
CAMP SITE A13
CAMP SITE A10
CAMP SITE A9
CAMP SITE A8
CAMP SITE A7
CAMP SITE A6
CAMP SITE A5
CAMP SITE A4
CAMP SITE A3
CAMP SITE A2
CAMP SITE A1
CAMP SITE A11
CAMP SITE A12
TYPE 2 PULLBOX
PANELBOARD AND TRANSFORMER SEE ONE-LINE DIAGRAM AREA A, LOCATE TRANSFORMER AS HIGH AS PRACTICLE TO GET OUT OF FLOOD PLANE.
TYPE 2 PULLBOX
RV POWER PEDESTAL LOCATE PER NEC 551.77 TYP.
PANELBOARD AND TRANSFORMER SEE ONE-LINE DIAGRAM AREA A. LOCATE TRANSFORMER AS HIGH AS PRACTICLE TO GET OUT OF FLOOD PLANE.
TYPE 2 PULLBOX
RV POWER PEDESTAL LOCATE PER NEC 551.77 TYP.
LOCK AND DAM ROAD
LOCK AND DAM ROAD
TYPE 2 PULLBOX
SEE ONE-LINE DIAGRAM FOR WIRE SIZES TYP.
TYPE 2 PULLBOX
ELECTRICAL RACK SEE ONE-LINE DIAGRAM AND ELECTRICAL RACK DETAIL
EXISTING UTILITY POLE

N

ELECTRICAL SITE PLAN - SITE 1

GENERAL NOTES

1.REMOVE EXISTING 30 AMP POWER PEDESTALS, TRANSFORMERS, PANELBOARDS, AND SERVICE DISCONECTS.

2. INSTALL NEW DIRECT BURIED CONDUITS.

3. SEE ONE-LINE DIAGRAM, ELECTRICAL RACK, AND ELECTRICAL RACK AREA A DETAILS.

4. PULLBOXES SHALL BE THE SIZE AND TYPE AND INSTALLED AS DESCRIBED IN ARDOT STANDARD SPECIFICATIONS. DO NOT EXCEED 500FT BETWEEN PULLBOXES.

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

ELECTRICAL SITE PLAN
SPRINGHILL PARK DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	213	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

EXISTING METER POLE TO REMAIN

LOCK AND DAM ROAD

SEE ONE-LINE DIAGRAM FOR WIRE SIZES, TYP.

UTILITY POWER POLE WITH THREE TRANSFORMERS, PROPOSE TO REMOVE TRANSFORMERS AND INSTALL ONE 120/240V POLE MOUNTED TRANSFORMER. COORDINATE WITH UTILITY COMPANY.

TYPE 2 PULLBOX

PROPOSED ELECTRICAL RACK WITH CT CABINET AND METER, COORDINATE WITH UTILTY COMPANY O.G.&E. SEE ELECTRICAL RACK DETAIL (AREA E)

PROPOSED WATER LINE

EXISTING WATER LINE

EXISTING RESTROOM

TYPE 2 PULLBOX

ELECTRICAL RACK SEE ONE-LINE DIAGRAM AND ELECTRICAL RACK DETAIL

LOCATE RV POWER PEDESTAL PER NEC 551.77 TYP.

PROPOSED SEWER LINE

EXISTING SEWER LINE

PROPOSED SEWER LINE

CAMP SITE E3

CAMP SITE E2

LOCATE RV POWER PEDESTAL PER NEC 551.77 TYP.

CAMP SITE E1

CAMP SITE E4

PROPOSED WATER LINE

PROPOSED WATER LINE

LOCK AND DAM ROAD

N

GENERAL NOTES

1. PULLBOXES SHALL BE THE SIZE AND TYPE AND INSTALLED AS DESCRIBED IN ARDOT STANDARD SPECIFICATIONS. DO NOT EXCEED 500FT BETWEEN PULLBOXES.

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

ELECTRICAL SITE PLAN - SITE 3

SEE WATER SUPPLY AND SANITARY SEWER SHEETS FOR INFORMATION REGARDING EXISTING AND PROPOSED WATER AND SEWER LINES.

ELECTRICAL SITE PLAN
SPRINGHILL PARK DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	214	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

N

BE

S

EXISTING RESTROOM TO BE REMOVED AND REPLACED WITH NEW BUILDING REFER TO ARCHITECTURE DETAILS

SSMH

PROVIDE AND INSTALL NEW ELECTRICAL CIRCUIT TO RESTROOM 2" NON-METALLIC CONDUIT WITH 3-#3, #6G.,

EXISTING ELECTRICAL RACK, METER, AND 120/240V PANELBOARD TO REMAIN. CONNECT NEW RESTROOM CIRCUIT TO EXISTING 100AMP 2 POLE BREAKER IN PANELBOARD.

ELECTRICAL SITE PLAN - SITE 2

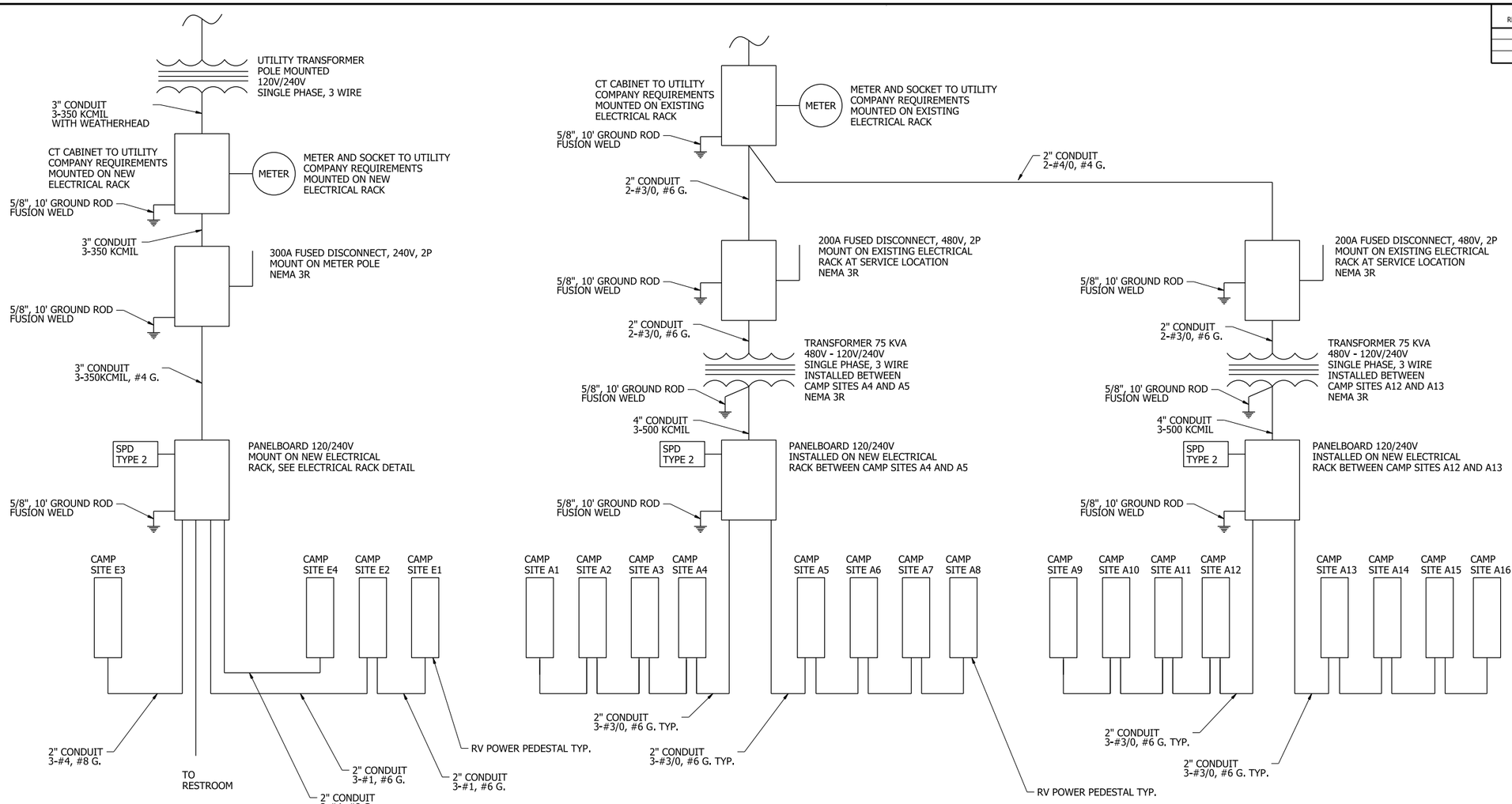
0 25 50 75 100
HORIZ. SCALE IN FEET: 1"=50'

ELECTRICAL SITE PLAN
SPRINGHILL PARK DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	215	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



ONE-LINE DIAGRAM FOR SITE 3

CONDUIT NOTES:
1. CONDUIT ON UTILITY POLE AND ABOVE GROUND SHALL BE GALVANIZED STEEL CONDUIT.
2. CONDUIT UNDERGROUND SHALL BE NON-METALLIC CONDUIT.

ONE-LINE DIAGRAM FOR SITE 1

CONDUIT NOTES:
1. CONDUIT ON UTILITY POLE AND ABOVE GROUND SHALL BE GALVANIZED STEEL CONDUIT.
2. CONDUIT UNDERGROUND SHALL BE NON-METALLIC CONDUIT.

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ELECTRICAL ONE-LINE DIAGRAMS
SPRINGHILL PARK DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	216	809
		SPRINGHILL PARK DETAILS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

DESIGNATION: AREA A (TWO PANELS REQUIRED)
VOLTAGE: 120/240, SINGLE PHASE — MAIN BREAKER: 400
MOUNTING: SURFACE-NEMA 3R — PANEL BUS: 400

CIRCUIT ID	CONN. WATTS	BKR AMP	BKR POLE	CKT NO.		BKR AMP	BKR POLE	CONN. WATTS	CIRCUIT ID
CAMP SITES 1,2,3,4 *	18000	200		1	2	200		18000	CAMP SITE 5,6,7,8 **
"	18000		2	3	4		2	18000	"
SPARE		70		5	6	70			SPARE
"			2	7	8		2		"
SPARE		70		9	10	70			SPARE
"			2	11	12		2		"
SPARE		70		13	14	70			SPARE
"			2	15	16		2		"
				17	18				
				19	20				
				21	22				
				23	24				
				25	26				
				27	28				
SURGE PROTECTION DEVICE	5	30		29	30				
"SPD"	5		2	31	32				

TOTAL PHASE A LOAD = 36005 VA = 300 AMPS
TOTAL PHASE B LOAD = 36005 VA = 300 AMPS

* NOTE: CAMP SITES 9, 10, 11, AND 12 FOR PANELBOARD NOT SHOWN

** NOTE: CAMP SITES 13, 14, 15, AND 16 FOR PANELBOARD NOT SHOWN

DESIGNATION: AREA E
VOLTAGE: 120/240, SINGLE PHASE — MAIN BREAKER: 300
MOUNTING: SURFACE-NEMA 3R — PANEL BUS: 400

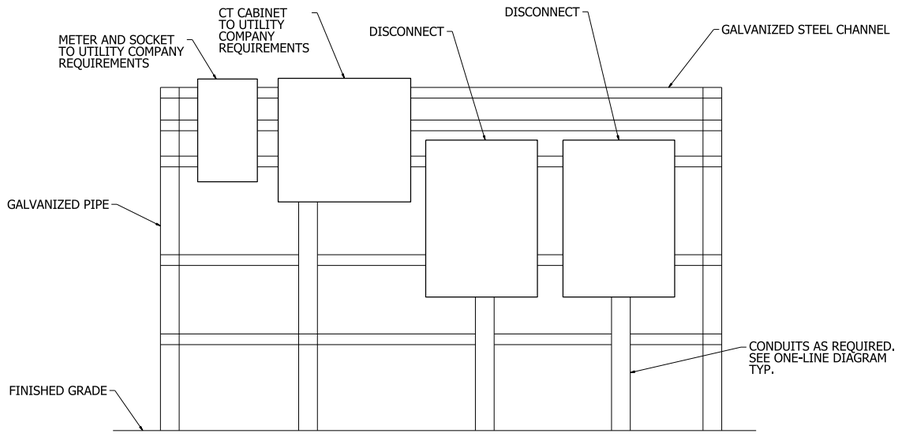
CIRCUIT ID	CONN. WATTS	BKR AMP	BKR POLE	CKT NO.		BKR AMP	BKR POLE	CONN. WATTS	CIRCUIT ID
CAMP SITES 1 & 2	12000	120		1	2	100		9600	RESTROOM
"	12000		2	3	4		2	9600	"
CAMP SITES 3	6000	70		5	6	100			SPARE
"	6000		2	7	8		2		"
CAMP SITE 4	6000	70		9	10	120			SPARE
"	6000		2	11	12		2		"
SPARE		70		13	14	70			SPARE
"			2	15	16		2		"
				17	18				
				19	20				
				21	22				
				23	24				
				25	26				
				27	28				
				29	30				
				31	32				
				33	34				
				35	36				
				37	38				
SURGE PROTECTION DEVICE	5	30		39	40				
"SPD"	5		2	41	42				

TOTAL PHASE A LOAD = 33605 VA = 280 AMPS
TOTAL PHASE B LOAD = 33605 VA = 280 AMPS

ELECTRICAL PANELBOARD SCHEDULES
SPRINGHILL PARK DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	217	809
		SPRINGHILL PARK DETAILS				

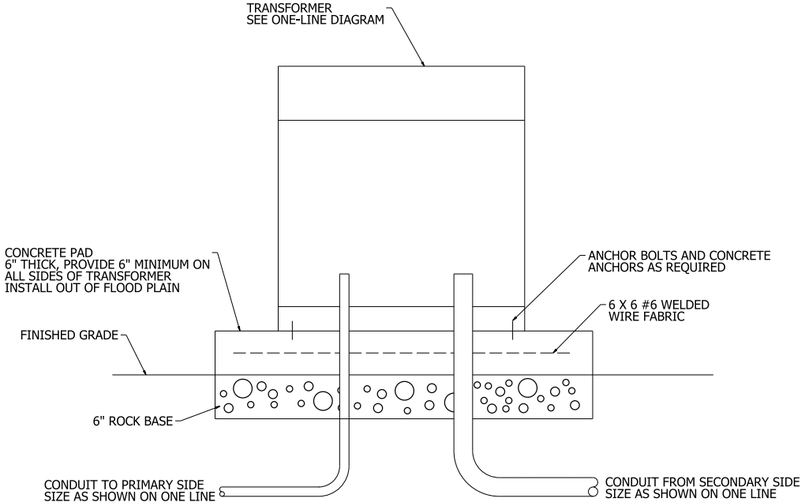
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



EXISTING ELECTRICAL RACK
INSTALL ALL NEW EQUIPMENT ON RACK
SEE ONE-LINE DIAGRAM

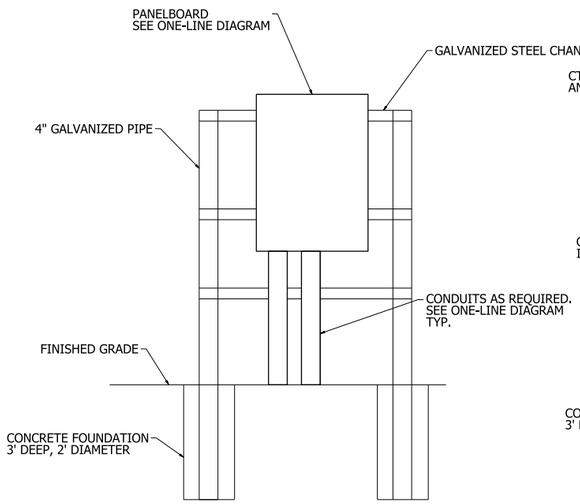
PROVIDE STAINLESS STEEL OR GALVANIZED HARDWARE BOLTS, WASHERS, NUTS, ETC.

ELECTRICAL RACK - SITE 1



NOTE: TWO TRANSFORMERS AND PADS REQUIRED FOR SITE 1

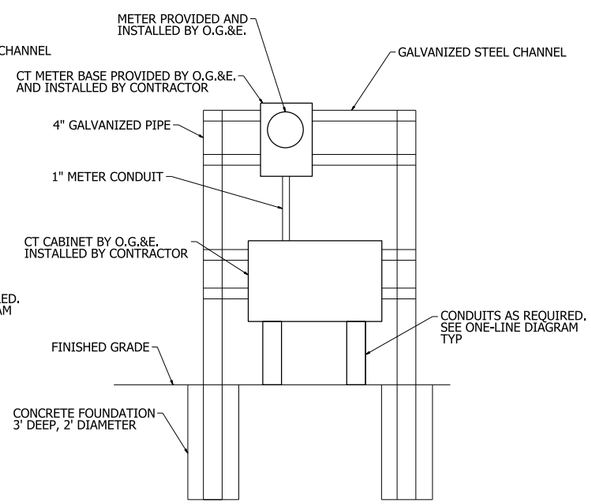
TRANSFORMER PAD



PROVIDE STAINLESS STEEL OR GALVANIZED HARDWARE BOLTS, WASHERS, NUTS, ETC.

ELECTRICAL RACK

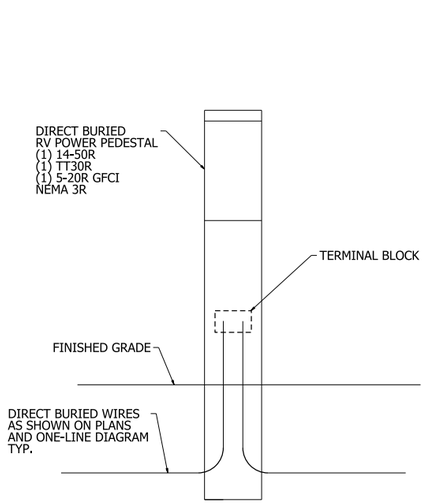
SITE 1 - TWO RACKS REQUIRED
SITE 3 - ONE RACK REQUIRED



PROVIDE STAINLESS STEEL OR GALVANIZED HARDWARE BOLTS, WASHERS, NUTS, ETC.

ELECTRICAL RACK

SITE 3 - ONE RACK REQUIRED



PROVIDE STAINLESS STEEL OR GALVANIZED HARDWARE BOLTS, WASHERS, NUTS, ETC.

RV POWER PEDESTAL

SITE 1 - 16 PEDESTALS REQUIRED
SITE 3 - 4 PEDESTALS REQUIRED

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ELECTRICAL DETAILS
SPRINGHILL PARK DETAILS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901		
		ARCHITECTURE DETAILS - A01				

GENERAL NOTES

1. LOCATIONS AND SIZE OF CEILING AND WALL ACCESS PANELS SHALL BE DETERMINED BY POSITION OF VALVES AND OTHER MECHANICAL AND ELECTRICAL ITEMS WHICH REQUIRE ACCESS. THE CONTRACTOR SHALL COORDINATE WITH ALL TRADES. THE ARCHITECT SHALL REVIEW AND APPROVE ALL FINAL LOCATIONS OF ACCESS PANELS PRIOR TO INSTALLATION.

2. THE CONTRACTOR IS RESPONSIBLE FOR PRODUCING WEATHER TIGHT CONSTRUCTION.

3. CONTRACTOR SHALL INVESTIGATE, VERIFY, AND COORDINATE NEW WORK WITH EXISTING CONDITIONS AND NEW DIMENSIONS OF THE PROJECT AND CONFIRM SUCH TO BE APPROPRIATE AND COMPATIBLE WITH NEW CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCY FOR CLARIFICATION OR ABOUT ANY CONDITION REQUIRING MODIFICATION OR CHANGE BEFORE PROCEEDING WITH THE WORK.

4. ALL FINISH COLORS, TEXTURE, AND PATTERNS TO BE SELECTED BY THE ARCHITECT AND APPROVED PRIOR TO INSTALLATION.

5. DIMENSIONS NOTED ARE FROM GRIDS TO FINISHED FACE OF MATERIAL UNLESS OTHERWISE NOTED. GENERALLY, MASONRY, STANDARD STEEL PIPE, AND LUMBER ARE INDICATED AS NOMINAL DIMENSIONS.

6. ANY PIPE OR CONDUIT PENETRATION THROUGH EXTERIOR CONSTRUCTION SHALL BE SEALED AT BOTH SIDES FOR A WATERTIGHT CONDITION.

7. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE "LOCAL BUILDING CODE" (UNLESS MORE STRINGENT REQUIREMENTS ARE REQUIRED).

8. HIERARCHY FOR CONFLICTS SHALL BE SPECIFICATIONS, LARGER TO SMALLER SCALE DRAWINGS. NOTIFY ARCHITECT IN WRITING OF ANY PERCEIVED CONFLICTS BEFORE COMMENCING WITH THE WORK.

9. WATERPROOFING AND SEALANT INSTALLERS TO VERIFY IN WRITING COMPATIBILITY OF RESPECTIVE PRODUCTS TO BE INSTALLED WITH ADJACENT PRODUCTS.

10. ALL NOTATIONS REFERRING TO FINISH FLOOR ARE TAKEN FROM THE FINAL FINISH FLOOR MATERIAL NOT FROM THE STRUCTURAL SLAB.

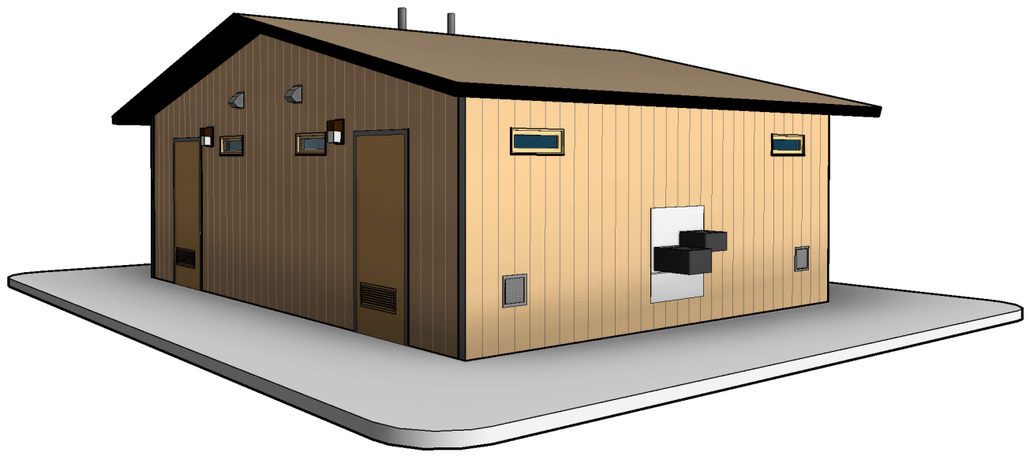
11. PATCH ALL EXISTING PIPE/CONDUIT PENETRATIONS TO MATCH ADJACENT SLABS.

12. ALL EXTERIOR MISC. METALS TO BE GALVANIZED AND PAINTED.

13. ALL WORK TO BE PAID FOR UNDER LUMP SUM ITEM 904009 - RESTROOM BUILIDING

PROJECT SHEET LIST

SHEET NUMBER	SHEET NAME	90% CONSTRUCTION DOCUMENTS - 01/25/24	100% CONSTRUCTION DOCUMENTS - 05/01/24
A01	GENERAL INFORMATION & SHEET LIST	X	X
A02	CODE SUMMARY	X	X
A03	ADA DIAGRAMS	X	X
A04	ARCHITECTURAL SYMBOLS	X	X
A10	SITE PLAN & DEMO PLAN	X	X
A20	LEVEL 01 OVERALL PLAN	X	X
A30	BUILDING ELEVATIONS	X	X
A40	BUILDING SECTION	X	X
A50	LEVEL 01 ENLARGED PLAN	X	X
A60	INTERIOR ELEVATIONS	X	X



REGISTERED ARCHITECT
DAVID LOPEZ TOME
License Number 912205
STATE OF ARKANSAS
05.01.2024

ARDOT I-49 SPRINGHILL RESTROOM - AREA B
ISSUED FOR 100% CONSTRUCTION DOCUMENTS

RESTROOM - AREA B
GENERAL INFORMATION & SHEET LIST
ARCHITECTURE DETAILS

5/1/2024 8:55:05 AM
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	219	809
		ARCHITECTURE DETAILS - A02				

CODE SUMMARY

GENERAL INFORMATION:

LOCATION: BARLING, ARKANSAS (SEBASTIAN COUNTY)

AGENCY INFORMATION: PROJECT LOCATED ON FEDERAL PROPERTY
(COE - LITTLE ROCK DISTRICT)

PROJECT DESCRIPTION:

PROJECT SCOPE INCLUDES THE DESIGN AND CONSTRUCTION OF RESTROOM BUILDING AND SITE IMPROVEMENTS.

OCCUPANCY/ STRUCTURAL CLASSIFICATION:

THE BUILDING HAS (1) STORY. THE PRIMARY STRUCTURE IS CONSTRUCTED OF CONCRETE. EXTERIOR WALLS ARE CONSTRUCTED OF CONCRETE. FLOORS ARE CONSTRUCTED OF CONCRETE. INTERIOR WALLS ARE CONSTRUCTED OF CONCRETE.

CODE COMPLIANCE:

2021 ARKANSAS STATE FIRE PREVENTION CODE VOLUME I (AMENDED)
2021 ARKANSAS STATE FIRE PREVENTION CODE VOLUME II (AMENDED)
2021 ARKANSAS STATE FIRE PREVENTION CODE VOLUME III
2021 INTERNATIONAL FIRE CODE (IFC), WITH LOCAL AMENDMENTS
2021 INTERNATIONAL BUILDING CODE (IBC), WITH LOCAL AMENDMENTS
2021 NFPA LIFE SAFETY CODE
2018 ARKANSAS PLUMBING CODE (AMENDED)
2021 INTERNATIONAL MECHANICAL CODE
2020 NATIONAL ELECTRIC CODE
2014 ARKANSAS ENERGY CODE
2018 ARKANSAS FUEL GAS CODE

OCCUPANCY CLASSIFICATION:
UTILITY & MISCELLANEOUS (ANCILLIARY SUPPORT SPACES) GROUP U
(PRIMARY OCCUPANCY)

CONSTRUCTION TYPE: TYPE II-B NON-SPRINKLERED ARKANSAS FIRE PREVENTION CODE 2021 (AFPC 2021)

BUILDING ELEMENTS AND STRUCTURAL FIRE RATINGS:

PRIMARY STRUCTURAL FRAME: 0 HR
EXTERIOR LOAD-BEARING WALLS: 0 HR
INTERIOR LOAD-BEARING STRUCTURAL MEMBERS: 0 HR
EXTERIOR NON-BEARING WALLS: 0 HRS
INTERIOR NON-BEARING WALLS: 0 HRS (NON-COMBUSTIBLE)
FLOORS AND ASSOCIATED SECONDARY MEMBERS: 0 HR
ROOFS AND ASSOCIATED SECONDARY MEMBERS: 0 HR (0 HR IF LOWEST ROOF MEMBER IS 20'-0" OR MORE ABOVE FLOOR)

INCIDENTAL USES: ELECTRICAL ROOM AND UTILITY CHASE INCIDENTAL TO U OCCUPANCY

GROSS SQUARE FOOTAGE:
520 SF PROPOSED
8,500 SF ALLOWABLE FOR UTILITY & MISCELLANEOUS GROUP U PER ARKANSAS FIRE PREVENTION CODE 2021 (AFPC 2021)

ALLOWABLE HEIGHT:
55 FT

OCCUPANT LOAD:
OCCUPANT LOAD FACTOR - 50 GROSS PER TABLE 1004.5 AFPC
11 OCCUPANTS FOR LOCKER

ACTIVE LIFE SAFETY SYSTEMS:

FIRE EXTINGUISHERS: REQUIRED/PROVIDED PER NFPA 10

EMERGENCY LIGHTING: REQUIRED/PROVIDED BY INTEGRAL BATTERY PACK WITH LIGHT FIXTURE, 1 FOOT-CANDLE MIN. ON ALL EGRESS PATHS.

PASSIVE LIFE SAFETY SYSTEMS:

STRUCTURAL FIRE RESISTANCE: NOT REQUIRED
STAIR ENCLOSURE CONSTRUCTION: NA
SHAFT ENCLOSURE CONSTRUCTION: NA
OCCUPANCY SEPARATIONS: NOT REQUIRED, BUILDING CONTAINS A SINGLE OCCUPANCY (GROUP B IS MOST RESTRICTIVE PER THE AFPC 2021). THE MOST RESTRICTIVE FIRE PROTECTION REQUIREMENTS FOR ALL THE OCCUPANCIES APPLY (CHAPTER 9 OF THE AFPC 2021)

STRUCTURAL FIRE RATINGS:

STRUCTURAL FRAME:	0 HOUR REQUIRED
BEARING EXTERIOR WALLS:	0 HOUR REQUIRED
BEARING INTERIOR WALLS:	0 HOUR REQUIRED
NONBEARING EXTERIOR WALLS:	0 HOUR REQUIRED
NONBEARING INTERIOR WALLS:	0 HOUR REQUIRED
FLOOR CONSTRUCTION:	0 HOUR REQUIRED
ROOF CONSTRUCTION:	0 HOUR REQUIRED

REGISTERED ARCHITECT
DAVID LOPEZ TOME
License Number 912205
STATE OF ARKANSAS
04.12.2024

RESTROOM - AREA B
CODE SUMMARY
ARCHITECTURE DETAILS

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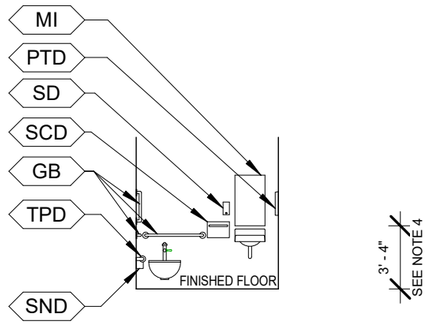
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	220	809
		ARCHITECTURE DETAILS - A03				

TOILET ACCESSORY LEGEND

GB	GRAB BAR
MBH	MOP AND BROOM HOLDER W/ UTILITY SHELF
MI	MIRROR
MIS	MIRROR/SHELF COMBINATION
PTD	PAPER TOWEL DISPENSER - FURNISHED BY OWNER/INSTALLED BY CONTRACTOR
SCD	TOILET SEAT COVER DISPENSER
SD	SOAP DISPENSER
SND	SANITARY NAPKIN DISPOSAL
SNV	SANITARY NAPKIN VENDOR
TPD	TOILET PAPER DISPENSER
WH	WALL HOOK

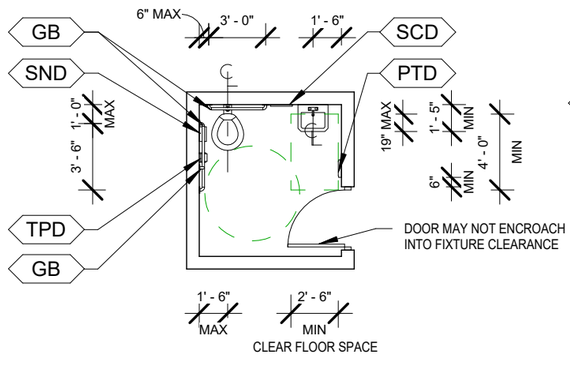
NOTES:

1. INSULATE DRAIN & HOT WATER PIPES @ ALL LAVATORIES.
2. DIMENSION IS TO BOTTOM OF REFLECTIVE SURFACE
3. DIMENSION IS TO TOP OF DRINKING FOUNTAIN BUBBLER
4. DIMENSION IS TO CENTER OF DRINKING FOUNTAIN BUBBLER
5. DIMENSION IS TO TOP OF TOILET SEAT.
6. REFER TO SPECIFICATION 102800 FOR TOILET ACCESSORY MFG. & MODEL NO.S
7. ALL DIMENSIONS FOR ACCESSORIES ARE TO OPERATION CONTROL OR DISPENSING POINT.



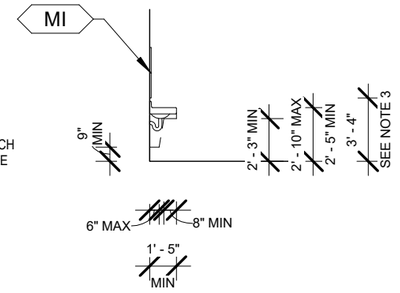
SINGLE WATER CLOSET

ELEVATION -
SINGLE ACCESSIBLE RESTROOM

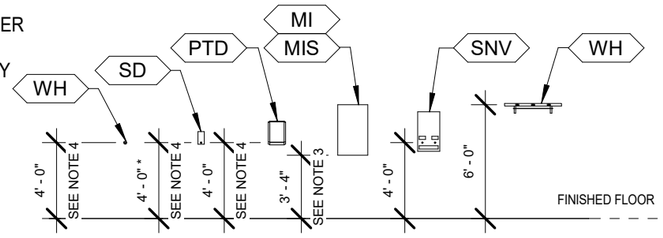


SINGLE RESTROOM FIXTURE MOUNTING LOCATIONS

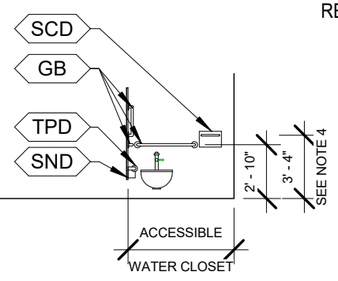
PLAN -
SINGLE ACCESSIBLE RESTROOM



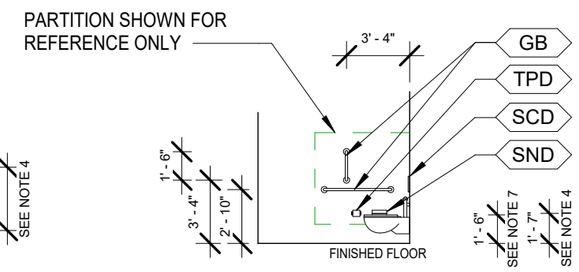
ELEVATION -
LAVATORY



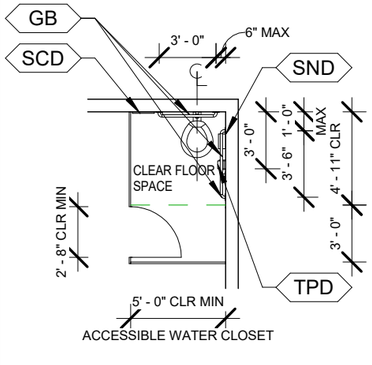
ELEVATION - RESTROOM
EQUIPMENT MOUNTING HEIGHTS



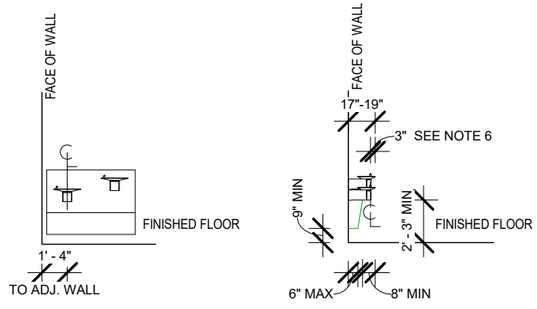
ELEVATION - MULTIPLE FIXTURE RESTROOM
EXAMPLE - NO AMBULATORY STALL



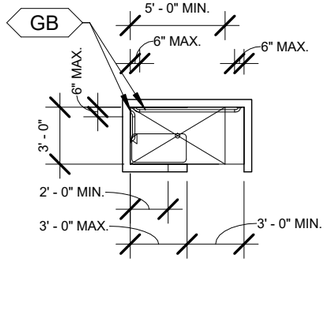
SINGLE WATER CLOSET, ACCESSIBLE
& AMBULATORY STALL



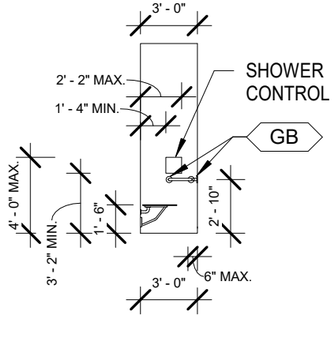
ACCESSIBLE ALTERNATE END OF ROW
RESTROOM CONFIGURATION PLAN



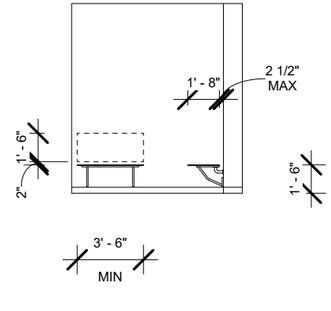
DRINKING FOUNTAIN/ELECTRIC WATER COOLER



PLAN -
ALTERNATE ROLL-IN-TYPE SHOWER



ELEVATION -
SHOWER



ELEVATION -
LOCKER BENCH

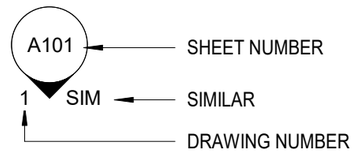
RESTROOM - AREA B
ADA DIAGRAMS
ARCHITECTURE DETAILS

REGISTERED ARCHITECT
DAVID LOPEZ TOME
License Number 912205
STATE OF ARKANSAS
04.12.2024

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		ARCHITECTURE DETAILS - A04				

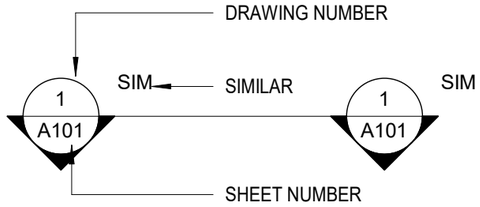
ARCHITECTURAL SYMBOLS



BUILDING ELEVATION

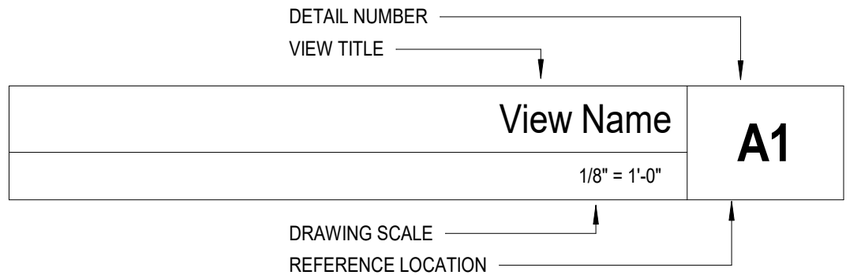


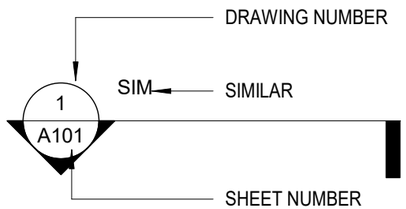
SPOT ELEVATION REFERENCE



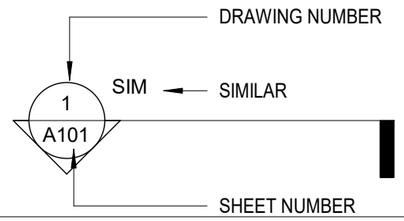
BUILDING SECTION

VIEW TITLE

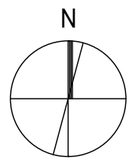




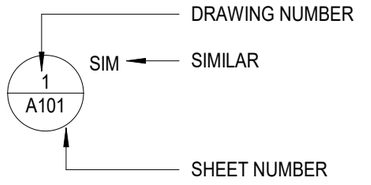
WALL SECTION/
PARTIAL BUILDING SECTION



DETAIL SECTION



NORTH ARROW



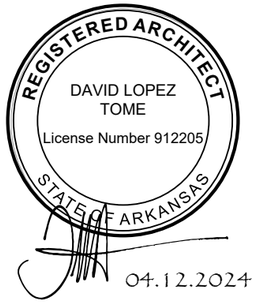
DETAIL REFERENCE



CENTERLINE TAG



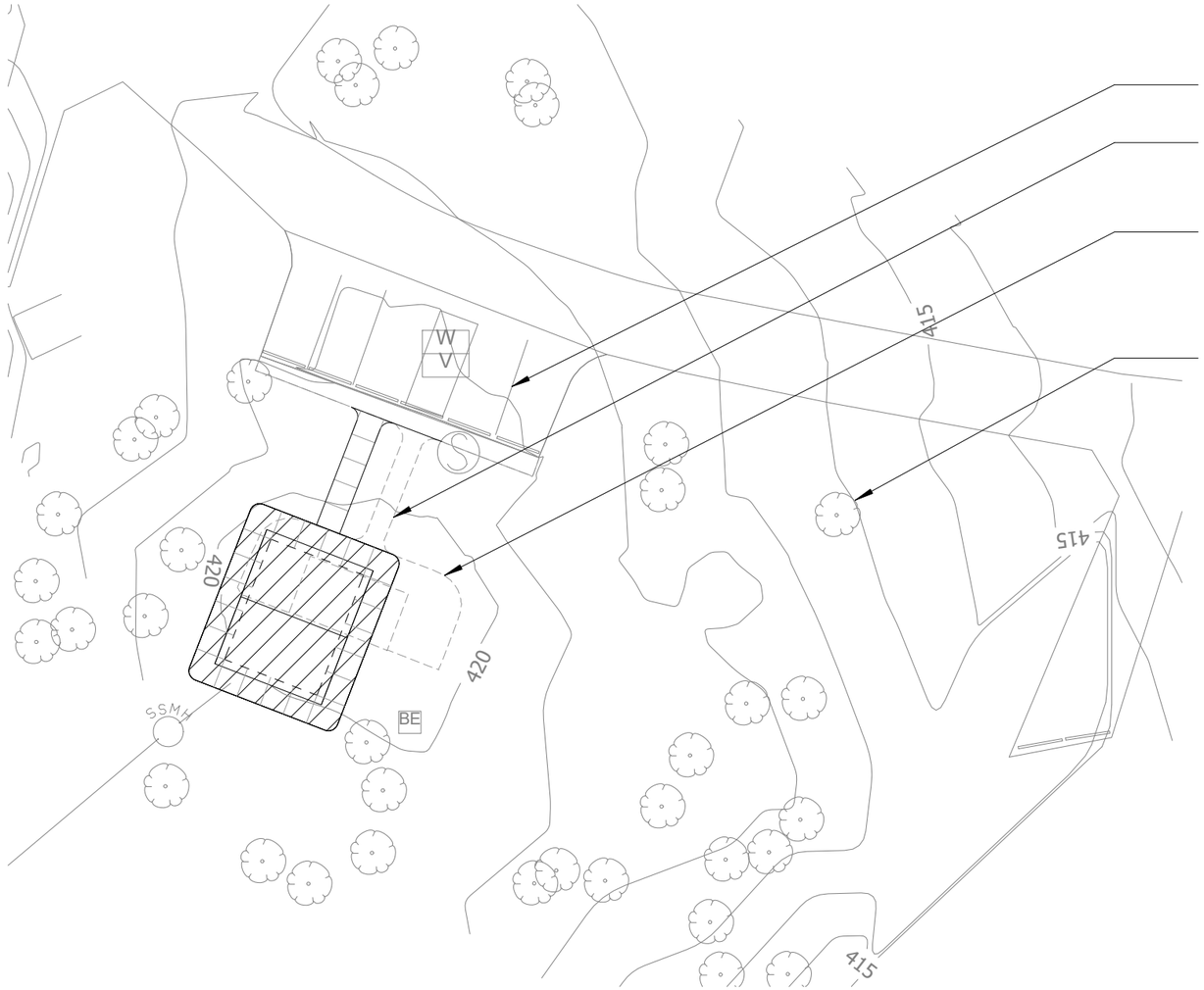
ELEVATION REFERENCE



RESTROOM - AREA B
ARCHITECTURAL SYMBOLS
ARCHITECTURE DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	222	809
		ARCHITECTURE DETAILS - A10				



REGISTERED ARCHITECT
DAVID LOPEZ TOME
License Number 912205
STATE OF ARKANSAS
04.12.2024

LEGEND

- – – – DEMO
- ——— PROPOSED DESIGN
- GRAVEL BASE

NOTE: SEE BUILDING SECTION ON DETAIL #1/A40 FOR ADDITIONAL GRAVEL DETAILS

N

GRAPHIC SCALE

0 5 10 20 30

(IN FEET)
1" = 30'-0"

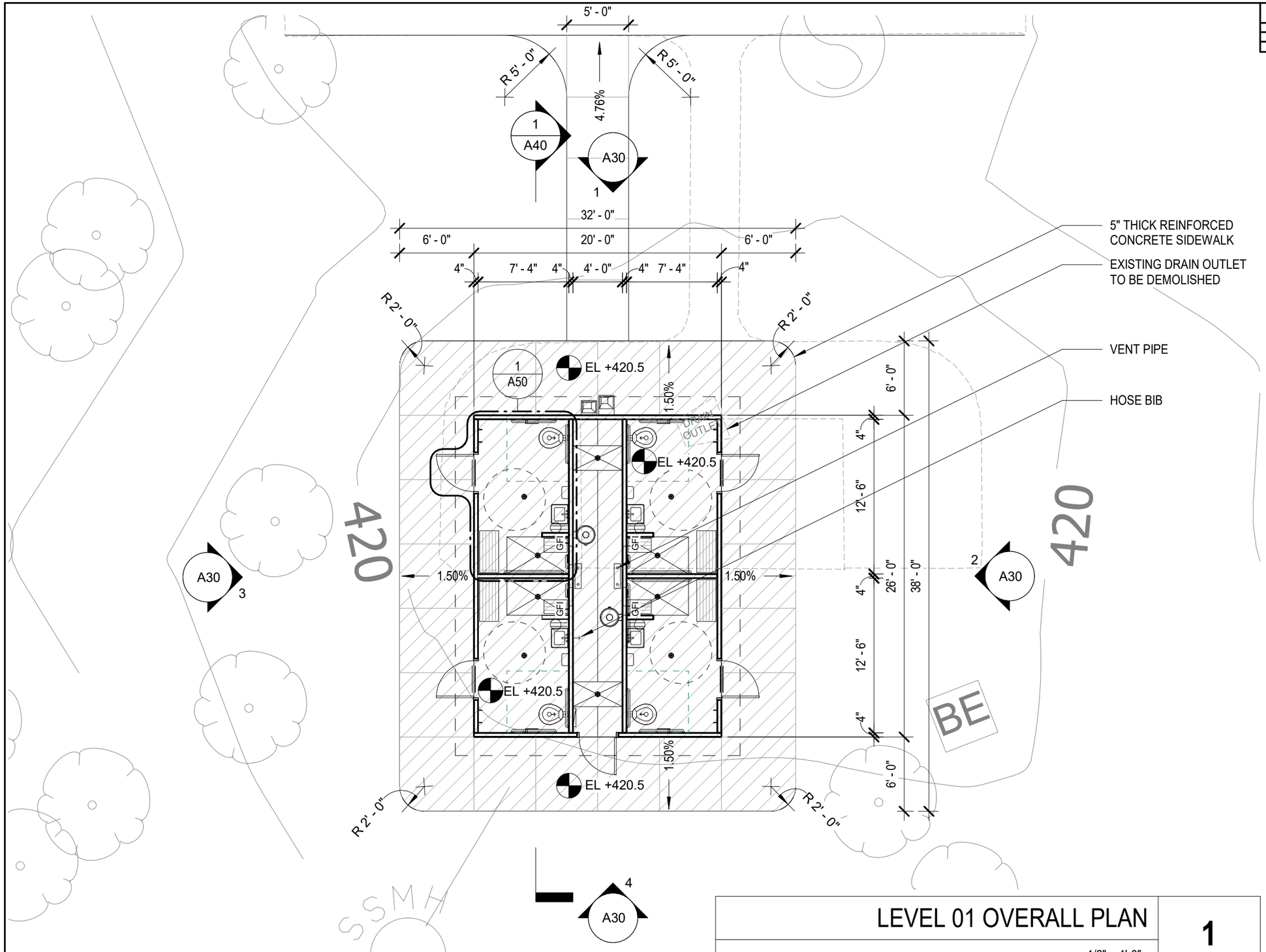
NOTE: THE CONTRACTOR AND PLUMBING SUBCONTRACTORS ARE RESPONSIBLE FOR THE FINAL DESIGN AND INSTALLATION OF BUILDING SANITARY PLUMBING SYSTEM. THIS INCLUDES ANY REQUIRED DESIGN, DOCUMENTATION AND PERMITTING FOR CODE COMPLIANCE, AND INSPECTIONS. THE PLUMBING DESIGN SHALL INCLUDE SUB SLAB DESIGN AS WELL AS CONNECTION FROM THE PRE-ENGINEERED/PREMANUFACTURED RESTROOM BUILDING TO THE EXISTING MANHOLE (4" METAL OR PVC IN (NE)=416.15'). REFER TO PRE-ENGINEERED/PREMANUFACTURED RESTROOM BUILDING MANUFACTURER'S STANDARD PLUMBING ROUGH-IN DRAWINGS AND DESIGN INFORMATION.

SITE PLAN & DEMO PLAN	1
1" = 30'-0"	

RESTROOM - AREA B
SITE PLAN & DEMO PLAN
ARCHITECTURE DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	223	809
		ARCHITECTURE DETAILS - A20				



REGISTERED ARCHITECT
DAVID LOPEZ TOME
License Number 912205
STATE OF ARKANSAS
04.12.2024

LEGEND

- – – – DEMO
- ——— PROPOSED DESIGN
- GRAVEL BASE

NOTE: SEE BUILDING SECTION ON DETAIL #1/A40 FOR ADDITIONAL GRAVEL DETAILS

N

GRAPHIC SCALE

0 2.5 5 10 15

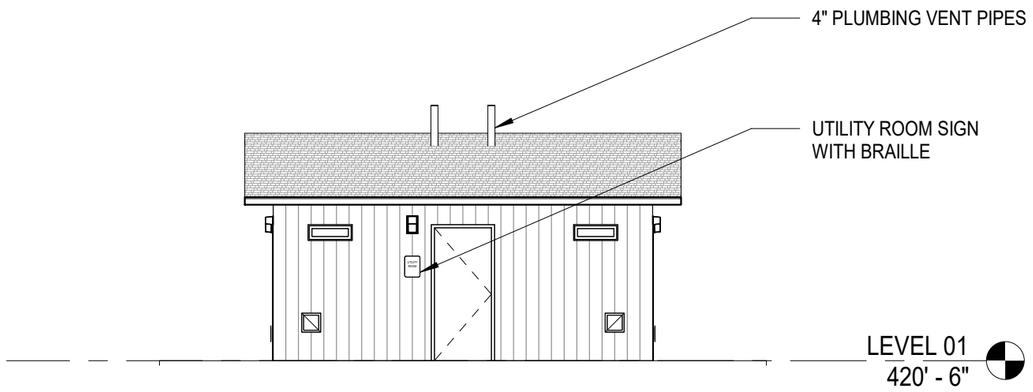
(IN FEET)
1/8" = 1'

LEVEL 01 OVERALL PLAN	1
1/8" = 1'-0"	

RESTROOM - AREA B
LEVEL 01 OVERALL PLAN
ARCHITECTURE DETAILS

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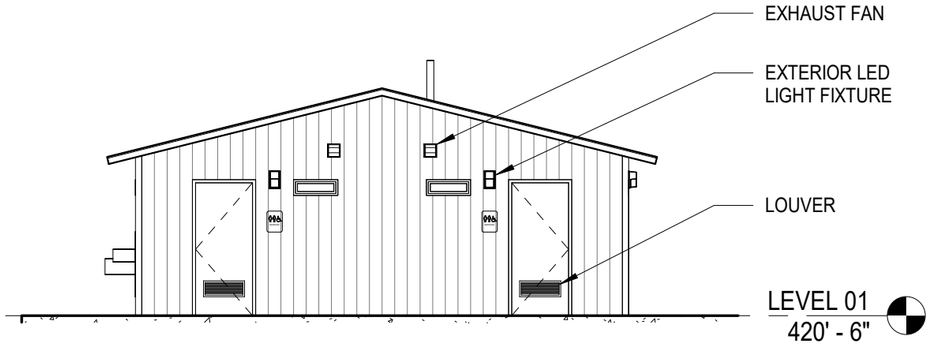
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	224	809
		ARCHITECTURE DETAILS - A30				



SOUTH ELEVATION

1/8" = 1'-0"

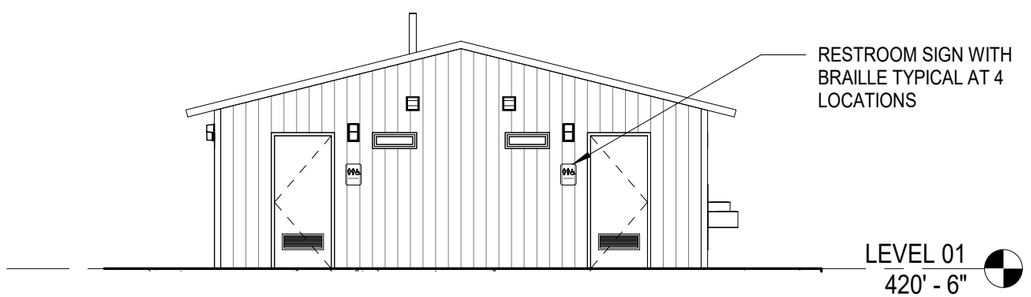
4



WEST ELEVATION

1/8" = 1'-0"

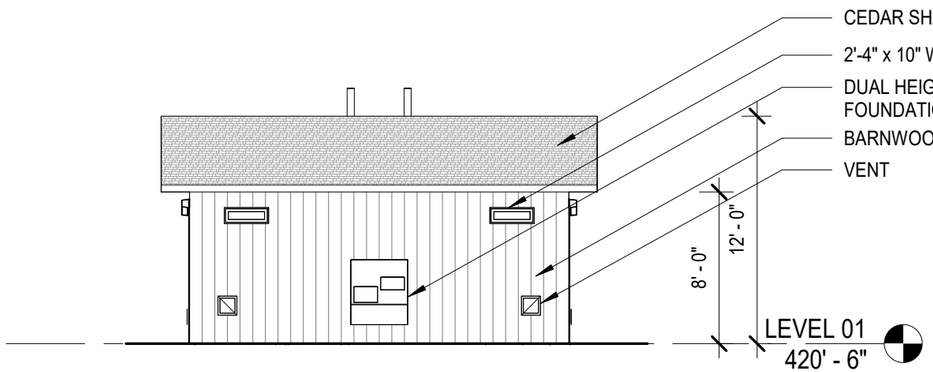
3



EAST ELEVATION

1/8" = 1'-0"

2



NORTH ELEVATION

1/8" = 1'-0"

1

REGISTERED ARCHITECT
DAVID LOPEZ TOME
License Number 912205
STATE OF ARKANSAS
04.12.2024

GRAPHIC SCALE

0 2.5 5 10 15

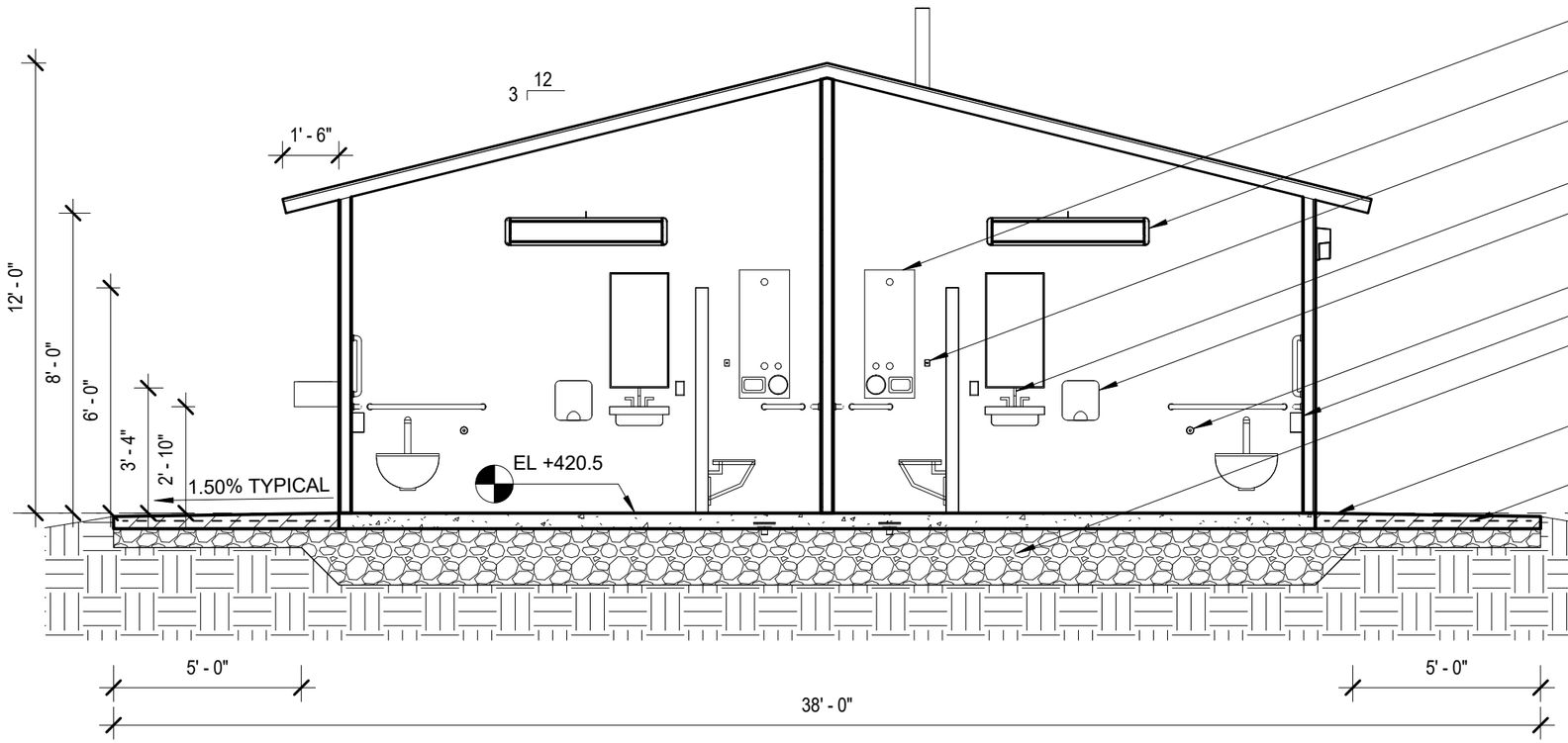
(IN FEET)
1/8" = 1'

RESTROOM - AREA B
BUILDING ELEVATIONS
ARCHITECTURE DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	225	809
		ARCHITECTURE DETAILS - A40				

REGISTERED ARCHITECT
DAVID LOPEZ TOME
License Number 912205
STATE OF ARKANSAS
04.12.2024



ADA STAINLESS STEEL SHOWER CONTROL UNIT

4' LED LIGHT FIXTURE OCCUPANCY SENSOR ACTIVATED

COAT HOOK

LAVATORY

SANIFLOW HAND DRYER

CONCEALED TYPE FLUSH VALVE PUSH BUTTON

TOILET PAPER DISPENSER

REFER TO GRADING PLANS IN CIVIL DRAWINGS FOR AGGREGATE BASE COURSE (CLASS 7) QUANTITY

REFER TO GRADING PLANS IN CIVIL DRAWINGS FOR CONCRETE WALK LOCATIONS AND EARTHWORK

5" U.T. CONCRETE WALK (TYPE SPECIAL) WITH #4@12" OC EACH WAY REINFORCEMENT BAR

LEVEL 01
420' - 6"

PLACE TRANSVERSE EXPANSION JOINT INTO CONCRETE WALK (TYPE SPECIAL) AT NO GREATER THAN A 45' SPACING (MAXIMUM). TRANSVERSE EXPANSION JOINTS SHALL BE 1" WIDE AND FILLED WITH JOINT FILLER COMPLYING WITH ASHTO M213 REQUIREMENTS. EXPANSION JOINTS SHALL BE PLACED BETWEEN THE BUILDING SLAB AND CONCRETE WALK (TYPE SPECIAL) AND BETWEEN CONCRETE WALK (TYPE SPECIAL) AND CONCRETE WALK. CRACK CONTROL JOINTS SHALL BE SAW CUT 1" DEEP INTO CONCRETE SLAB AND PLACED NO GREATER THAN 5' SPACING (MAXIMUM). REINFORCING BARS SHALL HAVE A MINIMUM COVERAGE DEPTH OF 2" FROM THE TOP OF SLAB.

GRAPHIC SCALE

0 1 2 4 6

(IN FEET)
1/4" = 1'

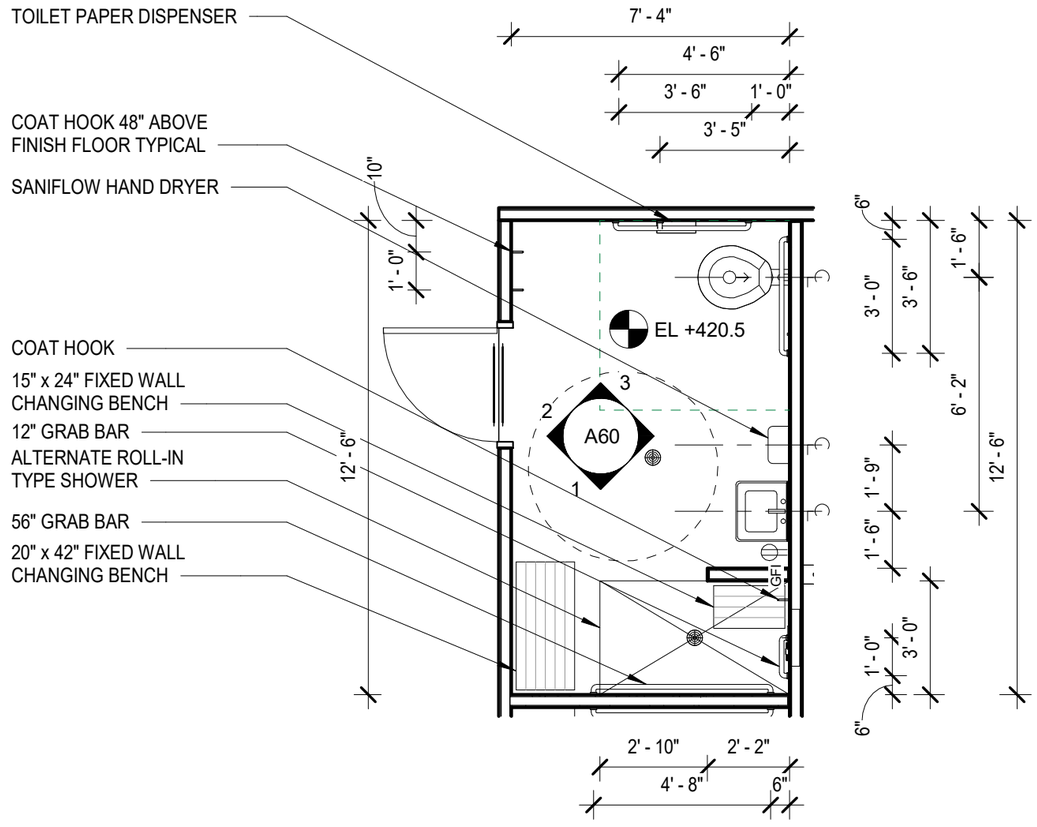
LONGITUDINAL BUILDING SECTION	1
1/4" = 1'-0"	

RESTROOM - AREA B
BUILDING SECTION
ARCHITECTURE DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	226	809
		ARCHITECTURE DETAILS - A50				

REGISTERED ARCHITECT
DAVID LOPEZ TOME
License Number 912205
STATE OF ARKANSAS
04.12.2024



LEVEL 01 TYPICAL ENLARGED PLAN

1/4" = 1'-0"

1

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GRAPHIC SCALE

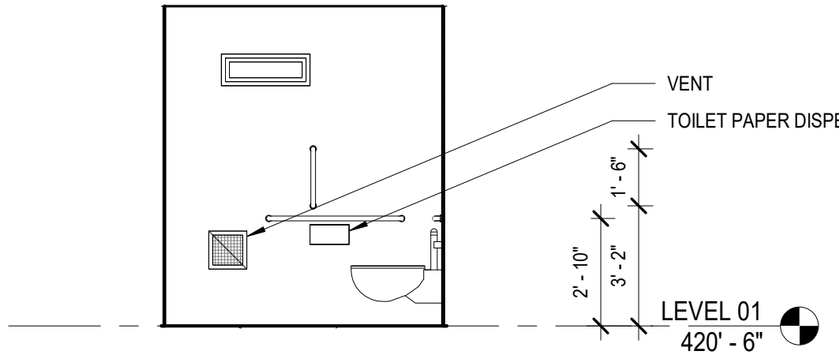
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(IN FEET)
1/4" = 1'

RESTROOM - AREA B
LEVEL 01 ENLARGED PLAN
ARCHITECTURE DETAILS

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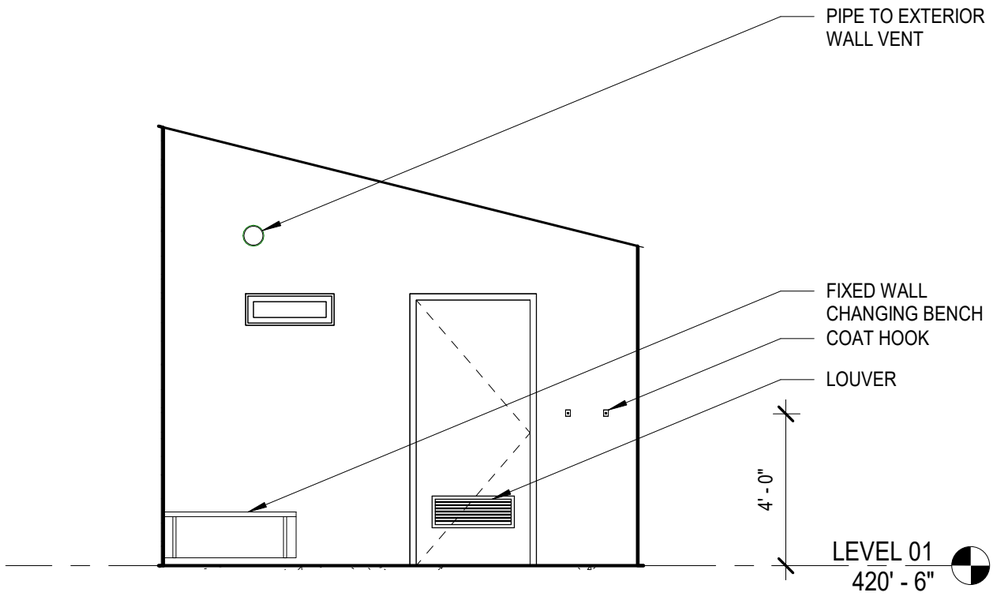
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	227	809
		ARCHITECTURE DETAILS - A60				



REGISTERED ARCHITECT
DAVID LOPEZ TOME
License Number 912205
STATE OF ARKANSAS
04.12.2024

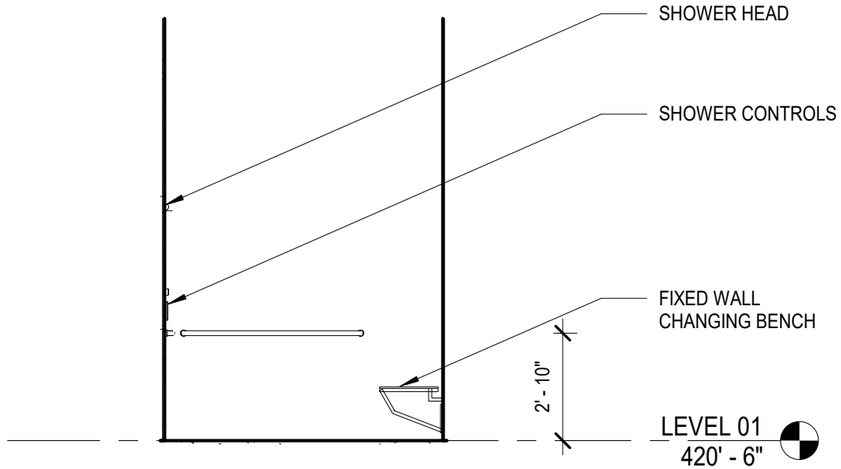
INTERIOR ELEVATION C — 3

1/4" = 1'-0"



INTERIOR ELEVATION B — 2

1/4" = 1'-0"



INTERIOR ELEVATION A — 1

1/4" = 1'-0"

GRAPHIC SCALE

0 1 2 4 6

(IN FEET)
1/4" = 1'

RESTROOM - AREA B
INTERIOR ELEVATIONS
ARCHITECTURE DETAILS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	228	809
		SUMMARY OF TRAFFIC SIGNAL QUANTITIES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

SUMMARY OF TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	HWY 22 AND I-49 SB RAMPS	HWY 22 AND I-49 NB RAMPS	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	1	1	2	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	1	2	EACH
SP	WIC FIBER ENCLOSURE	1	1	2	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	7	9	16	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	1	1	2	EACH
SP	LOUVERS	2	2	4	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	350	560	910	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	70	80	150	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)	220		220	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	290	470	760	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	910	1010	1920	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	370	370	740	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	40	40	80	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	1650	1690	3340	LIN. FT.
SP	COMMUNICATION CABLE, FIBER (6 CHANNEL)	180	200	380	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	20	20	40	LIN. FT.
710	NON-METALLIC CONDUIT (2")	570	640	1210	LIN. FT.
710	NON-METALLIC CONDUIT (3")	380	450	830	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1)	1	1	2	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2)	3	3	6	EACH
SS & 711	CONCRETE PULL BOX (TYPE 3)	1	1	2	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	5	6	11	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (0')	4	4	8	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	2	1	3	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (40')	1	1	2	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (48')		1	1	EACH
SP	LED LUMINAIRE ASSEMBLY	7	7	14	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	1	2	EACH
SP	18" STREET NAME SIGN	1	1	2	EACH
SP & 733	VIDEO DETECTOR (IP)	1	1	2	EACH
SP & 733	HYBRID VIDEO/RADAR DETECTOR	2	2	4	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	680	670	1350	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	1	2	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	1	1	2	EACH

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	229	809
		TRAFFIC SIGNAL NOTES				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

TRAFFIC SIGNAL NOTES:

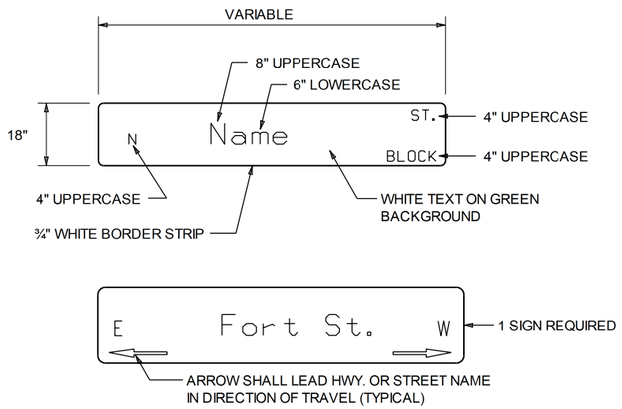
1. THE TRAFFIC SIGNAL SHALL NOT BE PUT INTO OPERATION OR SWITCHED TO THE NEXT CONSTRUCTION STAGE PRIOR TO THE FOLLOWING:
   A. ALL TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED ACCORDING TO THE PLANS, SPECIAL PROVISIONS, AND PROPERLY FUNCTIONAL. THIS INCLUDES BUT NOT LIMITED TO: CABINETS, PULL BOXES, JUNCTION BOXES, POLES, MAST ARMS, FOUNDATIONS, LUMINAIRES, SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, PUSH BUTTONS, DETECTION SYSTEM. CONDUITS, CONDUCTORS, CABLES, TRAFFIC CONTROLLER, CONFLICT MONITOR, COMMUNICATION SYSTEM, SERVICE POINT, AND RAILROAD INTERCONNECT SYSTEM.
   B. THE DETECTION SYSTEM SHALL BE INSTALLED, SETUP, AND CONFIGURED BY THE CONTRACTOR OR THEIR SUPPLIER PER PLANS. A TRAFFIC OPERATIONS INSPECTOR SHALL INSPECT AND PROVIDE APPROVAL IN ORDER TO PUT THE TRAFFIC SIGNAL INTO OPERATION.
   C. THE TRAFFIC CONTROLLER AND CONFLICT MONITOR SHALL BE PROGRAMMED TO OPERATE AS REQUIRED PER THE PLANS (PHASING DIAGRAM, INTERVAL CHART, AND ANY ADDITIONAL NOTES), SPECIAL PROVISIONS AND ARDOT SPECIFICATIONS.
   D. TIMING SETTINGS HAVE BEEN PROGRAMMED AND APPROVED AS REQUIRED BY ITS MANAGEMENT SECTION-MAINTENANCE DIVISION.
   E. THE TRAFFIC SIGNAL HAS BEEN INSPECTED AND APPROVED BY A TRAFFIC OPERATIONS INSPECTOR.
   F. ALL REQUIRED DOCUMENTS RELATED TO THE TRAFFIC SIGNAL EQUIPMENT, THIS INCLUDES BUT NOT LIMITED TO: TEST RESULTS, CONFIGURATION/DATA REPORTS, WARRANTIES, AND ANY OTHER DOCUMENTATION REQUIRED PER PLANS AND SPECIAL PROVISIONS.
2. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
3. TRAFFIC SIGNAL CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO SIGNAL RELATED WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.
4. THE CONTRACTOR SHALL PERFORM ALL WORK POSSIBLE THAT WILL MINIMIZE THE TIME THAT THE TRAFFIC SIGNAL IS OUT OF OPERATION. IF, IN THE OPINION OF THE ENGINEER, TRAFFIC CONDITIONS WARRANT, THE CONTRACTOR SHALL PROVIDE FLAGMEN TO DIRECT TRAFFIC WHILE THE TRAFFIC SIGNAL IS OUT OF OPERATION.
5. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (CURRENT EDITION) NATIONAL ELECTRICAL CODE, NFPA 101 (CURRENT EDITION) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.
6. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BREAKER.
7. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER), GALVANIZED STEEL SERVICE RISER, METER LOOP (IF REQUIRED), AND WEATHERHEAD AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. IF THE SERVICE POINT IS OVER 10 FEET FROM THE CONTROLLER, THE CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE TWO CIRCUIT EXTERNAL BREAKER (SECONDARY BREAKER) ON OR NEAR THE TRAFFIC SIGNAL CONTROLLER CABINET AND SHALL INSTALL CONDUIT, ELECTRICAL SERVICE WIRE (2c/#6 A.W.G. USE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE CITY'S/ COUNTY'S MAIN BREAKER AS PART OF THIS CONTRACT. CONDUIT IS PAID FOR AS A SEPARATE ITEM OF THIS CONTRACT. TWO CIRCUIT BREAKERS, CONSIDERED SUBSIDIARY TO THE CONTROL EQUIPMENT, ARE NEEDED WHERE STREET LIGHTING IS INCLUDED. AS PART OF THE SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2c/#12 A.W.G. UF RATED, TYPICAL) SHALL BE KEPT FROM THE CIRCUIT SERVING THE TRAFFIC SIGNAL CONTROL EQUIPMENT FROM THE POINT OF TIE-IN AT THE SECONDARY BREAKER PROVIDED BY THE CONTRACTOR.
8. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.
9. TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO THE CONTROLLER.
10. CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATIONS POWER TO THE LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS.
11. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, STANDARD DRAWINGS, AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
12. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA STANDARDS.
13. DOOR PANEL TEST PUSH BUTTONS SHALL ACTUATE INDICATED PHASES. DETECTOR ASSIGNMENTS AND/OR SIDE PANEL JUMPERS MAY REQUIRE MODIFICATION.
14. ALL SYSTEM DETECTOR RACKS AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED BY THE MAIN CONTROLLER CABINET POWER SURGE PROTECTION.
15. ONE VIDEO PROGRAMMNG MODULE SHALL BE PROVIDED FOR AIMING AND SETUP OF DETECTORS IF THE VIDEO SYSTEM CANNOT BE ADJUSTED THROUGH HARDWARE AND SOFTWARE PROVIDED BY ITEMS WITHIN THE JOB.
16. HARDWARE INPUTS MAY BE DETERMINED BY SUPPLIER. EACH DETECTOR OUTPUT SHALL INPUT THE CONTROLLER THROUGH A SEPARATE INPUT UNLESS OTHERWISE NOTED AND BE PROGRAMMED TO ACTUATE THE ASSOCIATED PHASE. COMBINATION (COMB.) DETECTORS SHALL ALSO BE PROGRAMMED TO PROVIDE VEHICLE COUNT/OCCUPANCY DATA.
17. THE LOCAL RADIO WITH ANTENNA AND TRAFFIC SIGNAL CONTROLLER SHALL BE COMPATIBLE WITH THE EXISTING COORDINATION SYSTEM IN THE CITY/COUNTY.
18. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHOD OR AS DIRECTED BY THE ENGINEER. PVC OR HDPE CONDUIT SHALL BE USED AND SHALL BE UL LISTED. PVC CONDUIT SHALL BE MARKED "DIR. BORING" OR "DIRECTIONAL BORING" PER NEC. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS MAY BE USED. THE ENGINEER SHALL GRANT A WRITTEN APPROVAL PRIOR TO USING THE TRENCHING METHOD.
19. ALL CONDUIT SHALL BE THREE (3") INCH DIAMETER UNLESS SPECIFIED ON PLANS. ALL CONDUIT UNDER THE ROADWAY, SIDEWALKS, AND DRIVEWAYS SHALL HAVE A MINIMUM DEPTH OF 24" FROM THE TOP OF THE CONDUIT TO THE FINISHED GRADE. CONDUIT DEPTH MAY NEED TO INCREASE NEAR DRAINAGE STRUCTURES.
20. CONDUIT BELL END FITTINGS SHALL BE INSTALLED ON ALL TERMINATING ENDS OF NON-METALLIC CONDUIT RUNS. THIS INCLUDES PULL BOXES, POLE BASES, AND TRAFFIC SIGNAL CABINETS. THE COST OF THE FITTINGS SHALL BE CONSIDERED SUBSIDARY TO THE PAY ITEM. ALL NON-METALLIC CONDUIT SHALL USE LONG SWEEP 90 DEGREE ELBOWS ON ALL CONDUIT BENDS.
21. ALL CONCRETE PULL BOXES SHALL BE (TYPE 2 HD) UNLESS OTHERWISE INDICATED. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT PINCHING ANY CONDUCTORS. CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT THE CONTRACTOR'S EXPENSE.
22. ALL CONCRETE PULL BOXES SHALL BE SET ON A GRAVEL OR CRUSHED STONE BEDDING AS SPECIFIED IN SECTION 711, CONCRETE PULL BOX, OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014.
23. CONTRACTOR SHALL ATTACH A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO EACH CONDUIT AT PULLBOXES, POLE BASES, JUNCTION BOXES AND CONTROLLER CABINETS. TAGS SHALL BE EMBOSSED, STAMPED OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. EACH TAG SHALL INDICATE THE END LOCATION OF CONDUIT RUN. THE COST OF THE TAGS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM.
    EXAMPLES FOR CONDUIT IN SIDE CABINET: "TO POLE A AND B" OR "TO POLE C"
    EXAMPLES FOR CONDUIT IN PULL BOX: "TO POLE A" OR "TO TRAFFIC CABINET"
24. ALL STEEL POLES SHALL BE DESIGNED TO MEET THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4th EDITION (2001) WITH 2003 AND 2006 INTERIMS.
25. ALL TRAFFIC SIGNAL POLES SHALL BE GALVANIZED.
26. CONNECTION OF TRAFFIC SIGNAL DISPLAY TO FIELD WIRING SHALL UTILIZE AN APPROVED TERMINAL STRIP BEHIND HAND-HOLE COVER AT BASE OF POLE. TERMINAL STRIP SHALL PROVIDE PROTECTION TO PREVENT EXPOSURE TO THE PUBLIC IN THE EVENT THAT POLE COVER IS MISSING. PAYMENT FOR TERMINAL STRIPS SHALL BE INCLUDED IN ITEM 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.
27. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENTS FOR SIGNAL HEAD CLEARANCE ABOVE ROADWAY ONLY AT LOCATIONS WHERE THE GROUND ELEVATION AT THE POLE IS BELOW THE ELEVATION OF THE ROADWAY (SEE NOTES ON STANDARD DRAWING). PAYMENT WILL BE INCLUDED IN SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.
28. TO DETERMINE UTILITY CLEARANCES ABOVE THE TRAFFIC SIGNAL POLE, REFER TO THE POLE SCHEDULE FOR VERTICAL SHAFT HEIGHT. WHERE THE POLE SCHEDULE INDICATES THAT A LUMINAIRE ARM WILL BE USED, THIRTY-EIGHT (38') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE LUMINAIRE ARM. WHERE THE POLE SCHEDULE INDICATES A TRAFFIC SIGNAL POLE WITHOUT A LUMINAIRE ARM, A HEIGHT OF TWENTY-ONE (21') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL SIX (6') FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTOR" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.
29. THE DESIRABLE MINIMUM DISTANCE FROM THE FACE OF ROADWAY CURB OR SHOULDER EDGE TO THE FACE OF NON-BREAKAWAY POLE OR OBSTRUCTION IS SIX (6') FEET. REFER TO TRAFFIC SIGNAL PLANS FOR SPECIFIC LOCATION OF POLES, CONTROLLER AND ANY OTHER NON-BREAKAWAY OBSTRUCTIONS. REFER TO "DESIGN PARAMETERS, MINIMUM CLEAR ZONE DISTANCE" FOR MINIMUM DISTANCE FROM THE EDGE OF TRAVELED WAY TO THE FACE OF A NON-BREAKAWAY POLE OR OBSTRUCTION. TRAFFIC SIGNAL POLES OR ANY OTHER NON-BREAKAWAY OBSTRUCTION SHALL NOT BE INSTALLED WITHIN THE CLEAR ZONE.
30. AS DETERMINED BY THE ENGINEER, FOUNDATION EMBEDMENT MAY BE DECREASED BY A MAXIMUM OF TWO FEET IF COMPETENT ROCK IS ENCOUNTERED PRIOR TO ACHIEVING PLAN EMBEDMENT AND AT LEAST HALF OF THE REMAINING PLAN EMBEDMENT LENGTH IS KEYED INTO COMPETENT ROCK.
31. LED LUMINAIRE ASSEMBLIES SHALL HAVE A BUG RATING OF U0.
32. BACKPLATES SHALL BE SUPPLIED FOR ALL TRAFFIC SIGNAL HEADS, REFER TO THE RETROREFLECTIVE BACKPLATES SPECIAL PROVISION FOR REQUIREMENTS.
33. PAVEMENT MARKINGS SHOWN FOR REFERENCE ONLY. SEE PERMANENT PAVEMENT MARKING DETAILS.
34. BEFORE FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL, THE CONTRACTOR SHALL PROVIDE TWO (2) SETS OF LEDGER SIZE (11" X 17") AS-BUILT TRAFFIC SIGNAL PLANS TO THE MAINTENANCE AUTHORITY AND ARDOT.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	230	809
		TRAFFIC SIGNAL STREET NAME SIGNS				

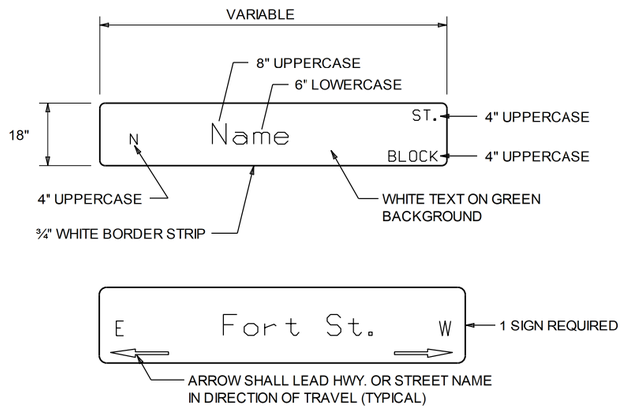
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

OVERHEAD STREET NAME MARKER STANDARD MAST ARM MOUNTED

HWY 22 AND I-49 SB RAMPS INTERSECTION



HWY 22 AND I-49 NB RAMPS INTERSECTION



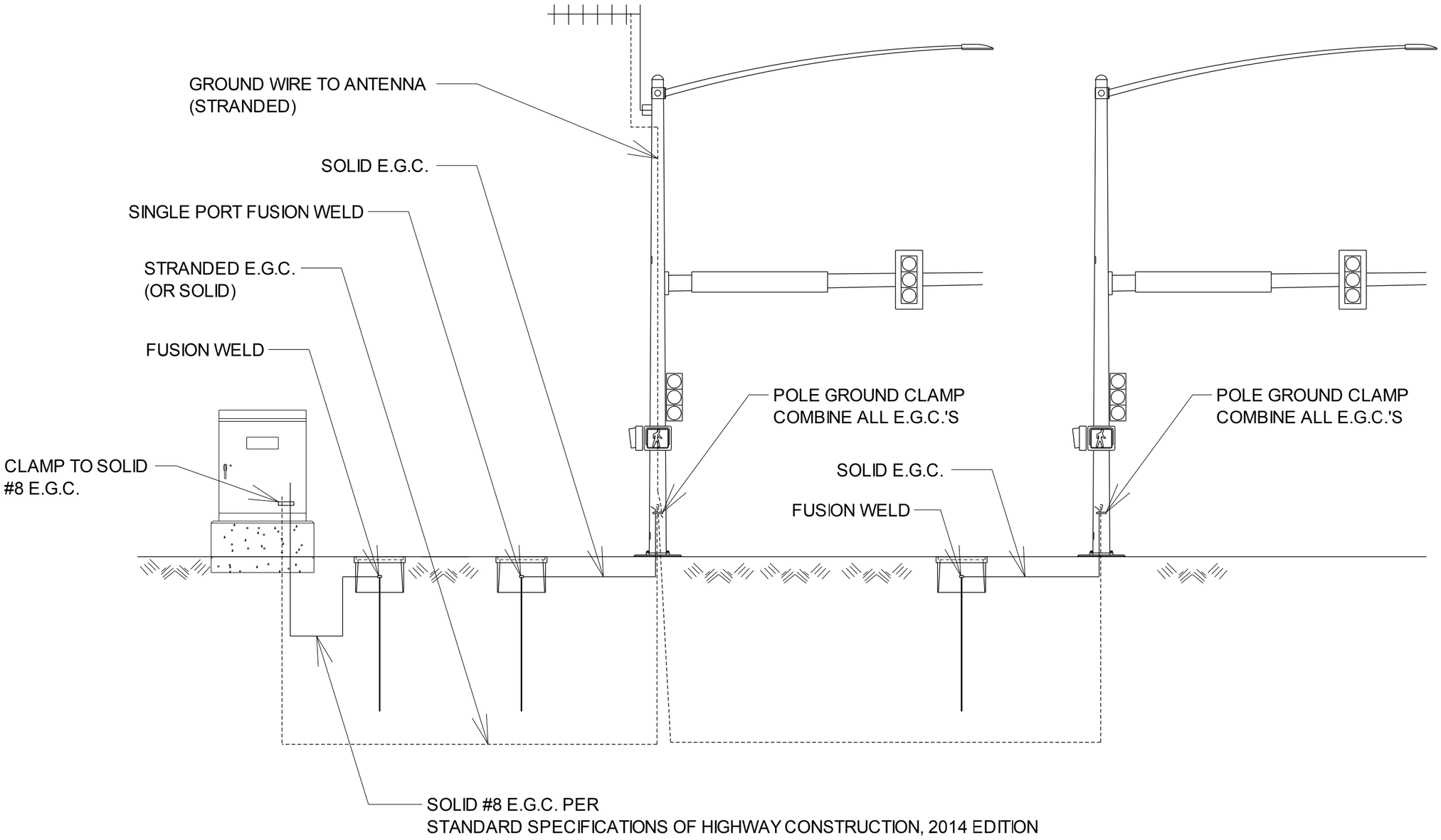
NOTES:

1. REFLECTIVE SHEETING SHALL COMPLY WITH ASTM 4956 TYPE 8 OR 9 REFLECTIVE SHEETING. SHEETING AND LEGEND SHALL BE APPLIED IN SUCH A MANNER TO PROVIDE WRINKLE AND BUBBLE FREE SURFACES. APPLICATION OF SHEETING IS CAUSE FOR REJECTION OF MATERIALS DUE TO WORKMANSHIP.
2. ALUMINUM SIGN BLANK SHALL BE ALLOY 6061-T6 OR 5052-H38. THE ALUMINUM SIGN SHALL BE ALSO ALODIZED. THE ALUMINUM SHEETING SHALL BE 0.100 INCH NOMINAL THICKNESS AND OF THE SIZE SHOWN WITH 1.5" CORNER RADII. PRIOR TO FABRICATION OF THE SIGNS, THE LAYOUT SHALL FIRST BE APPROVED BY AN AGENT OF THE CITY/ COUNTY.
3. WHEN CROSSROAD HAS TWO NAMES. THE SIGN FOR THE CROSSROAD TO THE LEFT MAY BE INSTALLED ON THE BACKSIDE OF THE MAST ARM ON THE NEARSIDE LEFT POLE. SEE STANDARD DRAWING SHEET FOR MORE INFORMATION FOR MOUNTING ON MAST ARM ASSEMBLY.
4. THE SERIES C 2000 STANDARD ALPHABET SHALL BE USED FOR ALL LETTERS.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	231	809
		GROUNDING ARRAY DETAIL				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

GROUNDING ARRAY
SINGLE-PORT FUSION WELDS



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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	232	809
		TRAFFIC SIGNAL QUANTITIES - I-49 SB RAMP				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

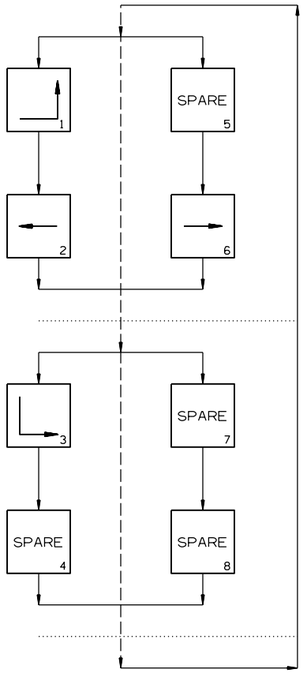
TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	1	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	EACH
SP	WIC FIBER ENCLOSURE	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	7	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	1	EACH
SP	LOUVERS	2	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	350	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	70	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)	220	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	290	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	910	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	370	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	40	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	1650	LIN. FT.
SP	COMMUNICATION CABLE, FIBER (6 CHANNEL)	180	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	20	LIN. FT.
710	NON-METALLIC CONDUIT (2")	570	LIN. FT.
710	NON-METALLIC CONDUIT (3")	380	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1)	1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2)	3	EACH
SS & 711	CONCRETE PULL BOX (TYPE 3)	1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	5	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (0')	4	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	2	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (40')	1	EACH
SP	LED LUMINAIRE ASSEMBLY	7	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH
SP	18" STREET NAME SIGN	1	EACH
SP & 733	VIDEO DETECTOR (IP)	1	EACH
SP & 733	HYBRID VIDEO/RADAR DETECTOR	2	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	680	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	1	EACH

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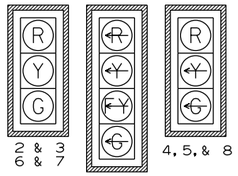
LOCATION: HWY. 22/I-49 SB RAMPS
CITY: BARLING
COUNTY: SEBASTIAN
DISTRICT: 4 SCALE: N/A DRAWN BY: LTD

PHASING DIAGRAM



SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. SIGNAL HEAD 8 WILL HAVE GEOMETRICALLY PROGRAMMABLE LOUVERS ON YELLOW ARROW AND GREEN ARROW.

HIGHWAY 22 AND INTERSTATE 49 S.B. RAMPS
POLE DIMENSIONS

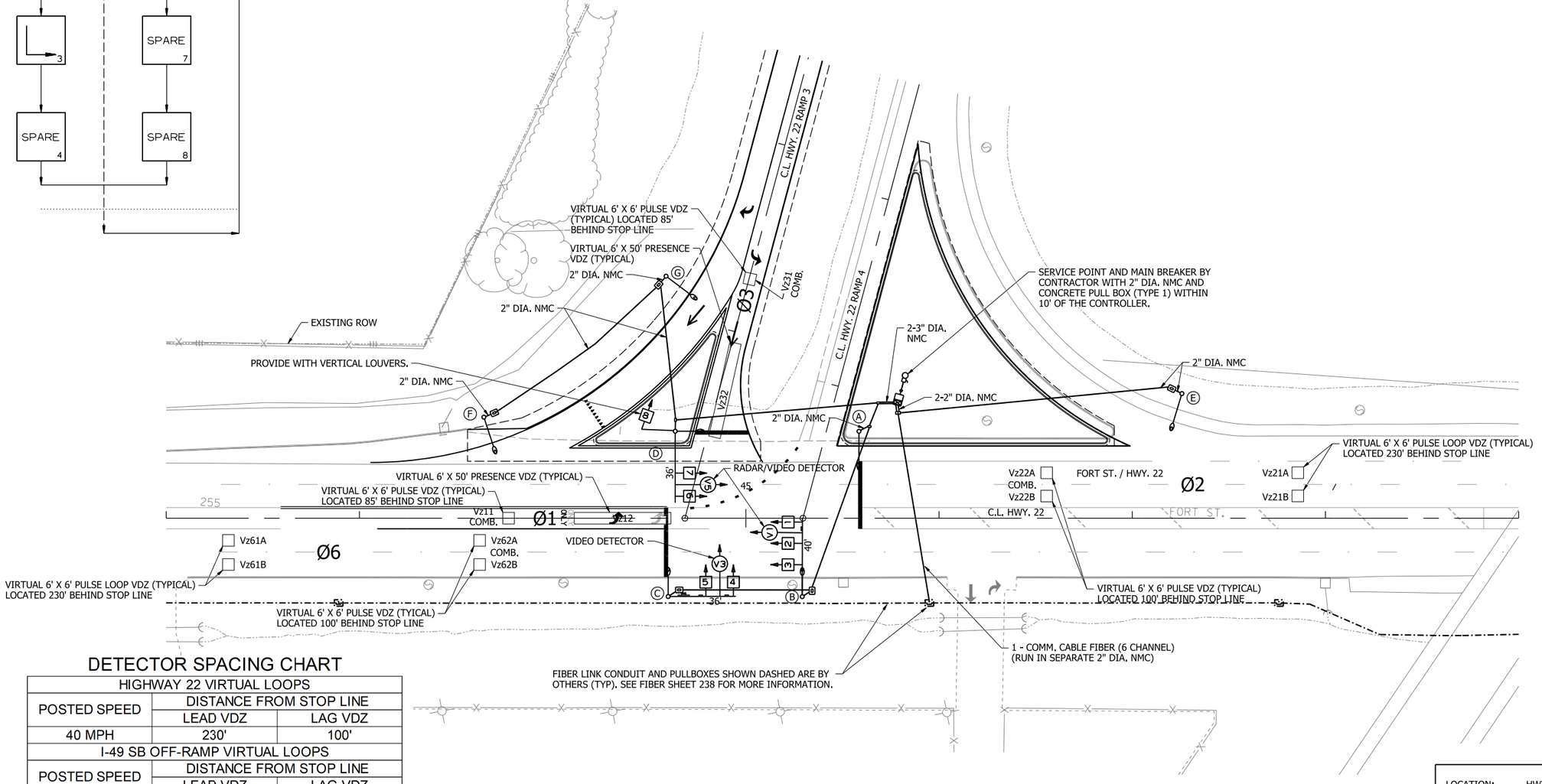
POLE	MAST ARM	* MAST ARM ANGLE	** HAND HOLE	VERT. SHAFT	LUM. ARM	* LUM. ANGLE
A	N/A	N/A	N/A	35'	15'	205°
B	40'	25°	180°	35'	10'	25°
C	36'	115°	90°	35'	10'	25°
D	36'	205°	180°	35'	10'	115°
E	N/A	N/A	N/A	35'	15'	221°
F	N/A	N/A	N/A	35'	15'	186°
G	N/A	N/A	N/A	35'	15'	152°

* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°, CLOCKWISE ROTATION.
** HAND HOLE LOCATION MEASURED CLOCKWISE FROM MAST ARM.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	233	809
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

0 30 60 90 120
HORIZ. SCALE IN FEET: 1"=60'



DETECTOR SPACING CHART

HIGHWAY 22 VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'
I-49 SB OFF-RAMP VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
25 MPH	85'	N/A

LOCATION:	HWY. 22/I-49 SB RAMPS				
CITY:	BARLING				
COUNTY:	SEBASTIAN				
DISTRICT:	4	SCALE:	1" = 60'	DRAWN BY:	LTD

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	234	809
		SIGNALIZATION PLAN SHEET				

HIGHWAY 22 AND INTERSTATE 49 S.B. RAMPS
POLE LOCATIONS

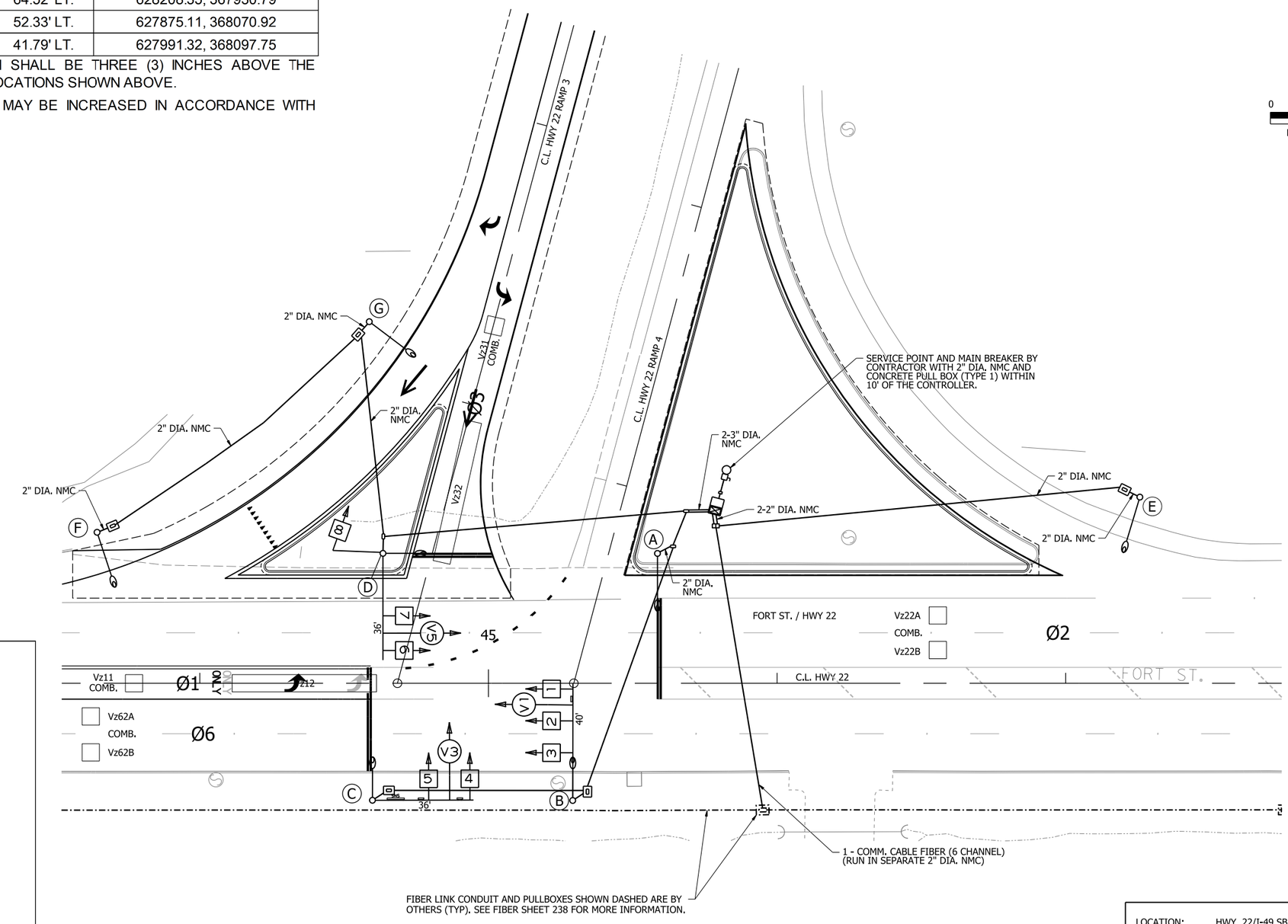
POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 22 - STA. 45+58.56	45.00' LT.	628048.39, 367983.00
B	HWY. 22 - STA. 45+29.19	40.63' RT.	627985.88, 367917.53
C	HWY. 22 - STA. 44+59.81	40.56' RT.	627922.89, 367946.63
D	HWY. 22 - STA. 44+63.45	45.03' LT.	627962.02, 368022.84
E	HWY. 22 - STA. 47+25.69	64.52' LT.	628208.35, 367930.79
F	HWY. 22 - STA. 43+64.40	52.33' LT.	627875.11, 368070.92
G	HWY. 22 RAMP 3 - STA. 11+18.50	41.79' LT.	627991.32, 368097.75

TOP OF POLE FOUNDATION ELEVATION SHALL BE THREE (3) INCHES ABOVE THE FINISHED SURFACE ELEVATION AT THE LOCATIONS SHOWN ABOVE.

TOP OF POLE FOUNDATION ELEVATION MAY BE INCREASED IN ACCORDANCE WITH STANDARD DRAWING SD-11.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

0 20 40 60 80
HORIZ. SCALE IN FEET: 1"=40'



DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH EAST AND WEST APPROACH
25 MPH NORTH APPROACH

NO BUS STOPS
NO RAILROAD TRACKS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON PERMANENT PAVEMENT MARKING DETAILS (SEE SEPARATE SHEET).

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB
14 FEET BEHIND EDGE OF TRAVELED LANE

LOCATION:	HWY. 22/I-49 SB RAMPS				
CITY:	BARLING				
COUNTY:	SEBASTIAN				
DISTRICT:	4	SCALE:	1" = 40'	DRAWN BY:	LTD

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	235	809
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

HIGHWAY 22 AND INTERSTATE 49 S.B. RAMPS
PULL BOX LOCATIONS

PULL BOX	TYPE	LOCATION & STATION	* OFFSET	* X, Y COORDINATES
PB1	1	HWY. 22 - STA. 45+80.09	66.07' LT.	628077.01, 367993.01
PB2	3	HWY. 22 - STA. 45+78.76	54.56' LT.	628070.73, 367983.23
PB3	2 HD	HWY. 22 - STA. 47+20.42	67.11' LT.	628204.64, 367935.34
PB4	2 HD	HWY. 22 - STA. 45+34.42	37.57' RT.	627991.81, 367918.16
PB5	2 HD	HWY. 22 - STA. 44+65.51	37.13' RT.	627929.50, 367947.36
PB6	2 HD	HWY. 22 - STA. 43+69.84	54.54' LT.	627880.98, 368070.66
PB7	2 HD	HWY. 22 RAMP 3 - STA. 11+13.24	44.41' LT.	627985.98, 368095.30
PB8	2	HWY. 22 - STA. 44+63.59	50.90' LT.	627964.60, 368028.11
PB9	2	HWY. 22 - STA. 45+64.01	47.44' LT.	628054.32, 367982.96
PB10	2	HWY. 22 - STA. 45+68.51	59.68' LT.	628063.57, 367992.17

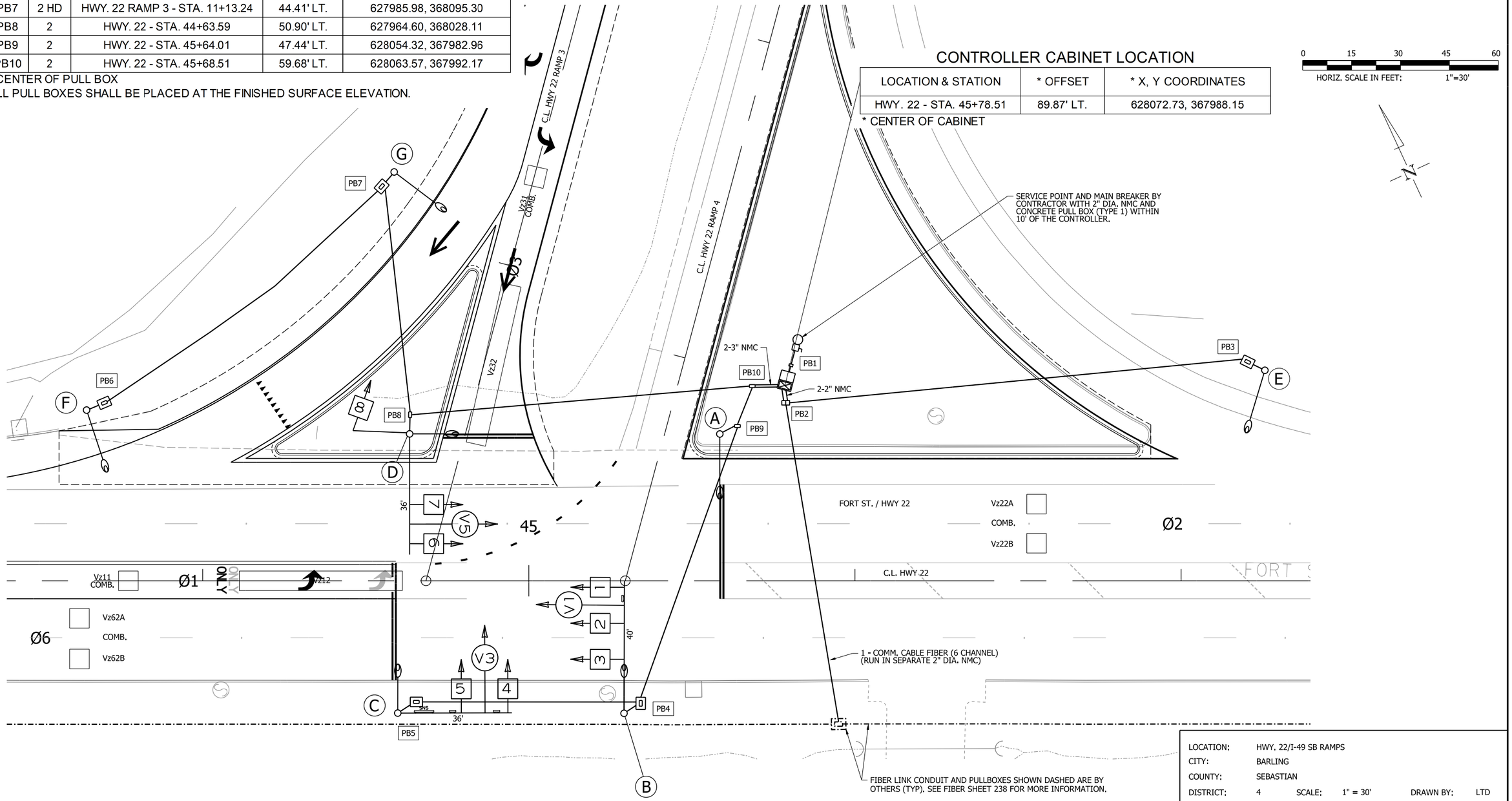
* CENTER OF PULL BOX
ALL PULL BOXES SHALL BE PLACED AT THE FINISHED SURFACE ELEVATION.

CONTROLLER CABINET LOCATION

LOCATION & STATION	* OFFSET	* X, Y COORDINATES
HWY. 22 - STA. 45+78.51	89.87' LT.	628072.73, 367988.15

* CENTER OF CABINET

0 15 30 45 60
HORIZ. SCALE IN FEET: 1"=30'

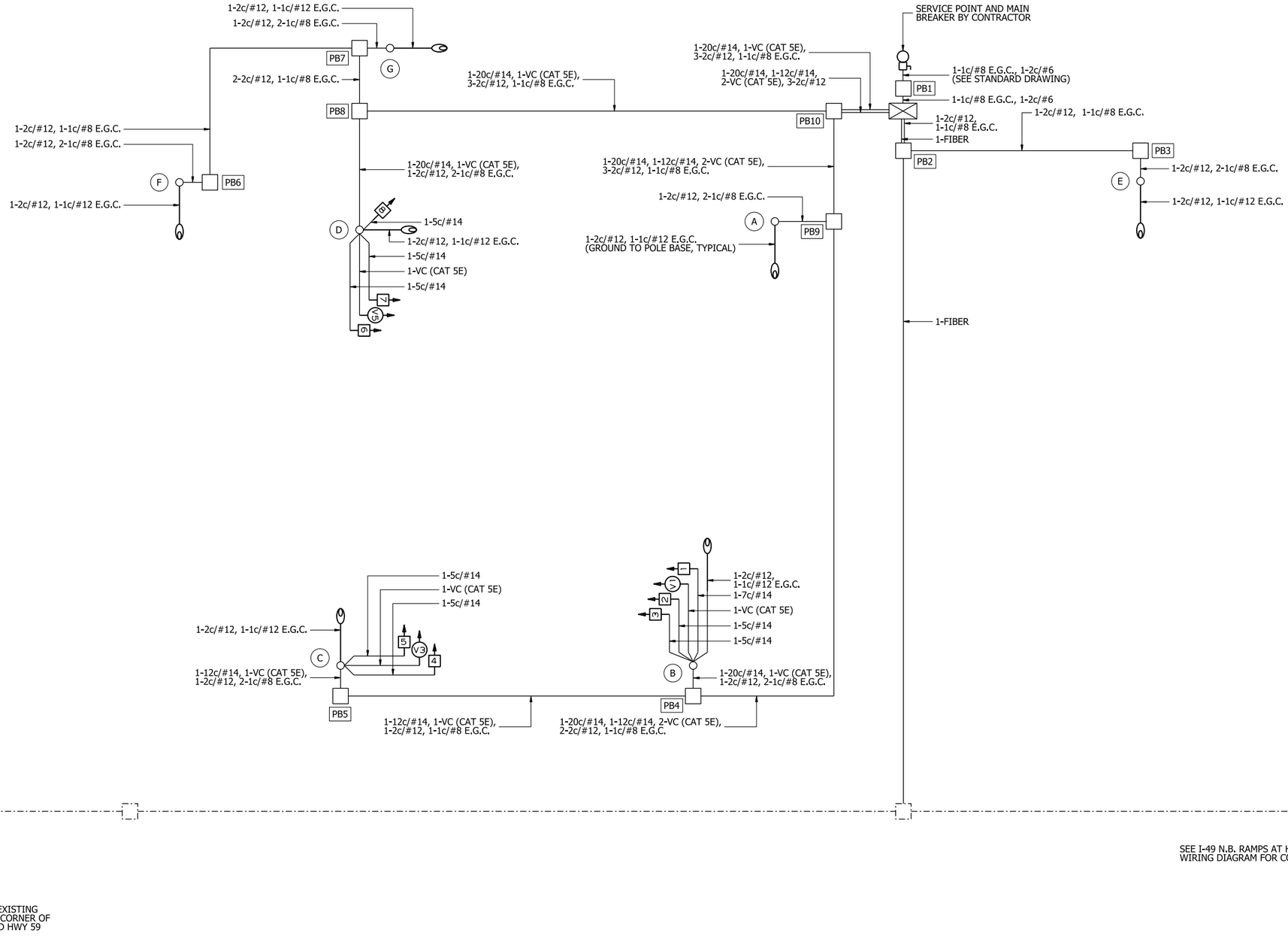


LOCATION:	HWY. 22/I-49 SB RAMPS				
CITY:	BARLING				
COUNTY:	SEBASTIAN				
DISTRICT:	4	SCALE:	1" = 30'	DRAWN BY:	LTD

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	236	809
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



WIRING DIAGRAM

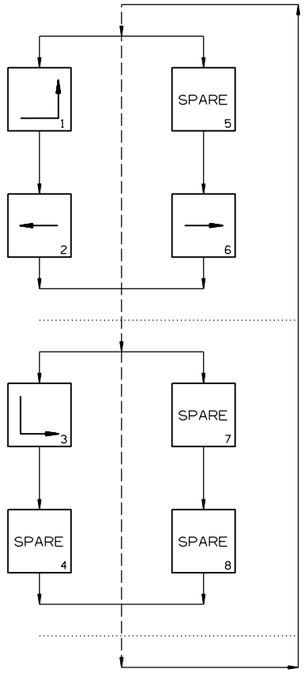
NOTE TO CONTRACTOR

1. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
2. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
3. SEE GROUNDING ARRAY DETAIL.

LOCATION:	HWY. 22/I-49 SB RAMPS				
CITY:	BARLING				
COUNTY:	SEBASTIAN				
DISTRICT:	4	SCALE:	N/A	DRAWN BY:	LTD

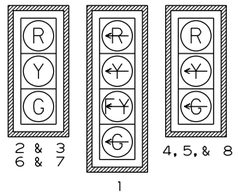
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PHASING DIAGRAM



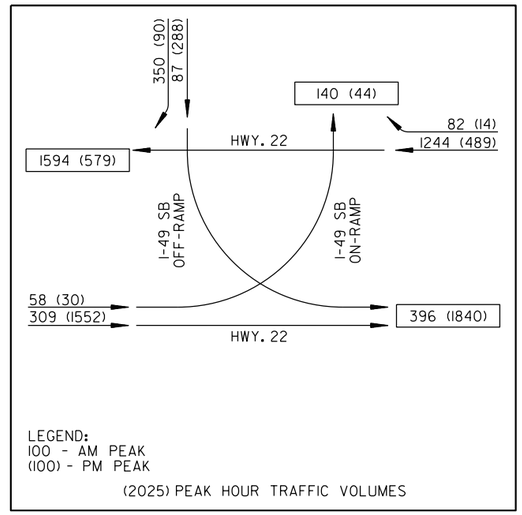
SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. SIGNAL HEAD 8 WILL HAVE GEOMETRICALLY PROGRAMMABLE LOUVERS ON YELLOW ARROW AND GREEN ARROW.

TRAFFIC FLOW DIAGRAM



LEGEND:
100 - AM PEAK
(100) - PM PEAK

(2025) PEAK HOUR TRAFFIC VOLUMES

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	237	809
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 040748											
HIGHWAY 22 AND INTERSTATE 49 S.B. RAMPS DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #	DETECTOR NUMBERS		
Vz11	EB LEFT TURN FAR	COMB.				V9	1	1		CAMERA V1	MAST ARM MOUNTED
Vz12	EB LEFT TURN	LOCAL				V1	1			CAMERA V1	MAST ARM MOUNTED
Vz21 A&B	WB ADVANCE	LOCAL				V2	2			CAMERA V5	MAST ARM MOUNTED
Vz22 A&B	WB NEAR	COMB.				V10	2	2		CAMERA V5	MAST ARM MOUNTED
Vz31	SB LEFT TURN FAR	COMB.				V11	3	3		CAMERA V3	37"
Vz32	SB LEFT TURN	LOCAL				V3	3			CAMERA V3	37"
Vz61 A&B	EB ADVANCE	LOCAL				V6	6			CAMERA V1	MAST ARM MOUNTED
Vz62 A&B	EB NEAR	COMB.				V14	6	6		CAMERA V1	MAST ARM MOUNTED
					SPARE:						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

INTERVAL CHART

SIGNAL FACES	HIGHWAY 22 AND I-49 SB RAMPS							FLASH SEQUENCE
	1+6	CLR.	2+6	CLR.	3	CLR.		
1	~~G~~	~~Y~~	~~FY~~	*	~~R~~	~~R~~		~~R~~
2 & 3	G	**	G	**	R	R		R
4, 5, & 8	R	R	R	R	~~G~~	~~Y~~		R
6 & 7	R	R	G	Y	R	R		R

* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE

LOCATION:	HWY. 22/I-49 SB RAMPS				
CITY:	BARLING				
COUNTY:	SEBASTIAN				
DISTRICT:	4	SCALE:	N/A	DRAWN BY:	LTD

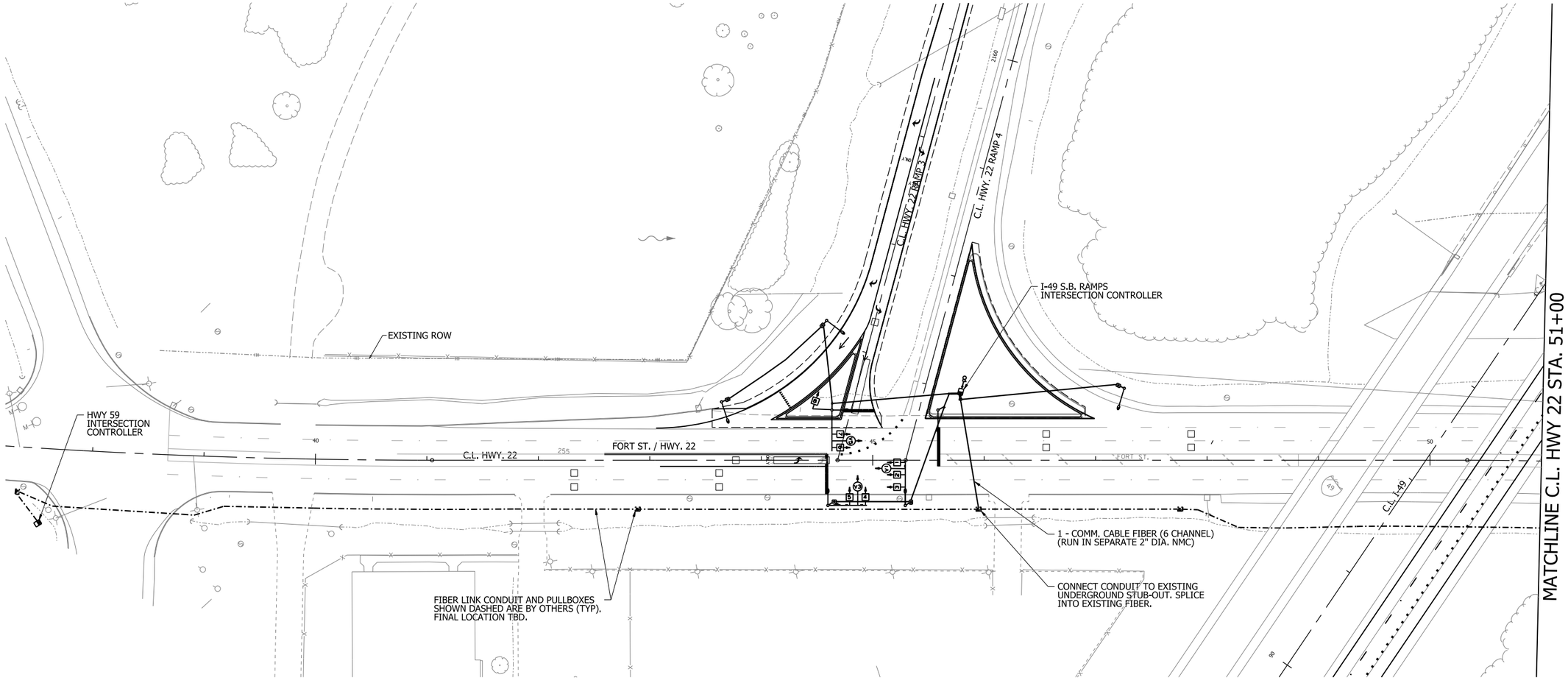
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	238	809
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

FOR INFORMATION ONLY

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'



NOTE:

CONTRACTOR SHALL PROVIDE 1-FIBER FROM I-49 S.B. RAMPS INTERSECTION CONTROLLER TO EXISTING P.B.

CONTRACTOR SHALL RING CUT EXISTING FIBER IN P.B. AND SPLICE NEW FIBER WITH EXISTING SO THAT THE NEW CONTROLLER IS IN-LINE WITH THE EXISTING LOCATIONS.

4/17/2024 10:24:59 AM
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	239	809
		TRAFFIC SIGNAL QUANTITIES - I-49 NB RAMP				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

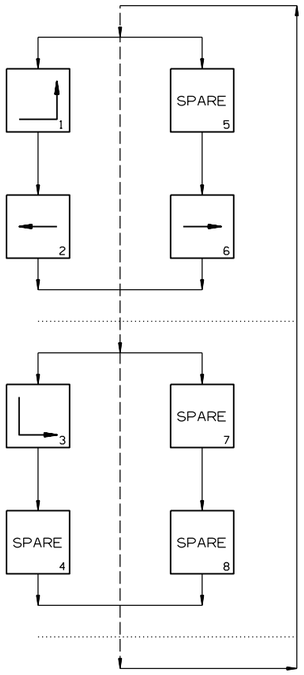
TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	1	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	EACH
SP	WIC FIBER ENCLOSURE	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	9	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	1	EACH
SP	LOUVERS	2	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	560	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	80	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	470	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	1010	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	370	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	40	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	1690	LIN. FT.
SP	COMMUNICATION CABLE, FIBER (6 CHANNEL)	200	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	20	LIN. FT.
710	NON-METALLIC CONDUIT (2")	640	LIN. FT.
710	NON-METALLIC CONDUIT (3")	450	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1)	1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2)	3	EACH
SS & 711	CONCRETE PULL BOX (TYPE 3)	1	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	6	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (0')	4	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (40')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (48')	1	EACH
SP	LED LUMINAIRE ASSEMBLY	7	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH
SP	18" STREET NAME SIGN	1	EACH
SP & 733	VIDEO DETECTOR (IP)	1	EACH
SP & 733	HYBRID VIDEO/RADAR DETECTOR	2	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	670	LIN. FT.
SP & 733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	1	EACH

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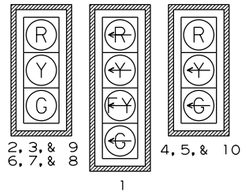
LOCATION:	HWY. 22/I-49 NB RAMPS				
CITY:	BARLING				
COUNTY:	SEBASTIAN				
DISTRICT:	4	SCALE:	N/A	DRAWN BY:	LTD

PHASING DIAGRAM



SIGNAL FACES

12" LENSES

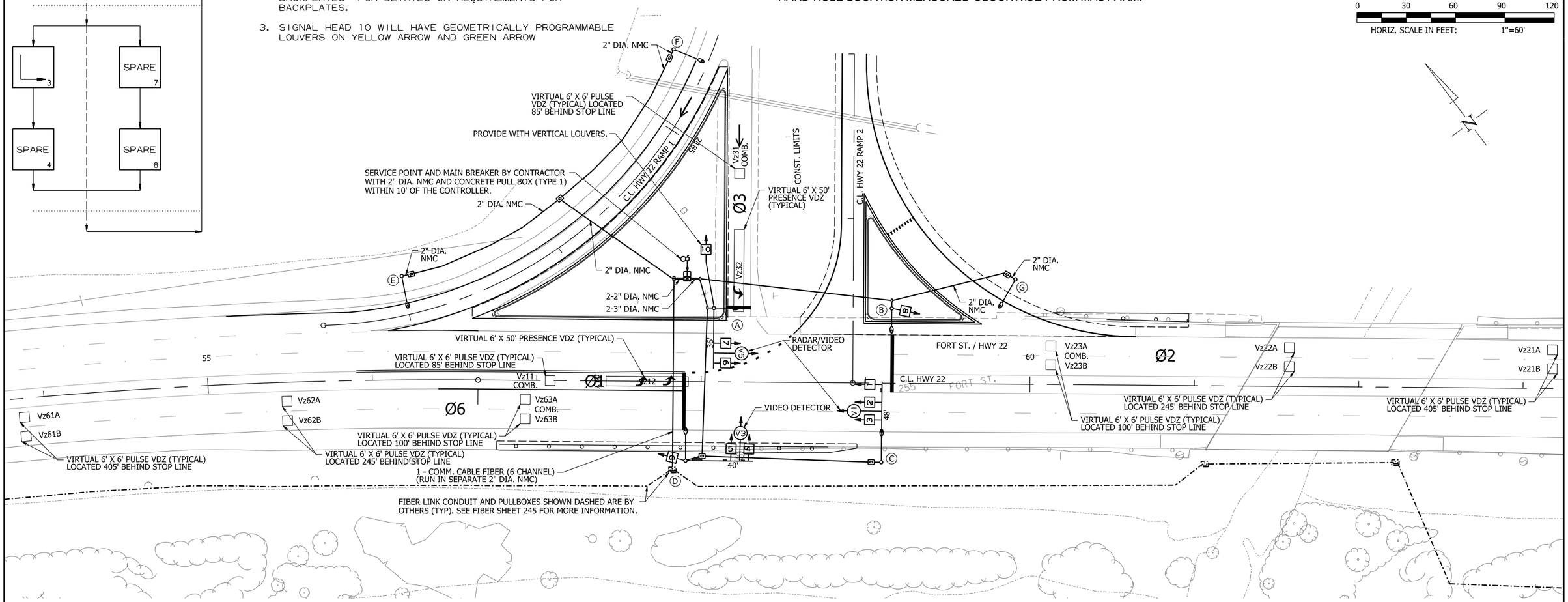


NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. SIGNAL HEAD 10 WILL HAVE GEOMETRICALLY PROGRAMMABLE LOUVERS ON YELLOW ARROW AND GREEN ARROW

HIGHWAY 22 AND INTERSTATE 49 N.B. RAMPS
POLE DIMENSIONS

POLE	MAST ARM	* MAST ARM ANGLE	** HAND HOLE	VERT. SHAFT	LUM. ARM	* LUM. ANGLE
A	36'	217°	180°	35'	5'	127°
B	N/A	N/A	N/A	35'	10'	217°
C	48'	37°	180°	35'	15'	37°
D	40'	127°	90°	35'	15'	37°
E	N/A	N/A	N/A	35'	15'	206°
F	N/A	N/A	N/A	35'	15'	149°
G	N/A	N/A	N/A	35'	15'	247°

* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°, CLOCKWISE ROTATION.
** HAND HOLE LOCATION MEASURED CLOCKWISE FROM MAST ARM.



DETECTOR SPACING CHART

HIGHWAY 22 VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD LOOP	LAG VDZ
55 MPH	405'/245'	100'
I-49 NB OFF-RAMP VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
25 MPH	85'	N/A

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	240	809
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

0 30 60 90 120
HORIZ. SCALE IN FEET: 1"=60'

N

LOCATION:	HWY. 22/I-49 NB RAMPS
CITY:	BARLING
COUNTY:	SEBASTIAN
DISTRICT:	4 SCALE: 1" = 60' DRAWN BY: LTD

4/17/2024 10:25:10 AM
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HIGHWAY 22 AND INTERSTATE 49 N.B. RAMPS
POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 22 - STA. 58+07.46	44.87' LT.	629141.24, 367367.46
B	HWY. 22 - STA. 59+15.64	45.50' LT.	629227.61, 367302.31
C	HWY. 22 - STA. 59+10.00	48.00' RT.	629166.39, 367231.42
D	HWY. 22 - STA. 57+91.00	48.00' RT.	629071.74, 367303.68
E	HWY. 22 RAMP 1 - STA. 2186+99.17	23.85' RT.	629001.07, 367497.10
F	HWY. 22 RAMP 1 - STA. 2184+54.08	22.34' RT.	629216.01, 367507.95
G	HWY. 22 - STA. 59+90.73	63.73' LT.	629298.36, 367271.24

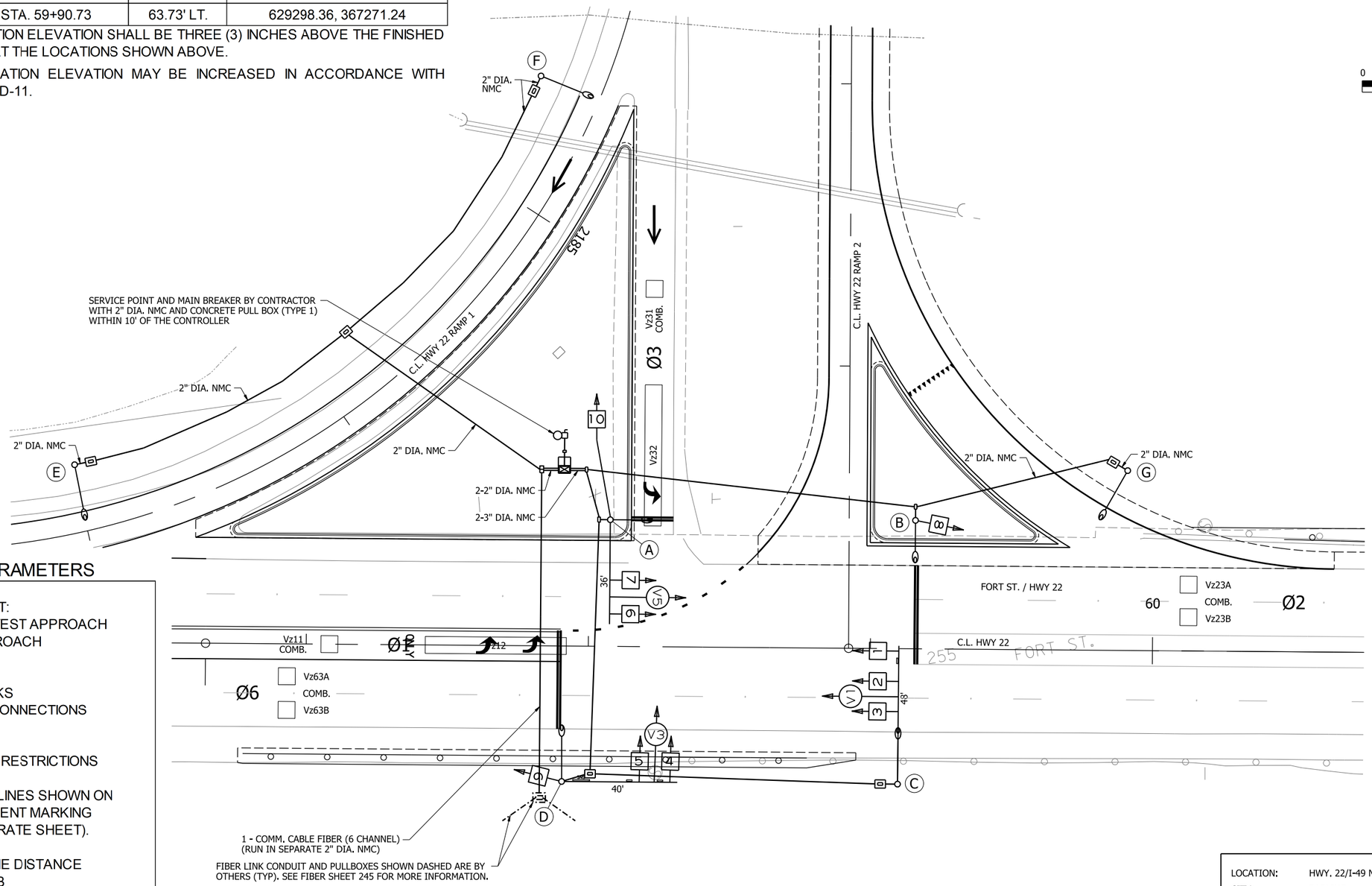
TOP OF POLE FOUNDATION ELEVATION SHALL BE THREE (3) INCHES ABOVE THE FINISHED SURFACE ELEVATION AT THE LOCATIONS SHOWN ABOVE.

TOP OF POLE FOUNDATION ELEVATION MAY BE INCREASED IN ACCORDANCE WITH STANDARD DRAWING SD-11.

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	241	809
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

0 20 40 60 80
HORIZ. SCALE IN FEET: 1"=40'



DESIGN PARAMETERS

POSTED SPEED LIMIT:
55 MPH EAST AND WEST APPROACH
25 MPH NORTH APPROACH

NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON PERMANENT PAVEMENT MARKING DETAILS (SEE SEPARATE SHEET).

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB
14 FEET BEHIND EDGE OF TRAVELED LANE

LOCATION:	HWY. 22/I-49 NB RAMPS				
CITY:	BARLING				
COUNTY:	SEBASTIAN				
DISTRICT:	4	SCALE:	1" = 40'	DRAWN BY:	LTD

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	242	809
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

HIGHWAY 22 AND INTERSTATE 49 N.B. RAMPS
PULL BOX LOCATIONS

PULL BOX	TYPE	LOCATION & STATION	* OFFSET	* X, Y COORDINATES
PB1	1	HWY. 22 - STA. 57+91.04	68.98' LT.	629142.82, 367396.59
PB2	2	HWY. 22 - STA. 57+98.90	62.59' LT.	629145.19, 367386.74
PB3	2	HWY. 22 - STA. 58+03.46	44.90' LT.	629138.08, 367369.91
PB4	2	HWY. 22 - STA. 59+15.65	50.33' LT.	629230.55, 367306.15
PB5	2HD	HWY. 22 - STA. 59+85.65	66.67' LT.	629296.10, 367276.66
PB6	2HD	HWY. 22 - STA. 59+03.85	48.00' RT.	629161.50, 367235.15
PB7	2HD	HWY. 22 - STA. 58+00.96	45.19' RT.	629081.43, 367299.82
PB8	2HD	HWY. 22 RAMP 1 - STA. 2186+92.71	23.60' RT.	629006.38, 367494.57
PB9	2HD	HWY. 22 RAMP 1 - STA. 2185+80.33	23.46' RT.	629106.27, 367476.95
PB10	2HD	HWY. 22 RAMP 1 - STA. 2184+60.50	22.49' RT.	629210.82, 367505.19
PB11	3	HWY. 22 - STA. 57+83.00	62.54' LT.	629132.52, 367396.35

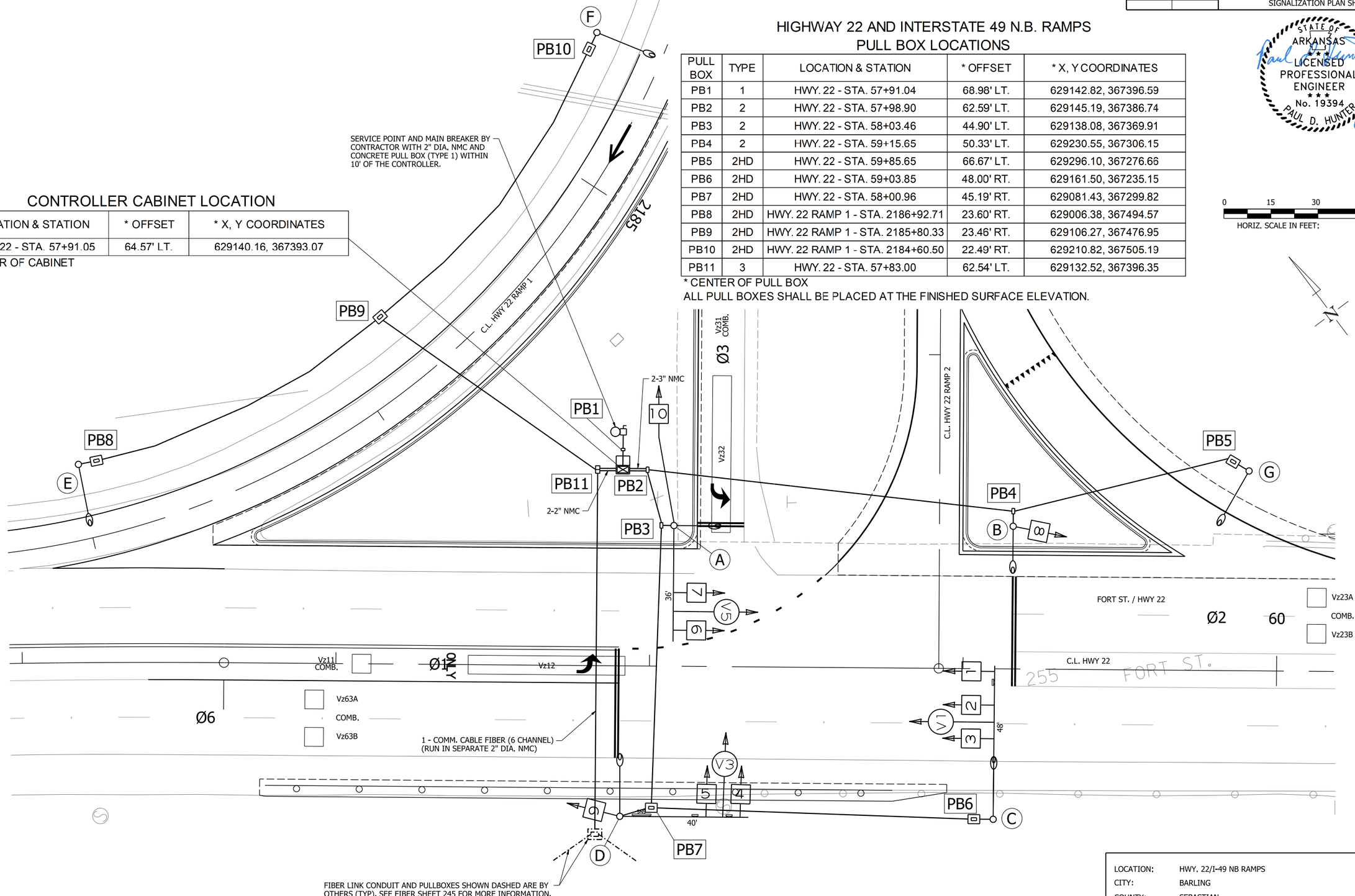
* CENTER OF PULL BOX
ALL PULL BOXES SHALL BE PLACED AT THE FINISHED SURFACE ELEVATION.

CONTROLLER CABINET LOCATION

LOCATION & STATION	* OFFSET	* X, Y COORDINATES
HWY. 22 - STA. 57+91.05	64.57' LT.	629140.16, 367393.07

* CENTER OF CABINET

0 15 30 45 60
HORIZ. SCALE IN FEET: 1"=30'

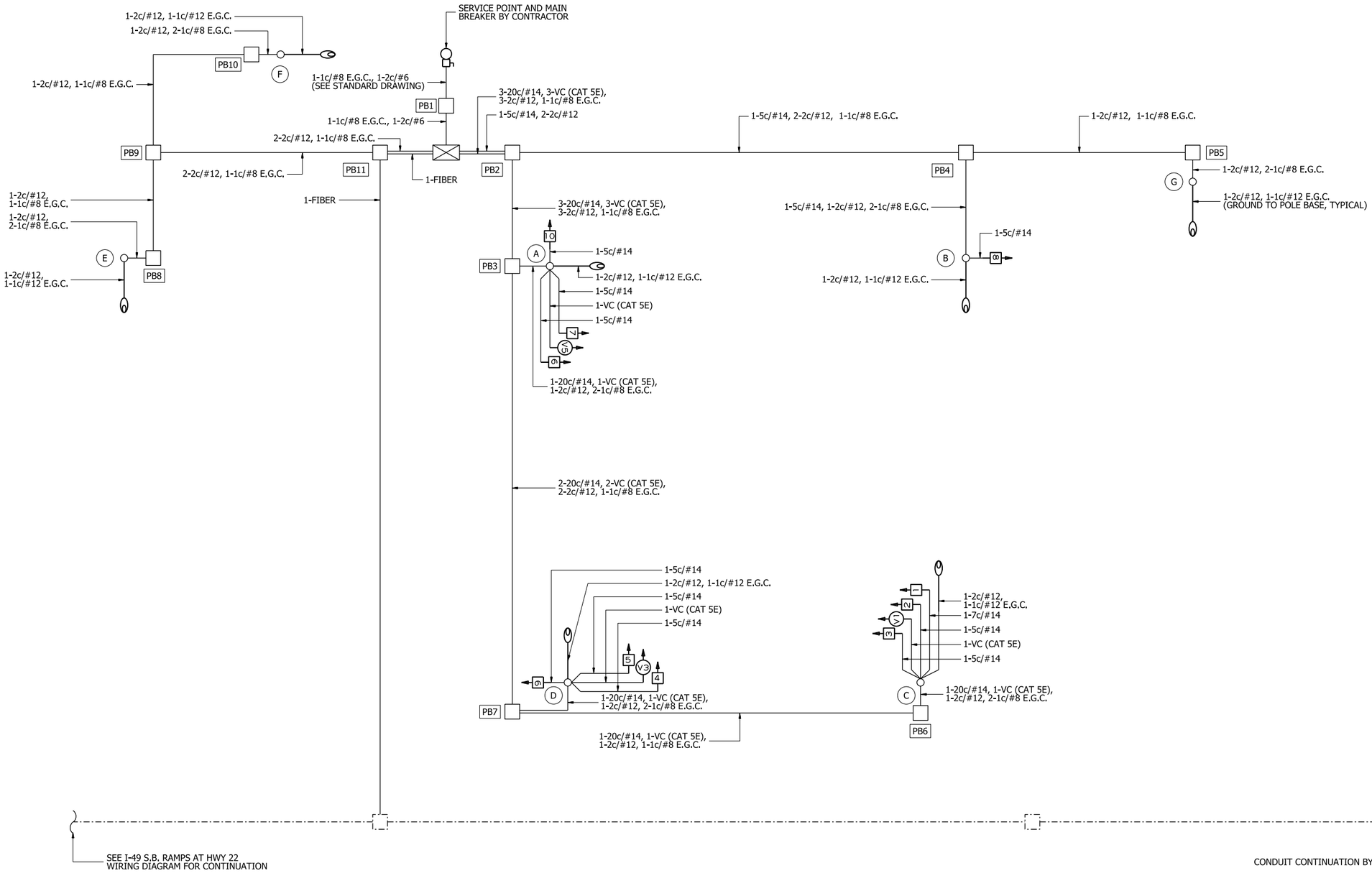


LOCATION:	HWY. 22/I-49 NB RAMPS
CITY:	BARLING
COUNTY:	SEBASTIAN
DISTRICT:	4 SCALE: 1" = 30' DRAWN BY: LTD

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	243	809
		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
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No. 19394
PAUL D. HUNTER
4/17/24



WIRING DIAGRAM

NOTES TO CONTRACTOR

1. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
2. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
3. SEE GROUNDING ARRAY DETAIL.

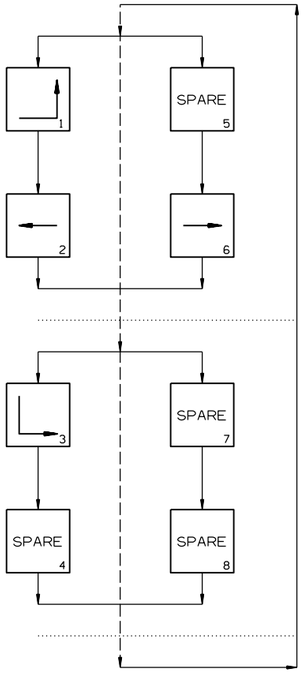
LOCATION:	HWY. 22/I-49 NB RAMPS				
CITY:	BARLING				
COUNTY:	SEBASTIAN				
DISTRICT:	4	SCALE:	N/A	DRAWN BY:	LTD

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		SIGNALIZATION PLAN SHEET				

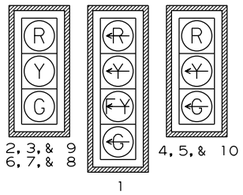
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

PHASING DIAGRAM



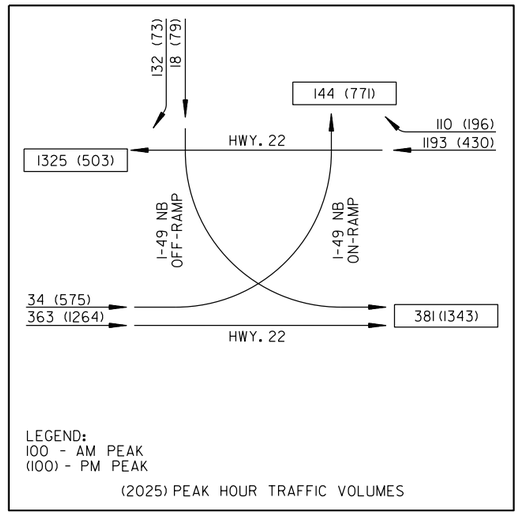
SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. SIGNAL HEAD 10 WILL HAVE GEOMETRICALLY PROGRAMMABLE LOUVERS ON YELLOW ARROW AND GREEN ARROW

TRAFFIC FLOW DIAGRAM



LEGEND:
100 - AM PEAK
(100) - PM PEAK

(2025) PEAK HOUR TRAFFIC VOLUMES

DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 040748											
HIGHWAY 22 AND INTERSTATE 49 N.B. RAMPS DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM		
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #	DETECTOR NUMBERS		
Vz11	EB LEFT TURN FAR	COMB.				V9	1	1		V1	MAST ARM MOUNTED
Vz12	EB LEFT TURN	LOCAL				V1	1			V1	MAST ARM MOUNTED
Vz21 A&B	WB ADVANCE	LOCAL				V2	2			V5	MAST ARM MOUNTED
Vz22 A&B	WB INTERMEDIATE	LOCAL				V4	2			V5	MAST ARM MOUNTED
Vz23 A&B	WB NEAR	COMB.				V10	2	2		V5	MAST ARM MOUNTED
Vz31	SB LEFT TURN FAR	COMB.				V11	3	3		V3	37"
Vz32	SB LEFT TURN	LOCAL				V3	3			V3	37"
Vz61 A&B	EB ADVANCE	LOCAL				V6	6			V1	MAST ARM MOUNTED
Vz62 A&B	EB INTERMEDIATE	LOCAL				V7	6			V1	MAST ARM MOUNTED
Vz63 A&B	EB NEAR	COMB.				V14	6	6		V1	MAST ARM MOUNTED
					SPARE:						

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

INTERVAL CHART

SIGNAL FACES	HIGHWAY 22 AND I-49 NB RAMPS							FLASH SEQUENCE
	1+6	CLR.	2+6	CLR.	3	CLR.		
1	~~G~~	~~Y~~	~~FY~~	*	~~R~~	~~R~~		~~R~~
2, 3, & 9	G	**	G	**	R	R		R
4, 5, & 10	R	R	R	R	~~G~~	~~Y~~		R
6, 7, & 8	R	R	G	Y	R	R		R

* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE

LOCATION:	HWY. 22/I-49 NB RAMPS				
CITY:	BARLING				
COUNTY:	SEBASTIAN				
DISTRICT:	4	SCALE:	N/A	DRAWN BY:	LTD

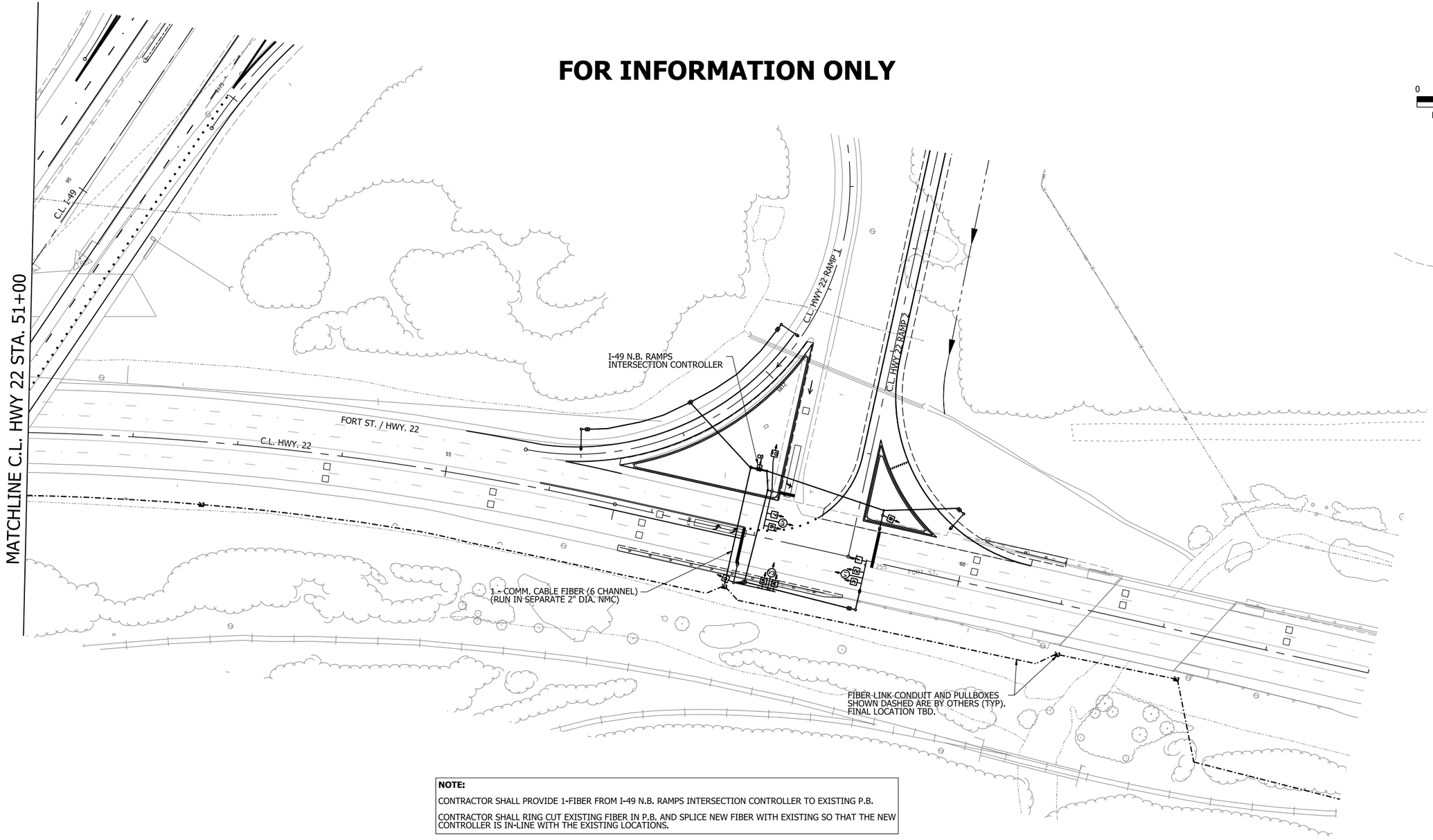
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		SIGNALIZATION PLAN SHEET				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

FOR INFORMATION ONLY

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'



NOTE:

CONTRACTOR SHALL PROVIDE 1-FIBER FROM I-49 N.B. RAMPS INTERSECTION CONTROLLER TO EXISTING P.B.

CONTRACTOR SHALL RING CUT EXISTING FIBER IN P.B. AND SPLICE NEW FIBER WITH EXISTING SO THAT THE NEW CONTROLLER IS IN-LINE WITH THE EXISTING LOCATIONS.

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		6	ARK.	040901	246	809
		ITS PLANS				



GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 NATIONAL ELECTRICAL CODE, NFPA 101 LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.

2. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, ARDOT SPECIAL PROVISIONS SPECIFIC TO THIS PROJECT, STANDARD DRAWINGS, AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO THE PROJECT ENGINEER TO ENSURE ARKANSAS STATE CODES (§17-28-10 ET SEQ. AND §20-31-101 ET. SEQ.) ARE MET. THE DOCUMENTATION SHALL INCLUDE:
   a. THE ELECTRICIANS' LICENSE INFORMATION AND EXPIRATION DATE(S).
   b. THE RATIO OF LICENSED-ELECTRICIANS TO APPRENTICE-ELECTRICIANS.
   c. PRINTED SEARCH RESULT OF LICENSED ELECTRICIANS FROM ARKANSAS. DEPARTMENT OF LABOR, ELECTRICIAN LICENSE DIRECTORY (HTTPS://WWW.ARK.ORG.LABOR/ELECTRICIAN/SEARCH.PHP)
   ALL LICENSES SHALL BE VALID AND CURRENT.

4. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.

5. CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OR ASSIGNED DEPARTMENT PROJECT INSPECTOR, EACH DAY PRIOR TO ITS RELATED WORK. NO WORK WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.

6. THE CONTRACTOR SHALL EXERCISE CAUTION DURING CONSTRUCTION; TO PROTECT EXISTING UTILITIES AND FACILITIES THAT ARE LOCATED IN AREAS OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF UTILITIES/ELEMENTS WHICH ARE DAMAGED AS A RESULT OF ACTIVITIES RELATED TO THE INSTALLATION OF ITS EQUIPMENT.

7. SEE BRIDGE PLANS FOR DETAILS OF BRIDGE-MOUNTED UTILITY CONDUITS, SUPPORTS, AND PULL BOXES. BRIDGE-MOUNTED CONDUITS, SUPPORT ASSEMBLIES, AND PULL BOXES ARE PAID FOR AS DESCRIBED ON ITS PLANS. SEE BRIDGE PLANS AND STANDARD SPECIFICATIONS FOR DETAILS AND REQUIREMENTS OF EXPANSION JOINTS IN BRIDGE-MOUNTED CONDUITS.

8. BRIDGE DESIGN ALTERNATE 2 WAS USED TO CALCULATE THE QUANTITY OF CONDUITS AND PULL BOXES. BRIDGE 1 ALTERNATE QUANTITIES ARE NOT PROVIDED. IF BRIDGE ALTERNATE 1 IS SELECTED FOR CONSTRUCTION, THE CONTRACTOR SHALL USE THE ALTERNATE 2 QUANTITIES FOR MEASUREMENT AND PAYMENT.

9. ALL BRIDGE MOUNTED METALLIC CONDUITS AND JUNCTION BOXES SHALL BE CONTINUOUSLY BONDED USING GROUNDING-TYPE CONDUIT BUSHINGS. NEAR THE BRIDGE ABUTMENT, GROUND THE END OF THE METALLIC CONDUIT AND JUNCTION BOX SYSTEM TO A COPPER CLAD ELECTRODE. SEE SPECIAL PROVISIONS FOR ITS ELECTRICAL JUNCTION BOX METALLIC, FOR ADDITIONAL DETAILS.

10. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHOULD BE INSTALLED BY PUSHING OR BORING METHOD. PVC OR HDPE CONDUIT SHALL BE USED AND SHALL BE UL LISTED. PVC CONDUIT SHALL BE MARKED 'DIR. BORING' OR 'DIRECTIONAL BORING' PER NEC. IF THE CONTRACTOR DETERMINES THAT A PUSHING OR BORING INSTALLATION METHOD IS NOT FEASIBLE, THE CONTRACTOR MAY REQUEST PERMISSION FROM THE PROJECT ENGINEER TO EMPLOY A TRENCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS. THE PROJECT ENGINEER SHALL GRANT A WRITTEN APPROVAL PRIOR TO THE USE OF ANY TRENCHING METHOD.

11. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT ANY INTERFERENCE. CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY.

12. CONDUIT END BELL FITTINGS SHALL BE INSTALLED ON ALL TERMINATING ENDS OF NON-METALLIC CONDUIT RUNS. THIS INCLUDES PULL BOXES, POLE BASES, SPLICE CABINETS, AND CONTROL CABINETS. THE COST OF THE FITTINGS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM.

13. ALL NON-METALLIC CONDUITS SHALL USE LONG SWEEP ELBOWS ON ALL CONDUIT BENDS. THE COST OF THE ELBOWS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM.

14. CONTRACTOR SHALL ATTACH A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO EACH CONDUIT AT EACH PULL BOX, POLE BASE, JUNCTION BOX, AND CABINET. TAGS SHALL BE EMBOSSED, STAMPED, OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. EACH TAG SHALL INDICATE THE END LOCATION OF THE CONDUIT RUN. THE COST OF THE TAGS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM.

15. THE CONTRACTOR SHALL INSTALL A 5/8"X 10' COPPER GROUND ROD IN THE AT-GRADE PULL BOXES ADJACENT TO EACH BRIDGE END. THE GROUND RODS ARE SUBSIDIARY TO THE GROUND BOX PAY ITEM. ITS GROUND BOXES ARE TO BE GROUNDED PER ARDOT STANDARD DRAWING SD-11, STEEL POLE WITH MAST ARM, WHEN REQUIRED.

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ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
C	CONDUIT
COMM	COMMUNICATIONS
℄	CENTERLINE
DET	DETAIL
DWG	DRAWING
EXIST., (E)	EXISTING
FG	FINISHED GRADE
FO	FIBER OPTIC
FOC	FIBER OPTIC CABLE
GRS	GALVANIZED RIGID STEEL (CONDUIT)
HDG	HOT DIPPED GALVANIZED
HH	HANDHOLE
ID	INSIDE DIAMETER
JB	JUNCTION BOX
MH	MANHOLE
MIN	MINIMUM
MP	MILEPOST
(N)	NEW
NB	NORTHBOUND
NEC	NATIONAL ELECTRIC CODE
NFPA	NATIONAL FIRE PROTECTION AGENCY
NIC	NOT IN CONTRACT
NMC	NON-METALLIC CONDUIT
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OSP	OUTSIDE PLANT
PAN, PNL	PANEL
PB	PULL BOX
QTY	QUANTITY
ROW	RIGHT OF WAY
RTRC	REINFORCED THERMOSETTING RESIN CONDUIT
SB	SOUTHBOUND
SP	SPARE
STA	STATIONING
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED

SYMBOLS

TYPE 4 PROPOSED ITS GND PULL BOX W/APRON

PROPOSED BRIDGE MOUNTED PULL BOX

FIBER MARKER

STATE OF ARKANSAS
PROFESSIONAL ENGINEER
No. 22410
ANDREW RICKARD MACKLEY
4/18/24

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ABBREVIATIONS AND SYMBOLS
ITS PLANS

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6-11-2024		6	ARK.	040901	248	809
		ITS PLANS				

STATE OF ARKANSAS
PROFESSIONAL ENGINEER
No. 22410
ANDREW RICKARD MACKLEY
6/11/24

ITS QUANTITIES SUMMARY

ITEM	DESCRIPTION	UNIT	STA. 159+00 TO STA. 183+00	STA. 183+00 TO STA. 206+50	STA. 206+50 TO STA. 231+00	STA. 231+00 TO STA. 255+00	STA. 255+00 TO STA. 259+74	TOTAL
SP & 709	GALVANIZED STEEL CONDUIT (4")	LF	8115	9900	4011	5977	1659	29662
SP & 710	NON-METALLIC CONDUIT (4")	LF	534		6326	4129	420	11409
SP, SS & 711	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	EA	1		4	2	1	8
SP	ITS FIBER OPTIC JUNCTION BOX, METALLIC (32"X16"X18")	EA	5	4	3	4	1	17

QUANTITIES SUMMARY
ITS PLANS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	249	809
		ITS PLANS				



BRIDGE ALTERNATE 1 (CONCRETE)		
PULL BOX STA.	PULL BOX TYPE	Pull Box No.
163+45	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	163
163+89	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	164
168+14	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	168
173+08	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	173
177+70	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	178
182+61	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	183
187+60	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	188
192+59	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	193
197+58	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	198
202+24	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	202
207+01	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	207
211+88	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	212
215+87	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	216
216+61	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	217
221+00	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	221
225+60	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	225
230+24	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	230
234+86	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	235
239+50	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	240
240+89	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	241
245+23	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	245
250+21	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	250
254+82	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	255
258+74	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	259
259+80	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	260

* BRIDGE-MOUNTED PULL BOX STATIONS SHOWN IN THIS TABLE ARE APPROXIMATE AND ARE FOR INFORMATION ONLY. SEE BRIDGE PLAN SHEETS FOR PULL BOX SUPPORTS.

BRIDGE ALTERNATE 2 (STEEL)		
PULL BOX STA.	PULL BOX TYPE	Pull Box No.
163+45	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	163
163+82	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	164
168+18	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	168
173+11	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	173
177+75	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	178
182+61	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	183
187+60	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	188
192+59	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	193
197+55	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	198
202+28	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	202
207+02	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	207
211+85	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	212
215+94	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	216
216+61	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	217
221+00	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	221
225+60	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	225
230+24	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	230
234+86	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	235
239+50	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	240
240+90	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	241
245+57	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	246
250+49	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	251
254+78	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	255
258+85	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")*	259
259+80	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	260

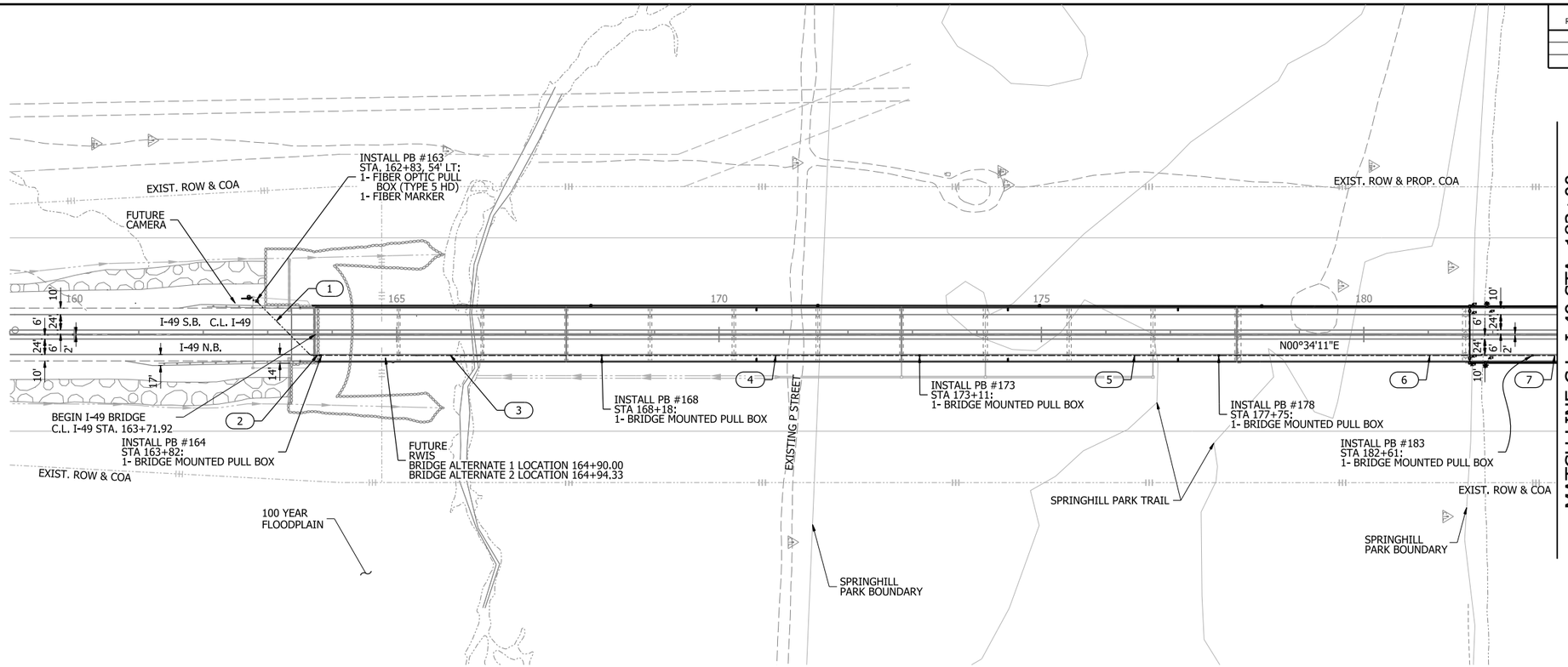
* BRIDGE-MOUNTED PULL BOX STATIONS SHOWN IN THIS TABLE ARE APPROXIMATE AND ARE FOR INFORMATION ONLY. SEE BRIDGE PLAN SHEETS FOR PULL BOX SUPPORTS.

NOTE:
REFERENCE BRIDGE FRAMING PLANS FOR ACTUAL LOCATIONS.
ANY REVISIONS TO THE BRIDGE PLANS SUPERSEDE THE INFORMATION IN THIS SCHEDULE.

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BRIDGE ALTERNATE PULL BOX SCHEDULE
ITS PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	250	809
		ITS PLANS				



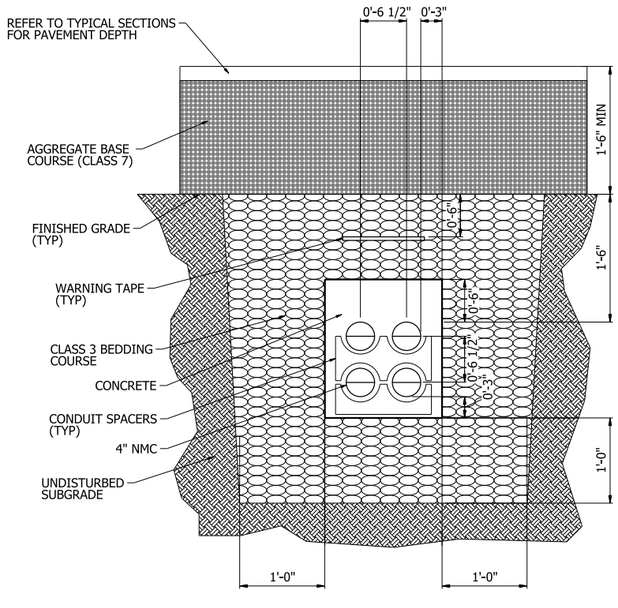
ENGINEER
No. 22410
ANDREW RICKARD MACKLEY
5/1/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

LEGEND

- PROPOSED GALVANIZED STEEL CONDUIT (4") ON STRUCTURE
- PROPOSED NMC (4")
- PROPOSED FIBER OPTIC CONCRETE PULL BOX (TYPE 4 HD)
- PROPOSED BRIDGE MOUNTED PULL BOX
- FIBER MARKER

STA. 159+00 TO STA. 183+00			
RUN NUMBER	SP & 709 GALVANIZED STEEL CONDUIT (4")	SP & 710 NON-METALLIC CONDUIT (4")	RUN LENGTH (FEET)
1		4	127
2	4		10
3	4		435
4	4		495
5	4		465
6	4		487
7	4		40
UNIT	LF	LF	
SHEET SUB-TOTAL	7728	508	
ELEVATION ADJUSTMENT (5%)	387	26	
SHEET TOTAL	8115	534	



TYPICAL TRENCH FOR CONCRETE ENCASED CONDUITS INSTALLATION

SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
SP & 709	GALVANIZED STEEL CONDUIT (4")	LF	8115
SP & 710	NON-METALLIC CONDUIT (4")	LF	534
SP, SS & 711	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	EA	1
SP	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")	EA	5

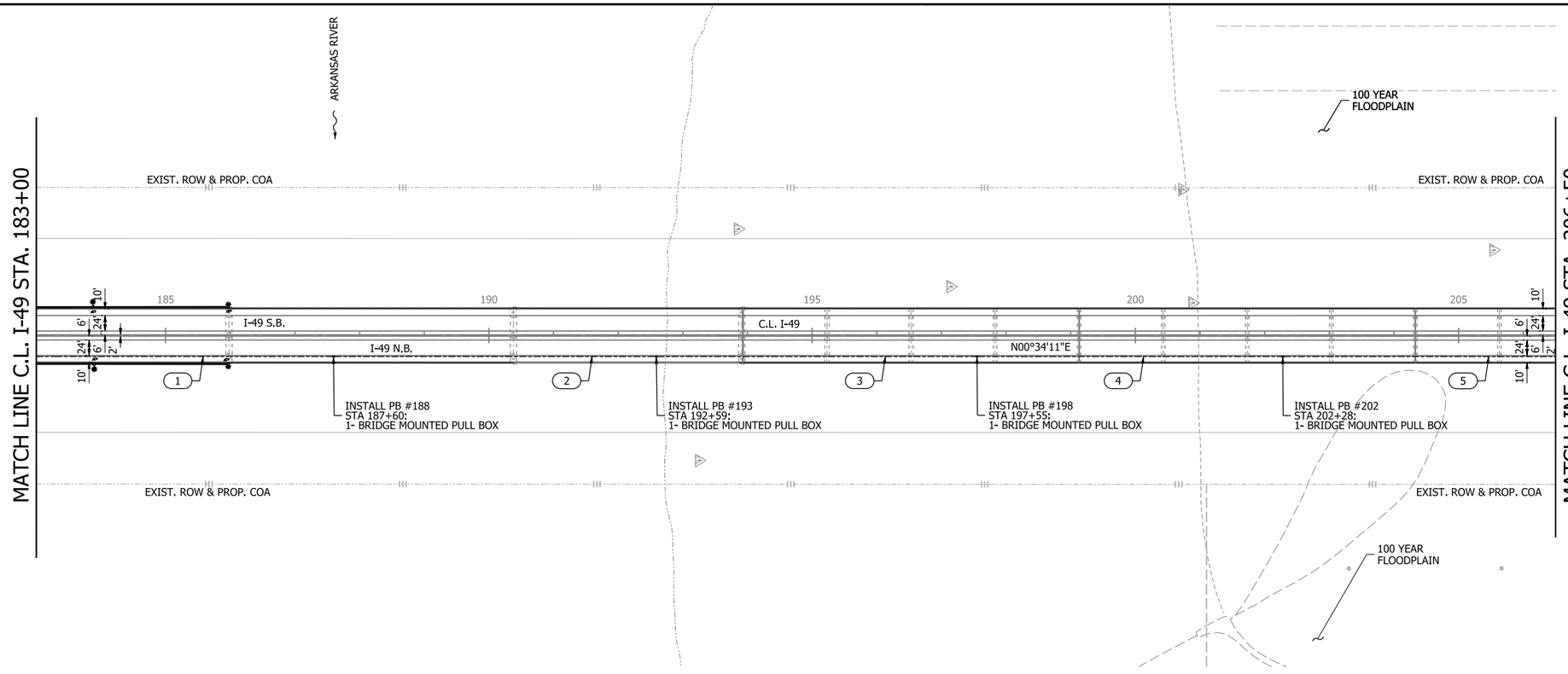
NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

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ITS PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	251	809
		ITS PLANS				



ENGINEER
No. 22410
ANDREW RICKARD MACKLEY
5/1/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

N

LEGEND

- PROPOSED GALVANIZED STEEL CONDUIT (4") ON STRUCTURE
- PROPOSED NMC (4")
- PROPOSED FIBER OPTIC CONCRETE PULL BOX (TYPE 4 HD)
- PROPOSED BRIDGE MOUNTED PULL BOX
- FIBER MARKER

STA. 183+00 TO STA. 206+50		
RUN NUMBER	SP & 709 GALVANIZED STEEL CONDUIT (4")	RUN LENGTH (FEET)
1	4	460
2	4	500
3	4	500
4	4	475
5	4	422
UNIT	LF	
SHEET SUB-TOTAL	9428	
ELEVATION ADJUSTMENT (5%)	472	
SHEET TOTAL	9900	

SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
SP & 709	GALVANIZED STEEL CONDUIT (4")	LF	9900
SP	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")	EA	4

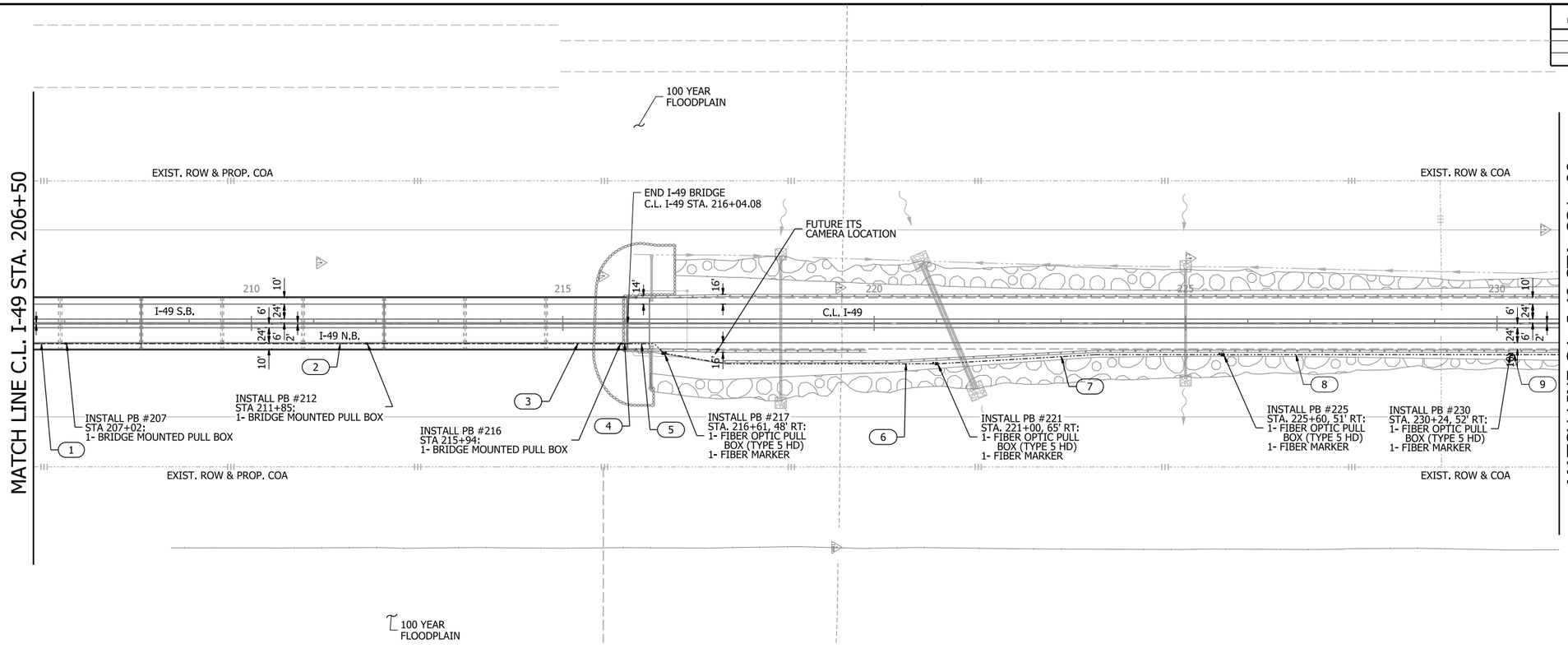
NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

ITS PLANS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	252	809
		ITS PLANS				



STATE OF ARKANSAS
ENGINEER
ANDREW RICKARD MACKLEY
No. 22410
5/1/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

LEGEND

- PROPOSED GALVANIZED STEEL CONDUIT (4") ON STRUCTURE
- PROPOSED NMC (4")
- PROPOSED FIBER OPTIC CONCRETE PULL BOX (TYPE 4 HD)
- PROPOSED BRIDGE MOUNTED PULL BOX
- FIBER MARKER

STA. 206+50 TO STA. 231+00			
RUN NUMBER	SP & 709 GALVANIZED STEEL CONDUIT (4")	SP & 710 NON-METALLIC CONDUIT (4")	RUN LENGTH (FEET)
1	4		50
2	4		485
3	4		410
4	4		10
5		4	65
6		4	440
7		4	460
8		4	465
9		4	76
UNIT	LF	LF	
SHEET SUB-TOTAL	3820	6024	
ELEVATION ADJUSTMENT (5%)	191	302	
SHEET TOTAL	4011	6326	

SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
SP & 709	GALVANIZED STEEL CONDUIT (4")	LF	4011
SP & 710	NON-METALLIC CONDUIT (4")	LF	6326
SP, SS & 711	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	EA	4
SP	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")	EA	3

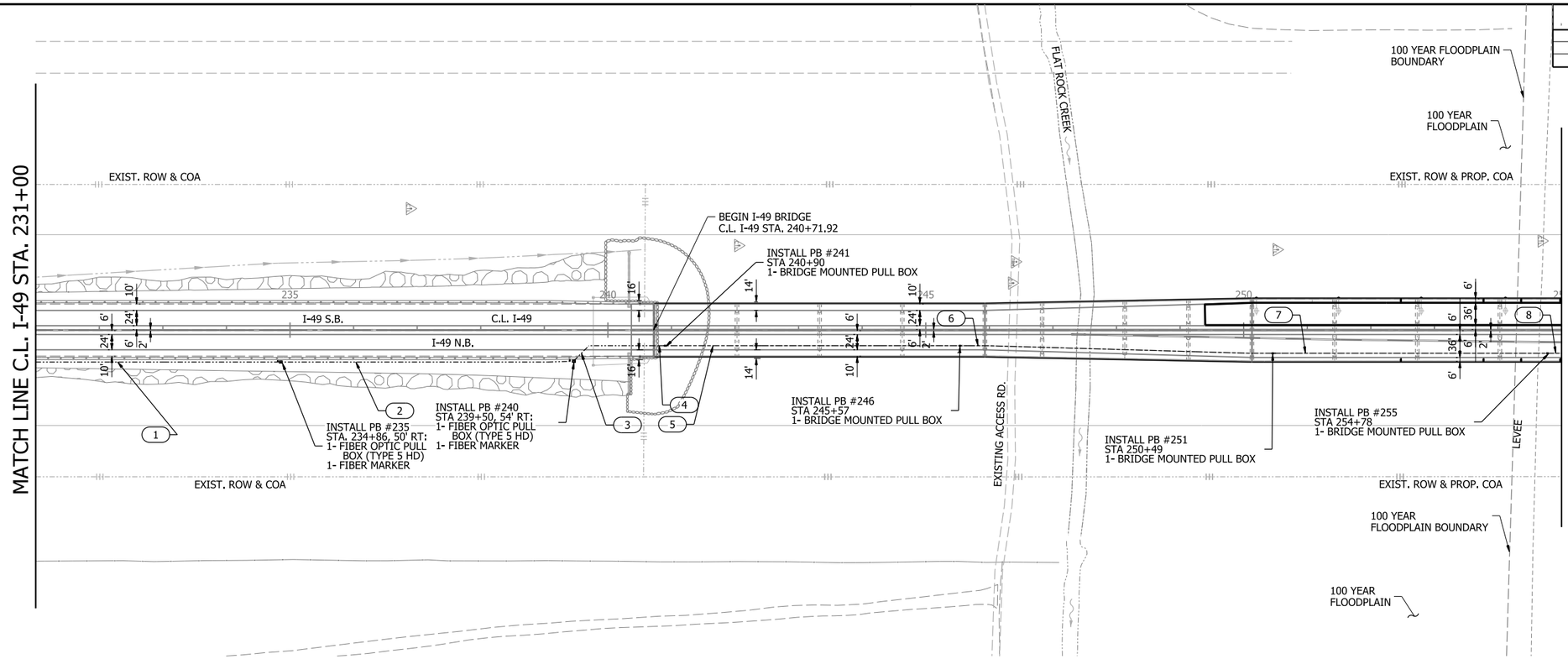
NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

ITS PLANS

5/1/2024 4:17:33 PM
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	253	809
		ITS PLANS				



ENGINEER
ANDREW RICKARD MACKLEY
No. 22410
5/1/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

LEGEND

- PROPOSED GALVANIZED STEEL CONDUIT (4") ON STRUCTURE
- PROPOSED NMC (4")
- PROPOSED FIBER OPTIC CONCRETE PULL BOX (TYPE 4 HD)
- PROPOSED BRIDGE MOUNTED PULL BOX
- FIBER MARKER

STA. 231+00 TO STA. 255+00			
RUN NUMBER	SP & 709 GALVANIZED STEEL CONDUIT (4")	SP & 710 NON-METALLIC CONDUIT (4")	RUN LENGTH (FEET)
1		4	385
2		4	460
3		4	138
4	4		16
5	4		465
6	4		490
7	4		430
8	4		22
UNIT	LF	LF	
SHEET SUB-TOTAL	5692	3932	
ELEVATION ADJUSTMENT (5%)	285	197	
SHEET TOTAL	5977	4129	

SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
SP & 709	GALVANIZED STEEL CONDUIT (4")	LF	5977
SP & 710	NON-METALLIC CONDUIT (4")	LF	4129
SP, SS & 711	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	EA	2
SP	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")	EA	4

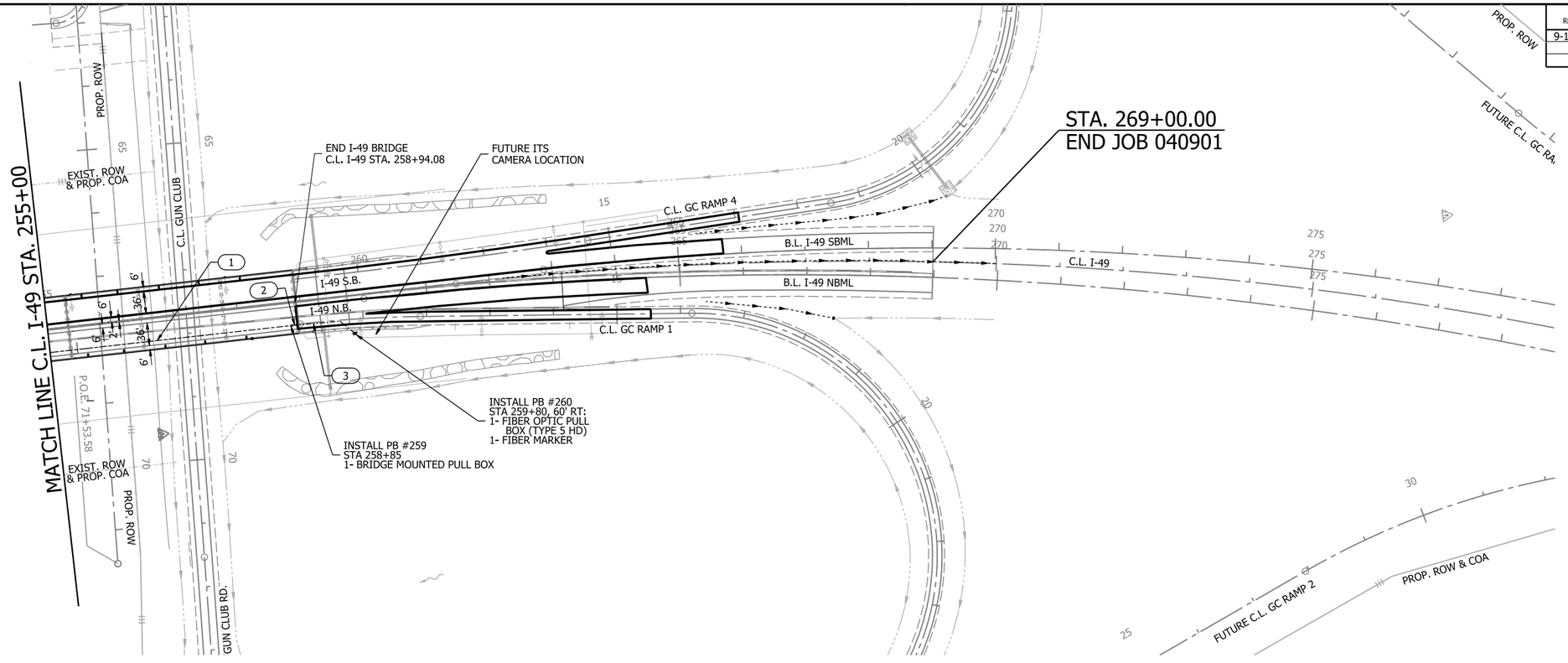
NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

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ITS PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	254	809
		ITS PLANS				



STATE OF ARKANSAS
ENGINEER
No. 22410
ANDREW RICKARD MACKLEY
5/17/24

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

N

LEGEND

- PROPOSED GALVANIZED STEEL CONDUIT (4") ON STRUCTURE
- PROPOSED NMC (4")
- PROPOSED FIBER OPTIC CONCRETE PULL BOX (TYPE 4 HD)
- PROPOSED BRIDGE MOUNTED PULL BOX
- FIBER MARKER

STA. 255+00 TO STA. 259+80			
RUN NUMBER	SP & 709	SP & 710	RUN LENGTH (FEET)
	GALVANIZED STEEL CONDUIT (4")	NON-METALLIC CONDUIT (4")	
1	4		385
2	4		10
3		4	100
UNIT	LF	LF	
SHEET SUB-TOTAL	1580	400	
ELEVATION ADJUSTMENT (5%)	79	20	
SHEET TOTAL	1659	420	

SUMMARY			
ITEM	DESCRIPTION	UNIT	QTY
SP & 709	GALVANIZED STEEL CONDUIT (4")	LF	1659
SP & 710	NON-METALLIC CONDUIT (4")	LF	420
SP, SS & 711	FIBER OPTIC CONCRETE PULL BOX (TYPE 5 HD)	EA	1
SP	ITS FIBER OPTIC JUNCTION BOX (METALLIC 32"X16"X18")	EA	1

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

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ITS PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	255	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
BYRON O. LAWRENCE
LICENSED PROFESSIONAL ENGINEER
No. 13640
5-1-2024

STANDARD SIGNS FLAT SHEET
OMNI-DIRECTIONAL BREAKWAY SIGN SUPPORT

SIGN NO/LOCATION	STANDARD ROAD SIGNS	POST ASSEMBLY TYPES						
		G2-2	G-1	G-2	G2-1	G2-3	G2-4	G2-5
SS-HWY 22 STA 28+96RT	M2-1P, M1-5		1					
SS-HWY 22 STA 31+57RT	M3-3P, (3)M1-5, M3-1P, M3-2P, M5-4P, M6-3P	1						
SS-HWY 22 STA 39+18LT	SPRINGHILL PARK SHP-6			1				
SS-HWY 22 STA 40+77LT	R2-1		1					
SS-HWY 22 STA 41+77LT	M3-4P, M1-5		1					
SS-HWY 22 STA 42+90LT	SPRINGHILL PARK SHP-3, AR CoHE			1				
SS-HWY 22 STA 45+26RT	M3-3*, M1-5*, (2)M1-5, M6-1*, M3-1P, M3-2P, M6-3P	1						
SS-HWY 22 STA 45+60LT	M3-3*, M1-5*, M6-1*		1					
SS-HWY 22 STA 48+13RT	W3-3				1			
SS-HWY 22 STA 49+31LT	R3-7R		1					
SS-HWY 22 STA 50+00RT	M3-1P, M1-5, M5-4P		1					
SS-HWY 22 STA 52+03LT	M3-4P, M1-5*, M1-5, M6-3P, M3-3*, M5-6G*, SPRINGHILL PARK SHP-4							1
SS-HWY 22 STA 55+28RT	W3-3				1			
SS-HWY 22 STA 58+02LT	R6-1L, R6-1R, R5-1, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-HWY 22 STA 58+43LT	R6-1L, R6-1R, R5-1, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-HWY 22 STA 58+92RT	M3-1P, M3-2P, (2)M1-5, M6-1L, M6-3P	1						
SS-HWY 22 STA 59+20LT	M3-4P, (2)M1-5, M3-3P, M6-3P		1					
SS-HWY 22 STA 60+65LT	M3-1P, M1-5, M6-2R		1					
SS-HWY 22 STA 62+34RT	R2-1		1					
SS-HWY 22 STA 65+83LT	R2-1		1					
SS-HWY 22 STA 67+83LT	W3-3				1			
SS-HWY 22 STA 72+08LT	M3-3P, M6-3P, (3)M1-5, M3-4P, M3-1P, M5-6P	1						
SS-HWY 22 STA 75+34LT	M2-1P, M1-5		1					
SS-HWY 22 RAMP 1 STA 2183+70RT	R5-1a, M3-2, (2)M1-5, M5-1L, M3-4, M6-2R, SPRINGHILL PARK SHP-2, (2) TYPE XI RETRO-REFLECTIVE STRIP							1
SS-HWY 22 RAMP 1 STA 2183+70LT	R5-1a, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-HWY 22 RAMP 2 STA 11+04RT	R1-2		1					
SS-HWY 22 RAMP 2 STA 11+49LT	R3-7L		1					
SS-HWY 22 RAMP 3 STA 10+43LT	R6-1L, R6-1R, R5-1, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-HWY 22 RAMP 3 STA 10+52RT	R6-1L, R6-1R, R5-1, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-HWY 22 RAMP 3 STA 10+52LT	R5-1, R1-2, (2) TYPE XI RETRO-REFLECTIVE STRIP					1		
SS-HWY 22 RAMP 3 STA 11+79LT	M3-2P, M3-4P, (2) M1-5, M5-1L, M6-2R, R3-7R, SPRINGHILL PARK SHP-1							1
SS-HWY 22 RAMP 3 STA 13+54LT	R3-8 series, R5-1a, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-HWY 22 RAMP 3 STA 13+54RT	R5-1a, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-HWY 22 RAMP 3 STA 16+69LT TO STA 27+90LT	W1-8L		8					
SS-49 STA 112+48NB	W4-1				1			
SS-49 STA 120+62SB	W13-2			1				
SS-49 STA 128+00NB	M3-1P, M1-5		1					
SS-49 STA 132+00NB	R2-1			1				
SS-49 STA 158+50NB	W8-13				1			
SS-49 STA 220+00NB	W19-5*			1				
SS-49 STA 221+03SB	W8-13				1			
SS-49 STA 225+00NB LT & RT	(2) W9-1L				2			
SS-49 STA 229+70NB LT & RT	(2) W4-2				2			
SS-49 STA 235+61NB	W8-13				1			
SS-49 STA 237+00SB	R2-1			1				
SS-49 STA 240+00SB	M3-3P, M1-5		1					
SS-49 STA 249+50NB TO STA 253+50NB	W1-6			4				
SS-49 STA 268+13SB	W4-1				1			
SS-GUN CLUB STA 10+31LT	R1-1, (2) GUN CLUB PLAQUE			1				
SS-GUN CLUB STA 15+54RT	R2-1		1					
SS-GUN CLUB STA 50+74RT	M2-1P, M1-5		1					
SS-GUN CLUB STA 54+63LT	R2-1		1					
SS-GUN CLUB STA 58+65RT	M3-3P, (2)M1-5, M5-1L, M3-1P, M6-3P							1
SS-GUN CLUB STA 60+22LT	M3-3P, M1-5, M6-1L		1					
SS-GUN CLUB STA 60+33LT	R1-2		1					
SS-GUN CLUB STA 61+44LT	M3-3P, M1-5, M6-2R		1					
SS-GUN CLUB STA 64+28RT	R2-1		1					
SS-GUN CLUB STA 64+50LT	M3-3P, M1-5, M5-1R		1					
SS-GUN CLUB STA 71+42LT	R2-1		1					
SS-GUN CLUB STA 73+48RT	M3-1P, M1-5, M5-1L		1					

* EXISTING PLAQUE TO BE USED

STANDARD SIGNS FLAT SHEET
OMNI-DIRECTIONAL BREAKWAY SIGN SUPPORT

SIGN NO/LOCATION	STANDARD ROAD SIGNS	POST ASSEMBLY TYPES						
		G2-2	G-1	G-2	G2-1	G2-3	G2-4	G2-5
SS-GUN CLUB STA 76+25RT	M3-1P, M1-5, M6-1L		1					
SS-GUN CLUB STA 76+47LT	R1-2		1					
SS-GUN CLUB STA 77+45LT	M3-3P, (2)M1-5, M6-3P, M3-1P, M6-2R							1
SS-GUN CLUB STA 79+86RT	R2-1		1					
SS-GUN CLUB STA 80+20LT	M3-1P, (2)M1-5, M6-3P, M5-1R, M3-3P	1						
SS-GUN CLUB STA 86+73LT	M2-1P, M1-5		1					
SS-HWY 59 STA 43+62RT	M4-5P, M1-5		1					
SS-HWY 59 STA 43+50LT	R2-1		1					
SS-HWY 59 STA 56+82RT	M4-5P, M1-5, M5-1R		1					
SS-HWY 59 STA 57+57LT	M1-5, W1-7, SPRINGHILL PARK SHP-5						1	
SS-HWY 59 STA 58+30LT	M4-5P, M1-5, M5-1L		1					
SS-HWY 59 STA 70+75LT	M4-5P, M1-5		1					
SS-HWY 59 STA 71+75RT	R2-1		1					
SS-GC RAMP 1 STA 16+00LT TO STA 26+40LT	W1-8R		14					
SS-GC RAMP 1 STA 27+00 LT & RT	W3-1				2			
SS-GC RAMP 1 STA 32+50RT	R5-1a, OM-3R, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-GC RAMP 1 STA 32+50LT	R5-1a, OM-3L, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-GC RAMP 1 STA 33+50RT	M4-5P, M1-5, M6-2R, SPRINGHILL PARK SHP-1							1
SS-GC RAMP 1 STA 35+18RT	R5-1, R1-2, (2) TYPE XI RETRO-REFLECTIVE STRIP					1		
SS-GC RAMP 1 STA 35+51RT	R6-1L , R6-1R, R5-1, R1-1, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-GC RAMP 1 STA 35+51LT	R6-1L , R6-1R, R5-1, R1-1, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-GC RAMP 3 STA 10+17LT	R6-1L , R6-1R, R5-1, R1-1, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-GC RAMP 3 STA 10+17RT	R6-1L , R6-1R, R5-1, R1-1, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-GC RAMP 3 STA 10+37LT	R5-1, R1-2, (2) TYPE XI RETRO-REFLECTIVE STRIP					1		
SS-GC RAMP 3 STA 12+20RT	M4-5P, M1-5, M6-2R, SPRINGHILL PARK SHP-1							1
SS-GC RAMP 3 STA 13+25LT	R5-1a, OM-3R, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-GC RAMP 3 STA 13+25RT	R5-1a, OM-3L, (2) TYPE XI RETRO-REFLECTIVE STRIP			1				
SS-GC RAMP 3 STA 18+00 LT & RT	W3-1				2			
SS-GC RAMP 4 STA 21+73RT TO STA 25+86RT	W1-8R		6					
EX-49 STA 115+44SB	E5-1			1				
EX-49 STA 264+00NB	E5-1			1				
	8ea Destination Boards (page 276-277)			7				
TOTALS:		5	63	35	16	3	1	7

* EXISTING PLAQUE TO BE USED

STANDARD SIGNS FLAT SHEET
CHANNEL POST SIGN SUPPORTS

STATION	STATION	STANDARD ROADSIDE SIGNS TO BE MOUNTED	TYPE 2 DELINEATOR	TYPE	STANDARD SIGN
			WHITE/RED	U-1	
			EACH	EA.	SQ. FT.
I-49 C.L. MEDIAN					
SS-49 STA. 161+44NB		OM-3R		1	3.00
SS-49 STA. 218+04SB		OM-3R		1	3.00
H-STREET					
ROAD CLOSED SPECIAL DETAIL		OM4-1		1	2.25
ROAD CLOSED SPECIAL DETAIL		OM4-1		1	2.25
ROAD CLOSED SPECIAL DETAIL		OM4-1		1	2.25
GUN CLUB RAMP 3					
20+00	24+00		7		
11+37	24+00		15		
GUN CLUB RAMP 2					
11+37	20+00		11		
17+54	20+00		4		
TOTALS			37	5	12.75

** EXISTING SIGN AND STRUCTURE TO BE REMOVED AND REPLACED

SIGNING QUANTITIES
PERMANENT SIGNING PLANS

5/1/2024 10:55:41 AM
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024		6	ARK.	040901	256	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
6-11-2024

STANDARD ROADSIDE SIGNS SHEET ALUMINUM 0.125" THICKNESS (GREATER THAN 5 SQ. FT)

SIGN NO.	DIM 1	DIM 2	SIZE OF SIGN	UNIT AREA (SQ. FT.)	QUANTITY REQUIRED	TOTAL SIGN AREA (SQ. FT.)	LEGEND/BACKGROUND
D1-1 (SPRINGHILL PARK SHP-1)	96	18	96" X 18"	12.00	3	36.00	WHITE/BROWN
D1-1 (SPRINGHILL PARK SHP-2)	78	18	78" X 18"	9.75	1	9.75	WHITE/BROWN
D1-1 (SPRINGHILL PARK SHP-3)	82	18	82" X 18"	10.25	1	10.25	WHITE/BROWN
D1-1 (SPRINGHILL PARK SHP-4)	84	18	84" X 18"	10.50	1	10.50	WHITE/BROWN
D1-1 (SPRINGHILL PARK SHP-5)	84	18	84" X 18"	10.50	1	10.50	WHITE/BROWN
D1-1 (SPRINGHILL PARK SHP-6)	84	18	84" X 18"	10.50	1	10.50	WHITE/BROWN
D3-1 (GUN CLUB PLAQUE)	86	18	86" X 18"	10.75	2	21.50	WHITE/GREEN
E13-1P	84	24	84" X 24"	14.00	1	14.00	BLACK/YELLOW
M1-5	36	36	36" X 36"	9.00	4	36.00	BLACK/WHITE
M1-5	45	36	45" X 36"	11.25	2	22.50	BLACK/WHITE
R1-1	30	30	30" X 30"	6.25	2	12.50	WHITE/RED
R1-1	36	36	36" X 36"	9.00	1	9.00	WHITE/RED
R1-2	48	48	48" X 48" X 48"	6.93	6	41.58	WHITE/RED
R2-1	36	48	36" X 48"	12.00	10	120.00	BLACK/WHITE
R2-1	48	60	48" X 60"	20.00	2	40.00	BLACK/WHITE
R3-7L	36	36	36" X 36"	9.00	1	9.00	BLACK/WHITE
R3-7R	36	36	36" X 36"	9.00	2	18.00	BLACK/WHITE
R3-8B	48	30	48" X 30"	10.00	1	10.00	BLACK/WHITE
R5-1	36	36	36" X 36"	9.00	9	81.00	WHITE/RED
R5-1a	42	30	42" X 30"	8.75	7	61.25	WHITE/RED
R6-1L	48	18	48" X 18"	6.00	4	24.00	BLACK/WHITE
R6-1R	48	18	48" X 18"	6.00	4	24.00	BLACK/WHITE
W1-6	60	30	60" X 30"	12.50	4	50.00	BLACK/ YELLOW
W1-7	48	24	48" X 24"	8.00	1	8.00	BLACK/YELLOW
W1-8R	30	36	30" X 36"	7.50	20	150.00	BLACK/YELLOW
W4-2	48	48	48" X 48"	16.00	2	32.00	BLACK/YELLOW
W3-1	48	48	48" X 48"	16.00	4	64.00	BLACK/YELLOW
W3-3	48	48	48" X 48"	16.00	3	48.00	BLACK/YELLOW
W4-1	48	48	48" X 48"	16.00	2	32.00	BLACK/YELLOW
W8-13	48	48	48" X 48"	16.00	3	48.00	BLACK/YELLOW
W9-1L	48	48	48" X 48"	16.00	2	32.00	BLACK/YELLOW
W13-2	48	60	48" X 60"	20.00	1	20.00	BLACK/YELLOW
TOTAL 0.125" THICKNESS:						**1115.83**	

STANDARD ROADSIDE SIGNS SHEET ALUMINUM 0.100" THICKNESS (5 SQ. FT OR LESS)

SIGN NO.	DIM 1	DIM 2	SIZE OF SIGN	UNIT AREA (SQ. FT.)	QUANTITY REQUIRED	TOTAL SIGN AREA (SQ. FT.)	LEGEND/BACKGROUND
M1-5	24	24	24" X 24"	4.00	8	32.00	BLACK/WHITE
M1-5	30	24	30" X 24"	5.00	28	140.00	BLACK/WHITE
M2-1P	21	15	21" X 15"	2.19	4	8.75	BLACK/WHITE
M3-1P	24	12	24" X 12"	2.00	11	22.00	BLACK/WHITE
M3-1P	36	18	36" X 18"	4.50	1	4.50	BLACK/WHITE
M3-2P	24	12	24" X 12"	2.00	3	6.00	BLACK/WHITE
M3-2P	36	18	36" X 18"	4.50	1	4.50	BLACK/WHITE
M3-3P	24	12	24" X 12"	2.00	9	18.00	BLACK/WHITE
M3-3P	36	18	36" X 18"	4.50	1	4.50	BLACK/WHITE
M3-4P	24	12	24" X 12"	2.00	4	8.00	BLACK/WHITE
M3-4P	36	18	36" X 18"	4.50	1	4.50	BLACK/WHITE
M4-5P	24	12	24" X 12"	2.00	4	8.00	BLACK/WHITE
M4-5P	36	18	36" X 18"	4.50	2	9.00	BLACK/WHITE
M5-1L	21	15	21" X 15"	2.19	3	6.56	BLACK/WHITE
M5-1L	30	21	30" X 21"	4.38	1	4.38	BLACK/WHITE
M5-1R	21	15	21" X 15"	2.19	3	6.56	BLACK/WHITE
M5-4P	24	18	24" X 18"	3.00	1	3.00	BLACK/WHITE
M5-4P	36	24	36" X 24"	6.00	1	6.00	BLACK/WHITE
M5-6P	36	24	36" X 24"	6.00	1	6.00	BLACK/WHITE
M6-1L	21	15	21" X 15"	2.19	3	6.56	BLACK/WHITE
M6-2R	21	15	21" X 15"	2.19	3	6.56	BLACK/WHITE
M6-2R	30	21	30" X 21"	4.38	3	13.13	BLACK/WHITE
M6-3P	21	15	21" X 15"	2.19	9	19.69	BLACK/WHITE
OM-3L	12	36	12" X 36"	3.00	2	6.00	BLACK/YELLOW
OM-3R	12	36	12" X 36"	3.00	4	12.00	BLACK/YELLOW
R6-1L	36	12	36" X 12"	3.00	2	6.00	BLACK/WHITE
R6-1R	36	12	36" X 12"	3.00	2	6.00	BLACK/WHITE
W1-8L	24	30	24" X 30"	5.00	8	40.00	BLACK/YELLOW
TYPE XI RETRO-REFLECTIVE STRIP	36	3	36" X 3"	0.75	19	14.25	RED
TOTAL 0.100" THICKNESS:						**432.44**	

MAIN LANES ROADSIDE MOUNTED SIGNING QUANTITIES

SIGN NO./ LOCATION	I-BEAM STRUCTURE TYPE	GUIDE SIGN			I-BEAM BREAKAWAY SIGN SUPPORT										EXIT NUMBER PANEL	
					STEEL SECT. A-572		SIGN POST LENGTH		STUB POST		FOOTINGS			SIGN POST AND STUB	LEGEND	TYPE A
		LENGTH	HEIGHT				H - 1	H - 2	H - 1	H - 2	DIA.	DEPTH	EMBED.			
	G2	LIN. FT.		SQ. FT.	BEAM	LBS	LIN FT		LIN FT		LIN FT			POUND		SQ. FT.
GM-49 STA 63+00NB	1	15.50	5.00	77.50	W8	18.00	13.86	15.41	4.66	4.66	2.50	6.50	4.33	694.62		
GM-49 STA 121+25SB	1	10.00	10.50	105.00	W12	26.00	21.67	22.67	5.67	5.67	3.00	8.00	5.33	1447.68	193	23.75
GM-49 STA 137+00SB	1	15.50	5.00	77.50	W8	18.00	13.86	15.41	4.66	4.66	2.50	6.50	4.33	694.62		
GM-49 STA 144+46SB	1	10.00	10.00	100.00	W12	26.00	21.17	22.17	5.67	5.67	3.00	8.00	5.33	1421.68	193	23.75
GM-49 STA 154+43NB	1	15.17	5.67	86.01	W10	26.00	17.02	18.54	5.33	5.33	3.00	7.50	5.00	1201.72	196	23.75
GM-49 STA 163+00SB	1	10.00	10.00	100.00	W12	26.00	21.17	22.17	5.67	5.67	3.00	8.00	5.33	1421.68	193	23.75
GM-49 STA 233+60NB	1	15.17	5.67	86.01	W10	26.00	17.02	18.54	5.33	5.33	3.00	7.50	5.00	1201.72	196	23.75
GM-49 STA 259+00NB	1	15.17	6.50	98.61	W10	26.00	17.85	19.37	5.33	5.33	3.00	7.50	5.00	1244.88	196	23.75
GUIDE SIGNS ROADSIDE MOUNTED TOTALS:				730.63												
TOTALS	**8**			**730.63**										**9328.60**		**142.50**

SIGNING SUMMARY OF QUANTITIES

ITEM NUMBER	ITEMS	QUANTITY	UNIT
202	REMOVAL AND RELOCATION OF SIGN	21	EACH
SS & 725	GUIDE SIGN-ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)	731	SQ. FT.
SS & 726	STANDARD SIGN	1561	SQ. FT.
SS & 727	EXIT NUMBER PANEL (TYPE A)	143	SQ. FT.
SS & 728	DELINEATOR (TYPE 2)	37	EACH
SS & 729	CHANNEL POST SIGN SUPPORT (TYPE U-1)	5	EACH
SS & 730	BREAKAWAY SIGN SUPPORT (TYPE G-2)	9329	POUND
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-1)	68	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-2)	35	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-1)	16	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-2)	5	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-3)	3	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-4)	1	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-5)	7	EACH

SIGNING QUANTITIES
PERMANENT SIGNING PLANS

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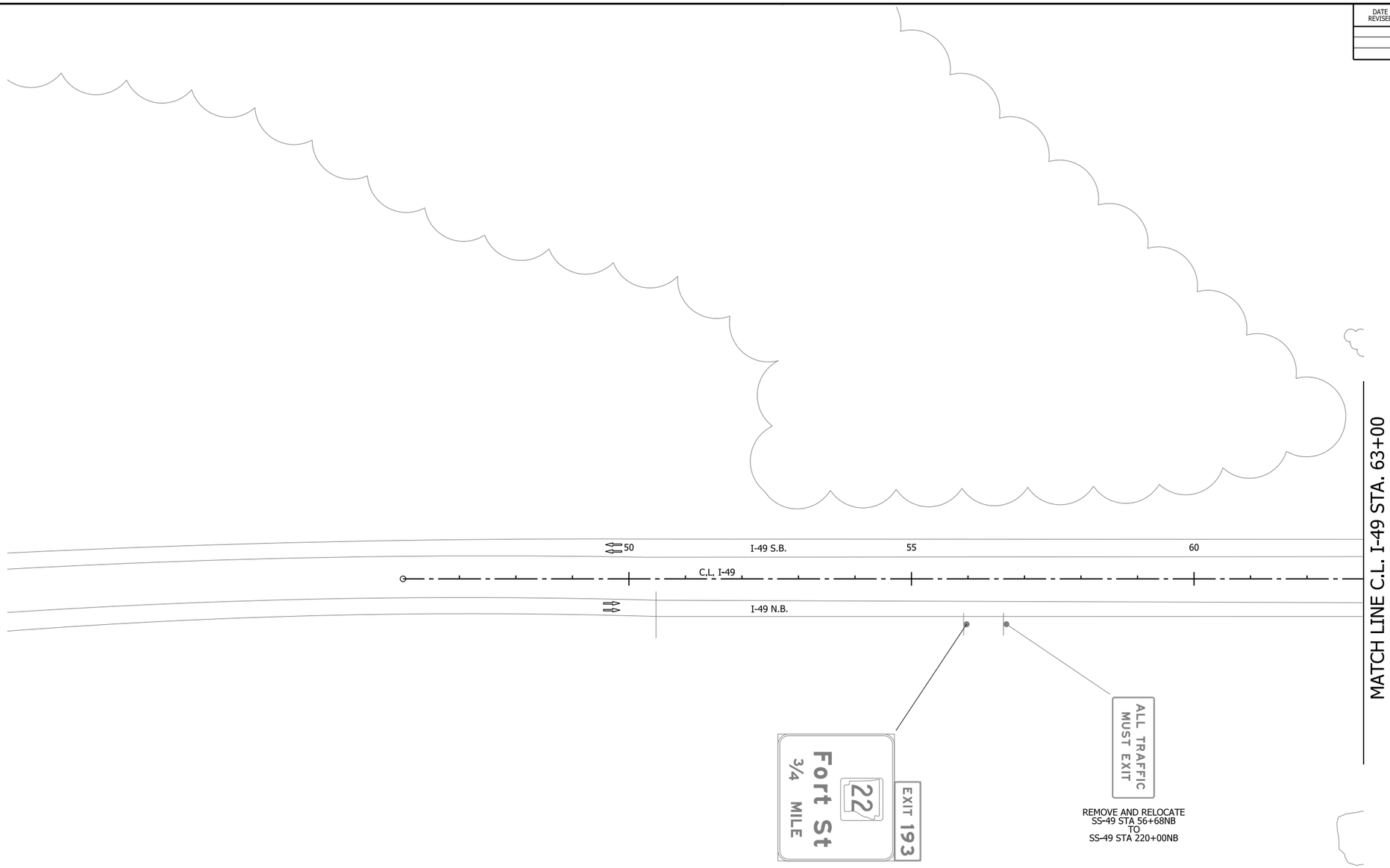
DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	257	809

PERMANENT SIGNING PLANS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

5/1/2024 10:55:58 AM
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I-49
PERMANENT SIGNING PLANS

DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	258	809

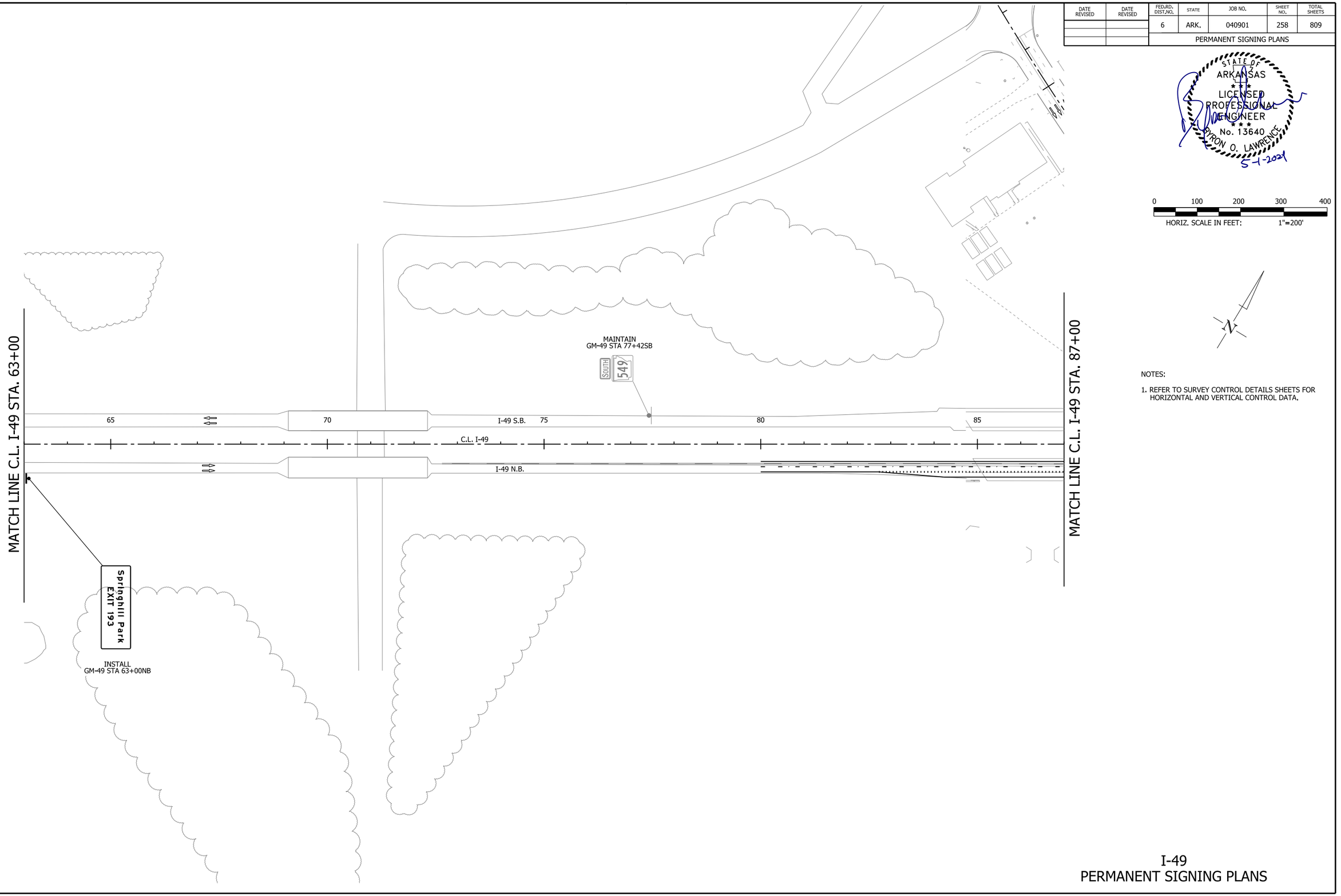
PERMANENT SIGNING PLANS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



5/1/2024 10:56:00 AM
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I-49
PERMANENT SIGNING PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	259	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

MATCH LINE C.L. I-49 STA. 87+00

MATCH LINE C.L. I-49 STA. 111+00

INSTALL
SS-HWY 22 RAMP 3 STA 13+54LT

INSTALL
SS-HWY 22 RAMP 3 STA 13+54RT

INSTALL
(8) @ 80 FT. O.C.
SS-HWY 22 RAMP 3 STA 16+69LT TO STA 27+90LT

SEE HWY. 22 PERMANENT SIGNING PLANS FOR ADDITIONAL SIGNS

C.L. HWY 22 RAMP 3

C.L. HWY 22 RAMP 4

MAINTAIN
SS-HWY 22 RAMP 4 STA 2160+09RT

MAINTAIN
SS-HWY 22 RAMP 4 STA 2159+51RT
SS-HWY 22 RAMP 4 STA 2159+52LT

MAINTAIN
(11) W1-8 @ 80 FT. O.C.
SS-HWY 22 RAMP 4
STA 2162+85LT TO 2171+65LT

C.L. NW SERVICE RD

C.L. HWY 22 RAMP 3

MAINTAIN
GM-49 STA 98+15RT

FORT ST. / HWY 22

C.L. HWY 22

C.L. HWY 22 RAMP 4

C.L. I-49

I-49 S.B.

I-49 N.B.

C.L. HWY 22 RAMP 1

MAINTAIN
C.L. HWY 22 RAMP 1 STA 2175+47RT

REMOVE AND DISPOSE
SS-HWY 22 RAMP 1 STA 2178+83RT
SS-HWY 22 RAMP 1 STA 2178+85LT

MAINTAIN
(6) W1-8 @ 100 FT. O.C.
SS-HWY 22 RAMP 1
STA 2178+30LT TO 2183+30LT

STA. 100+00.00
BEGIN JOB 040901
LOG MILE 6.33

INSTALL
SS-HWY 22 RAMP 1 STA 2183+70RT

C.L. HWY 22 RAMP 2

C.L. SE SERVICE RD

MAINTAIN
GM-49 STA 95+38RT

INSTALL
SS-HWY 22 RAMP 1 STA 2183+70LT

REMOVE AND RELOCATE
SS-HWY 22 RAMP 1 STA 2184+79LT
TO
SS-HWY 22 RAMP 1 STA 2183+70RT

PARK RD

SEE HWY. 22 PERMANENT SIGNING PLANS FOR ADDITIONAL SIGNS

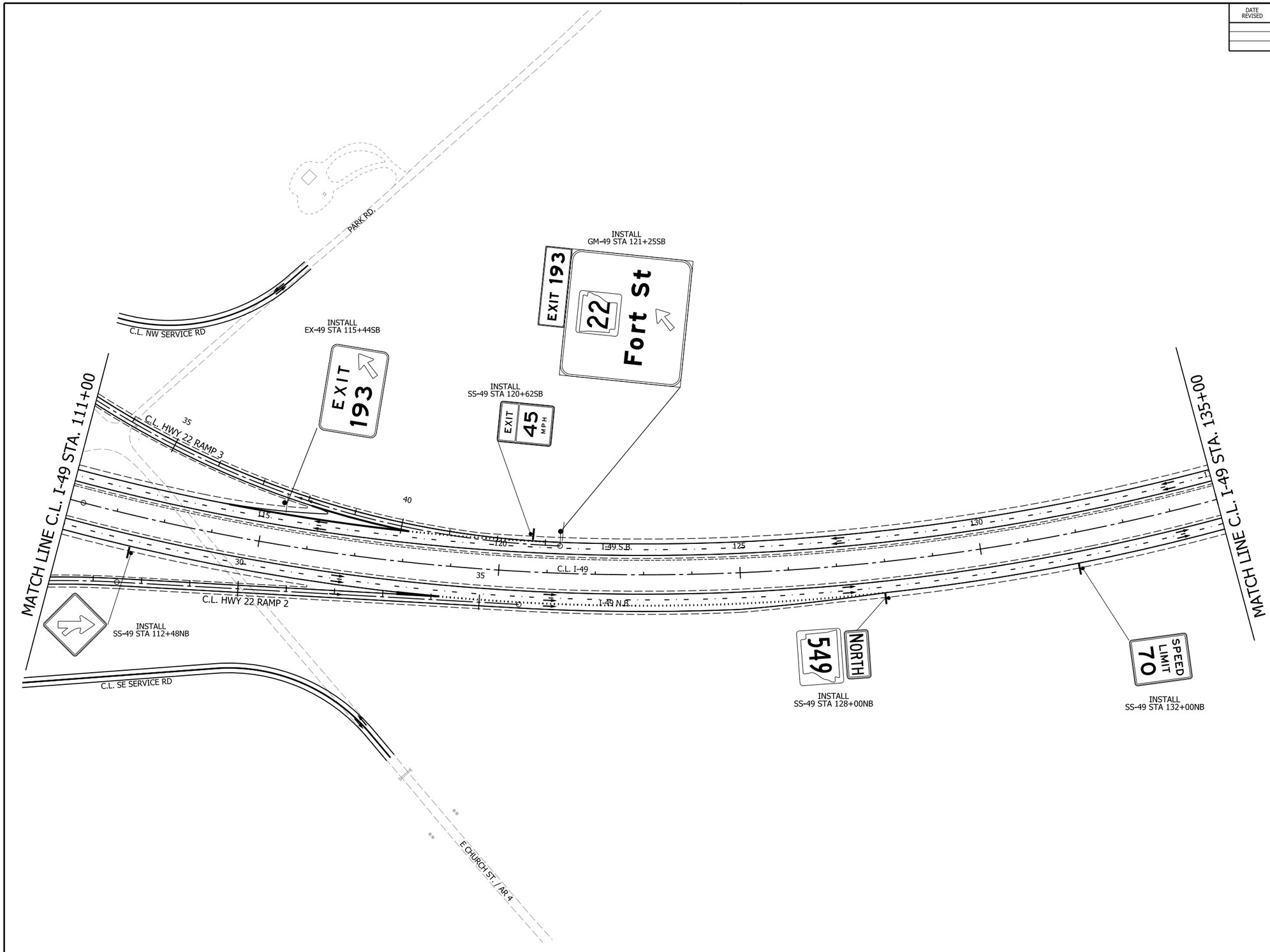
I-49
PERMANENT SIGNING PLANS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	260	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

I-49
PERMANENT SIGNING PLANS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	261	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2021

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

N

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

INSTALL
GM-49 STA 137+00SB

Springhill Park
EXIT 193

INSTALL
GM-49 STA 144+46SB

EXIT 193
22
Fort St
½ MILE

H ST.

SEE SPECIAL DETAILS
ROAD CLOSED DETAIL

MATCH LINE C.L. I-49 STA. 135+00

MATCH LINE C.L. I-49 STA. 159+00

I-49 S.B.

I-49 N.B.

C.L. I-49

135 140 145 150 155

BRIDGE ICES BEFORE ROAD

INSTALL
SS-49 STA 158+50NB

INSTALL
GM-49 STA 154+43NB

Gun Club Rd
2 MILES
EXIT 196

5/1/2024 10:56:08 AM
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I-49
PERMANENT SIGNING PLANS

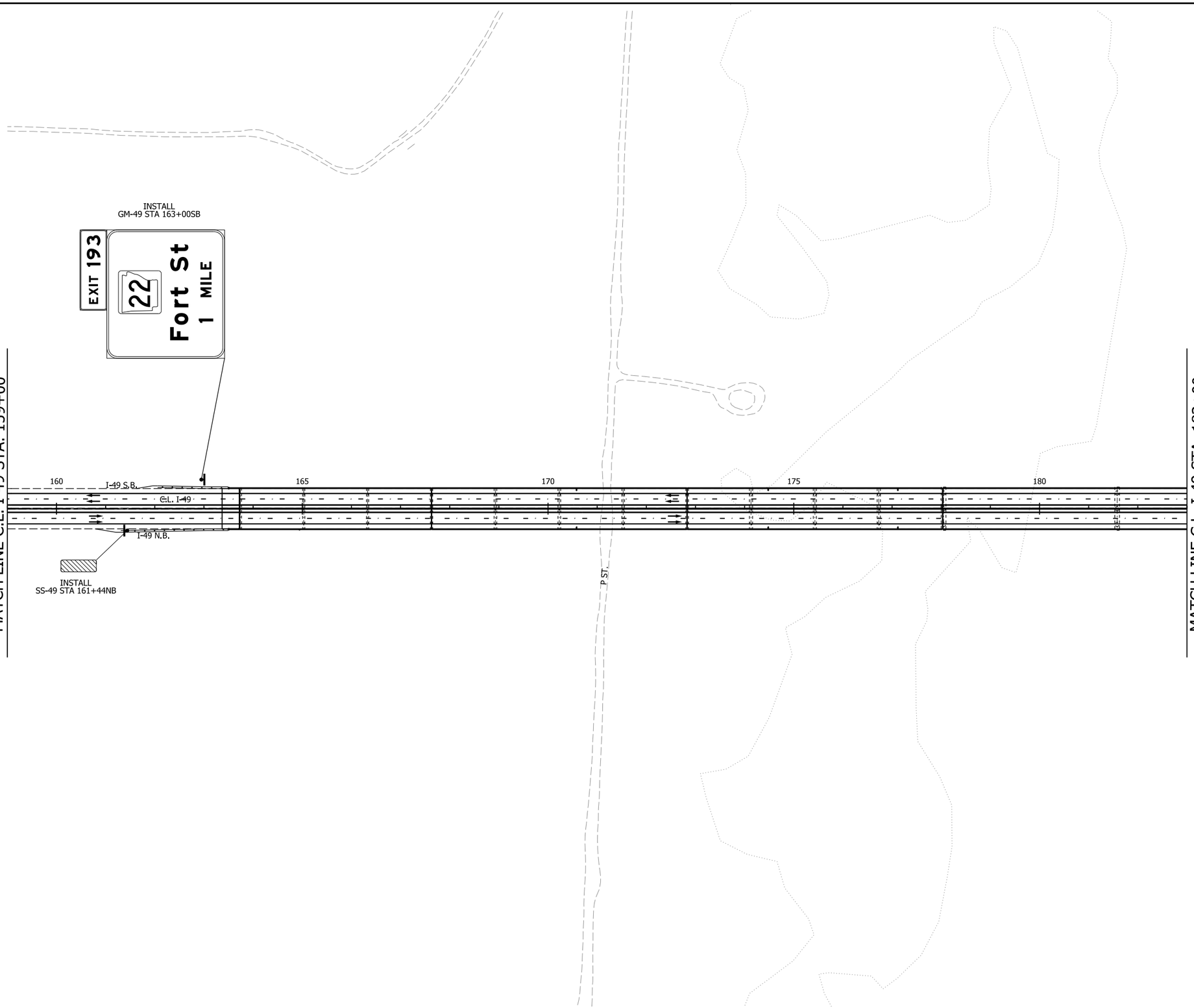
DATE REVISED	DATE REVISED

FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	040901	262	809

PERMANENT SIGNING PLANS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

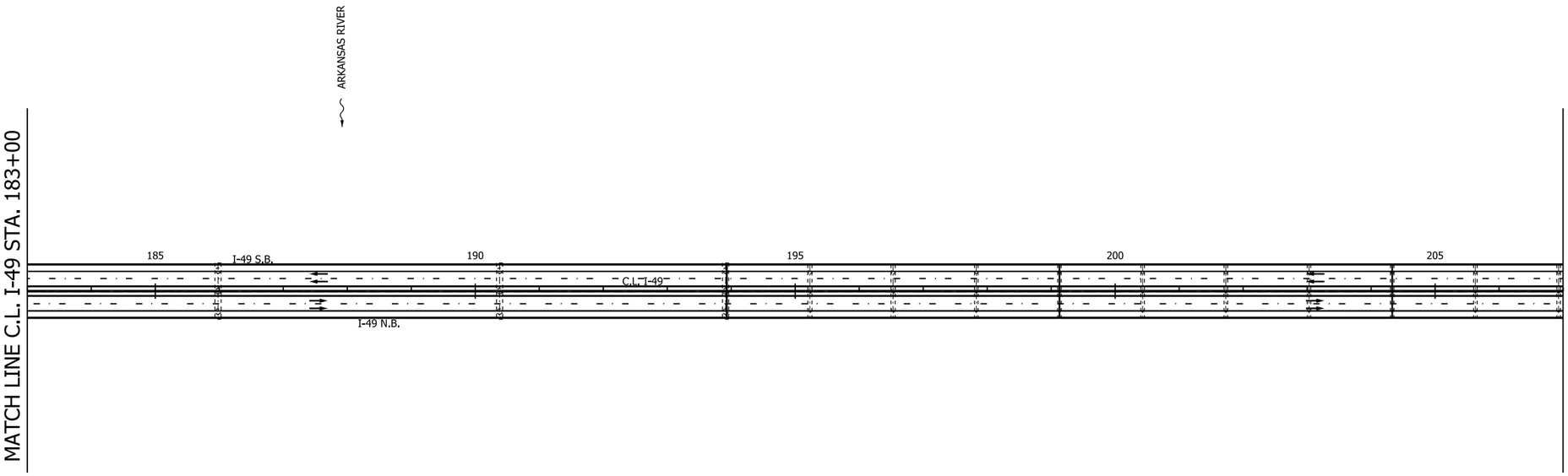
I-49
PERMANENT SIGNING PLANS

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	263	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

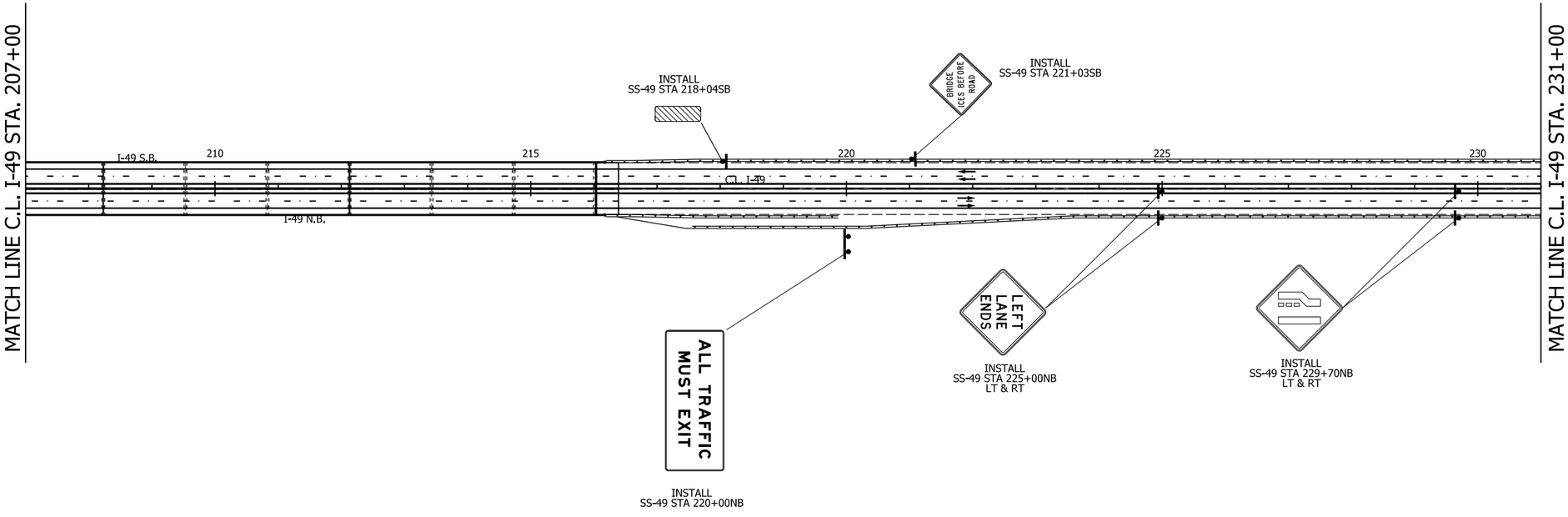
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I-49
PERMANENT SIGNING PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	264	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
LEVON O. LAWRENCE
5-1-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

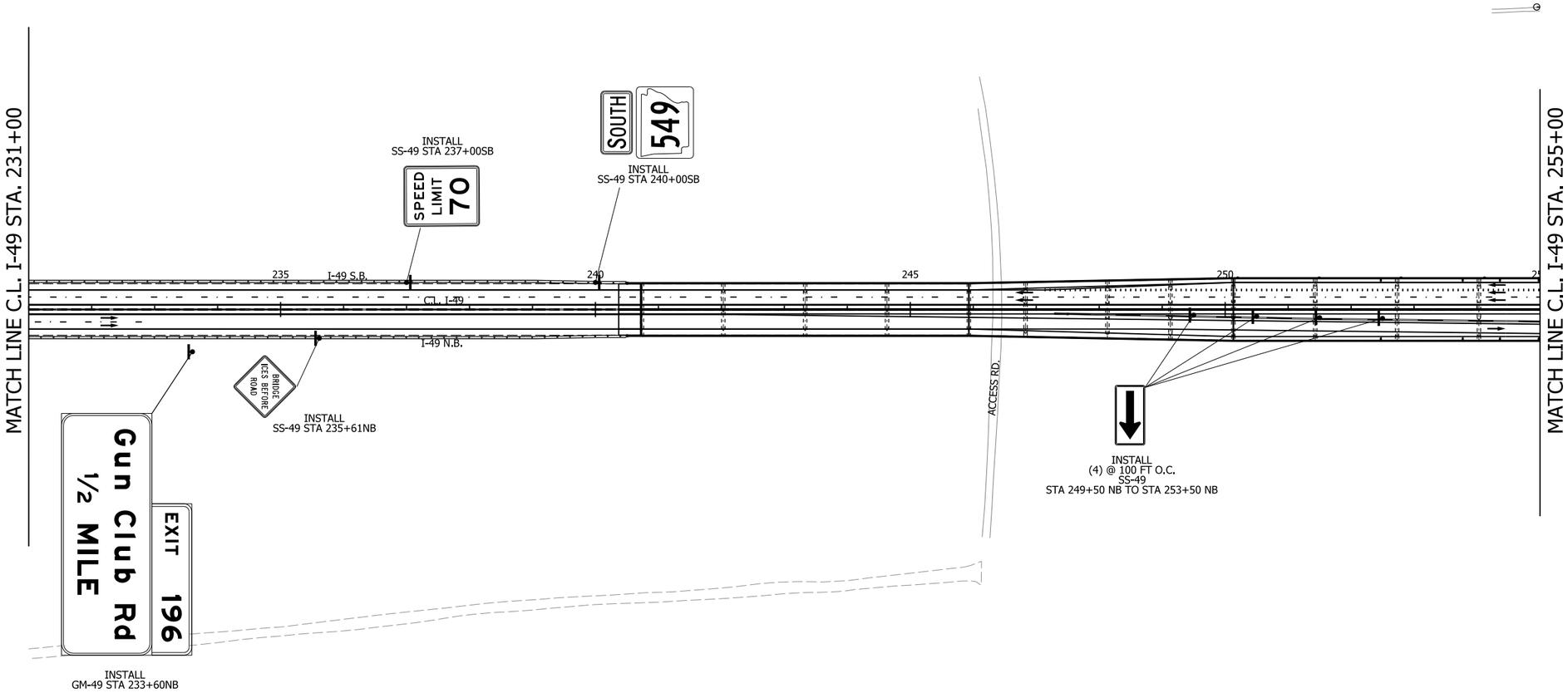
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I-49
PERMANENT SIGNING PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	265	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

5/1/2024 10:56:19 AM
R040901_18_SP_011.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	266	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'

INSTALL
SS-GC RAMP 3 STA 13+25LT

INSTALL
SS-GC RAMP 3 STA 18+00
LT & RT

INSTALL
SS-GC RAMP 3 STA 13+25RT

INSTALL
SS-49 268+13SB

INSTALL
(6) @ 80 FT O.C.
SS-GC RAMP 4 STA 21+73RT TO STA 25+86RT

STA. 269+00.00
END JOB 040901

FUTURE C.L. GC RAMP 3

C.L. GC RAMP 4

C.L. I-49

PROJECT BY OTHERS
JOB 040902

MATCH LINE C.L. I-49 STA. 255+00

C.L. GUN CLUB

GUN CLUB RD.

C.L. GC RAMP 1

INSTALL
EX-49 STA 264+00NB

INSTALL
(14) @ 80 FT O.C.
SS-GC RAMP 1 STA 16+00LT TO STA 26+40LT

INSTALL
GM-49 STA 259+00NB

INSTALL
SS-GC RAMP 1 STA 32+50RT

INSTALL
SS-GC RAMP 1 STA 27+00
LT & RT

FUTURE C.L. GC RAMP 2

FUTURE PROJECT BY OTHERS

INSTALL
SS-GC RAMP 1 STA 32+50LT

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

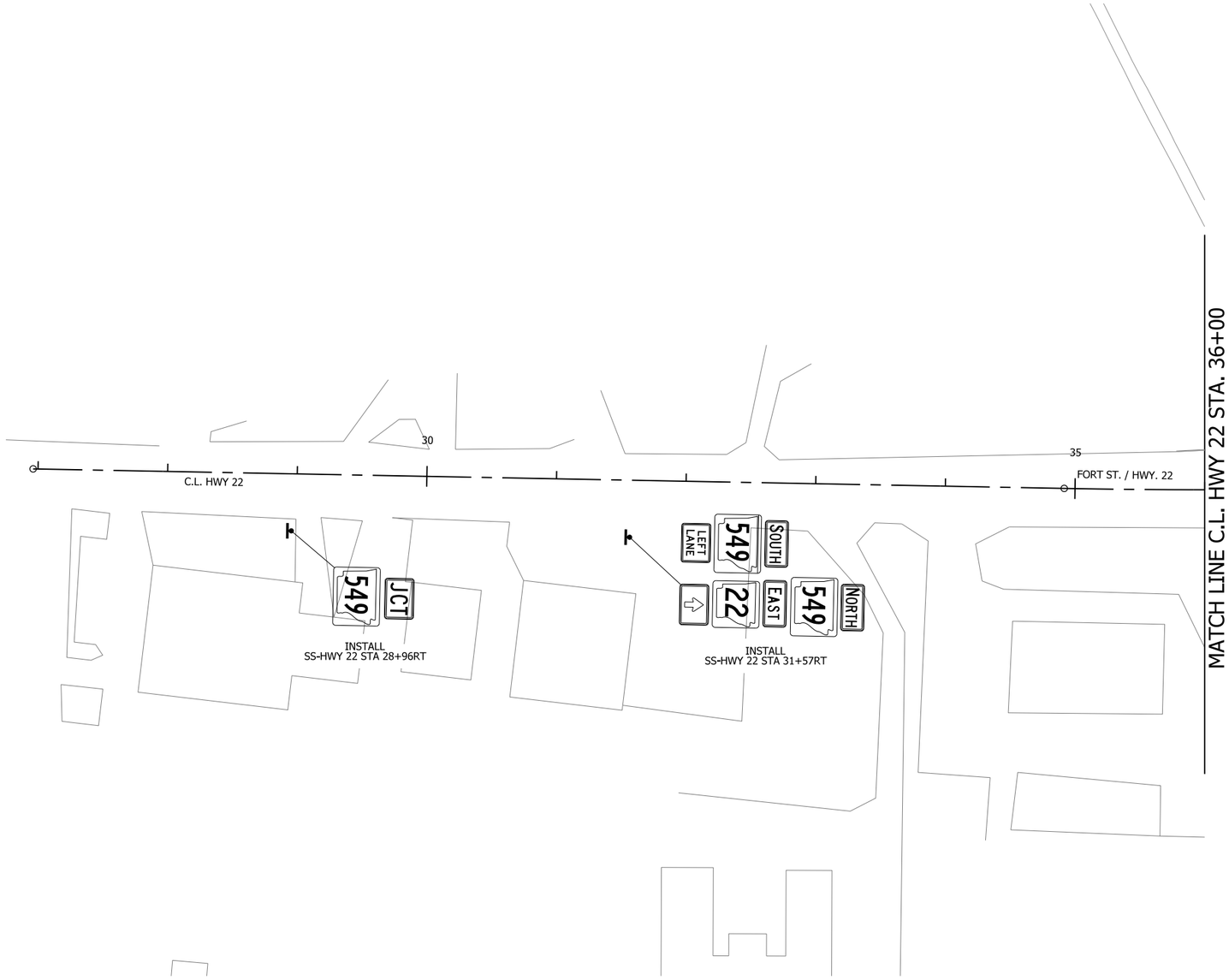
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I-49
PERMANENT SIGNING PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	267	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 100 200 300 400
HORIZ. SCALE IN FEET: 1"=200'



NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 22
PERMANENT SIGNING PLANS

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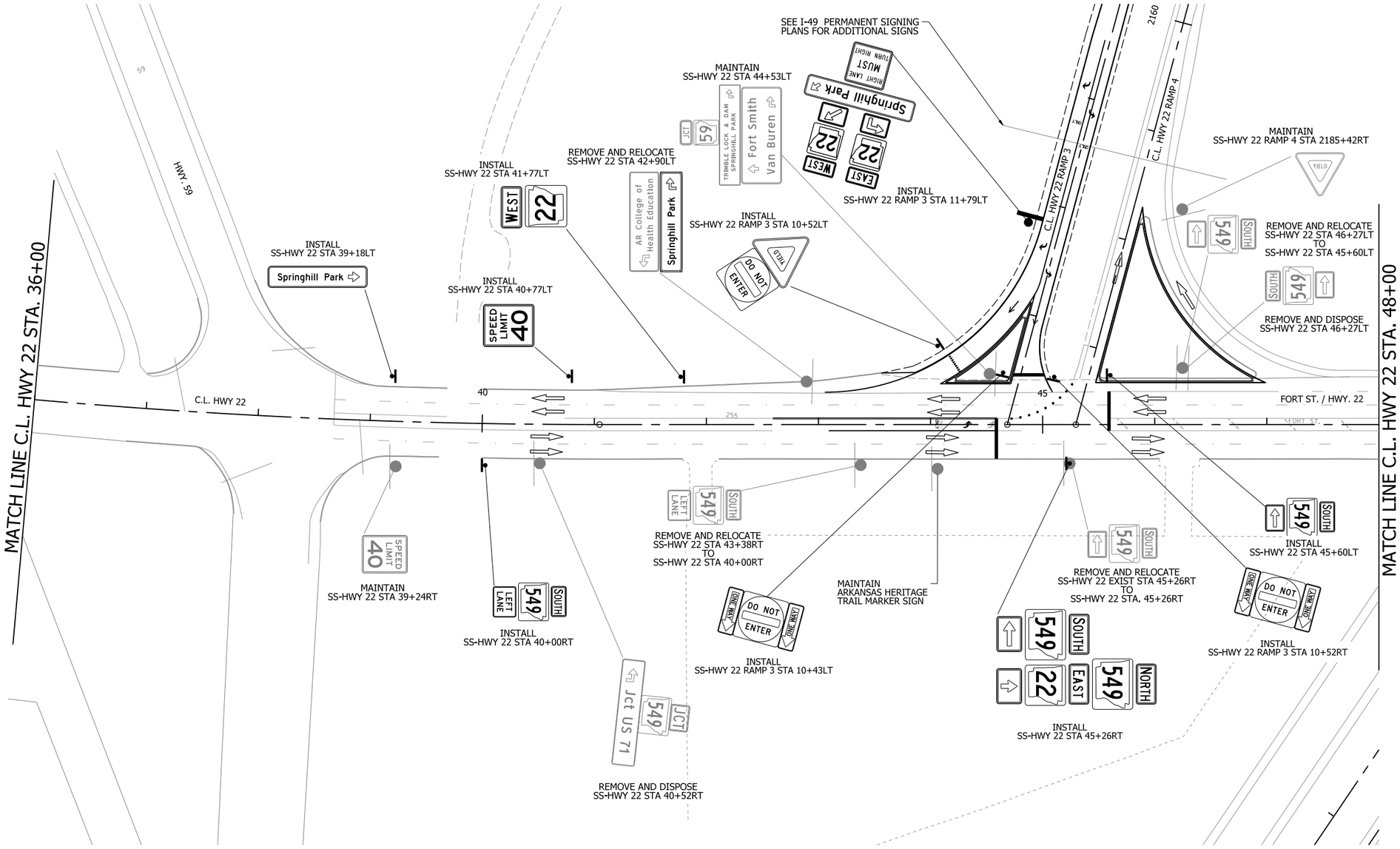
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	268	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



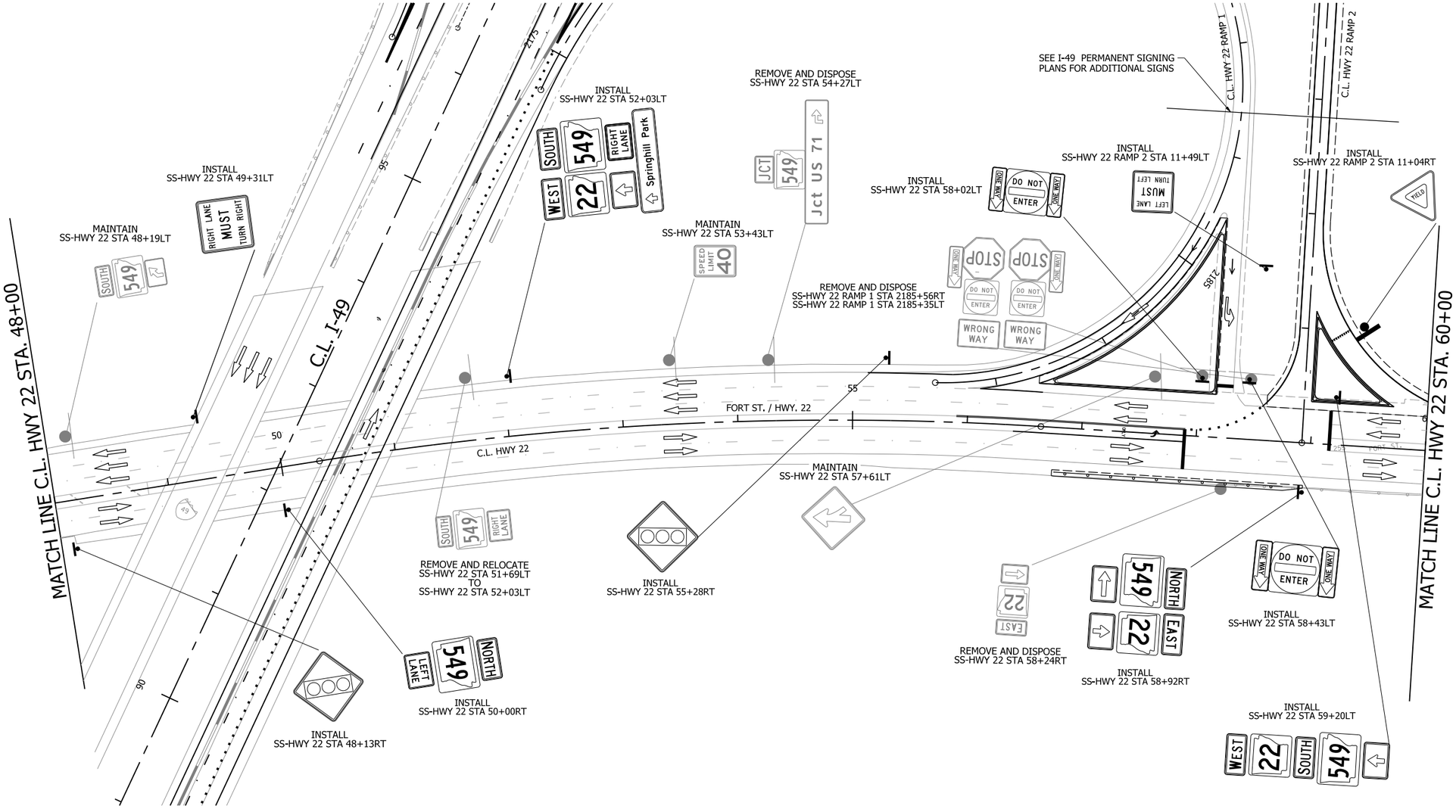
HWY. 22
PERMANENT SIGNING PLANS

5/1/2024 10:56:26 AM
R040901_18_SP_014.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	269	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'



NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

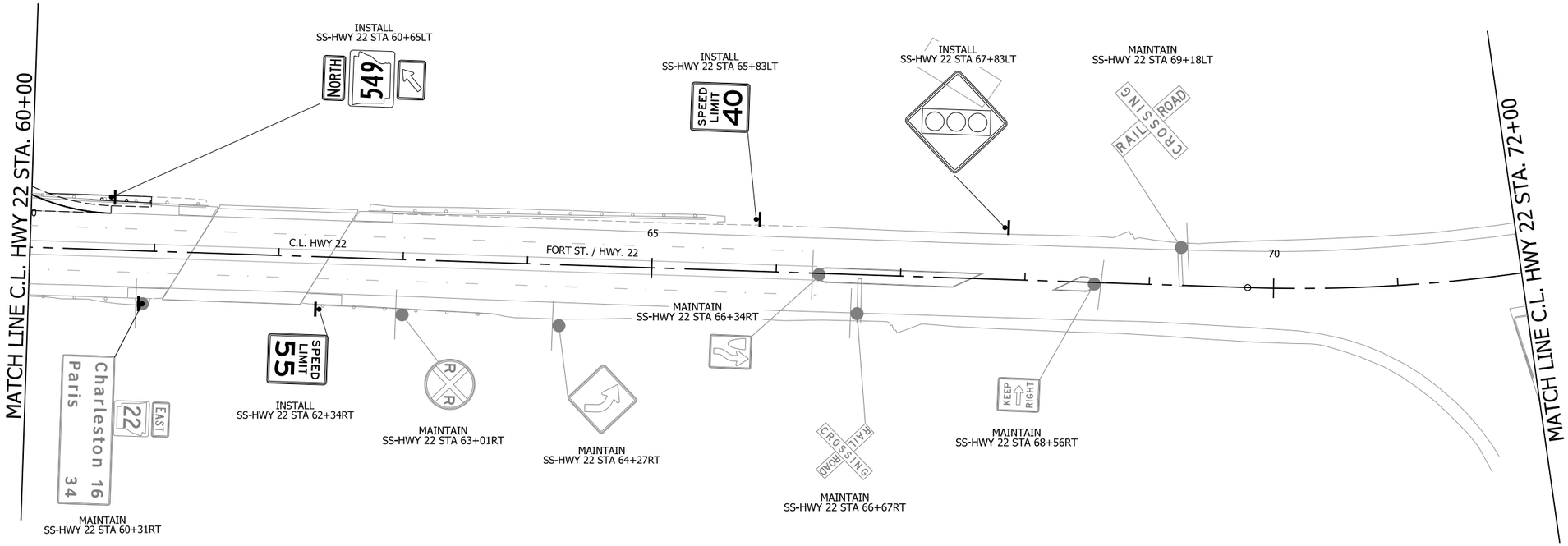
HWY. 22
PERMANENT SIGNING PLANS

5/1/2024 10:56:28 AM
R040901_18_SP_015.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	270	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'



NOTES:

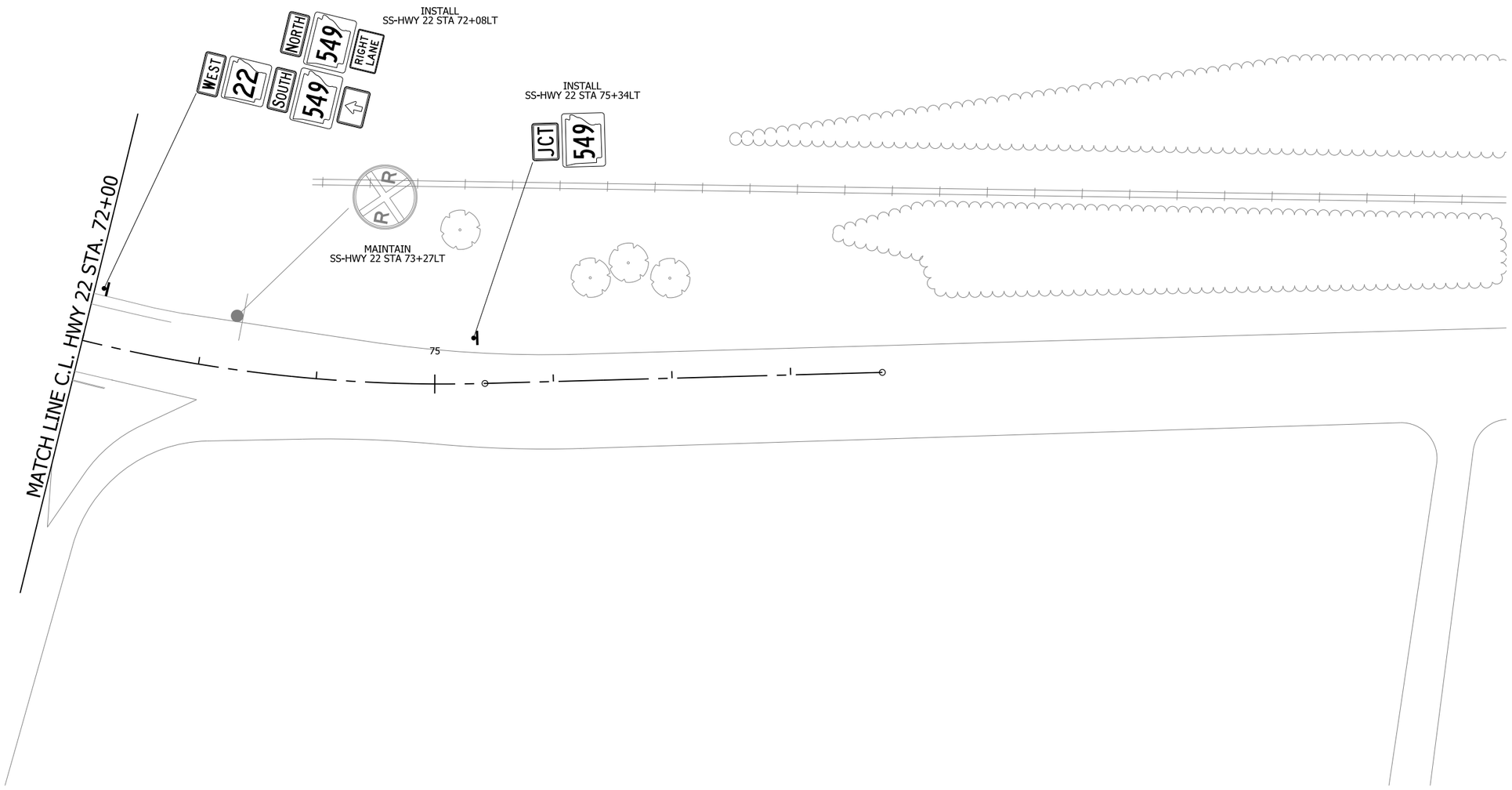
1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 22
PERMANENT SIGNING PLANS

5/1/2024 10:56:30 AM
R040901_18_SP_016.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	271	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024



0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 22
PERMANENT SIGNING PLANS

5/1/2024 10:56:32 AM
R040901_18_SP_017.dgn

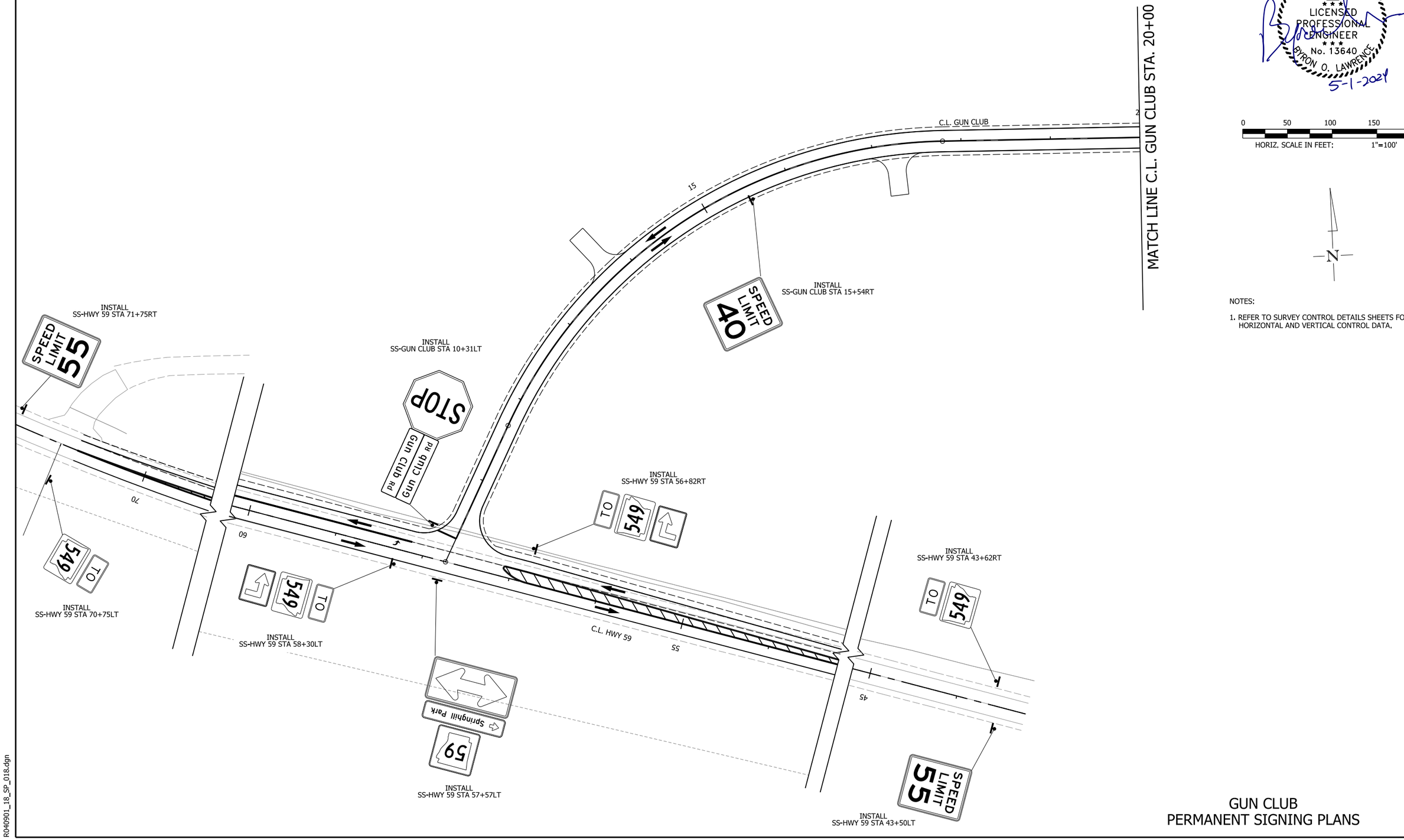
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	272	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

NOTES:

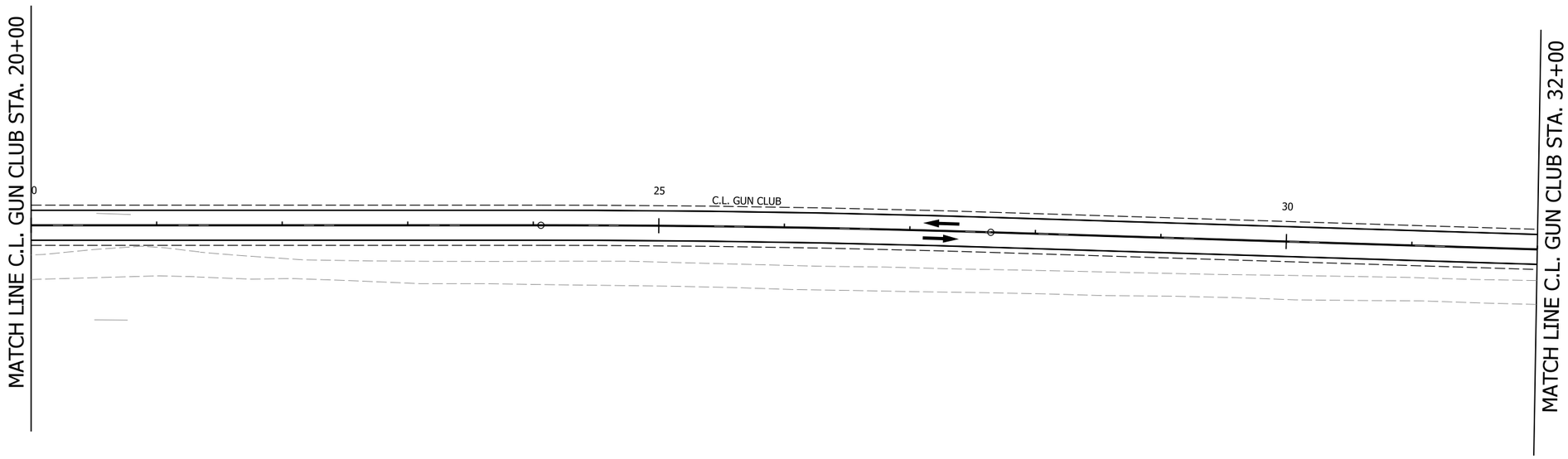
1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



GUN CLUB
PERMANENT SIGNING PLANS

5/1/2024 10:56:34 AM
R040901_18_SP_018.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		PERMANENT SIGNING PLANS				



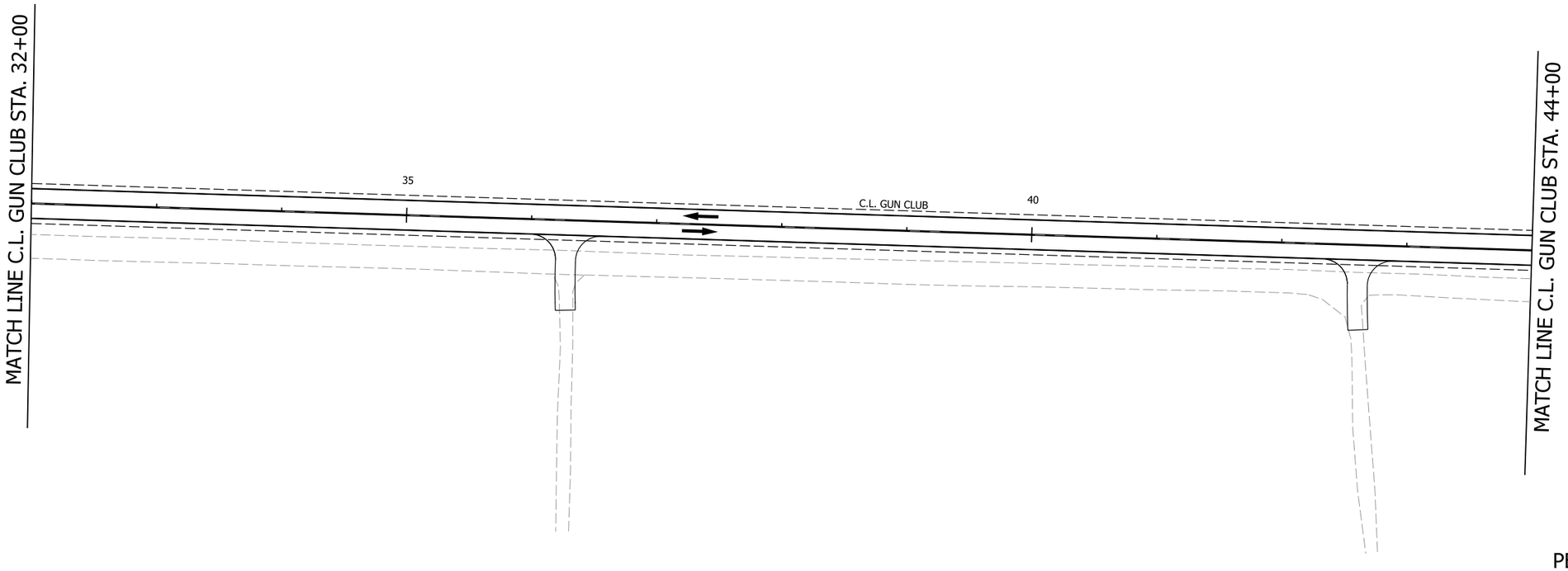
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2021

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

NOTES:

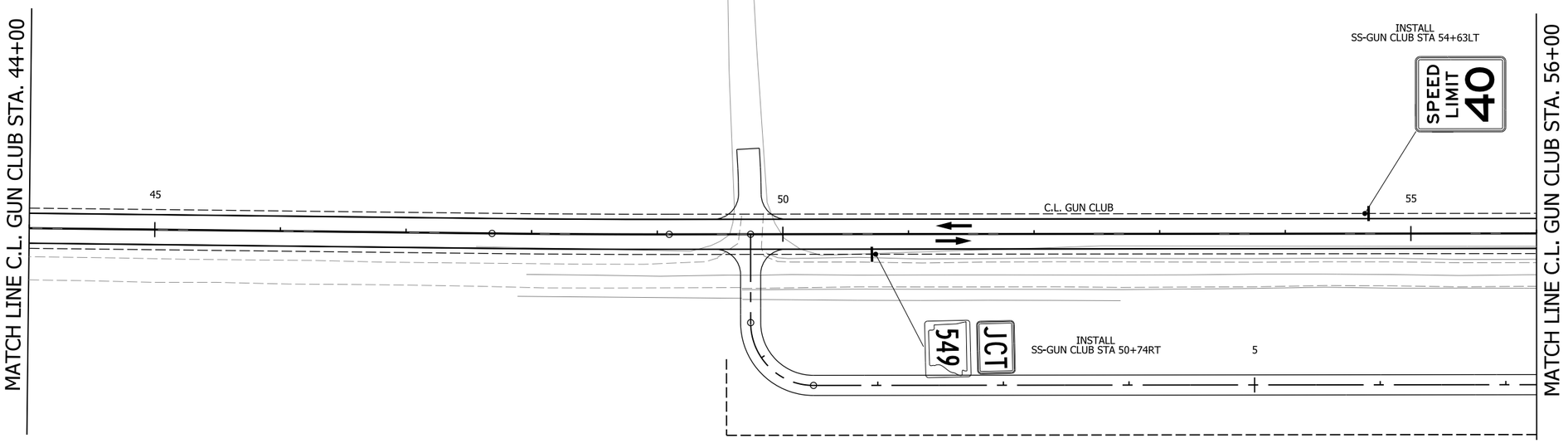
1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



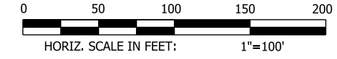
GUN CLUB
PERMANENT SIGNING PLANS

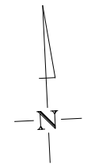
5/1/2024 10:56:36 AM
R040901_18_SP_019.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	274	809
		PERMANENT SIGNING PLANS				



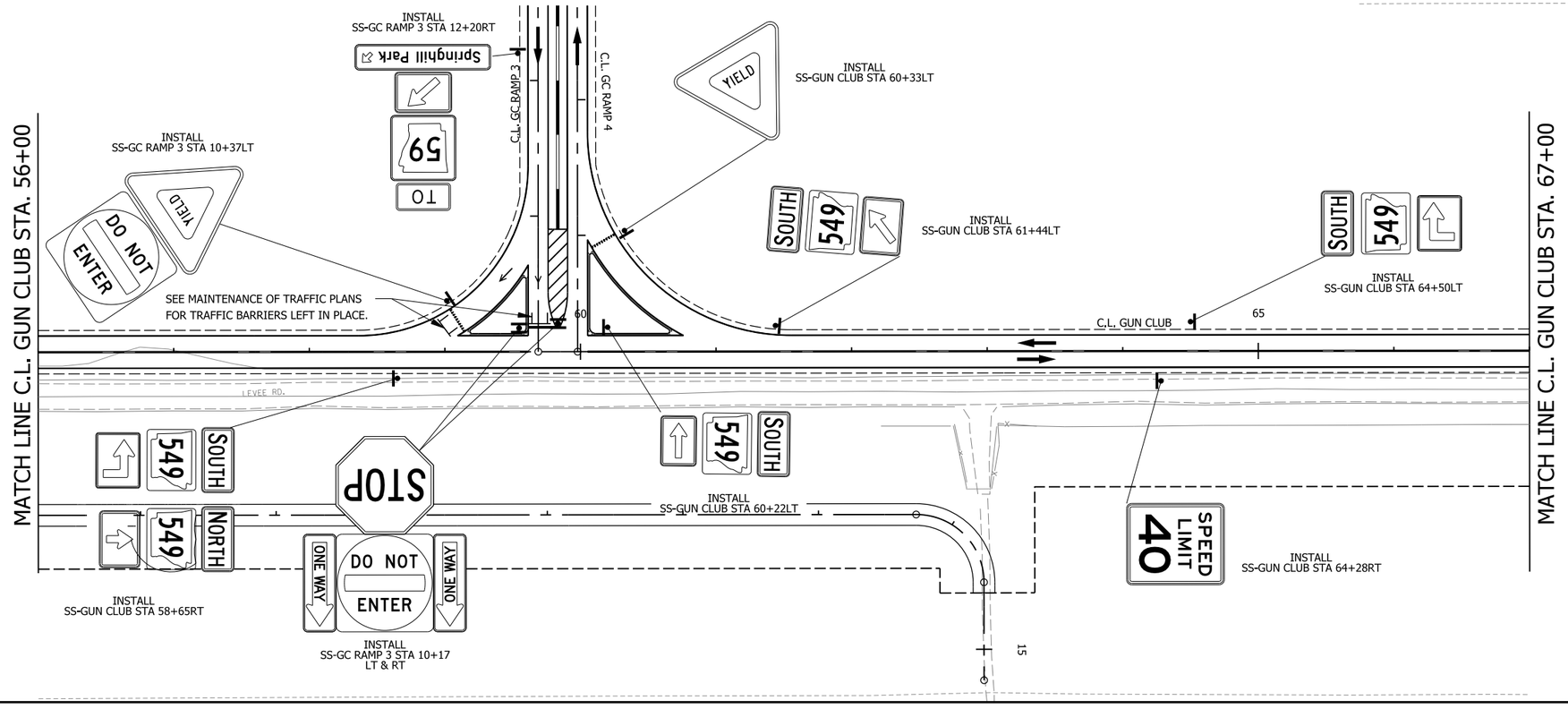






NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.



GUN CLUB
PERMANENT SIGNING PLANS

5/1/2024 10:56:38 AM
R040901_18_SP_020.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	275	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

MATCH LINE C.L. GUN CLUB STA. 67+00

C.L. I-49

C.L. GUN CLUB

LEVEE

70

INSTALL
SS-GUN CLUB STA 71+42LT
SPEED LIMIT 40

INSTALL
SS-GC RAMP 1 STA 35+51
LT & RT
STOP
ONE WAY
DO NOT ENTER
ONE WAY

INSTALL
SS-GC RAMP 1 STA 33+50RT
Springhill Park
59
TO

C.L. GC RAMP 1

C.L. GC RAMP 2

INSTALL
SS-GUN CLUB STA 76+47LT
YIELD

35

75

***
INSTALL
SS-GUN CLUB STA 73+48RT
549
NORTH

INSTALL
SS-GC RAMP 1 STA 35+18RT
YIELD
DO NOT ENTER

SEE MAINTENANCE OF TRAFFIC PLANS
FOR TRAFFIC BARRIERS LEFT IN PLACE.

INSTALL
SS-GUN CLUB STA 76+25LT
549
NORTH

SEE MAINTENANCE OF TRAFFIC PLANS
FOR TRAFFIC BARRIERS LEFT IN PLACE.

***
INSTALL
SS-GUN CLUB STA 77+45LT
NORTH
549
SOUTH
549

MATCH LINE C.L. GUN CLUB STA. 78+00

255

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

N

NOTES:

1. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

*** COVER SIGNAGE FOR FUTURE USE

MATCH LINE C.L. GUN CLUB STA. 78+00

INSTALL
SS-GUN CLUB STA 80+20LT
***
NORTH
549
SOUTH
549

80

C.L. GUN CLUB

LEVEE

85

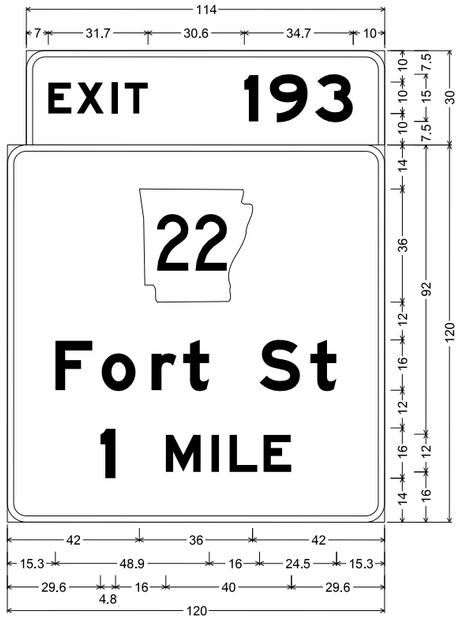
INSTALL
SS-GUN CLUB STA 86+73LT
JCT
549

INSTALL
SS-GUN CLUB STA 79+86RT
SPEED LIMIT 40

GUN CLUB
PERMANENT SIGNING PLANS

5/1/2024 10:56:40 AM
R040901_18_SP_021.dgn

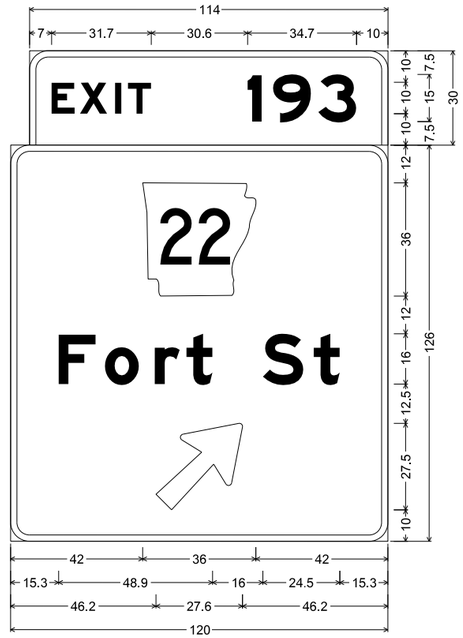
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	276	809
		PERMANENT SIGNING PLANS				



INSTALL
G-2 (I-BEAMS)
GM-49 STA 163+00SB

6.0" Radius, 2.0" Border, White on Green;
"EXIT", E Mod 2K specified length; "193", E Mod 2K;

6.0" Radius, 2.0" Border, White on Green;
"Fort St", E Mod 2K; "1", E Mod 2K;
"MILE", E Mod 2K;



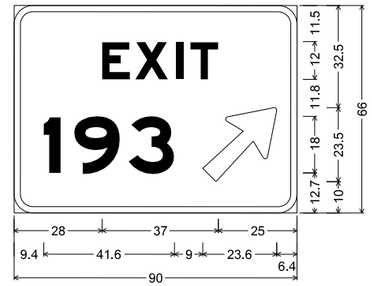
INSTALL
G-2 (I-BEAMS)
GM-49 STA 121+25SB

6.0" Radius, 2.0" Border, White on Green;
"EXIT", E Mod 2K specified length; "193", E Mod 2K;

6.0" Radius, 2.0" Border, White on Green;
"Fort St", E Mod 2K; Arrow 160 - 35.0" 45°;

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

INSTALL
G-2 (OMNI DIRECTIONAL)
EX-49 STA 115+44SB

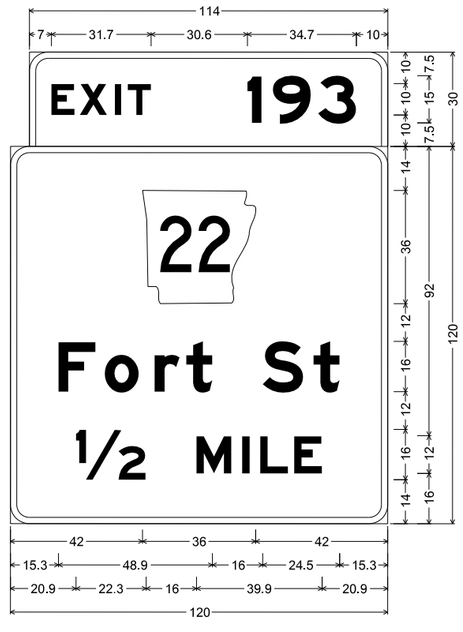


6.0" Radius, 2.0" Border, White on Green;
"EXIT", E Mod 2K; "193", E Mod 2K;
Arrow 133 - 30.0" 45°;



INSTALL
G-2 (I-BEAMS)
GM-49 STA 63+00NB
GM-49 STA 137+00SB

6.0" Radius, 2.0" Border, White on Brown;
"Springhill Park", E Mod 2K; "EXIT", E Mod 2K; "193", E Mod 2K;

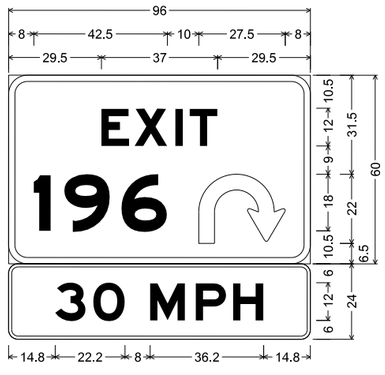


INSTALL
G-2 (I-BEAMS)
GM-49 STA 144+46SB

6.0" Radius, 2.0" Border, White on Green;
"EXIT", E Mod 2K specified length; "193", E Mod 2K;

6.0" Radius, 2.0" Border, White on Green;
"Fort St", E Mod 2K; "½", E Mod 2K;
"MILE", E Mod 2K;

INSTALL
G-2 (OMNI DIRECTIONAL)
EX-49 STA 264+00NB



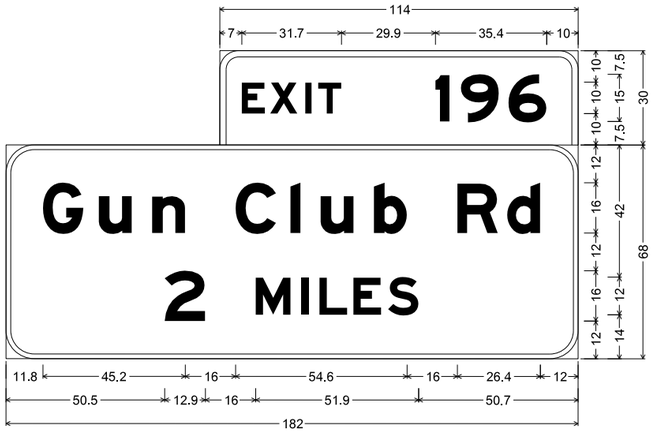
6.0" Radius, 2.0" Border, White on Green;
"EXIT", E Mod 2K; "196", E Mod 2K;
Turn Arrow Custom;

E13-1P_72x24;
3.0" Radius, 1.0" Border, Black on Yellow;
"30", E Mod 2K; "MPH", E Mod 2K;

PERMANENT SIGNING DETAILS
PERMANENT SIGNING PLANS

5/1/2024 10:56:43 AM
R040901_18_SP_022.dgn

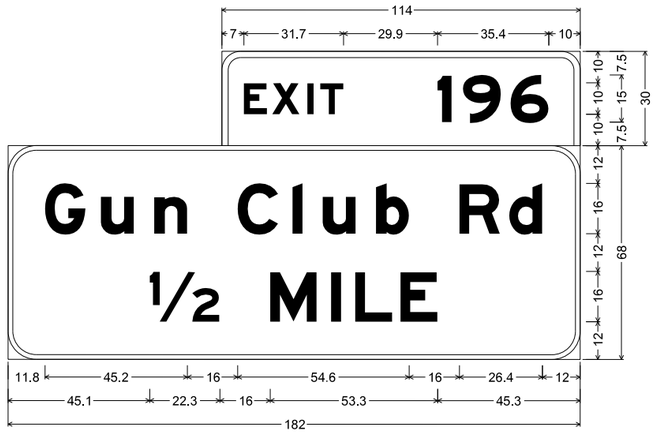
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	277	809
		PERMANENT SIGNING PLANS				



INSTALL
G-2 (I-BEAMS)
GM-49 STA 154+43NB

6.0" Radius, 2.0" Border, White on Green;
"EXIT", E Mod 2K specified length; "196", E Mod 2K;

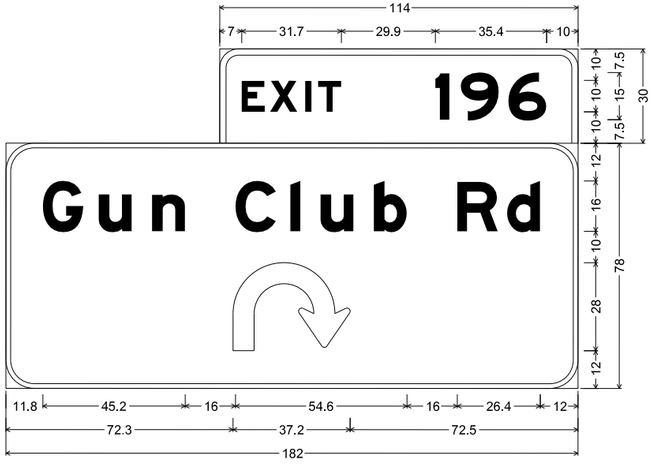
9.0" Radius, 1.5" Border, White on Green;
"Gun", E Mod 2K; "Club", E Mod 2K; "Rd", E Mod 2K; "2", E Mod 2K;
"MILES", E Mod 2K;



INSTALL
G-2 (I-BEAMS)
GM-49 STA 233+60NB

6.0" Radius, 2.0" Border, White on Green;
"EXIT", E Mod 2K specified length; "196", E Mod 2K;

9.0" Radius, 1.5" Border, White on Green;
"Gun", E Mod 2K; "Club", E Mod 2K; "Rd", E Mod 2K; "½", E Mod 2K;
"MILE", E Mod 2K;



INSTALL
G-2 (I-BEAMS)
GM-49 STA 259+00NB

6.0" Radius, 2.0" Border, White on Green;
"EXIT", E Mod 2K specified length; "196", E Mod 2K;

9.0" Radius, 1.5" Border, White on Green;
"Gun", E Mod 2K; "Club", E Mod 2K; "Rd", E Mod 2K; Turn Arrow Custom;



M3-1P_36x18



BLACK
M1-5_45x36

INSTALL
G-1
SS-49 STA 128+00NB



M3-3P_36x18



BLACK
M1-5_45x36

INSTALL
G-1
SS-49 STA 240+00SB

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-7-2024

5/1/2024 10:56:45 AM
R040901_18_SP_023.dgn

PERMANENT SIGNING DETAILS
PERMANENT SIGNING PLANS

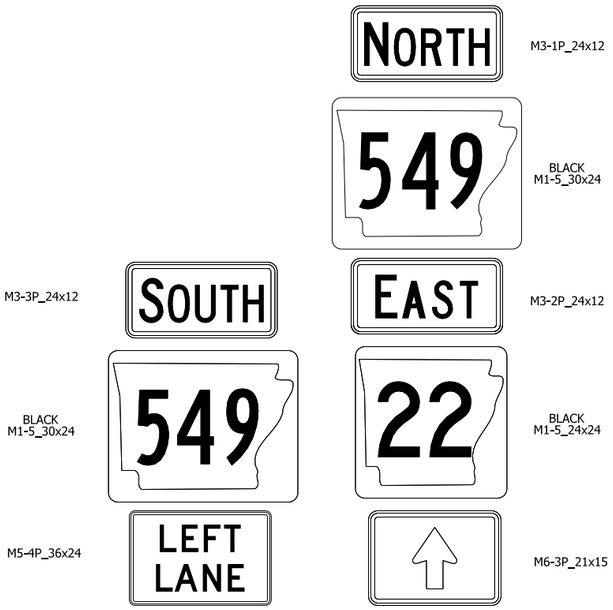
DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	278	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024



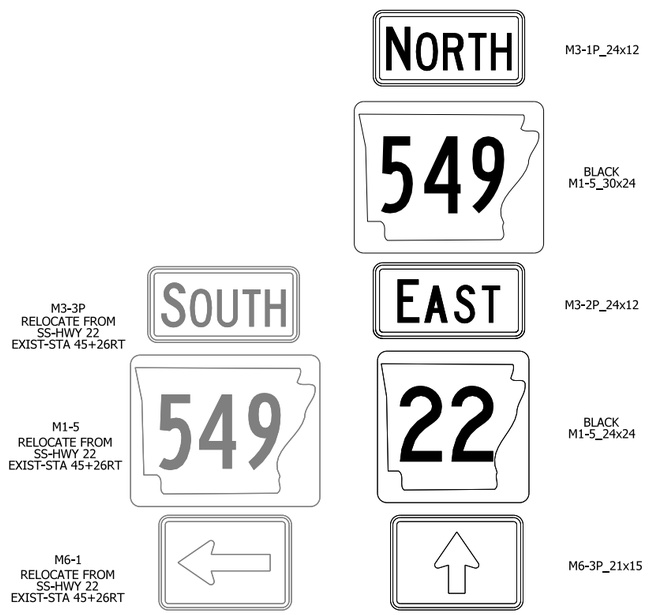
R2-1_48x60

INSTALL
G-2
SS-49 STA 132+00NB
SS-49 STA 237+00SB



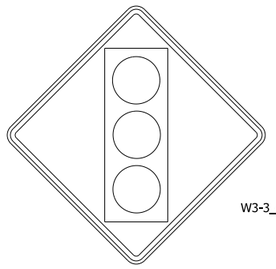
M3-1P_24x12
BLACK M1-5_30x24
M3-3P_24x12
M3-2P_24x12
BLACK M1-5_30x24
BLACK M1-5_24x24
M5-4P_36x24
M6-3P_21x15

INSTALL
G-2
SS-HWY 22 STA 31+57RT



M3-1P_24x12
BLACK M1-5_30x24
M3-3P RELOCATE FROM SS-HWY 22 EXIST-STA 45+26RT
M3-2P_24x12
M1-5 RELOCATE FROM SS-HWY 22 EXIST-STA 45+26RT
BLACK M1-5_24x24
M6-1 RELOCATE FROM SS-HWY 22 EXIST-STA 45+26RT
M6-3P_21x15

INSTALL
G-2
SS-HWY 22 STA 45+26RT



W3-3_48x48

INSTALL
G-1
SS-HWY 22 STA 48+13RT
SS-HWY 22 STA 55+28RT
SS-HWY 22 STA 67+83LT



M3-4P_24x12
BLACK M1-5_24x24

INSTALL
G-1
SS-HWY 22 STA 41+77LT



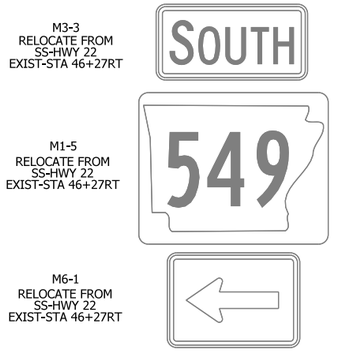
R2-1_36x48

INSTALL
G-1
SS-HWY 22 STA 40+77LT
SS-HWY 22 STA 65+83LT
SS-GUN CLUB STA 15+54RT
SS-GUN CLUB STA 54+63LT
SS-GUN CLUB STA 64+28RT
SS-GUN CLUB STA 71+42LT
SS-GUN CLUB STA 79+86RT



M3-3P RELOCATE FROM SS-HWY 22 EXIST-STA 43+38RT
M1-5 RELOCATE FROM SS-HWY 22 EXIST-STA 43+38RT
M5-4P RELOCATE FROM SS-HWY 22 EXIST-STA 43+38RT

INSTALL
G-1
SS-HWY 22 STA 40+00RT



M3-3 RELOCATE FROM SS-HWY 22 EXIST-STA 46+27RT
M1-5 RELOCATE FROM SS-HWY 22 EXIST-STA 46+27RT
M6-1 RELOCATE FROM SS-HWY 22 EXIST-STA 46+27RT

INSTALL
G-1
SS-HWY 22 STA 45+60LT

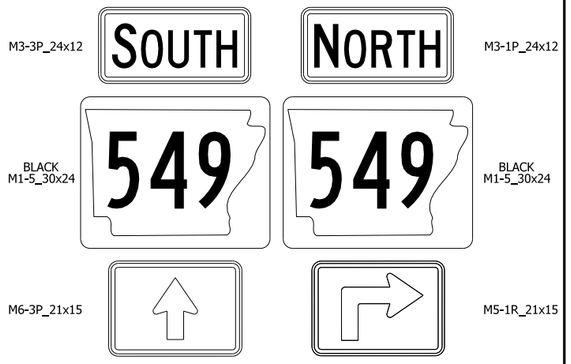


R3-7L_36x36

INSTALL
G-1
SS-HWY 22 RAMP 2 STA 11+49LT



INSTALL
G-1
SS-HWY 22 STA 49+31LT



M3-3P_24x12
M3-1P_24x12
BLACK M1-5_30x24
BLACK M1-5_30x24
M6-3P_21x15
M5-1R_21x15

INSTALL
G2-2
SS-GUN CLUB STA 80+20LT

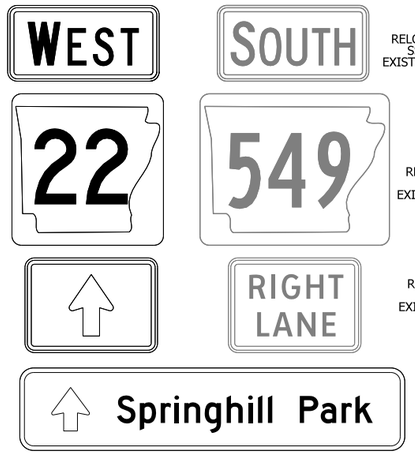
SIGNING ASSEMBLY
PERMANENT SIGNING PLANS

5/1/2024 10:56:47 AM
R040901_18_SP_024.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	279	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

M3-4P_24x12 | BLACK M1-5_24x24 | M6-3P_21x15



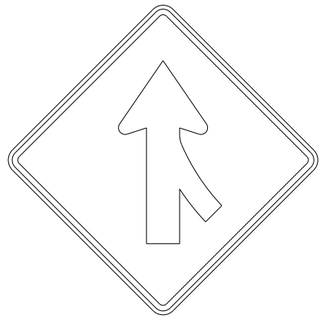
M3-3
RELOCATE FROM
SS-HWY 22
EXIST-STA 51+69LT

M1-5
RELOCATE FROM
SS-HWY 22
EXIST-STA 51+69LT

M5-6P
RELOCATE FROM
SS-HWY 22
EXIST-STA 51+69LT

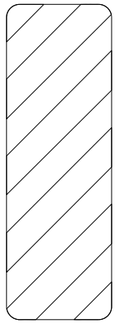
SPRINGHILL PARK SHP-4
D1-1_84x18

INSTALL
G2-5
SS-HWY 22 STA 52+03LT



W4-1_48x48

INSTALL
G2-1
SS-49 STA 112+48NB
SS-49 STA 268+13SB



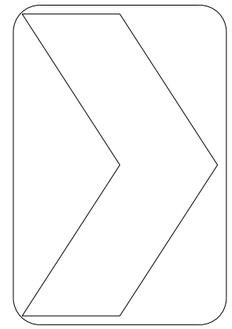
OM-3R_12x36

INSTALL
U-1
SS-49 STA 161+44NB
SS-49 STA 218+04SB

M3-4P_24x12 | BLACK M1-5_24x24 | M3-3P_24x12 | BLACK M1-5_30x24 | M6-3P_21x15



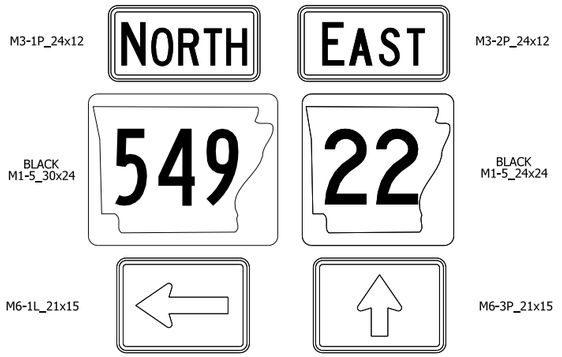
INSTALL
G-1
SS-HWY 22 STA 59+20LT



W1-8R_30x36

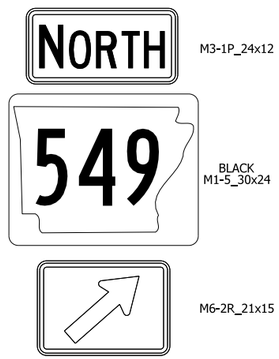
INSTALL
G-1
(14) @ 80 FT. O.C.
SS-GC RAMP 1 STA 16+00LT TO STA 26+40LT
(6) @ 80 FT. O.C.
SS-GC RAMP 4 STA 21+73RT TO STA 25+86RT

M3-1P_24x12 | BLACK M1-5_30x24 | M3-2P_24x12 | BLACK M1-5_24x24 | M6-1L_21x15 | M6-3P_21x15



INSTALL
G2-2
SS-HWY 22 STA 58+92RT

M3-1P_24x12 | BLACK M1-5_30x24 | M6-2R_21x15

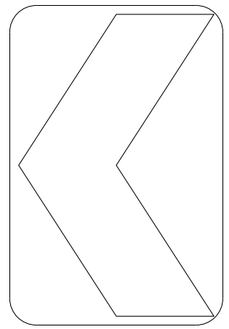


INSTALL
G-1
SS-HWY 22 STA 60+65LT



W8-13_48x48

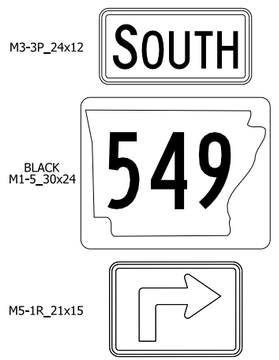
INSTALL
G2-1
SS-49 STA 158+50NB
SS-49 STA 221+03SB
SS-49 STA 235+61NB



W1-8L_24x30

INSTALL
G-1
(8) @ 80 FT. O.C.
SS-HWY 22 RAMP 3 STA 16+69LT TO STA 27+90LT

M3-3P_24x12 | BLACK M1-5_30x24 | M5-1R_21x15



INSTALL
G-1
SS-GUN CLUB STA 64+50LT



W19-5_90x48
RELOCATE FROM
SS-49 STA 56+68NB

INSTALL
G-2
SS-49 STA 220+00NB

5/1/2024 10:56:50 AM
R040901_18_SP_025.dgn

SIGNING ASSEMBLY
PERMANENT SIGNING PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	280	809
		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

M3-4P_24x12



BLACK
M1-5_24x24



M3-3P_24x12





M3-1P_24x12

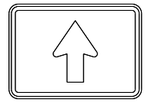
BLACK
M1-5_30x24





BLACK
M1-5_30x24

M6-3P_21x15





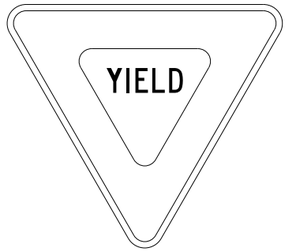
M5-6P_36x24

INSTALL
G2-2
SS-HWY 22 STA 72+08LT

R2-1_36x48

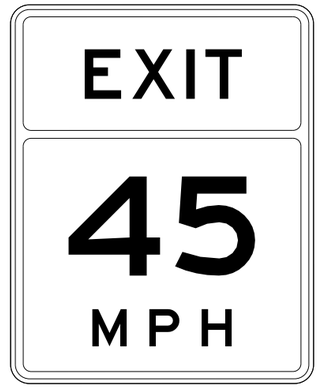


INSTALL
G-1
SS-HWY 22 STA 62+34RT
SS-HWY 59 STA 43+50LT
SS-HWY 59 STA 71+75RT



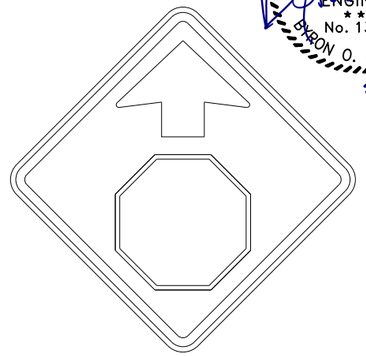
R1-2_48x48x48

INSTALL
G-1
SS-HWY 22 RAMP 2 STA 11+04RT
SS-GUN CLUB STA 60+33LT
SS-GUN CLUB STA 76+47LT



W13-2_48x60

INSTALL
G-2
SS-49 STA 120+62SB



W3-1_48x48

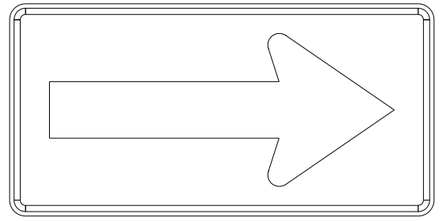
INSTALL
(4) G2-1
SS-GC RAMP 3 STA 18+00
LT & RT
SS-GC RAMP 1 STA 27+00
LT & RT

INSTALL
G-1
SS-HWY 22 STA 49+31LT



R3-7R_36x36

W1-6_60x30



INSTALL
G-2
(4) @ 100 FT O.C.
SS-49
STA 249+50 NB TO STA 253+50 NB

DELINEATE POSTS WITH
(2) 3"x36" RED TYPE XI
RETRO-REFLECTIVE STRIPS

R6-1R_48x18
R5-1_36x36



DELINEATE POSTS WITH
(2) 3"x36" RED TYPE XI
RETRO-REFLECTIVE STRIPS

INSTALL
G-2
SS-HWY 22 RAMP 3 STA 10+52RT
SS-HWY 22 RAMP 3 STA 10+43LT
SS-HWY 22 STA 58+02LT
SS-HWY 22 STA 58+43LT

R6-1L_48x18

R5-1a
(RELOCATED FROM
SS-HWY 22 RAMP 1
STA 2184+79LT)



M3-2
(RELOCATED FROM
SS-HWY 22 RAMP 1
STA 2184+79LT)





M3-4
(RELOCATED FROM
SS-HWY 22 RAMP 1
STA 2184+79LT)

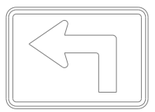
M1-5
(RELOCATED FROM
SS-HWY 22 RAMP 1
STA 2184+79LT)

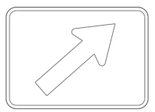




M1-5
(RELOCATED FROM
SS-HWY 22 RAMP 1
STA 2184+79LT)

M5-1L
(RELOCATED FROM
SS-HWY 22 RAMP 1
STA 2184+79LT)





M6-2R
(RELOCATED FROM
SS-HWY 22 RAMP 1
STA 2184+79LT)

SPRINGHILL PARK SHP-2
D1-1_78x18

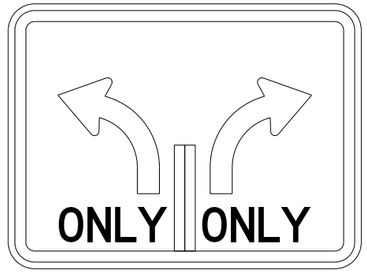


INSTALL
G2-5
SS-HWY 22 RAMP 1 STA 2183+70RT

DELINEATE POSTS WITH
(2) 3"x36" RED TYPE XI
RETRO-REFLECTIVE STRIPS

R5-1a_42x30





R3-8 series_48x30;

INSTALL
G-2
SS-HWY 22 RAMP 3 STA 13+54LT

W9-1L_48x48;



INSTALL
(2) G2-1
SS-49 STA 225+00NB
LT & RT

SIGNING ASSEMBLY
PERMANENT SIGNING PLANS

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R040901_18_SP_026.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		PERMANENT SIGNING PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024

JCT
549
M2-1P_21x15
BLACK M1-5_30x24

INSTALL
G-1
SS-GUN CLUB STA 50+74RT
SS-GUN CLUB STA 86+73LT
SS-HWY 22 STA 28+96RT
SS-HWY 22 STA 75+34LT

TO
549
M4-5P_24x12
BLACK M1-5_30x24
M5-1L_21x15

INSTALL
G-1
SS-HWY 59 STA 58+30LT

DELINEATE POSTS WITH (2) 3"x36" RED TYPE XI RETRO-REFLECTIVE STRIPS
ENTER
DO NOT
ONE WAY
ONE WAY
R6-1L_36x12
R5-1_36x36
R6-1R_36x12
STOP
R1-1_30x30

INSTALL
(4) G-2
SS-GC RAMP 1 STA 35+51
LT & RT
SS-GC RAMP 3 STA 10+17
LT & RT

GUN CLUB PLAQUE
D3-1_18X86
Gun Club Rd
Gun Club Rd
GUN CLUB PLAQUE
D3-1_18X86
STOP
R1-1_36x36

INSTALL
G-2
SS-GUN CLUB STA 10+31LT

TO
549
M4-5P_24x12
BLACK M1-5_30x24
M5-1R_21x15

INSTALL
G-1
SS-HWY 59 STA 56+82RT

WRONG WAY
R5-1a_42x30
DELINEATE POSTS WITH (2) 3"x36" RED TYPE XI RETRO-REFLECTIVE STRIPS

INSTALL
G-2
SS-HWY 22 RAMP 3 STA 13+54RT
SS-HWY 22 RAMP 1 STA 2183+70LT

TO
549
M4-5P_24x12
BLACK M1-5_30x24

INSTALL
G-1
SS-HWY 59 STA 43+62RT
SS-HWY 59 STA 70+75LT

59
BLACK M1-5_24x24
Springhill Park
SPRINGHILL PARK SHP-5
D1-1_84x18
W1-7_48x24

INSTALL
G2-4
SS-HWY 59 STA 57+57LT

SOUTH
NORTH
549
549
M3-3P_24x12
M3-1P_24x12
BLACK M1-5_30x24
M5-1L_21x15
M6-3P_21x15

INSTALL
G2-5
SS-GUN CLUB STA 58+65RT

SOUTH
549
M3-3P_24x12
BLACK M1-5_30x24
M6-2R_21x15

INSTALL
G-1
SS-GUN CLUB STA 61+44LT

TO
59
M4-5P_36x18
BLACK M1-5_36x36
M6-2R_30x21
Springhill Park

SPRINGHILL PARK SHP-1
D1-1_96x18

INSTALL
G2-5
SS-GC RAMP 1 STA 33+50RT
SS-GC RAMP 3 STA 12+20RT

OM-3R_12x36
OM-3L_12x36
WRONG WAY
R5-1a_42x30
DELINEATE POSTS WITH (2) 3"x36" RED TYPE XI RETRO-REFLECTIVE STRIPS

INSTALL
G-2
SS-GC RAMP 1 STA 32+50RT
SS-GC RAMP 3 STA 13+25LT

R5-1a_42x30
WRONG WAY
DELINEATE POSTS WITH (2) 3"x36" RED TYPE XI RETRO-REFLECTIVE STRIPS

INSTALL
G-2
SS-GC RAMP 1 STA 32+50LT
SS-GC RAMP 3 STA 13+25RT

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SIGNING ASSEMBLY
PERMANENT SIGNING PLANS

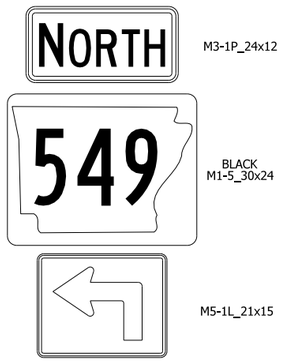
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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13640
BYRON O. LAWRENCE
5-1-2024



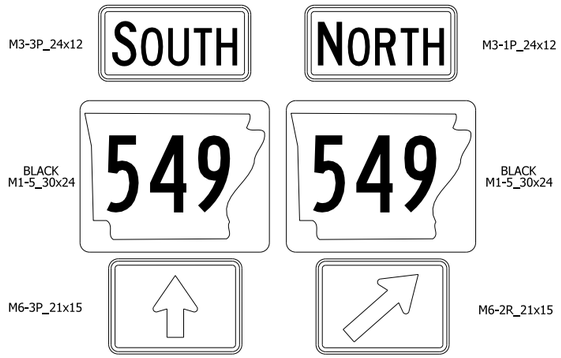
M3-1P_24x12
BLACK M1-5_30x24
M5-4P_24x18

INSTALL
G-1
SS-HWY 22 STA 50+00RT



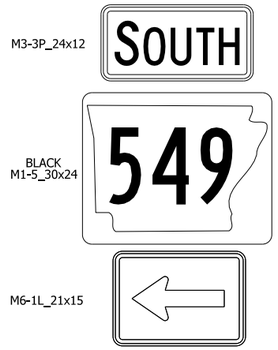
M3-1P_24x12
BLACK M1-5_30x24
M5-1L_21x15

INSTALL
G-1
SS-GUN CLUB STA 73+48RT



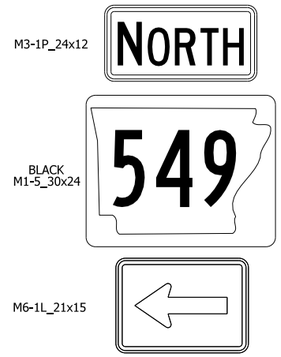
M3-3P_24x12
M3-1P_24x12
BLACK M1-5_30x24
BLACK M1-5_30x24
M6-3P_21x15
M6-2R_21x15

INSTALL
G2-5
SS-GUN CLUB STA 77+45LT



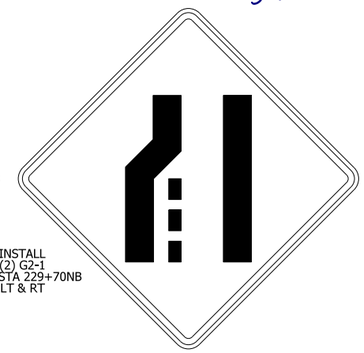
M3-3P_24x12
BLACK M1-5_30x24
M6-1L_21x15

INSTALL
G-1
SS-GUN CLUB STA 60+22LT



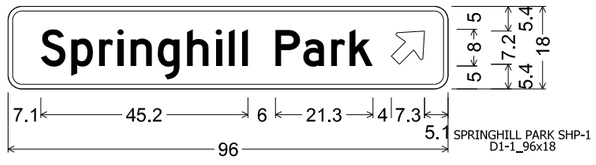
M3-1P_24x12
BLACK M1-5_30x24
M6-1L_21x15

INSTALL
G-1
SS-GUN CLUB STA 76+25LT

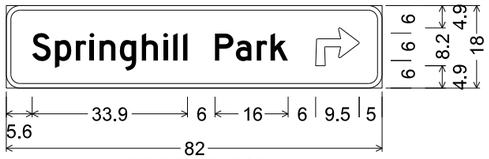


W4-2_48x48

INSTALL
(2) G2-1
SS-49 STA 229+70NB
LT & RT

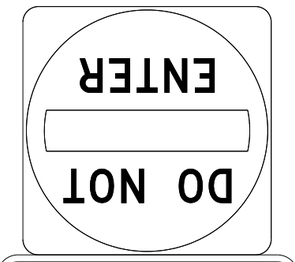


SPRINGHILL PARK SHP-1
D1-1_96x18

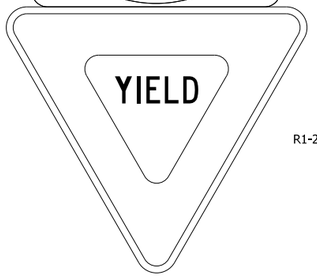


SPRINGHILL PARK SHP-3
D1-1_82X18

DELINEATE POSTS WITH
(2) 3"x36" RED TYPE XI
RETRO-REFLECTIVE STRIPS



R5-1_36x36



R1-2_48x48x48

INSTALL
G2-3
SS-HWY 22 RAMP 3 STA 10+52LT
SS-GC RAMP 3 STA 10+37LT
SS-GC RAMP 1 STA 35+18RT



SPRINGHILL PARK SHP-2
D1-1_78x18

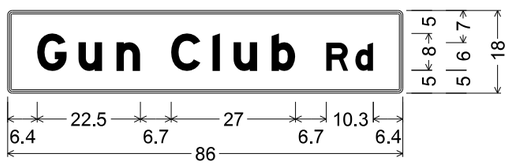


AR CoHE_114x30;
(REMOVE AND
RELOCATE FROM
SS-HWY 22 STA
42+90LT)



SPRINGHILL PARK SHP-3
D1-1_82X18

INSTALL
G-2
SS-HWY 22 STA 42+90LT



D3-1_18X86
GUN CLUB PLAQUE G-2

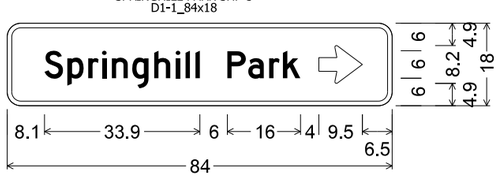


SPRINGHILL PARK SHP-4
D1-1_84x18



SPRINGHILL PARK SHP-5
D1-1_84x18

SPRINGHILL PARK SHP-6
D1-1_84x18



INSTALL
G-2
SS-HWY 22 STA 39+18LT

M3-2P_36x18



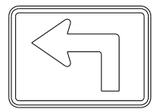


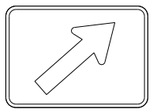
M3-4P_36x18

BLACK M1-5_36x36

BLACK M1-5_36x36

M5-1L_30x21





M6-2R_30x21

SPRINGHILL PARK SHP-1
D1-1_96x18





R3-7R_36x36

INSTALL
G2-5
SS-HWY 22 RAMP 3 STA 11+79LT

SIGNING ASSEMBLY
PERMANENT SIGNING PLANS

5/1/2024 10:56:58 AM
R040901_18_SP_028.dgn

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024		6	ARK.	040901	283	809
		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
6/11/24

SUMMARY OF ILLUMINATION QUANTITIES

	ITEM NUMBER	ITEM	TOTAL QUANTITY	UNIT
	SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (ROADWAY LIGHTING) (2C/8 A.W.G., E.G.C.)	7196	LIN. FT.
	SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES (ROADWAY LIGHTING)	1835	LIN. FT.
	SP & 709	GALVANIZED STEEL CONDUIT (4")	53979	LIN. FT.
	710	NON-METALLIC CONDUIT (1.5")	2644	LIN. FT.
	710	NON-METALLIC CONDUIT (2")	5387	LIN. FT.
	SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	53	EACH
*	SP	NAVIGATION LIGHTING SYSTEM	1.00	LUMP SUM
	SP	LED ROADWAY ILLUMINATION POLE (12,750 LUMENS, COBRA HEAD, BREAKAWAY BASE, 30')	34	EACH
	SP	LED ROADWAY ILLUMINATION POLE (12,750 LUMENS, COBRA HEAD, BARRIER MOUNTED, 26.5')	7	EACH
	SP	PEDESTAL TYPE SERVICE POINT ASSEMBLY (2 CIRCUITS, 100 AMP)	7	EACH
	SP	ITS ELECTRICAL JUNCTION BOX, METALLIC (32"X30"X18")	17	EACH

* NAVIGATION LIGHTING SYSTEM LUMP SUM IS INCLUSIVE OF LIGHTS, WIRING, CONDUITS AND HANGERS, BOXES, AND ELECTRICAL SERVICE FOR A COMPLETE SYSTEM.

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SUMMARY OF ILLUMINATION QUANTITIES
ILLUMINATION PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	284	809
		ILLUMINATION PLANS				

ILLUMINATION PLANS GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NFPA 70, CURRENT EDITION), LIFE SAFETY CODE (NFPA 101, CURRENT EDITION), UNDERGROUND FACILITIES DAMAGE PREVENTION ACT (§14-271-101 ET SEQ.), AND LOCAL ELECTRICAL CODE. IN ADDITION, ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.

2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO PROJECT ENGINEER, TO ENSURE ARKANSAS STATE CODES (§14-28-101 ET SEQ, AND §20-31-101 ET SEQ.) ARE MET. THE DOCUMENTATION SHALL
   (1) ELECTRICIANS' LICENSE INFORMATION AND EXPIRATION DATE.
   (2) THE RATIO OF LICENSED-ELECTRICIAN-TO-APPRENTICE-ELECTRICIANS.
   (3) PRINTED SEARCH RESULT OF LICENSED ELECTRICIANS FROM ARKANSAS DEPARTMENT OF LABOR ELECTRICIAN LICENSEE DIRECTORY (https://www.ark.org/labor/electrician/search.php)
   ALL LICENSES SHALL BE VALID AND CURRENT

3. THE CONTRACTOR SHALL NOT ENGAGE IN EXCAVATION OR DEMOLITION ACTIVITIES WITHOUT HAVING FIRST NOTIFIED THE ARKANSAS ONE CALL CENTER IN ACCORDANCE WITH UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. NOT ALL UTILITY COMPANIES ARE MEMBERS OF THE ARKANSAS ONE CALL SYSTEM. THE CONTRACTOR IS ADVISED TO CONTACT ALL NON-MEMBER UTILITES AS WELL AS THE ONE CALL CENTER.

4. UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. SOME UTILITIES MAY HAVE BEEN RELOCATED SINCE THE TIME OF DESIGN AND THE CONTRACTOR'S NOTICE TO PROCEED. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES INVOLVED AND VERIFY THE LOCATIONS OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL IT IS NO LONGER NECESSARY.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS OF REPAIR OR REPLACEMENT OF EXISTING UTILITIES DAMAGED DURING THE CONSTRUCTION.

6. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE

7. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY A PUSHING OR BORING METHOD OR AS DIRECTED BY ENGINEER. PVC OR HDPE CONDUIT SHALL BE USED. PVC CONDUIT SHALL BE MARKED "DIR. BORING" OR "DIRECTIONAL BORING" AS PER NEC.

8. NON-DESTRUCTIVE MEG TEST AND CURRENT LEAKAGE TEST SHALL BE PERFORMED ON NEW CONDUCTORS, IN THE PRESENCE OF FIELD INSPECTOR. THE TEST VOLTAGE SHALL BE LIMITED TO 600 VOLTS. ANY CONDUCTOR NOT MEETING THE MINIMUM ACCEPTABLE VALUE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE USING NEW CONDUCTOR. THE RESULTS SHALL BE DOCUMENTED AND PROVIDED TO THE JOB ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES CAUSED BY MEG TEST WHILE DEVICES OR ACCESSORIES ARE STILL CONNECTED AND SHALL BE REPLACED AT CONTACTOR'S EXPENSE. SEE SPECIAL PROVISION ELECTRICAL

9. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT PINCHING ANY CONDUCTORS. CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT CONTRACTOR'S EXPENSE.

10. EACH ROADWAY ILLUMINATION POLE SHALL BE BONDED TO EQUIPMENT GROUNDING CONDUCTOR PER NEC. SEE ARTICLES 250 AND 410.

11. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED.

12. ALL LUMINAIRE ASSEMBLIES SHALL HAVE BUG RATING OF U-0.

13. BEFORE FINAL ACCEPTANCE, CONTRACTOR SHALL PROVIDE TWO (2) SETS OF LEDGER SIZE (11" X 17") AS-BUILT PLANS TO THE MAINTENANCE AUTHORITY AND ARDOT.

14. PULL CABLE SHALL BE MINIMUM 1/4" PULL NYLON OR POLYESTER ROPE, OR 1200 LBS PULL TAPE WHEN PULLING CONDUCTORS. STEEL CABLE OR FISH TAPE SHALL NOT BE USED. CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS. ALL BENDS SHALL NOT BE LESS THAN RECOMMENDED BY NEC FOR CONDUCTORS USED.

15. ALL CONCRETE PULL BOXES SHALL BE TYPE 2 HD UNLESS OTHERWISE INDICATED ON THE PLANS.

16. SLACK CABLES IN PULL BOXES SHALL BE 3 FEET.

17. CONDUCT A MINIMUM 14-DAY BURN TEST FOR THE COMPLETE LIGHTING SYSTEM. REPLACE BURNED OUT AND NOTICEABLY DIM LUMINAIRES; MALFUNCTIONING EQUIPMENT SHALL BE CORRECTED, AND RETEST THE SYSTEM. OTHERWISE REMOVE AND REPLACE WITH NEW EQUIPMENT.

18. SEE STANDARD DRAWING SD-6 FOR PULL BOX CONSTRUCTION.

19. ALL METAL POLES SHALL BE BONDED TO E.G.C. PER NEC 410 PART IV AND PART V.

20. THE CONTRACTOR SHALL LABEL ALL CONDUCTORS IN PULL BOXES AND AT SPLICE POINTS.

21. CONDUCTORS SHALL CONTINUOUSLY RUN DIRECTLY FROM SERVICE POINTS TO ELECTRICAL DEVICES AND/OR PULL BOXES WITHOUT SPLICES BEING MADE IN THE CONDUIT. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHED SHALL BE COMPLETELY REPLACED AT THE CONTRACTOR'S EXPENSE.

22. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BREAKER.

23. PAVEMENT MARKINGS SHOWN FOR REFERENCE ONLY. SEE PERMANENT PAVEMENT MARKING PLANS.

24. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENTS FOR CLEARANCE ABOVE ROADWAY ONLY AT LOCATIONS WHERE THE GROUND ELEVATION AT THE POLE IS BELOW THE ELEVATION OF THE ROADWAY (SEE NOTES ON STANDARD DRAWING). PAYMENT WILL BE INCLUDED IN LED ROADWAY ILLUMINATION POLE.

25. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.

26. ALL STEEL POLES SHALL BE DESIGNED TO MEET THE AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 1ST EDITION, 2022 INTERIM REVISIONS.

27. IN PULL BOXES, POLE BASES, JUNCTION BOXES AND CONTROLLER CABINETS, THE DIRECTION OF EACH CABLE RUN SHALL BE INDICATED BY ATTACHING A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO THE CONDUIT. TAGS SHALL BE EMBOSSED, STAMPED OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. IN INSTANCES WHERE THE CONDUIT OR CONDUIT ENTRANCES ARE NOT VISIBLE OR ACCESSIBLE, A DIRECTION TAG SHALL BE ATTACHED TO EACH CABLE.

28. REFER TO SURVEY CONTROL DETAILS SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

29. CONDUIT BELL END FITTINGS SHALL BE INSTALLED ON ALL TERMINATING ENDS OF NON-METALLIC CONDUIT RUNS. THIS INCLUDES PULL BOXES, POLE BASES, AND TRAFFIC SIGNAL CABINETS. THE COST OF THE FITTINGS SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM. ALL NON-METALLIC CONDUIT SHALL USE LONG SWEEP 90 DEGREE ELBOWS ON ALL CONDUIT BENDS.

30. PRIOR TO THE ORDERING OF ALL LIGHTING EQUIPMENT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER TWO (2) PRINTED COPIES OF THE APPLICABLE BROCHURES CONTAINING THE DESIGN CRITERIA FOR THE EQUIPMENT WHICH THE CONTRACTOR PROPOSES TO INSTALL FOR APPROVAL. THE SPECIFIC ITEMS THAT ARE PROPOSED FOR USE SHALL BE CLEARLY MARKED IN THE APPLICABLE BROCHURES. A LIST SHALL BE ATTACHED TO IDENTIFY THE ITEM AND CONTAIN THE MANUFACTURER, QUANTITY, MODEL, AND IDENTIFYING DESCRIPTIONS OF EACH ITEM. ADEQUATE ENGINEERING DATA, ESSENTIAL SHOP DRAWINGS, AND SCHEMATIC DIAGRAMS SHALL BE PROVIDED FOR REVIEW. PARTIAL SUBMITTALS WILL NOT BE ACCEPTED FOR CONSIDERATION AND SHALL BE RETURNED FOR CORRECTION WITHOUT REVIEW.

   A. REVIEW: FOR ALL ITS EQUIPMENT SUBMITTALS, THE ENGINEER'S REVIEW OF THE EQUIPMENT SUBMITTALS SHOULD BE COMPLETE WITH THIRTY (30) DAYS FROM THE DATE OF THE SUBMISSION UNLESS OTHERWISE SPECIFIED. ONCE THE ENGINEER HAS DETERMINED THAT THE EQUIPMENT SUBMITTED MEETS THE DESIGN CRITERIA, A WRITTEN APPROVAL WILL BE PROVIDED, IN WHICH NO FURTHER ACTION IS REQUIRED. IF THE EQUIPMENT SUBMITTED FOR USE IS REJECTED, THE CONTRACTOR SHALL RE-SUBMIT THE EQUIPMENT WITHIN FIFTEEN (15) DAYS OF NOTIFICATION OF EQUIPMENT REJECTION. RESUBMITTAL OF REJECTED EQUIPMENT FOR REVIEW WILL BE CONSIDERED THE STARTING POINT OF A NEW APROVAL CYCLE AS DESCRIBED.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

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ILLUMINATION NOTES
ILLUMINATION PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024		6	ARK.	040901	285	809
		ILLUMINATION PLANS				

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (ROADWAY LIGHTING) (2C/8 A.W.G., E.G.C.)	1874	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES (ROADWAY LIGHTING)	277	LIN. FT.
710	NON-METALLIC CONDUIT (2")	1284	LIN. FT.
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	7	EACH
SP	LED ROADWAY ILLUMINATION POLE (12,750 LUMENS, COBRA HEAD, BREAKAWAY BASE, 30')	6	EACH
SP	PEDESTAL TYPE SERVICE POINT ASSEMBLY (2 CIRCUITS, 100 AMP)	1	EACH

STATE OF ARKANSAS
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Paul Hunter
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SEE SIGNALIZATION PLAN SHEETS FOR TRAFFIC SIGNAL AND RELATED LIGHTING WORK IN THIS AREA

FORT ST. / HWY 22

2" CONDUIT
2C/#8 LIGHTING (CKT A1)
2C/#8 LIGHTING (CKT A2)
1C/#8 E.G.C

SERVICE POINT - A
(SP-A)
STA. 93+89.74
OFF 97.31' LT

PULLBOX - PB1
(TYPE 2 HD)
STA. 93+97.52
OFF 97.56' LT

CIRCUIT A1
POLE A-1
STA. 94+11.32
OFF 89.98' LT

2" CONDUIT
2C/#8 LIGHTING (CKT A1)
2C/#8 LIGHTING (CKT A2)
1C/#8 E.G.C

PULLBOX - PB2
(TYPE 2 HD)
STA. 95+64.24'
OFF 97.91' LT

CIRCUIT A1
POLE A-2
STA. 95+70.64
OFF 93.02 LT

2" CONDUIT
2C/#8 LIGHTING (CKT A1)
1C/#8 E.G.C

CIRCUIT A1
POLE A-3
STA. 2173+17.53
OFF 24.85' RT

C.L. HWY 22 RAMP 4

2170

90 95 100

C.L. I-49

2" CONDUIT
2C/#8 LIGHTING (CKT A2)
1C/#8 E.G.C

2175

CIRCUIT A2
POLE A-4
STA. 95+48.15
OFF 90.61' RT

CIRCUIT A2
POLE A-5
STA. 2175+59.82
OFF 27.32' RT

PULLBOX - PB3
(TYPE 2 HD)
STA. 95+55.36'
OFF 94.47' RT

CIRCUIT A2
POLE A-6
STA. 2176+97.61
OFF 25.42' RT

2" CONDUIT
2C/#8 LIGHTING (CKT A2)
1C/#8 E.G.C

C.L. HWY 22 RAMP 1

2180

50 55

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

HIGHWAY LIGHTING ILLUMINATION PLANS

LOCATION:	HWY. 22/I-49 INTERCHANGE				
CITY:	BARLING				
COUNTY:	SEBASTIAN				
DISTRICT:	4	SCALE:	1" = 100'	DRAWN BY:	LTD

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ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (ROADWAY LIGHTING) (2C/8 A.W.G., E.G.C.)	1884	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES (ROADWAY LIGHTING)	416	LIN. FT.
710	NON-METALLIC CONDUIT (2")	1735	LIN. FT.
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	11	EACH
SP	LED ROADWAY ILLUMINATION POLE (12,750 LUMENS, COBRA HEAD, BREAKAWAY BASE, 30')	9	EACH
SP	PEDESTAL TYPE SERVICE POINT ASSEMBLY (2 CIRCUITS, 100 AMP)	1	EACH

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024		6	ARK.	040901	286	809
		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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PROP. ROW
T.C.E.
EXIST. ROW & COA
C.L. HWY 22 RAMP 3
C.L. HWY 22 RAMP 2
C.L. I-49
EXIST. ROW & COA
PROP. ROW

CIRCUIT B1
POLE B-1
STA. 38+39.41
OFF 24.73' LT

PULLBOX - PB1
(TYPE 2 HD)
STA. 38+26.63
OFF 27.32' LT

SERVICE POINT - B
(SP-B)
STA. 38+19.07
OFF 27.18' LT

PULLBOX PB2
(TYPE 2 HD)
STA. 39+00.77
OFF 29.09' LT

CIRCUIT B1
POLE B-2
STA. 40+30.00
OFF 24.73' LT

CIRCUIT B1
POLE B-3
STA. 42+18.77
OFF 24.73' LT

CIRCUIT B2
POLE B-4
STA. 32+00.80
OFF 24.73' RT

PULLBOX PB3
(TYPE 2 HD)
STA. 32+07.12
OFF 29.75' RT

CIRCUIT B2
POLE B-5
STA. 33+87.43
OFF 27.73' RT

CIRCUIT B2
POLE B-6
STA. 120+45.46
OFF 93.23' RT

CIRCUIT B2
POLE B-7
STA. 122+36.68
OFF 93.23' RT

CIRCUIT B2
POLE B-8
STA. 124+26.43
OFF 91.39' RT

CIRCUIT B2
POLE B-9
STA. 126+15.52
OFF 83.83' RT

2" CONDUIT
2C/#8 LIGHTING (CKT B1)
2C/#8 LIGHTING (CKT B2)
1C/#8 E.G.C.

2" CONDUIT
2C/#8 LIGHTING (CKT B1)
1C/#8 E.G.C.

2" CONDUIT
2C/#8 LIGHTING (CKT B2)
1C/#8 E.G.C.

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

HIGHWAY LIGHTING ILLUMINATION PLANS

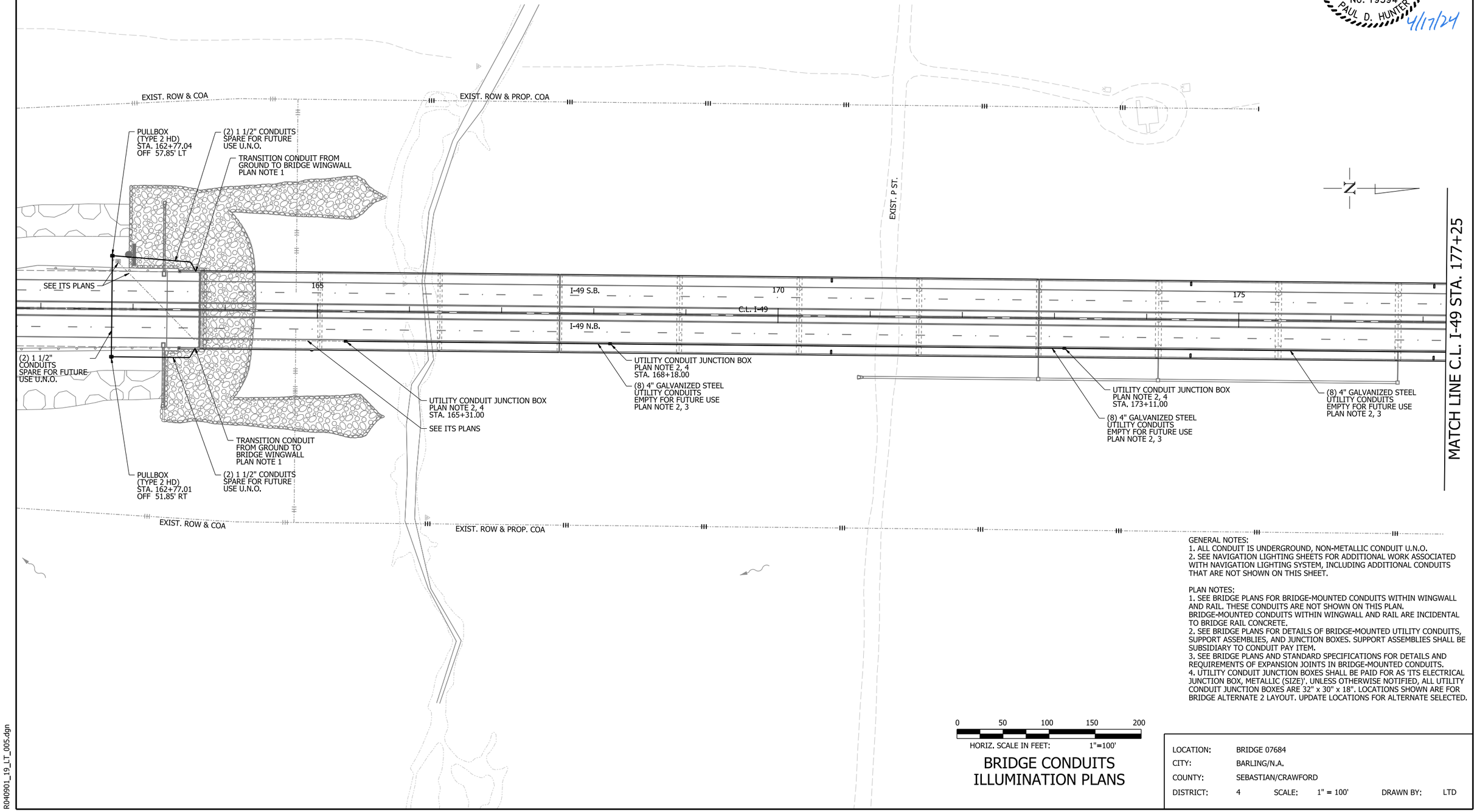
LOCATION:	HWY. 22/I-49 INTERCHANGE				
CITY:	BARLING				
COUNTY:	SEBASTIAN				
DISTRICT:	4	SCALE:	1" = 100'	DRAWN BY:	LTD

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ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 709	GALVANIZED STEEL CONDUIT (4")	10030	LIN. FT.
710	NON-METALLIC CONDUIT (1.5")	720	LIN. FT.
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	2	EACH
SP	ITS ELECTRICAL JUNCTION BOX, METALLIC (32"X30"X18")	3	EACH

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	287	809
		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



GENERAL NOTES:
1. ALL CONDUIT IS UNDERGROUND, NON-METALLIC CONDUIT U.N.O.
2. SEE NAVIGATION LIGHTING SHEETS FOR ADDITIONAL WORK ASSOCIATED WITH NAVIGATION LIGHTING SYSTEM, INCLUDING ADDITIONAL CONDUITS THAT ARE NOT SHOWN ON THIS SHEET.

PLAN NOTES:
1. SEE BRIDGE PLANS FOR BRIDGE-MOUNTED CONDUITS WITHIN WINGWALL AND RAIL. THESE CONDUITS ARE NOT SHOWN ON THIS PLAN. BRIDGE-MOUNTED CONDUITS WITHIN WINGWALL AND RAIL ARE INCIDENTAL TO BRIDGE RAIL CONCRETE.
2. SEE BRIDGE PLANS FOR DETAILS OF BRIDGE-MOUNTED UTILITY CONDUITS, SUPPORT ASSEMBLIES, AND JUNCTION BOXES. SUPPORT ASSEMBLIES SHALL BE SUBSIDIARY TO CONDUIT PAY ITEM.
3. SEE BRIDGE PLANS AND STANDARD SPECIFICATIONS FOR DETAILS AND REQUIREMENTS OF EXPANSION JOINTS IN BRIDGE-MOUNTED CONDUITS.
4. UTILITY CONDUIT JUNCTION BOXES SHALL BE PAID FOR AS 'ITS ELECTRICAL JUNCTION BOX, METALLIC (SIZE)'. UNLESS OTHERWISE NOTIFIED, ALL UTILITY CONDUIT JUNCTION BOXES ARE 32" x 30" x 18". LOCATIONS SHOWN ARE FOR BRIDGE ALTERNATE 2 LAYOUT. UPDATE LOCATIONS FOR ALTERNATE SELECTED.

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

BRIDGE CONDUITS ILLUMINATION PLANS

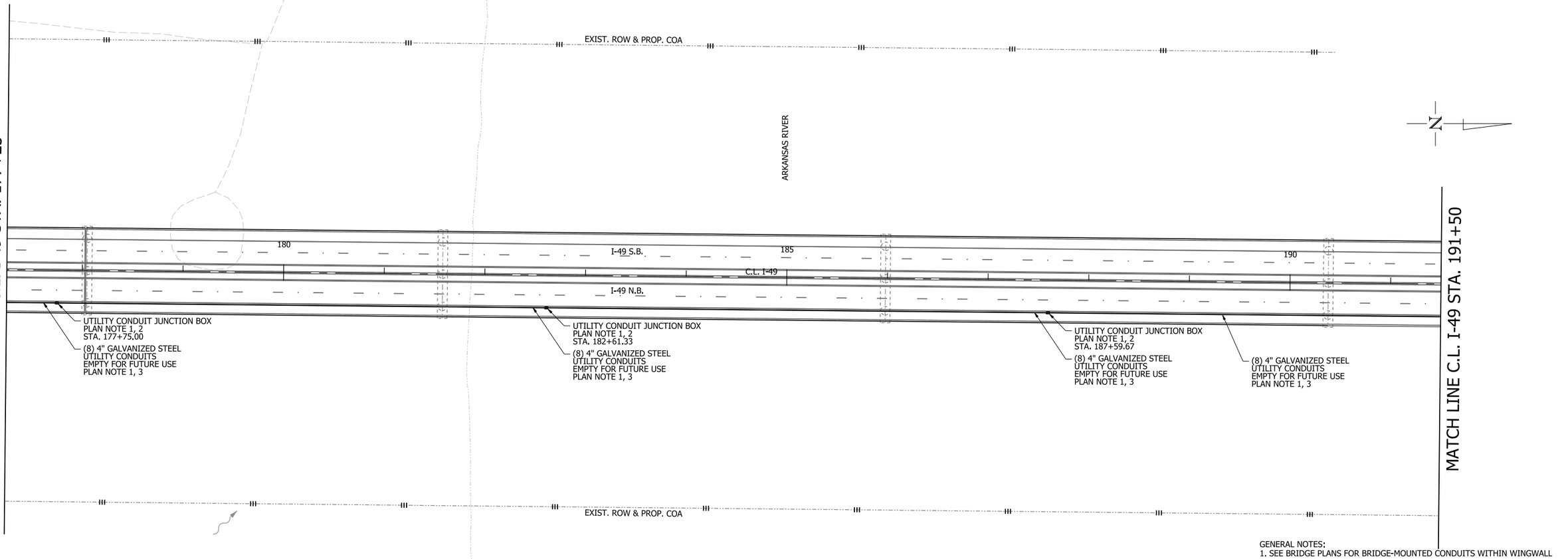
LOCATION:	BRIDGE 07684				
CITY:	BARLING/N.A.				
COUNTY:	SEBASTIAN/CRAWFORD				
DISTRICT:	4	SCALE:	1" = 100'	DRAWN BY:	LTD

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ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 709	GALVANIZED STEEL CONDUIT (4")	11970	LIN. FT.
SP	ITS ELECTRICAL JUNCTION BOX, METALLIC (32"X30"X18")	3	EACH

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	288	809
		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



GENERAL NOTES:
1. SEE BRIDGE PLANS FOR BRIDGE-MOUNTED CONDUITS WITHIN WINGWALL AND RAIL. THESE CONDUITS ARE NOT SHOWN ON THIS PLAN. BRIDGE-MOUNTED CONDUITS WITHIN WINGWALL AND RAIL ARE INCIDENTAL TO BRIDGE RAIL CONCRETE.

PLAN NOTES:
1. SEE BRIDGE PLANS FOR DETAILS OF BRIDGE-MOUNTED UTILITY CONDUITS, SUPPORT ASSEMBLIES, AND JUNCTION BOXES. SUPPORT ASSEMBLIES SHALL BE SUBSIDIARY TO CONDUIT PAY ITEM.
2. UTILITY CONDUIT JUNCTION BOXES SHALL BE PAID FOR AS 'ITS ELECTRICAL JUNCTION BOX, METALLIC (SIZE)'. UNLESS OTHERWISE NOTIFIED, ALL UTILITY CONDUIT JUNCTION BOXES ARE 32" x 30" x 18". LOCATIONS SHOWN ARE FOR BRIDGE ALTERNATE 2 LAYOUT. UPDATE LOCATIONS FOR ALTERNATE SELECTED.
3. SEE BRIDGE PLANS AND STANDARD SPECIFICATIONS FOR DETAILS AND REQUIREMENTS OF EXPANSION JOINTS IN BRIDGE-MOUNTED CONDUITS.

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

BRIDGE CONDUITS ILLUMINATION PLANS

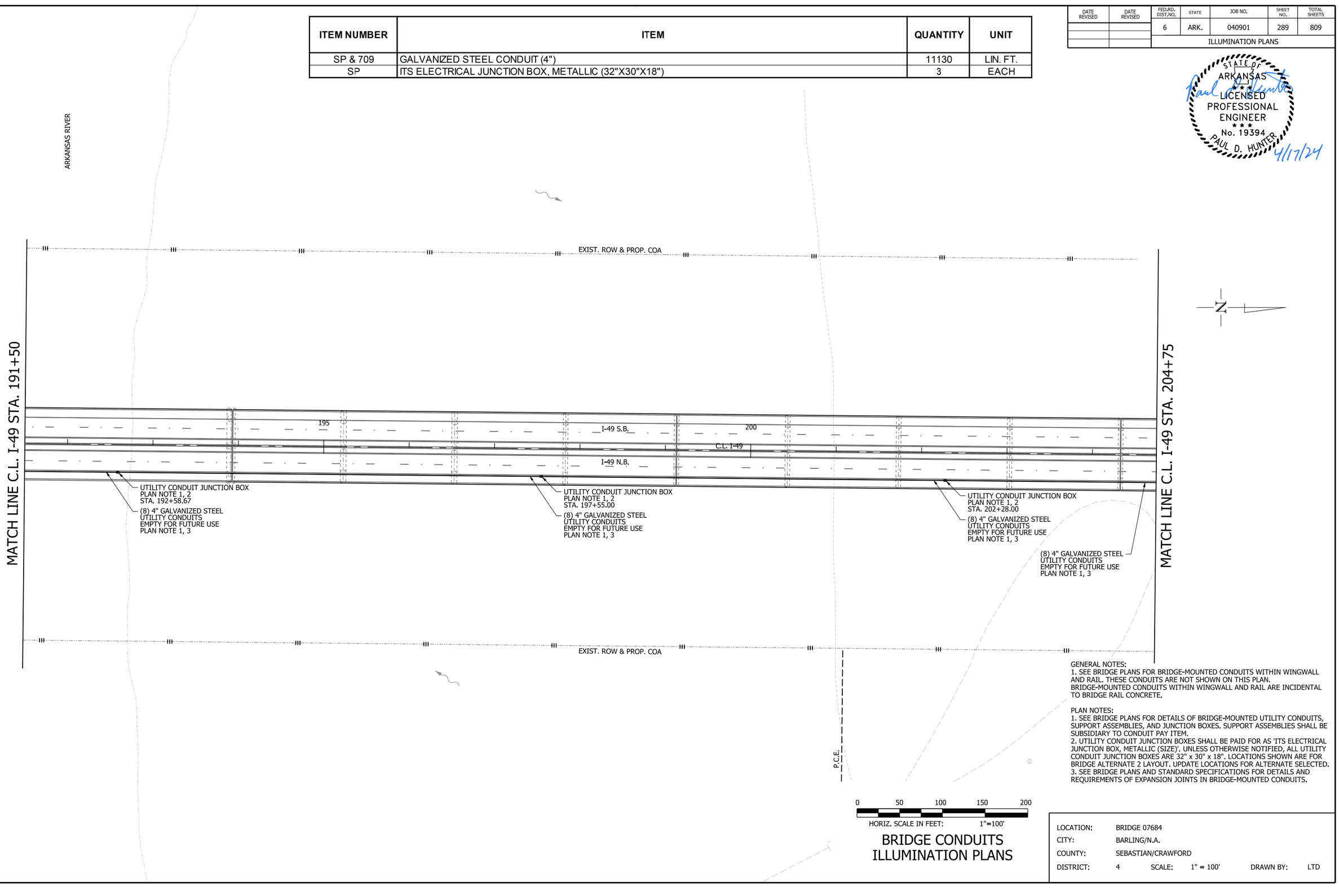
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CITY:	BARLING/N.A.				
COUNTY:	SEBASTIAN/CRAWFORD				
DISTRICT:	4	SCALE:	1" = 100'	DRAWN BY:	LTD

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ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 709	GALVANIZED STEEL CONDUIT (4")	11130	LIN. FT.
SP	ITS ELECTRICAL JUNCTION BOX, METALLIC (32"X30"X18")	3	EACH

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	289	809
		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



GENERAL NOTES:
1. SEE BRIDGE PLANS FOR BRIDGE-MOUNTED CONDUITS WITHIN WINGWALL AND RAIL. THESE CONDUITS ARE NOT SHOWN ON THIS PLAN. BRIDGE-MOUNTED CONDUITS WITHIN WINGWALL AND RAIL ARE INCIDENTAL TO BRIDGE RAIL CONCRETE.

PLAN NOTES:
1. SEE BRIDGE PLANS FOR DETAILS OF BRIDGE-MOUNTED UTILITY CONDUITS, SUPPORT ASSEMBLIES, AND JUNCTION BOXES. SUPPORT ASSEMBLIES SHALL BE SUBSIDIARY TO CONDUIT PAY ITEM.
2. UTILITY CONDUIT JUNCTION BOXES SHALL BE PAID FOR AS 'ITS ELECTRICAL JUNCTION BOX, METALLIC (SIZE)'. UNLESS OTHERWISE NOTIFIED, ALL UTILITY CONDUIT JUNCTION BOXES ARE 32" x 30" x 18". LOCATIONS SHOWN ARE FOR BRIDGE ALTERNATE 2 LAYOUT. UPDATE LOCATIONS FOR ALTERNATE SELECTED.
3. SEE BRIDGE PLANS AND STANDARD SPECIFICATIONS FOR DETAILS AND REQUIREMENTS OF EXPANSION JOINTS IN BRIDGE-MOUNTED CONDUITS.

BRIDGE CONDUITS ILLUMINATION PLANS

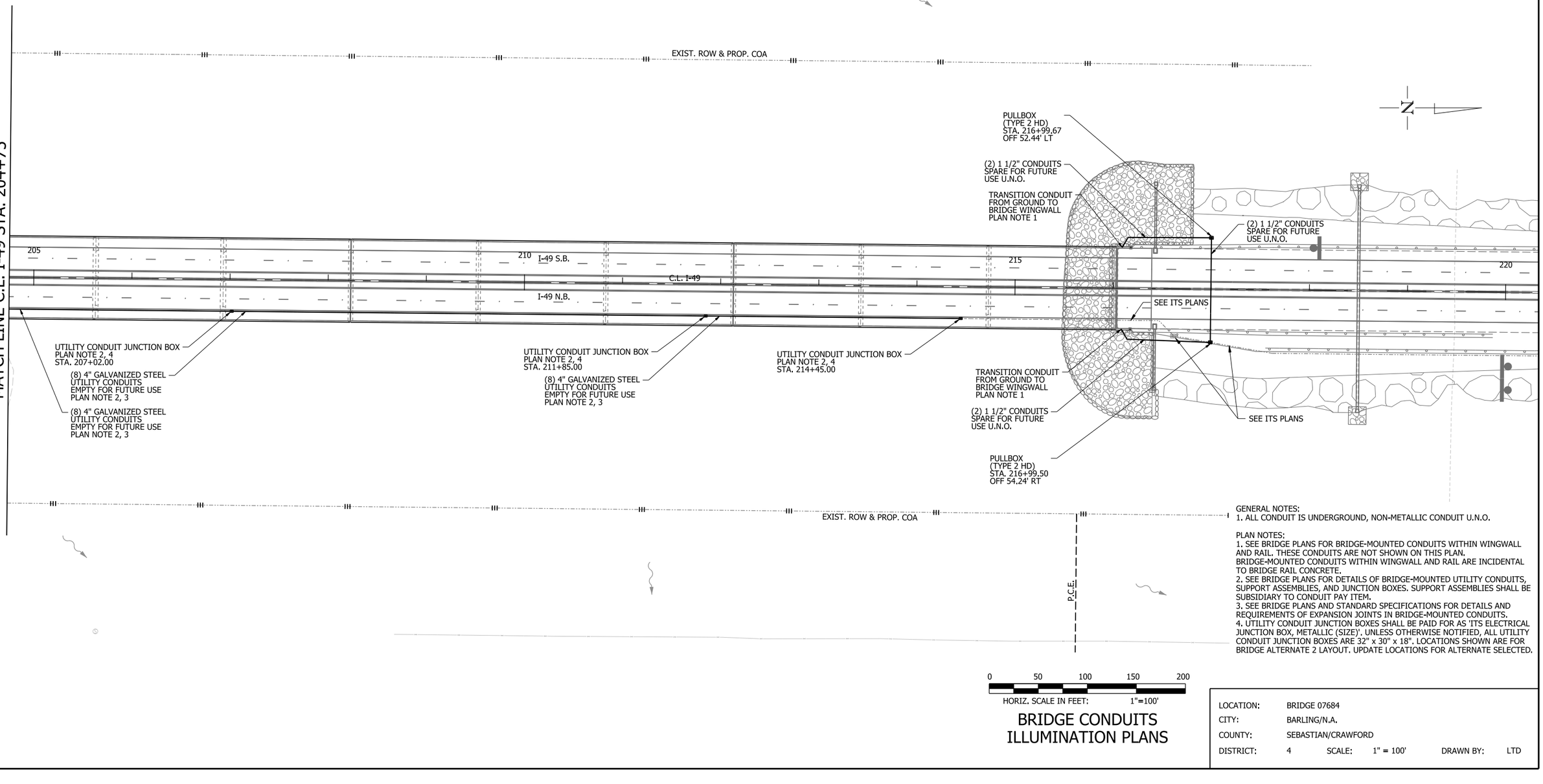
LOCATION:	BRIDGE 07684				
CITY:	BARLING/N.A.				
COUNTY:	SEBASTIAN/CRAWFORD				
DISTRICT:	4	SCALE:	1" = 100'	DRAWN BY:	LTD

4/17/2024 10:25:46 AM
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ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 709	GALVANIZED STEEL CONDUIT (4")	8148	LIN. FT.
710	NON-METALLIC CONDUIT (1.5")	714	LIN. FT.
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	2	EACH
SP	ITS ELECTRICAL JUNCTION BOX, METALLIC (32"X30"X18")	3	EACH

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	290	809
		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



GENERAL NOTES:
1. ALL CONDUIT IS UNDERGROUND, NON-METALLIC CONDUIT U.N.O.

PLAN NOTES:
1. SEE BRIDGE PLANS FOR BRIDGE-MOUNTED CONDUITS WITHIN WINGWALL AND RAIL. THESE CONDUITS ARE NOT SHOWN ON THIS PLAN. BRIDGE-MOUNTED CONDUITS WITHIN WINGWALL AND RAIL ARE INCIDENTAL TO BRIDGE RAIL CONCRETE.
2. SEE BRIDGE PLANS FOR DETAILS OF BRIDGE-MOUNTED UTILITY CONDUITS, SUPPORT ASSEMBLIES, AND JUNCTION BOXES. SUPPORT ASSEMBLIES SHALL BE SUBSIDIARY TO CONDUIT PAY ITEM.
3. SEE BRIDGE PLANS AND STANDARD SPECIFICATIONS FOR DETAILS AND REQUIREMENTS OF EXPANSION JOINTS IN BRIDGE-MOUNTED CONDUITS.
4. UTILITY CONDUIT JUNCTION BOXES SHALL BE PAID FOR AS 'ITS ELECTRICAL JUNCTION BOX, METALLIC (SIZE)'. UNLESS OTHERWISE NOTIFIED, ALL UTILITY CONDUIT JUNCTION BOXES ARE 32" x 30" x 18". LOCATIONS SHOWN ARE FOR BRIDGE ALTERNATE 2 LAYOUT. UPDATE LOCATIONS FOR ALTERNATE SELECTED.

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

BRIDGE CONDUITS ILLUMINATION PLANS

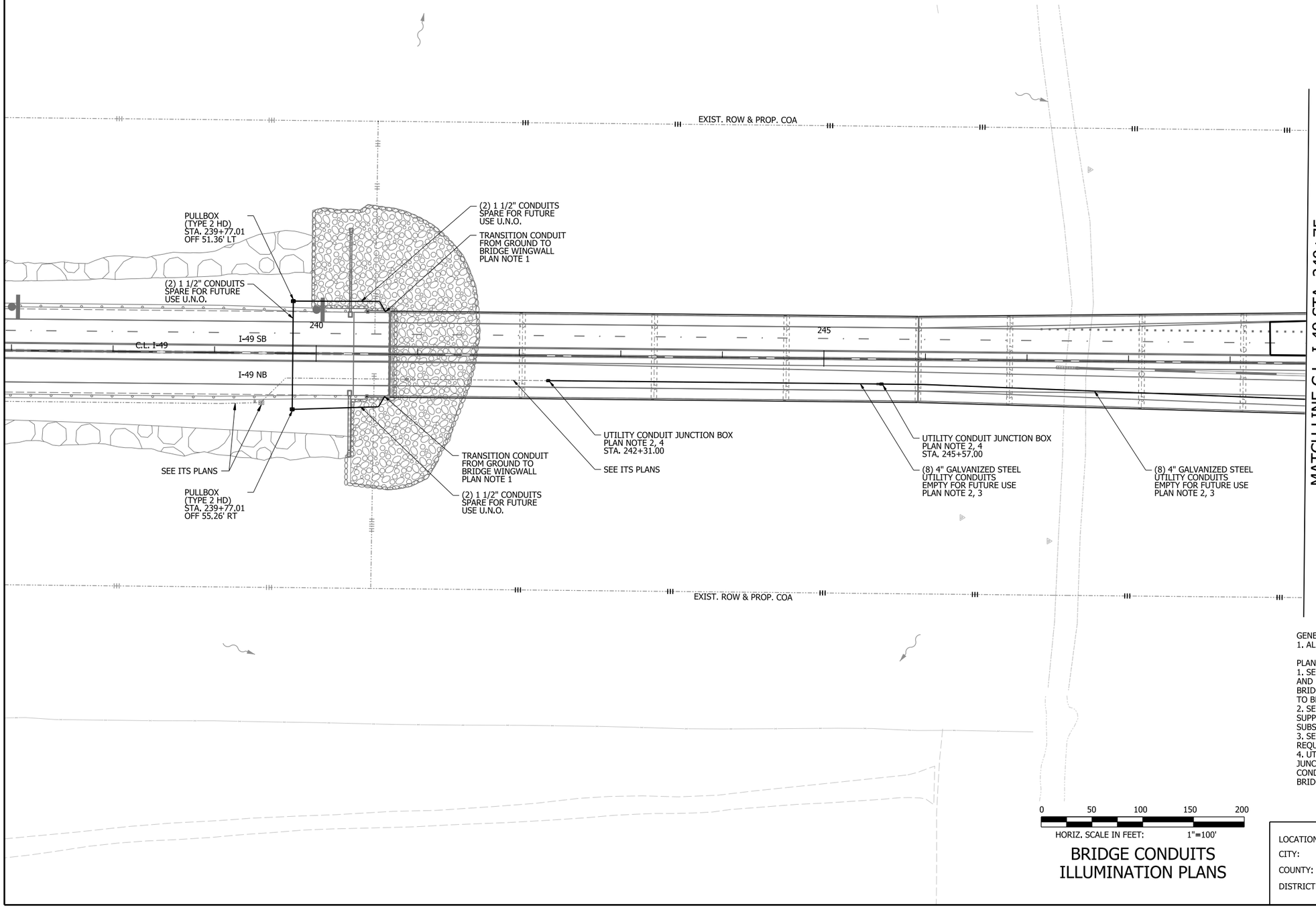
LOCATION:	BRIDGE 07684				
CITY:	BARLING/N.A.				
COUNTY:	SEBASTIAN/CRAWFORD				
DISTRICT:	4	SCALE:	1" = 100'	DRAWN BY:	LTD

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	291	809
		ILLUMINATION PLANS				

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 709	GALVANIZED STEEL CONDUIT (4")	6258	LIN. FT.
710	NON-METALLIC CONDUIT (1.5")	714	LIN. FT.
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	2	EACH
SP	ITS ELECTRICAL JUNCTION BOX, METALLIC (32"X30"X18")	2	EACH

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



GENERAL NOTES:
1. ALL CONDUIT IS UNDERGROUND, NON-METALLIC CONDUIT U.N.O.

PLAN NOTES:
1. SEE BRIDGE PLANS FOR BRIDGE-MOUNTED CONDUITS WITHIN WINGWALL AND RAIL. THESE CONDUITS ARE NOT SHOWN ON THIS PLAN. BRIDGE-MOUNTED CONDUITS WITHIN WINGWALL AND RAIL ARE INCIDENTAL TO BRIDGE RAIL CONCRETE.
2. SEE BRIDGE PLANS FOR DETAILS OF BRIDGE-MOUNTED UTILITY CONDUITS, SUPPORT ASSEMBLIES, AND JUNCTION BOXES. SUPPORT ASSEMBLIES SHALL BE SUBSIDIARY TO CONDUIT PAY ITEM.
3. SEE BRIDGE PLANS AND STANDARD SPECIFICATIONS FOR DETAILS AND REQUIREMENTS OF EXPANSION JOINTS IN BRIDGE-MOUNTED CONDUITS.
4. UTILITY CONDUIT JUNCTION BOXES SHALL BE PAID FOR AS 'ITS ELECTRICAL JUNCTION BOX, METALLIC (SIZE)'. UNLESS OTHERWISE NOTIFIED, ALL UTILITY CONDUIT JUNCTION BOXES ARE 32" x 30" x 18". LOCATIONS SHOWN ARE FOR BRIDGE ALTERNATE 2 LAYOUT. UPDATE LOCATIONS FOR ALTERNATE SELECTED.

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

BRIDGE CONDUITS ILLUMINATION PLANS

LOCATION:	BRIDGE 07685				
CITY:	N.A.				
COUNTY:	CRAWFORD				
DISTRICT:	4	SCALE:	1" = 100'	DRAWN BY:	LTD

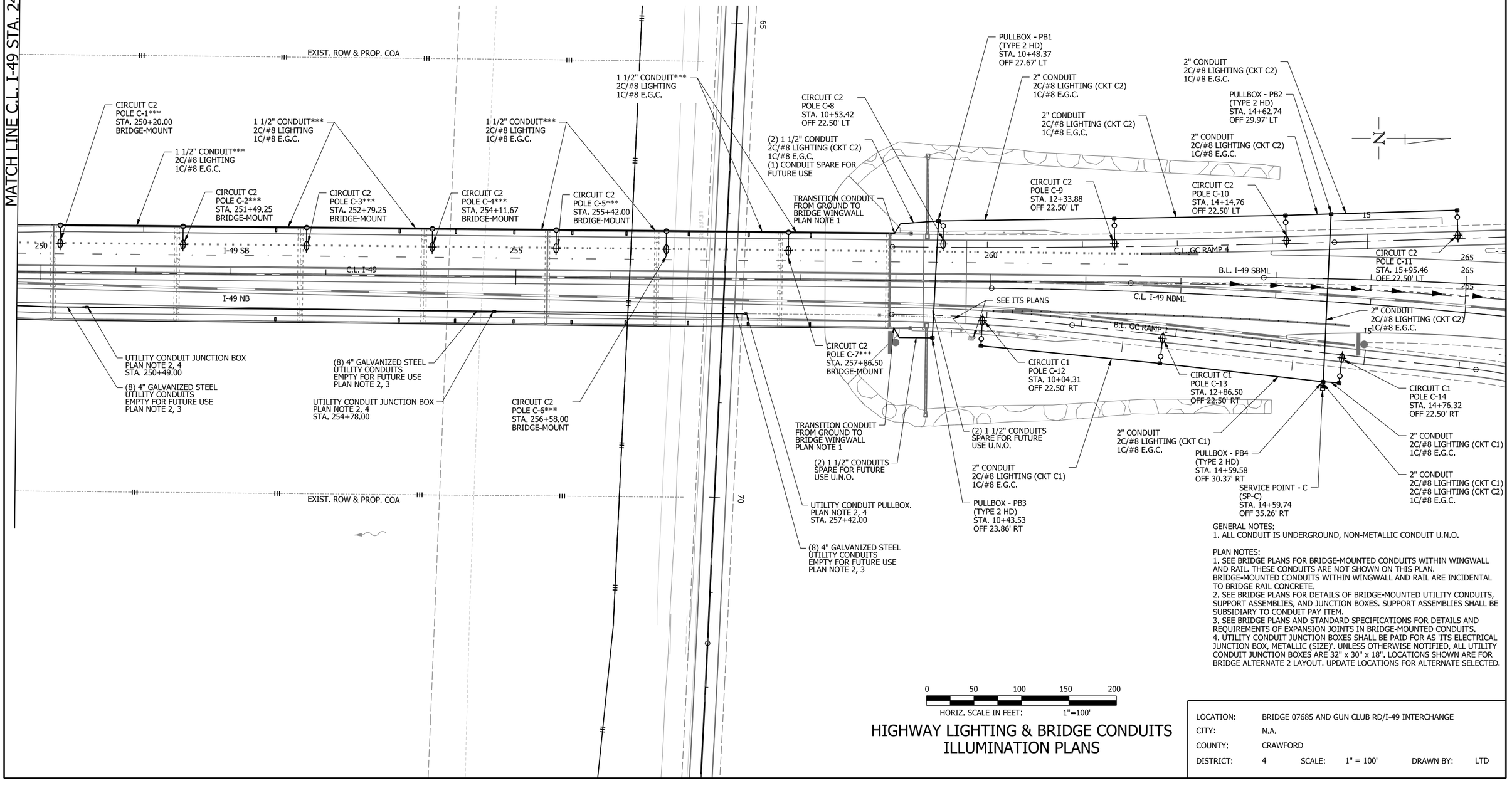
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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024		6	ARK.	040901	292	809
		ILLUMINATION PLANS				

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (ROADWAY LIGHTING) (2C/8 A.W.G., E.G.C.)	2251	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES (ROADWAY LIGHTING)	588	LIN. FT.
SP & 709	GALVANIZED STEEL CONDUIT (4")	6443	LIN. FT.
710	NON-METALLIC CONDUIT (1.5")	496	LIN. FT.
710	NON-METALLIC CONDUIT (2")	1248	LIN. FT.
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	12	EACH
SP	LED ROADWAY ILLUMINATION POLE (12,750 LUMENS, COBRA HEAD, BREAKAWAY BASE, 30')	7	EACH
SP	LED ROADWAY ILLUMINATION POLE (12,750 LUMENS, COBRA HEAD, BARRIER MOUNTED, 26.5')	7	EACH
SP	PEDESTAL TYPE SERVICE POINT ASSEMBLY (2 CIRCUITS, 100 AMP)	1	EACH
SP	ITS ELECTRICAL JUNCTION BOX, METALLIC (32"X30"X18")	3	EACH

***NOTE: CONDUIT AND LIGHT POLES ANNOTATED AS SUCH ARE MOUNTED TO THE BRIDGE.
-CONDUIT AND PULLBOXES ARE WITHIN THE BRIDGE RAIL AND ARE INCIDENTAL TO THE BRIDGE RAIL CONCRETE.
-LIGHT POLES ARE MOUNTED TO THE BRIDGE LIGHT POLE SUPPORT.
REFER TO BRIDGE PLANS FOR DETAILS REGARDING CONDUIT AND PULLBOXES WITHIN THE RAIL AND BLISTER DETAILS.
-LIGHT POLE LOCATIONS SHOWN ARE FOR BRIDGE ALTERNATE 2 LAYOUT. UPDATE LOCATIONS FOR ALTERNATE SELECTED.

STATE OF ARKANSAS
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No. 19394
PAUL D. HUNTER
6/11/24



GENERAL NOTES:
1. ALL CONDUIT IS UNDERGROUND, NON-METALLIC CONDUIT U.N.O.

PLAN NOTES:
1. SEE BRIDGE PLANS FOR BRIDGE-MOUNTED CONDUITS WITHIN WINGWALL AND RAIL. THESE CONDUITS ARE NOT SHOWN ON THIS PLAN. BRIDGE-MOUNTED CONDUITS WITHIN WINGWALL AND RAIL ARE INCIDENTAL TO BRIDGE RAIL CONCRETE.
2. SEE BRIDGE PLANS FOR DETAILS OF BRIDGE-MOUNTED UTILITY CONDUITS, SUPPORT ASSEMBLIES, AND JUNCTION BOXES. SUPPORT ASSEMBLIES SHALL BE SUBSIDIARY TO CONDUIT PAY ITEM.
3. SEE BRIDGE PLANS AND STANDARD SPECIFICATIONS FOR DETAILS AND REQUIREMENTS OF EXPANSION JOINTS IN BRIDGE-MOUNTED CONDUITS.
4. UTILITY CONDUIT JUNCTION BOXES SHALL BE PAID FOR AS 'ITS ELECTRICAL JUNCTION BOX, METALLIC (SIZE)', UNLESS OTHERWISE NOTIFIED, ALL UTILITY CONDUIT JUNCTION BOXES ARE 32" x 30" x 18". LOCATIONS SHOWN ARE FOR BRIDGE ALTERNATE 2 LAYOUT. UPDATE LOCATIONS FOR ALTERNATE SELECTED.

0 50 100 150 200
HORIZ. SCALE IN FEET: 1"=100'

HIGHWAY LIGHTING & BRIDGE CONDUITS ILLUMINATION PLANS

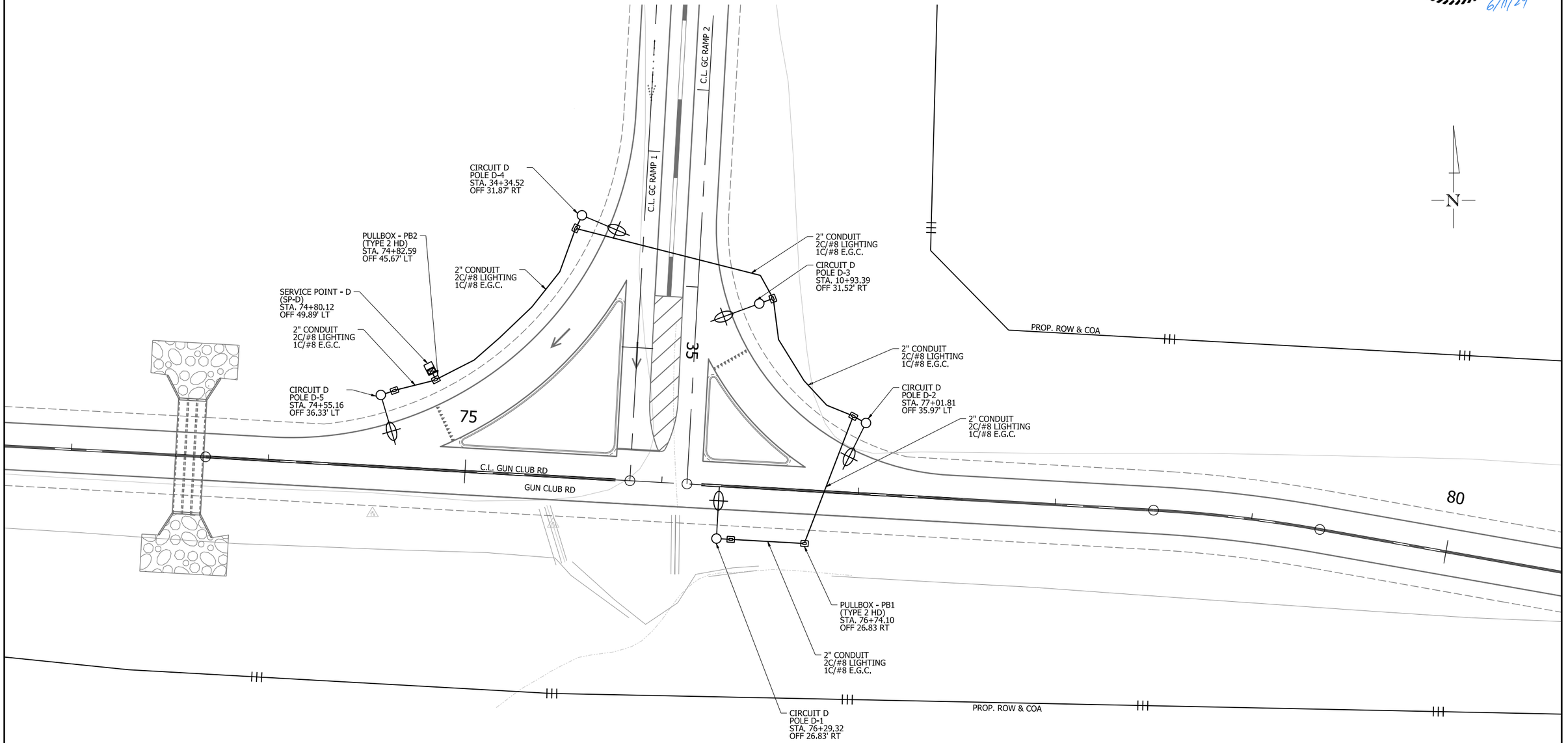
LOCATION:	BRIDGE 07685 AND GUN CLUB RD/I-49 INTERCHANGE				
CITY:	N.A.				
COUNTY:	CRAWFORD				
DISTRICT:	4	SCALE:	1" = 100'	DRAWN BY:	LTD

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024		6	ARK.	040901	293	809
		ILLUMINATION PLANS				

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (ROADWAY LIGHTING) (2C/8 A.W.G., E.G.C.)	502	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES (ROADWAY LIGHTING)	231	LIN. FT.
710	NON-METALLIC CONDUIT (2")	478	LIN. FT.
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	7	EACH
SP	LED ROADWAY ILLUMINATION POLE (12,750 LUMENS, COBRA HEAD, BREAKAWAY BASE, 30')	5	EACH
SP	PEDESTAL TYPE SERVICE POINT ASSEMBLY (2 CIRCUITS, 100 AMP)	1	EACH

STATE OF ARKANSAS
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PAUL D. HUNTER
6/11/24



HIGHWAY LIGHTING ILLUMINATION PLANS

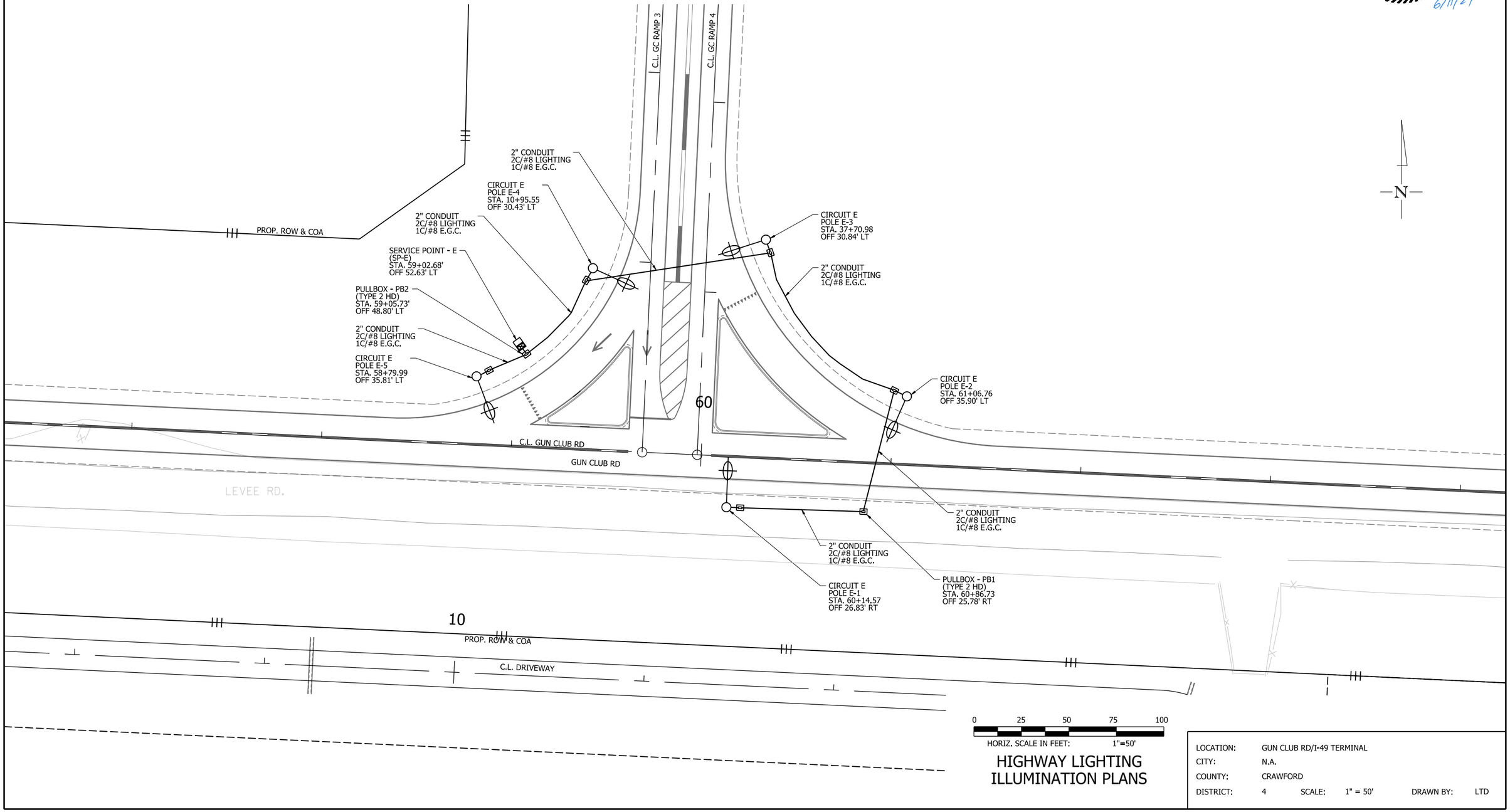
LOCATION:	GUN CLUB RD/I-49 TERMINAL				
CITY:	N.A.				
COUNTY:	CRAWFORD				
DISTRICT:	4	SCALE:	1" = 50'	DRAWN BY:	LTD

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024		6	ARK.	040901	294	809
		ILLUMINATION PLANS				

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (ROADWAY LIGHTING) (2C/8 A.W.G., E.G.C.)	480	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES (ROADWAY LIGHTING)	231	LIN. FT.
710	NON-METALLIC CONDUIT (2")	456	LIN. FT.
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	7	EACH
SP	LED ROADWAY ILLUMINATION POLE (12,750 LUMENS, COBRA HEAD, BREAKAWAY BASE, 30')	5	EACH
SP	PEDESTAL TYPE SERVICE POINT ASSEMBLY (2 CIRCUITS, 100 AMP)	1	EACH

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
6/11/24



HIGHWAY LIGHTING ILLUMINATION PLANS

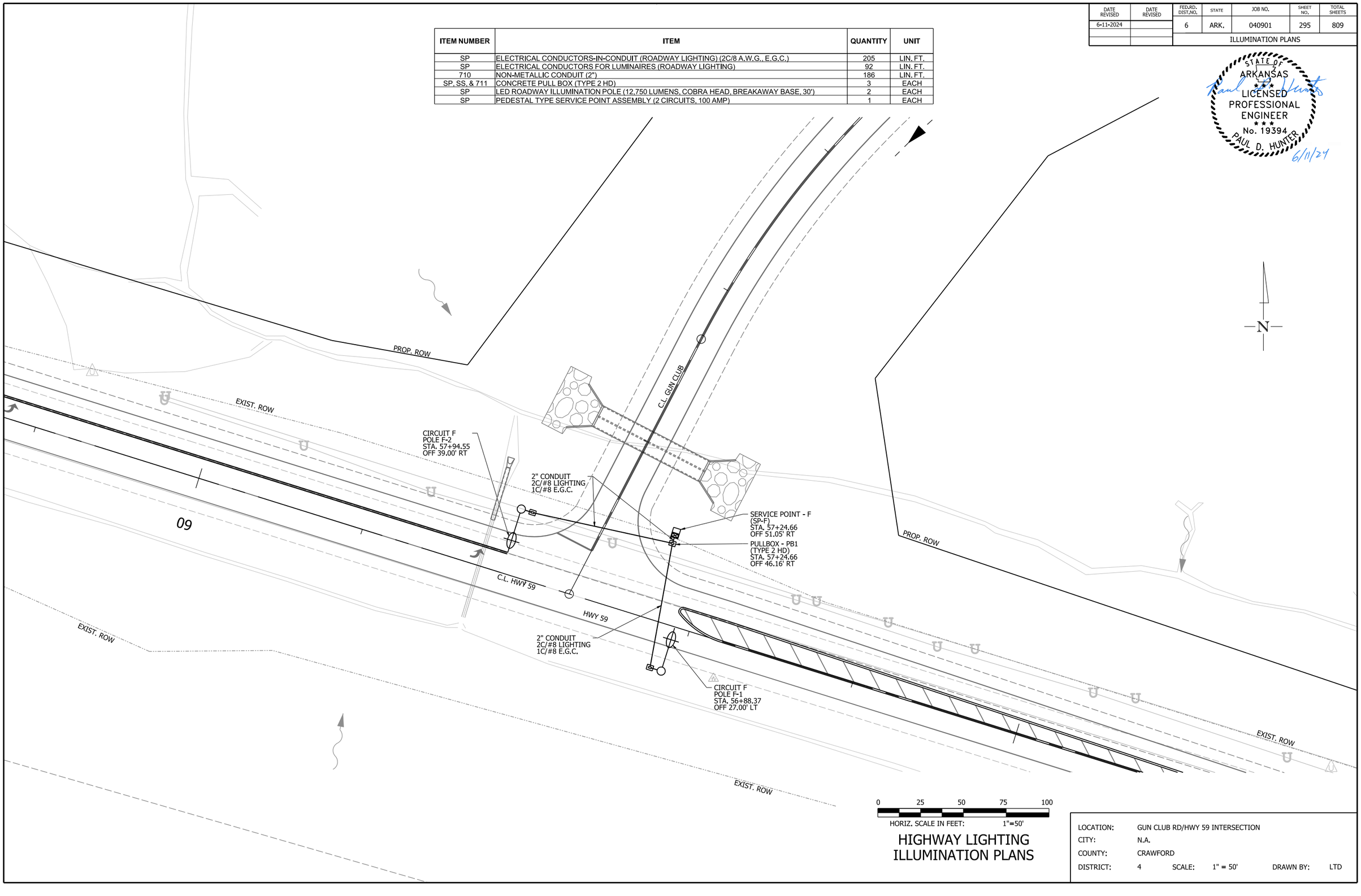
LOCATION:	GUN CLUB RD/I-49 TERMINAL				
CITY:	N.A.				
COUNTY:	CRAWFORD				
DISTRICT:	4	SCALE:	1" = 50'	DRAWN BY:	LTD

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
6-11-2024		6	ARK.	040901	295	809
		ILLUMINATION PLANS				

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (ROADWAY LIGHTING) (2C/8 A.W.G., E.G.C.)	205	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES (ROADWAY LIGHTING)	92	LIN. FT.
710	NON-METALLIC CONDUIT (2")	186	LIN. FT.
SP, SS, & 711	CONCRETE PULL BOX (TYPE 2 HD)	3	EACH
SP	LED ROADWAY ILLUMINATION POLE (12,750 LUMENS, COBRA HEAD, BREAKAWAY BASE, 30')	2	EACH
SP	PEDESTAL TYPE SERVICE POINT ASSEMBLY (2 CIRCUITS, 100 AMP)	1	EACH

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
6/11/24



0 25 50 75 100
HORIZ. SCALE IN FEET: 1"=50'

HIGHWAY LIGHTING ILLUMINATION PLANS

LOCATION:	GUN CLUB RD/HWY 59 INTERSECTION				
CITY:	N.A.				
COUNTY:	CRAWFORD				
DISTRICT:	4	SCALE:	1" = 50'	DRAWN BY:	LTD

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DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	296	809
		ILLUMINATION PLANS				

STATE OF ARKANSAS
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No. 19394
PAUL D. HUNTER
5/17/24

LIGHT POLE SCHEDULE - CONTROLLER 040901-A

POLE NO.	EASTING	NORTHING	STA.	OFFSET	CENTERLINE	IES CLASSIFICATION	FIXTURE NAME	POLE HEIGHT (FT)	LUMINAIRE ARM (FT)	ORIENTATION ANGLE (PLAN NORTH = 0)
A-1	628542.73	367934.02	94+11.35	89.98' LT	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	150°
A-2	628677.44	368019.04	95+70.64	93.02' LT	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	150°
A-3	628803.76	368117.39	2173+17.53	24.85' RT	CL HWY 22 RAMP 4	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	130°
A-4	628753.21	367850.27	95+48.15	90.61' RT	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	328°
A-5	628896.08	367920.63	2175+59.82	27.32' RT	CL HWY 22 RAMP 1	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	340°
A-6	629010.62	367948.99	2176+97.61	25.42' RT	CL HWY 22 RAMP 1	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	355°

LIGHT POLE SCHEDULE - CONTROLLER 040901-B

POLE NO.	EASTING	NORTHING	STA.	OFFSET	CENTERLINE	IES CLASSIFICATION	FIXTURE NAME	POLE HEIGHT (FT)	LUMINAIRE ARM (FT)	ORIENTATION ANGLE (PLAN NORTH = 0)
B-1	630402.68	369122.43	38+39.41	24.73' LT	CL HWY 22 RAMP 3	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	150°
B-2	630562.61	369221.38	40+30.00	24.73' LT	CL HWY 22 RAMP 3	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	145°
B-3	630710.49	369334.60	42+18.77	24.73' LT	CL HWY 22 RAMP 3	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	140°
B-4	630573.04	368968.22	32+00.80	24.73' RT	CL HWY 22 RAMP 2	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	320°
B-5	630710.35	369094.62	33+87.43	24.73' RT	CL HWY 22 RAMP 2	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	320°
B-6	630853.80	369226.67	120+45.46	93.23' RT	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	320°
B-7	630994.53	369361.76	122+36.68	93.23' RT	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	315°
B-8	631127.18	369502.78	124+26.43	91.39' RT	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	310°
B-9	631248.99	369652.27	126+15.52	83.83' RT	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	310°

LIGHT POLE SCHEDULE - CONTROLLER 040901-C

POLE NO.	EASTING	NORTHING	STA.	OFFSET	CENTERLINE	IES CLASSIFICATION	FIXTURE NAME	POLE HEIGHT (FT)	LUMINAIRE ARM (FT)	ORIENTATION ANGLE (PLAN NORTH = 0)
C-1	632311.70	381852.72	250+20.00*	BRIDGE-MOUNT*	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	26.5	8	91° - NOTE 4
C-2	632312.99	381981.97	251+49.25*	BRIDGE-MOUNT*	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	26.5	8	91° - NOTE 4
C-3	632314.28	382111.96	252+79.25*	BRIDGE-MOUNT*	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	26.5	8	91° - NOTE 4
C-4	632315.53	382244.37	254+11.67*	BRIDGE-MOUNT*	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	26.5	8	91° - NOTE 4
C-5	632316.82	382374.70	255+42.00*	BRIDGE-MOUNT*	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	26.5	8	91° - NOTE 4
C-6	632317.98	382490.69	256+58.00*	BRIDGE-MOUNT*	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	26.5	8	91° - NOTE 4
C-7	632319.32	382619.18	257+86.50*	BRIDGE-MOUNT*	CL I-49	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	26.5	8	91° - NOTE 4
C-8	632312.52	382782.06	10+53.42	22.50' LT	C.L. GC Ramp 4	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	90°
C-9	632312.05	382962.16	12+33.88	22.50' LT	C.L. GC Ramp 4	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	89°
C-10	632308.74	383142.56	14+14.76	22.50' LT	C.L. GC Ramp 4	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	88°
C-11	632303.32	383323.17	15+95.46	22.50' LT	C.L. GC Ramp 4	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	88°
C-12	632431.40	382822.08	10+04.31	22.50' RT	C.L. GC Ramp 1	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	273°
C-13	632449.97	383010.84	12+86.50	22.50' RT	C.L. GC Ramp 1	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	276°
C-14	632470.61	383199.54	14+76.32	22.50' RT	C.L. GC Ramp 1	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	276°

*NOTE: LOCATIONS ARE SHOWN FOR BRIDGE ALTERNATE 2 LAYOUT. UPDATE LOCATIONS BASED ON SELECTED ALTERNATE.

LIGHT POLE SCHEDULE - CONTROLLER 040901-D

POLE NO.	EASTING	NORTHING	STA.	OFFSET	CENTERLINE	IES CLASSIFICATION	FIXTURE NAME	POLE HEIGHT (FT)	LUMINAIRE ARM (FT)	ORIENTATION ANGLE (PLAN NORTH = 0)
D-1	633225.48	382481.46	76+29.32	26.83' RT	C.L. Gun Club Rd.	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	3°
D-2	633301.38	382540.09	77+01.81	35.97' LT	C.L. Gun Club Rd.	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	207°
D-3	633247.22	382600.64	10+93.39	31.52' RT	C.L. GC Ramp 2	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	250°
D-4	633157.21	382645.44	34+34.52	31.87' RT	C.L. GC Ramp 1	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	113°
D-5	633055.14	382554.30	74+55.16	36.33' LT	C.L. Gun Club Rd.	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	163°

LIGHT POLE SCHEDULE NOTES:

1. ORIENTATION ANGLE IS MEASURED CLOCKWISE.
2. REFER TO DETAIL FOR ARM MOUNTING REQUIREMENTS.
3. HANDHOLE SHALL BE MOUNTED AT 180° FROM LUMINAIRE ARM UNLESS OTHERWISE NOTED.
4. HANDHOLE SHALL BE MOUNTED IN SAME ORIENTATION AS LUMINAIRE SO AS TO BE ACCESSIBLE FROM THE ROADWAY.

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SCHEDULES
ILLUMINATION PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9-16-2024		6	ARK.	040901	297	809
		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
5/17/24

LIGHT POLE SCHEDULE - CONTROLLER 040901-E

POLE NO.	EASTING	NORTHING	STA.	OFFSET	CENTERLINE	IES CLASSIFICATION	FIXTURE NAME	POLE HEIGHT (FT)	LUMINAIRE ARM (FT)	ORIENTATION ANGLE (PLAN NORTH = 0)
E-1	631612.92	382560.45	60+14.57	26.83' RT	C.L. Gun Club Rd.	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	2°
E-2	631707.95	382618.81	61+06.76	35.90' LT	C.L. Gun Club Rd.	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	204°
E-3	631633.74	382701.29	37+70.98	30.84' LT	C.L. GC Ramp 4	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	253°
E-4	631542.67	382686.26	10+95.55	30.43' LT	C.L. GC Ramp 3	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	114°
E-5	631481.43	382629.33	58+79.99	35.81' LT	C.L. Gun Club Rd.	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	159°

LIGHT POLE SCHEDULE - CONTROLLER 040901-F

POLE NO.	EASTING	NORTHING	STA.	OFFSET	CENTERLINE	IES CLASSIFICATION	FIXTURE NAME	POLE HEIGHT (FT)	LUMINAIRE ARM (FT)	ORIENTATION ANGLE (PLAN NORTH = 0)
F-1	626861.36	382309.28	56+88.37	27.00' LT	CL HWY 59	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	17°
F-2	626779.70	382403.95	57+94.55	39.00' RT	CL HWY 59	TYPE III	GCM1-60J-MV-40K-3R-XX-105 S.ies	30	8	197°

LIGHT POLE SCHEDULE NOTES:
1. ORIENTATION ANGLE IS MEASURED CLOCKWISE.
2. REFER TO DETAIL FOR ARM MOUNTING REQUIREMENTS.
3. HANDHOLE SHALL BE MOUNTED AT 180° FROM LUMINAIRE ARM UNLESS OTHERWISE NOTED.
4. HANDHOLE SHALL BE MOUNTED IN SAME ORIENTATION AS LUMINAIRE SO AS TO BE ACCESSIBLE FROM THE ROADWAY.

ILLUMINATION CRITERIA - TERMINALS

IES RP-8 CHAPTER 12 CLASSIFICATIONS AND METHODS	
INTERSECTION CLASSIFICATION	PARTIAL (ISOLATED) INTERSECTION LIGHTING
ROAD CLASSIFICATION	MAJOR
PAVEMENT CLASSIFICATION	R1 PORTLAND CEMENT CONCRETE ROAD SURFACE

AASHTO TABLE 3-5a REQUIREMENTS	
AVG MAINTAINED ILLUMINANCE (FC)	ILLUMINANCE UNIFORMITY RATIO (AVG/MIN)
0.6	4:1

ILLUMINATION STATISTICS - TERMINALS

DECRIPTION	AVERAGE (FC)	MAXIMUM (FC)	MINIMUM (FC)	AVG/MIN
GUN CLUB RD & I-49 NB TERMINAL	1.0	2.50	0.30	3.43
GUN CLUB RD & I-49 SB TERMINAL	1.2	2.40	0.30	3.93
GUN CLUB RD & HWY 59	0.9	2.40	0.30	3.13

CALCULATIONS BASED ON LLF = 0.85
FC = FOOTCANDLE
1. DESIGN BASIS WAS AASHTO ROADWAY LIGHTING DESIGN GUIDE, 7TH ED. AND IES RP-8-18
2. NON-CONTINUOUSLY LIGHTED ROADWAY WAS TAKEN INTO CONSIDERATION.
3. GCM1-60J-MV-40K-3R-XX-105 S.ies DESIGN FIXTURE OR APPROVED EQUAL SHALL BE USED.

ILLUMINATION CRITERIA - INTERSTATE INTERCHANGES

AASHTO TABLE 3-5a CLASSIFICATIONS AND METHODS	
ROADWAY AND WALKWAY CLASSIFICATION	INTERSTATE AND OTHER FREEWAYS
GENERAL LAND USE	ALL
CALCULATION METHOD	ILLUMINANCE
ROAD SURFACE CLASSIFICATION	R1 PORTLAND CEMENT CONCRETE ROAD SURFACE

AASHTO TABLE 3-5a REQUIREMENTS		
AVG MAINTAINED ILLUMINANCE (FC)	MINIMUM ILLUMINANCE (FC)	ILLUMINANCE UNIFORMITY RATIO (AVG/MIN)
0.6	0.2	4:1

ILLUMINATION STATISTICS - INTERSTATE INTERCHANGES

DECRIPTION	AVERAGE (FC)	MAXIMUM (FC)	MINIMUM (FC)	AVG/MIN
HWY 22 RAMP 4 I-49 SB MERGE	0.6	1.90	0.20	3.00
HWY 22 RAMP 1 I-49 NB DIVERGE	0.6	1.80	0.20	3.00
HWY 22 RAMP 3 I-49 SB DIVERGE	0.6	1.90	0.20	3.00
HWY 22 RAMP 2 I-49 NB MERGE	0.6	1.80	0.20	3.00
GUN CLUB RD RAMP 1 I-49 NB DIVERGE	0.6	1.90	0.20	3.00
GUN CLUB RD RAMP 4 I-49 SB MERGE	0.8	2.00	0.20	4.00

CALCULATIONS BASED ON LLF = 0.85
FC = FOOTCANDLE
1. DESIGN BASIS WAS AASHTO ROADWAY LIGHTING DESIGN GUIDE, 7TH ED. AND IES RP-8-18
2. NON-CONTINUOUSLY LIGHTED ROADWAY WAS TAKEN INTO CONSIDERATION.
3. GCM1-60J-MV-40K-3R-XX-105 S.ies DESIGN FIXTURE OR APPROVED EQUAL SHALL BE USED.

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SCHEDULES
ILLUMINATION PLANS

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	298	809
		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

VOLTAGE DROP SCHEDULE - CONTROLLER A

SEGMENT		VOLTAGE	PHASE	SETS	CONDUCTOR	CURRENT	Z/1000FT	LENGTH	VOLTAGE DROP (VOLTS)	VOLTAGE DROP (%)
CKT A1										
SP-A	PB1	240	1	1	#8 COPPER	0.81	0.78	17	0.02	0.01%
PB1	POLE A-1	240	1	1	#8 COPPER	0.81	0.78	27	0.04	0.01%
POLE A-1	PB2	240	1	1	#8 COPPER	0.54	0.78	148	0.13	0.05%
PB2	POLE A-2	240	1	1	#8 COPPER	0.54	0.78	26	0.02	0.01%
POLE A-2	POLE A-3	240	1	1	#8 COPPER	0.27	0.78	171	0.08	0.03%
							WORST CASE TOTAL		0.29	0.12%
CKT A2										
SP-A	PB1	240	1	1	#8 COPPER	0.81	0.78	17	0.02	0.01%
PB1	PB2	240	1	1	#8 COPPER	0.81	0.78	164	0.22	0.09%
PB2	PB3	240	1	1	#8 COPPER	0.81	0.78	202	0.27	0.11%
PB3	POLE A-4	240	1	1	#8 COPPER	0.27	0.78	25	0.01	0.00%
PB3	POLE A-5	240	1	1	#8 COPPER	0.54	0.78	158	0.14	0.06%
POLE A-5	POLE A-6	240	1	1	#8 COPPER	0.27	0.78	141	0.06	0.03%
							WORST CASE TOTAL		0.71	0.30%

VOLTAGE DROP SCHEDULE - CONTROLLER B

SEGMENT		VOLTAGE	PHASE	SETS	CONDUCTOR	CURRENT	Z/1000FT	LENGTH	VOLTAGE DROP (VOLTS)	VOLTAGE DROP (%)
CKT B1										
SP-B	PB1	240	1	1	#8 COPPER	0.81	0.78	17	0.02	0.01%
PB1	POLE B-1	240	1	1	#8 COPPER	0.81	0.78	27	0.04	0.01%
POLE B-1	PB2	240	1	1	#8 COPPER	0.54	0.78	67	0.06	0.02%
PB2	POLE B-2	240	1	1	#8 COPPER	0.54	0.78	140	0.12	0.05%
POLE B-2	POLE B-3	240	1	1	#8 COPPER	0.27	0.78	198	0.09	0.04%
							WORST CASE TOTAL		0.33	0.14%
CKT B2										
SP-B	PB1	240	1	1	#8 COPPER	1.62	0.78	17	0.05	0.02%
PB1	PB2	240	1	1	#8 COPPER	1.62	0.78	91	0.24	0.10%
PB2	PB3	240	1	1	#8 COPPER	1.62	0.78	229	0.61	0.25%
PB3	POLE B-4	240	1	1	#8 COPPER	0.27	0.78	13	0.01	0.00%
PB3	POLE B-5	240	1	1	#8 COPPER	1.35	0.78	193	0.43	0.18%
POLE B-5	POLE B-6	240	1	1	#8 COPPER	1.08	0.78	208	0.37	0.15%
POLE B-6	POLE B-7	240	1	1	#8 COPPER	0.81	0.78	208	0.28	0.11%
POLE B-7	POLE B-8	240	1	1	#8 COPPER	0.54	0.78	207	0.18	0.08%
POLE B-8	POLE B-9	240	1	1	#8 COPPER	0.27	0.78	206	0.09	0.04%
							WORST CASE TOTAL		2.24	0.93%

VOLTAGE DROP SCHEDULE - CONTROLLER C

SEGMENT		VOLTAGE	PHASE	SETS	CONDUCTOR	CURRENT	Z/1000FT	LENGTH	VOLTAGE DROP (VOLTS)	VOLTAGE DROP (%)
CKT C1										
SP-C	PB4	240	1	1	#8 COPPER	0.81	0.78	17	0.02	0.01%
PB4	POLE C-14	240	1	1	#8 COPPER	0.27	0.78	29	0.01	0.01%
PB4	POLE C-13	240	1	1	#8 COPPER	0.54	0.78	185	0.16	0.07%
POLE C-13	POLE C-12	240	1	1	#8 COPPER	0.27	0.78	202	0.09	0.04%
							WORST CASE TOTAL		0.28	0.11%
CKT C2										
SP-C	PB4	240	1	1	#8 COPPER	2.97	0.78	17	0.08	0.03%
PB4	PB2	240	1	1	#8 COPPER	2.97	0.78	179	0.87	0.36%
PB2	POLE C-11	240	1	1	#8 COPPER	0.27	0.78	145	0.06	0.03%
PB2	POLE C-10	240	1	1	#8 COPPER	2.7	0.78	60	0.27	0.11%
POLE C-10	POLE C-9	240	1	1	#8 COPPER	2.43	0.78	193	0.77	0.32%
POLE C-9	PB1	240	1	1	#8 COPPER	2.43	0.78	197	0.78	0.33%
PB1	POLE C-8	240	1	1	#8 COPPER	2.16	0.78	10	0.04	0.01%
POLE C-8	POLE C-7	240	1	1	#8 COPPER	1.89	0.78	188	0.58	0.24%
POLE C-7	POLE C-6	240	1	1	#8 COPPER	1.62	0.78	134	0.36	0.15%
POLE C-6	POLE C-5	240	1	1	#8 COPPER	1.35	0.78	121	0.27	0.11%
POLE C-5	POLE C-4	240	1	1	#8 COPPER	1.08	0.78	135	0.24	0.10%
POLE C-4	POLE C-3	240	1	1	#8 COPPER	0.81	0.78	137	0.18	0.08%
POLE C-3	POLE C-2	240	1	1	#8 COPPER	0.54	0.78	135	0.12	0.05%
POLE C-2	POLE C-1	240	1	1	#8 COPPER	0.27	0.78	134	0.06	0.02%
							WORST CASE TOTAL		4.61	1.92%

VOLTAGE DROP SCHEDULE - CONTROLLER D

SEGMENT		VOLTAGE	PHASE	SETS	CONDUCTOR	CURRENT	Z/1000FT	LENGTH	VOLTAGE DROP (VOLTS)	VOLTAGE DROP (%)
CKT D										
SP-D	PB2	240	1	1	#8 COPPER	1.35	0.78	14	0.03	0.01%
PB2	POLE D-5	240	1	1	#8 COPPER	0.27	0.78	34	0.02	0.01%
PB2	POLE D-4	240	1	1	#8 COPPER	1.08	0.78	120	0.21	0.09%
POLE D-4	POLE D-3	240	1	1	#8 COPPER	0.81	0.78	120	0.16	0.07%
POLE D-3	POLE D-2	240	1	1	#8 COPPER	0.54	0.78	89	0.08	0.03%
POLE D-2	PB1	240	1	1	#8 COPPER	0.27	0.78	67	0.03	0.01%
PB1	POLE D-1	240	1	1	#8 COPPER	0.27	0.78	50	0.02	0.01%
							WORST CASE TOTAL		0.53	0.22%

VOLTAGE DROP SCHEDULE - CONTROLLER E

SEGMENT		VOLTAGE	PHASE	SETS	CONDUCTOR	CURRENT	Z/1000FT	LENGTH	VOLTAGE DROP (VOLTS)	VOLTAGE DROP (%)
CKT E										
SP-E	PB2	240	1	1	#8 COPPER	1.35	0.78	14	0.03	0.01%
PB2	POLE E-5	240	1	1	#8 COPPER	0.27	0.78	34	0.02	0.01%
PB2	POLE E-4	240	1	1	#8 COPPER	1.08	0.78	63	0.11	0.05%
POLE E-4	POLE E-3	240	1	1	#8 COPPER	0.81	0.78	107	0.14	0.06%
POLE E-3	POLE E-2	240	1	1	#8 COPPER	0.54	0.78	115	0.10	0.04%
POLE E-2	PB1	240	1	1	#8 COPPER	0.27	0.78	64	0.03	0.01%
PB1	POLE E-1	240	1	1	#8 COPPER	0.27	0.78	77	0.03	0.01%
							WORST CASE TOTAL		0.45	0.19%

VOLTAGE DROP SCHEDULE - CONTROLLER F

SEGMENT		VOLTAGE	PHASE	SETS	CONDUCTOR	CURRENT	Z/1000FT	LENGTH	VOLTAGE DROP (VOLTS)	VOLTAGE DROP (%)
CKT F										
SP-F	PB1	240	1	1	#8 COPPER	0.54	0.78	14	0.01	0.01%
PB1	POLE F-1	240	1	1	#8 COPPER	0.27	0.78	85	0.04	0.02%
PB1	POLE F-2	240	1	1	#8 COPPER	0.27	0.78	96	0.04	0.02%
							WORST CASE TOTAL		0.05	0.02%

SCHEDULES
ILLUMINATION PLANS

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		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

ELECTRICAL SERVICE DATA

ELECTRICAL SERVICE POINT ID	CIRCUIT NUMBER	LOCATION	SERVICE VOLTAGE	MAIN CIRCUIT BREAKER	BRANCH CIRCUIT BREAKER	BRANCH CIRCUIT AMPS	KVA LOAD
SP-A	A1	N 367929.09, E 628520.40	SINGLE PHASE 120/240V, 3-WIRE	2P/100A	2P/20A	0.81	0.19
	A2				2P/20A	0.81	0.19
SP-B	B1	N 369114.98, E 630383.90	SINGLE PHASE 120/240V, 3-WIRE	2P/100A	2P/20A	0.81	0.19
	B2				2P/20A	1.62	0.39
SP-C	C1	N 383181.78, E 632481.27	SINGLE PHASE 120/240V, 3-WIRE	2P/100A	2P/20A	0.81	0.19
	C2				2P/20A	2.97	0.71
SP-D	D	N 382566.44, E 633080.83	SINGLE PHASE 120/240V, 3-WIRE	2P/100A	2P/20A	1.35	0.32
SP-E	E	N 382645.07, E 631504.88	SINGLE PHASE 120/240V, 3-WIRE	2P/100A	2P/20A	1.35	0.32
SP-F	F	N 382388.53, E 626869.45	SINGLE PHASE 120/240V, 3-WIRE	2P/100A	2P/20A	0.54	0.13

TWO CIRCUIT SERVICE POINT CIRCUIT ASSIGNMENTS

SERVICE POINT - A (SP-A)
CIRCUIT A1 - POLE A-1 THRU A-3
CIRCUIT A2 - POLE A-4 THRU A-6

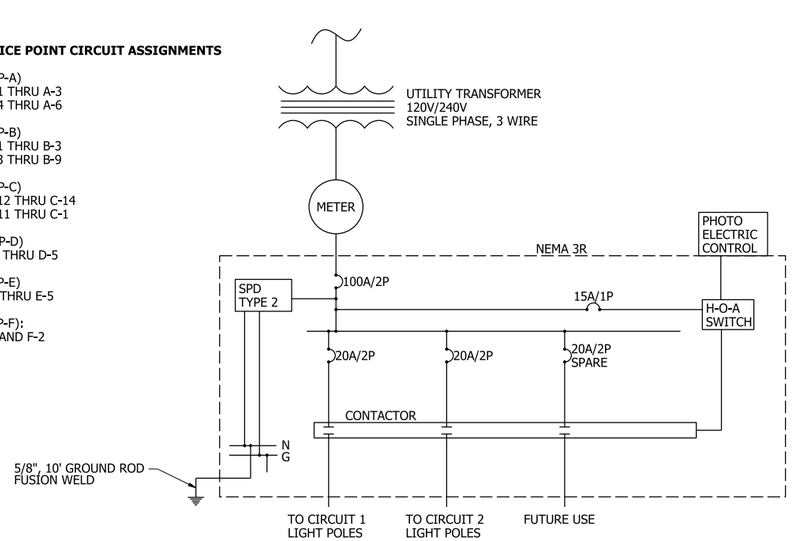
SERVICE POINT - B (SP-B)
CIRCUIT B1 - POLE B-1 THRU B-3
CIRCUIT B2 - POLE B-3 THRU B-9

SERVICE POINT - C (SP-C)
CIRCUIT C1 - POLE C-12 THRU C-14
CIRCUIT C2 - POLE C-11 THRU C-1

SERVICE POINT - D (SP-D)
CIRCUIT D - POLE D-1 THRU D-5

SERVICE POINT - E (SP-E)
CIRCUIT E - POLE E-1 THRU E-5

SERVICE POINT - F (SP-F):
CIRCUIT F - POLE F-1 AND F-2



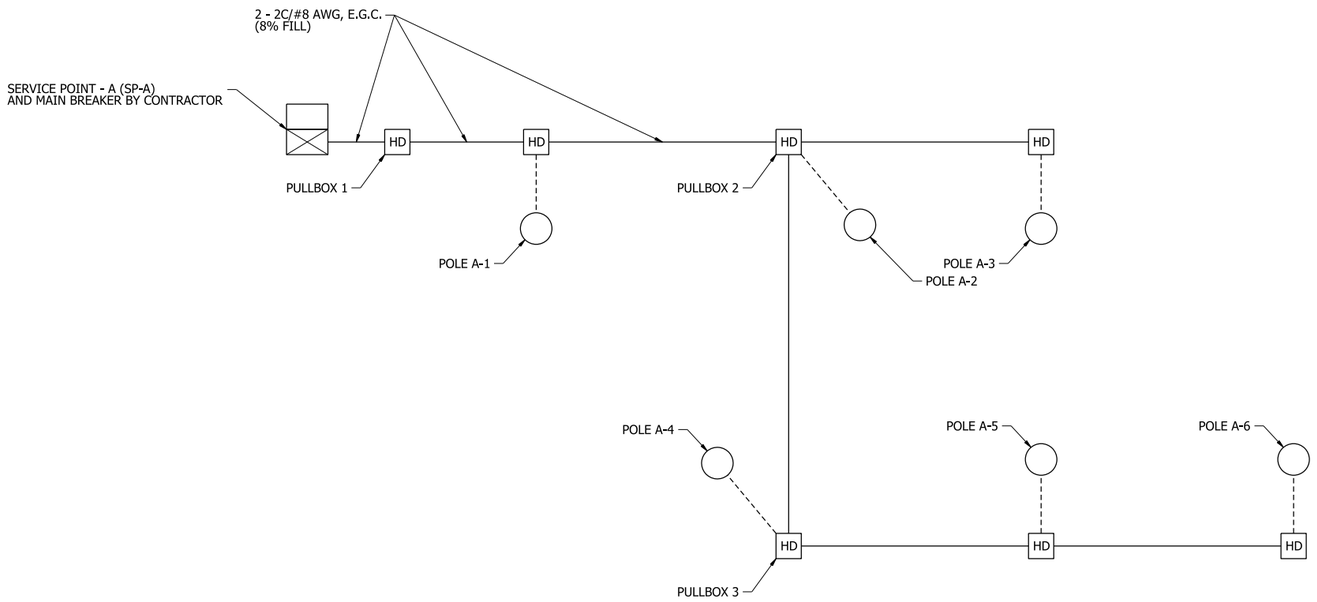
ONE-LINE DIAGRAM FOR TWO CIRCUIT SERVICE POINT (TYPICAL)
(NO SCALE)

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SCHEDULES & DETAILS
ILLUMINATION PLANS

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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



WIRING DIAGRAM
SERVICE POINT A

HD TYPE 2 HEAVY DUTY PULLBOX SHALL BE USED

------- 2C/#12 A.W.G., E.G.C. SHALL BE USED PULL BOX TO LUMINAIRE

WIRING NOTES:

1. CIRCUIT A1
   1-2C/#8 A.W.G., E.G.C. IN SCH.40 NON-METALLIC CONDUIT (2"). CONDUCTORS SHALL CONTINUE THROUGH PULLBOX 1 (PB1) TO PULLBOX A-1. CONDUCTORS SHALL BRANCH AT PULL BOX ASSOCIATED WITH LUMINAIRE A-1 AND CONTINUE ON TO PULLBOX 2 (PB2). CONDUCTORS SHALL BRANCH AT PULLBOX 2 TO LUMINAIRE A-2 AND TO PULLBOX ASSOCIATED WITH LUMINAIRE A-3. USE MULTI-PORT BUS CONNECTORS (HOMAC RXL, UTILCO SAFETYSUB, OR APPROVED EQUAL). CONDUCTORS SHALL BE CONNECTED TO THE LUMINAIRE WIRING IN THE POLE BASE USING BREAKAWAY CONNECTORS. REFER TO POLE FOUNDATION/PULL BOX WIRING DETAIL IN ILLUMINATION DETAILS SHEET.

2. CIRCUIT A2
   1-2C/#8 A.W.G., E.G.C. IN SCH.40 NON-METALLIC CONDUIT (2"). CONDUCTORS SHALL CONTINUE THROUGH PULLBOX 1 (PB1) AND PULLBOX 2 (PB2) TO PULLBOX 3 (PB3). CONDUCTORS SHALL BRANCH AT PULLBOX 3 TO POLE A-4 AND TO PULLBOXES ASSOCIATED WITH LUMINAIRE A-5 AND A-6. USE MULTI-PORT BUS CONNECTORS (HOMAC RXL, UTILCO SAFETYSUB, OR APPROVED EQUAL). CONDUCTOR SHALL BE CONNECTED TO THE LUMINAIRE WIRING IN THE POLE BASE USING BREAKAWAY CONNECTORS. REFER TO POLE FOUNDATION/PULL BOX WIRING DETAIL IN ILLUMINATION DETAILS SHEET.

3. UNLESS OTHERWISE NOTED, TYPE 2 HD PULLBOXES AND 1-2C/#8 A.W.G., E.G.C. SHALL BE USED.

CONDUIT FILL CHART (TYPICALS)

CONDUIT SIZE	CONDUCTORS	FILL	MAX FILL
2"	2C/#8 A.W.G., E.G.C.	5%	40%
2"	2 - 2C/#8 A.W.G., E.G.C.	8%	40%

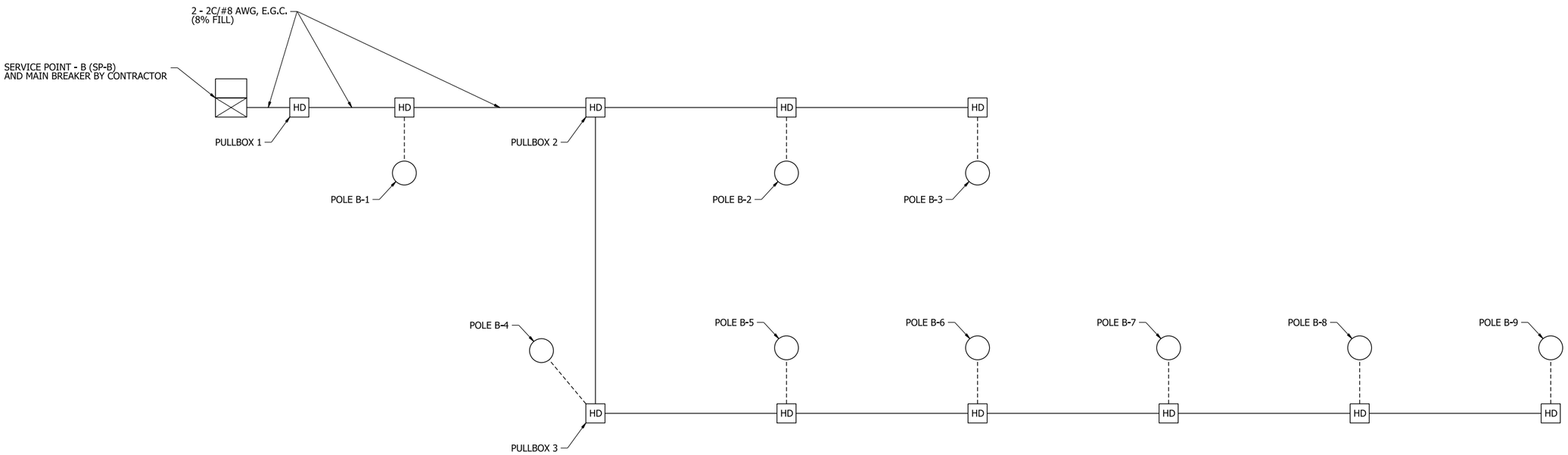
1. CONDUIT AVAILABLE AREA IS ASSUMING PVC SCHEDULE 40
2. CONDUCTOR INSULATION ASSUMED TO BE USE-2

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SCHEDULES & DETAILS
ILLUMINATION PLANS

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		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



WIRING DIAGRAM
SERVICE POINT B

HD — TYPE 2 HEAVY DUTY PULL BOX SHALL BE USED

------- 2C/#12 A.W.G., E.G.C. SHALL BE USED PULL BOX TO LUMINAIRE

WIRING NOTES:

1. CIRCUIT B1
   1-2C/#8 A.W.G., E.G.C. IN SCH.40 NON-METALLIC CONDUIT (2"). CONDUCTORS SHALL CONTINUE THROUGH PULLBOX 1 (PB1) TO PULLBOX B-1. CONDUCTOR SHALL BRANCH AT PULLBOX ASSOCIATED WITH LUMINAIRE B-1. CONDUCTORS SHALL CONTINUE THROUGH PULLBOX 2 (PB2). CONDUCTORS SHALL BRANCH AT PULLBOXES ASSOCIATED WITH LUMINAIRES B-2 AND B-3. USE MULTI-PORT BUS CONNECTORS (HOMAC RXL, UTILCO SAFETYSUB, OR APPROVED EQUAL). CONDUCTORS SHALL BE CONNECTED TO THE LUMINAIRE WIRING IN THE POLE BASE USING BREAKAWAY CONNECTORS. REFER TO POLE FOUNDATION/PULL BOX WIRING DETAIL IN ILLUMINATION DETAILS SHEET.

2. CIRCUIT B2
   1-2C/#8 A.W.G., E.G.C. IN SCH.40 NON-METALLIC CONDUIT (2"). CONDUCTORS SHALL CONTINUE THROUGH PULLBOX 1 (PB1) AND PULLBOX 2 (PB2) TO PULLBOX 3 (PB3). CONDUCTORS SHALL BRANCH AT PULLBOX 3 (PB3) TO LUMINAIRE B-4 AND PULLBOX ASSOCIATED WITH LUMINAIRE B-5. CONDUCTORS SHALL BRANCH AT PULLBOXES ASSOCIATED WITH LUMINAIRE B-5, B-6, B-7, B-8, AND B-9. USE MULTI-PORT BUS CONNECTORS (HOMAC RXL, UTILCO SAFETYSUB, OR APPROVED EQUAL). CONDUCTORS SHALL BE CONNECTED TO THE LUMINAIRE WIRING IN THE POLE BASE USING BREAKAWAY CONNECTORS. REFER TO POLE FOUNDATION/PULL BOX WIRING DETAIL IN ILLUMINATION DETAILS SHEET.

3. UNLESS OTHERWISE NOTED, TYPE 2 HD PULL BOXES AND 1-2C/#8 A.W.G., E.G.C. SHALL BE USED.

CONDUIT FILL CHART (TYPICALS)

CONDUIT SIZE	CONDUCTORS	FILL	MAX FILL
2"	2C/#8 A.W.G., E.G.C.	5%	40%
2"	2 - 2C/#8 A.W.G., E.G.C.	8%	40%

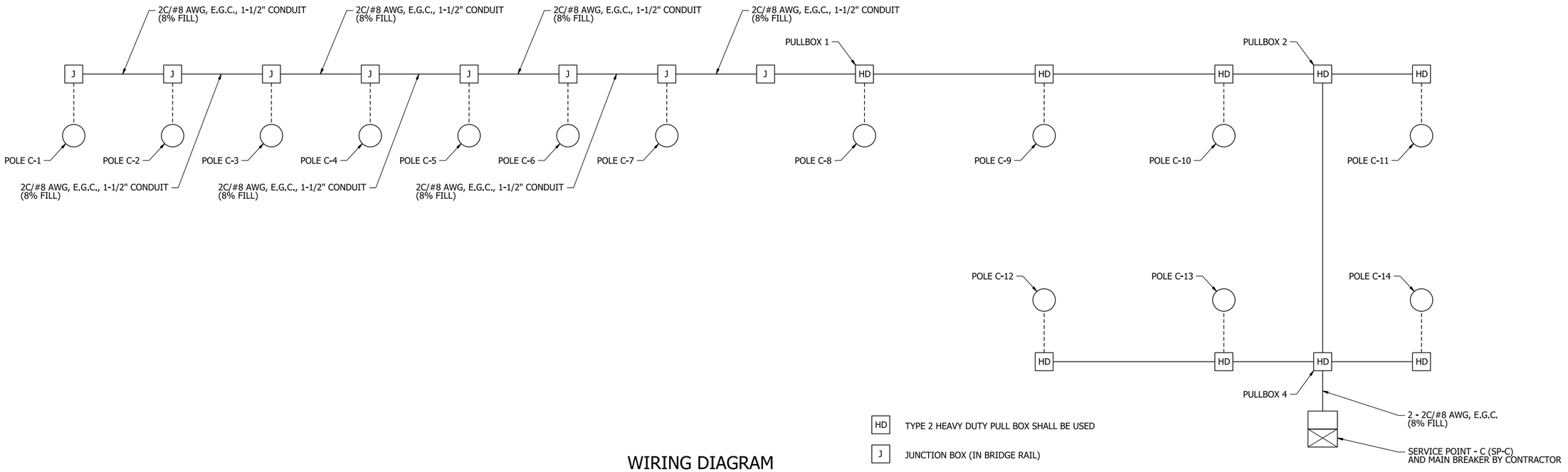
1. CONDUIT AVAILABLE AREA IS ASSUMING PVC SCHEDULE 40
2. CONDUCTOR INSULATION ASSUMED TO BE USE-2

SCHEDULES & DETAILS
ILLUMINATION PLANS

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		6	ARK.	040901	302	809
		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



HD — TYPE 2 HEAVY DUTY PULL BOX SHALL BE USED

J — JUNCTION BOX (IN BRIDGE RAIL)

------- 2C/#12 A.W.G., E.G.C. SHALL BE USED PULL BOX TO LUMINAIRE

*NOTE: PULLBOX 3 (PB-3) IS ASSOCIATED WITH SPARE CONDUITS IN THE BRIDGE RAIL. SEE ILLUMINATION LAYOUT PLAN SHEET FOR ADDITIONAL INFORMATION.

WIRING DIAGRAM
SERVICE POINT C

WIRING NOTES:

1. CIRCUIT C1
   1-2C/#8 A.W.G., E.G.C. IN SCH.40 NON-METALLIC CONDUIT (2"). CONDUCTORS SHALL BRANCH AT PULLBOX 1 (PB2) TO PULLBOXES ASSOCIATED WITH LUMINAIRE C-13 AND C-14. CONDUCTORS SHALL BRANCH AT PULL BOXES ASSOCIATED WITH C-13 AND C-12. USE MULTI-PORT BUS CONNECTORS (HOMAC RXL, UTILCO SAFETYSUB, OR APPROVED EQUAL). CONDUCTORS SHALL BE CONNECTED TO THE LUMINAIRE WIRING IN THE POLE BASE USING BREAKAWAY CONNECTORS. REFER TO POLE FOUNDATION/PULL BOX WIRING DETAIL IN ILLUMINATION DETAILS SHEET.

2. CIRCUIT C2
   1-2C/#8 A.W.G., E.G.C. IN SCH.40 NON-METALLIC CONDUIT (2"). CONDUCTORS SHALL CONTINUE THROUGH PULLBOX 4 (PB4) TO PULLBOX 2 (PB2) AND SHALL BRANCH AT PULLBOX 2 TO PULLBOXES ASSOCIATED WITH LUMINAIRE C-10 AND C-11. CONDUCTORS SHALL BRANCH AT PULL BOXES ASSOCIATED WITH LUMINAIRE C-10, C-9, C-8, C-7, C-6, C-5, C-4, C-3, C-2, AND C-1. CONDUCTORS SHALL ENTER 1-1/2" CONDUIT IN THE BRIDGE RAIL AFTER LUMINAIRE C-8. USE MULTI-PORT BUS CONNECTORS (HOMAC RXL, UTILCO SAFETYSUB, OR APPROVED EQUAL). CONDUCTORS SHALL BE CONNECTED TO THE LUMINAIRE WIRING IN THE POLE BASE USING BREAKAWAY CONNECTORS. REFER TO POLE FOUNDATION/PULL BOX WIRING DETAIL IN ILLUMINATION DETAILS SHEET.

3. UNLESS OTHERWISE NOTED, TYPE 2 HD PULL BOXES AND 1-2C/#8 A.W.G., E.G.C. SHALL BE USED.

4. SEE BRIDGE PLANS FOR DETAILS ON JUNCTION BOXES IN CIRCUIT C2.

CONDUIT FILL CHART (TYPICALS)

CONDUIT SIZE	CONDUCTORS	FILL	MAX FILL
1.5"	2C/#8 A.W.G., E.G.C.	8%	40%
2"	2C/#8 A.W.G., E.G.C.	5%	40%
2"	2 - 2C/#8 A.W.G., E.G.C.	8%	40%

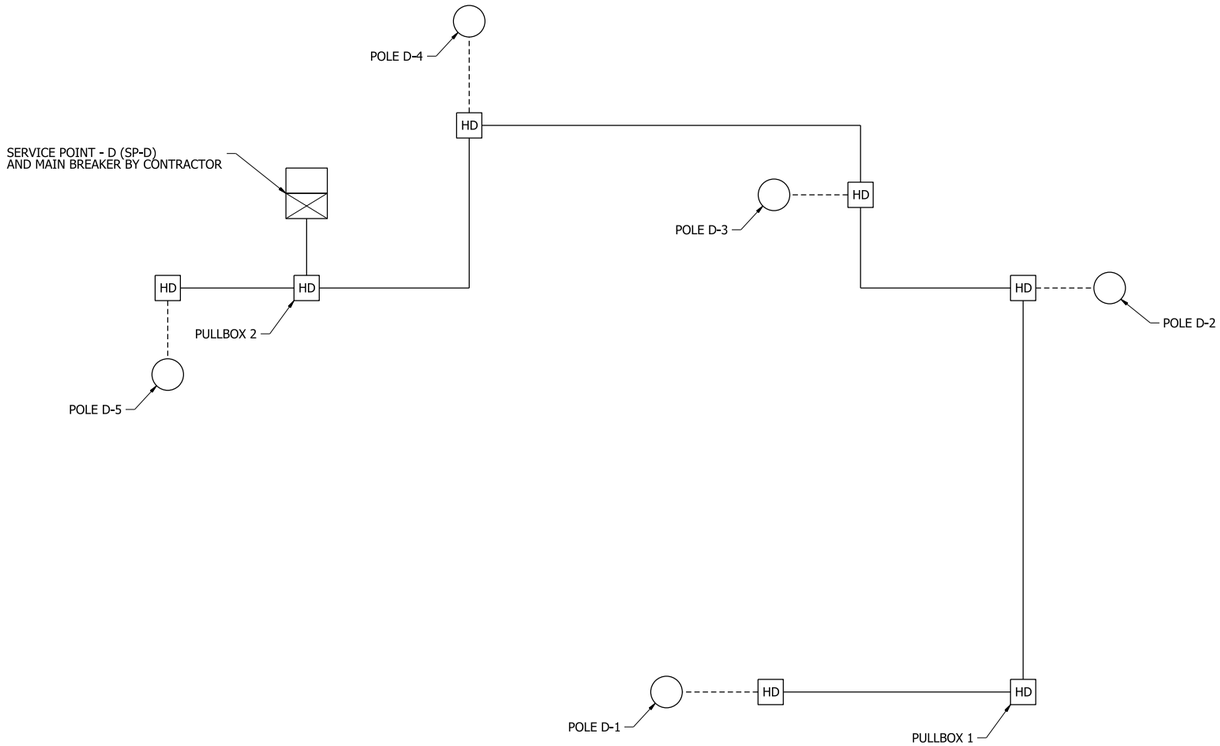
1. CONDUIT AVAILABLE AREA IS ASSUMING PVC SCHEDULE 40
2. CONDUCTOR INSULATION ASSUMED TO BE USE-2

SCHEDULES & DETAILS
ILLUMINATION PLANS

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		6	ARK.	040901	303	809
		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



WIRING DIAGRAM
SERVICE POINT D

HD — TYPE 2 HEAVY DUTY PULL BOX SHALL BE USED

------- 2C/#12 A.W.G., E.G.C. SHALL BE USED PULL BOX TO LUMINAIRE

WIRING NOTES:

1. CIRCUIT D
   1-2C/#8 A.W.G., E.G.C. IN SCH.40 NON-METALLIC CONDUIT (2"). CONDUCTORS SHALL BRANCH AT PULLBOX 1 (PB2) TO PULLBOXES ASSOCIATED WITH LUMINAIRE D-5 AND D-4. CONDUCTOR SHALL BRANCH AT PULL BOXES ASSOCIATED WITH LUMINAIRE D-4, D-3, D-2, AND D-1. USE MULTI-PORT BUS CONNECTORS (HOMAC RXL, UTILCO SAFETYSUB, OR APPROVED EQUAL). CONDUCTORS SHALL BE CONNECTED TO THE LUMINAIRE WIRING IN THE POLE BASE USING BREAKAWAY CONNECTORS. REFER TO POLE FOUNDATION/PULL BOX WIRING DETAIL IN ILLUMINATION DETAILS SHEET.

2. UNLESS OTHERWISE NOTED, TYPE 2 HD PULL BOXES AND 1-2C/#8 A.W.G., E.G.C. SHALL BE USED.

CONDUIT FILL CHART (TYPICALS)

CONDUIT SIZE	CONDUCTORS	FILL	MAX FILL
2"	2C/#8 A.W.G., E.G.C.	5%	40%

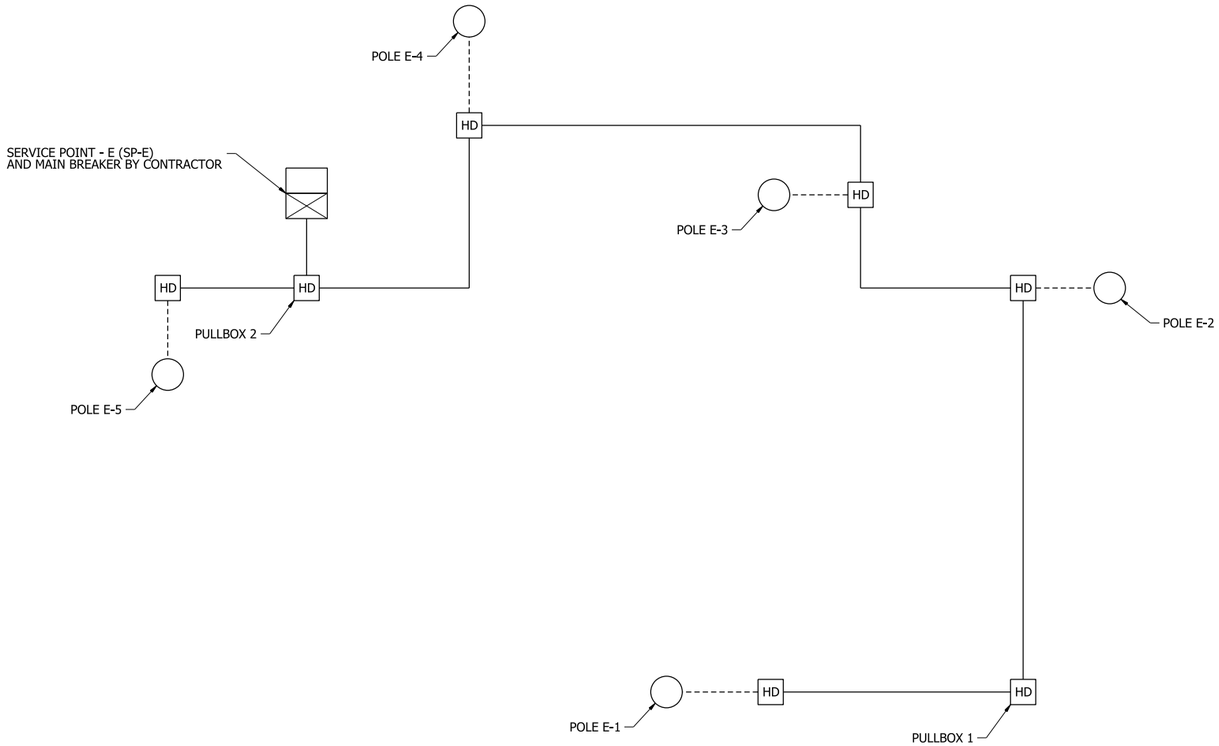
1. CONDUIT AVAILABLE AREA IS ASSUMING PVC SCHEDULE 40
2. CONDUCTOR INSULATION ASSUMED TO BE USE-2

SCHEDULES & DETAILS
ILLUMINATION PLANS

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		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



WIRING DIAGRAM
SERVICE POINT E

HD — TYPE 2 HEAVY DUTY PULL BOX SHALL BE USED

------- 2C/#12 A.W.G., E.G.C. SHALL BE USED PULL BOX TO LUMINAIRE

WIRING NOTES:

1. CIRCUIT E
   1-2C/#8 A.W.G., E.G.C. IN SCH.40 NON-METALLIC CONDUIT (2"). CONDUCTORS SHALL BRANCH AT PULLBOX 1 (PB2) TO PULLBOXES ASSOCIATED WITH LUMINAIRE E-5 AND E-4. CONDUCTOR SHALL BRANCH AT PULL BOXES ASSOCIATED WITH LUMINAIRE E-4, E-3, E-2, AND E-1. USE MULTI-PORT BUS CONNECTORS (HOMAC RXL, UTILCO SAFETYSUB, OR APPROVED EQUAL). CONDUCTORS SHALL BE CONNECTED TO THE LUMINAIRE WIRING IN THE POLE BASE USING BREAKAWAY CONNECTORS. REFER TO POLE FOUNDATION/PULL BOX WIRING DETAIL IN ILLUMINATION DETAILS SHEET.

2. UNLESS OTHERWISE NOTED, TYPE 2 HD PULL BOXES AND 1-2C/#8 A.W.G., E.G.C. SHALL BE USED.

CONDUIT FILL CHART (TYPICALS)

CONDUIT SIZE	CONDUCTORS	FILL	MAX FILL
2"	2C/#8 A.W.G., E.G.C.	5%	40%

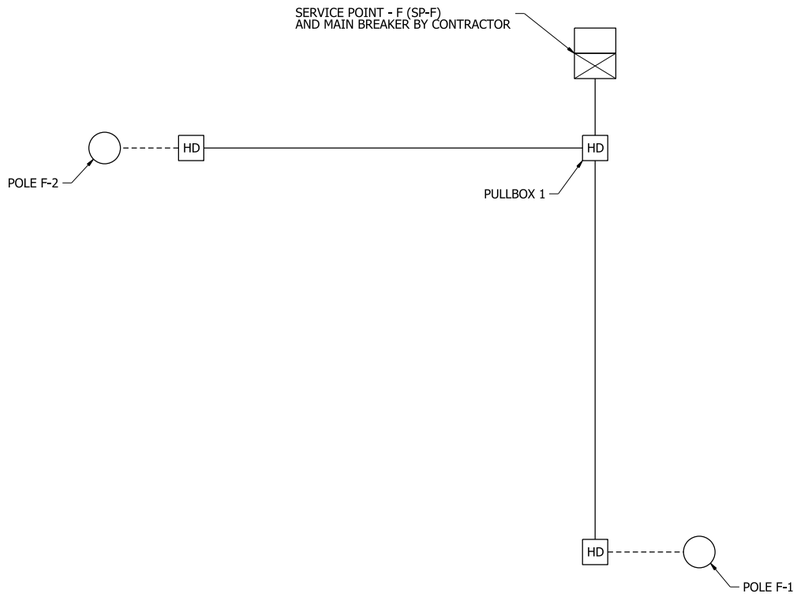
1. CONDUIT AVAILABLE AREA IS ASSUMING PVC SCHEDULE 40
2. CONDUCTOR INSULATION ASSUMED TO BE USE-2

SCHEDULES & DETAILS
ILLUMINATION PLANS

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		ILLUMINATION PLANS				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24



WIRING DIAGRAM
SERVICE POINT F

HD TYPE 2 HEAVY DUTY PULL BOX SHALL BE USED

------- 2C/#12 A.W.G., E.G.C. SHALL BE USED PULL BOX TO LUMINAIRE

WIRING NOTES:

1. CIRCUIT F
   1-2C/#8 A.W.G., E.G.C. IN SCH.40 NON-METALLIC CONDUIT (2"). CONDUCTORS SHALL BRANCH AT PULLBOX 1 (PB1) TO PULLBOXES ASSOCIATED WITH LUMINAIRE F-1 AND F-2. USE MULTI-PORT BUS CONNECTORS (HOMAC RXL, UTILCO SAFETYSUB, OR APPROVED EQUAL). CONDUCTORS SHALL BE CONNECTED TO THE LUMINAIRE WIRING IN THE POLE BASE USING BREAKAWAY CONNECTORS. REFER TO POLE FOUNDATION/PULL BOX WIRING DETAIL IN ILLUMINATION DETAILS SHEET.

2. UNLESS OTHERWISE NOTED, TYPE 2 HD PULL BOXES AND 1-2C/#8 A.W.G., E.G.C. SHALL BE USED.

CONDUIT FILL CHART (TYPICALS)

CONDUIT SIZE	CONDUCTORS	FILL	MAX FILL
2"	2C/#8 A.W.G., E.G.C.	5%	40%

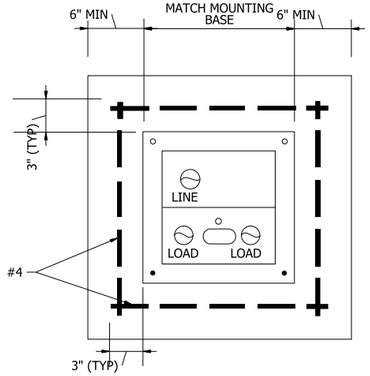
1. CONDUIT AVAILABLE AREA IS ASSUMING PVC SCHEDULE 40
2. CONDUCTOR INSULATION ASSUMED TO BE USE-2

SCHEDULES & DETAILS
ILLUMINATION PLANS

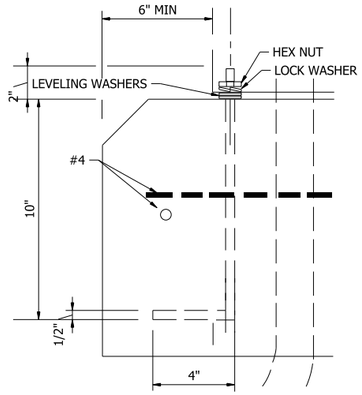
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STATE OF ARKANSAS
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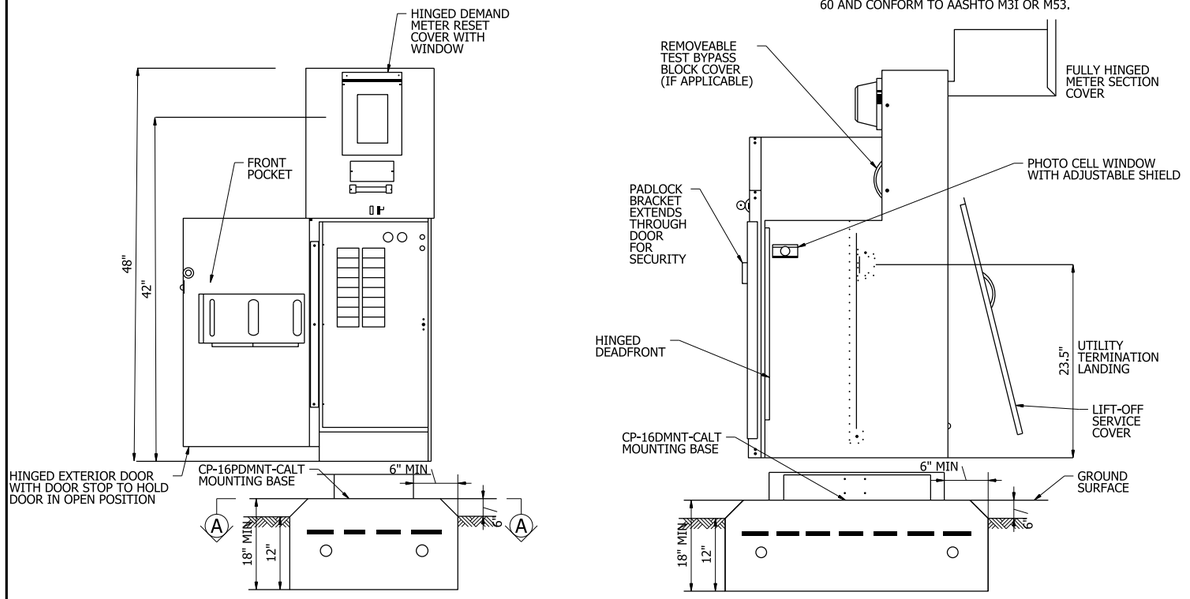
SECTION A-A



ANCHOR BOLT

NOTES:

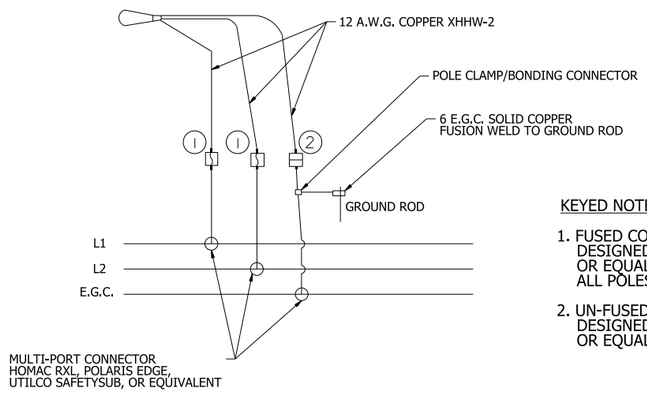
1. CONCRETE FOR CAST-IN-PLACE FOUNDATION SHALL BE CLASS S WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH, f'c = 3,500 PSI.
2. ALL REINFORCING STEEL SHALL BE GRADE 60 AND CONFORM TO AASHTO M3I OR M53.



METERED COMMERCIAL PEDESTAL-STYLE SERVICE POINT
100 AMP (N.T.S)

NOTE:

ALL ENCLOSURE FRONT DOORS SHALL BE PERMANENTLY LABELED "DANGER HIGH VOLTAGE." LABEL SHALL BE A SELF STICKING YPE INTENDED FOR OUTDOOR INSTALLATION. LETTERING STYLE, LAYOUT, AND COLORS OF RED, BLACK AND WHITE SHALL BE AS REQUIRED BY OSHA. LABEL LETTERS SHALL BE ONE TO ONE AND A HALFH INCHES HIGH OR AS HIGH AS THE ENCLOSURE DOOR WIDTH WILL PERMIT. ENCLOSURES SHALL ALSO BE LABELED TO INDICATE THE LOAD SERVED. THESE LABELS SHALL BE DUO-COLORED PLASTIC ENGRAVED LABELS. THE LABEL SHALL INDICATE THE SERVICE NUMBER AND THE LOAD (I.E. LIGHTING).



KEYED NOTES:

1. FUSED CONNECTOR - SHALL BE WATERTIGHT, UL-LISTED, AND DESIGNED AS BREAKAWAY (HOMAC FLOOD-SEAL, EATON BUSSMANN OR EQUAL). USE A FUSED CONNECTOR FOR THE LINE WIRE ON ALL POLES. USE MANUFACTURER'S RECOMMENDED FUSE SIZE.
2. UN-FUSED CONNECTOR - SHALL BE WATERTIGHT AND SHALL BE DESIGNED AS BREAKAWAY (HOMAC FLOOD-SEAL, EATON BUSSMANN, OR EQUAL).

TYPICAL WIRING FOR LUMINAIRES
THREE-WIRE CIRCUIT-CENTER GROUNDED
LUMINAIRES SERVED AT 240 VAC

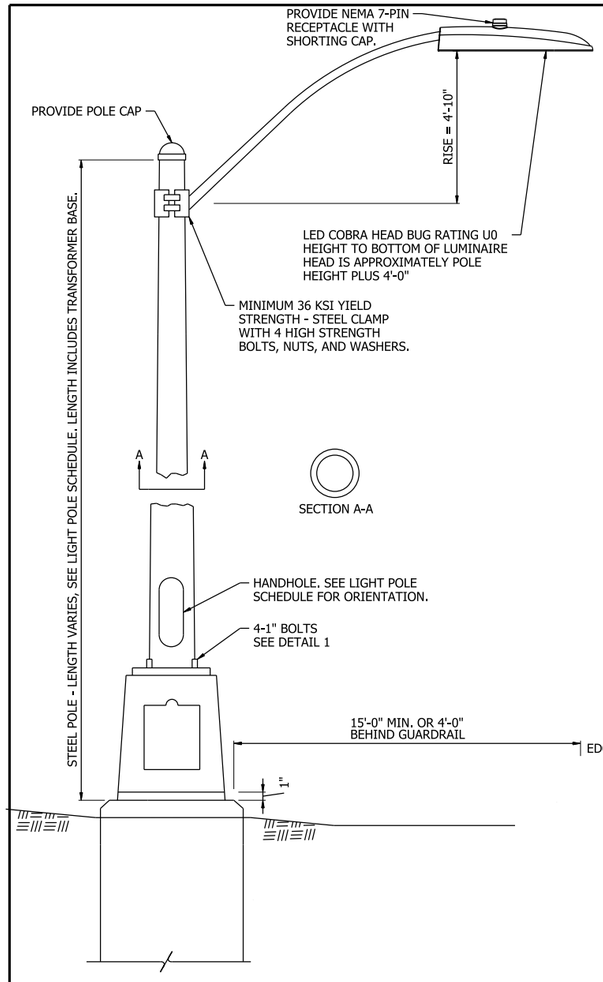
(120/240 VOLT SERVICE)

LUMINAIRE WIRING SCHEMATICS

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SCHEDULES & DETAILS
ILLUMINATION PLANS

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NOTES:

1. LUMINAIRE POLES SHALL MEET THE REQUIREMENTS OF 90 MPH WIND ZONE WITH A 1.3 GUST FACTOR ON THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. 2001 EDITION WITH 2003 AND 2006 INTERIMS.

2. STEEL LUMINAIRE POLES SHALL BE A MINIMUM OF 11 GAUGE. STEEL LUMINAIRE POLES SHALL BE HOT-DIPPED GALVANIZED. OTHER DIMENSIONS PER MANUFACTURER'S RECOMMENDATION AS NECESSARY TO MEET THE REQUIREMENTS OF THE SP - LED ROADWAY ILLUMINATION POLE.

3. LUMINAIRE POLES SHALL BE FABRICATED FROM ASTM A572 GRADE 50 OR 65 STEEL.

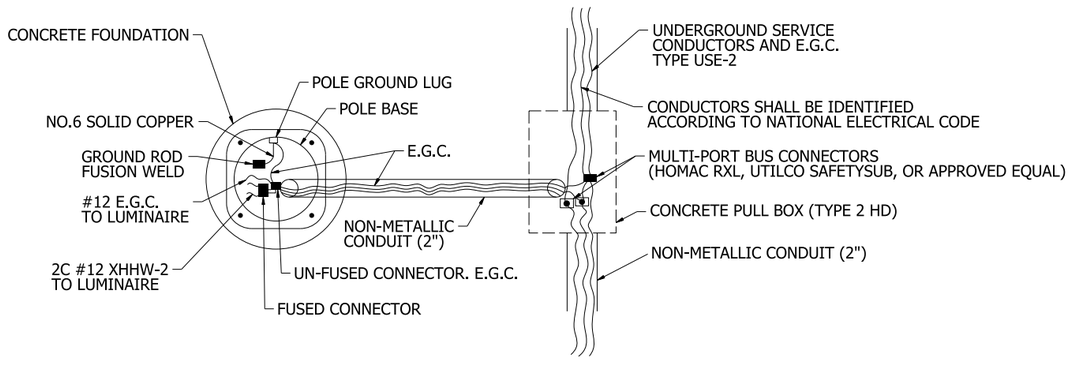
4. POLE CAP OR TENON CAP SHALL BE PROVIDED.

5. ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF SECTION 714 OF THE STANDARD SPECIFICATIONS. THE TOP 8" OF ALL ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM M232. ANCHOR BOLTS IN FOUNDATIONS SHALL BE 1.25" X 30" FOR MOUNTING HEIGHT OF 40' OR GREATER, 1" X 30" FOR MOUNTING HEIGHT LESS THAN 40'. ANCHOR BOLTS SHALL HAVE TOP END THREADED NOT LESS THAN 5" AND FURNISHED WITH GALVANIZED HEX NUTS, LOCK WASHERS, AND TEMPLATE. THE LOWER END OF THE BOLT SHALL BE THREADED AND FURNISHED WITH HEX NUT AND TEMPLATE.

6. CONDUCTORS IN LIGHT POLES SHALL BE SUPPORTED BY A J-HOOK.

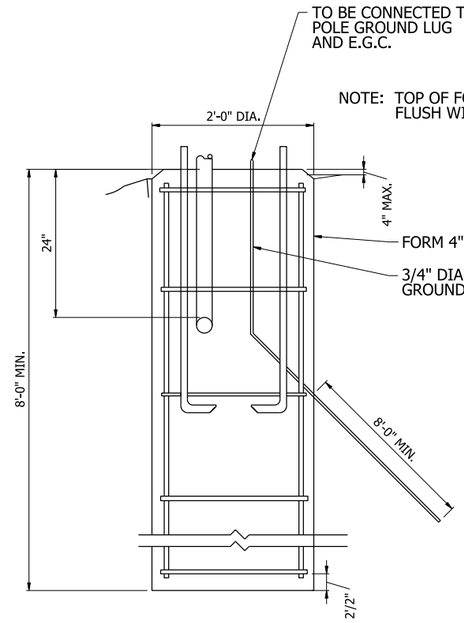
7. FOR LIGHT POLES MOUNTED ON THE BRIDGE, SEE BRIDGE LIGHT POLE SUPPORT DETAILS.

COBRA HEAD LUMINAIRE WITH BREAKAWAY BASE



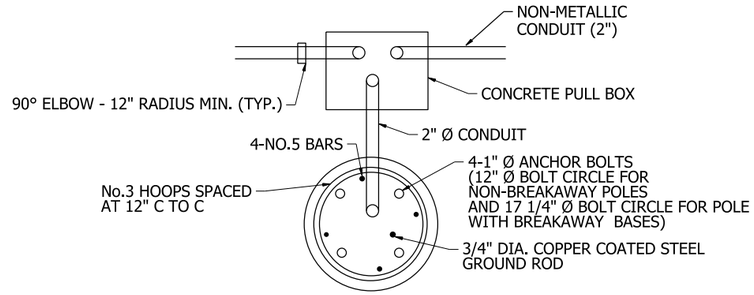
POLE FOUNDATION/PULL BOX WIRING DETAIL

NOTE: FUSES SHALL BE SLOW-BLOW FUSE



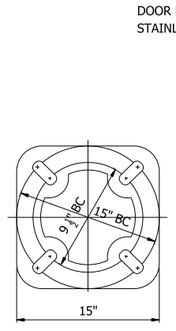
NOTE: TOP OF FOUNDATION SHALL BE FLUSH WITH LOCAL GROUND SURFACE.

ELEVATION

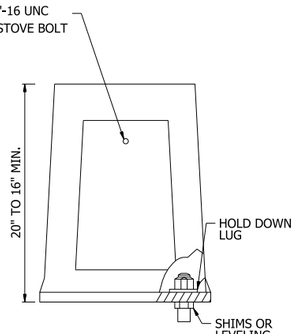


PLAN

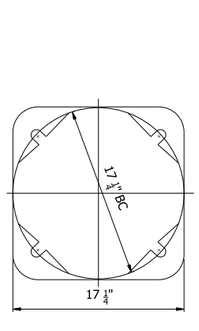
ROADWAY LUMINAIRE POLE FOUNDATION



TOP PLAN



ELEVATION

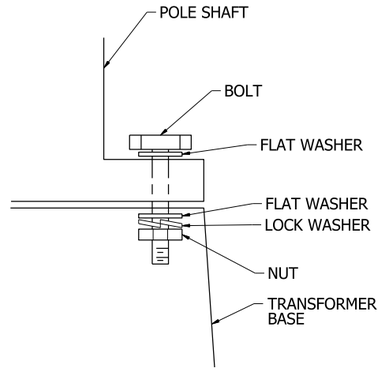


BOTTOM PLAN

NOTE: DOOR OPENING APPROX. 7" x 8" x 10.5"
TOP AND BOTTOM BOLT HOLES WILL ACCOMMODATE MINIMUM 1" DIA. BOLTS
MATERIAL SHALL CONFORM TO COMMERCIAL DESIGNATION: A356-T6 ALLOY.

4 - HOT DIP GALVANIZED HOLD DOWN LUGS PROVIDED FOR USE UNDER ANCHOR BOLT HEX NUTS AS SHOWN

TYPICAL BREAKAWAY TRANSFORMER BASE



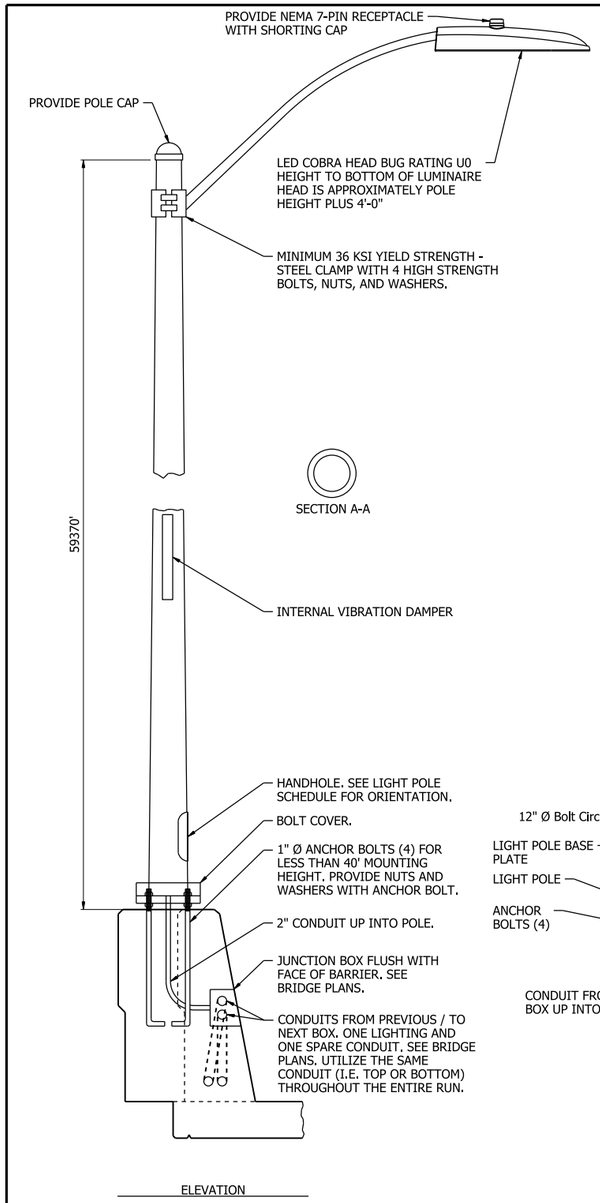
DETAIL 1

DETAILS
ILLUMINATION PLANS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

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		ILLUMINATION PLANS				



COBRA HEAD LUMINAIRE MOUNTED TO BRIDGE RAIL

NOTES:

1. BRIDGE MOUNTED LUMINAIRE POLES SHALL MEET THE REQUIREMENTS OF AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, FIRST EDITION (2015) WITH 2019 INTERIM REVISIONS.

2. STEEL LUMINAIRE POLES SHALL BE A MINIMUM OF 11 GAUGE. STEEL LUMINAIRE POLES SHALL BE HOT-DIPPED GALVANIZED. OTHER DIMENSIONS PER MANUFACTURER'S RECOMMENDATION AS NECESSARY TO MEET THE REQUIREMENTS OF THE SP - LED ROADWAY ILLUMINATION POLE.

3. LUMINAIRE POLES SHALL BE FABRICATED FROM ASTM A572 GRADE 50 OR 65 STEEL.

4. POLE CAP OR TENON CAP SHALL BE PROVIDED.

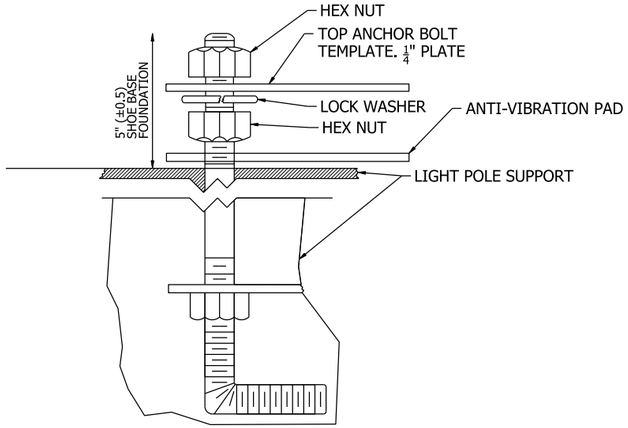
5. ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF SECTION 714 OF THE STANDARD SPECIFICATIONS. THE TOP 8" OF ALL ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM M232. ANCHOR BOLTS IN FOUNDATIONS SHALL BE 1.25" X 30" FOR MOUNTING HEIGHT OF 40' OR GREATER, 1" X 29" WITH 4" 90-DEGREE HOOKS FOR MOUNTING HEIGHT LESS THAN 40'. ANCHOR BOLTS SHALL HAVE TOP END THREADED NOT LESS THAN 5" AND FURNISHED WITH GALVANIZED HEX NUTS, LOCK WASHERS, AND TEMPLATE. THE LOWER END OF THE BOLT SHALL BE THREADED AND FURNISHED WITH HEX NUT AND TEMPLATE.

6. CONDUCTORS IN LIGHT POLES SHALL BE SUPPORTED BY A J-HOOK.

7. FOR LIGHT POLES MOUNTED ON THE BRIDGE, SEE BRIDGE LIGHT POLE SUPPORT DETAILS.

8. AN INTERNAL CANISTER DAMPER SHALL BE FACTORY-INSTALLED FOR ALL POLES INSTALLED ON THE BRIDGE. AN ADDITIONAL VIBRATION DAMPER SHALL BE INSTALLED FOR ALL BRIDGE-MOUNTED POLES WITH A MAST ARM. SEE BRIDGE POLE SCHEMATIC.

10. HANDHOLE COVER SHALL HAVE SAFETY CHAIN SECURED TO POLE INTERIOR.



ANCHOR BOLT DETAIL

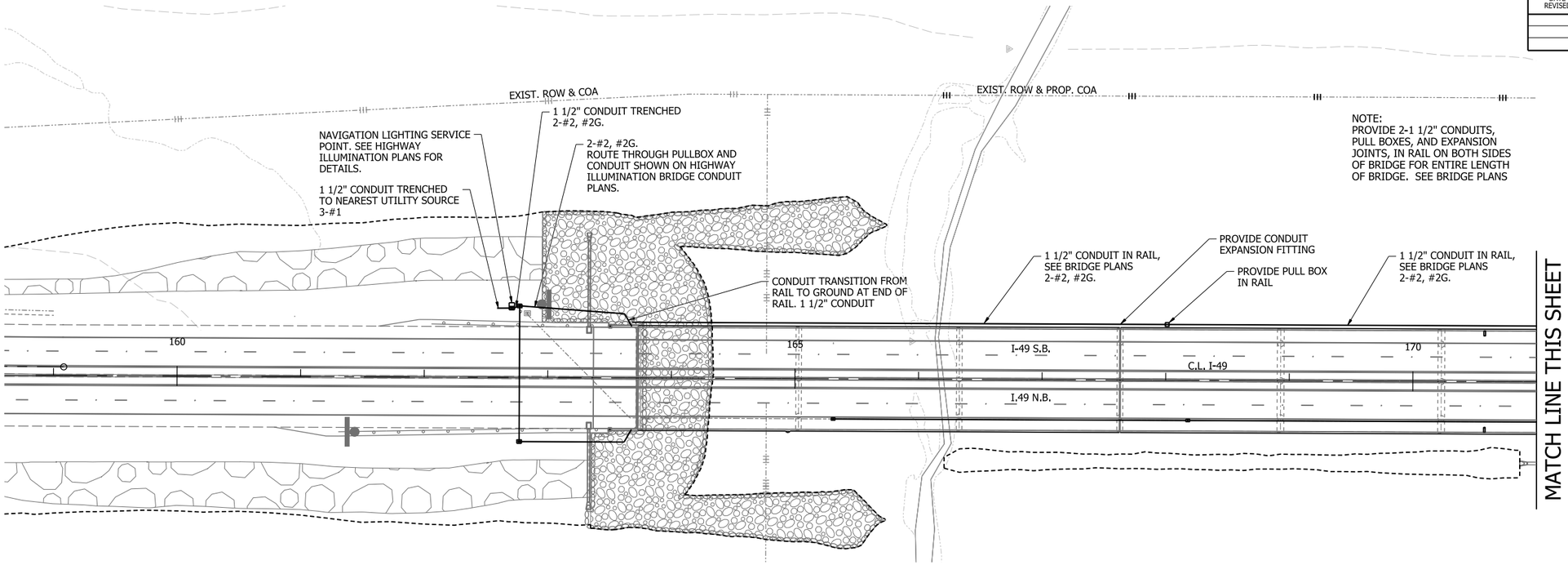


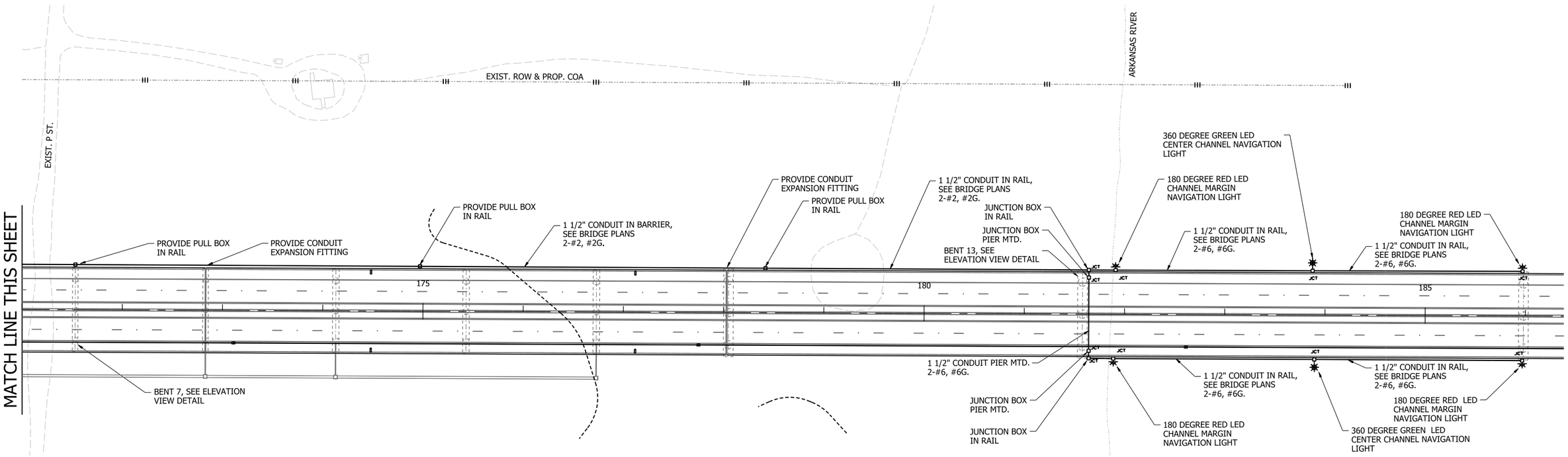
DETAILS
ILLUMINATION PLANS

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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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PAUL D. HUNTER
4/17/24

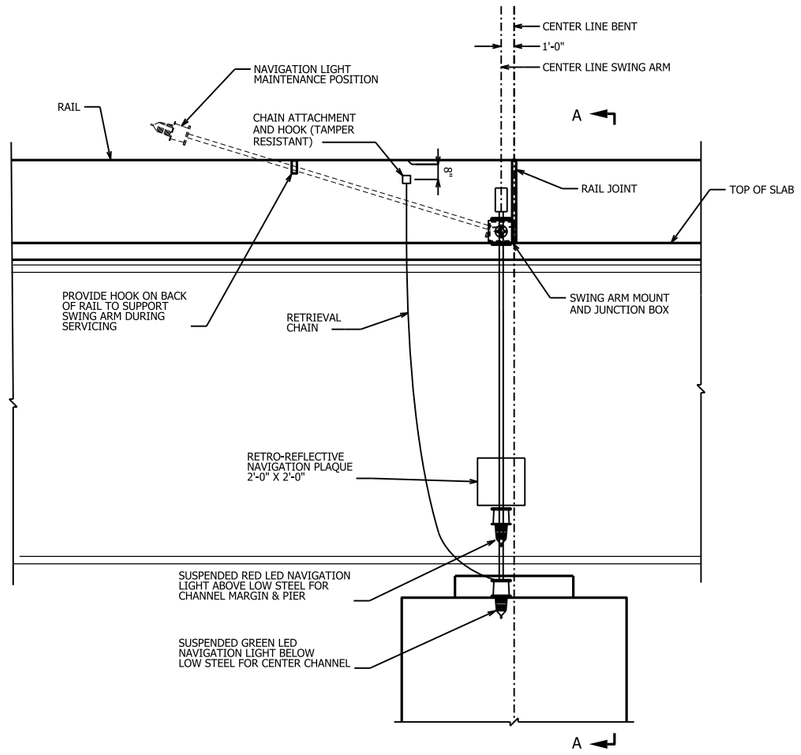




PLANS
NAVIGATION LIGHTING

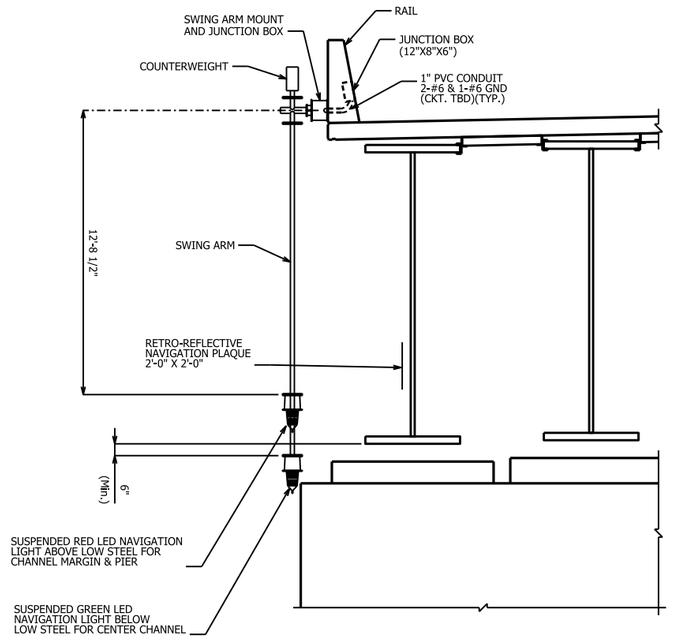
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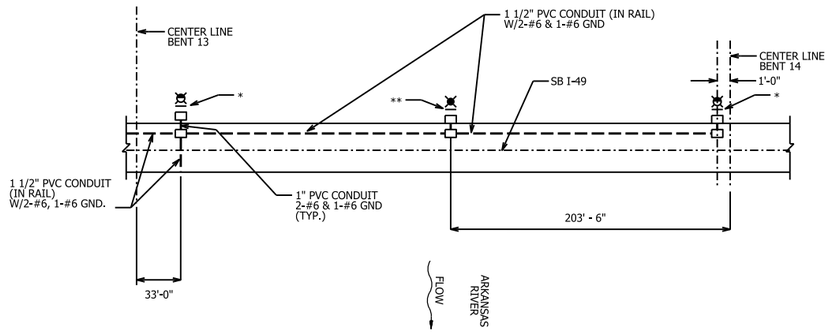


PART ELEVATION

(NAVIGATION LIGHT AT BENT 14 SHOWN, MIDSPAN AND CHANNEL MARGIN INSTALLATION SIMILAR)

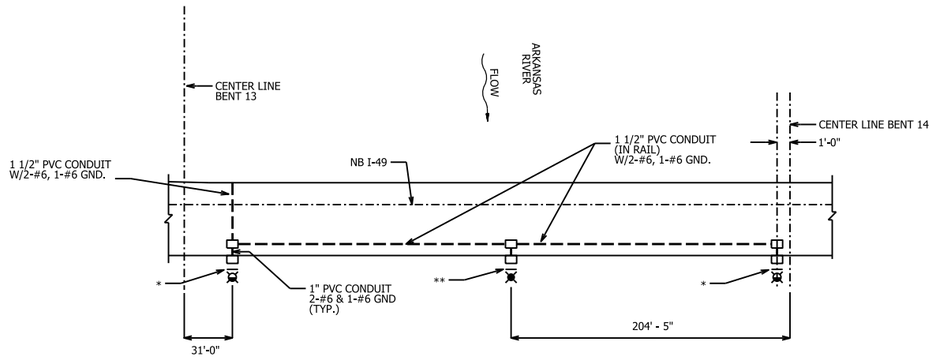


PART SECTION A-A



SPAN (13-14)

PART PLAN
UPSTREAM NAVIGATIOIN LIGHTS



SPAN (13-14)

PART PLAN
DOWNTSTREAM NAVIGATIN LIGHTS

LEGEND

- JUNCTION BOX
- 180 DEGREE RED LED NAVIGATION BEACON
- 360 DEGREE GREEN LED NAVIGATION BEACON

* 2'- 0" X 2'- 0" RED RETRO-REFLECTIVE NAVIGATION PLAQUE TYPE 2 REFLECTIVE SHEETING ON AN ALUMINUM FLAT SHEET

** 2'- 0" X 2'- 0" GREEN RETRO-REFLECTIVE NAVIGATION PLAQUE TYPE 2 REFLECTIVE SHEETING ON AN ALUMINUM FLAT SHEET

NOTES:

ATTACHMENT OF THE NAVIGATION LIGHT SYSTEM TO THE FACE OF THE RAIL SHALL BE PER THE REQUIREMENTS OF THE MANUFACTURER. ANCHORS SHALL BE CAST WITH THE CONCRETE. POST-INSTALLED ANCHORS WILL NOT BE PERMITTED.

DRAINAGE SHALL BE PROVIDED AT LOW POINTS AND OTHER CRITICAL LOCATIONS OF ALL CONDUITS AND ALL JUNCTION BOXES IN ACCORDANCE WITH SEC 707. ALL CONDUITS SHALL BE SLOPED TO DRAIN WHERE POSSIBLE.

FOR ADDITIONAL DETAILS, SEE BRIDGE PLANS.

NAVIGATION LIGHTS SHALL MEET THE REQUIREMENTS OF THE UNITED STATES COAST GUARD, 33 CFR 118.65

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
4/17/24

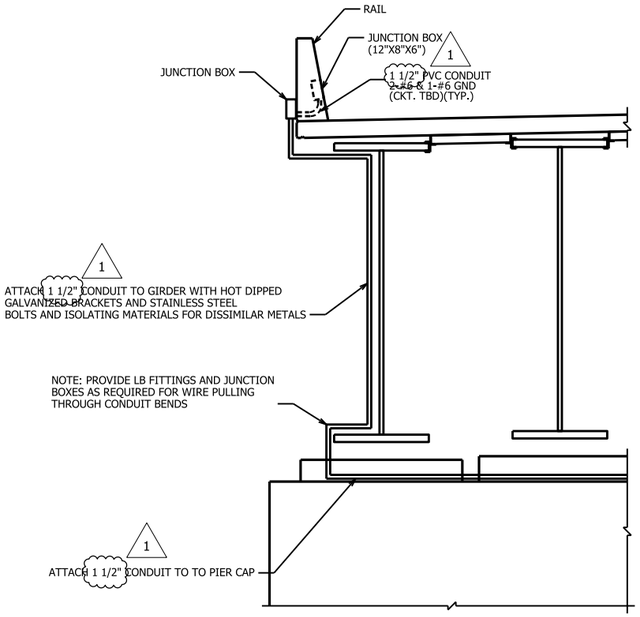
DETAILS
NAVIGATION LIGHTING

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1 Revised Pier-Mounted Conduit Size

DATE REVISED	DATE REVISED	FED.RD. DIST.NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/26/2024		6	ARK.	040901	311	809
		NAVIGATION LIGHTING				

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19394
PAUL D. HUNTER
9/27/24



CONDUIT ROUTING TO GET ACROSS BRIDGE FROM SIDE TO SIDE
ELEVATION VIEW AT BENT 13
(ONLY ONE SIDE OF BRIDGE SHOWN, OTHER SIDE SIMILAR)

DETAILS
NAVIGATION LIGHTING

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GENERAL NOTES

BENCHMARK: Vertical Control Data are shown on the Survey Control Data Sheets.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable Supplemental Specifications and Special Provisions. Section and Subsection refer to the Standard Construction Specifications unless otherwise noted in the Plans.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, Ninth Edition (2020).

OPERATIONAL IMPORTANCE: Typical

FUTURE WEARING SURFACE: 24 psf

STAY-IN-PLACE FORM ALLOWANCE: 18 psf unless otherwise noted; 24 psf for Bridge 07684, Unit 4

WATERLINE LOAD: Unit 4 of Bridge No. 07684 waterline as shown in the bridge plans with a weight no more than 665 pounds/foot including water, pipe and cement liner on the superstructure. Structural Design and dead load deflections consider the waterline to be installed prior to casting the deck. No other Units have been designed for this load. The following concentrated loads have been included in the design of the Bridge No. 07684:

1. First and Last Waterline Supports Beams closest to Bent Nos. 12 & 16: A vertical point load of 20.5 kips Service load centered on the waterline support.

2. Bent No. 14: A fixed waterline support saddle load of 100 kips horizontal load applied parallel to the girders at the top of the pier cap directly under the waterline.

3. Bent Nos. 12 & 16: The horizontal thrust load will be taken internally by the welded pipe and waterline expansion joint. No additional load was applied to the pier.

4. Bent Nos. 12 & 16: In the extreme event of a burst event, a force of 300 kips has been applied horizontally and vertically to the bent at the top of the pier cap.

5. Bent Nos. 12 & 16: The vertical weight that the piers were designed to carry is 37k at a distance 6'-0" from the face of the permanent drilled shaft casing.

ITS AND UTILITY BANK LOAD: Bridge designs include a vertical 230 pounds/foot load for the 12 conduit ITS and Utility bank between the east exterior girder and first interior girder as shown in the plans. This weight includes the angles, support beams, conduit and pull boxes. The ITS and Utility banks shall not be installed until the deck has been cast and cured.

LIVE LOADING: HL-93

INSPECTION ACCESS LIVE LOAD: Inspection access walkway (Bridge No. 07684, Unit 4 only) is designed for 75 psf for the individual components. The girders are designed for a 15'-0" length of 75 psf pedestrian load placed at the center of the spans and is combined with maximum vehicular live load.

VESSEL COLLISION: Bridge No. 07684 is classified as essential for purpose of vessel collision calculations. The structure is designed for the vessel impact forces shown on the plans and has an acceptable annual frequency of collapse (AF) equal to or less than 0.0001.

SEISMIC ZONE: I S_{D1}: 0.126g SITE CLASS: D

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)	f 'c = 4,000 psi
Class S Concrete (substructure, UNO)	f 'c = 3,500 psi
Class S Concrete (Bridge No. 07684, Bent 12 thru 16 drilled shafts)	f 'c = 5,000 psi
Class S Concrete (prestressed concrete girders) (Alternate No. 1)	f 'c = 9,000 psi; f'ci = 7,000 psi
Prestressing Strands (AASHTO M 203, Gr. 270) (Alternate No. 1)	fpu = 270,000 psi
Reinforcing Steel (AASHTO M 31 or M 322, Type A)	fy = 60,000 psi
Structural Steel (ASTM A709, Gr. 50)	Fy = 50,000 psi
Structural Steel (AASHTO M270, Gr. 50W)	Fy = 50,000 psi
Structural Steel (AASHTO M270, Gr. HPS 70W)	Fy = 70,000 psi
Anchor Bolts (AASHTO M314, Gr. 55 or Gr. 105)	Fy = 55,000 psi or 105,000 psi

CONCRETE: See Standard Drawing No. 55006 for additional concrete notes.

Mass concrete shall be Class S Concrete and shall be in accordance with the Special Provision "CONCRETE FOR STRUCTURES".

REINFORCING: See Standard Drawing No. 55006 for additional reinforcing notes.

STRUCTURAL STEEL: See Standard Drawing No. 55006 for additional structural steel notes.

All structural steel shall be AASHTO M270/ASTM A709, Grade 50W unless otherwise noted and payment shall be included in the "STRUCTURAL STEEL PLATE GIRDER SPANS (M270, Gr. 50W)". Bridge 07684, Unit 4 shall use AASHTO M270/ASTM A709, Grade HPS 70W flanges of the steel plate girders as noted and payment shall be included in the "STRUCTRAL STEEL PLATE GIRDER SPANS (M270, Gr. HPS 70W)". The weight of all other steel material will be included in the "STRUCTURAL STEEL PLATE GIRDER SPANS (M270, Gr. 50W)"pay item regardless of strength with some items paid as subsidiary as identified in the plans.

All bolts shall be ASTM F3125, Gr. A325 Type 3, 1"ϕ high-strength bolts, UNO. All bolt holes shall be drilled to 1 1/8"ϕ open holes. The use of oversized holes will not be allowed on main members, UNO. Bolts shall be placed with head oriented as shown in the plans.

Structural steel shall be fabricated for the steel dead load fit. Unless otherwise noted, all connection plates and intermediate stiffeners shall be fabricated normal to the top flange and on the side of the girder web as indicated on the framing plan. All bearing stiffeners shall be fabricated to be plumb in their final condition.

The minimum edge distance on bolted connections shall meet the requirements in the Subsection 807.42.

The ITS and Utility bank of galvanized conduits shall not touch or rest on the steel crossframes. Details allow for vertical adjustment of the conduit bank. Any adjustments to crossframe geometry and crossframe gusset plates shall be shown in the shop drawings and coordinated with the ITS and Utility bank details.

The Contractor shall safely erect the structure in accordance with a steel erection plan produced, signed and sealed by the Contractor's erection engineer. The Contractor shall verify that all member stresses are in the safe working limits, not overstressed, and locked in loads are checked and verified in accordance with AASHTO LRFD Bridge Design Specifications, Ninth Edition (2020) for each stage of construction. ~~Approval~~ of the Contractor's erection sequence, shop drawings and plans shall not relieve the Contractor from his responsibility for performing the work required by the Contract Documents.

1 Acceptance

SUBSTRUCTURE NOTES: See Standard Drawing No. 55006 for additional substructure notes.

Mechanical couplers shall be used when splicing #14 or #18 bars. Lap splice are not allowed when splicing #14 or #18 bars to the same size bar.

BORING LOGS: Boring logs may be obtained from the Construction Contract Development Section of the Program Management Division.

1 The water in the waterline shall not be added to the pipe until the slab is cast and cured.

STEEL PILING: All End Bent piling shall be HP 14x89 (Grade 50) and shall be driven with an approved driving system and into material designated as shale or sandstone on the boring legend.

Piling in End Bents shall be driven after embankment to bottom of cap is in place and settlement monitoring is complete. Lengths shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with Section 805. The Contractor shall use QPL-approved steel H-Pile driving points on all piles.

DRIVING SYSTEM: The driving system approval and the ultimate bearing capacity determination for piling shall be based on the requirements of Subsection 805.09(b), "Method B - Wave Equation Analysis (WEAP)". It is estimated that the minimum rated hammer energy required to obtain the ultimate bearing capacity for all piles will be 40,000 foot pounds per blow.

DRILLED SHAFTS: Drilled shafts at Bent Nos. 2 thru 32 on Bridge No. 07684 and Bent Nos. 2 thru 15 on Bridge No. 07685 shall be constructed in accordance with Special Provision "DRILLED SHAFT FOUNDATIONS". Drilled shafts shall be socketed into material designated as shale or sandstone on the boring legend and to the minimum rock penetrations and tip elevations shown in the plans. No adjustment to plan tip elevations shall be made without prior approval from the Engineer. Temporary surface casings and Permanent casings will be required.

One test boring shall be drilled at each drilled shaft location prior to the drilled shaft excavation, except Bridge No. 07684, Bent Nos. 12, 14, 15, and 16, which have already been drilled. Complete test borings in accordance with Special Provision "DRILLED SHAFT FOUNDATIONS".

A minimum permanent casing thickness of ¾" and a minimum yield strength of 45 ksi is required at Bridge No. 07684, Bent Nos. 12 & 16 to accommodate the waterline corbel attachment. Permanent casing shall be coated in accordance with the Waterline Plans and Specifications.

The spacing devices for the reinforcing steel cage for Bridge No. 07684, Bent Nos. 12 & 16 shall be non-metallic. See Special Provision "DRILLED SHAFT FOUNDATIONS" for additional information. Steel tie wires shall be tucked into the reinforcing cage to avoid contact with permanent casing. Electrical isolation testing is required prior to casting the concrete in the drilled shaft. See Waterline Plans and Specifications.

DRILLED SHAFT CONSTRUCTION SEQUENCE AT BRIDGE NO. 07684, BENT NOS. 12 & 16: A special sequence of construction is required for the installation of the drilled shafts where the corbel support for the waterline attaches to the casing. Permanent casing shall be coated in accordance with the Waterline Plans and Specifications.

1. Install temporary surface casing and drill the shaft to rock.
2. Install permanent casing and seat into rock.
3. Remove temporary casing and grout void between temporary and permanent casing per Special Provision.
4. Excavate around the outside of the permanent casing.
5. Clean area on the permanent casing for the installation of the waterline corbel per waterline plans.
6. Install the waterline corbel per waterline plans.
7. Backfill around the drilled shafts in accordance with the standard specifications.
8. Continue drilled shaft into rock and install reinforcing per Special Provision.
9. Perform electrical isolation testing per Waterline Plans and Specifications.
10. Continue drilled shaft concrete installation per Special Provision.

NONDESTRUCTIVE TESTING: Crosshole Sonic Logging (CSL) shall be performed on each drilled shaft unless otherwise noted. Crosshole Sonic Logging (CSL) and Thermal Integrity Profiling (TIP) shall be performed on each drilled shaft of Bent Nos. 12-16 on Bridge No. 07684. Testing shall be performed in accordance with Special Provision "NONDESTRUCTIVE TESTING OF DRILLED SHAFTS".

PAINTING:
The following weathering steel surfaces shall be painted as specified in Subsection 807.75:

All steel surfaces within 10 feet of bridge deck expansion joints, including diaphragms, cross-frames, connection bolts and bearings.

All steel surfaces exposed to the outside face of the bridge, including outside faces & bottom of the exterior beams or girders, splice plates and bolts, stiffeners, drip plates and bearings.

ASTM F3125, Grade A325 Type 3 bolts shall be used within these painted zones and shall be painted.

Galvanized members, the expansion device, and surfaces in contact with concrete shall not be painted.

The color of paint shall be Brown equal or close to Fed. Std. 595B, Color Chip No. 30070 and as approved by the Engineer.

The finish system may be applied in the shop. Any damage to the paint system occurring during transport or installation shall be corrected according to the manufacturer's recommendations at no cost to the Department.

BRIDGE DECK:
The concrete bridge deck shall be given a tine finish as specified for final finishing in Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

PROTECTIVE SURFACE TREATMENT:
Class 2 Protective Surface Treatment shall be applied to the roadway surface and to the roadway face and top of the concrete bridge rails and median barriers in accordance with Section 803.

DETAIL DRAWING LIST PER BRIDGE:	DRAWING NO.
Bridge No. 07684 Alternate No. 1	67383
Bridge No. 07685 Alternate No. 1	67476
Bridge No. 07684 Alternate No. 2	67558
Bridge No. 07685 Alternate No. 2	67603

STANDARD DRAWINGS:	
Dumped Riprap and Filter Blanket	55001
Concrete Riprap	55002
Permanent Steel Deck Forms	55005
General Notes for Steel Bridge Structures	55006
Details For Steel Bridge Structures	55007
Type D Name Plate	55010
Standard Details for Chain Link Fence	55018
Steel H-Piling	55020
Type F Approach Gutters	55030F
Type F Approach Slabs	55040F1
Bridge Traffic Rail Type SSTR42	55071

SHORING: Shoring for Bridge No. 07684, Bent No. 13 is required. See Dwg. No. 67716 and Special Provision, "SHORING".

MAINTENANCE OF TRAFFIC: See Roadway Plans.

MAINTENANCE OF RIVER TRAFFIC: Bent No. 13 on Bridge No. 07684 shall be constructed prior to Bent No. 14 to minimize impacts to navigation and improve safety. See Special Provision "BRIDGE WORK IN NAVIGABLE WATERS"and "DETAILS FOR RIVER TRAFFIC SAFETY".

LEVEE: Construction around the levee shall be in accordance with the Special Provision "ARMY CORPS RESTRAINING CONDITIONS" and "ARMY CORPS - ARKANSAS RIVER, FLOODWAY AND LEVEE REQUIREMENTS".

Strip top surface of vegetation a maximum of 6" to install the concrete riprap over the levee. The top surface of the concrete riprap slope protection shall not be lower than the existing top of levee surface.

Provide protection of exposed slopes from erosion and river stage flooding by implementing erosion control and emergency flooding slope protection measures approved by the Engineer.

ABUTMENT STONE: Abutment stone shall be in accordance with the Special Provision "ABUTMENT STONE - ARKANSAS RIVER" and limits shown on the Bridge Layouts. Standard Drawing No. 55001 shall be used with the following modifications. Dumped Riprap noted on the standard shall be Abutment Stone and synthetic fiber geotextile fabric will not be permitted. The Abutment Stone shall be 2'-0" thick with a 6" filter blanket.

BRIDGE EMBANKMENT SETTLEMENT: The embankments for all bridge end bents will require settlement monitoring prior to installation of piles and construction of the end bents. See Roadway Plans for details and durations.

OPTIONAL KEYED CONSTRUCTION JOINT: Optional keyed construction joints are shown in the plans. The keys shall be 1/3 of the member height and 1/3 of the member width and placed in the center of the member cross section. The depth of the key shall be recessed 2" and have beveled edges. The Contractor shall not use a keyed construction joint at other location without written approval from the Engineer.

PEDESTAL HEIGHTS: Pedestal heights are detailed based on the bearing pads shown in the plans for the elastomeric and HLMR bearings. The Contractor is responsible for adjusting bearing seat elevations based on final bearing heights. The pedestal heights shall not exceed 1'-4" or be less than 4 1/2" at any bent location. The Contractor is responsible for adjusting the reinforcing in the columns and pedestals to meet the minimum embedment shown on the plans.

DEFINITIONS:
CG = Center of Gravity
CL = Centerline
E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
PL = Plate
ts = slab thickness
UNO = Unless Noted Otherwise

STREAM GAGE DATA: Bridges are in the flood plain of the Arkansas River near Mile Marker 291.6 of the McClellan-Kerr Arkansas River Navigation System. The stream gage closest to the project site is number 07250550 at the tailwater of the James W. Trimble Lock and Dam in Van Buren, Arkansas. The historical stream data is available at https://waterdata.usgs.gov/monitoring-location/07250550.

BRIDGE MOUNTED ITS AND UTILITY BANK CONDUITS: See Roadway Plans for the pay items for the bridge mounted ITS and Utility Bank conduits. For location of conduits, see Dwg. Nos. 67672 thru 67685.

TRAFFIC RAIL CONDUITS: Two 1½"Ø conduits run the full length of the each east and west barrier and extend through the expansion joints and through the barrier on the wingwalls. See Dwg. No. 67686. Junction box size and expansion fittings material is called out and specified in the Illumination Plans. Conduit expansion joints shall accommodate the movement shown on the Expansion Joint Sheets. Conduit shall be in accordance with Section 710 of the Standard Specifications. The conduit, pull boxes and expansion joints are subsidiary to the bid item "CLASS S(AE) CONCRETE-BRIDGE".

WATERLINE NOTES: The waterline installed as part of this project extends on Bridge No. 07684 from the riverward side of Bent No. 12 to riverward side of Bent No. 16 in between the steel girders at CL I-49. This includes the waterline expansion joints. The corbels that support the waterline on the casing will be installed in this contract. The vertical portion of the waterline and the waterline supported on the corbels will be installed in a future project.

Substructure embed plates are shown on these plans to use for the future attachments for the waterline.

WATERLINE PLANS REFERENCE: The construction of Unit 4 of Bridge 07684 shall reference the plans and specifications regarding the waterline construction as noted in the bridge plans. The term Waterline Plans include reference to the Waterline Plan sheets 133 and 658-669 of the plan set and the Special Provisions "BRIDGE PILE CASING AND CORBEL COATING SYSTEM", "CATHODIC PROTECTION", "STEEL WATERLINE", and "WATERLINE APPURTENANCES".

FUTURE WATERLINE INSTALLATION NOTES: Installation of the future waterline on Bridge No. 07684 as indicated in the plans will be done by others. Future work shall include the following to coordinate with this bridge as designed:

The installation of the future waterline shall be supported as required to not add weight to the superstructure waterline support brackets. The vertical pipe shall be supported by the corbels and be constructed so that it does not hang from the bridge superstructure.

Thrust loads were not included in the bridge design as directed by the Waterline Owner. Welded pipe shall be used on the bridge to prevent thrust loads on the bridge. Pipe shall extend underground far enough to anchor the pipe such that it does not produce thrust loads on the Bent 12 & 16 foundations.

The river/bridge hydraulic analysis was performed with the vertical portion of the future waterline attached to Bent Nos. 12 & 16 with the farthest outside edge no further than 6 foot from the face of the drilled shaft. The scour at the piers was designed to include the waterline supported on the corbels on the center and westward drilled shaft. The waterline shall extend perpendicular to the centerline of I-49 for a minimum of 50 feet from the west face of the drilled shaft. Any change to this will require revised hydraulic analysis, scour analysis and Section 408, and associated approvals through the USACE.

Waterline loads exceeding the values shown in these plans shall be checked by the waterline owner prior to installation of the waterline to ensure superstructure and substructure details in this contract can accommodate. Calculations shall be in accordance with AASHTO LRFD Bridge Design Specifications, Ninth Edition (2020), signed and sealed by a Arkansas licensed professional engineer and submitted to the Engineer for review.

Substructure embed plates shown on the columns in these plans will be installed during the construction of this contract and are intended to be used for future installation of the vertical portion of the waterline.

An ARDOT inspector will be required to be on-site at future waterline installations and work around the bridge that are not included with this contract.

CHAIN LINK FENCE: Provide chain link fence over Springhill Park per the limits shown. Provide gap at the modular joint as shown on layout sheets.

STATE OF ARKANSAS
Natalie McCombs
LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
NATALIE MCCOMBS
8/9/24
BRIDGE ENGINEER

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
8/9/2024		6	ARK.	040901	312	809
		07684 & 07685 - GENERAL NOTES - 67372				

Notes:
For additional Alternate No. 1 General Notes, see Dwg. No. 67373.

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 1 OF 1
GENERAL NOTES
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 12/5/23 FILENAME: b0409011x_n1.dgn
CHECKED BY: BTJ DATE: 12/12/23 SCALE: No Scale
DESIGNED BY: NAM DATE: 12/5/23

BRIDGE NO. 07684 & 07685 DRAWING NO. 67372

PRINT DATE: 9/3/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	313	809
		07684 & 07685 - GENERAL NOTES - 67373				

GENERAL NOTES

PRESTRESSED GIRDER NOTES: Prestressing steel shall be 0.6"ϕ low relaxation strands with material and strength requirements as shown on Dwg. No. 67372.

Distances from the forms and spacing of the prestressing steel shall be maintained by stays, ties, hangers, spacers, or other approved supports which shall be shown on the Shop Drawings.

All Girders shall be AASHTO/PCI TYPE BT-72 as shown on the plans and shall be the standard prestressed sections adopted by the joint Committee of AASHTO and the Prestressed Concrete Institute. All girders shall be cast in concrete floored pallets and in metal forms. All work and materials shall be as specified in Subsection 802.22 of the Standard Specifications and Special Provision "PRESTRESSED CONCRETE BULB-TEE GIRDERS".

The Contractor may propose to substitute an alternate beam type in accordance with the Special Provisions "PRESTRESSED CONCRETE BULB-TEE GIRDERS".

The initial tensile force applied to each 0.6"ϕ strand shall be 44,000 lbs except as noted. Transfer of this tensioning load to the girder shall not be done until the compressive strength of the concrete is 7,000 psi.

The first 16" along the tops of the Girders at the beginning and end of the unit shall have a smooth surface. The top of the remaining length of the girders shall be rough floated at approximately the time of set. This portion of the tops of girders shall be scrubbed transversely with a coarse wire brush to remove all laitance and to produce a roughened surface for bonding the slab.

Dimensions are shown to the center of the strands.

Girder lengths shown on the design plans are net lengths measured horizontally along the girder centerlines. The manufacturer shall make the necessary allowances for grade and shortening due to elastic shortening, creep, and shrinkage.

All exposed steel at ends of girders not extended into diaphragms shall be protected against corrosion by a coating of tar or other waterproofing material.

Extreme care shall be exercised in handling and moving precast prestressed concrete girders. Girders must be maintained in an upright position at all times. The Contractor's proposed methods of storage, lifting, and transportation of the girders shall satisfy the stress limits of AASHTO 5.9.2. The Contractor's proposed lifting details shall be submitted on shop drawings to the Engineer for approval. The use of holes in the girder for lifting purposes will not be permitted.

The points of support and directions of the reactions with respect to the member shall be approximately the same during transportation and storage as when the member is in its final position.

The camber and dead load deflections values shown in the design plans are estimated based on the required minimum concrete strength and a concrete age of 90 days.

The Contractor shall submit the method and sequence for release of strands to the Engineer for approval prior to casting of the girders.

Concrete weight for the mid-span diaphragms is included in the item "CLASS S(AE) CONCRETE-BRIDGE". Payment for the alternate steel mid-span diaphragms shall be considered subsidiary to "CLASS S(AE) CONCRETE-BRIDGE".

Alternate steel mid-span diaphragms shall be AASHTO M270, Grade 50 steel, galvanized unless otherwise noted. This includes all plates, angles and hardware. Galvanizing shall be in accordance with AASHTO M232 for hardware and AASHTO M111 for members.

Elements embedded into the prestressed beam such as, but not limited to, expansion joint bearing plates, bearing insert plate, shear studs, threaded rods, threaded inserts, steel pipe for utility supports, and hole forms shall be subsidiary to the item "PRESTRESSED CONCRETE GIRDERS (TYPE BT-72)".

PRINT DATE: 4/10/2024

STATE OF ARKANSAS
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Natalie McCombs

4/18/24

BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 1
GENERAL NOTES
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 12/5/23
CHECKED BY: BTJ DATE: 12/12/23
DESIGNED BY: NAM DATE: 12/5/23
FILENAME: b0409012x_n1.dgn
SCALE: No Scale

BRIDGE NO. 07684 & 07685 DRAWING NO. 67373

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	314	809
		07684 - BRIDGE LAYOUTS - 67374				

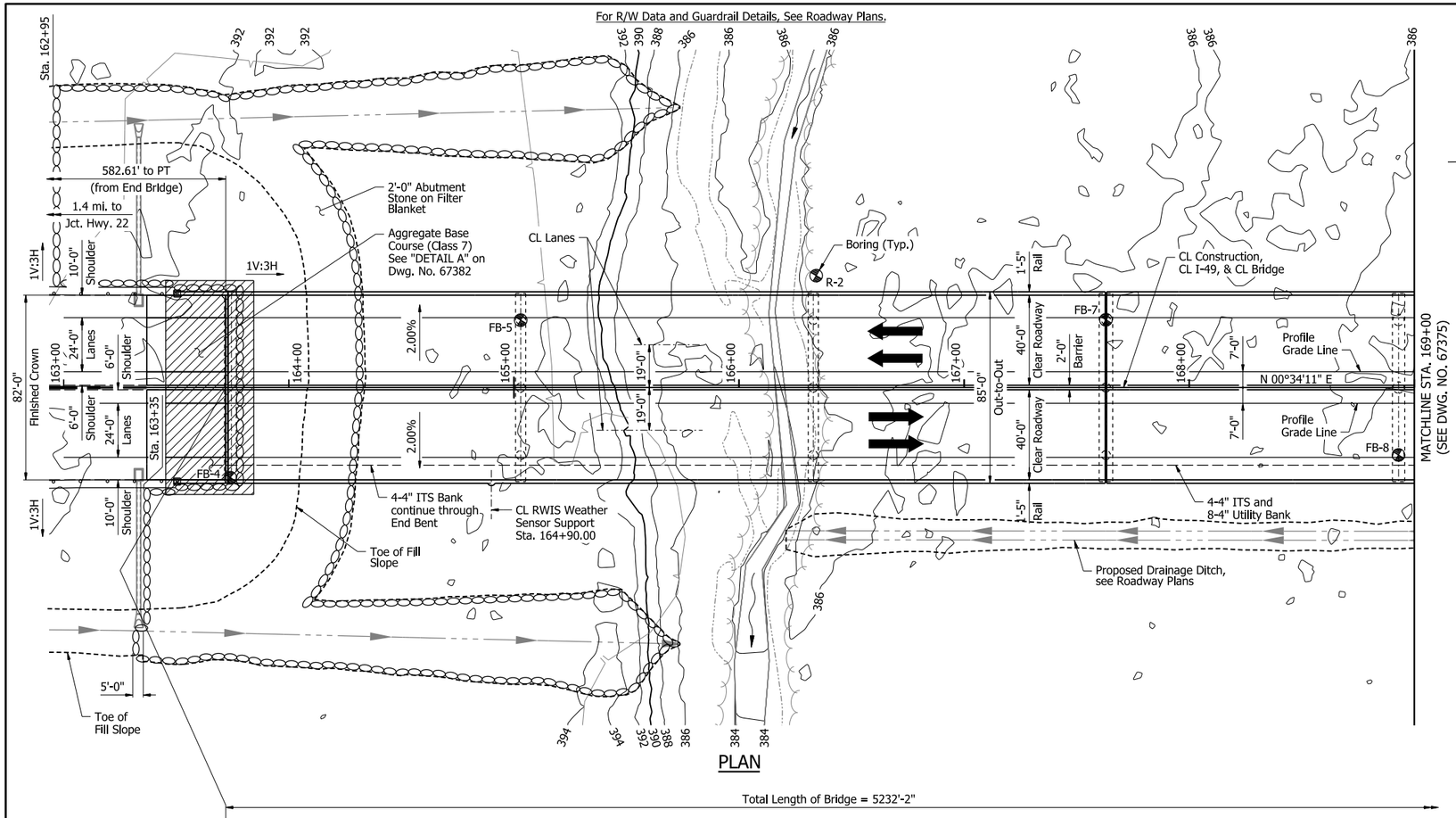
Notes:
Use Type F Approach Gutters & Type F Approach Slab at beginning of bridge.

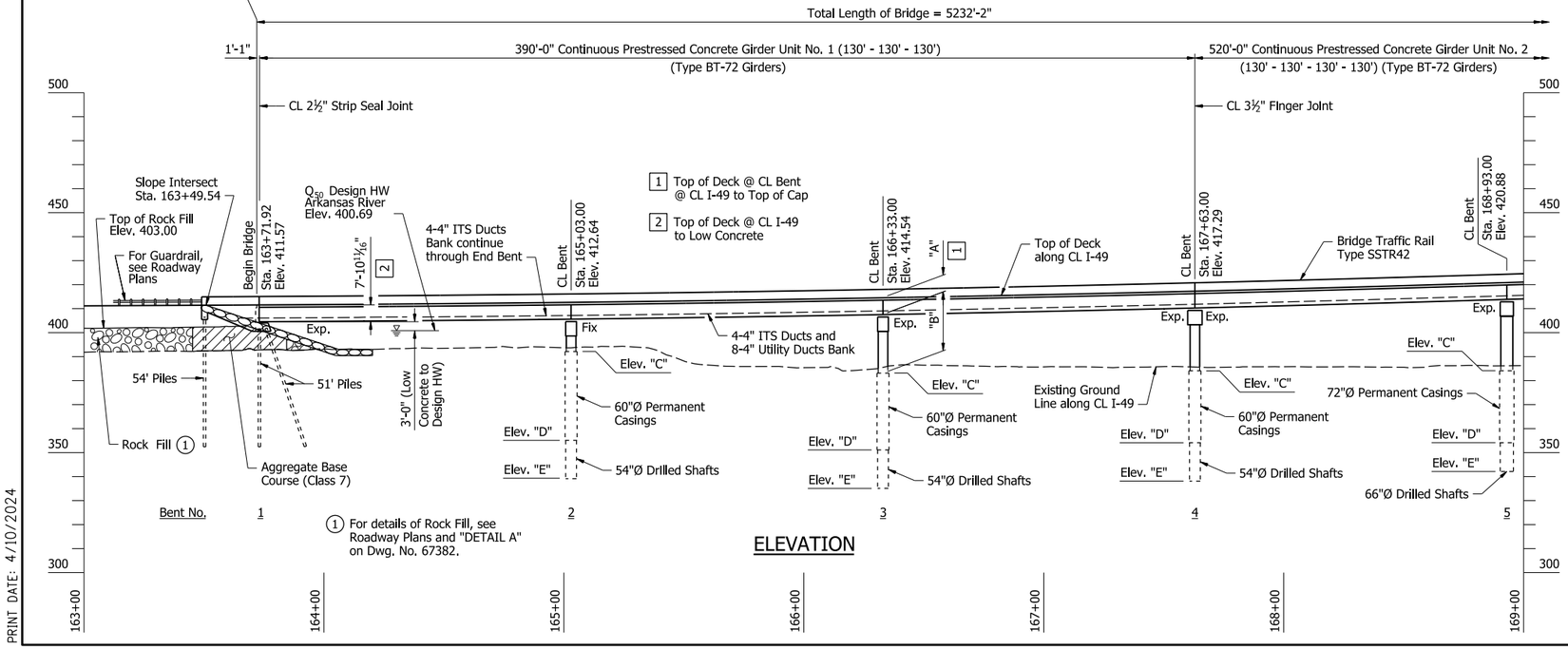
For General Notes, see Dwg. No. 67372.

All bents are normal to CL I-49.

For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

For details of RWIS Weather Sensor Support, see Dwg.No. 67686 and ITS Plans.







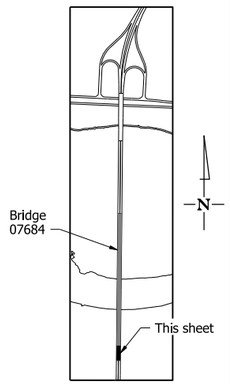
VERTICAL ALIGNMENT DATA

(Stations are along CL I-49,
Elevations are along Profile Grade Line)

Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.

TABLE OF VARIABLES

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 2	8'-5⅛"	12'-2½"	392.00	355.00	339.00
Bent No. 3	8'-8⅛"	22'-10⅜"	383.00	351.00	335.00
Bent No. 4	8'-11"	24'-4½"	384.00	354.00	338.00
Bent No. 5	8'-8"	28'-2½"	384.00	354.00	342.00



SITE PLAN
No Scale

ALTERNATE NO. 1
SHEET 1 OF 10
LAYOUT OF BRIDGE
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

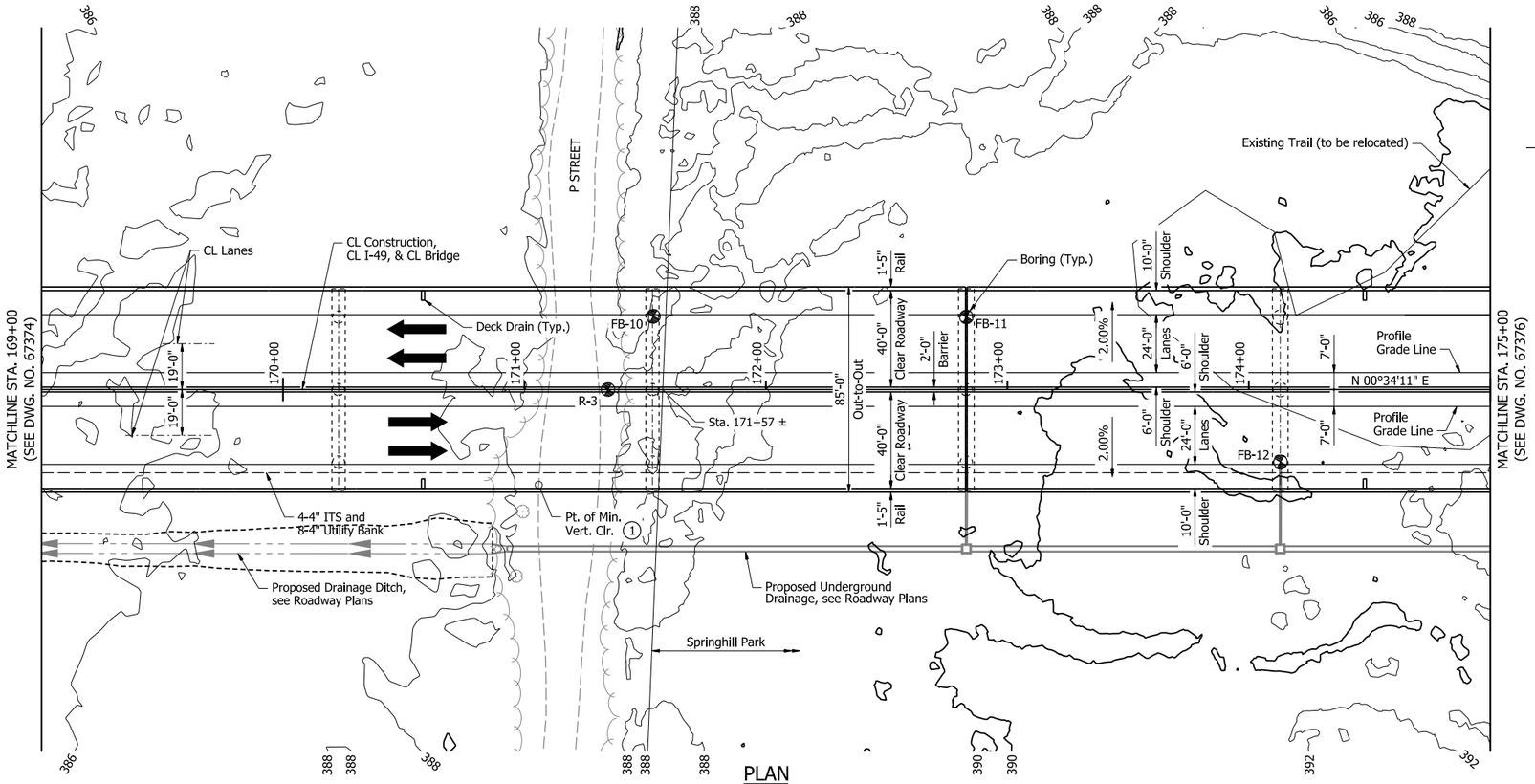
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DESIGNED BY: NAM	DATE: 5/15/22		

BRIDGE NO. 07684 DRAWING NO. 67374

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	315	809
		07684 - BRIDGE LAYOUTS - 67375				

For R/W Data, See Roadway Plans.



PLAN

(1) Sta. 171+05.92, Offset 39.38' Rt.

Notes:
For General Notes, see Dwg. No. 67372.

All bents are normal to CL I-49.

For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

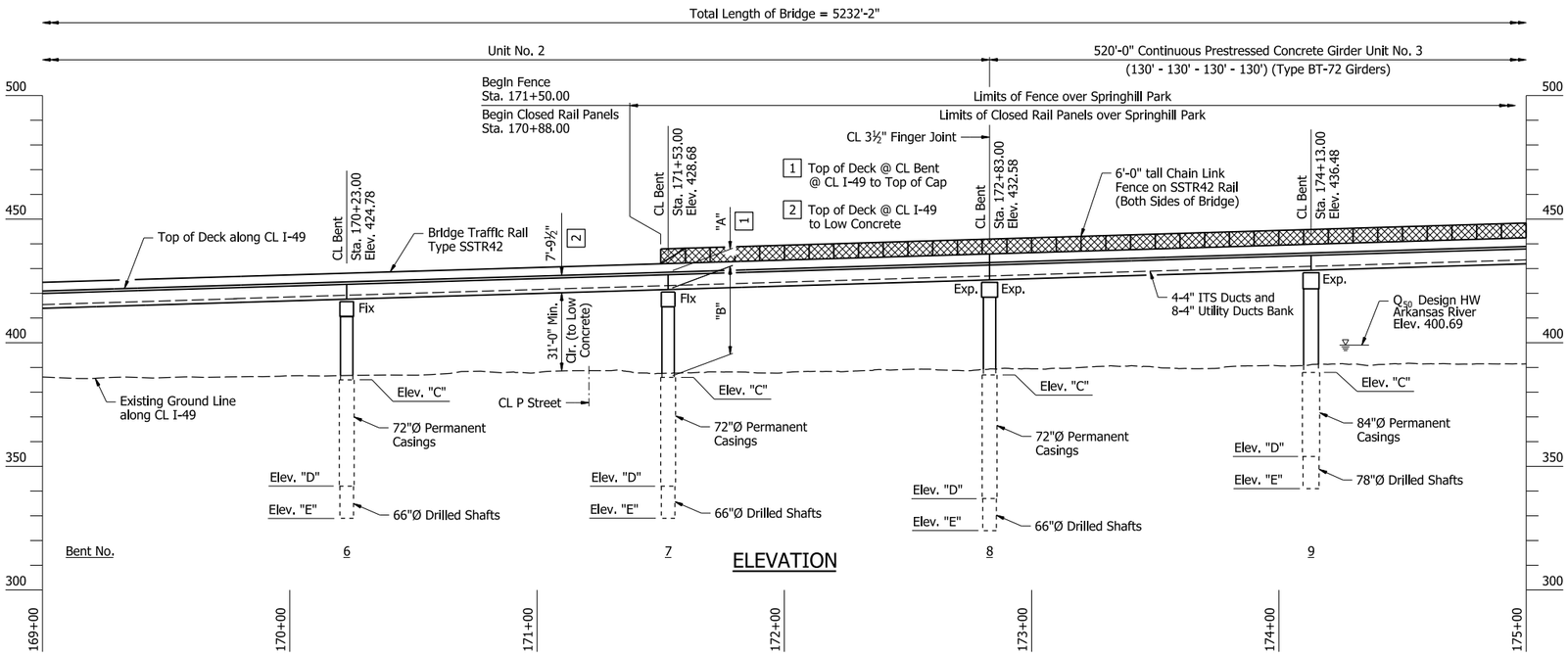
For "DETAILS OF DECK DRAINAGE", see Dwg. Nos. 67707 thru 67711.

VESSEL COLLISION FORCES

BENT NO.	FORCES (KIPS)	ELEVATION (FEET)
13-15	3100	380.00

DRIFT BARGE COLLISION FORCES

BENT NO.	FORCES (KIPS)	ELEVATION (FEET)
6-11 & 19-32	300	413.00
12-16	1410	413.00
17-18	600	413.00

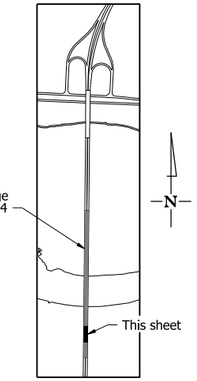


ELEVATION

Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.

TABLE OF VARIABLES

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 6	8'-4¼"	31'-5⅛"	385.00	342.00	329.00
Bent No. 7	8'-4¼"	34'-4"	386.00	342.00	329.00
Bent No. 8	8'-10"	36'-9"	387.00	337.00	324.00
Bent No. 9	8'-7⅛"	39'-10⅝"	388.00	354.00	341.00



SITE PLAN
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 10
LAYOUT OF BRIDGE
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

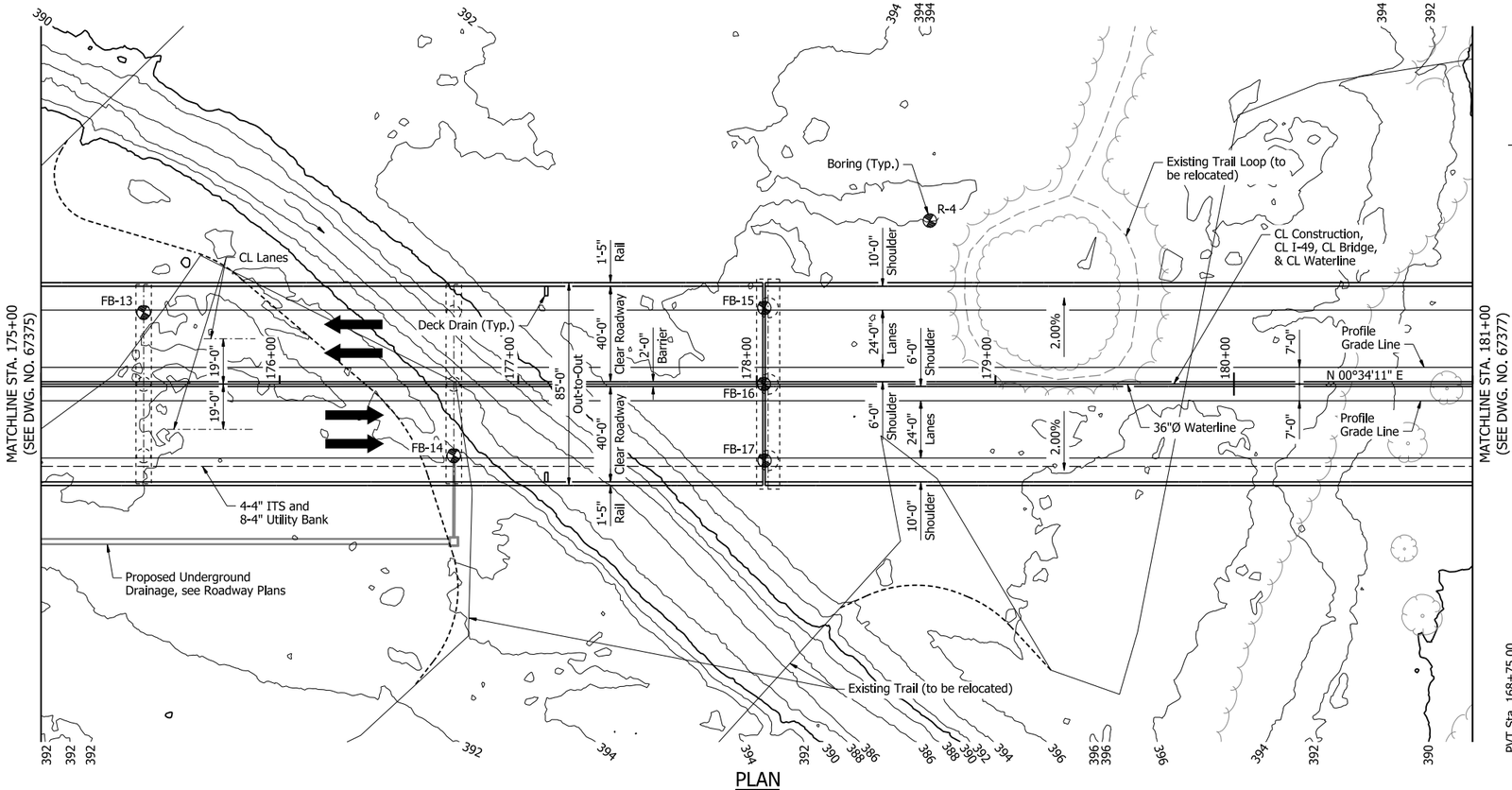
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DESIGNED BY: NAM DATE: 5/15/22

BRIDGE NO. 07684 DRAWING NO. 67375

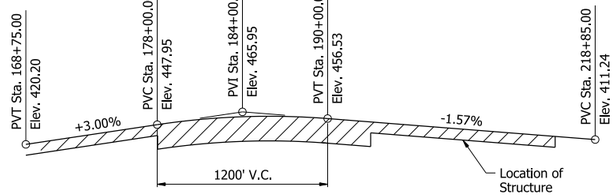
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	316	809
		07684 - BRIDGE LAYOUTS - 67376				

For R/W Data, See Roadway Plans.



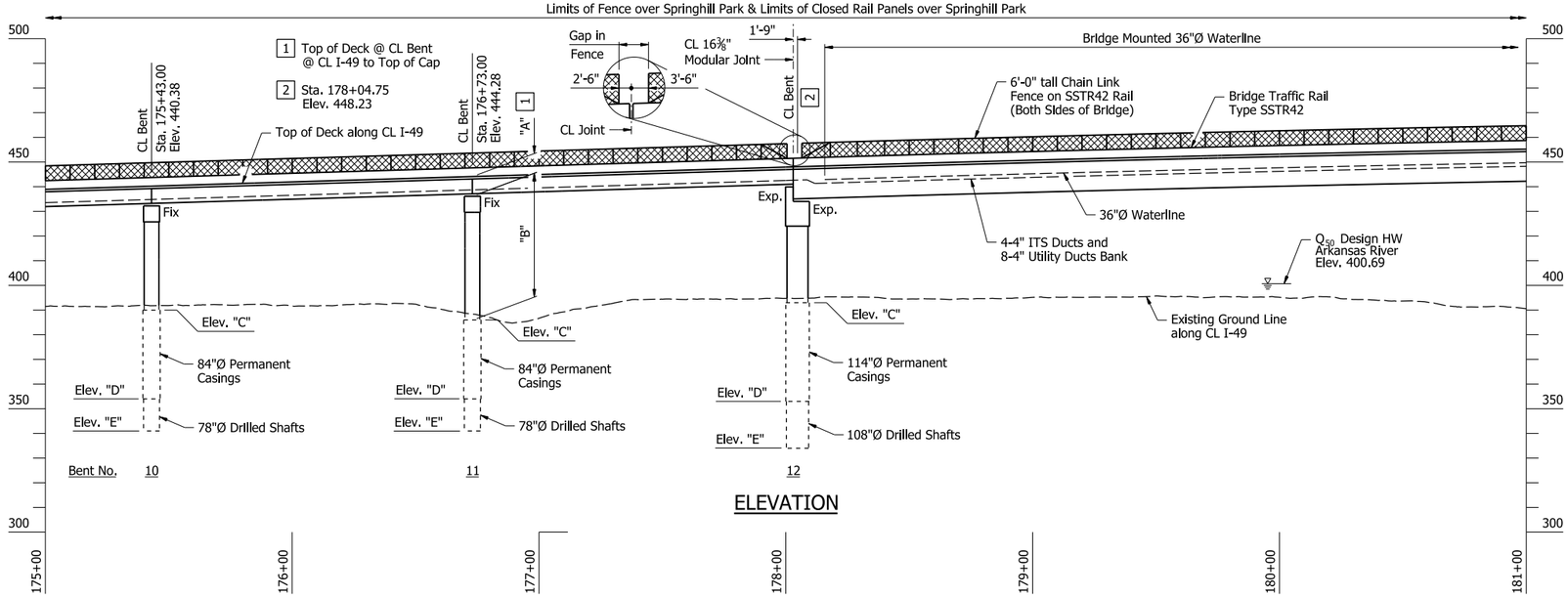
PLAN



VERTICAL ALIGNMENT DATA

(Stations are along CL I-49, Elevations are along Profile Grade Line)

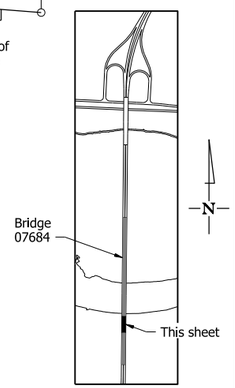
Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.



ELEVATION

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 10	8'-4½"	42'-0⅛"	390.00	354.00	341.00
Bent No. 11	8'-4½"	49'-10⅞"	386.00	354.00	341.00
Bent No. 12	15'-0⅜"	40'-2⅜"	393.00	352.00	329.50

TABLE OF VARIABLES



SITE PLAN

No Scale

Notes:
For General Notes, see Dwg. No. 67372.

All bents are normal to CL I-49.

For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

For details of 36"Ø Waterline, see "DETAILS OF INSPECTION ACCESS AND WATERLINE SUPPORTS" and Waterline Plans.

For "DETAILS OF DECK DRAINAGE", see Dwg. Nos. 67707 thru 67711.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 3 OF 10
LAYOUT OF BRIDGE
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

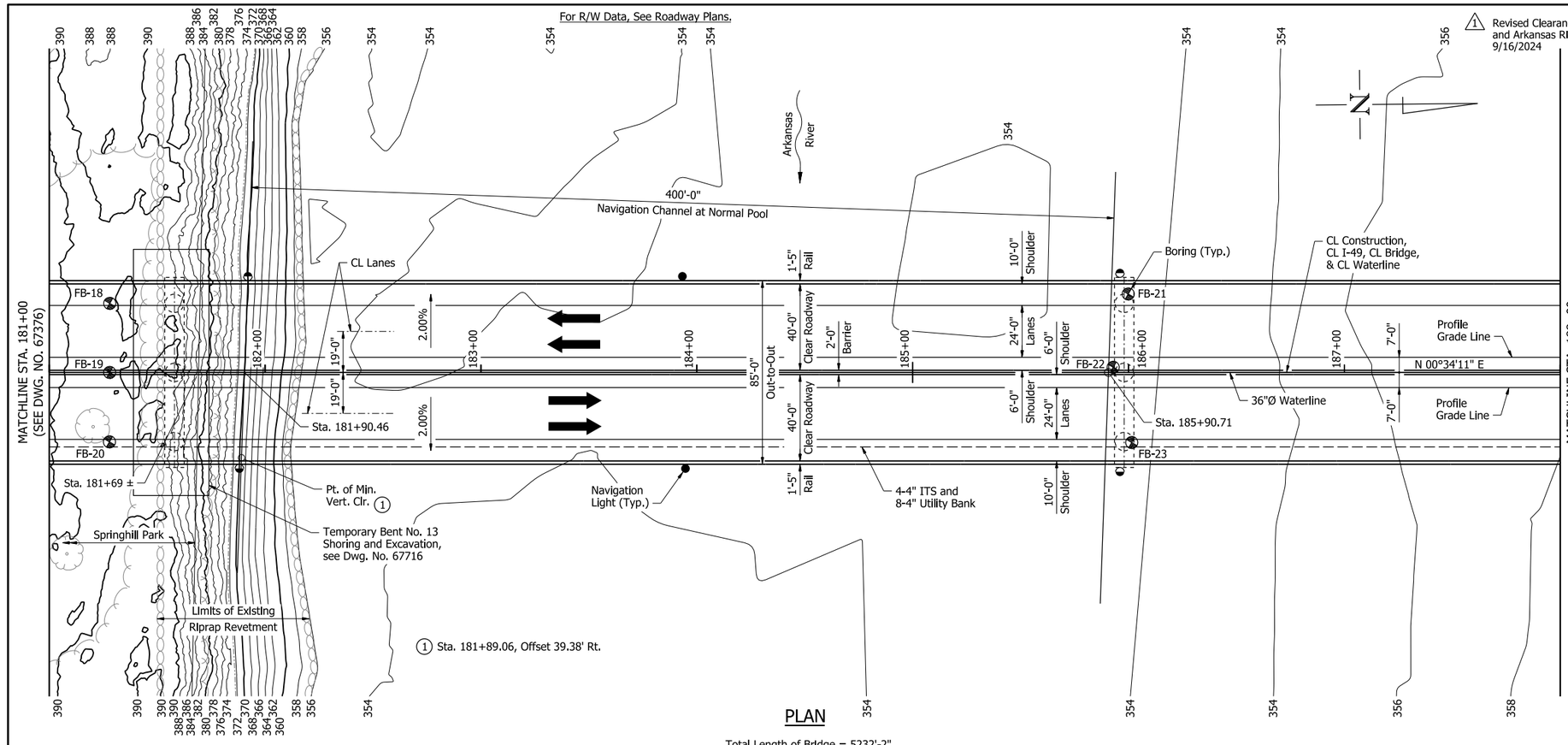
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DESIGNED BY: NAM DATE: 5/15/22
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SCALE: 1" = 30'-0"

BRIDGE NO. 07684 DRAWING NO. 67376

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/16/2024		6	ARK.	040901	317	809
		07684 - BRIDGE LAYOUTS - 67377				

1 Revised Clearance Envelope and Arkansas River Elevations. 9/16/2024

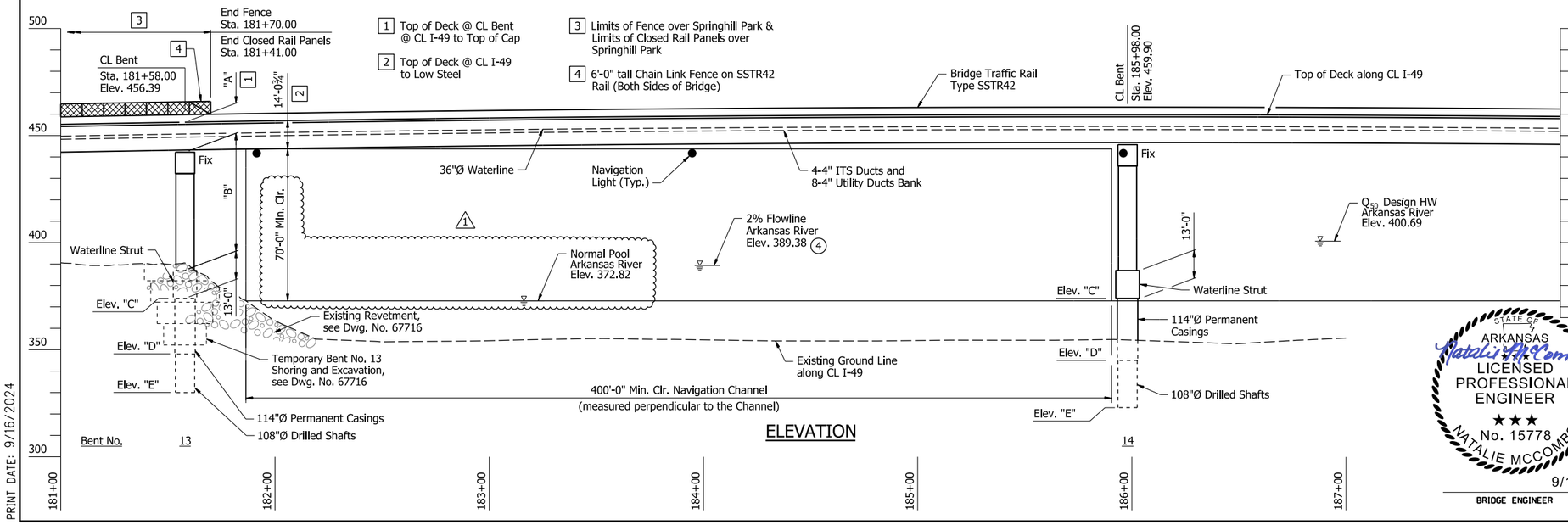


PLAN

Total Length of Bridge = 5232'-2"

Unit No. 4

Bridge Mounted 36"Ø Waterline



ELEVATION

Notes:
For General Notes, see Dwg. No. 67372.

All bents are normal to CL I-49.

For details of Navigation Lighting, see Illumination Plans.

For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

For details of 36"Ø Waterline, see "DETAILS OF INSPECTION ACCESS AND WATERLINE SUPPORTS" and Waterline Plans.

1 Elevations shown are based on the NAVD88 datum.

Datum difference: NAVD88 - 0.32' = NGVD29

HYDRAULIC DATA

FLOOD DESCRIPTION	FREQUENCY	(3) TOTAL DISCHARGE	DISCHARGE BRIDGE 07684	(2) NATURAL WATER SURFACE ELEVATION	WATER SURFACE ELEV. WITH BACKWATER
	YEARS	CFS	CFS	FEET	FEET
Design	50	415,000	394,364	401.34	401.36
Base	100	480,000	453,722	403.37	403.37
Extreme	500	600,000	565,525	405.38	405.39
Overtopping	>500	615,000	579,313	405.83	405.85

(2) Unconstricted water surface without structure or roadway approaches.

(3) The total discharge includes flow at this site and at Bridge 07685 (Flat Rock Creek relief bridge).

(4) Based on hydraulic analysis for the final bridge design.

Q100 backwater elevation for existing structure = N/A, no existing structure

Proposed Bridge Low Chord Elevation = 403.71 feet at Station 163+76.67

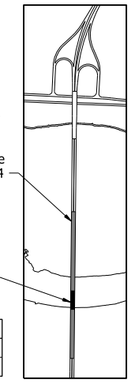
Drainage Area = 151,000 square miles.

Historical H.W. Elev. = 406.96 feet (from upstream USGS stream gage 07250550 on June 1, 2019 with a discharge of 570,000 cfs)

Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.

TABLE OF VARIABLES

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 13	15'-4¼"	67'-0½"	374.00	348.00	321.00
Bent No. 14	15'-4¼"	70'-6⅝"	374.00	345.00	318.00



SITE PLAN

No Scale

STATE OF ARKANSAS
Natalie McCombs
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
9/16/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 4 OF 10
LAYOUT OF BRIDGE
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 6/14/22
CHECKED BY: CPS DATE: 12/7/23
DESIGNED BY: NAM DATE: 5/15/22
FILENAME: b04090111_l4.dgn
SCALE: 1" = 30'-0"

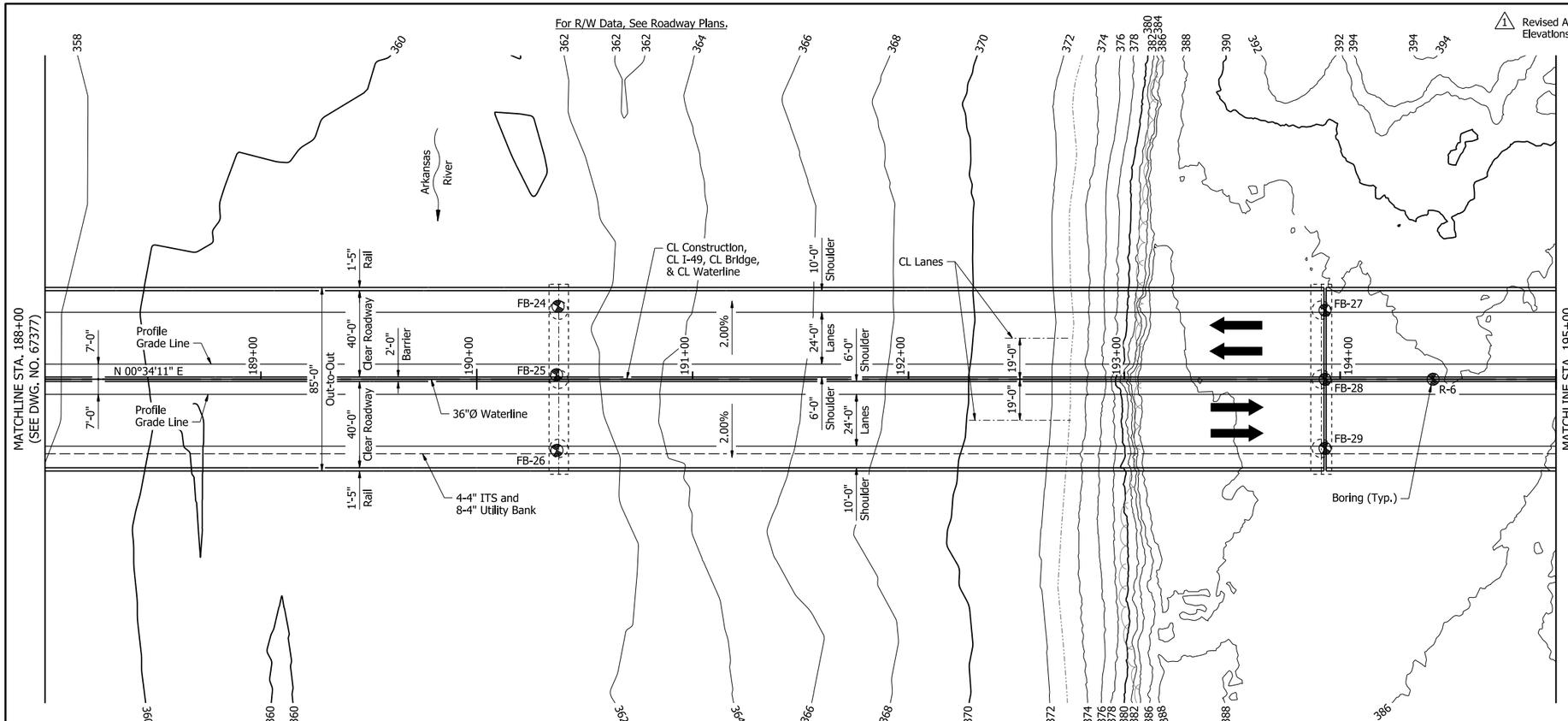
BRIDGE NO. 07684 DRAWING NO. 67377

PRINT DATE: 9/16/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
9/16/2024		6	ARK.	040901	318	809
		07684 - BRIDGE LAYOUTS - 67378				

1 Revised Arkansas River Elevations. 9/16/2024

For R/W Data, See Roadway Plans.



PLAN

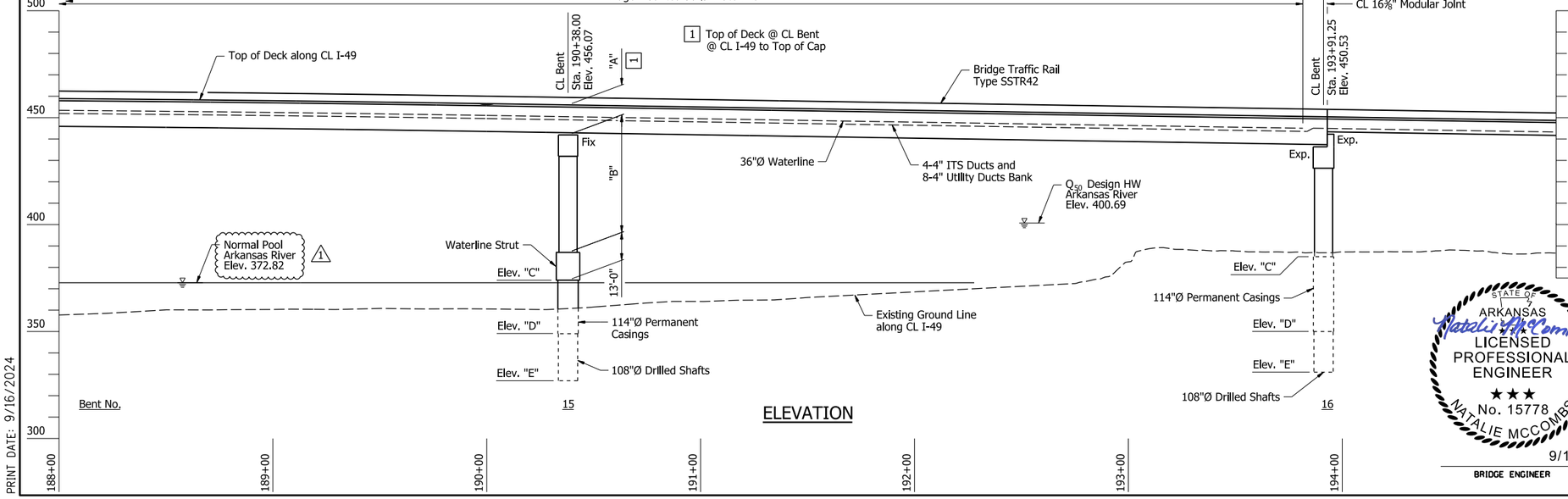
Total Length of Bridge = 5232'-2"

Unit No. 4 | Unit No. 5

1'-9"

CL 16⅜" Modular Joint

Bridge Mounted 36"Ø Waterline



ELEVATION

Notes:
For General Notes, see Dwg. No. 67372.

All bents are normal to CL I-49.

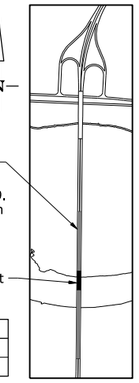
For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

For details of 36"Ø Waterline, see "DETAILS OF INSPECTION ACCESS AND WATERLINE SUPPORTS" and Waterline Plans.

Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.

TABLE OF VARIABLES

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 15	15'-4⅛"	66'-8¾"	374.00	349.00	322.00
Bent No. 16	15'-0⅝"	50'-5¾"	385.00	349.00	326.50



SITE PLAN
No Scale

STATE OF ARKANSAS
Natalie McCombs
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
9/16/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 5 OF 10
LAYOUT OF BRIDGE
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY:	CTK	DATE:	6/14/22
CHECKED BY:	CPS	DATE:	12/7/23
DESIGNED BY:	NAM	DATE:	5/15/22

FILENAME: b04090111_I5.dgn
SCALE: 1" = 30'-0"

BRIDGE NO. 07684 DRAWING NO. 67378

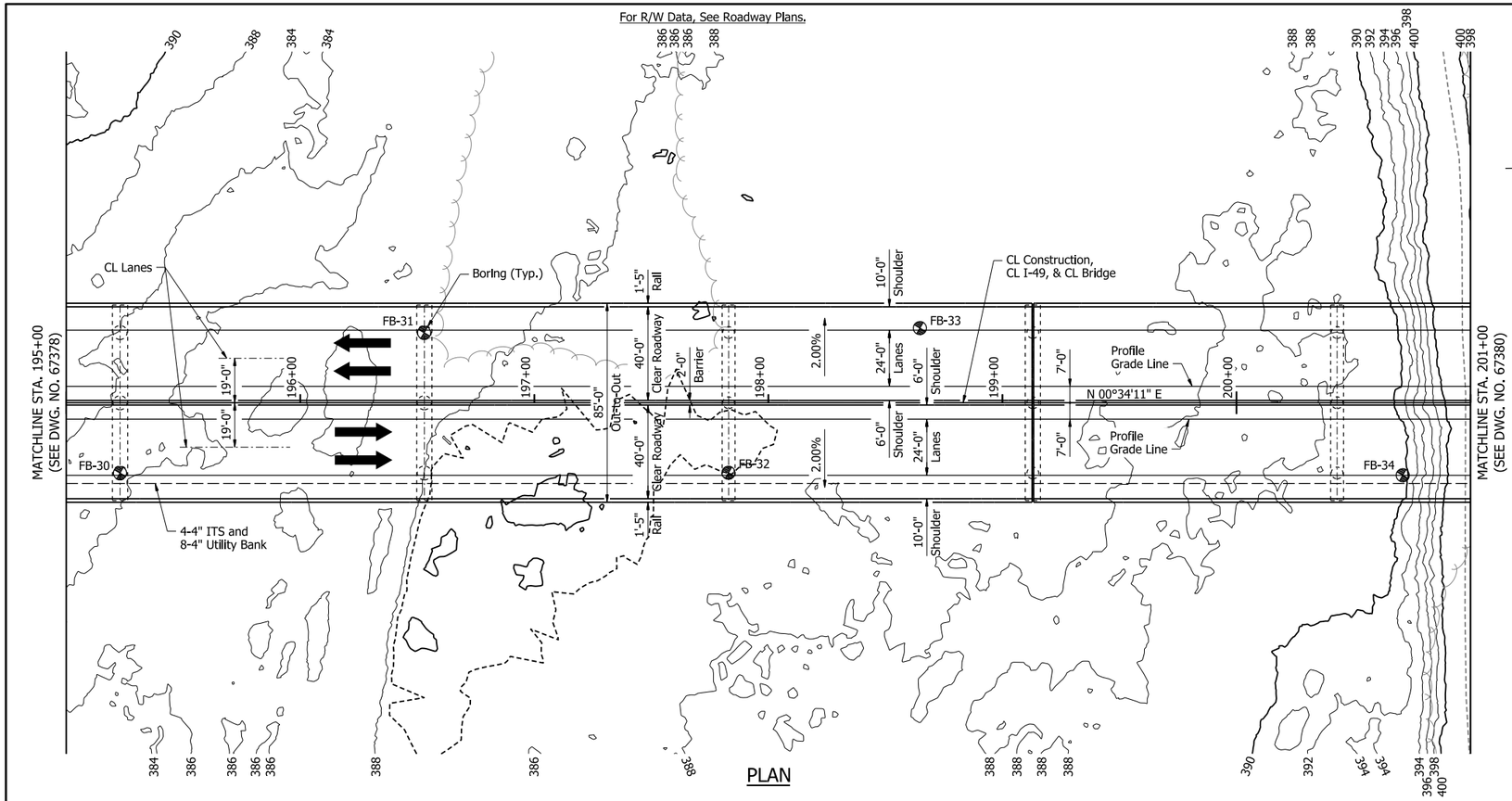
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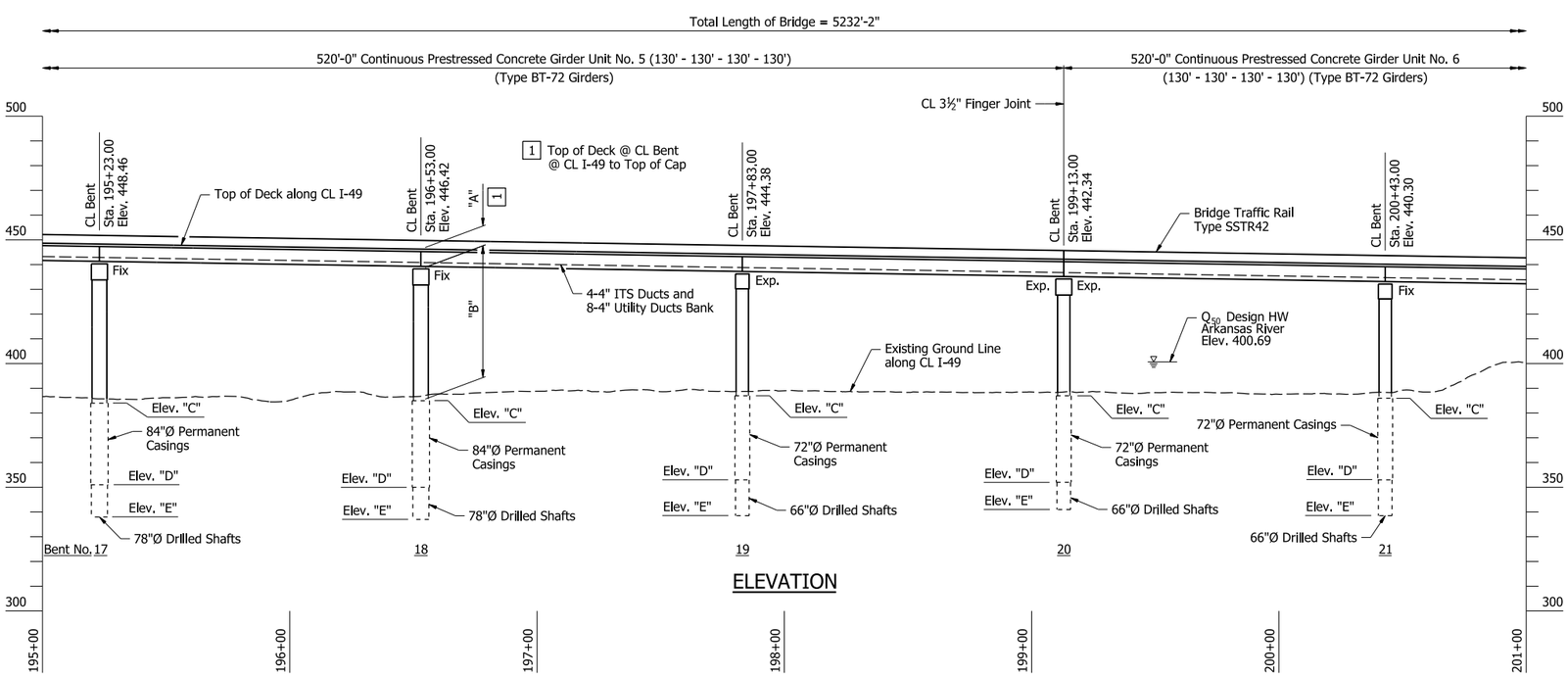
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	319	809
		07684 - BRIDGE LAYOUTS - 67379				

Notes:
For General Notes, see Dwg. No. 67372.

All bents are normal to CL I-49.

For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

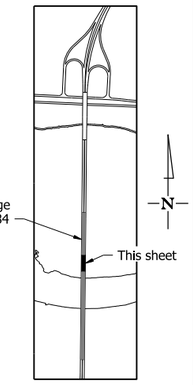




Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.

TABLE OF VARIABLES

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 17	8'-3⅞"	56'-1⅝"	384.00	352.00	334.50
Bent No. 18	8'-4⅛"	53'-1"	385.00	351.00	333.50
Bent No. 19	8'-6¾"	48'-9⅞"	387.00	353.00	338.50
Bent No. 20	8'-10"	46'-6⅛"	387.00	352.00	337.50
Bent No. 21	8'-5"	45'-10½"	386.00	353.00	338.50



SITE PLAN
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 6 OF 10
LAYOUT OF BRIDGE
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

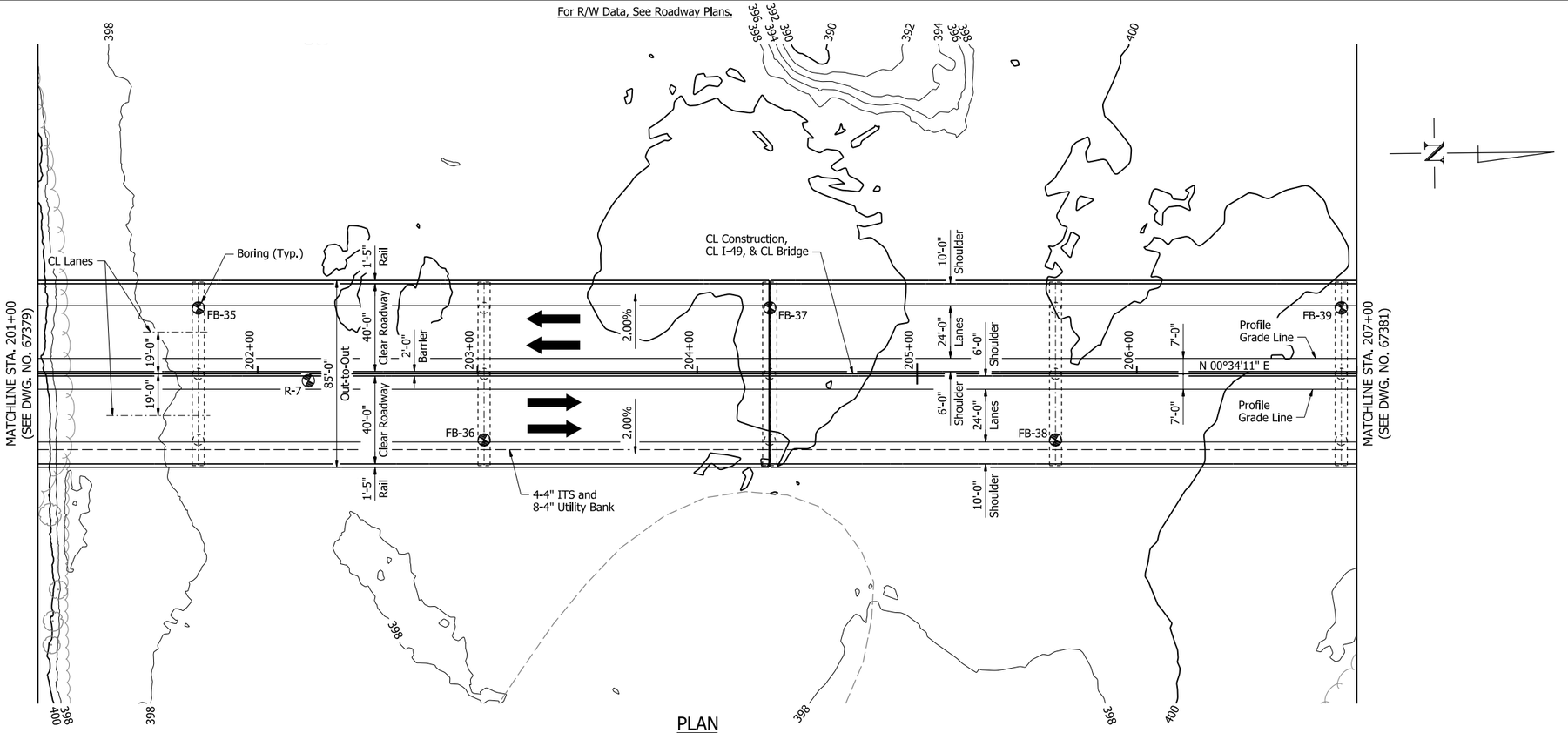
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BRIDGE NO. 07684 DRAWING NO. 67379

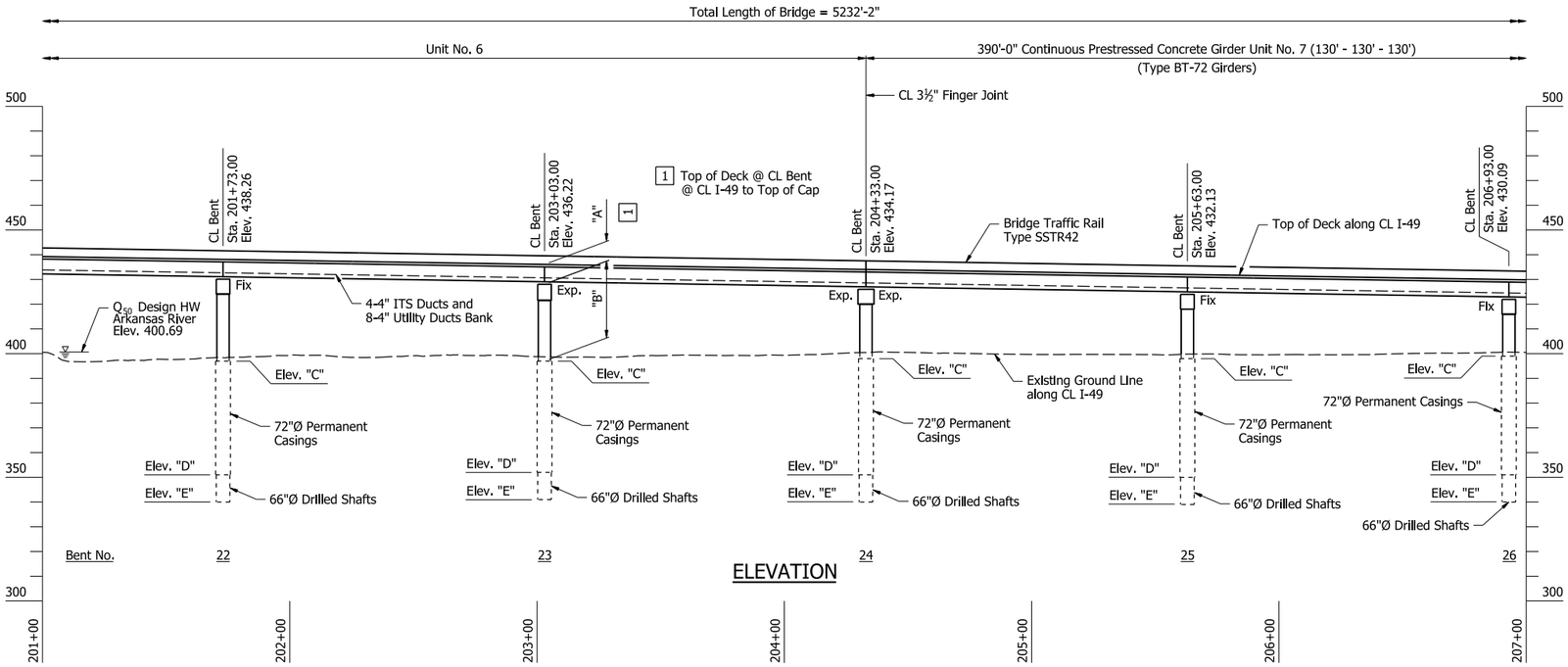
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DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	320	809
		07684 - BRIDGE LAYOUTS - 67380				

For R/W Data, See Roadway Plans.



PLAN



ELEVATION

PRINT DATE: 4/10/2024

Notes:
For General Notes, see Dwg. No. 67372.

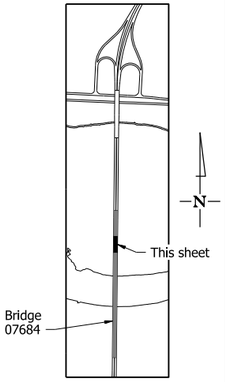
All bents are normal to CL I-49.

For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.

TABLE OF VARIABLES

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 22	8'-4⅛"	32'-11"	397.00	351.00	340.00
Bent No. 23	8'-6¾"	30'-7⅞"	397.00	352.00	341.00
Bent No. 24	8'-9⅛"	27'-4⅞"	398.00	351.00	340.00
Bent No. 25	8'-5⅝"	25'-8⅜"	398.00	350.00	339.00
Bent No. 26	8'-5⅛"	22'-7⅞"	399.00	351.00	340.00



SITE PLAN
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 7 OF 10
LAYOUT OF BRIDGE
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 6/14/22
CHECKED BY: CPS DATE: 12/7/23
DESIGNED BY: NAM DATE: 5/15/22
FILENAME: b04090111_l7.dgn
SCALE: 1" = 30'-0"

BRIDGE NO. 07684 DRAWING NO. 67380

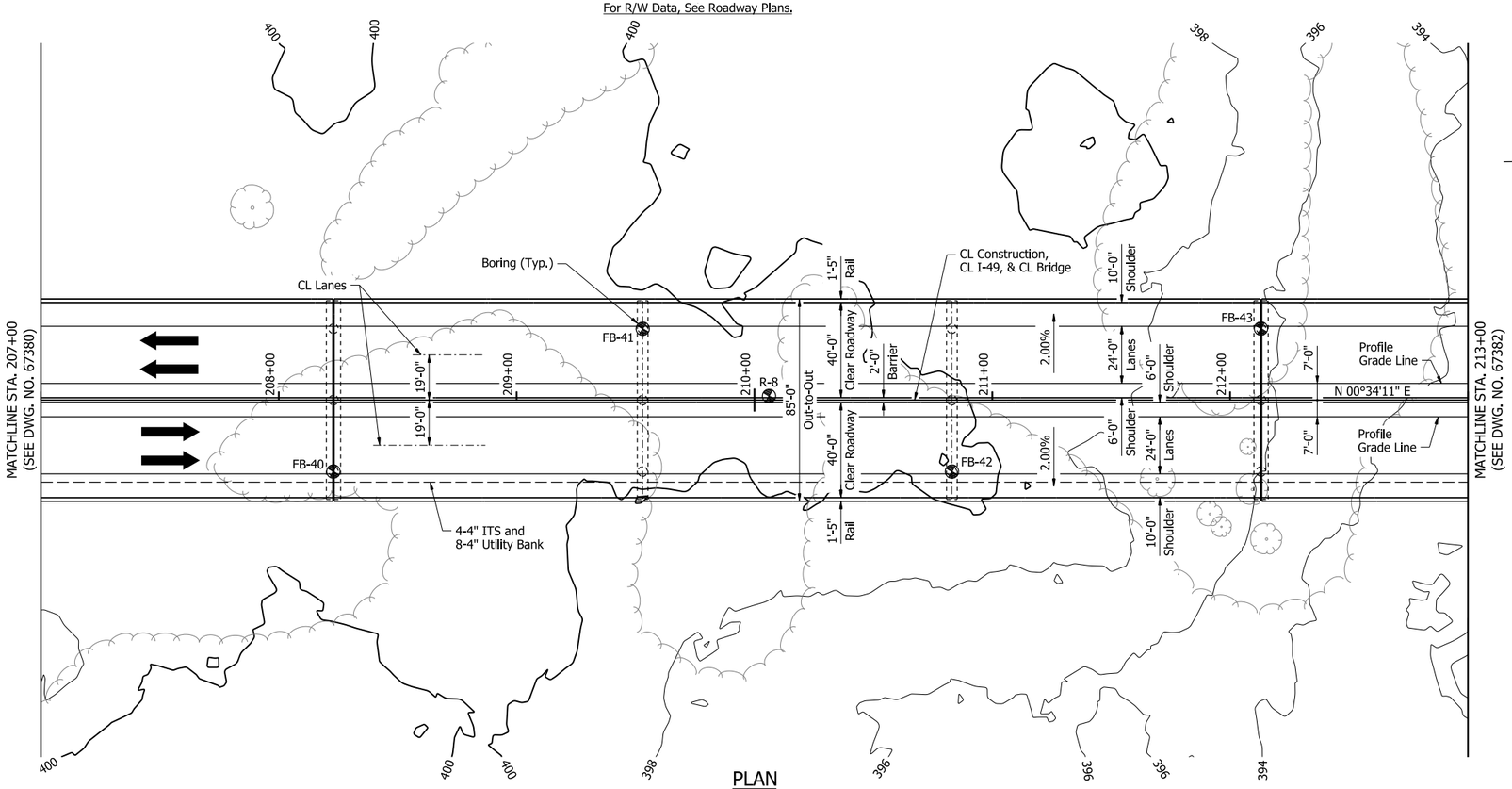
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	321	809
		07684 - BRIDGE LAYOUTS - 67381				

Notes:
For General Notes, see Dwg. No. 67372.

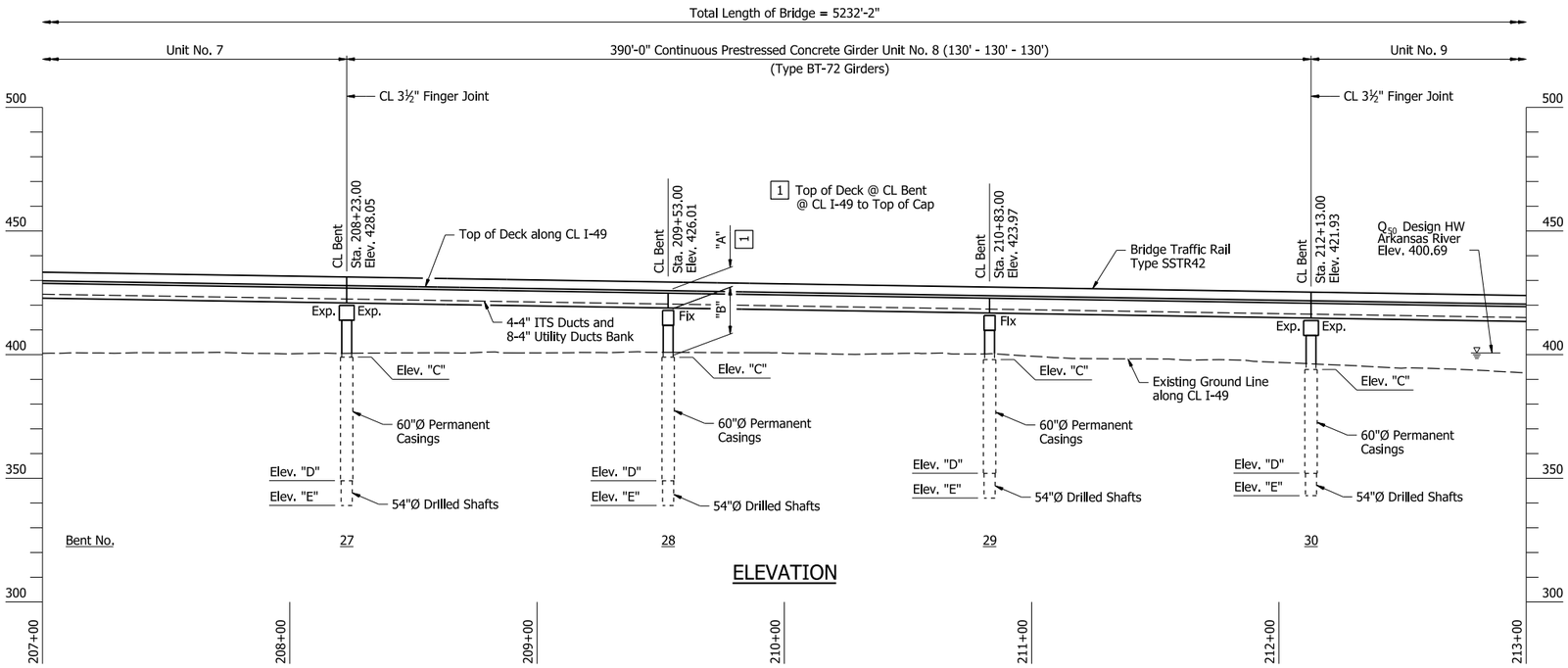
All bents are normal to CL I-49.

For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

For R/W Data, See Roadway Plans.



PLAN

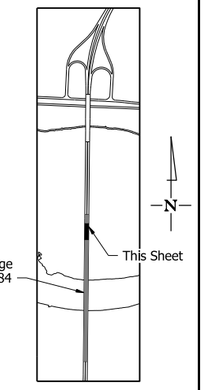


ELEVATION

Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.

TABLE OF VARIABLES

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 27	8'-9¾"	20'-2⅞"	399.00	349.00	339.00
Bent No. 28	8'-5½"	18'-6⅜"	399.00	349.00	339.00
Bent No. 29	8'-5¼"	17'-6⅜"	398.00	352.00	342.00
Bent No. 30	8'-10⅛"	19'-1⅛"	394.00	352.00	343.00



SITE PLAN
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 8 OF 10
LAYOUT OF BRIDGE
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

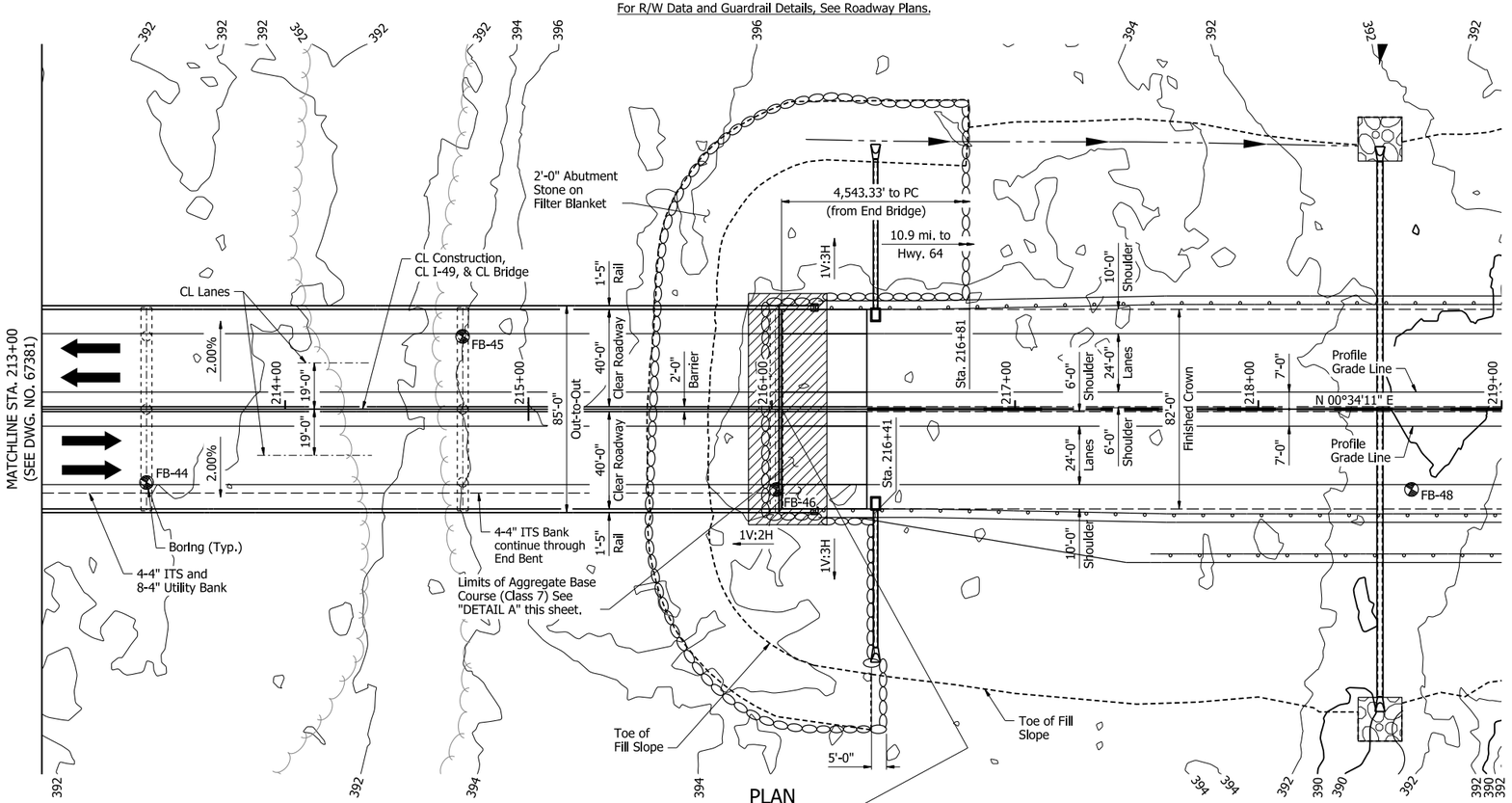
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DESIGNED BY: NAM DATE: 5/15/22
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SCALE: 1" = 30'-0"

BRIDGE NO. 07684 DRAWING NO. 67381

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	322	809
		07684 - BRIDGE LAYOUTS - 67382				

For R/W Data and Guardrail Details, See Roadway Plans.



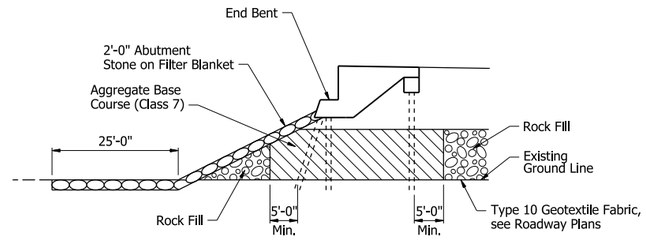
PLAN

Notes:
Use Type F Approach Gutters & Type F Approach Slab at end of bridge.

For General Notes, see Dwg. No. 67372.

All bents are normal to CL I-49.

For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

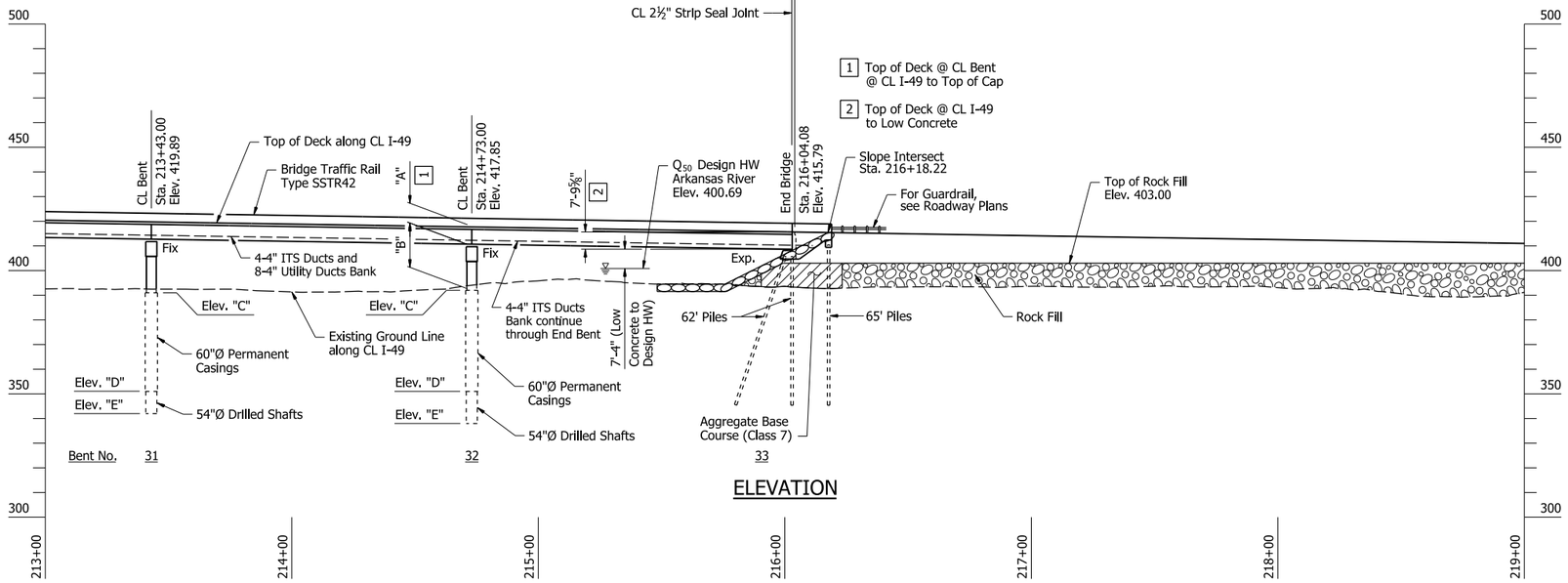


Where rock fill is used for embankment construction, aggregate base course (Class 7), in accordance with Section 303.02, shall be placed as shown in areas where piling will be located. Aggregate base course (Class 7) shall be paid for as "Rock Fill".

At the Contractor's option, preboring or other methods as approved by the Engineer may be used to facilitate pile installation thru the aggregate base course (Class 7) material at these locations. Preboring or other methods used for installation of piles where rock fill is used for embankment construction will not be paid for separately, but shall be included in item "Steel Piling".

DETAIL A

No Scale

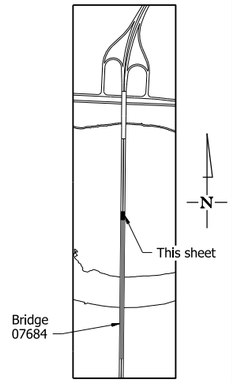


ELEVATION

Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.

TABLE OF VARIABLES

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 31	8'-5¼"	20'-5⅜"	391.00	351.00	342.00
Bent No. 32	8'-5¼"	17'-4⅞"	392.00	351.00	338.00



SITE PLAN

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 9 OF 10
LAYOUT OF BRIDGE
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 6/14/22
CHECKED BY: CPS DATE: 12/7/23
DESIGNED BY: NAM DATE: 5/15/22
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SCALE: 1" = 30'-0"

BRIDGE NO. 07684 DRAWING NO. 67382

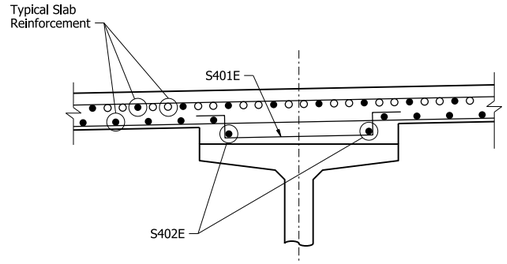
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	323	809
		07684 - BRIDGE LAYOUTS - 67383				

GENERAL NOTES

GENERAL NOTES: For project specific general notes, see Dwg. Nos. 67372 and 67373

DETAIL DRAWINGS:	DRAWING NO(S).
Schedule of Bridge Quantities	67366 - 67367
General Notes	67372 - 67373
Layout of Bridge	67374 - 67383
Elevation of Soil Borings	67384 - 67391
End Bents 1 & 33	67392 - 67397
Bent No. 2	67398 - 67399
Bent No. 3	67400 - 67401
Bent Nos. 4, 27, & 30	67402 - 67403
Bent Nos. 5, 19, & 23	67404 - 67405
Bent Nos. 6, 7, 21, 22, 25, & 26	67406 - 67407
Bent Nos. 8, 20, & 24	67408 - 67409
Bent No. 9	67410 - 67411
Bent Nos. 10 & 11	67412 - 67413
Bent Nos. 12 & 16	67414 - 67419
Bent Nos. 13, 14, & 15	67420 - 67424
Bent Nos. 17 & 18	67425 - 67426
Bent Nos. 28, 29, 31, & 32	67427 - 67428
390'-0" Continuous Prestressed Concrete Girder Units 1, 7, 8, & 9	67429 - 67436
520'-0" Continuous Prestressed Concrete Girder Units 2, 3, 5, & 6	67437 - 67449
1590'-0" Continuous Plate Girder Unit 4	67450 - 67464
Inspection Access and Waterline Supports	67465 - 67471
ITS and Utility Bank Supports	67672 - 67677 & 67684 - 67685
Bridge Traffic Rail Type SSTR42	67686 - 67688
Median Barrier	67689
Sections Near Joints	67690
Armored Joint with Neoprene Strip Seal	67692
Finger Joints	67694 - 67695
Modular Joints	67698 - 67699
Elastomeric Bearings	67702 - 67703
HMLR Bearings	67706
Deck Drainage	67707 - 67711
Bridge Approaches	67712
Revetment at Bent No. 13	67716
Navigation Clearance Gauge	67717
Dumped Riprap and Filter Blanket	55001
Permanent Steel Deck Forms	55005
General Notes for Steel Bridge Structures	55006
Details For Steel Bridge Structures	55007
Type D Name Plate	55010
Standard Details for Chain Link Fence	55018
Steel H-Piling	55020
Type F Approach Gutters	55030F
Type F Approach Slabs	55040F1
Bridge Traffic Rail Type SSTR42	55071



HAUNCH REINFORCMENT DETAIL

Scale: ¾" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 10 OF 10
LAYOUT OF BRIDGE
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

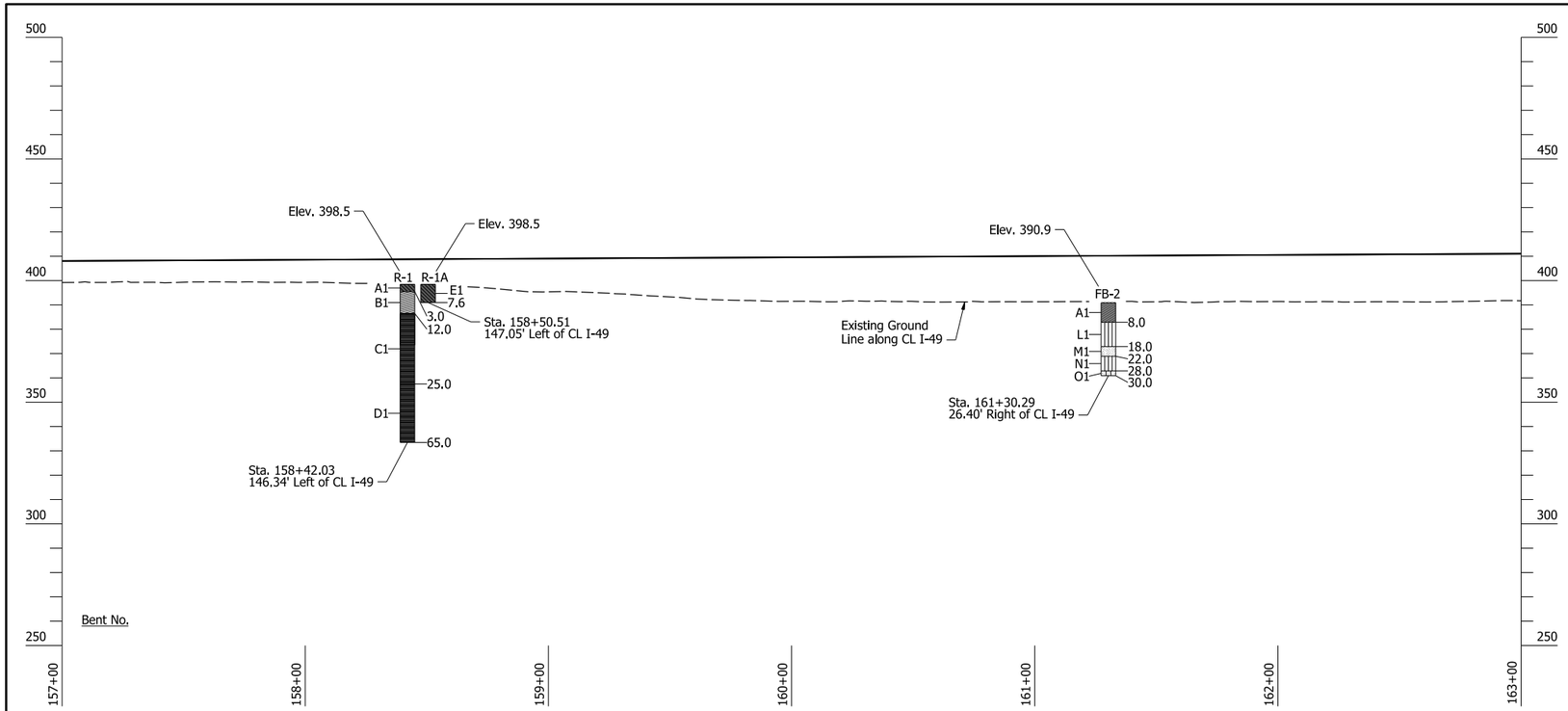
LITTLE ROCK, ARK.

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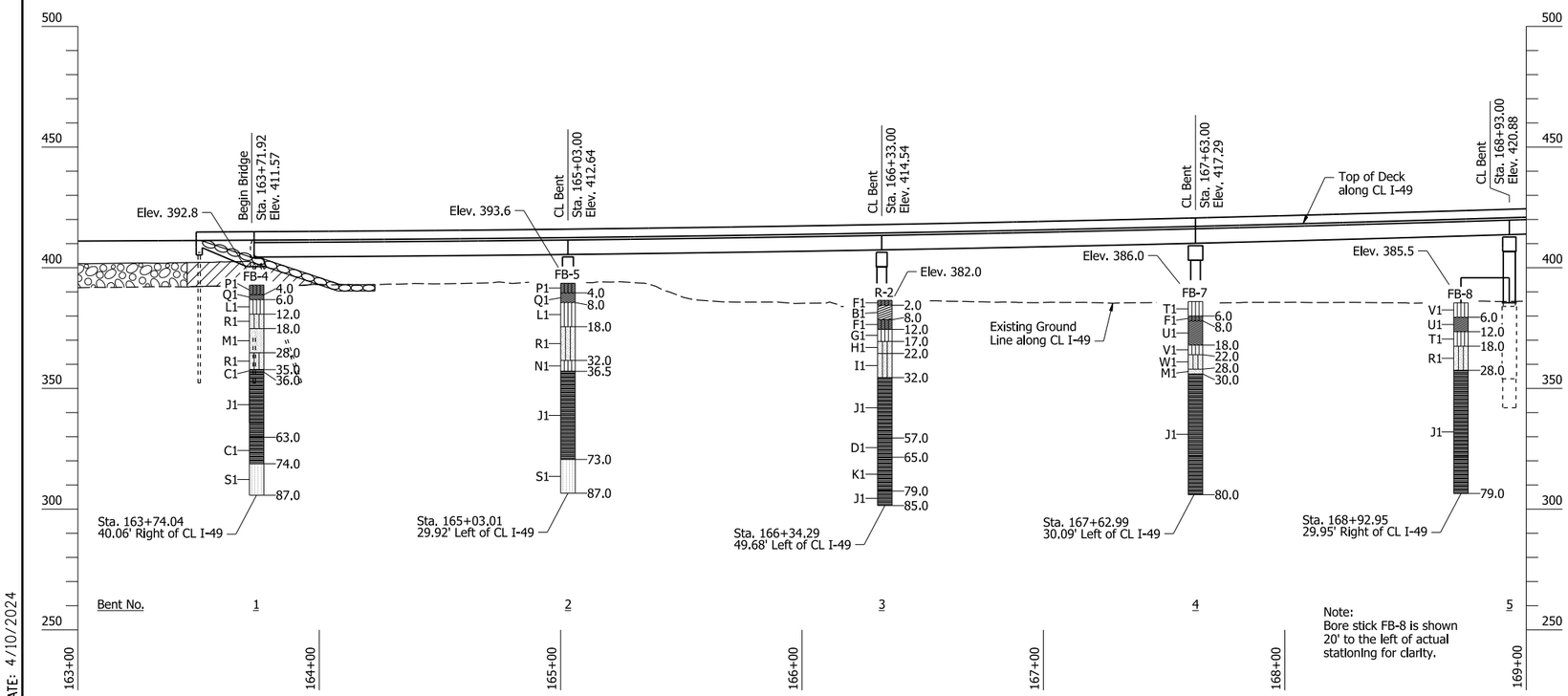
BRIDGE NO. 07684 DRAWING NO. 67383

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	324	809
		07684 - BRIDGE LAYOUTS - 67384				



ELEVATION OF SOIL BORINGS



ELEVATION OF SOIL BORINGS

Note:
Bore stick FB-8 is shown 20' to the left of actual stationing for clarity.

"N" VALUES

FB-2 - Sta. 161+30.29, 26.40' Right of CL I-49

0.5-1.5	N=5
4.5-5.5	N=7
6.5-7.5	N=6
9.0-10.0	N=5
14.0-15.0	N=4
19.0-20.0	N=9
24.0-25.0	N=13
29.0-30.0	N=50/10"

FB-4 - Sta. 163+74.04, 40.06' Right of CL I-49

0.5-1.5	N=5
2.5-3.5	N=4
6.5-7.5	N=5
9.0-10.0	N=6
14.0-15.0	N=12
19.0-20.0	N=7
24.0-25.0	N=17
29.0-30.0	N=25
34.0-35.0	N=19
35.0-36.0	N=50/2"

FB-5 - Sta. 165+03.01, 29.92' Left of CL I-49

0.5-1.5	N=4
2.5-3.5	N=6
4.5-5.5	N=7
9.0-10.0	N=9
14.0-15.0	N=5
19.0-20.0	N=15
24.0-25.0	N=22
29.0-30.0	N=37
34.0-35.0	N=10
36.0-37.0	N=50/1"

FB-7 - Sta. 167+62.99, 30.09' Left of CL I-49

0.5-1.5	N=WOH
2.5-3.5	N=WOH
4.5-5.5	N=WOH
6.5-7.5	N=4
9.0-10.0	N=4
14.0-15.0	N=WOH
19.0-20.0	N=2
24.0-25.0	N=6
29.0-30.0	N=13

FB-8 - Sta. 168+92.95, 29.95' Right of CL I-49

0.5-1.5	N=WOH
2.5-3.5	N=WOH
4.5-5.5	N=3
6.5-7.5	N=4
14.0-15.0	N=2
19.0-20.0	N=11
24.0-25.0	N=3
28.0-29.0	N=50/4"

R-1 - Sta. 158+42.03, 146.34' Left of CL I-49

0.5-1.5	N=3
2.5-3.5	N=6
4.5-5.5	N=6
6.5-7.5	N=11
9.0-10.0	N=11
14.0-15.0	N=50/6"

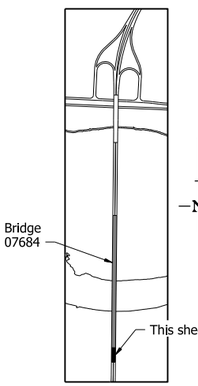
R-1A - Sta. 158+50.51, 147.05' Left of CL I-49

R-2 - Sta. 166+34.29, 49.68' Left of CL I-49

0.5-1.5	N=2
2.5-3.5	N=2
4.5-5.5	N=3
6.5-7.5	N=3
9.0-10.0	N=3
14.0-15.0	N=4
19.0-20.0	N=4
24.0-25.0	N=37
29.0-30.0	N=43
34.0-35.0	N=50/1.5"

BORING LEGEND

A1 - CL-Very soft to soft brown to reddish brown silty clay
B1 - CH-Very soft to soft reddish brown and gray clay
C1 - SHALE-Moderately hard dark gray slightly weathered and weathered shale
D1 - SHALE-Moderately hard to hard dark gray shale w/occasional fine-grained sandstone inclusions and partings
E1 - CL-Firm to stiff reddish brown clay
F1 - CL-ML-Very soft brown and reddish tan clayey silt and silty clay
G1 - ML-Very loose to loose reddish tan fine sandy silt
H1 - SM-Very loose to loose reddish tan silty fine sand
I1 - SM-Dense tannish gray fine to medium sand w/little fine gravel
J1 - SHALE-Moderately hard dark gray shale w/occasional gray fine-grained sandstone partings
K1 - SHALE-Hard dark gray shale w/interbedded very thin gray fine-grained sandstone partings
L1 - ML-Loose reddish tan silt
M1 - SP-Loose tan and reddish fine to medium sand
N1 - ML-Medium dense reddish tan fine sandy silt
O1 - SM-Dense to very dense grayish tan silty fine sand
P1 - CL-ML-Soft brown and reddish brown clayey silt
Q1 - CL-Firm reddish brown silty clay
R1 - SM-Medium dense tan silty fine sand
S1 - SANDSTONE-Moderately hard light gray fine-grained sandstone w/interbedded very close, very thin, dark gray shale partings
T1 - ML-Very loose brown clayey silt
U1 - CL-Very soft brown silty clay
V1 - ML-Very loose brown fine sandy silt w/trace clay
W1 - SM-Very loose gray silty fine to medium sand



SITE PLAN
No Scale

Note:
Soil descriptions have been condense for the purposes of this drawing.

See Final Geotechnical Report for additional information on individual borings.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MICHAEL J. L. DESTIGTER
No. 21612
04/17/2024
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 1 OF 8
ELEVATION OF SOIL BORINGS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

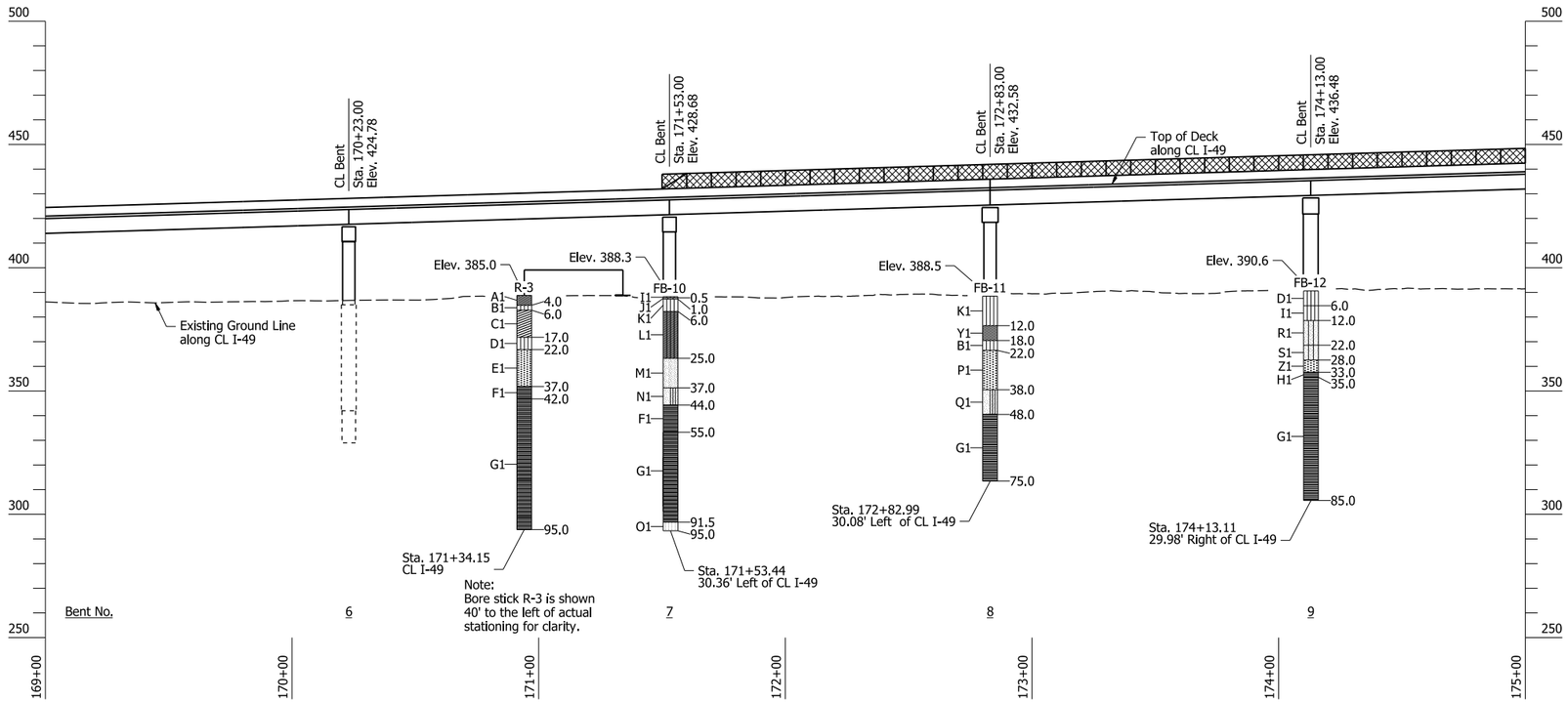
ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

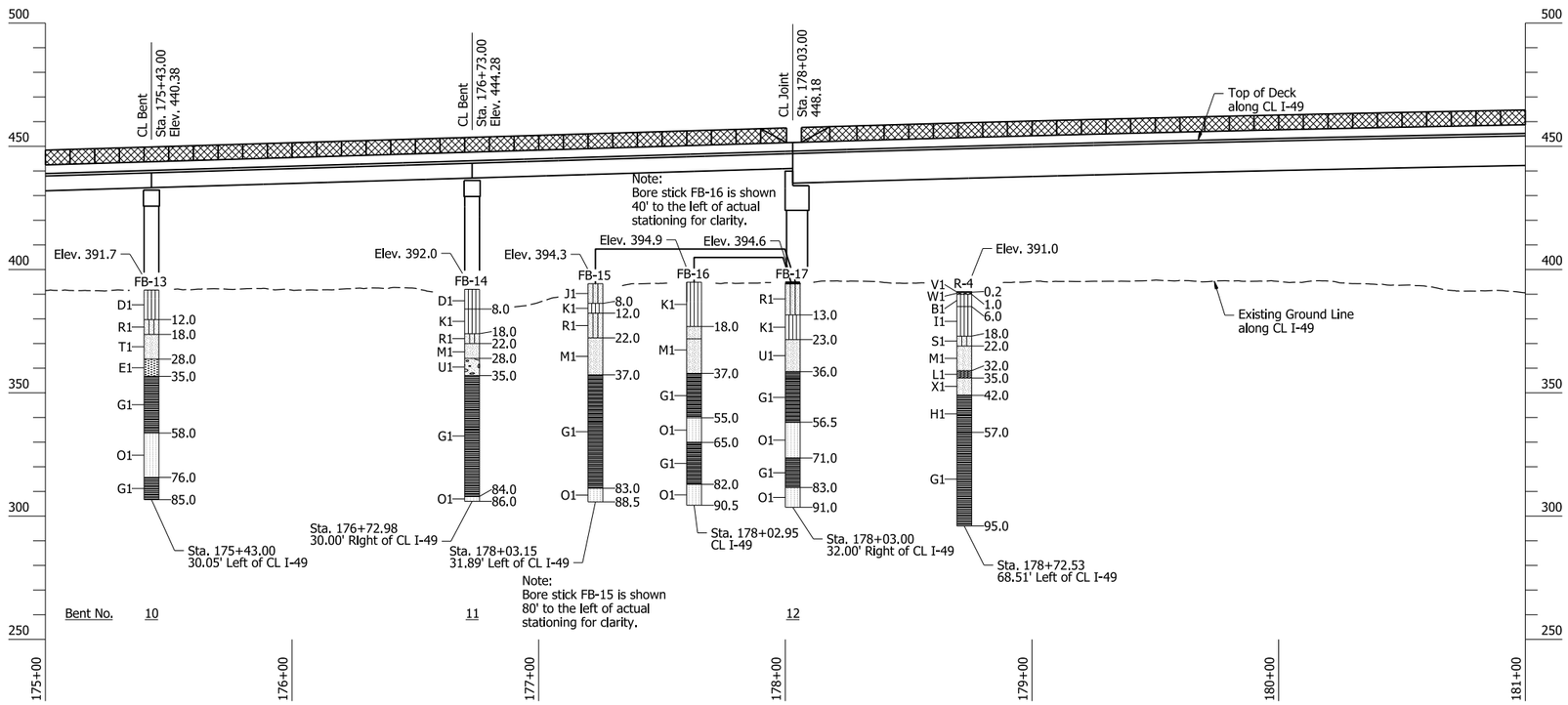
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CHECKED BY: MJLD DATE: 1/10/24
DESIGNED BY: MJLD DATE: 8/15/23
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SCALE: 1" = 30'-0"

BRIDGE NO. 07684 DRAWING NO. 67384

PRINT DATE: 4/10/2024



ELEVATION OF SOIL BORINGS



ELEVATION OF SOIL BORINGS

"N" VALUES

FB-10 - Sta. 171+53.44, 30.36' Left of CL I-49

0.5-1.5	N=2
2.5-3.5	N=6
4.5-5.5	N=4
6.5-7.5	N=6
9.0-10.0	N=7
14.0-15.0	N=5
19.0-20.0	N=19
24.0-25.0	N=23
29.0-30.0	N=58
34.0-35.0	N=40
39.0-40.0	N=44
44.0-45.0	N=50/10"

FB-11 - Sta. 172+88.99, 30.08' Left of CL I-49

0.5-1.5	N=7
2.5-3.5	N=7
4.5-5.5	N=2
6.5-7.5	N=8
9.0-10.0	N=5
14.0-15.0	N=4
19.0-20.0	N=11
24.0-25.0	N=50/10"
29.0-30.0	N=32
34.0-35.0	N=50/11"
39.0-40.0	N=50/6"
44.0-45.0	N=50/3"
49.0-50.0	N=50/2"

FB-12 - Sta. 174+13.11, 29.98' Right of CL I-49

0.5-1.5	N=3
2.5-3.5	N=3
4.5-5.5	N=3
6.5-7.5	N=6
9.0-10.0	N=8
14.0-15.0	N=6
19.0-20.0	N=3
24.0-25.0	N=12
29.0-30.0	N=11
34.5-35.5	N=50/5"

FB-13 - Sta. 175+43.00, 30.05' Left of CL I-49

0.5-1.5	N=2
2.5-3.5	N=2
4.5-5.5	N=2
6.5-7.5	N=10
9.0-10.0	N=6
14.0-15.0	N=6
19.0-20.0	N=2
24.0-25.0	N=7
29.0-30.0	N=9
34.0-35.0	N=42

FB-14 - Sta. 176+72.98, 30.00' Right of CL I-49

0.5-1.5	N=2
2.5-3.5	N=4
4.5-5.5	N=3
6.5-7.5	N=7
9.0-10.0	N=6
14.0-15.0	N=5
19.0-20.0	N=5
24.0-25.0	N=14
29.0-30.0	N=28
34.0-35.0	N=13
35.5-36.5	N=50/1"

FB-15 - Sta.178+03.15, 31.89' Left of CL I-49

0.5-1.5	N=4
2.5-3.5	N=4
4.5-5.5	N=3
6.5-7.5	N=6
9.0-10.0	N=6
14.0-15.0	N=6
19.0-20.0	N=6
24.0-25.0	N=10
29.0-30.0	N=8
34.0-35.0	N=15
38.0-39.0	N=50/4"

FB-16 - Sta. 178+02.95, CL I-49

0.5-1.5	N=4
2.5-3.5	N=7
4.5-5.5	N=6
6.5-7.5	N=6
9.0-10.0	N=10
14.0-15.0	N=8
19.0-20.0	N=18
24.0-25.0	N=15
29.0-30.0	N=6
34.0-35.0	N=12
38.0-39.0	N=50/2"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MICHAEL J. L. DESTIGTER
No. 21612
04/17/2024
BRIDGE ENGINEER

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	325	809
		07684 - BRIDGE LAYOUTS - 67385				

BORING LEGEND

A1 - CL-Stiff brown silty clay (fill)
B1 - ML-Medium dense brown and tan fine sandy silt
C1 - CH-Soft brown and reddish brown clay
D1 - ML-Very loose tan, reddish tan and brown fine sandy silt
E1 - SW-Loose gray and brown fine to coarse sand
F1 - SHALE-Low hardness dark gray weathered and highly weathered shale
G1- SHALE-Moderately hard dark gray shale
H1 - SHALE-Moderately hard dark gray weathered shale
I1 - ML-Very loose brown clayey silt
J1 - SM-Very loose tan and brown silty fine sand
K1 - ML-Loose tan and brown fine sandy silt
L1 - CL-ML-Soft brown clayey silt
M1 - SP-Medium dense tan, brown and gray fine to medium sand
N1 - SP-SM-Dense tan and gray silty fine sand
O1 - SANDSTONE-Moderately hard gray fine-grained sandstone
P1 - SP-Dense to very dense tan fine to coarse sand
Q1 - SP-SM-Dense to very dense brown and tan fine sand
R1 - SM-Loose reddish tan to brown silty fine sand
S1 - SM-Medium dense tan and gray silty fine to coarse sand
T1 - SP-Very loose brown fine to medium sand
U1 - SP-Medium dense tan and gray fine to coarse sand with gravel
V1 - ASPHALT-2 inches: Asphalt Cement Concrete
W1 - FILL-10 inches: Crushed Stone Base
X1 - SP-Loose gray fine to coarse sand
Y1 - CL-Very loose brown silty clay
Z1 - SW-Medium dense tan and gray fine to coarse sand

FB-17 - Sta. 178+03.00, 32.00' Right of CL I-49

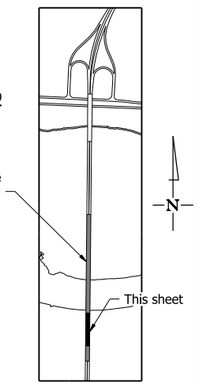
0.5-1.5	N=3
2.5-3.5	N=6
4.5-5.5	N=6
6.0-7.0	N=4
9.0-10.0	N=7
14.0-15.0	N=8
19.0-20.0	N=10
24.0-25.0	N=13
29.0-30.0	N=12
34.0-35.0	N=18
38.0-39.0	N=50/3"

R-3 - Sta. 171+34.15, CL I-49

0.5-1.5	N=10
2.5-3.5	N=38
4.5-5.5	N=20
9.0-10.0	N=5
14.0-15.0	N=2
19.0-20.0	N=4
24.0-25.0	N=8
29.0-30.0	N=14
34.0-35.0	N=18
39.0-40.0	N=50/6"
44.0-45.0	N=50/2"

R-4 - Sta. 178+72.53, 68.51' Left of CL I-49

2.0-3.0	N=16
4.5-5.5	N=7
6.5-7.5	N=3
9.0-10.0	N=9
14.0-15.0	N=11
19.0-20.0	N=22
24.0-25.0	N=15
29.0-30.0	N=27
34.0-35.0	N=6
39.0-40.0	N=15
44.0-45.0	N=50/2"



SITE PLAN

No Scale

Note:
Soil descriptions have been condense for the purposes of this drawing.

See Final Geotechnical Report for additional information on individual borings.

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 2 OF 8
ELEVATION OF SOIL BORINGS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

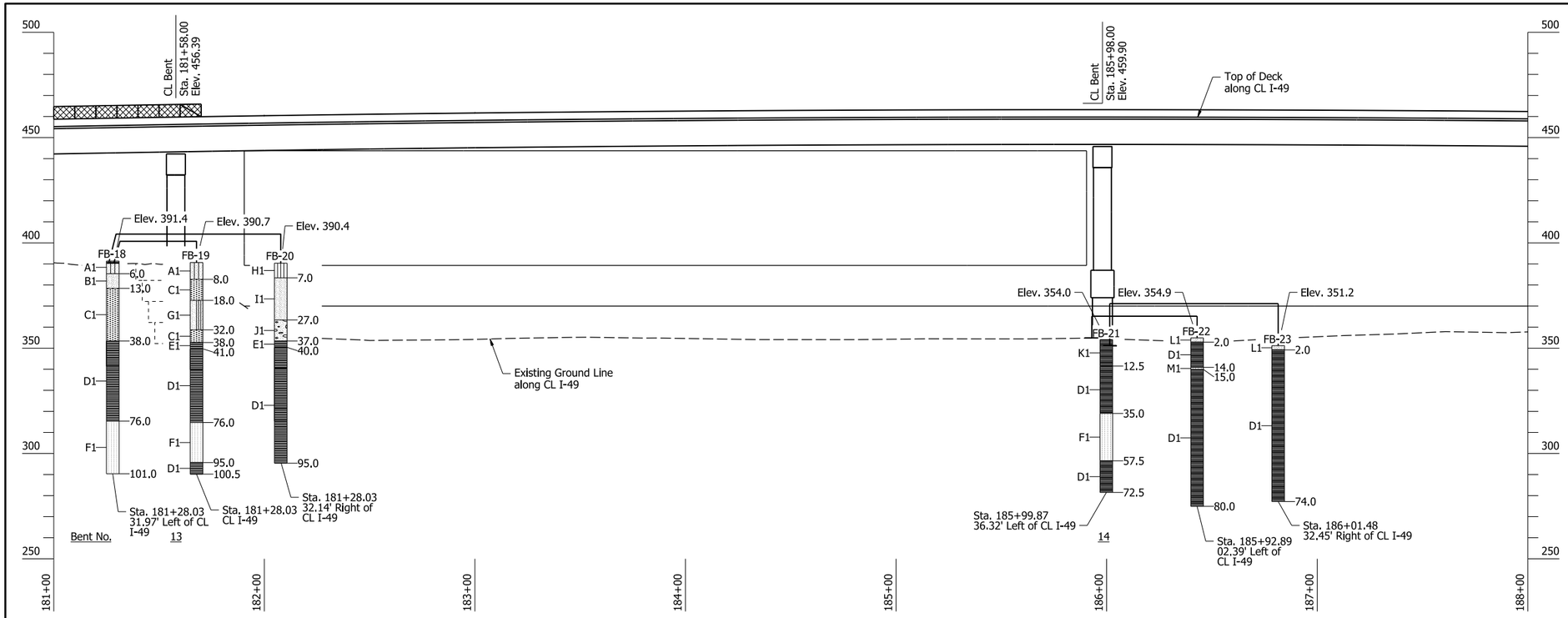
LITTLE ROCK, ARK.

DRAWN BY: BNG DATE: 8/22/23
CHECKED BY: MJLD DATE: 1/10/24
DESIGNED BY: MJLD DATE: 8/15/23
FILENAME: b04090111_I12.dgn
SCALE: 1" = 30'-0"

BRIDGE NO. 07684 DRAWING NO. 67385

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	326	809
		07684 - BRIDGE LAYOUTS - 67386				



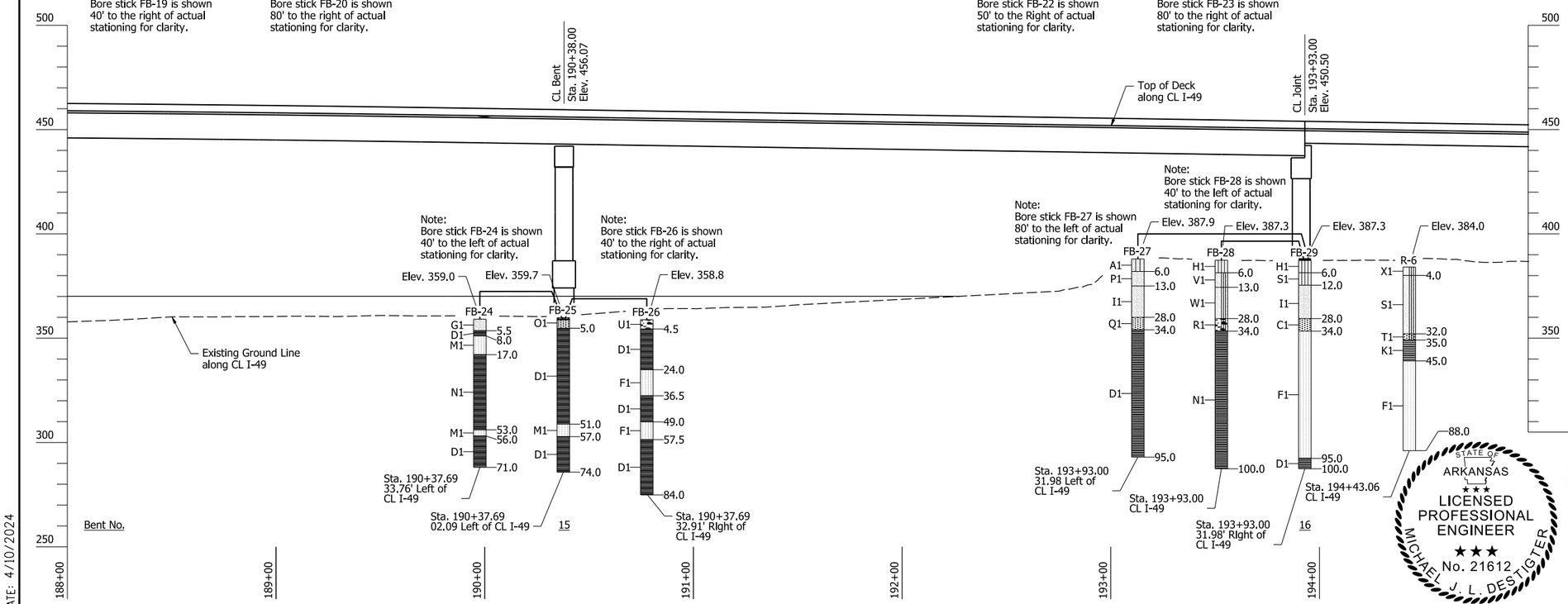
ELEVATION OF SOIL BORINGS

Note:
Bore stick FB-19 is shown 40' to the right of actual stationing for clarity.

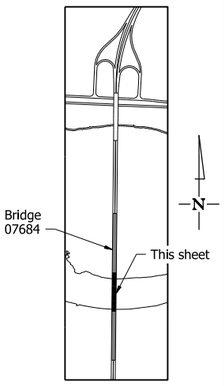
Note:
Bore stick FB-20 is shown 80' to the right of actual stationing for clarity.

Note:
Bore stick FB-22 is shown 50' to the Right of actual stationing for clarity.

Note:
Bore stick FB-23 is shown 80' to the right of actual stationing for clarity.



ELEVATION OF SOIL BORINGS



SITE PLAN
No Scale

Note:
Soil descriptions have been condense for the purposes of this drawing.

See Final Geotechnical Report for additional information on individual borings.

See Sheet 4 for blow counts and soil descriptions.

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 3 OF 8
ELEVATION OF SOIL BORINGS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21612
MICHAEL J. L. DESTIGTER
04/17/2024
BRIDGE ENGINEER

DRAWN BY:	BNG	DATE:	8/22/23	FILENAME:	b04090111_l13.dgn
CHECKED BY:	MJLD	DATE:	1/10/24	SCALE:	1" = 30'-0"
DESIGNED BY:	MJLD	DATE:	8/15/23		

BRIDGE NO. 07684 DRAWING NO. 67386

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	327	809
		07684 - BRIDGE LAYOUTS - 67387				

"N" VALUES

FB-18 - Sta. 181+28.03, 31.97' Left of CL I-49

0.5-1.5	N=2
2.5-3.5	N=2
4.5-5.5	N=3
6.5-7.5	N=9
9.0-10.0	N=11
14.0-15.0	N=10
19.0-20.0	N=3
24.0-25.0	N=17
29.0-30.0	N=9
34.0-35.0	N=25
38.5-39.5	N=50/2"

FB-19 - Sta. 181+28.03, 0' CL I-49

0.5-1.5	N=3
2.5-3.5	N=4
4.5-5.5	N=4
6.5-7.5	N=7
9.0-10.0	N=13
14.0-15.0	N=9
19.0-20.0	N=3
24.0-25.0	N=4
29.0-30.0	N=2
34.0-35.0	N=18
39.0-40.0	N=50/2"

FB-20 - Sta. 181+28.03, 32.14' Right of CL I-49

0.5-1.5	N=2
2.5-3.5	N=2
4.5-5.5	N=6
6.5-7.5	N=5
9.0-10.0	N=22
14.0-15.0	N=6
19.0-20.0	N=2
24.0-25.0	N=6
29.0-30.0	N=7
34.0-35.0	N=15
37.0-38.0	N=50/4"

FB-21 - Sta. 185+99.87, 36.32' Left of CL I-49

2.0-3.0	N=50/8"

FB-22 - Sta. 185+92.89, 02.39' Left of CL I-49

0.5-1.5	N=85/9"
2.5-3.5	N=50/1"

FB-23 - Sta. 186+01.48, 32.45' Right of CL I-49

0.5-1.5	N=72/6"
1.0-2.0	N=50/1"

FB-24 - Sta. 190+37.69, 33.76' Left of CL I-49

0.5-1.5	N=2
5.5-6.5	N=50/0.5"

FB-25 - Sta. 190+37.69, 02.09' Left of CL I-49

0.5-1.5	N=4
4.5-5.5	N=50/4"

FB-26 - Sta. 190+37.69, 32.91' Right of CL I-49

0.5-1.5	N=2
4.5-5.5	N=50/2"

FB-27 - Sta. 193+93.00, 31.98' Left of CL I-49

0.5-1.5	N=2
2.5-3.5	N=3
4.5-5.5	N=4
6.5-7.5	N=7
9.0-10.0	N=9
14.0-15.0	N=13
19.0-20.0	N=16
24.0-25.0	N=22
29.0-30.0	N=10
34.0-35.0	N=50/6"

FB-28 - Sta. 193+93.00, 0' CL I-49

0.5-1.5	N=3
2.5-3.5	N=4
4.5-5.5	N=3
6.5-7.5	N=10
9.0-10.0	N=9
14.0-15.0	N=11
19.0-20.0	N=13
24.0-25.0	N=16
29.0-30.0	N=10

FB-29 - Sta. 193+93.00, 31.98' Right of CL I-49

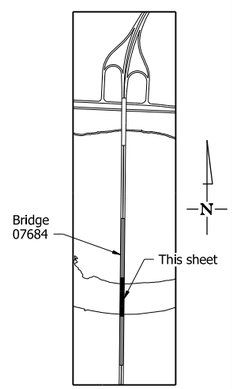
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4.5-5.5	N=4
6.5-7.5	N=9
9.0-10.0	N=8
14.0-15.0	N=11
19.0-20.0	N=16
24.0-25.0	N=8
29.0-30.0	N=12
34.0-35.0	N=50/2"

R-6 - Sta. 194+43.06, 0' CL I-49

0.5-1.5	N=1
2.5-3.5	N=8
4.5-5.5	N=7
6.5-7.5	N=13
9.0-10.0	N=12
14.0-15.0	N=17
19.0-20.0	N=11
24.0-25.0	N=31
29.0-30.0	N=15
34.0-35.0	N=50/4"
39.0-40.0	N=25/0"

BORING LEGEND

A1 - SM-Very loose tan and brown silty fine sand
B1 - SP-Loose to medium dense tan fine to medium sand
C1 - SW-Medium dense tan and brown fine to coarse sand
D1 - SHALE-Moderately hard dark gray shale
E1 - SHALE-Moderately hard dark gray w/tan slightly weathered shale
F1 - SANDSTONE-Moderately hard gray fine-grained sandstone
G1 - SP-Very loose tan and brown fine to coarse sand
H1 - ML-Very loose tan and brown fine to medium sandy silt
I1 - SP-Medium dense tan fine to medium sand
J1 - SPG-Loose tan and gray fine to coarse sand
K1 - SHALE-Low hardness to moderately hard dark gray weathered shale, fractured
L1 - SP-Medium dense to dense gray and brown fine to coarse sand
M1 - SANDSTONE-Hard gray fine-grained sandstone
N1 - SHALE-Moderately hard to hard dark gray shale
O1 - SW-Very loose to loose brown fine to coarse sand with fine to coarse gravel
P1 - SP-Loose reddish tan and tan fine sand
Q1 - SW-Loose to medium dense tan fine to coarse sand
R1 - GW-GM-Loose to medium dense tan sandy fine to coarse gravel
S1 - ML- Loose tan fine sandy silt
T1 - SW-SM-Dense to very dense medium to coarse sand
U1 - GW-Very loose tan and brown sandy fine to coarse gravel
V1 - SP-Loose to medium dense tan fine to medium sand
W1 - SP Medium dense tan fine to medium sand
X1 - SP-SM-Very loose brown silty fine sand w/organics
Y1 - SP-SM-Loose tan silty fine sand



SITE PLAN
No Scale

Note:
Soil descriptions have been condense for the purposes of this drawing.

See Final Geotechnical Report for additional information on individual borings.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MICHAEL J. L. DESTIGTER
No. 21612
04/17/2024
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 4 OF 8
ELEVATION OF SOIL BORINGS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

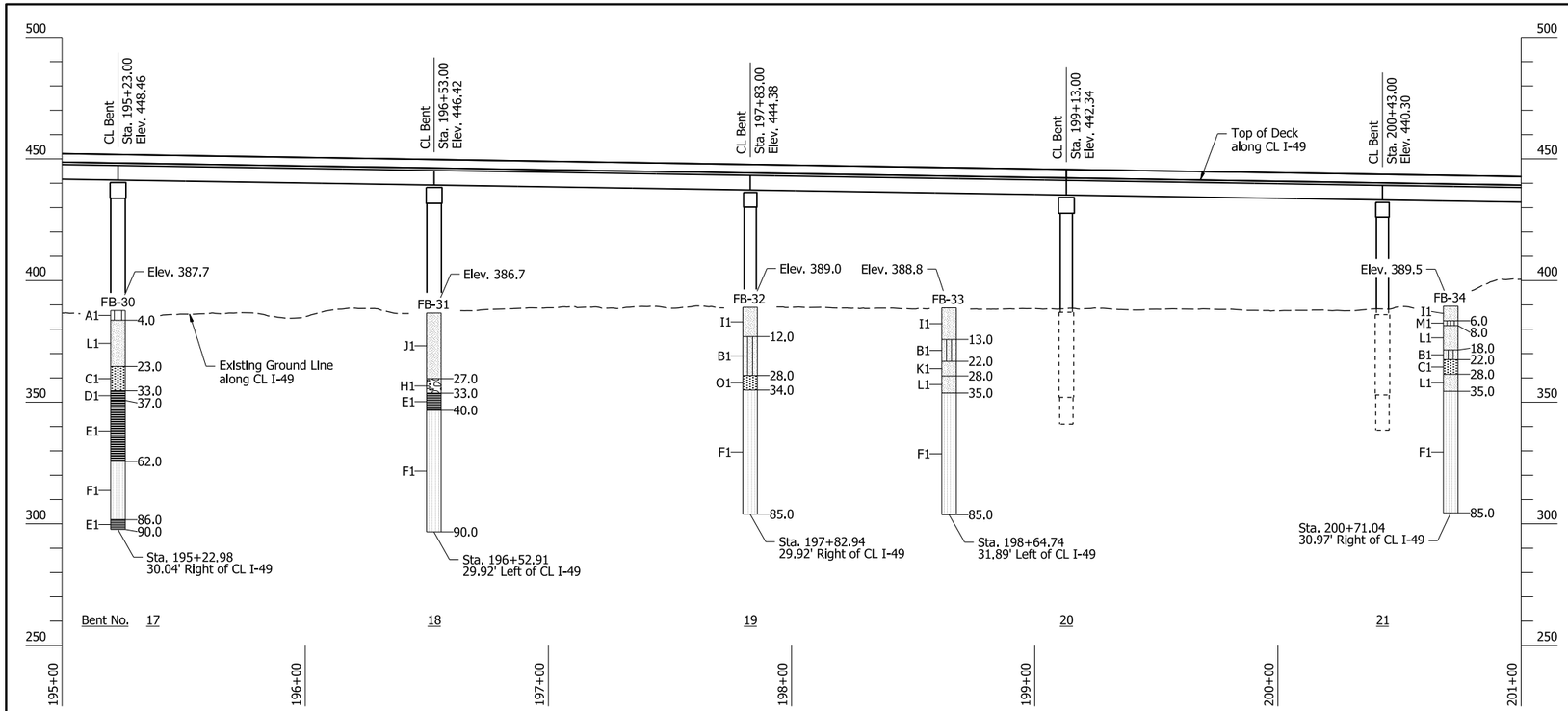
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: MJLD DATE: 1/10/24
DESIGNED BY: MJLD DATE: 8/15/23
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SCALE: 1" = 30'-0"

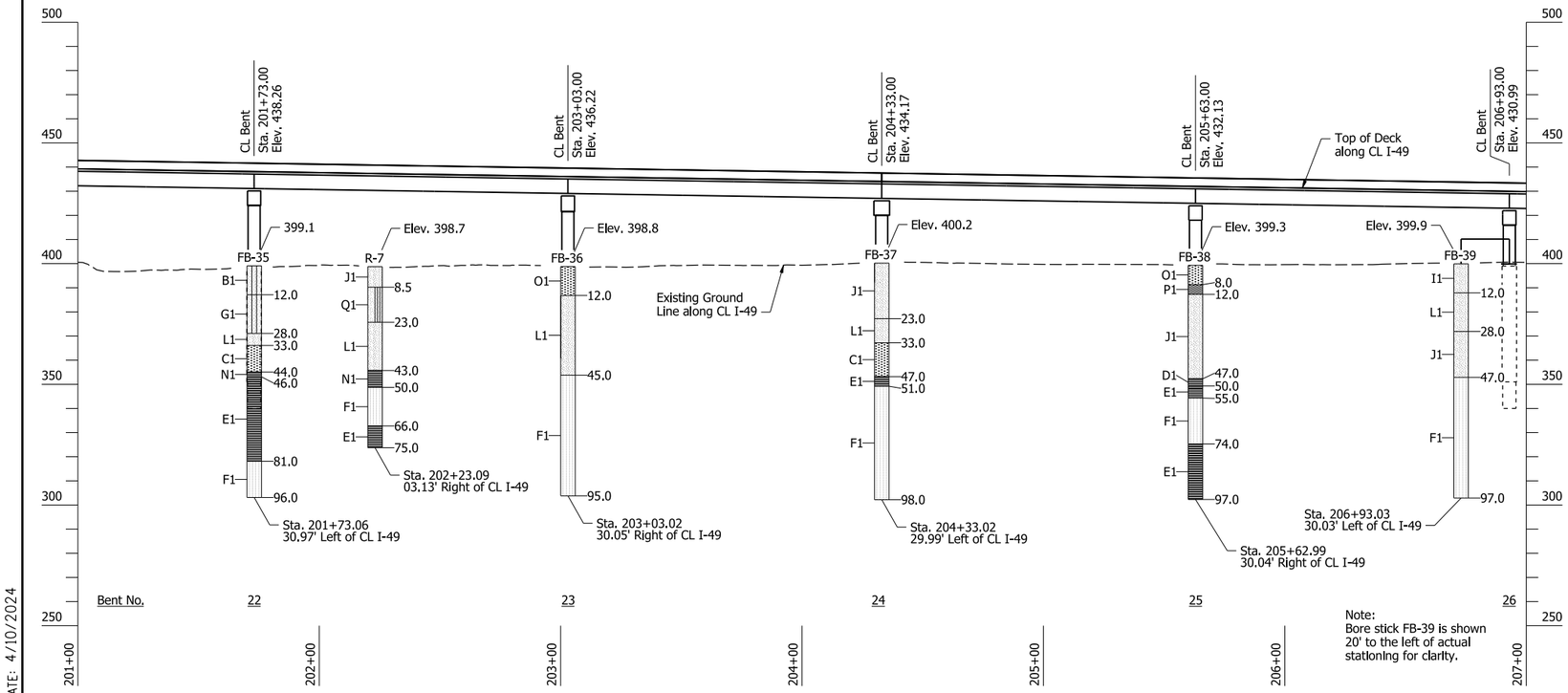
BRIDGE NO. 07684 DRAWING NO. 67387

PRINT DATE:

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		07684 - BRIDGE LAYOUTS - 67388				

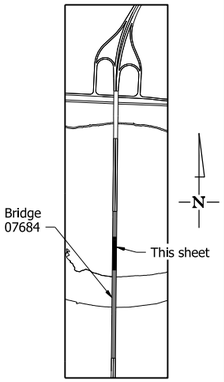


ELEVATION OF SOIL BORINGS



ELEVATION OF SOIL BORINGS

Note:
Bore stick FB-39 is shown 20' to the left of actual stationing for clarity.



SITE PLAN
No Scale

Note:
Soil descriptions have been condense for the purposes of this drawing.

See Final Geotechnical Report for additional information on individual borings.

See Sheet 6 for blow counts and soil descriptions.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21612
MICHAEL J. L. DESTIGTER
04/17/2024
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 5 OF 8
ELEVATION OF SOIL BORINGS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: BNG DATE: 8/22/23
CHECKED BY: MJLD DATE: 1/10/24
DESIGNED BY: MJLD DATE: 8/15/23
FILENAME: b04090111_l15.dgn
SCALE: 1" = 30'-0"

BRIDGE NO. 07684 DRAWING NO. 67388

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	329	809
		07684 - BRIDGE LAYOUTS - 67389				

"N" VALUES

FB-30 - Sta. 195+22.98, 30.04' Right of CL I-49

0.5-1.5	N=2
2.5-3.5	N=5
4.5-5.5	N=10
6.5-7.5	N=17
9.0-10.0	N=12
14.0-15.0	N=11
19.0-20.0	N=6
24.0-25.0	N=14
29.0-30.0	N=14
34.0-35.0	N=50/2"

FB-31 - Sta. 196+52.91, 29.92' Left of CL I-49

0.5-1.5	N=7
2.5-3.5	N=9
4.5-5.5	N=10
6.5-7.5	N=16
19.0-10.0	N=16
14.0-15.0	N=5
19.0-20.0	N=11
24.0-25.0	N=6
29.0-30.0	N=4
34.0-35.0	N=50/2"

FB-33 - Sta. 198+85.55, 30.56' Left of CL I-49

0.5-1.5	N=2
2.5-3.5	N=8
4.5-5.5	N=5
6.5-7.5	N=13
9.0-10.0	N=17
14.0-15.0	N=18
19.0-20.0	N=8
24.0-25.0	N=34
29.0-30.0	N=11
34.0-35.0	N=50/2"

FB-34 - Sta. 200+71.04, 30.97' Right of CL I-49

0.5-1.5	N=2
2.5-3.5	N=4
4.5-5.5	N=8
6.5-7.5	N=5
9.0-10.0	N=17
14.0-15.0	N=8
19.0-20.0	N=13
24.0-25.0	N=12
29.0-30.0	N=16
34.0-35.0	N=50/4"

FB-35 - Sta. 201+73.06, 30.97' Left of CL I-49

0.5-1.5	N=22
2.5-3.5	N=47
4.5-5.5	N=18
6.5-7.5	N=6
9.0-10.0	N=20
14.0-15.0	N=8
9.0-20.0	N=15
24.0-25.0	N=7
29.0-30.0	N=13
39.0-40.0	N=12
44.0-45.0	N=24

FB-36 - Sta. 203+03.02, 30.05' Right of CL I-49

0.5-1.5	N=7
2.5-3.5	N=16
4.5-5.5	N=17
6.5-7.5	N=17
9.0-10.0	N=12
14.0-15.0	N=12
19.0-20.0	N=11
24.0-25.0	N=10
29.0-30.0	N=13
34.0-35.0	N=19
39.0-40.0	N=26
44.0-45.0	N=50/3"

FB-37 - Sta. 204+33.02, 29.99' Left of CL I-49

0.5-1.5	N=6
2.5-3.5	N=18
4.5-5.5	N=15
6.5-7.5	N=7
9.0-10.0	N=9
14.0-15.0	N=11
19.0-20.0	N=18
24.0-25.0	N=16
29.0-30.0	N=5
34.0-35.0	N=12
39.0-40.0	N=23
44.0-45.0	N=10
47.0-48.0	N=50/3"

FB-38 - Sta. 205+62.99, 30.04' Right of CL I-49

0.5-1.5	N=7
2.5-3.5	N=16
4.5-5.5	N=19
6.5-7.5	N=11
9.0-10.0	N=2
14.0-15.0	N=7
19.0-20.0	N=16
24.0-25.0	N=10
29.0-30.0	N=6
34.0-35.0	N=11
39.0-40.0	N=12
44.0-45.0	N=21

FB-39 - Sta. 206+93.03, 30.03' Left of CL I-49

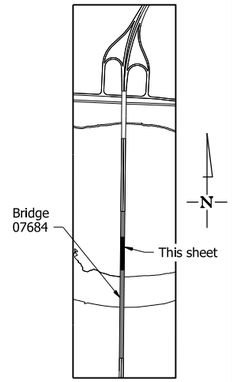
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2.5-3.5	N=14
4.5-5.5	N=15
6.5-7.5	N=8
9.0-10.0	N=6
14.0-15.0	N=10
19.0-20.0	N=16
24.0-25.0	N=15
29.0-30.0	N=6
34.0-35.0	N=21
39.0-40.0	N=24
44.0-45.0	N=16

R-7 - Sta. 202+23.09, 03.13' Right of CL I-49

0.5-1.5	N=8
2.5-3.5	N=13
4.5-5.5	N=22
6.5-7.5	N=20
9.0-10.0	N=7
14.0-15.0	N=17
19.0-20.0	N=20
24.0-25.0	N=27
29.0-30.0	N=50
34.0-35.0	N=16
39.0-40.0	N=30
44.0-45.0	N=21

BORING LEGEND

A1 - ML-Very loose reddish brown fine silty clay
B1 - SM-Medium dense brown and tan silty fine sand
C1 - SM-Medium dense tan fine to coarse sand
D1 - SHALE-Moderately hard dark gray weathered shale
E1 - SHALE-Moderately hard dark gray shale
F1 - SANDSTONE-Moderately hard gray fine-grained sandstone
G1 - SM-loose tan silty fine sand
H1 - GP-Tan sandy gravel
I1 - SP-Very loose tan fine to medium sand
J1 - SP-Loose tan fine to coarse sand
K1 - SP-Dense gray and tan fine sand
L1 - SP-Medium dense gray and tan fine to coarse sand
M1 - ML-Loose brown fine sandy silt
N1 - SHALE-Low hardness dark gray shale
O1 - SW-Loose tan fine to coarse sand
P1 - CL-Very loose gray silty clay
Q1 - SP-SM-Loose tan silty fine sand



SITE PLAN
No Scale

Note:
Soil descriptions have been condense for the purposes of this drawing.

See Final Geotechnical Report for additional information on individual borings.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MICHAEL J. L. DESTIGTER
No. 21612
04/17/2024
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 6 OF 8
ELEVATION OF SOIL BORINGS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

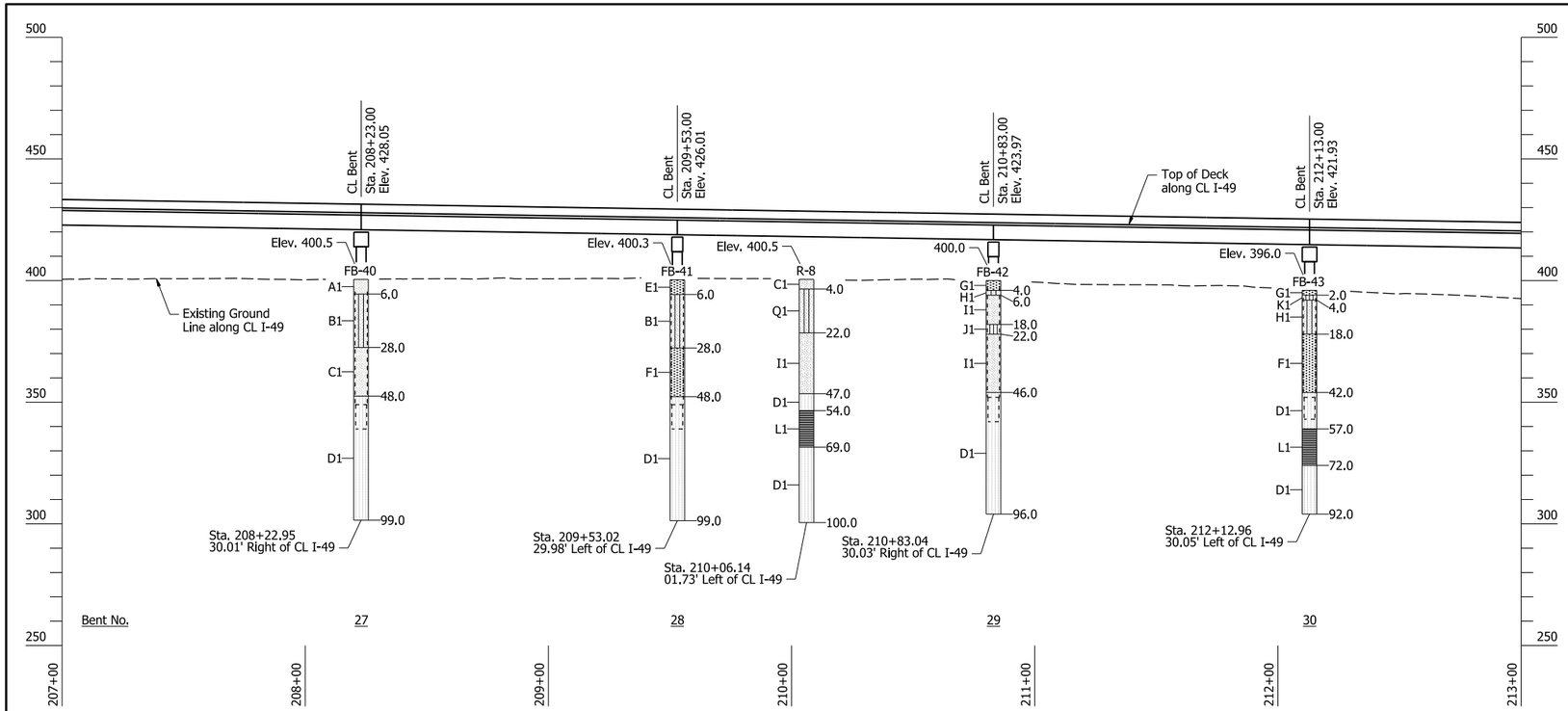
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: MJLD DATE: 1/10/24
DESIGNED BY: MJLD DATE: 8/15/23
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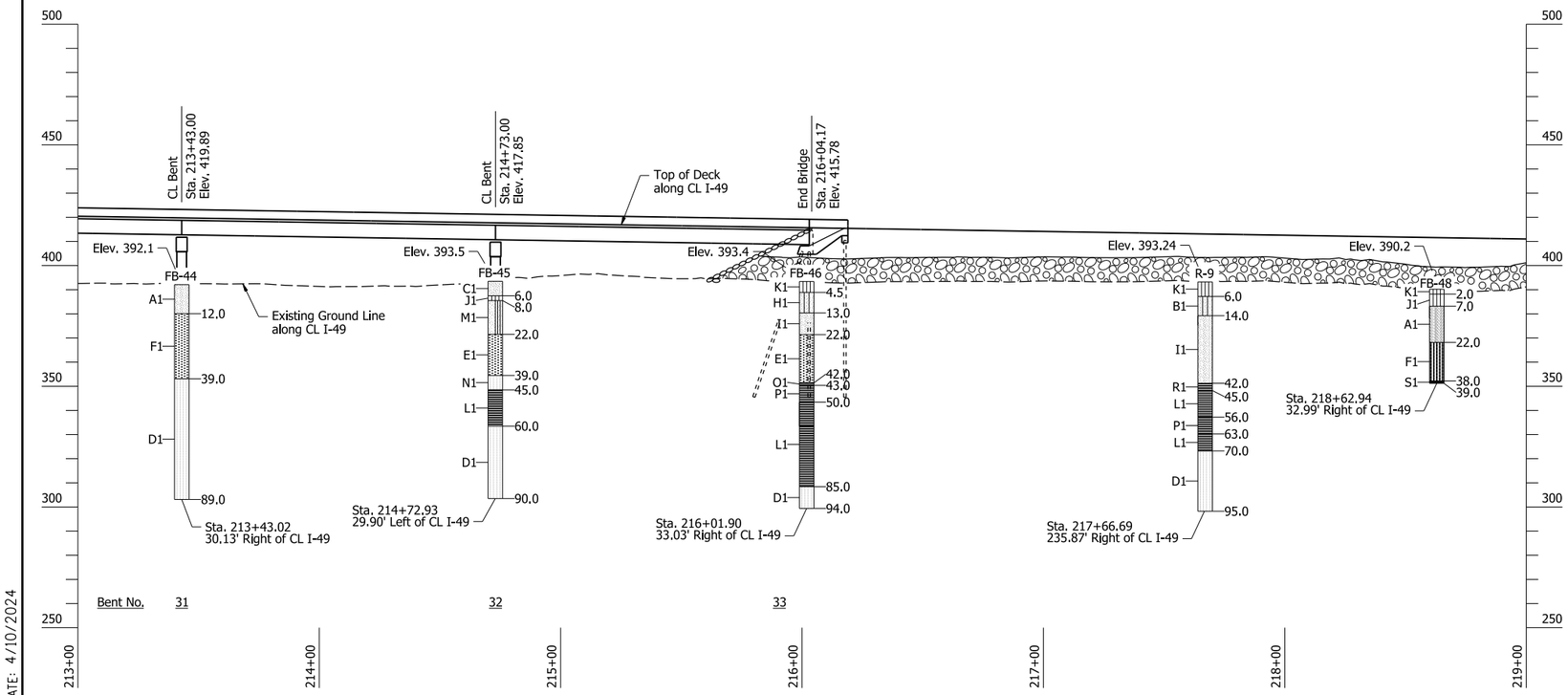
BRIDGE NO. 07684 DRAWING NO. 67389

PRINT DATE: 4/10/2024

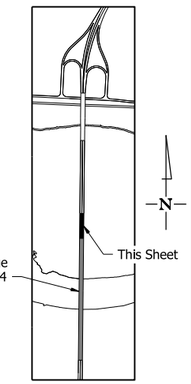
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		6	ARK.	040901	330	809
		07684 - BRIDGE LAYOUTS - 67390				



ELEVATION OF SOIL BORINGS



ELEVATION OF SOIL BORINGS



SITE PLAN
No Scale

Note:
Soil descriptions have been condense for the purposes of this drawing.

See Final Geotechnical Report for additional information on individual borings.

See Sheet 8 for blow counts and soil descriptions.

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 7 OF 8
ELEVATION OF SOIL BORINGS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21612
MICHAEL J. L. DESTIGTER
04/17/2024
BRIDGE ENGINEER

DRAWN BY:	BNG	DATE:	8/22/23	FILENAME:	b04090111_l17.dgn
CHECKED BY:	MJLD	DATE:	1/10/24	SCALE:	1" = 30'-0"
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BRIDGE NO. 07684 DRAWING NO. 67390

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	331	809
		07684 - BRIDGE LAYOUTS - 67391				

"N" VALUES

FB-40 - Sta. 208+22.95, 30.01' Right of CL I-49

0.5-1.5	N=5
2.5-3.5	N=14
4.5-5.5	N=13
6.5-7.5	N=13
9.0-10.0	N=7
14.0-15.0	N=8
19.0-20.0	N=11
24.0-25.0	N=6
29.0-30.0	N=4
34.0-35.0	N=14
39.0-40.0	N=12
44.0-45.0	N=15
49.0-50.0	N=50/1"

FB-41 - Sta. 209+53.02, 29.98' Left of CL I-49

0.5-1.5	N=7
2.5-3.5	N=20
4.5-5.5	N=14
6.5-7.5	N=10
9.0-10.0	N=9
14.0-15.0	N=10
19.0-20.0	N=22
24.0-25.0	N=9
29.0-30.0	N=13
34.0-35.0	N=9
39.0-40.0	N=25
44.0-45.0	N=21

FB-42 - Sta. 210+83.04, 30.03' Right of CL I-49

0.5-1.5	N=2
2.5-3.5	N=10
4.5-5.5	N=8
6.5-7.5	N=10
9.0-10.0	N=9
14.0-15.0	N=13
19.0-20.0	N=9
24.0-25.0	N=10
29.0-30.0	N=12
34.0-35.0	N=19
39.0-40.0	N=12
44.0-45.0	N=29

FB-43 - Sta. 212+12.96, 30.05' Left of CL I-49

0.5-1.5	N=3
2.5-3.5	N=2
4.5-5.5	N=8
6.5-7.5	N=10
9.0-10.0	N=8
14.0-15.0	N=11
19.0-20.0	N=14
24.0-25.0	N=5
29.0-30.0	N=23
34.0-35.0	N=9
39.0-40.0	N=14

FB-44 - Sta. 213+43.02, 30.13' Right of CL I-49

0.5-1.5	N=6
2.5-3.5	N=9
4.5-5.5	N=10
6.5-7.5	N=15
9.0-10.0	N=11
14.0-15.0	N=14
19.0-20.0	N=6
24.0-25.0	N=19
29.0-30.0	N=21
34.0-35.0	N=8
39.0-40.0	N=50/1"

FB-45 - Sta. 214+72.93, 29.90' Left of CL I-49

0.5-1.5	N=3
2.5-3.5	N=7
4.5-5.5	N=7
6.5-7.5	N=8
9.0-10.0	N=21
14.0-15.0	N=15
19.0-20.0	N=4
24.0-25.0	N=9
29.0-30.0	N=14
34.0-35.0	N=21
39.0-40.0	N=50/2"

FB-46 - Sta. 216+01.90, 33.03' Right of CL I-49

0.5-1.5	N=3
2.5-3.5	N=3
4.5-5.5	N=6
6.5-7.5	N=8
9.0-10.0	N=7
14.0-15.0	N=18
19.0-20.0	N=8
24.0-25.0	N=9
29.0-30.0	N=9
34.0-35.0	N=11
39.0-40.0	N=10
42.0-43.0	N=50/3"

R-8 - Sta. 210+06.14, 01.73' Left of CL I-49

0.5-1.5	N=3
2.5-3.5	N=9
4.5-5.5	N=4
6.5-7.5	N=8
9.0-10.0	N=9
14.0-15.0	N=7
18.0-19.0	N=13
24.0-25.0	N=22
29.0-30.0	N=21
34.0-35.0	N=23
39.0-40.0	N=22
44.0-45.0	N=22

R-9 - Sta. 217+66.69, 235.87' Right of CL I-49

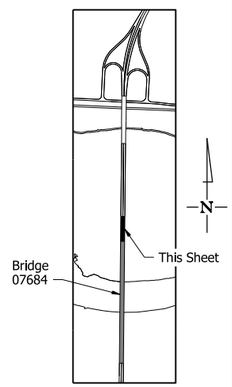
0.5-1.5	N=2
2.5-3.5	N=4
4.5-5.5	N=4
6.5-7.5	N=19
9.0-10.0	N=11
14.0-15.0	N=11
19.0-20.0	N=29
24.0-25.0	N=32
29.0-30.0	N=23
34.0-35.0	N=23
39.0-40.0	N=27
44.0-45.0	N=25

FB-48 - Sta. 218+62.94, 32.99' Right of CL I-49

0.5-1.5	N=3
2.5-3.5	N=5
4.5-5.5	N=5
6.5-7.5	N=7
9.0-10.0	N=9
14.0-15.0	N=6
19.0-20.0	N=7
24.0-25.0	N=11
29.0-30.0	N=15
34.0-35.0	N=11
38.0-39.0	N=50/3"

BORING LEGEND

A1 - SP-Loose tan fine to medium sand
B1 - SM-Medium dense tan silty fine sand
C1 - SP-Very loose tan fine to medium sand
D1 - SANDSTONE-Moderately hard gray fine-grained sandstone
E1 - SW-Loose tan fine to course sand
F1 - SW-Medium dense tan fine to coarse sand w/a little fine to coarse gravel
G1 - SW-Very loose tan fine to coarse sand w/fine to coarse gravel
H1 - SM-Loose tan silty fine sand
I1 - SP-Medium dense tan fine sand
J1 - ML-Loose tan fine sandy silt
K1 - ML-Very loose brown fine sandy silt
L1 - SHALE-Moderately hard dark gray shale
M1 - SP-SM-Medium dense tan fine sand, slightly silty
N1 - SANDSTONE-Low hardness gray fine-grained weathered sandstone
O1 - SHALE-Dense dark gray weathered shale
P1 - SHALE-Low to moderately hard dark gray shale
Q1 - SM-Very loose to loose reddish tan silty fine sand
R1 - SHALE-Moderately hard dark gray weathered shale
S1 - SHALE-Low hardness dark gray shale



SITE PLAN
No Scale

Note:
Soil descriptions have been condense for the purposes of this drawing.

See Final Geotechnical Report for additional information on individual borings.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MICHAEL J. L. DESTIGTER
No. 21612
04/17/2024
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 8 OF 8
ELEVATION OF SOIL BORINGS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

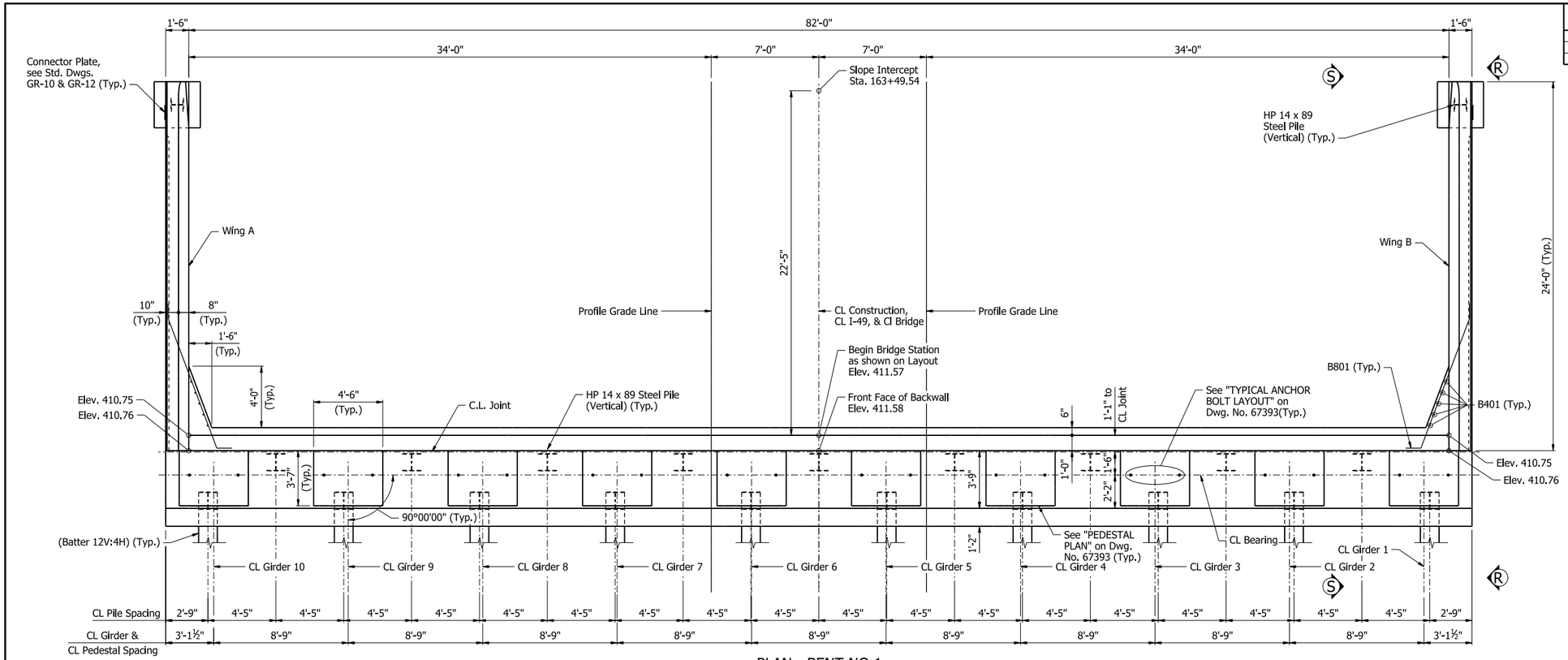
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: BNG DATE: 8/22/23
CHECKED BY: MJLD DATE: 1/10/24
DESIGNED BY: MJLD DATE: 8/15/23
FILENAME: b04090111_I18.dgn
SCALE: 1" = 30'-0"

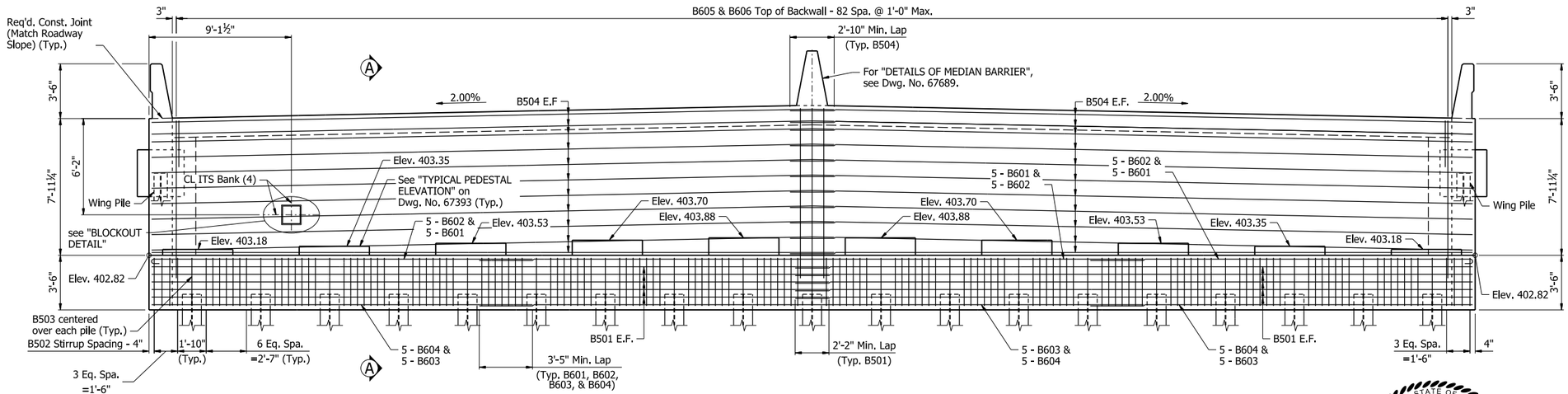
BRIDGE NO. 07684 DRAWING NO. 67391

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	332	809
		07684 - END BENTS - 67392				



PLAN - BENT NO.1



ELEVATION - BENT NO. 1

Looking Back

NOTES:

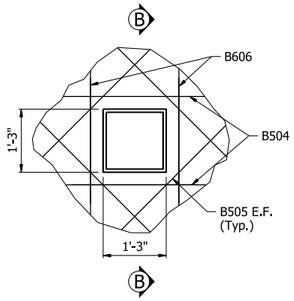
For general notes, see Dwg. No. 67372.

For details of steel piling, see Std. Dwg. No. 55020.

For "SECTION A-A", "VIEW R-R" & "VIEW S-S", see Dwg. No. 67393.

Class 2 Protective Surface Treatment shall be applied to the roadway face and top of the wing rails, and the top of the backwall.

All exposed corners shall be chamfered ¾" UNO.

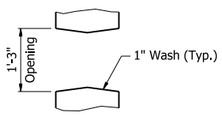


BLOCKOUT DETAIL

No Scale

Contractor shall adjust B606 and B504 Bars to accommodate blockout.

For Blockout Details and Construction Sequencing Notes, see Dwg. No. 67672.



SECTION B-B

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON

4/18/24

BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 3
DETAILS OF END BENT NO. 1
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: JVS DATE: 10/05/23
CHECKED BY: AT DATE: 10/09/23
DESIGNED BY: JRR DATE: 9/18/23

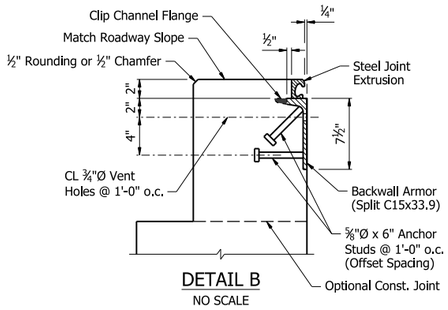
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BRIDGE NO. 07684

DRAWING NO. 67392

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	333	809
		07684 - END BENTS - 67393				

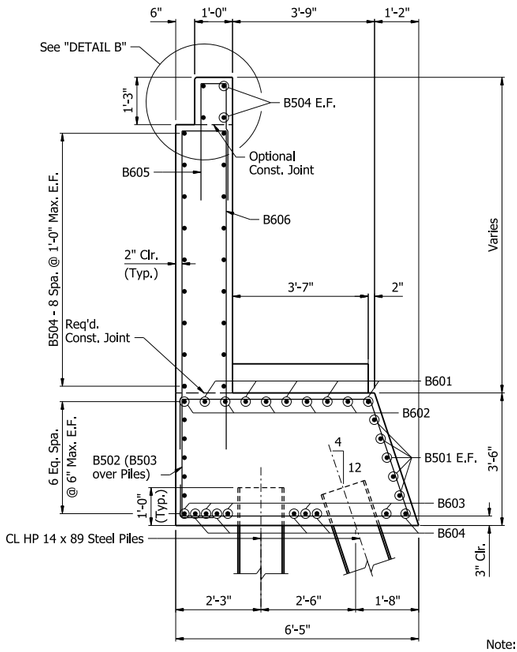


DETAIL B
NO SCALE

For additional joint details, see Std. Dwg. No. 55009.

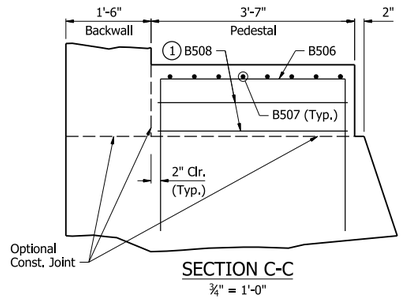
Concrete shall be hand-packed under the joint armor in the backwall.

Transverse spacing between top anchor studs and vent holes shall be 6".

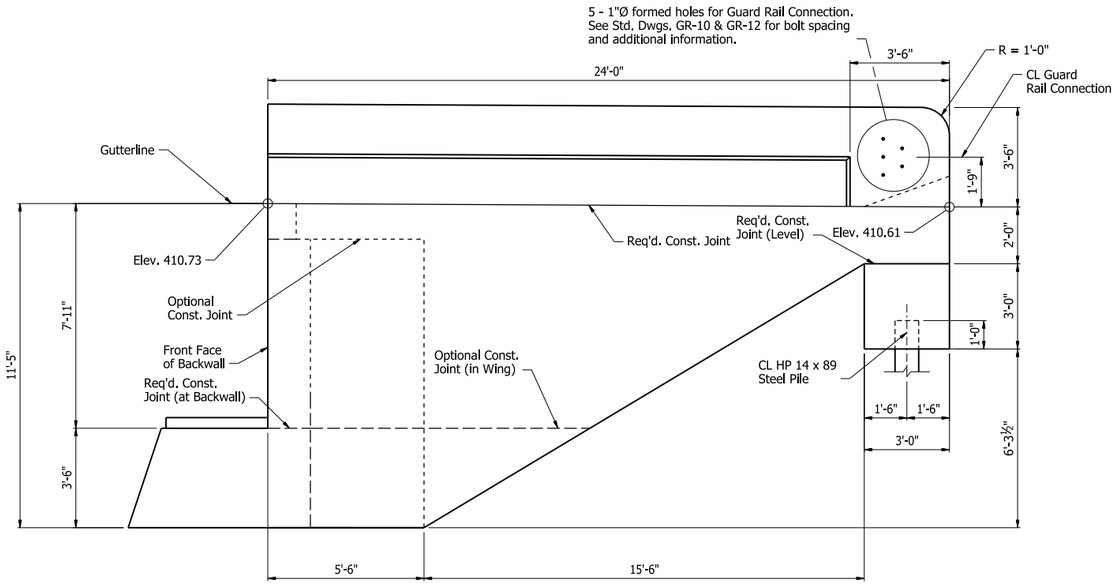


SECTION A-A
⅜" = 1'-0"

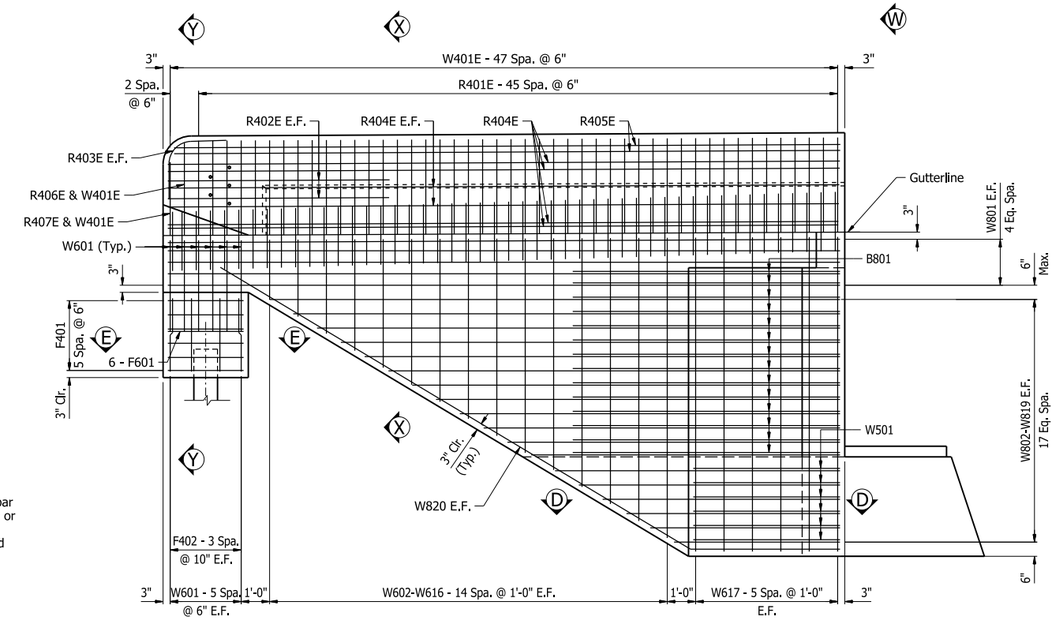
Note:
Contractor shall adjust B601 & B602 bar spacing to accommodate anchor bolts or sheet metal sleeves. Contractor shall maintain a minimum spacing of 3" and a maximum spacing of 8".



SECTION C-C
¾" = 1'-0"



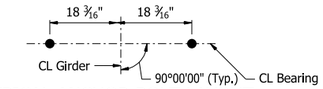
VIEW R-R
⅜" = 1'-0"



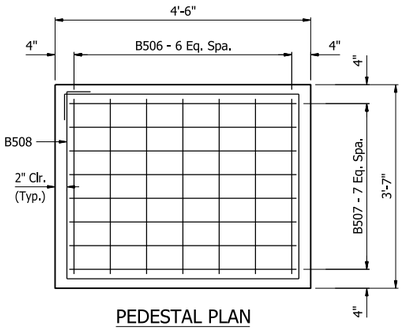
VIEW S-S
⅜" = 1'-0"

Notes:
For "VIEW W-W", "SECTION X-X" & "SECTION Y-Y", see Dwg. No. 67394.

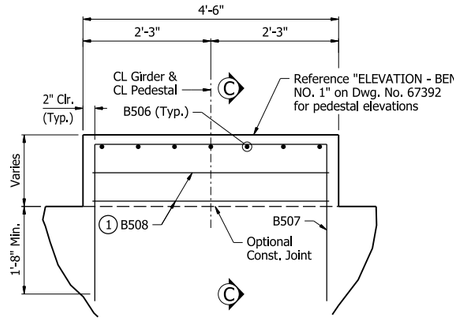
For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.



TYPICAL ANCHOR BOLT LAYOUT
1" = 1'-0"



PEDESTAL PLAN
¾" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

1 1-B508 when Pedestal Height is less than 11";
2-B508 when Pedestal Height is greater than 11";
B508 spaced at 6" Max.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 3
DETAILS OF END BENT NO. 1
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

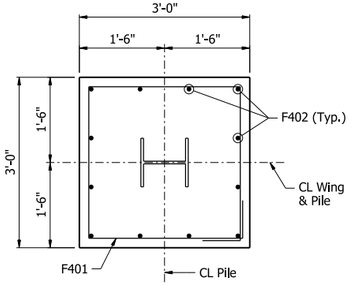
ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JVS DATE: 10/05/23
CHECKED BY: AT DATE: 10/09/23
DESIGNED BY: JRR DATE: 9/18/23
FILENAME: b04090111_b12.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67393

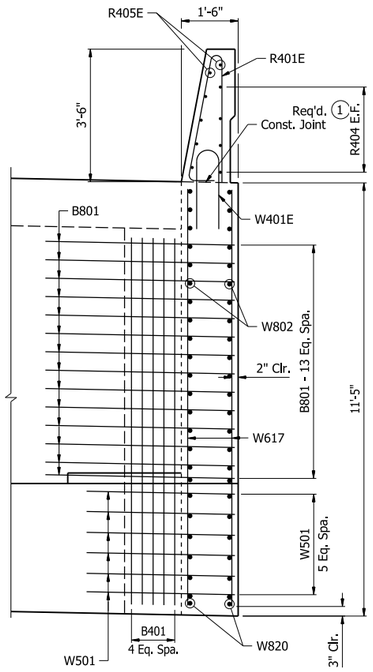
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	334	809
		07684 - END BENTS - 67394				

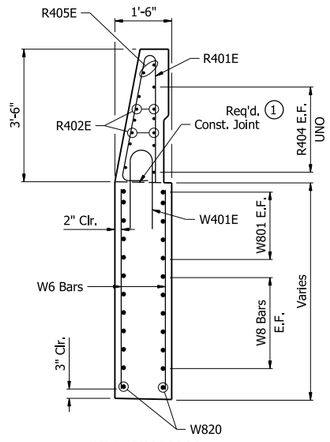


SECTION E-E
¾" = 1'-0"

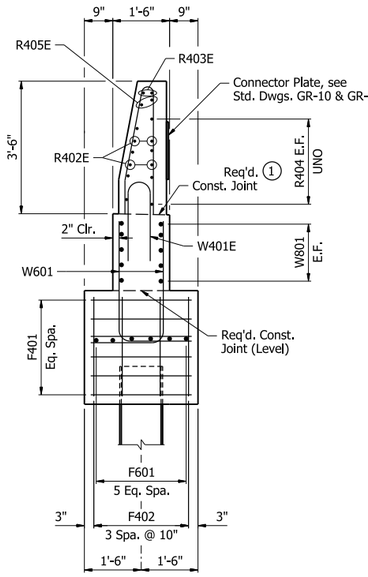
Match roadway slope for both Wingwalls (1)



VIEW W-W
½" = 1'-0"



SECTION X-X
½" = 1'-0"

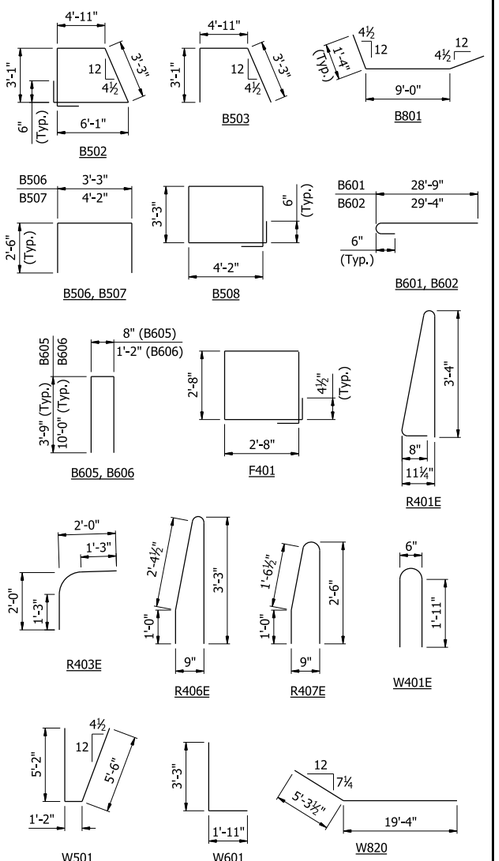


SECTION Y-Y
½" = 1'-0"

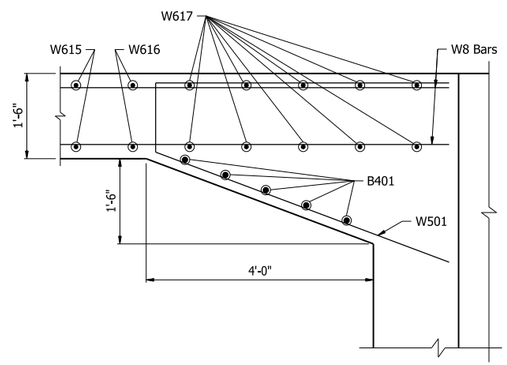
BAR LIST - PER BENT

Mark	Number Required	Length	Pin Dia.
B401	10	9'-10"	Str.
B501	20	43'-5"	Str.
B502	134	18'-0"	2½"
B503	19	11'-1"	2½"
B504	44	43'-9"	Str.
B505	8	2'-0"	Str.
B506	70	8'-1"	2½"
B507	80	9'-0"	2½"
B508	12	15'-4"	2½"
B601	10	29'-5"	4½"
B602	10	60'-0"	4½"
B603	10	28'-1"	Str.
B604	10	60'-0"	Str.
B605	83	7'-10"	4½"
B606	83	20'-10"	4½"
B801	28	11'-7"	6"
F401	12	11'-0"	2"
F402	24	2'-7"	Str.
F601	12	2'-8"	Str.
R401E	92	7'-6"	3"
R402E	8	5'-6"	Str.
R403E	4	3'-8"	8½"
R404E	16	23'-8"	Str.
R405E	4	23'-6"	Str.
R406E	2	6'-8"	3"
R407E	2	5'-1"	3"
W401E	96	4'-7"	3"
W501	12	11'-7"	3¾"
W601	24	5'-0"	4½"
W602 To W616	4 Each	2'-2" To 10'-7"	Str.
W617	24	11'-1"	Str.
W801	20	23'-8"	Str.
W802 To W819	4 Each	5'-11" To 20'-1"	Str.
W820	4	24'-5"	6"

Bending Diagrams
(Dimensions are out to out of bars)

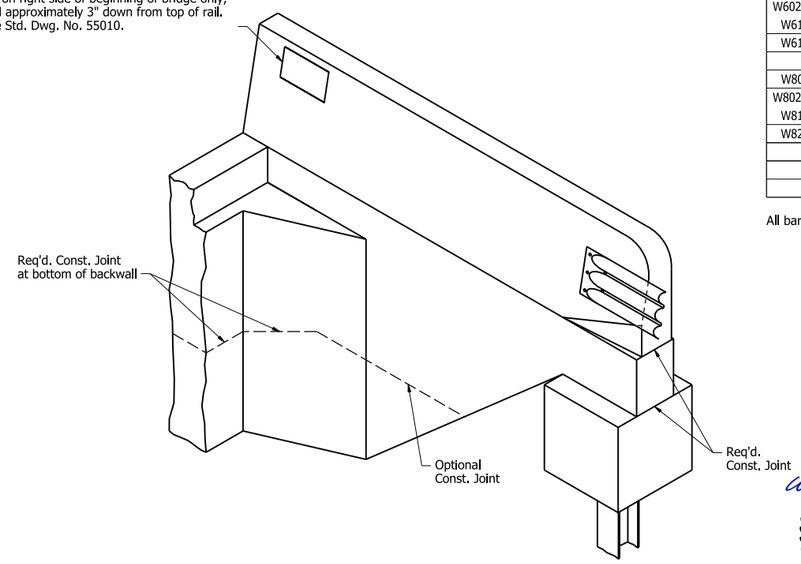


All bars designated with an "E" suffix are to be epoxy coated.



SECTION D-D
¾" = 1'-0"

Place Type D Bridge Name Plate on front face of wing rail approximately 1'-0" from end of rail on right side of beginning of bridge only, and approximately 3" down from top of rail. See Std. Dwg. No. 55010.



THREE DIMENSIONAL VIEW OF WING AND RAIL
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 3 OF 3
DETAILS OF END BENT NO. 1
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

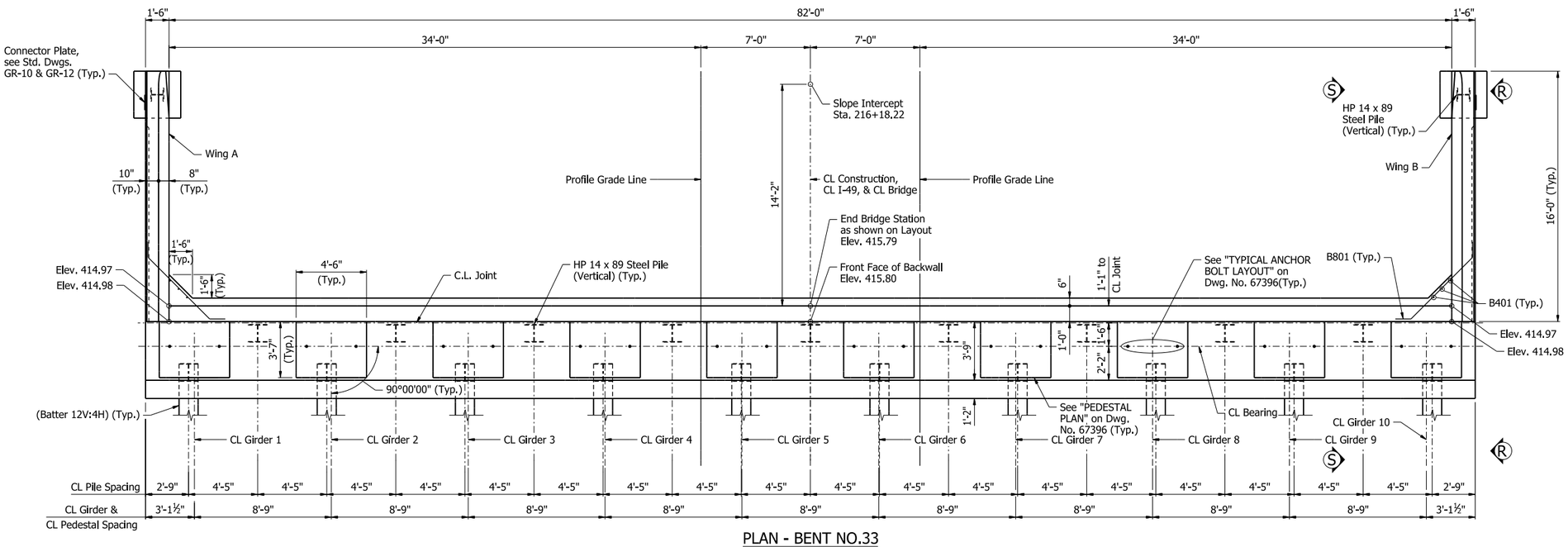
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: AT DATE: 10/09/23
DESIGNED BY: JRR DATE: 9/18/23
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SCALE: AS NOTED

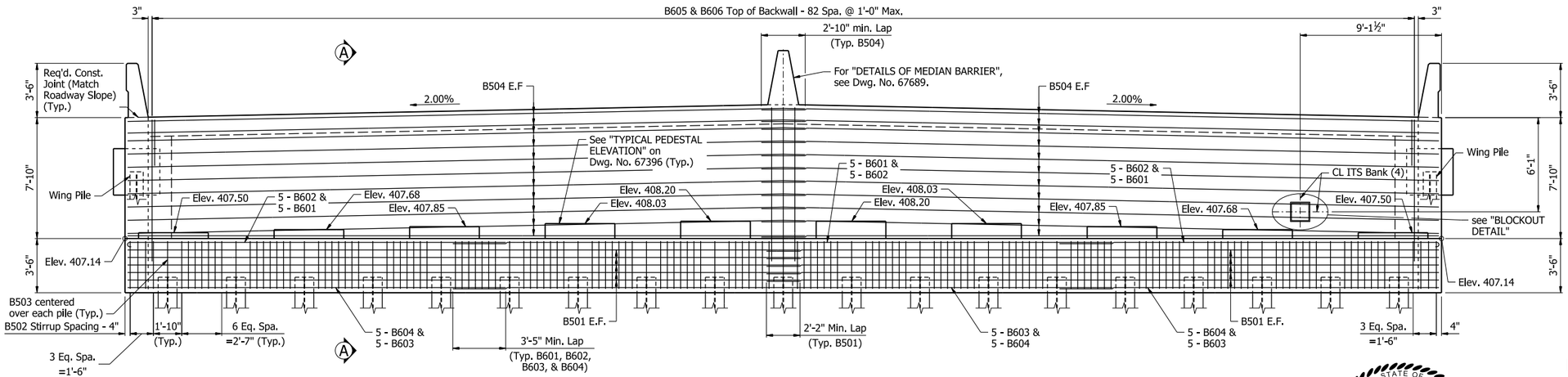
BRIDGE NO. 07684 DRAWING NO. 67394

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	335	809
		07684 - END BENTS - 67395				



PLAN - BENT NO.33



ELEVATION - BENT NO. 33

Looking Back

NOTES:

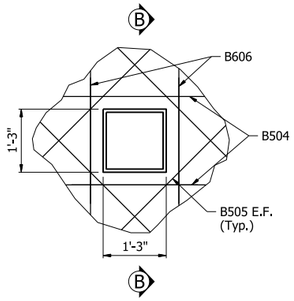
For general notes, see Dwg. No. 67372.

For details of steel piling, see Std. Dwg. No. 55020.

For "SECTION A-A", "VIEW R-R" & "VIEW S-S", see Dwg. No. 67396.

Class 2 Protective Surface Treatment shall be applied to the roadway face and top of the wing rails, and the top of the backwall.

All exposed corners shall be chamfered ¾" UNO.

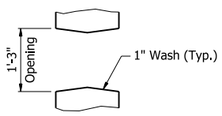


BLOCKOUT DETAIL

No Scale

Contractor shall adjust B606 and B504 Bars to accommodate blockout.

For Blockout Details and Construction Sequencing Notes, see Dwg. No. 67672.



SECTION B-B

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697

4/18/24

BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 3
DETAILS OF END BENT NO. 33
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

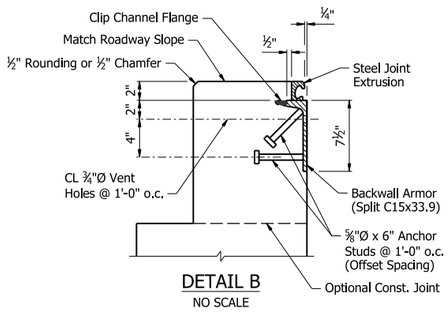
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CHECKED BY: AT DATE: 10/27/23
DESIGNED BY: AT DATE: 9/18/23

FILENAME: b04090111_b331.dgn
SCALE: ⅜" = 1'-0"

BRIDGE NO. 07684 DRAWING NO. 67395

PRINT DATE: 4/11/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	336	809
		07684 - END BENTS - 67396				

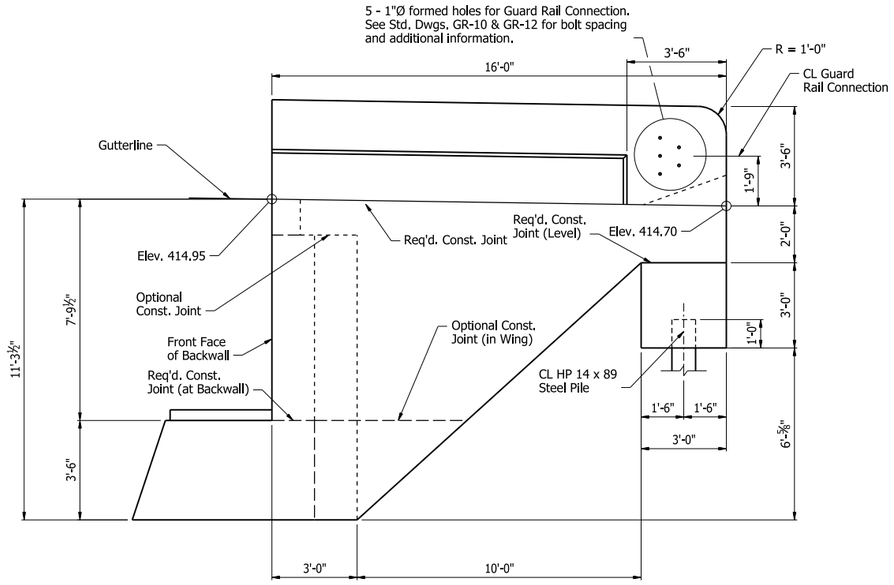


DETAIL B
NO SCALE

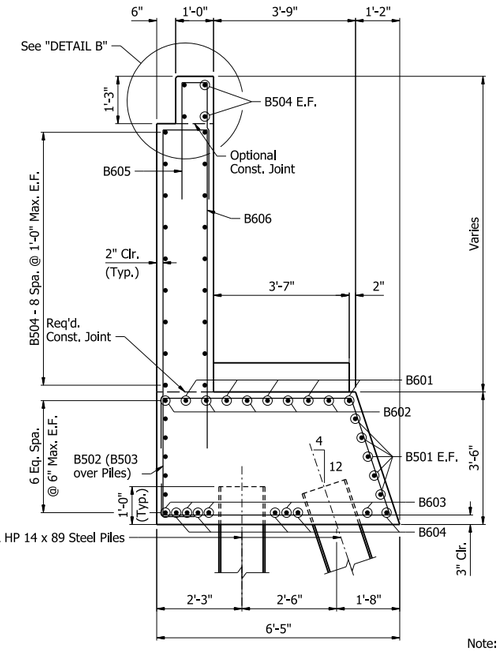
For additional joint details, see Std. Dwg. No. 55009.

Concrete shall be hand-packed under the joint armor in the backwall.

Transverse spacing between top anchor studs and vent holes shall be 6".

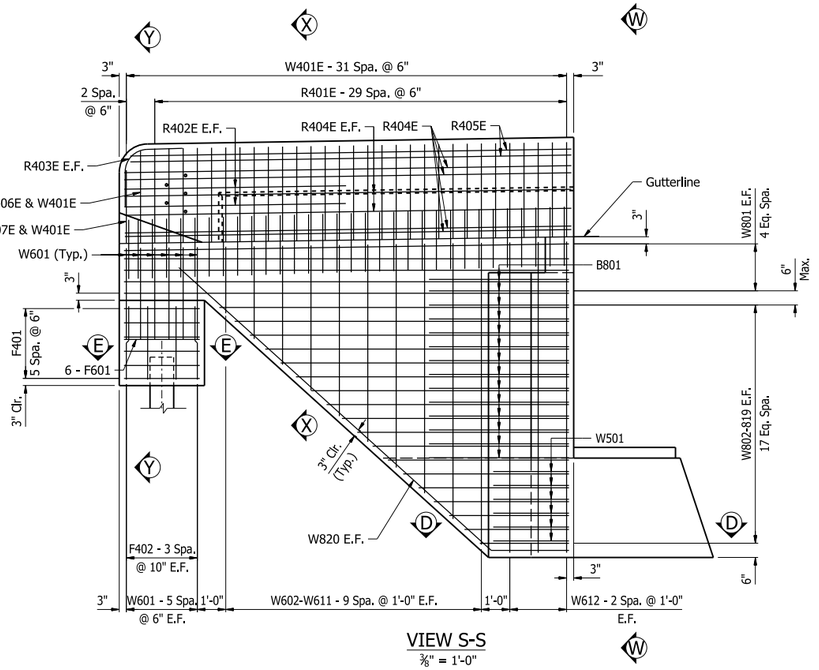


VIEW R-R
⅜" = 1'-0"

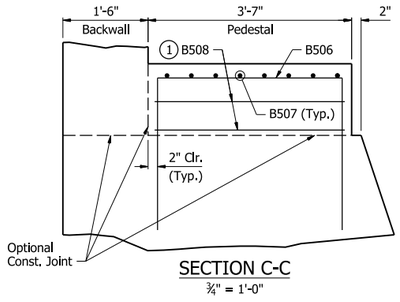


SECTION A-A
⅜" = 1'-0"

Note:
Contractor shall adjust B601 & B602 bar spacing to accommodate anchor bolts or sheet metal sleeves. Contractor shall maintain a minimum spacing of 3" and a maximum spacing of 8".



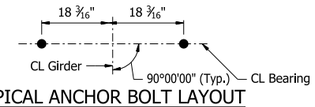
VIEW S-S
⅜" = 1'-0"



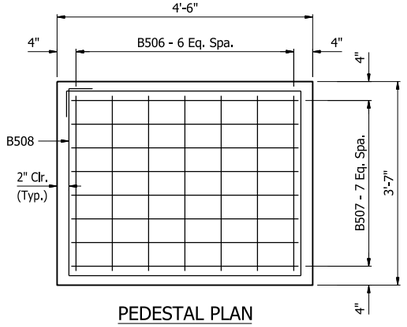
SECTION C-C
¾" = 1'-0"

Notes:
For "VIEW W-W", "SECTION X-X" & "SECTION Y-Y" , see Dwg. No. 67397.

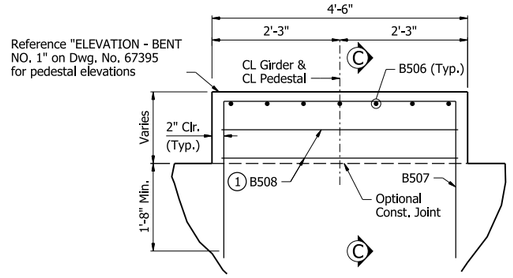
For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.



TYPICAL ANCHOR BOLT LAYOUT
1" = 1'-0"



PEDESTAL PLAN
¾" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

(1) 1-B508 when Pedestal Height is less than 11";
2-B508 when Pedestal Height is greater than 11";
B508 spaced at 6" Max.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 3
DETAILS OF END BENT NO. 33
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

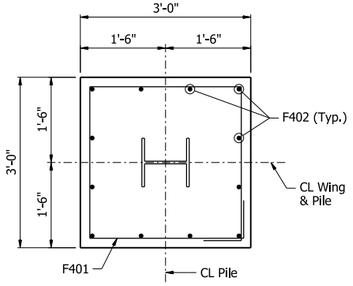
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JVS DATE: 10/05/23
CHECKED BY: AT DATE: 10/27/23
DESIGNED BY: JRR DATE: 9/18/23
FILENAME: b04090111_b332.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67396

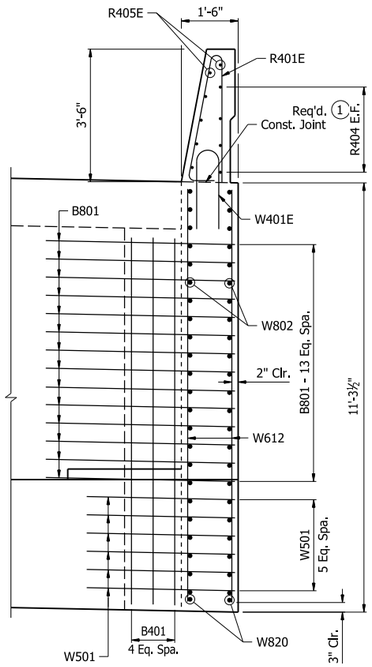
PRINT DATE: 4/11/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	337	809
		07684 - END BENTS - 67397				

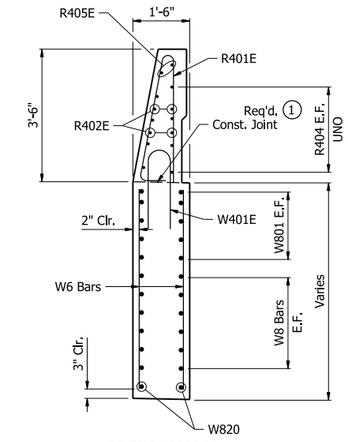


SECTION E-E
¾" = 1'-0"

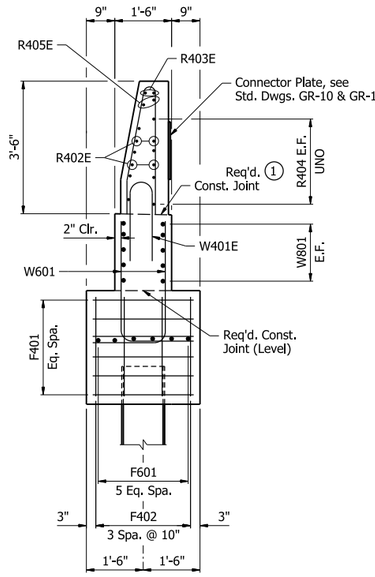
Match roadway slope for both Wingwalls (1)



VIEW W-W
½" = 1'-0"



SECTION X-X
½" = 1'-0"

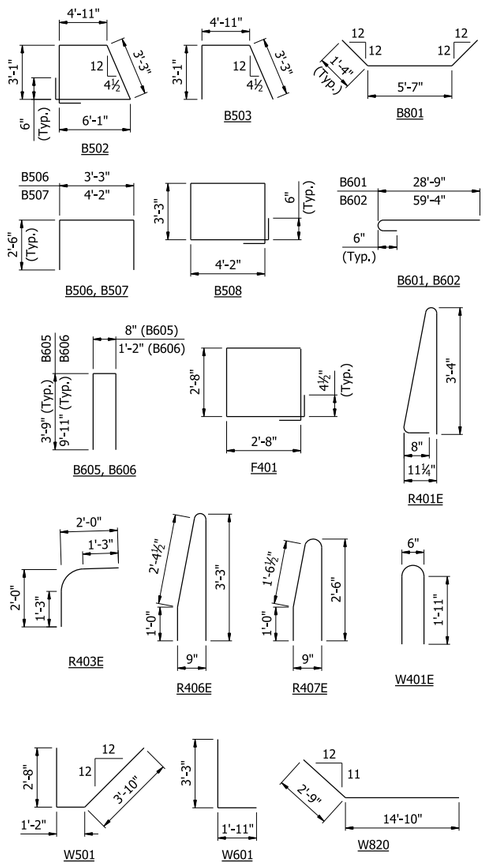


SECTION Y-Y
½" = 1'-0"

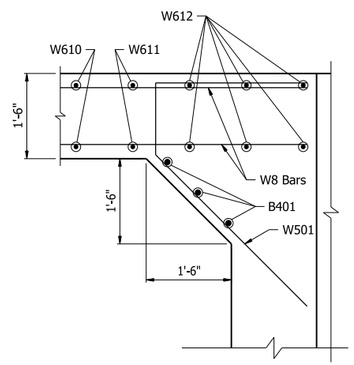
BAR LIST - PER BENT

Mark	Number Required	Length	Pin Dia.
B401	6	9'-9"	Str.
B501	20	43'-5"	Str.
B502	134	18'-0"	2½"
B503	19	11'-1"	2½"
B504	44	43'-9"	Str.
B505	8	2'-0"	Str.
B506	70	8'-1"	2½"
B507	80	9'-0"	2½"
B508	12	15'-4"	2½"
B601	10	29'-5"	4½"
B602	10	60'-0"	4½"
B603	10	28'-1"	Str.
B604	10	60'-0"	Str.
B605	83	7'-10"	4½"
B606	83	20'-8"	4½"
B801	28	8'-3"	6"
F401	12	11'-0"	2"
F402	24	2'-7"	Str.
F601	12	2'-8"	Str.
R401E	60	7'-6"	3"
R402E	8	5'-6"	Str.
R403E	4	3'-8"	8½"
R404E	16	15'-8"	Str.
R405E	4	15'-6"	Str.
R406E	2	6'-8"	3"
R407E	2	5'-1"	3"
W401E	96	4'-7"	3"
W501	12	7'-5"	3¾"
W601	24	5'-0"	4½"
W602 To W611	4 Each	2'-5" To 10'-8"	Str.
W612	12	11'-0"	Str.
W801	20	15'-8"	Str.
W802 To W819	4 Each	3'-2" To 12'-4"	Str.
W820	4	17'-5"	6"

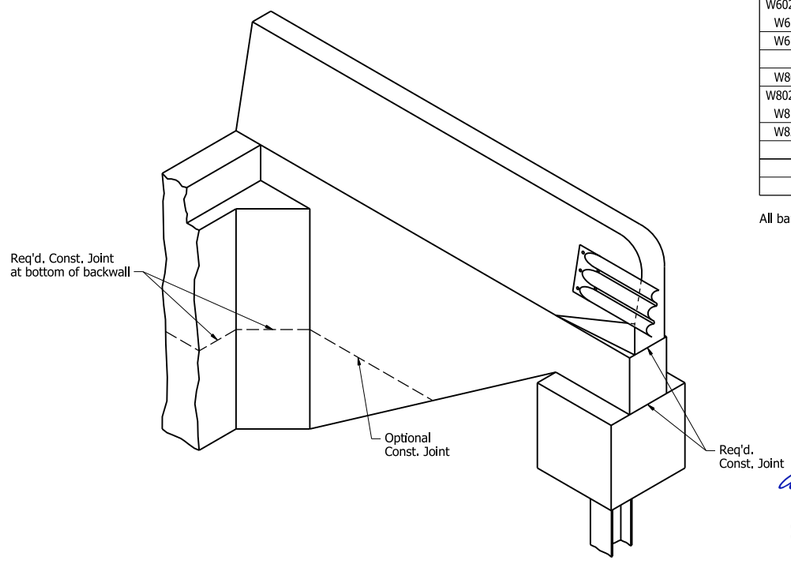
Bending Diagrams
(Dimensions are out to out of bars)



All bars designated with an "E" suffix are to be epoxy coated.



SECTION D-D
¾" = 1'-0"



THREE DIMENSIONAL VIEW OF WING AND RAIL
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 3 OF 3
DETAILS OF END BENT NO. 33
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JVS DATE: 10/05/23
CHECKED BY: AT DATE: 10/27/23
DESIGNED BY: AT DATE: 9/18/23
FILENAME: b04090111_b333.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67397

PRINT DATE: 4/10/2024

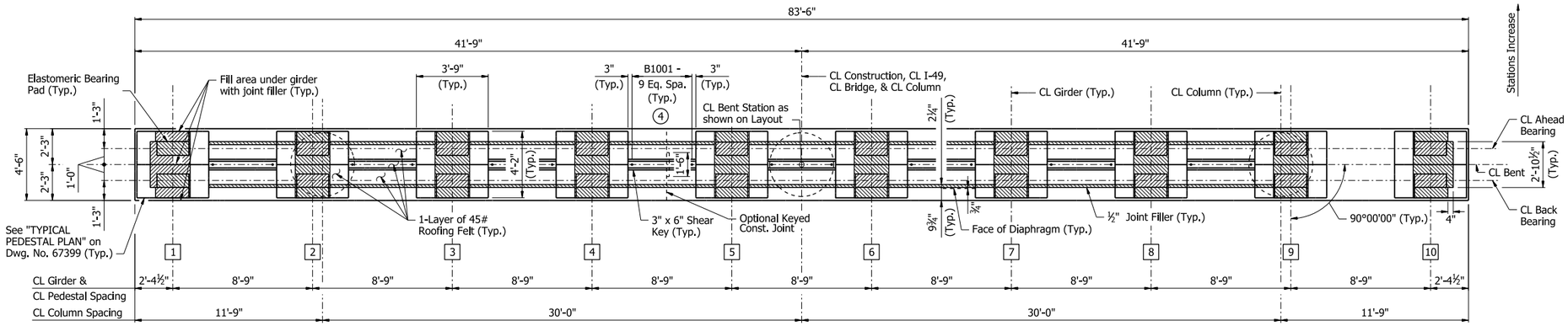
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	338	809
		07684 - INT. BENTS - 67398				

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67399.

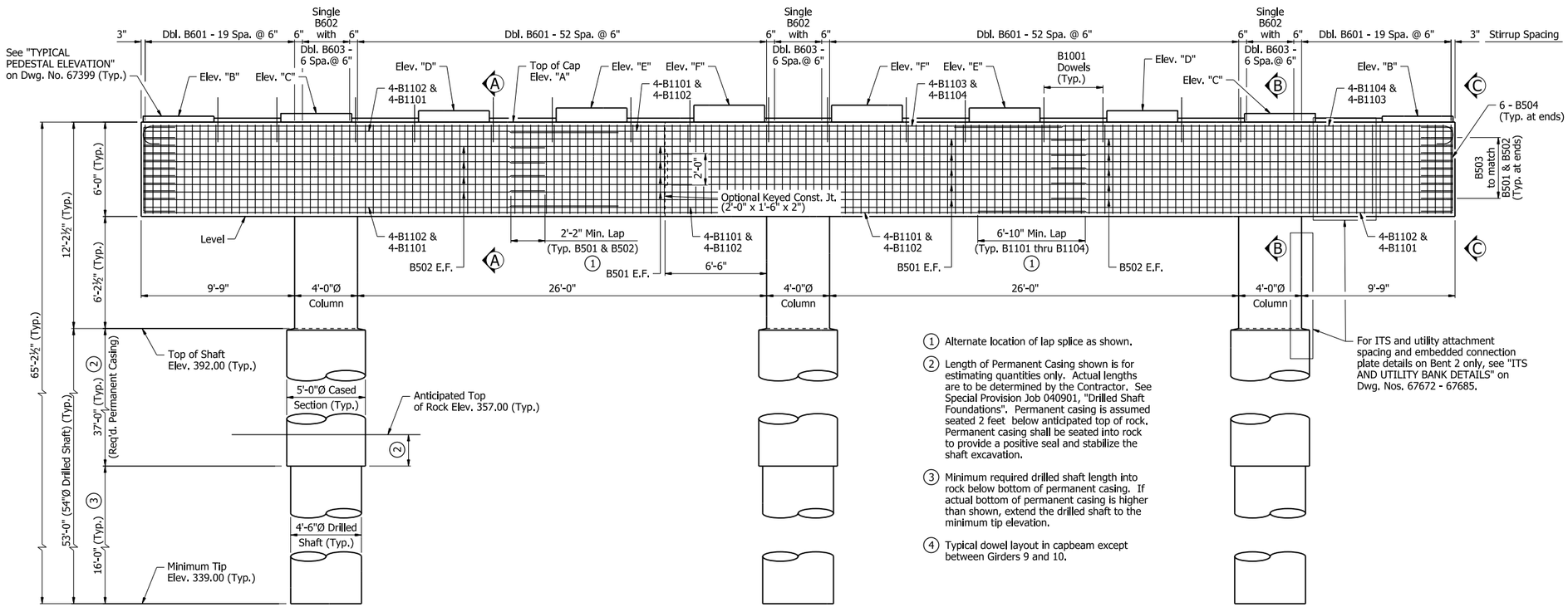
For "GENERAL NOTES", see Dwg. No. 67372.

Use 2¼" x ½" joint filler up the vertical face of pedestals.

For "DETAILS OF ELASTOMERIC BEARINGS" , see Dwg. Nos. 67702 and 67703.



PLAN



ELEVATION
(Looking Upstation)

(1) Alternate location of lap splice as shown.

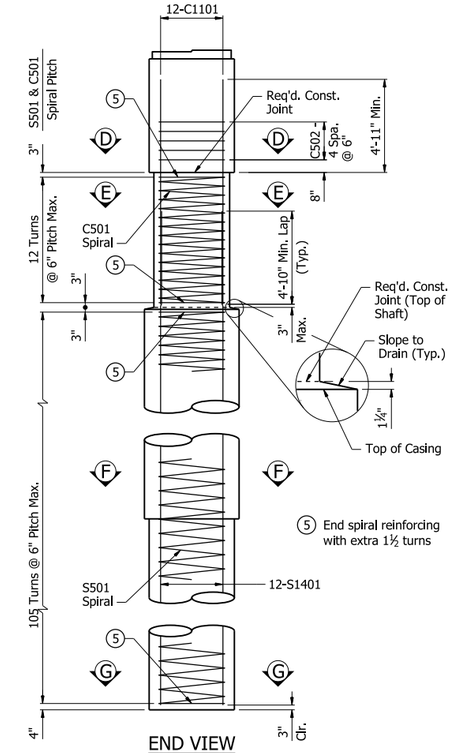
(2) Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.

(3) Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.

(4) Typical dowel layout in capbeam except between Girders 9 and 10.

TABLE OF VARIABLES

"A"	"B"		"C"		"D"		"E"		"F"	
	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing
404.21	404.59	404.59	404.76	404.76	404.94	404.94	405.11	405.11	405.29	405.29



(5) End spiral reinforcing with extra 1½ turns

END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of turns shall be adjusted accordingly to maintain the maximum pitch in the regions identified above.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NO. 2
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

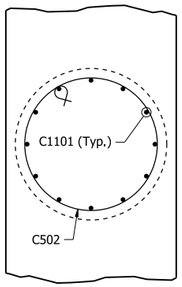
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 10/7/23
CHECKED BY: QL DATE: 11/1/23
DESIGNED BY: CZ DATE: 6/27/23
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SCALE: ¼" = 1'-0"

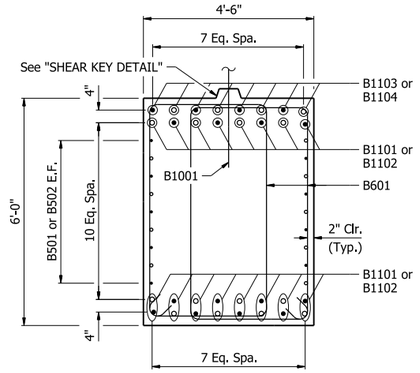
BRIDGE NO. 07684 DRAWING NO. 67398

PRINT DATE: 4/10/2024

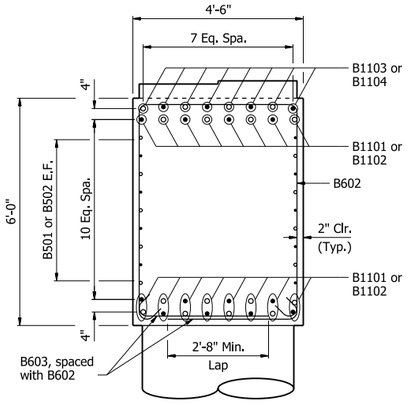
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	339	809
		07684 - INT. BENTS - 67399				



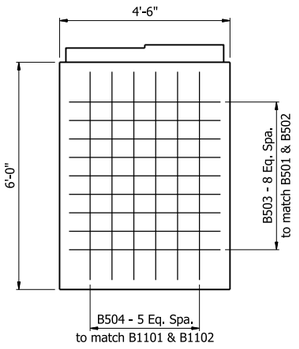
SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)



SECTION A-A
½" = 1'-0"

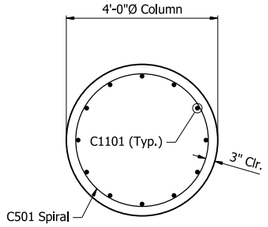


SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)

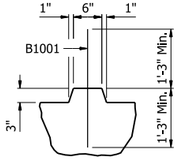


VIEW C-C
½" = 1'-0"

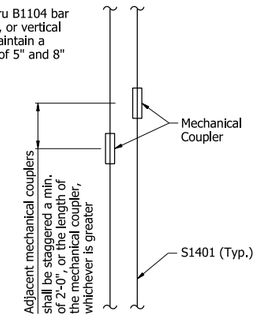
Note:
Contractor shall adjust B1101 thru B1104 bar spacing to accommodate dowels, or vertical column steel. Contractor shall maintain a minimumand maximum spacing of 5" and 8" respectively.



SECTION E-E
½" = 1'-0"



SHEAR KEY
No Scale



DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES;
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 5'-1" from top of shaft.

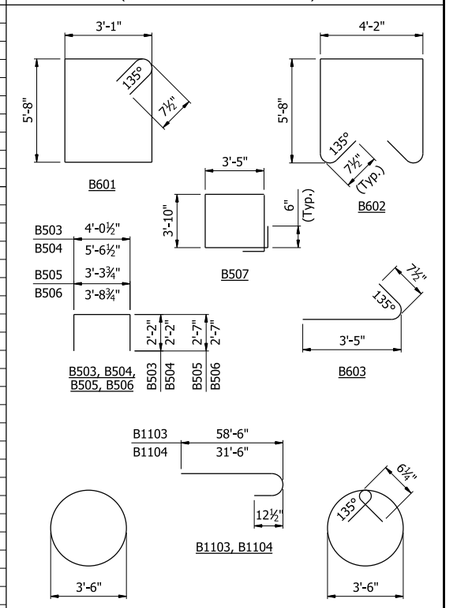
The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (54" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.

BAR LIST

Mark	Number Required	Length	Pin Dia.
B501	18	60'-0"	Str.
B502	18	25'-4"	Str.
B503	18	8'-2"	2½"
B504	12	9'-8"	2½"
B505	70	8'-3"	2½"
B506	60	8'-8"	2½"
B507	12	15'-0"	2½"
B601	292	18'-4"	4½"
B602	21	16'-6"	4½"
B603	42	4'-1"	4½"
B1001	81	2'-6"	Str.
B1101	24	60'-0"	Str.
B1102	24	30'-0"	Str.
B1103	8	60'-0"	11¼"
B1104	8	33'-0"	11¼"
C501	3	162'-6"	Spiral
C502	15	12'-2"	2½"
C1101	36	10'-11"	Str.
② S501	3	1,170'-6"	Spiral
② S1401	36	57'-10"	Str.

Bending Diagrams (Dimensions are out to out of bars)



All bars designated with an "E" suffix are to be epoxy coated.

② S1401 longitudinal reinforcement and S501 spiral reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (54" DIA.)". Individual lengths to be determined by the Contractor.

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67398.

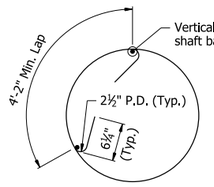
SPIRAL REINFORCING NOTES;
Spiral reinforcing shall be plain round or deformed steel bars meeting the requirements of AASHTO M31 or M322, Type A with mill test report (Grade 60) or shall be cold drawn wire meeting the requirements of AASHTO M32 or M225 (Grade 70) with a minimum diameter of 0.625".

Spiral reinforcement shall be paid for at the contract unit price bid per pound for "Reinforcing Steel-Bridge (Grade 60)". No additional payment shall be made for spacers, optional splices, or bracing needed for assembly, shipping, handling, or erecting.

Contractor may elect to lap splice the spiral reinforcing. In no case shall a spiral be lapped within 5'-1" of the top or bottom of the column.

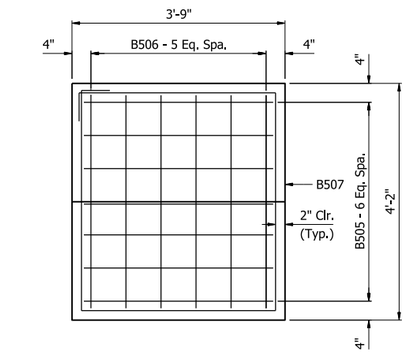
Splices in spiral reinforcing shall be a minimum of 80 bar diameters.

Spiral reinforcing at lapped splices shall be terminated by a 135° hook with a 6¼" tail around a vertical bar. See "SPIRAL SPLICE DETAIL". Hook may be field bent. Ends of spirals not lapped shall be terminated with 1½ turns.

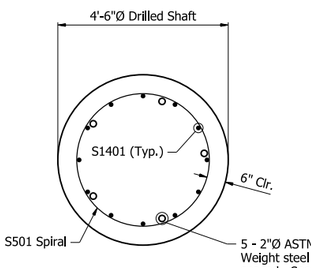


SPIRAL SPLICE DETAIL
No Scale

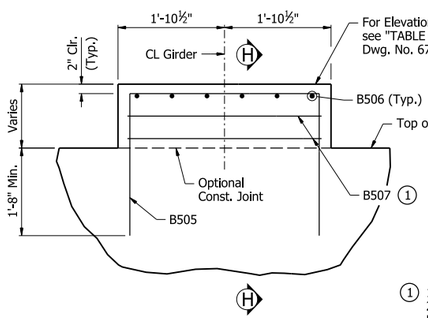
SECTION F-F
½" = 1'-0"



TYPICAL PEDESTAL PLAN
¾" = 1'-0"

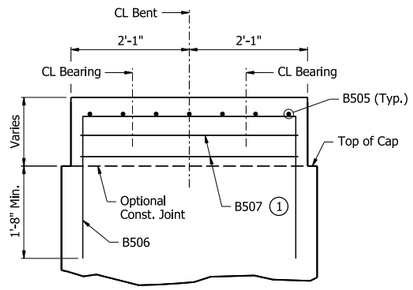


SECTION G-G
½" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

① 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.



SECTION H-H
¾" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NO. 2
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 10/7/23
CHECKED BY: QL DATE: 11/1/23
DESIGNED BY: CZ DATE: 6/27/23
FILENAME: b04090111_b22.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67399

PRINT DATE: 4/10/2024

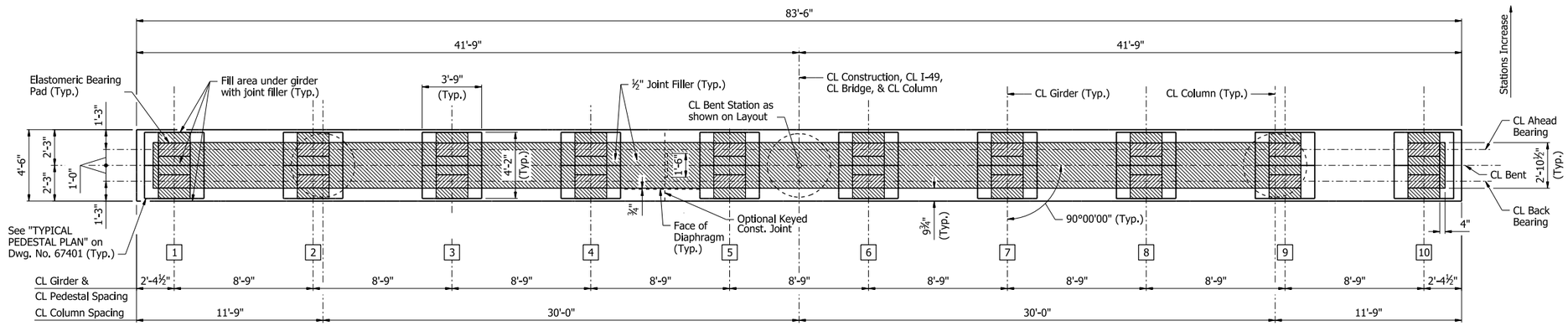
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	340	809
		07684 - INT. BENTS - 67400				

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67401.

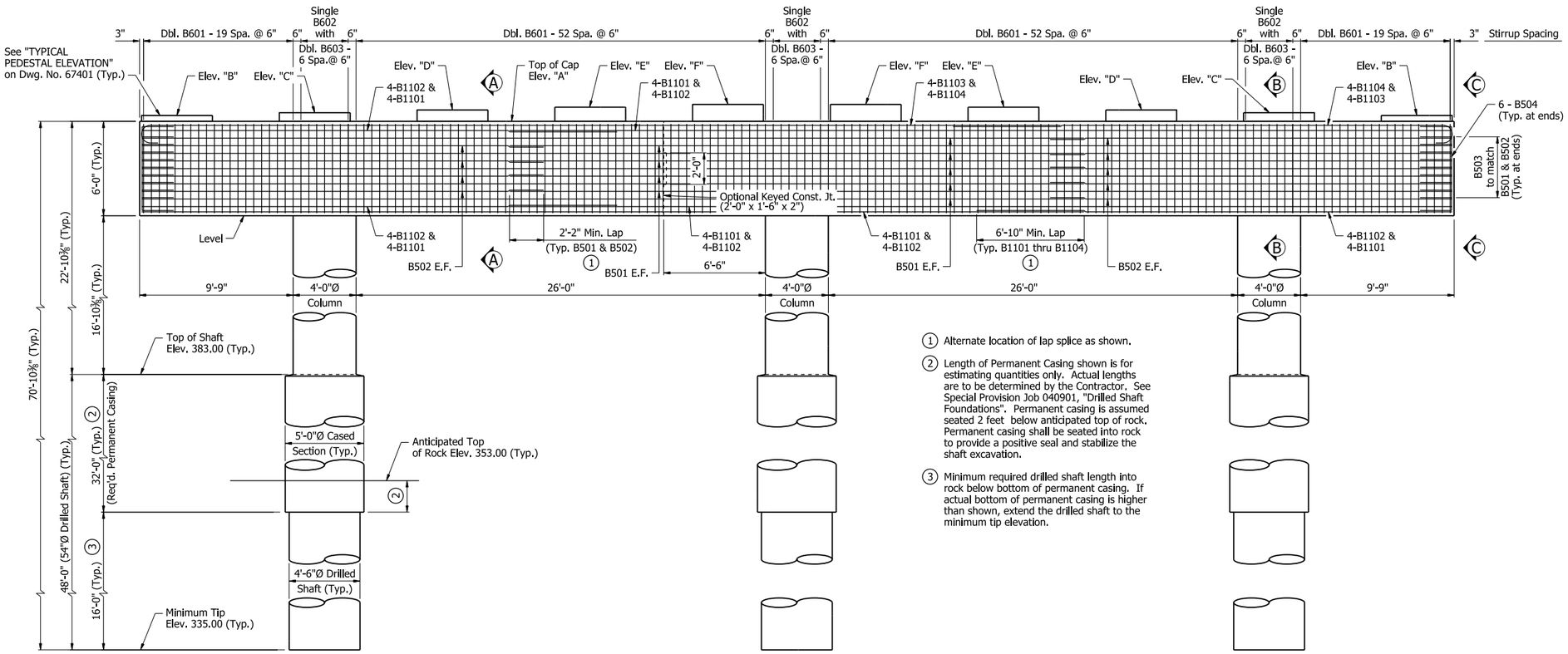
For "GENERAL NOTES", see Dwg. No. 67372.

Use ½" joint filler up the vertical faces of pedestals.

For "DETAILS OF ELASTROMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.

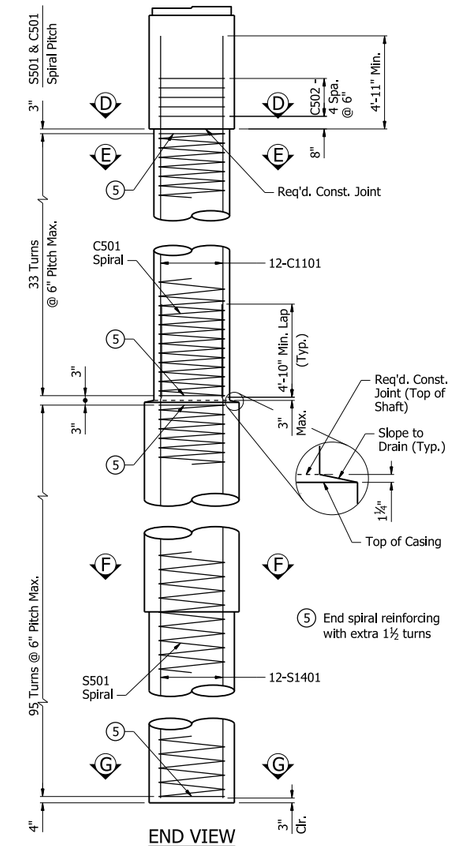


PLAN



ELEVATION
(Looking Upstation)

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.



END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of turns shall be adjusted accordingly to maintain the maximum pitch in the regions identified above.

TABLE OF VARIABLES

"A"	"B"		"C"		"D"		"E"		"F"	
	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing
405.86	406.24	406.29	406.41	406.47	406.59	406.64	406.76	406.82	406.94	406.99

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NO. 3
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

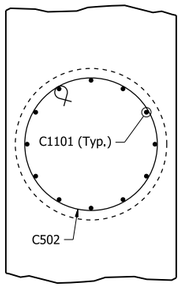
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 10/12/23
CHECKED BY: QL DATE: 10/31/23
DESIGNED BY: CZ DATE: 6/28/23
FILENAME: b04090111_b31.dgn
SCALE: ¼" = 1'-0"

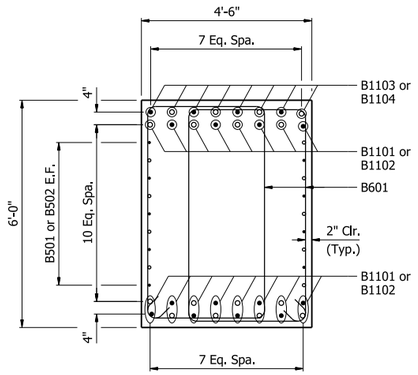
BRIDGE NO. 07684 DRAWING NO. 67400

PRINT DATE: 4/10/2024

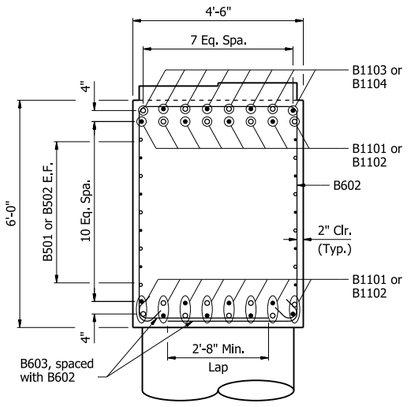
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	341	809
		07684 - INT. BENTS - 67401				



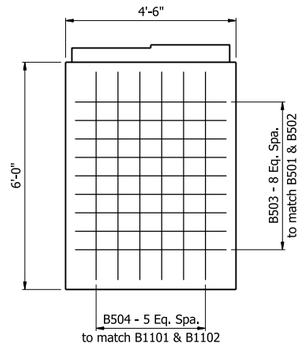
SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)



SECTION A-A
½" = 1'-0"

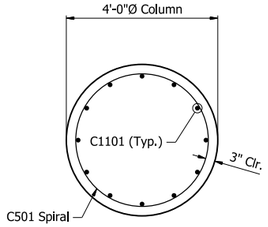


SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)

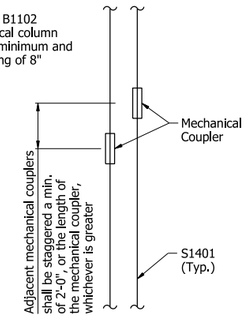


VIEW C-C
½" = 1'-0"

Note:
Contractor shall adjust B1101 and B1102 bar spacing to accommodate vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and spacing of 8" respectively.



SECTION E-E
½" = 1'-0"



DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES;
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 5'-1" from top of shaft.

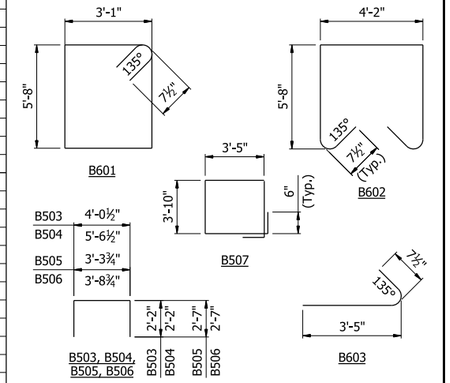
The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (54" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.

BAR LIST

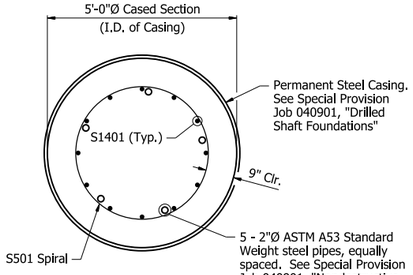
Mark	Number Required	Length	Pin Dia.
B501	18	60'-0"	Str.
B502	18	25'-4"	Str.
B503	18	8'-2"	2½"
B504	12	9'-8"	2½"
B505	70	8'-3"	2½"
B506	60	8'-8"	2½"
B507	12	15'-0"	2½"
B601	292	18'-4"	4½"
B602	21	16'-6"	4½"
B603	42	4'-1"	4½"
B1101	24	60'-0"	Str.
B1102	24	30'-0"	Str.
B1103	8	60'-0"	11¼"
B1104	8	33'-0"	11¼"
C501	3	390'-1"	Spiral
C502	15	12'-2"	2½"
C1101	36	21'-7"	Str.
(2) S501	3	1,062'-2"	Spiral
(2) S1401	36	52'-10"	Str.

Bending Diagrams (Dimensions are out to out of bars)

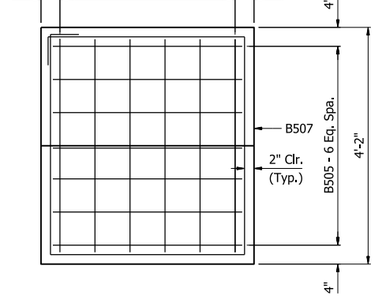


All bars designated with an "E" suffix are to be epoxy coated.

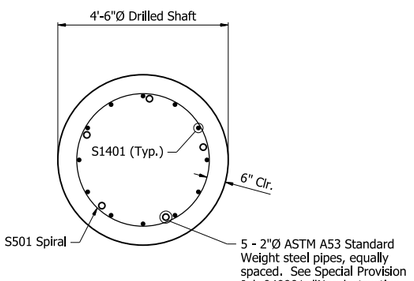
(2) S1401 longitudinal reinforcement and S501 spiral reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (54" DIA.)". Individual lengths to be determined by the Contractor.



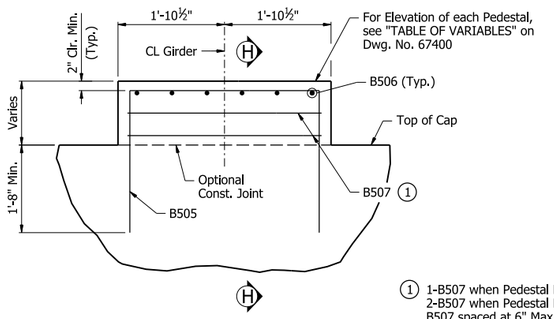
SECTION F-F
½" = 1'-0"



TYPICAL PEDESTAL PLAN
¾" = 1'-0"

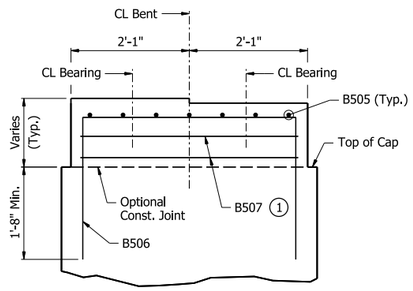


SECTION G-G
½" = 1'-0"

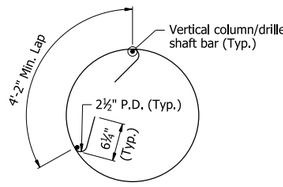


TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

(1) 1-B507 when Pedestal Height is 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.



SECTION H-H
¾" = 1'-0"



SPIRAL SPLICE DETAIL
No Scale

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67400.

SPIRAL REINFORCING NOTES;
Spiral reinforcing shall be plain round or deformed steel bars meeting the requirements of AASHTO M31 or M322, Type A with mill test report (Grade 60) or shall be cold drawn wire meeting the requirements of AASHTO M32 or M225 (Grade 70) with a minimum diameter of 0.625".

Spiral reinforcement shall be paid for at the contract unit price bid per pound for "Reinforcing Steel-Bridge (Grade 60)". No additional payment shall be made for spacers, optional splices, or bracing needed for assembly, shipping, handling, or erecting.

Contractor may elect to lap splice the spiral reinforcing. In no case shall a spiral be lapped within 5'-1" of the top or bottom of the column.

Splices in spiral reinforcing shall be a minimum of 80 bar diameters.

Spiral reinforcing at lapped splices shall be terminated by a 135° hook with a 6¼" tail around a vertical bar. See "SPIRAL SPLICE DETAIL". Hook may be field bent. Ends of spirals not lapped shall be terminated with 1½ turns.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NO. 3
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

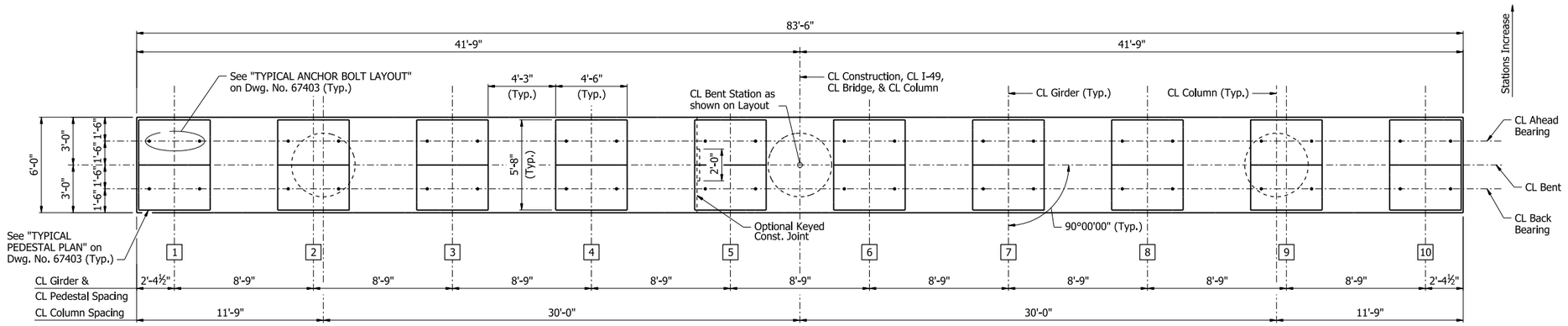
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 10/12/23
CHECKED BY: QL DATE: 10/31/23
DESIGNED BY: CZ DATE: 6/28/23
FILENAME: b04090111_b32.dgn
SCALE: AS NOTED

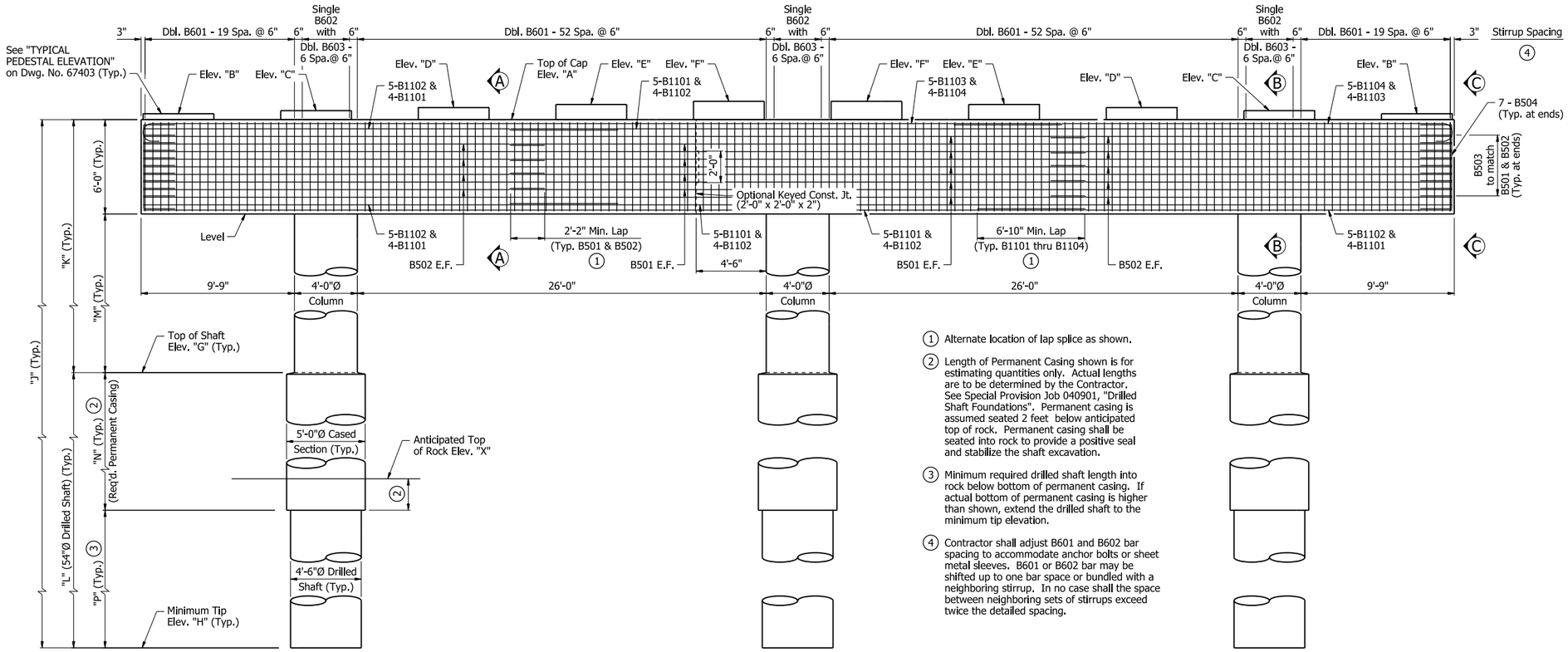
BRIDGE NO. 07684 DRAWING NO. 67401

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	342	809
		07684 - INT. BENTS - 67402				



PLAN



ELEVATION
(Looking Upstation)

(1) Alternate location of lap splice as shown.

(2) Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.

(3) Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.

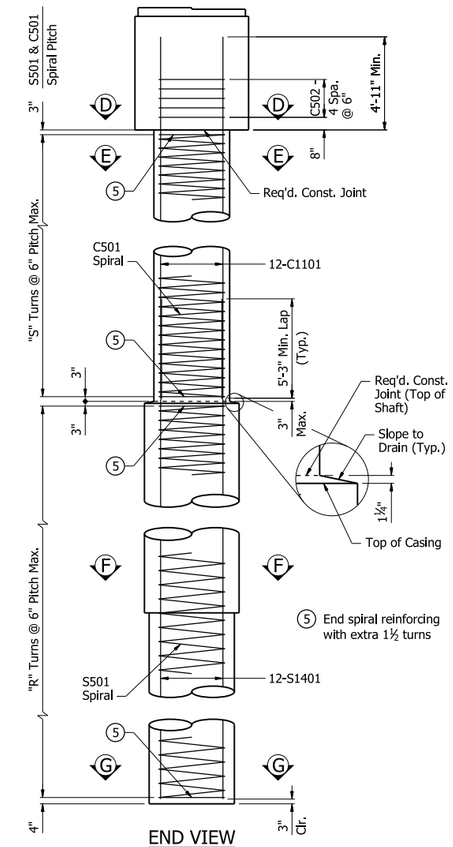
(4) Contractor shall adjust B601 and B602 bar spacing to accommodate anchor bolts or sheet metal sleeves. B601 or B602 bar may be shifted up to one bar space or bundled with a neighboring stirrup. In no case shall the space between neighboring sets of stirrups exceed twice the detailed spacing.

TABLE OF VARIABLES

Bent No.	"A"	"B"		"C"		"D"		"E"		"F"		"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"	"S"	"X"
		Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing											
4	408.37	408.82	408.82	408.99	408.99	409.17	409.17	409.34	409.34	409.52	409.52	384.00	338.00	70'-4½"	24'-4½"	46'-0"	18'-4½"	30'-0"	16'-0"	91	36	356.00
27	419.24	419.75	419.70	419.92	419.88	420.10	420.05	420.27	420.23	420.45	420.40	399.00	339.00	80'-2⅞"	20'-2⅞"	60'-0"	14'-2⅞"	50'-0"	10'-0"	119	28	351.00
30	413.09	413.62	413.58	413.80	413.75	413.97	413.93	414.15	414.10	414.32	414.28	394.00	343.00	70'-1⅛"	19'-1⅛"	51'-0"	13'-1⅛"	42'-0"	9'-0"	101	26	354.00

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67403.

For "GENERAL NOTES", see Dwg. No. 67372.



END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of turns shall be adjusted accordingly to maintain the maximum pitch in the regions identified above.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 4, 27, & 30
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

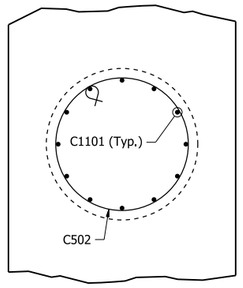
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 9/14/23
CHECKED BY: PEG DATE: 11/02/23
DESIGNED BY: MGG DATE: 7/10/23
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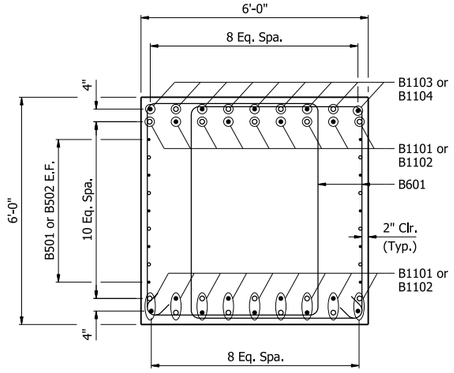
BRIDGE NO. 07684 DRAWING NO. 67402

PRINT DATE: 4/10/2024

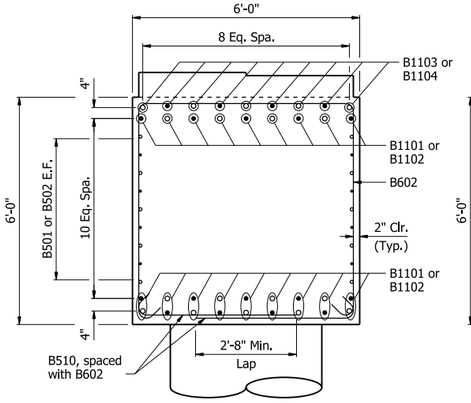
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	343	809
		07684 - INT. BENTS - 67403				



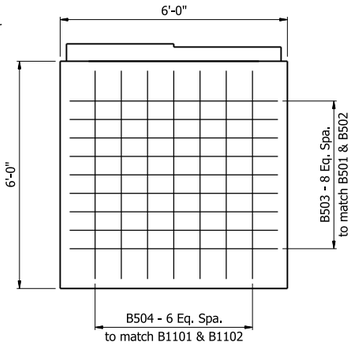
SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)



SECTION A-A
½" = 1'-0"

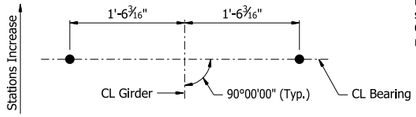


SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)

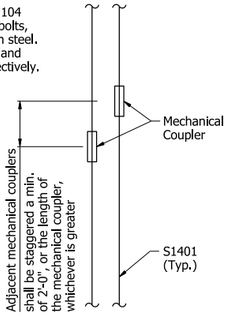


VIEW C-C
½" = 1'-0"

Note:
Contractor shall adjust B1101 thru B1104 bar spacing to accommodate anchor bolts, sheet metal sleeves or vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 8", respectively.



TYPICAL ANCHOR BOLT LAYOUT
1" = 1'-0"



DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES:
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 5'-6" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (54" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.

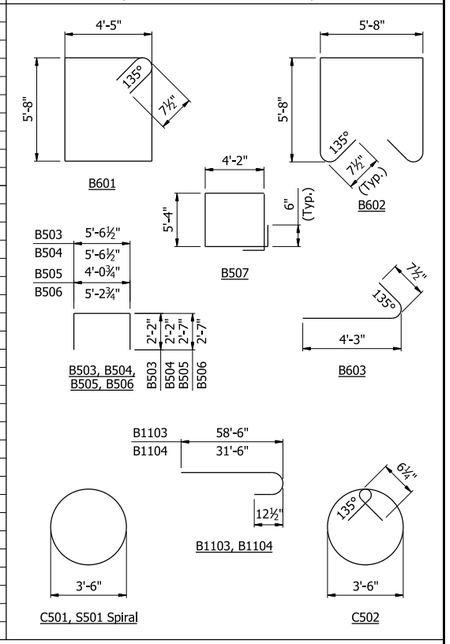
TABLE OF VARIABLES

Bent No.	"CS"	"CL"	"SS"	"SL"
4	422'-8"	23'-1"	1,018'-8"	51'-3"
27	335'-11"	18'-11"	1,322'-2"	65'-3"
30	314'-3"	17'-10"	1,127'-1"	56'-3"

BAR LIST - PER BENT

Mark	Number Required	Length	Pin Dia.
B501	18	60'-0"	Str.
B502	18	25'-4"	Str.
B503	18	9'-8"	2½"
B504	14	9'-8"	2½"
B505	80	9'-0"	2½"
B506	70	10'-2"	2½"
B507	12	19'-6"	2½"
B601	292	21'-0"	4½"
B602	21	18'-0"	4½"
B603	42	4'-11"	4½"
B1101	27	60'-0"	Str.
B1102	27	30'-0"	Str.
B1103	9	60'-0"	11¼"
B1104	9	33'-0"	11¼"
C501	3	"CS"	Spiral
C502	15	12'-2"	2½"
C1101	36	"CL"	Str.
(2) S501	3	"SS"	Spiral
(2) S1401	36	"SL"	Str.

Bending Diagrams (Dimensions are out to out of bars)



All bars designated with an "E" suffix are to be epoxy coated.

(2) S1401 longitudinal reinforcement and S501 spiral reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (54" DIA.)". Individual lengths to be determined by the Contractor.

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67402.

For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.

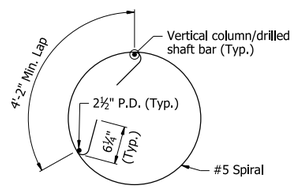
SPIRAL REINFORCING NOTES:
Spiral reinforcing shall be plain round or deformed steel bars meeting the requirements of AASHTO M31 or M322, Type A with mill test report (Grade 60) or shall be cold drawn wire meeting the requirements of AASHTO M32 or M225 (Grade 70) with a minimum diameter of 0.625".

Spiral reinforcement shall be paid for at the contract unit price bid per pound for "Reinforcing Steel-Bridge (Grade 60)". No additional payment shall be made for spacers, optional splices, or bracing needed for assembly, shipping, handling, or erecting.

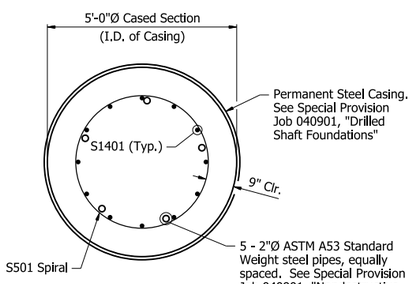
Contractor may elect to lap splice the spiral reinforcing. In no case shall a spiral be lapped within 5'-6" of the top or bottom of the column.

Splices in spiral reinforcing shall be a minimum of 80 bar diameters.

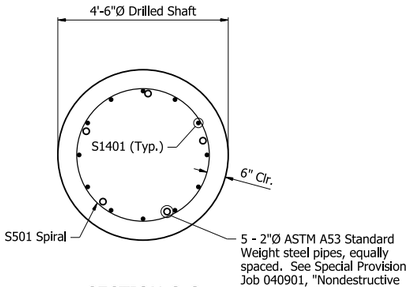
Spiral reinforcing at lapped splices shall be terminated by a 135° hook with a 6¼" tail around a vertical bar. See "SPIRAL SPLICE DETAIL". Hook may be field bent. Ends of spirals not lapped shall be terminated with 1½ turns.



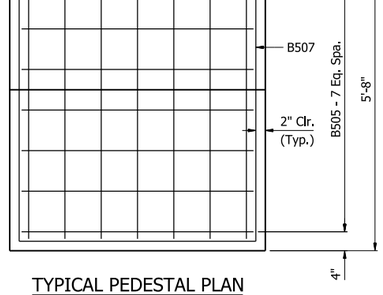
SPIRAL SPLICE DETAIL
No Scale



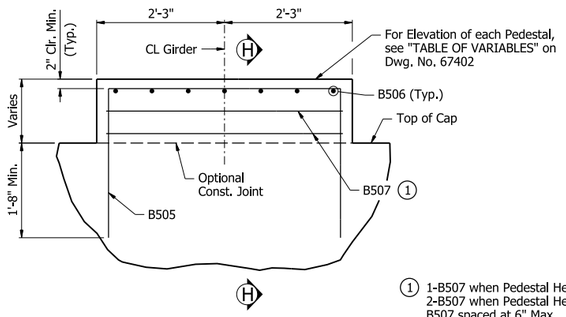
SECTION F-F
½" = 1'-0"



SECTION G-G
½" = 1'-0"

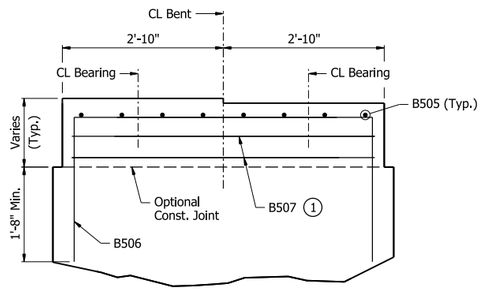


TYPICAL PEDESTAL PLAN
¾" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

(1) 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.



SECTION H-H
¾" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 4, 27, & 30
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 10/10/23
CHECKED BY: PEG DATE: 11/02/23
DESIGNED BY: CZ/MGG DATE: 7/10/23
FILENAME: b04090111_b42.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67403

PRINT DATE: 4/10/2024

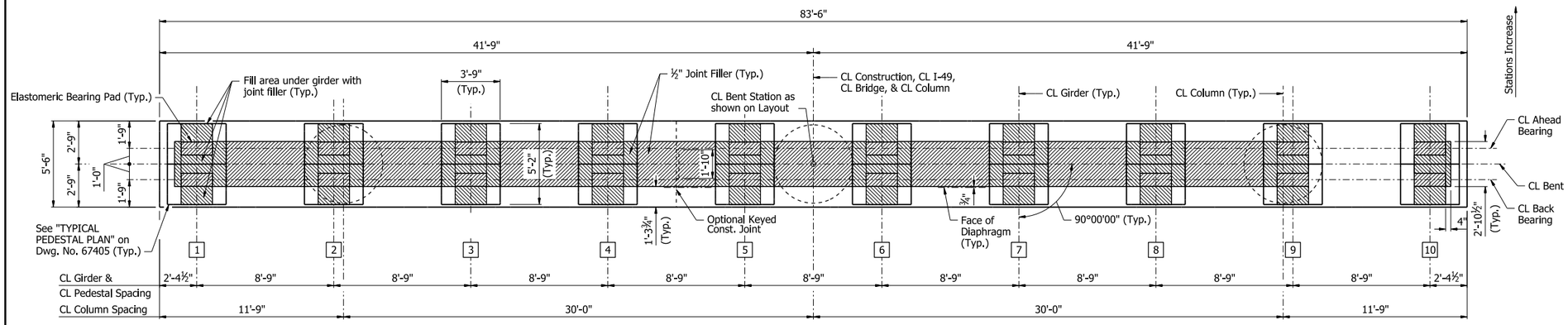
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	344	809
		07684 - INT. BENTS - 67404				

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67405.

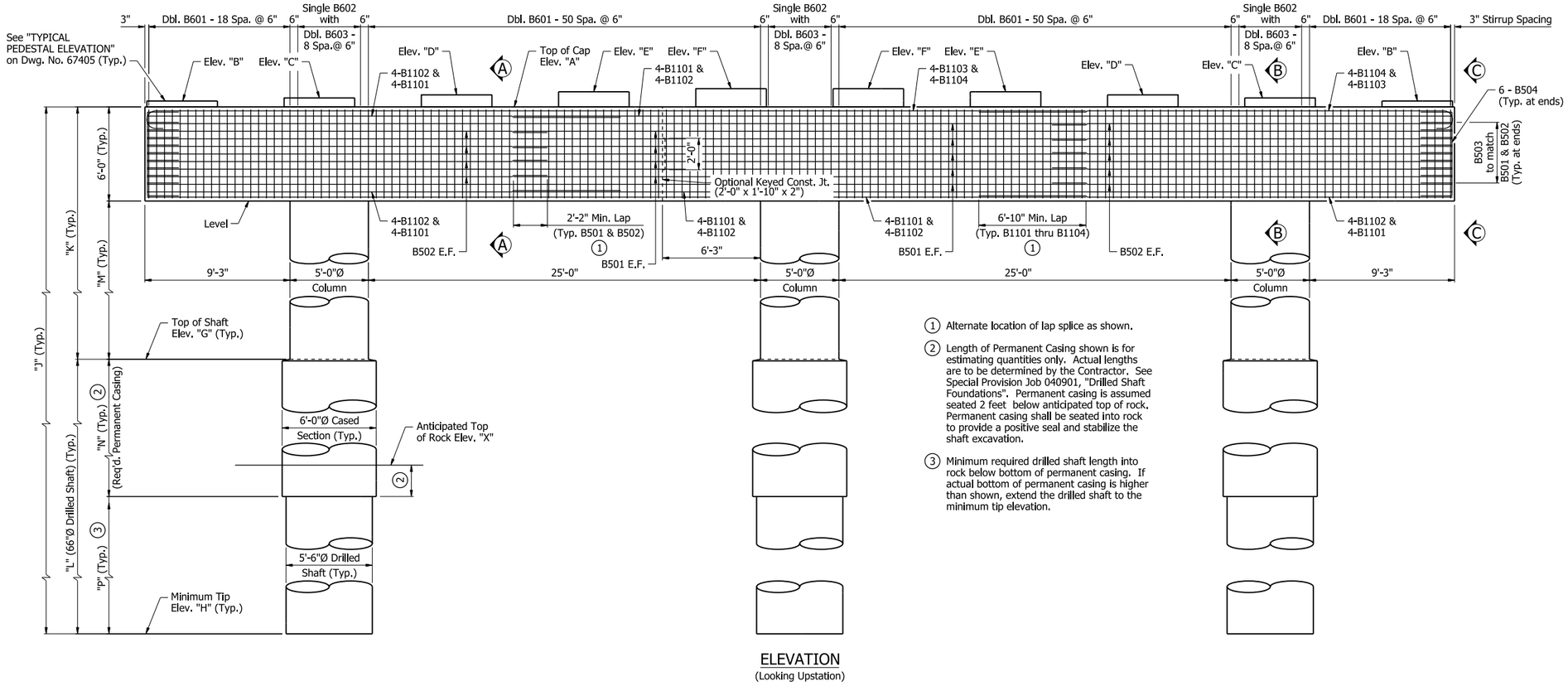
For "GENERAL NOTES", see Dwg. No. 67372.

Use ½" joint filler up the vertical face of pedestals.

For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.

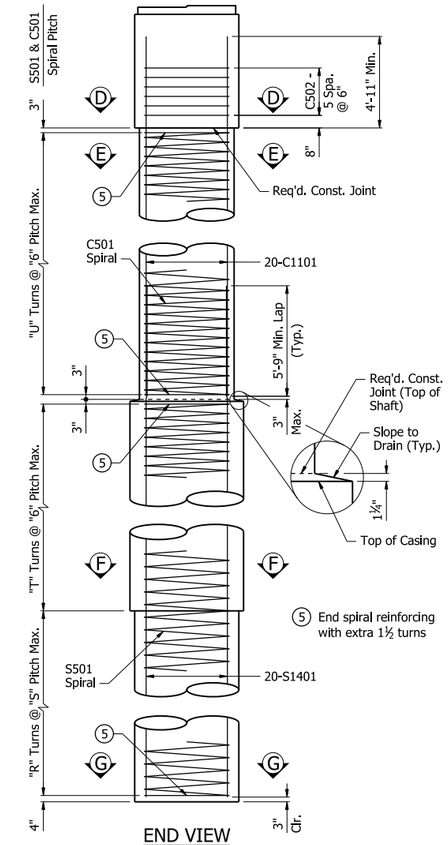


PLAN



ELEVATION
(Looking Upstation)

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.



END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of turns shall be adjusted accordingly to maintain the maximum pitch in the regions identified above.

TABLE OF VARIABLES

Bent No.	"A"	"B"		"C"		"D"		"E"		"F"		"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"	"S"	"T"	"U"	"X"
		Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing													
5	412.21	412.58	412.75	412.76	412.92	412.93	413.10	413.11	413.27	413.28	413.45	384.00	342.00	70'-2½"	28'-2½"	42'-0"	22'-2½"	30'-0"	12'-0"	24	6"	60	44	356.00
19	435.82	436.20	436.20	436.37	436.37	436.55	436.55	436.72	436.72	436.90	436.90	387.00	338.50	97'-3⅜"	48'- 9⅞"	48'-6"	42'-9⅞"	34'-0"	14'-6"	31	5½"	68	85	355.00
23	427.66	428.04	428.04	428.21	428.21	428.39	428.39	428.56	428.56	428.74	428.74	397.00	341.00	86'-7⅞"	30'-7⅞"	56'-0"	24'-7⅞"	45'-0"	11'-0"	22	6"	90	49	354.00

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 5, 19, & 23
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

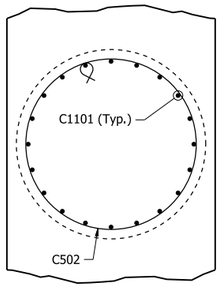
ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 10/14/23
CHECKED BY: WJS DATE: X/X/23
DESIGNED BY: CZ/MGG DATE: 7/21/23
FILENAME: b04090111_b51.dgn
SCALE: ¼" = 1'-0"

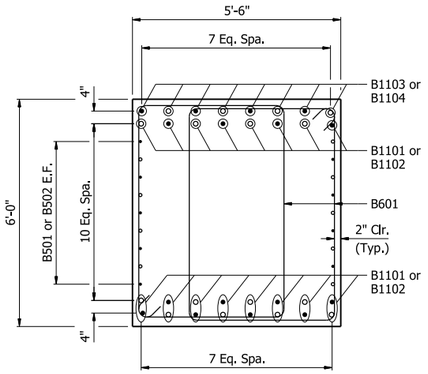
BRIDGE NO. 07684 DRAWING NO. 67404

PRINT DATE: 4/10/2024

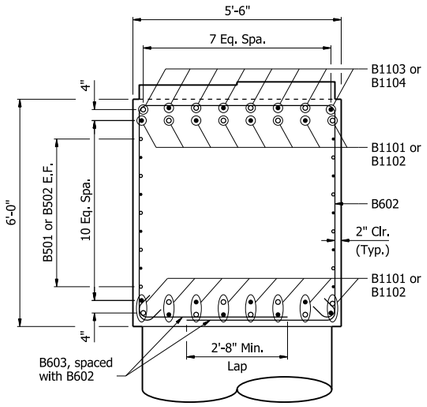
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	345	809
		07684 - INT. BENTS - 67405				



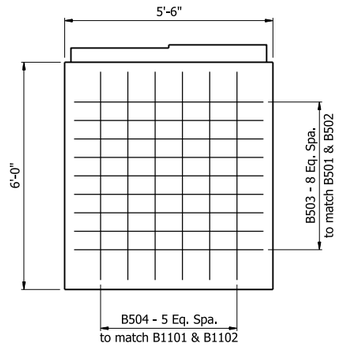
SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)



SECTION A-A
½" = 1'-0"

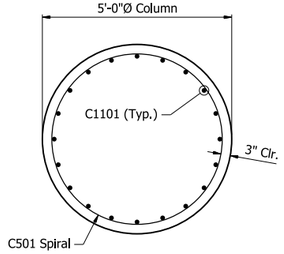


SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)

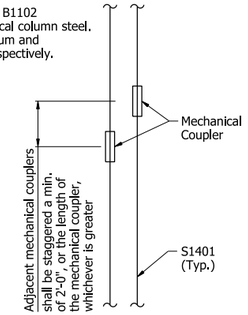


VIEW C-C
½" = 1'-0"

Note:
Contractor shall adjust B1101 and B1102 bar spacing to accommodate vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 8" respectively.



SECTION E-E
½" = 1'-0"



DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES;
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 7'-3" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment or mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (66" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.

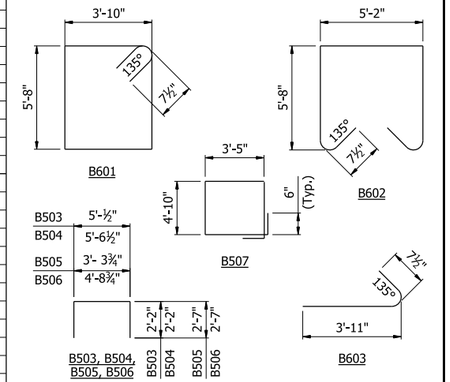
TABLE OF VARIABLES

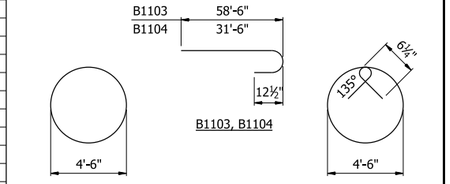
Bent No.	"CS"	"CL"	"SS"	"SL"
5	656'-9"	26'-11"	1215'-8"	47'-9"
19	1229'-10"	47'-6"	1425'-5"	54'-3"
23	726'-8"	29'-4"	1607'-1"	61'-9"

BAR LIST - PER BENT

Mark	Number Required	Length	Pin Dia.
B501	18	60'-0"	Str.
B502	18	25'-4"	Str.
B503	18	9'-2"	2½"
B504	12	9'-8"	2½"
B505	80	8'-3"	2½"
B506	60	9'-8"	2½"
B507	12	17'-0"	2½"
B601	280	19'-10"	4½"
B602	27	17'-6"	4½"
B603	54	4'-7"	4½"
B1101	24	60'-0"	Str.
B1102	24	30'-0"	Str.
B1103	8	60'-0"	11¼"
B1104	8	33'-0"	11¼"
C501	3	"CS"	Spiral
C502	18	15'-4"	2½"
C1101	60	"CL"	Str.
(2) S501	3	"SS"	Spiral
(2) S1401	60	"SL"	Str.

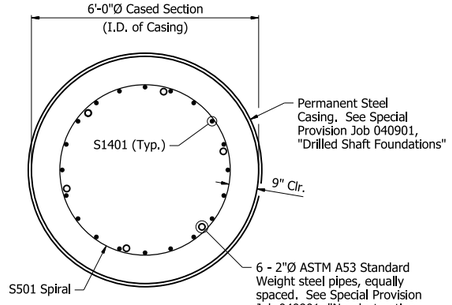
Bending Diagrams (Dimensions are out to out of bars)



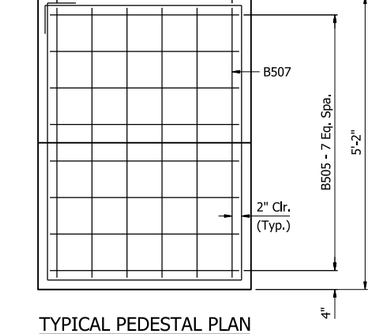


All bars designated with an "E" suffix are to be epoxy coated.

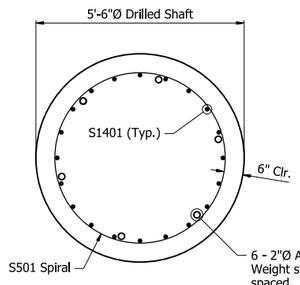
(2) S1401 longitudinal reinforcement and S501 spiral reinforcement and S501 spiral reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (66" DIA.)". Individual lengths to be determined by the Contractor.



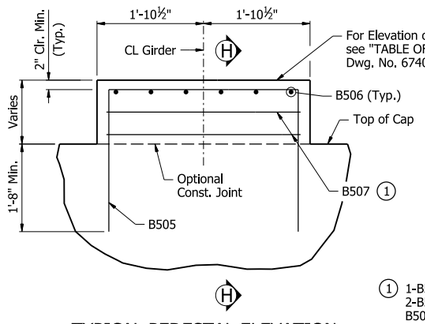
SECTION F-F
½" = 1'-0"



TYPICAL PEDESTAL PLAN
¾" = 1'-0"

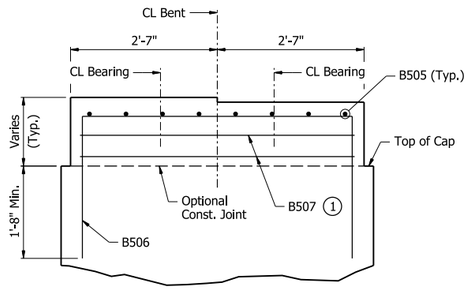


SECTION G-G
½" = 1'-0"

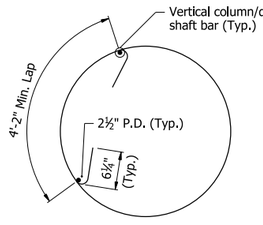


TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

(1) 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.



SECTION H-H
¾" = 1'-0"



SPIRAL SPLICE DETAIL
No Scale

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67404.

SPIRAL REINFORCING NOTES;
Spiral reinforcing shall be plain round or deformed steel bars meeting the requirements of AASHTO M31 or M322, Type A with mill test report (Grade 60) or shall be cold drawn wire meeting the requirements of AASHTO M32 or M225 (Grade 70) with a minimum diameter of 0.625".

Spiral reinforcement shall be paid for at the contract unit price bid per pound for "Reinforcing Steel-Bridge (Grade 60)". No additional payment shall be made for spacers, optional splices, or bracing needed for assembly, shipping, handling, or erecting.

Contractor may elect to lap splice the spiral reinforcing. In no case shall a spiral be lapped within 7'-3" of the top or bottom of the column.

Splices in spiral reinforcing shall be a minimum of 80 bar diameters.

Spiral reinforcing at lapped splices shall be terminated by a 135° hook with a 6¼" tail around a vertical bar. See "SPIRAL SPLICE DETAIL". Hook may be field bent. Ends of spirals not lapped shall be terminated with 1½ turns.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 5, 19, & 23
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

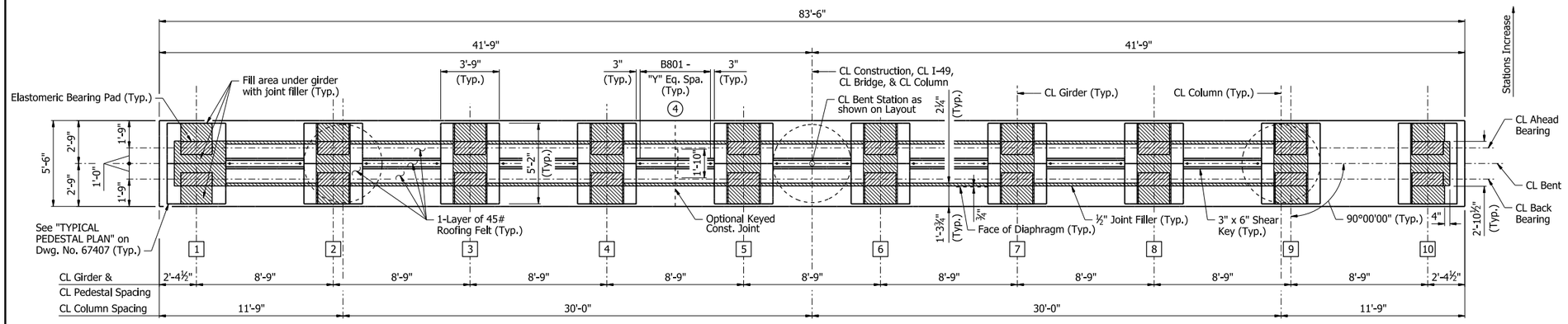
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM	DATE: 10/14/23	FILENAME: b04090111_b52.dgn	
CHECKED BY: WJS	DATE: 10/25/23	SCALE: AS NOTED	
DESIGNED BY: CZ/MGG	DATE: 7/21/23		

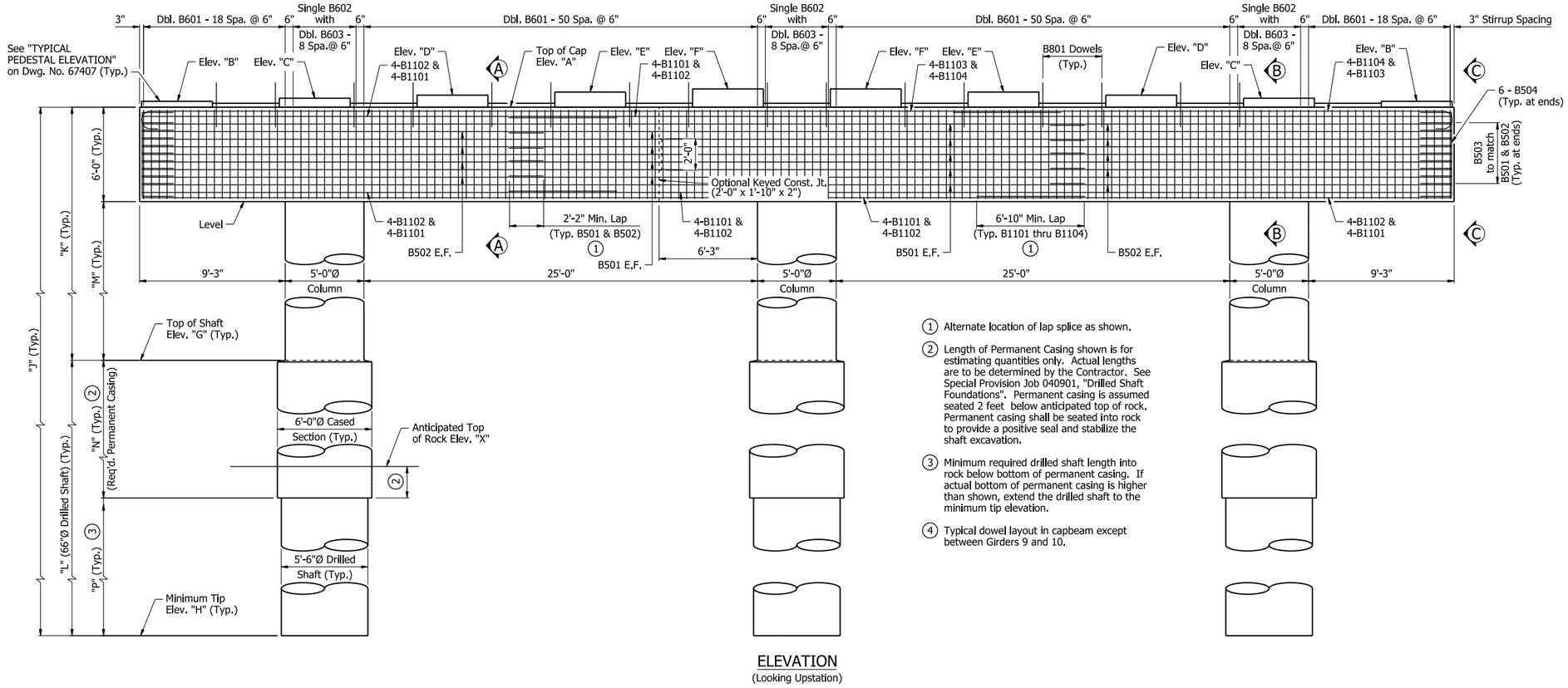
BRIDGE NO. 07684 DRAWING NO. 67405

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	346	809
		07684 - INT. BENTS - 67406				



PLAN



ELEVATION
(Looking Upstation)

① Alternate location of lap splice as shown.

② Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.

③ Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.

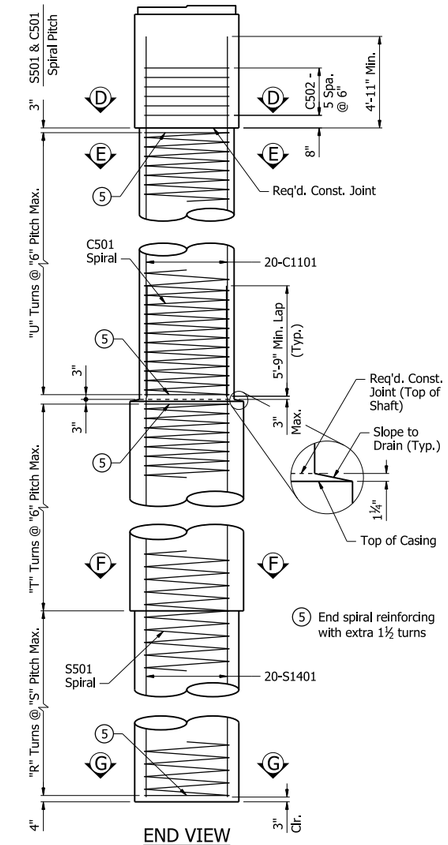
④ Typical dowel layout in capbeam except between Girders 9 and 10.

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67407.

For "GENERAL NOTES", see Dwg. No. 67372.

Use 2¼" x ½" joint filler up the vertical face of pedestals.

For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.



END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of turns shall be adjusted accordingly to maintain the maximum pitch in the regions identified above.

TABLE OF VARIABLES

Bent No.	"A"	"B" Back Bearing	"B" Ahead Bearing	"C" Back Bearing	"C" Ahead Bearing	"D" Back Bearing	"D" Ahead Bearing	"E" Back Bearing	"E" Ahead Bearing	"F" Back Bearing	"F" Ahead Bearing	"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"	"S"	"T"	"U"	"X"	"Y"
6	416.43	416.80	416.86	416.98	417.03	417.15	417.21	417.33	417.38	417.50	417.56	385.00	329.00	87'-5⅛"	31'-5⅛"	56'-0"	25'-5⅛"	43'-0"	13'-0"	26	6"	86	50	344.00	10
7	420.33	420.70	420.76	420.88	420.93	421.05	421.11	421.23	421.28	421.40	421.46	386.00	329.00	91'-4"	34'-4"	57'-0"	28'-4"	44'-0"	13'-0"	26	6"	88	56	344.00	10
21	431.88	432.34	432.34	432.52	432.52	432.69	432.69	432.87	432.87	433.04	433.04	386.00	338.50	93'-4½"	45'-10½"	47'-6"	39'-10½"	33'-0"	14'-6"	31	5½"	66	79	355.00	10
22	429.92	430.30	430.30	430.48	430.48	430.65	430.65	430.83	430.83	431.00	431.00	397.00	340.00	89'-11"	32'-11"	57'-0"	26'-11"	46'-0"	11'-0"	22	6"	92	53	353.00	10
25	423.70	424.16	424.16	424.33	424.33	424.51	424.51	424.68	424.68	424.86	424.86	398.00	339.00	84'-8⅜"	25'-8⅜"	59'-0"	19'-8⅜"	48'-0"	11'-0"	22	6"	96	39	352.00	7
26	421.66	422.12	422.12	422.29	422.29	422.47	422.47	422.64	422.64	422.82	422.82	399.00	340.00	81'-7⅞"	22'-7⅞"	59'-0"	16'-7⅞"	48'-0"	11'-0"	22	6"	96	33	353.00	7

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 6, 7, 21, 22, 25, & 26
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

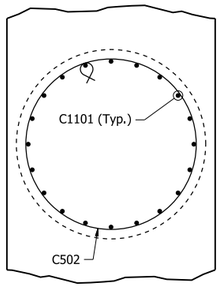
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 10/9/23
CHECKED BY: MGG DATE: 10/27/23
DESIGNED BY: CZ/MGG DATE: 7/21/23
FILENAME: b04090111_b61.dgn
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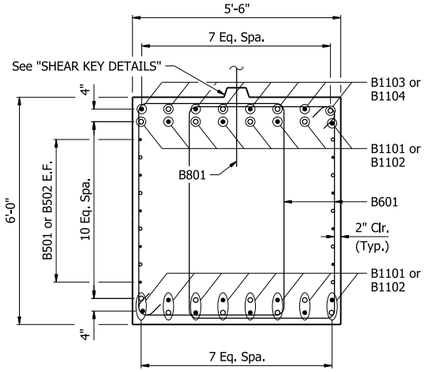
BRIDGE NO. 07684 DRAWING NO. 67406

PRINT DATE: 4/10/2024

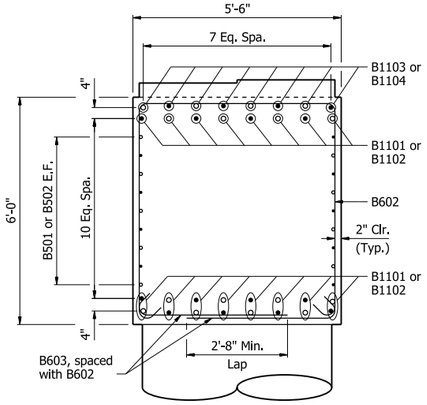
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	347	809
		07684 - INT. BENTS - 67407				



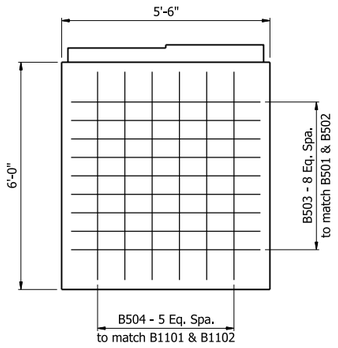
SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)



SECTION A-A
½" = 1'-0"

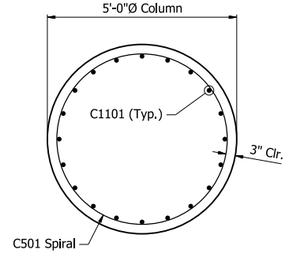


SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)

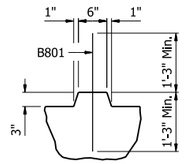


VIEW C-C
½" = 1'-0"

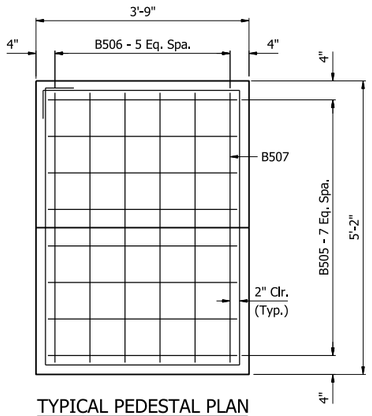
Note:
Contractor shall adjust B1101 thru B1104 bar spacing to accommodate dowels or vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 8" respectively.



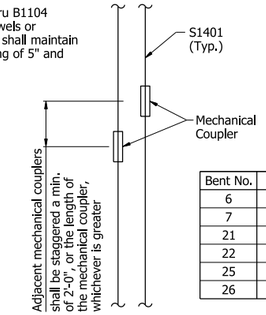
SECTION E-E
½" = 1'-0"



SHEAR KEY DETAILS
No Scale



TYPICAL PEDESTAL PLAN
¾" = 1'-0"



DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES;
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 7'-3" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (66" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.

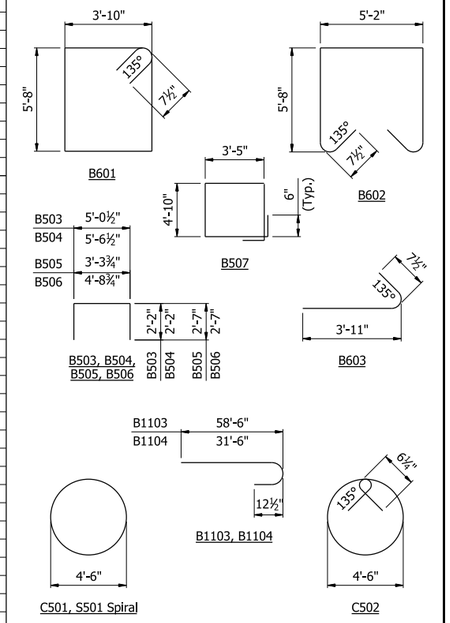
TABLE OF VARIABLES

Bent No.	"D"	"CS"	"CL"	"SS"	"SL"
6	90	740'-7"	30'-2"	1607'-1"	61'-9"
7	90	824'-6"	33'-1"	1635'-0"	62'-9"
21	90	1146'-0"	44'-7"	1397'-5"	53'-3"
22	90	782'-8"	31'-8"	1635'-0"	62'-9"
25	64	586'-11"	24'-5"	1690'-10"	64'-9"
26	64	503'-1"	21'-4"	1690'-10"	64'-9"

BAR LIST - PER BENT

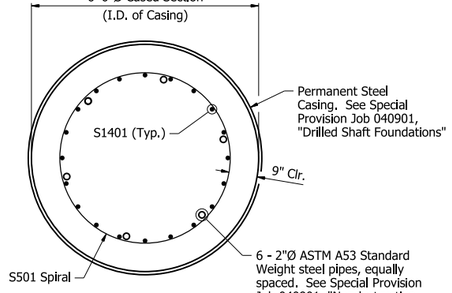
Mark	Number Required	Length	Pin Dia.
B501	18	60'-0"	Str.
B502	18	25'-4"	Str.
B503	18	9'-2"	2½"
B504	12	9'-8"	2½"
B505	80	8'-3"	2½"
B506	60	9'-8"	2½"
B507	12	17'-0"	2½"
B601	280	19'-10"	4½"
B602	27	17'-6"	4½"
B603	54	4'-7"	4½"
B801	"D"	2'-6"	Str.
B1101	24	60'-0"	Str.
B1102	24	30'-0"	Str.
B1103	8	60'-0"	1¼"
B1104	8	33'-0"	1¼"
C501	3	"CS"	Spiral
C502	18	15'-4"	2½"
C1101	60	"CL"	Str.
(2) S501	3	"SS"	Spiral
(2) S1401	60	"SL"	Str.

Bending Diagrams (Dimensions are out to out of bars)

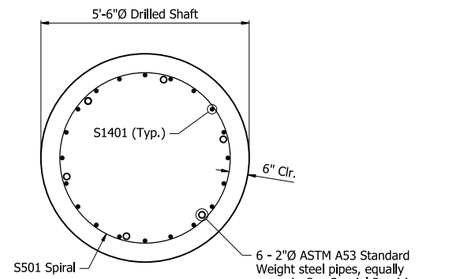


All bars designated with an "E" suffix are to be epoxy coated.

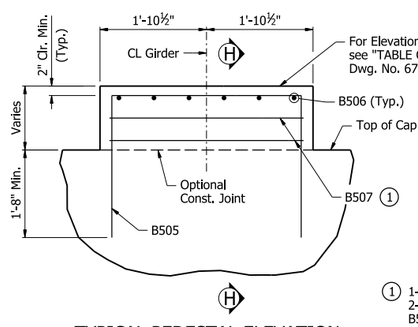
(2) S1401 longitudinal reinforcement and S501 spiral reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (66" DIA.)". Individual lengths to be determined by the Contractor.



SECTION F-F
½" = 1'-0"

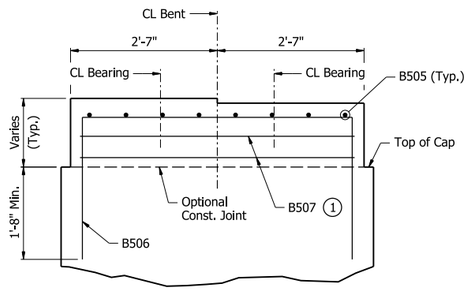


SECTION G-G
½" = 1'-0"

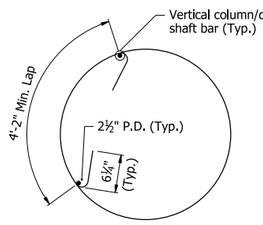


TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

(1) 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.



SECTION H-H
¾" = 1'-0"



SPIRAL SPLICE DETAIL
No Scale

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67406.

SPIRAL REINFORCING NOTES;
Spiral reinforcing shall be plain round or deformed steel bars meeting the requirements of AASHTO M31 or M322, Type A with mill test report (Grade 60) or shall be cold drawn wire meeting the requirements of AASHTO M32 or M225 (Grade 70) with a minimum diameter of 0.625".

Spiral reinforcement shall be paid for at the contract unit price bid per pound for "Reinforcing Steel-Bridge (Grade 60)". No additional payment shall be made for spacers, optional splices, or bracing needed for assembly, shipping, handling, or erecting.

Contractor may elect to lap splice the spiral reinforcing. In no case shall a spiral be lapped within 7'-3" of the top or bottom of the column.

Splices in spiral reinforcing shall be a minimum of 80 bar diameters.

Spiral reinforcing at lapped splices shall be terminated by a 135° hook with a 6¼" tail around a vertical bar. See "SPIRAL SPLICE DETAIL". Hook may be field bent. Ends of spirals not lapped shall be terminated with 1½ turns.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 6, 7, 21, 22, 25, & 26
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 10/9/23
CHECKED BY: MGG DATE: 10/27/23
DESIGNED BY: CZ/MGG DATE: 7/21/23
FILENAME: b04090111_b62.dgn
SCALE: AS NOTED

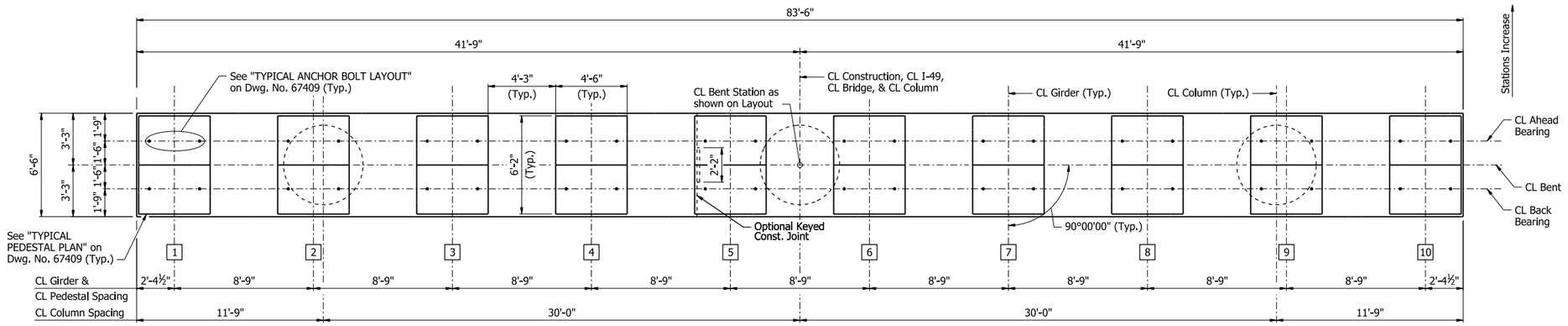
BRIDGE NO. 07684 DRAWING NO. 67407

PRINT DATE: 4/10/2024

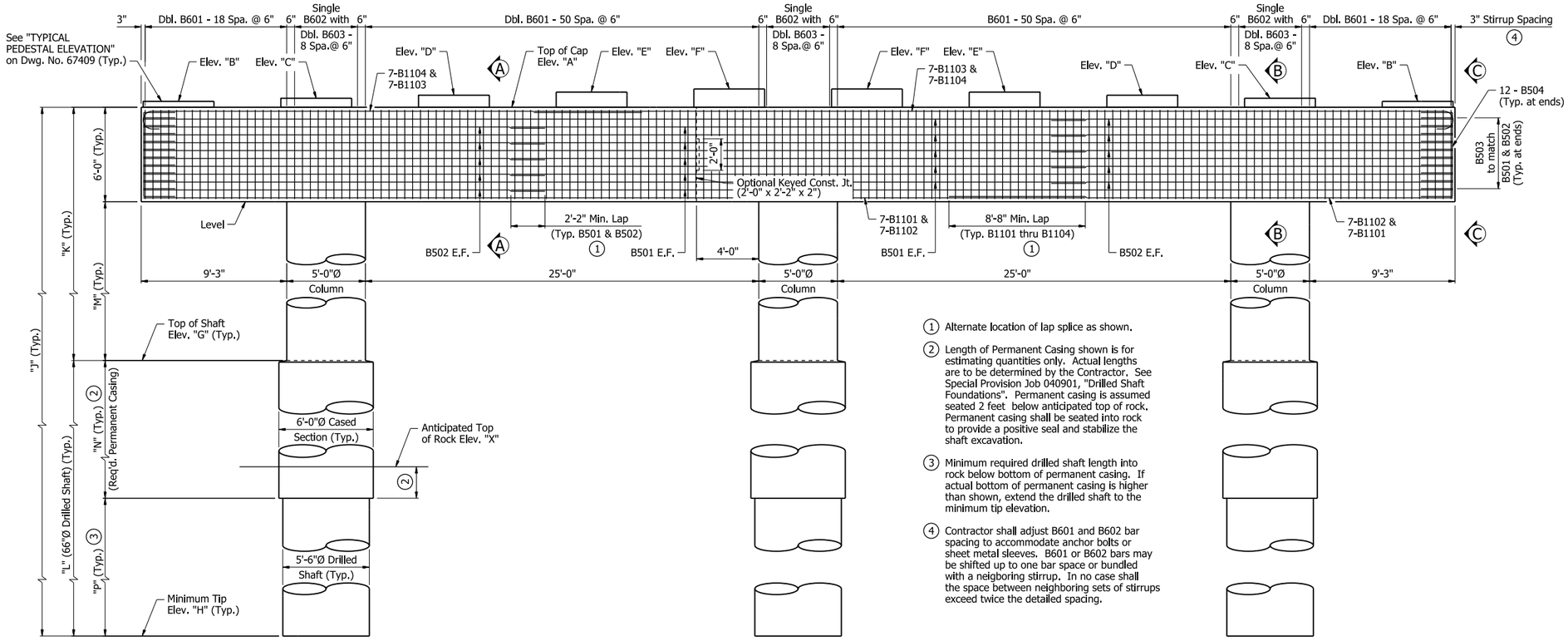
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	348	809
		07684 - INT. BENTS - 67408				

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67409.

For "GENERAL NOTES", see Dwg. No. 67372.

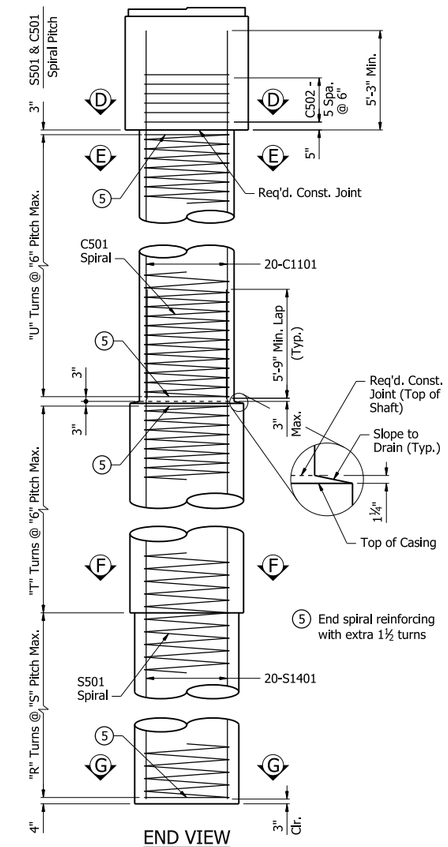


PLAN



ELEVATION
(Looking Upstation)

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.
4. Contractor shall adjust B601 and B602 bar spacing to accommodate anchor bolts or sheet metal sleeves. B601 or B602 bars may be shifted up to one bar space or bundled with a neigboring stirrup. In no case shall the space between neighboring sets of stirrups exceed twice the detailed spacing.



END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of turns shall be adjusted accordingly to maintain the maximum pitch in the regions identified above.

TABLE OF VARIABLES

Bent No.	"A"	"B"		"C"		"D"		"E"		"F"		"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"	"S"	"T"	"U"	"X"
		Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing													
8	423.75	424.13	424.20	424.30	424.37	424.48	424.55	424.65	424.72	424.83	424.90	387.00	324.00	99'-9"	36'-9"	63'-0"	30'-9"	50'-0"	13'-0"	26	6"	100	61	339.00
20	433.51	433.96	433.89	434.13	434.06	434.31	434.24	434.48	434.41	434.66	434.59	387.00	337.50	96'-0⅞"	46'-6⅛"	49'-6"	40'-6⅛"	35'-0"	14'-6"	31	5½"	70	81	354.00
24	425.41	425.79	425.79	425.97	425.97	426.14	426.14	426.32	426.32	426.49	426.49	398.00	340.00	85'-4⅞"	27'-4⅞"	58'-0"	21'-4⅞"	47'-0"	11'-0"	22	6"	94	42	353.00

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 8, 20, & 24
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

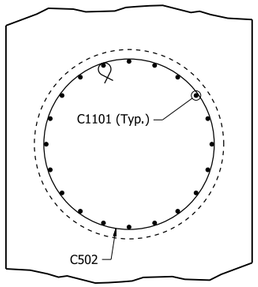
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 10/12/23
CHECKED BY: TRG DATE: 11/1/23
DESIGNED BY: CZ DATE: 7/28/23
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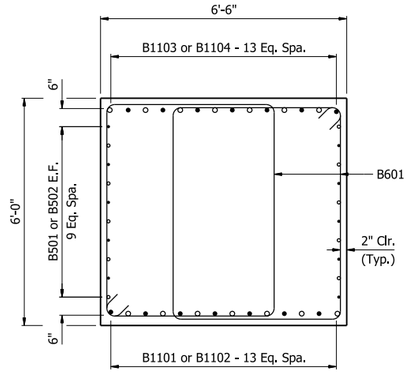
BRIDGE NO. 07684 DRAWING NO. 67408

PRINT DATE: 4/10/2024

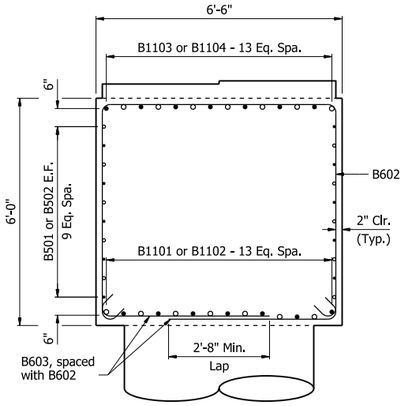
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	349	809
		07684 - INT. BENTS - 67409				



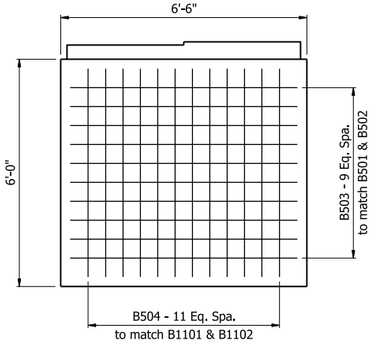
SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)



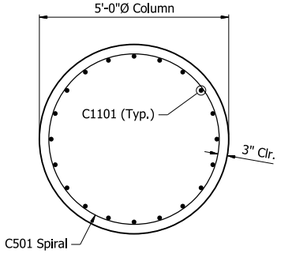
SECTION A-A
½" = 1'-0"



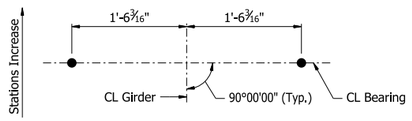
SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)



VIEW C-C
½" = 1'-0"

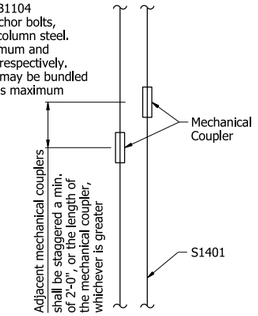


SECTION E-E
½" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT
1" = 1'-0"

Note:
Contractor shall adjust B1101 - B1104 bar spacing to accommodate anchor bolts, sheet metal sleeves, or vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 8", respectively. Up to two B1103 or B1104 bars may be bundled with a neighboring bar as long as maximum spacing requirements are met.



DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES;
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 7'-3" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (66" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.

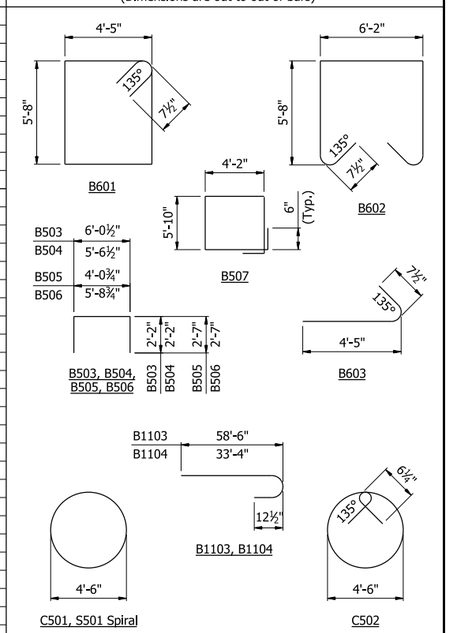
TABLE OF VARIABLES

Bent No.	"CS"	"CL"	"SS"	"SL"
8	894'-5"	35'-9"	1802'-8"	68'-9"
20	1173'-11"	45'-7"	1453'-5"	55'-3"
24	628'-10"	26'-5"	1662'-11"	63'-9"

BAR LIST - PER BENT

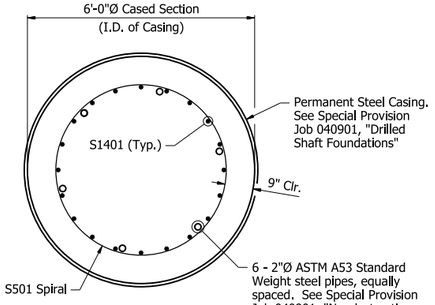
Mark	Number Required	Length	Pin Dia.
B501	20	60'-0"	Str.
B502	20	25'-4"	Str.
B503	20	10'-2"	2½"
B504	24	9'-8"	2½"
B505	100	9'-0"	2½"
B506	70	10'-8"	2½"
B507	12	20'-6"	2½"
B601	280	21'-0"	4½"
B602	27	18'-6"	4½"
B603	54	5'-1"	4½"
B1101	14	60'-0"	Str.
B1102	14	31'-10"	Str.
B1103	14	60'-0"	11¼"
B1104	14	34'-10"	11¼"
C501	3	"CS"	Spiral
C502	18	15'-6"	2½"
C1101	60	"CL"	Str.
(2) S501	3	"SS"	Spiral
(2) S1401	60	"SL"	Str.

Bending Diagrams (Dimensions are out to out of bars)

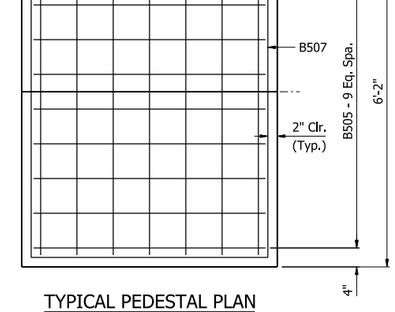


All bars designated with an "E" suffix are to be epoxy coated.

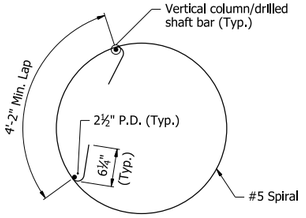
(2) S1401 longitudinal reinforcement and S501 spiral reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (66" DIA.)". Individual lengths to be determined by the Contractor.



SECTION F-F
½" = 1'-0"



TYPICAL PEDESTAL PLAN
¾" = 1'-0"



SPIRAL SPLICE DETAIL
No Scale

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67408.

For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.

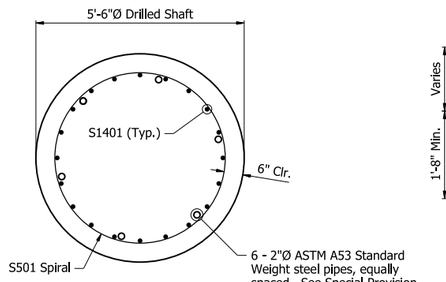
SPIRAL REINFORCING NOTES;
Spiral reinforcing shall be plain round or deformed steel bars meeting the requirements of AASHTO M31 or M322, Type A with mill test report (Grade 60) or shall be cold drawn wire meeting the requirements of AASHTO M32 or M225 (Grade 70) with a minimum diameter of 0.625".

Spiral reinforcement shall be paid for at the contract unit price bid per pound for "Reinforcing Steel-Bridge (Grade 60)". No additional payment shall be made for spacers, optional splices, or bracing needed for assembly, shipping, handling, or erecting.

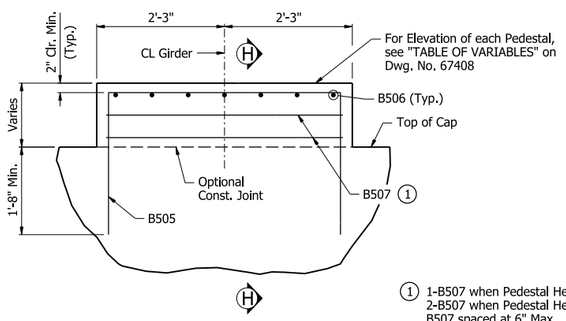
Contractor may elect to lap splice the spiral reinforcing. In no case shall a spiral be lapped within 7'-3" of the top or bottom of the column.

Splices in spiral reinforcing shall be a minimum of 80 bar diameters.

Spiral reinforcing at lapped splices shall be terminated by a 135° hook with a 6¼" tail around a vertical bar. See "SPIRAL SPLICE DETAIL". Hook may be field bent. Ends of spirals not lapped shall be terminated with 1½ turns.

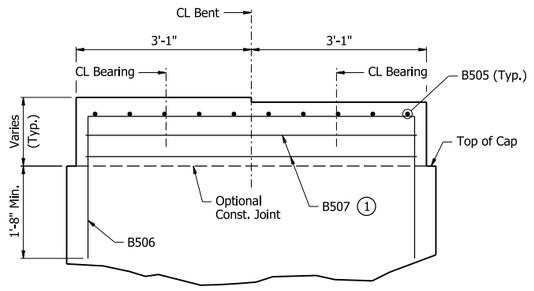


SECTION G-G
½" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

(1) 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.



SECTION H-H
¾" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 8, 20, & 24
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

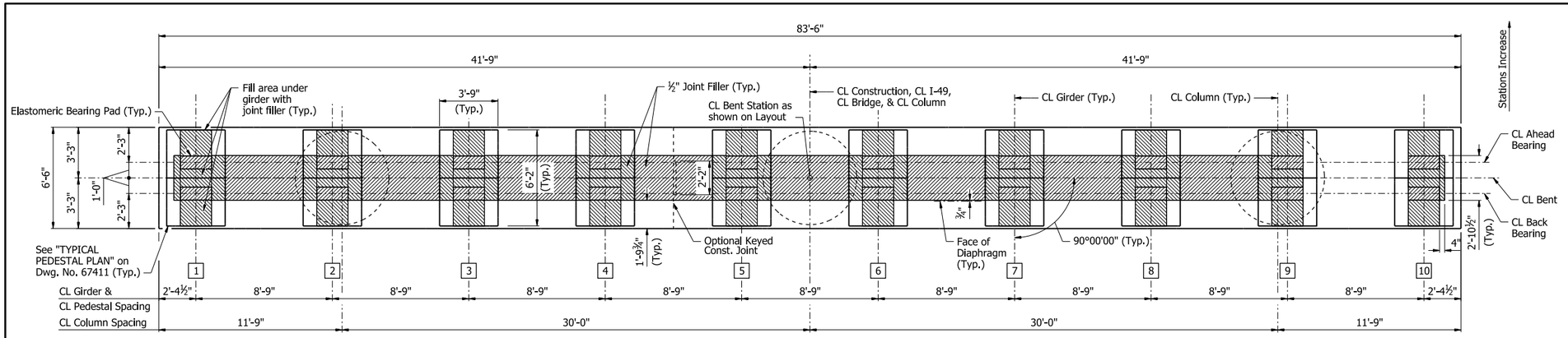
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 10/11/23
CHECKED BY: TRG DATE: 11/2/23
DESIGNED BY: CZ DATE: 7/28/23
FILENAME: b04090111_b82.dgn
SCALE: AS NOTED

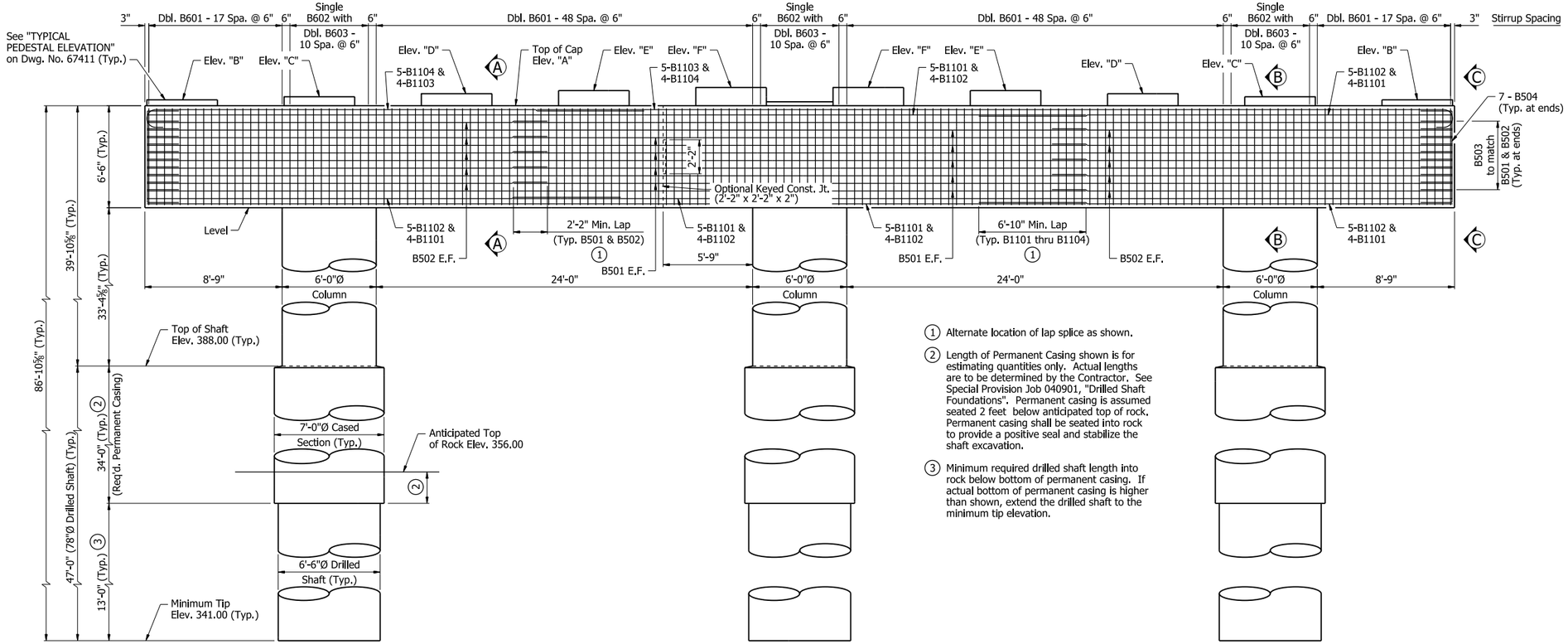
BRIDGE NO. 07684 DRAWING NO. 67409

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	350	809
		07684 - INT. BENTS - 67410				



PLAN



ELEVATION
(Looking Upstation)

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.

TABLE OF VARIABLES

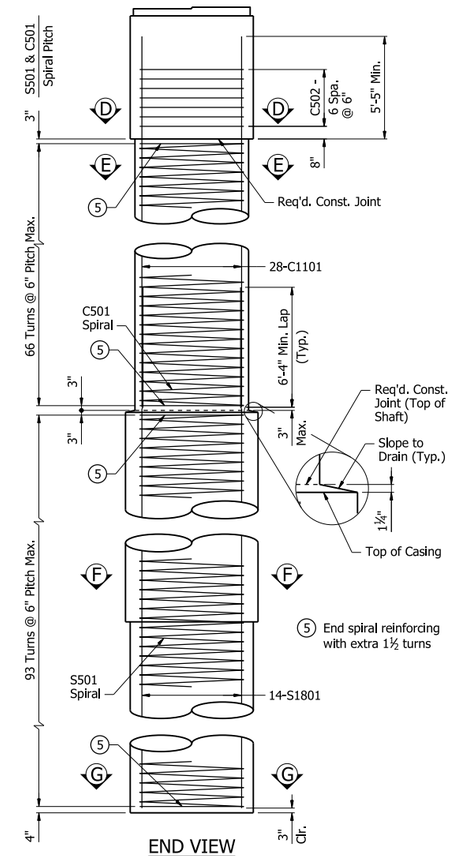
"A"	"B"		"C"		"D"		"E"		"F"	
	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing
427.89	428.27	428.33	428.44	428.50	428.62	428.68	428.79	428.85	428.97	429.03

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67411.

For "GENERAL NOTES", see Dwg. No. 67372.

Use ½" joint filler up the vertical face of pedestals.

For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.



END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of turns shall be adjusted accordingly to maintain the maximum pitch in the regions identified above.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NO. 9
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

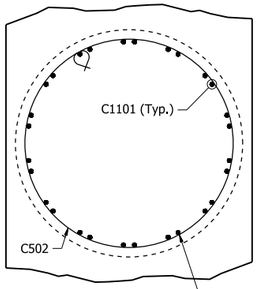
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 10/13/23
CHECKED BY: QL DATE: 10/25/23
DESIGNED BY: CZ DATE: 7/17/23
FILENAME: b04090111_b91.dgn
SCALE: ¼" = 1'-0"

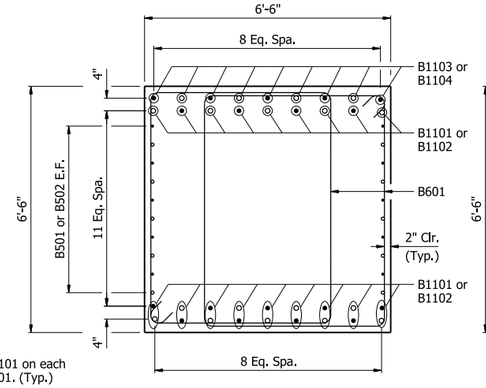
BRIDGE NO. 07684 DRAWING NO. 67410

PRINT DATE: 4/10/2024

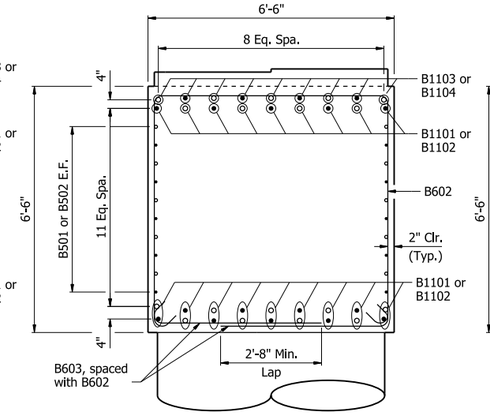
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	351	809
		07684 - INT. BENTS - 67411				



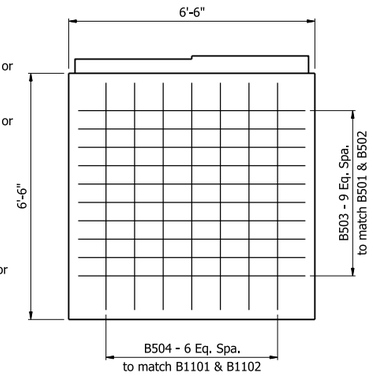
SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)



SECTION A-A
½" = 1'-0"

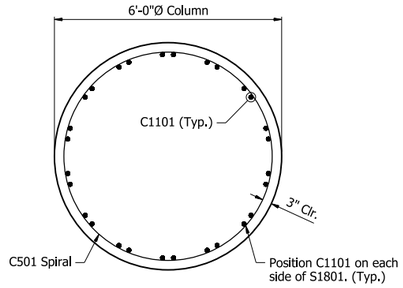


SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)

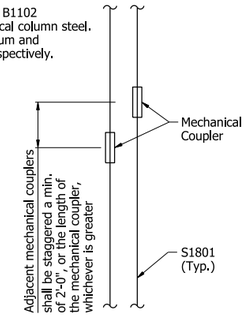


VIEW C-C
½" = 1'-0"

Note:
Contractor shall adjust B1101 and B1102 bar spacing to accommodate vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 8" respectively.



SECTION E-E
½" = 1'-0"



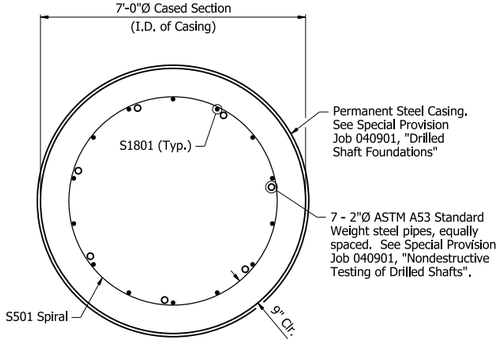
DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES;
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

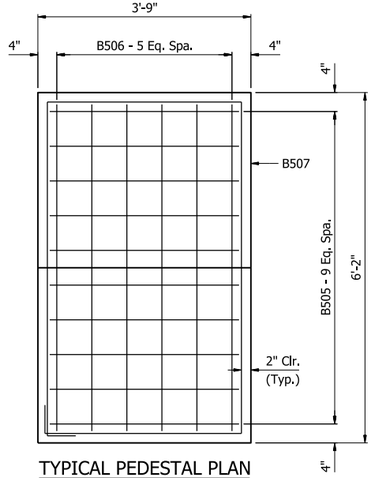
The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 7'-4" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

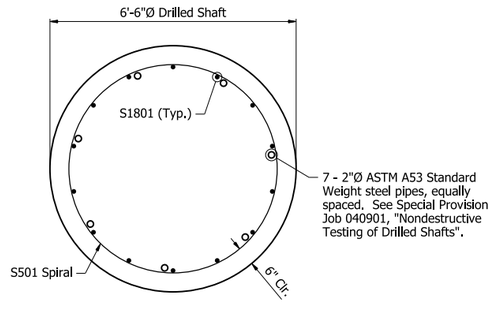
Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (78" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.



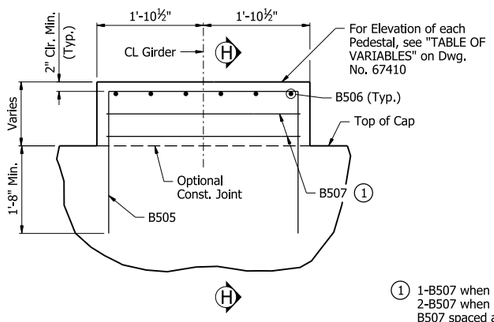
SECTION F-F
½" = 1'-0"



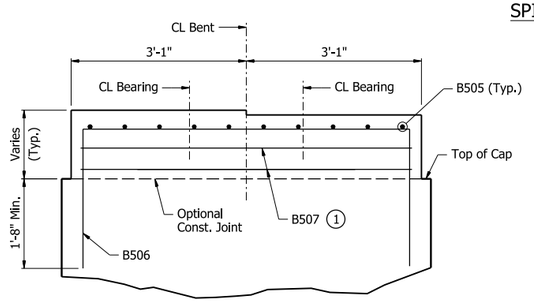
TYPICAL PEDESTAL PLAN
¾" = 1'-0"



SECTION G-G
½" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"



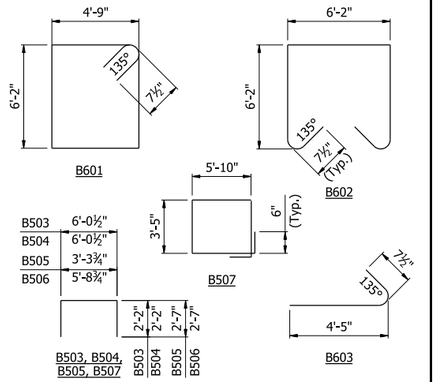
SECTION H-H
¾" = 1'-0"

(1) 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.

BAR LIST

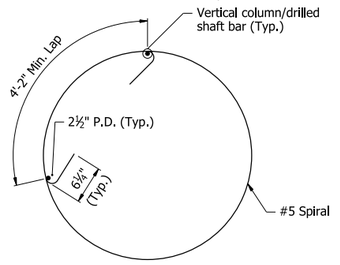
Mark	Number Required	Length	Pin Dia.
B501	20	60'-0"	Str.
B502	20	25'-4"	Str.
B503	20	10'-2"	2½"
B504	14	10'-2"	2½"
B505	100	8'-3"	2½"
B506	60	10'-8"	2½"
B507	12	19'-0"	2½"
B601	268	22'-8"	4½"
B602	33	19'-6"	4½"
B603	66	5'-1"	4½"
B1101	27	60'-0"	Str.
B1102	27	30'-0"	Str.
B1103	9	60'-0"	11¼"
B1104	9	33'-0"	11¼"
C501	3	1180'-9"	Spiral
C502	21	18'-5"	2½"
C1101	84	38'-7"	Str.
(2) S501	3	1642'-11"	Spiral
(2) S1801	42	53'-4"	Str.

Bending Diagrams (Dimensions are out to out of bars)



All bars designated with an "E" suffix are to be epoxy coated.

(2) S1801 longitudinal reinforcement and S501 spiral reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (78" DIA.)". Individual lengths to be determined by the Contractor.



SPIRAL SPLICE DETAIL
No Scale

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67410.

SPIRAL REINFORCING NOTES;
Spiral reinforcing shall be plain round or deformed steel bars meeting the requirements of AASHTO M31 or M322, Type A with mill test report (Grade 60) or shall be cold drawn wire meeting the requirements of AASHTO M32 or M225 (Grade 70) with a minimum diameter of 0.625".

Spiral reinforcement shall be paid for at the contract unit price bid per pound for "Reinforcing Steel-Bridge (Grade 60)". No additional payment shall be made for spacers, optional splices, or bracing needed for assembly, shipping, handling, or erecting.

Contractor may elect to lap splice the spiral reinforcing. In no case shall a spiral be lapped within 7'-4" of the top or bottom of the column.

Splices in spiral reinforcing shall be a minimum of 80 bar diameters.

Spiral reinforcing at lapped splices shall be terminated by a 135° hook with a 6¼" tail around a vertical bar. See "SPIRAL SPLICE DETAIL" Hook may be field bent. Ends of spirals not lapped shall be terminated with 1½ turns.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NO. 9
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

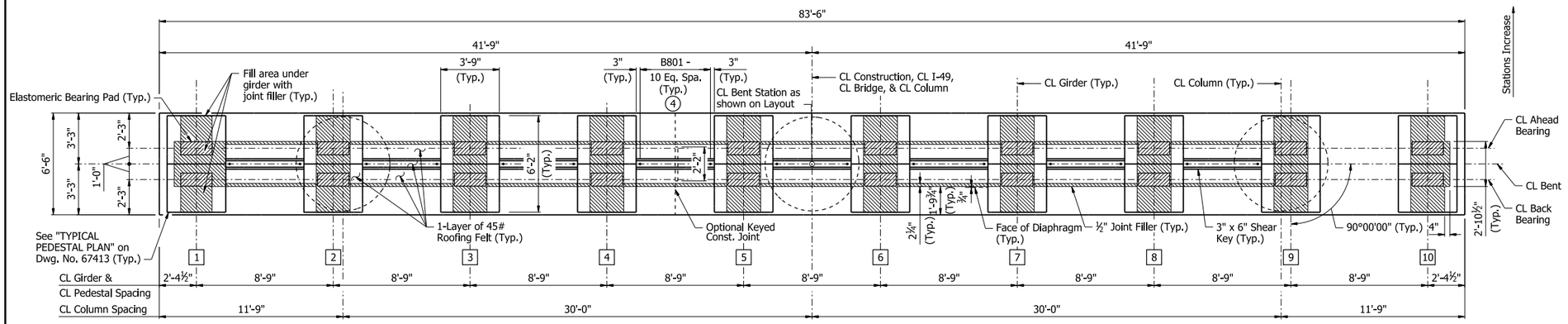
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 10/13/23
CHECKED BY: QL DATE: 10/25/23
DESIGNED BY: CZ DATE: 7/17/23
FILENAME: b04090111_b92.dgn
SCALE: AS NOTED

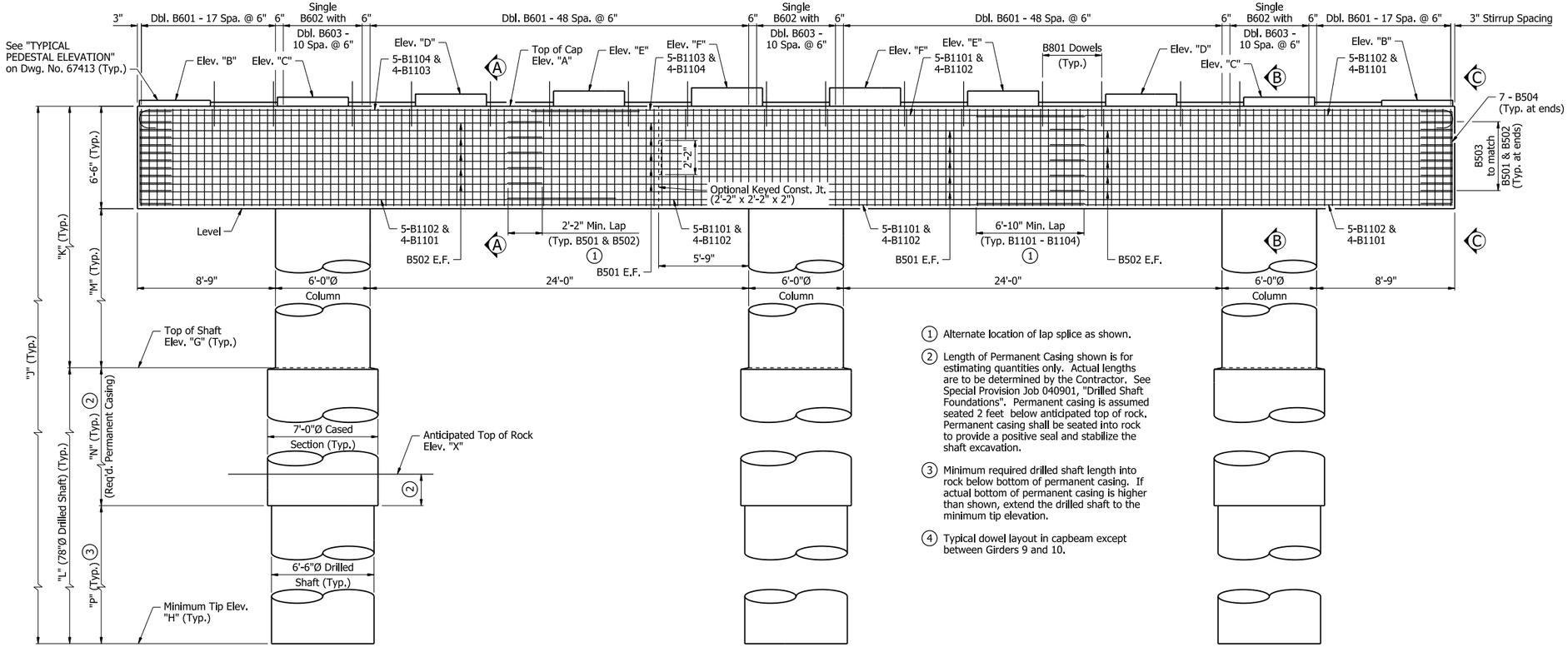
BRIDGE NO. 07684 DRAWING NO. 67411

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	352	809
		07684 - INT. BENTS - 67412				



PLAN

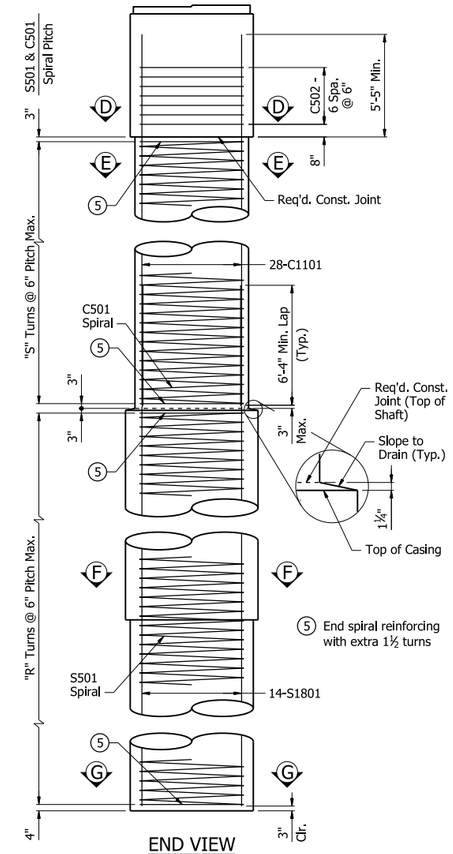


ELEVATION
(Looking Upstation)

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.
4. Typical dowel layout in capbeam except between Girders 9 and 10.

TABLE OF VARIABLES

Bent No.	"A"	"B"		"C"		"D"		"E"		"F"		"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"	"S"	"X"
		Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing											
10	432.01	432.38	432.44	432.56	432.61	432.73	432.79	432.91	432.96	433.08	433.14	390.00	341.00	91'-0⅛"	42'-0⅛"	49'-0"	35'-6⅛"	36'-0"	13'-0"	97	71	356
11	435.91	436.28	436.34	436.46	436.51	436.63	436.69	436.81	436.86	436.98	437.04	386.00	341.00	94'-10⅛"	49'-10⅛"	45'-0"	43'-4⅛"	32'-0"	13'-0"	89	86	356



END VIEW

5. End spiral reinforcing with extra 1½ turns

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of turns shall be adjusted accordingly to maintain the maximum pitch in the regions identified above.

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67413.

For "GENERAL NOTES", see Dwg. No. 67372.

Use 2¼" x ½" joint filler up the vertical face of pedestals.

For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 10 & 11
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

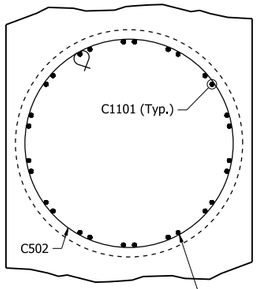
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 10/13/23
CHECKED BY: QL DATE: 10/26/23
DESIGNED BY: CZ DATE: 7/17/23
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SCALE: ¼" = 1'-0"

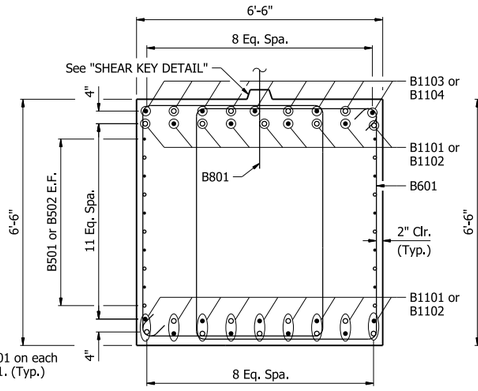
BRIDGE NO. 07684 DRAWING NO. 67412

PRINT DATE: 4/10/2024

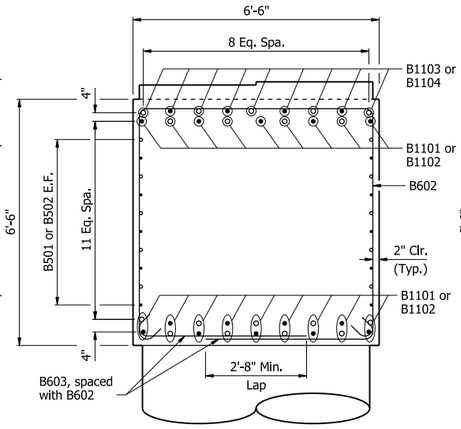
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	353	809
		07684 - INT. BENTS - 67413				



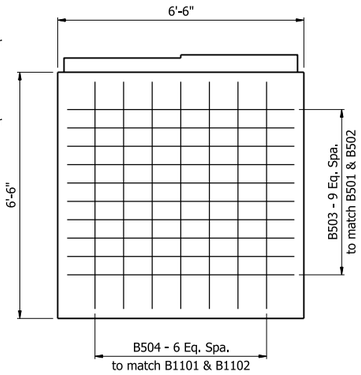
SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)



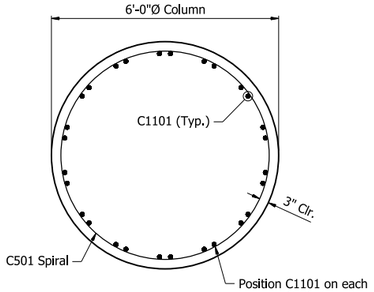
SECTION A-A
½" = 1'-0"



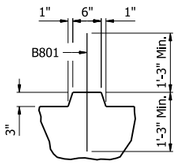
SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)



VIEW C-C
½" = 1'-0"

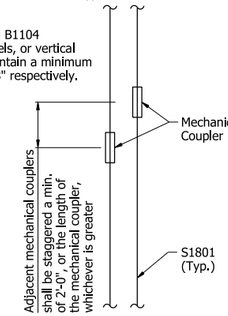


SECTION E-E
½" = 1'-0"



SHEAR KEY DETAIL
No Scale

Note:
Contractor shall adjust B1101 thru B1104 bar spacing to accommodate dowels, or vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 8" respectively.



DRILLED SHAFT BAR SPLICE DETAIL
No Scale

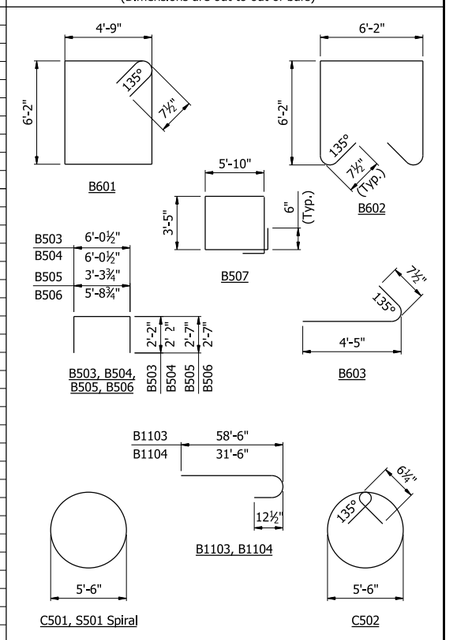
TABLE OF VARIABLES

Bent No.	"CS"	"CL"	"SS"	"SL"
10	1266'-6"	40'-9"	1711'-6"	55'-4"
11	1523'-0"	48'-8"	1574'-4"	51'-4"

BAR LIST - PER BENT

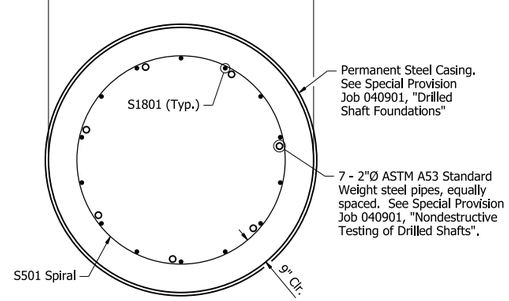
Mark	Number Required	Length	Pin Dia.
B501	20	60'-0"	Str.
B502	20	25'-4"	Str.
B503	20	10'-2"	2½"
B504	14	10'-2"	2½"
B505	100	8'-3"	2½"
B506	60	10'-8"	2½"
B507	12	19'-0"	2½"
B601	268	22'-8"	4½"
B602	33	19'-6"	4½"
B603	66	5'-1"	4½"
B801	90	2'-6"	Str.
B1101	27	60'-0"	Str.
B1102	27	30'-0"	Str.
B1103	9	60'-0"	11¼"
B1104	9	33'-0"	11¼"
C501	3	"CS"	Spiral
C502	21	18'-5"	2½"
C1101	84	"CL"	Str.
② S501	3	"SS"	Spiral
② S1801	42	"SL"	Str.

Bending Diagrams (Dimensions are out to out of bars)

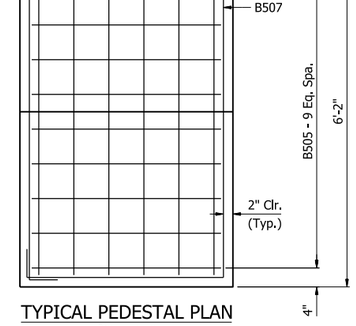


All bars designated with an "E" suffix are to be epoxy coated.

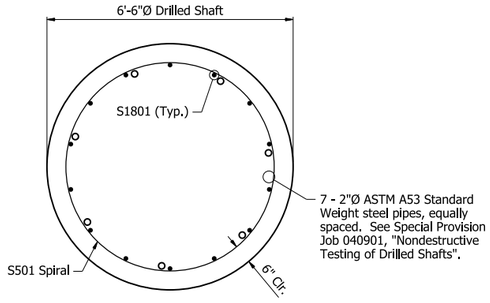
② S1801 longitudinal reinforcement and S501 spiral reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (78" DIA.)". Individual lengths to be determined by the Contractor.



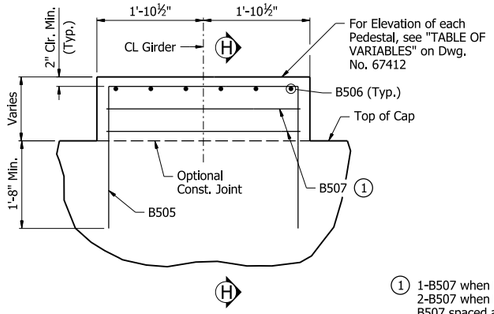
SECTION F-F
½" = 1'-0"



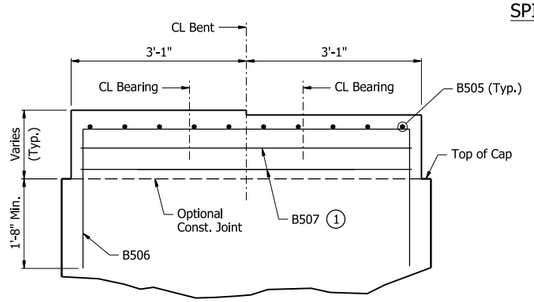
TYPICAL PEDESTAL PLAN
¾" = 1'-0"



SECTION G-G
½" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"



SECTION H-H
¾" = 1'-0"

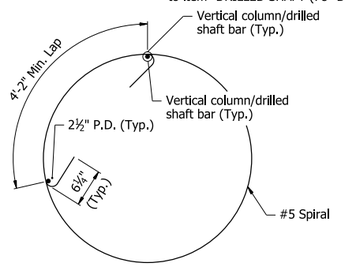
① 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.

MECHANICAL COUPLER AND SPLICE NOTES;
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 7'-4" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (78" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.



SPIRAL SPLICE DETAIL
No Scale

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67412.

SPIRAL REINFORCING NOTES;
Spiral reinforcing shall be plain round or deformed steel bars meeting the requirements of AASHTO M31 or M322, Type A with mill test report (Grade 60) or shall be cold drawn wire meeting the requirements of AASHTO M32 or M225 (Grade 70) with a minimum diameter of 0.625".

Spiral reinforcement shall be paid for at the contract unit price bid per pound for "Reinforcing Steel-Bridge (Grade 60)". No additional payment shall be made for spacers, optional splices, or bracing needed for assembly, shipping, handling, or erecting.

Contractor may elect to lap splice the spiral reinforcing. In no case shall a spiral be lapped within 7'-4" of the top or bottom of the column.

Splices in spiral reinforcing shall be a minimum of 80 bar diameters.

Spiral reinforcing at lapped splices shall be terminated by a 135° hook with a 6¼" tail around a vertical bar. See "SPIRAL SPLICE DETAIL". Hook may be field bent. Ends of spirals not lapped shall be terminated with 1½ turns.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 10 & 11
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

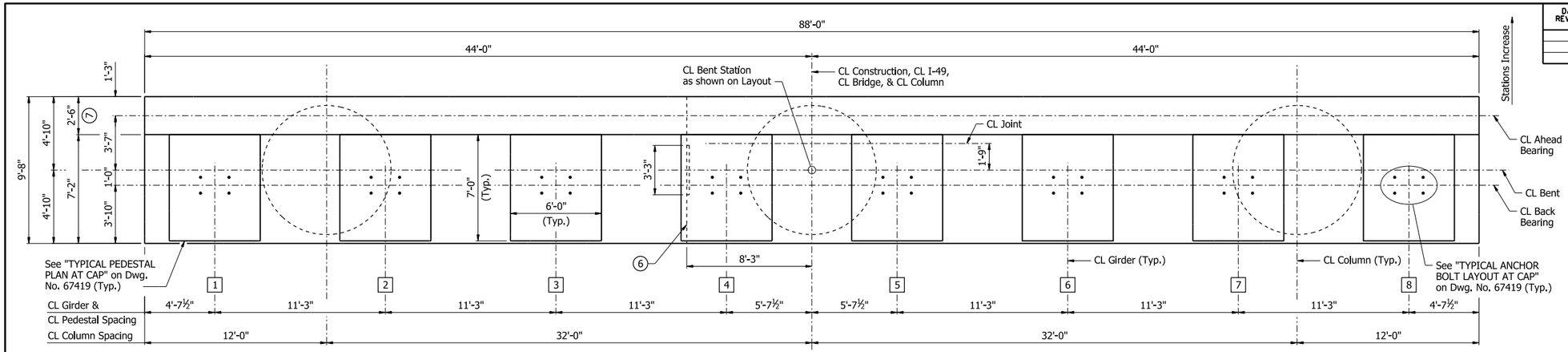
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 10/13/23
CHECKED BY: QL DATE: 10/26/23
DESIGNED BY: CZ DATE: 7/17/23
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BRIDGE NO. 07684 DRAWING NO. 67413

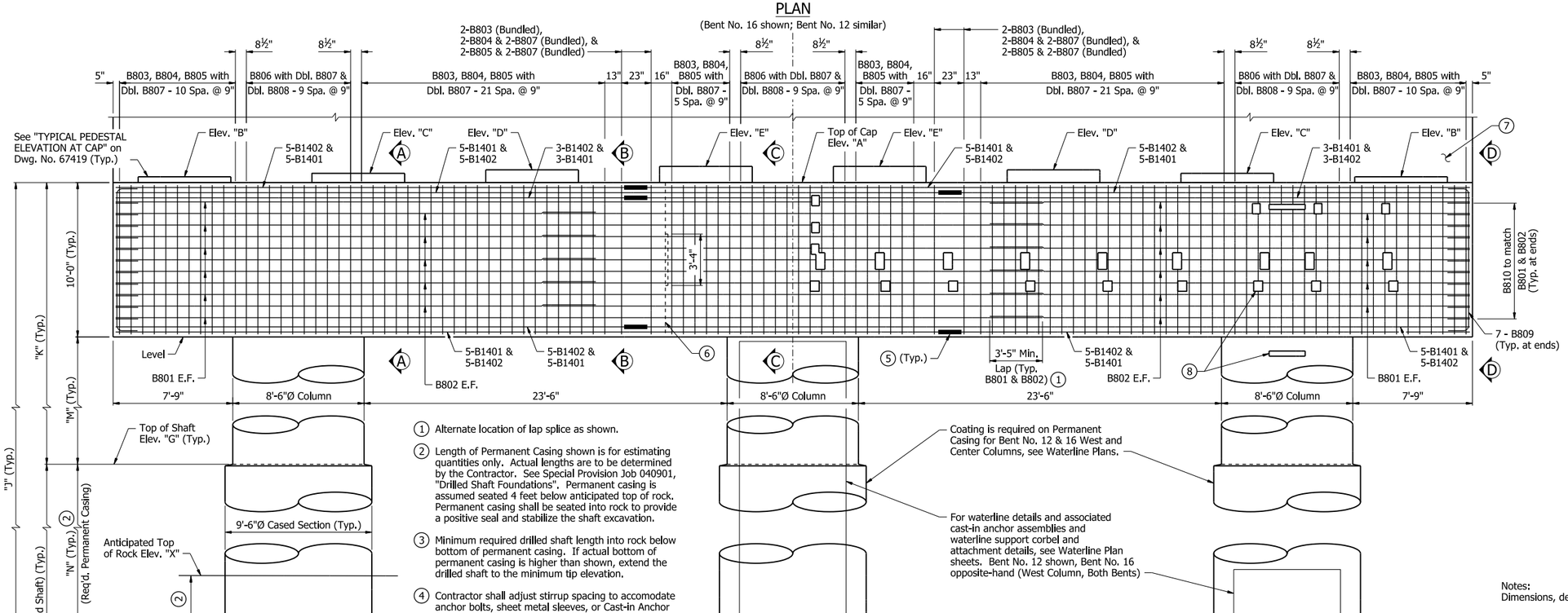
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	354	809
		07684 - INT. BENTS - 67414				



PLAN

(Bent No. 16 shown; Bent No. 12 similar)



Notes:
For "SECTION A-A", "SECTION B-B", "SECTION C-C", & "VIEW D-D", see Dwg. No. 67417.

For "SECTION E-E" thru SECTION "J-J", see Dwg. No. 67418.

For "GENERAL NOTES", see Dwg. No. 67372.

Pedestal Elevations "B" thru "E" were calculated assuming a bearing height of 9 inches from top of pedestal concrete to bottom flange of girder. Contractor shall adjust elevations based on final bearing dimensions provided by bearing manufacturer.

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 4 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.
4. Contractor shall adjust stirrup spacing to accomodate anchor bolts, sheet metal sleeves, or Cast-in Anchor Assemblies. Stirrups may beshifted up to one bar space or bundled with a neighboring stirrup. In no case shall the space between neighboring sets of stirrups exceed twice the detailed spacing or 23 inches.
5. Mechanical Coupler. Alternate location of mechanical couplers as shown.
6. Optional Keyed Const. Joint (3'-4" x 3'-3" x 0'-2")
7. Cap Step. For details, see Dwg. Nos. 67415 for Alternate No. 1 or 67416 for Alternate No. 2.
8. Cast-in Anchor Assemblies for inspection access (Typ.). For details, see Dwg. Nos. 67465 to 67471. B801 & B802 bars may be adjusted up to 2 inches to clear cast-in anchor assemblies. Prior to casting cap and column concrete, verify locations of anchor assemblies to ensure fit-up of Pier Platform. Bent No. 12 shown, Bent No. 16 opposite-hand (West Column, Both Bents).

ELEVATION

(Looking Downstation at Bent No. 12)
(Looking Upstation at Bent No. 16)

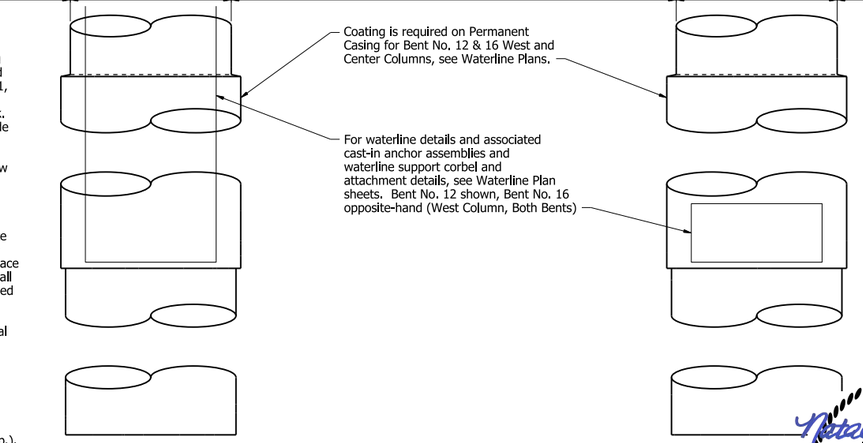
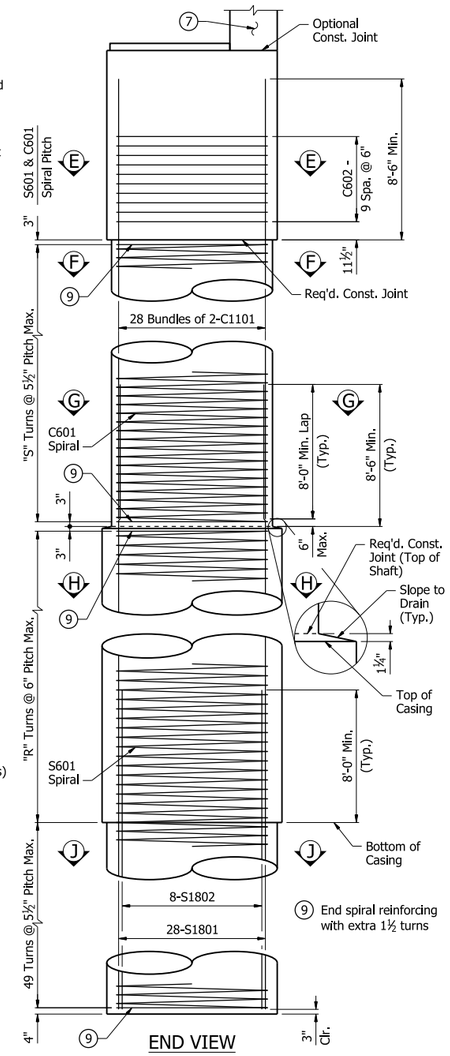


TABLE OF VARIABLES

Bent No.	"A"	"B"	"C"	"D"	"E"	"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"	"S"	"X"
12	433.20	433.57	433.79	434.02	434.24	393.00	329.50	103'-8⅜"	40'-2⅜"	63'-6"	30'-2⅜"	41'-0"	22'-6"	82	65	356.00
16	435.48	435.85	436.08	436.30	436.53	385.00	326.50	108'-11¾"	50'-5¾"	58'-6"	40'-5¾"	36'-0"	22'-6"	72	88	353.00



END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of turns shall be adjusted accordingly to maintain the maximum pitch in the regions identified above and length of S1801 and S1802 bars shall be adjusted to maintain the minimum dimensions shown.

STATE OF ARKANSAS
Natalie M Combs
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 1 OF 6
DETAILS OF INTERMEDIATE BENT NOS. 12 & 16
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 12/14/23
CHECKED BY: DJB DATE: 12/18/23
DESIGNED BY: DJB DATE: 6/26/23
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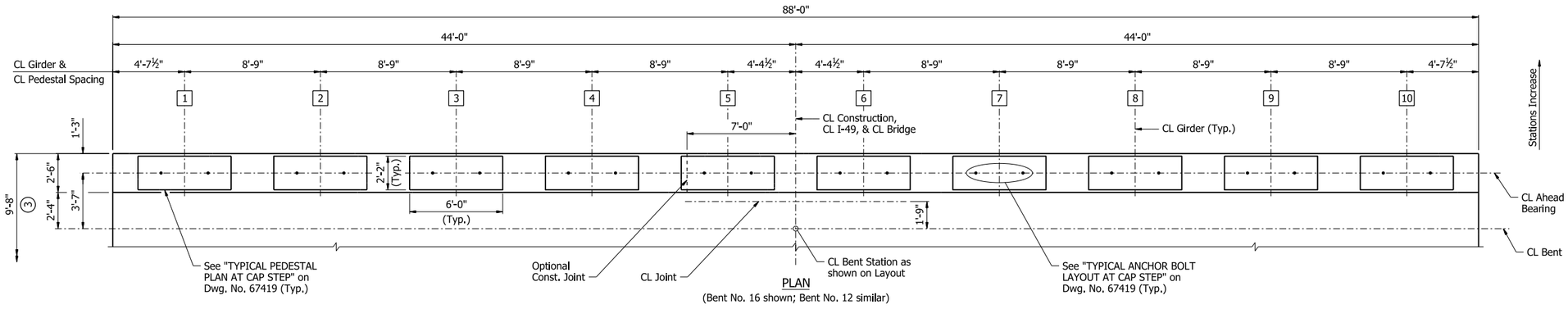
BRIDGE NO. 07684 DRAWING NO. 67414

PRINT DATE: 4/10/2024

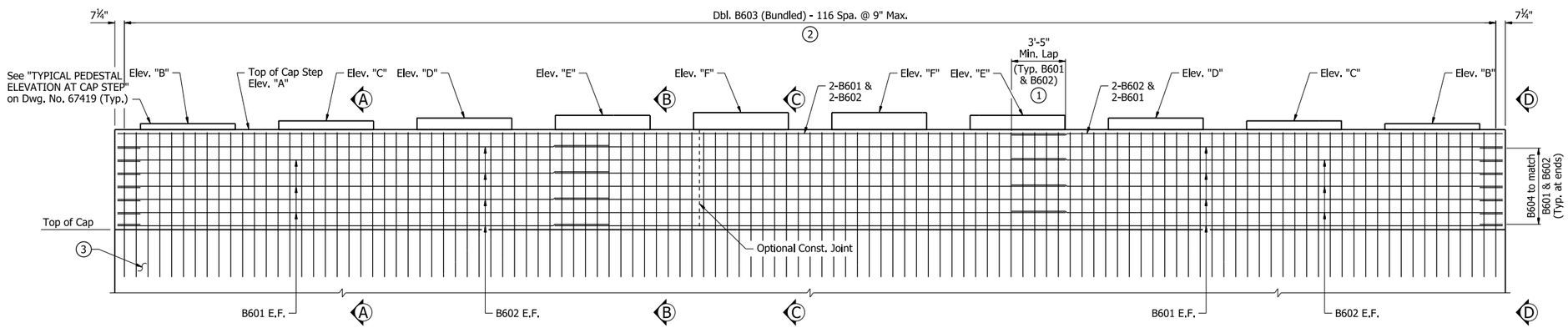
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		6	ARK.	040901	355	809
		07684 - INT. BENTS - 67415				

Notes:
For "SECTION A-A", "SECTION B-B", "SECTION C-C", & "VIEW D-D", see Dwg. No. 67417.

For "GENERAL NOTES", see Dwg. No. 67372.



PLAN
(Bent No. 16 shown; Bent No. 12 similar)



ELEVATION
(Bent No. 16 shown; Bent No. 12 similar)

CAP STEP (ALTERNATE NO. 1)

TABLE OF VARIABLES

Bent No.	"A"	"B"	"C"	"D"	"E"	"F"
12	439.32	439.70	439.87	440.05	440.22	440.40
16	441.67	442.05	442.22	442.40	442.57	442.75

(1) Alternate location of lap splice as shown.

(2) Contractor shall adjust B603 bar spacing to accomodate anchor bolts, sheet metal sleeves, or cap stirrup reinforcing. B603 bars may be shifted up to one bar space or bundled with neighboring B603 bars. In no case shall the space between neighboring sets of B603 bars exceed twice the detailed maximum spacing.

(3) Cap. For details, see Dwg. No. 67414.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 2 OF 6
DETAILS OF INTERMEDIATE BENT NOS. 12 & 16
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 12/14/23
CHECKED BY: DJB DATE: 12/18/23
DESIGNED BY: DJB DATE: 6/26/23
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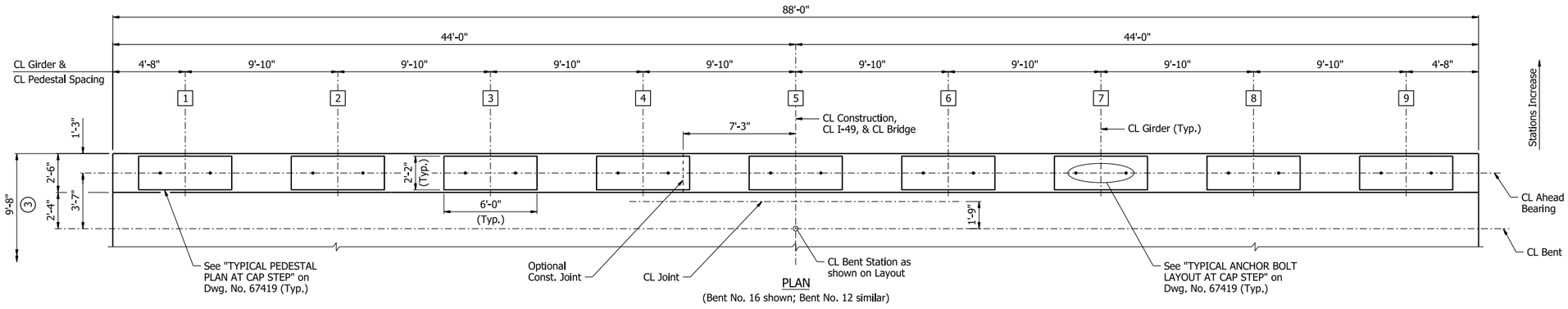
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PRINT DATE: 4/10/2024

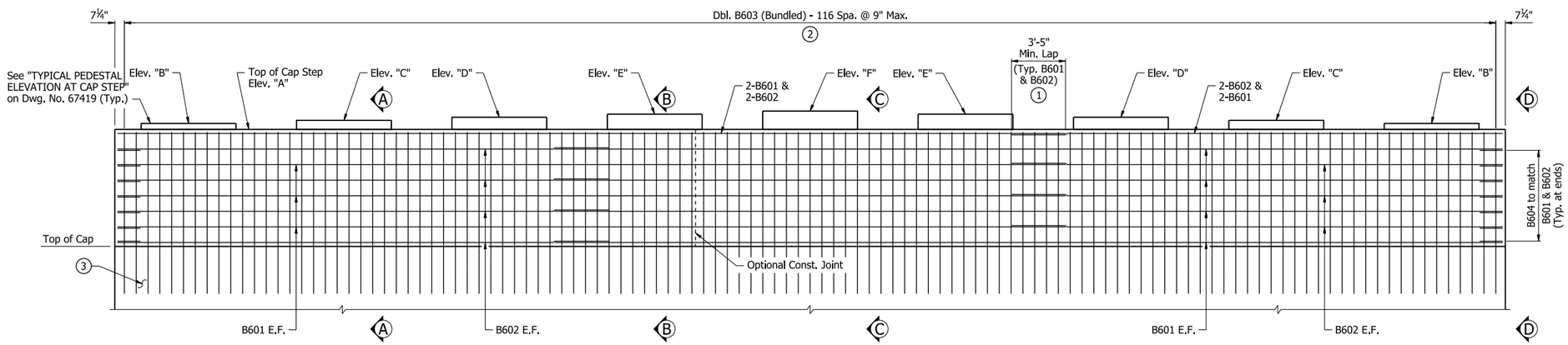
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	356	809
		07684 - INT. BENTS - 67416				

Notes:
For "SECTION A-A", "SECTION B-B", "SECTION C-C", & "VIEW D-D", see Dwg. No. 67417.

For "GENERAL NOTES", see Dwg. No. 67372.



PLAN
(Bent No. 16 shown; Bent No. 12 similar)



ELEVATION
(Bent No. 16 shown; Bent No. 12 similar)

CAP STEP (ALTERNATE NO. 2)

TABLE OF VARIABLES

Bent No.	"A"	"B"	"C"	"D"	"E"	"F"
12	440.46	440.83	441.03	441.23	441.42	441.62
16	442.80	443.18	443.38	443.57	443.77	443.97

(1) Alternate location of lap splice as shown.

(2) Contractor shall adjust B603 bar spacing to accomodate anchor bolts, sheet metal sleeves, or cap stirrup reinforcing. B603 bars may be shifted up to one bar space or bundled with neighboring B603 bars. In no case shall the space between neighboring sets of B603 bars exceed twice the detailed maximum spacing.

(3) Cap. For details, see Dwg. No. 67414.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 3 OF 6
DETAILS OF INTERMEDIATE BENT NOS. 12 & 16
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 12/14/23
CHECKED BY: DJB DATE: 12/18/23
DESIGNED BY: DJB DATE: 6/26/23
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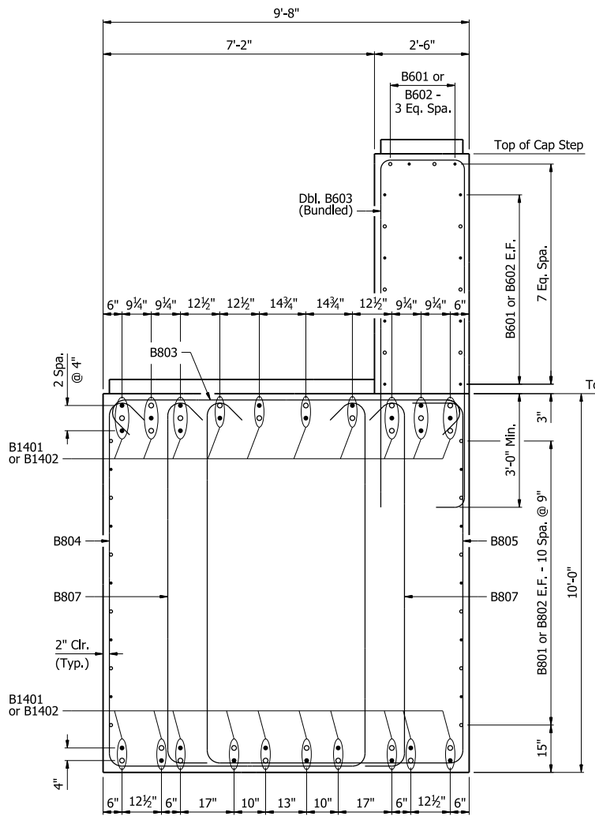
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PRINT DATE: 4/10/2024

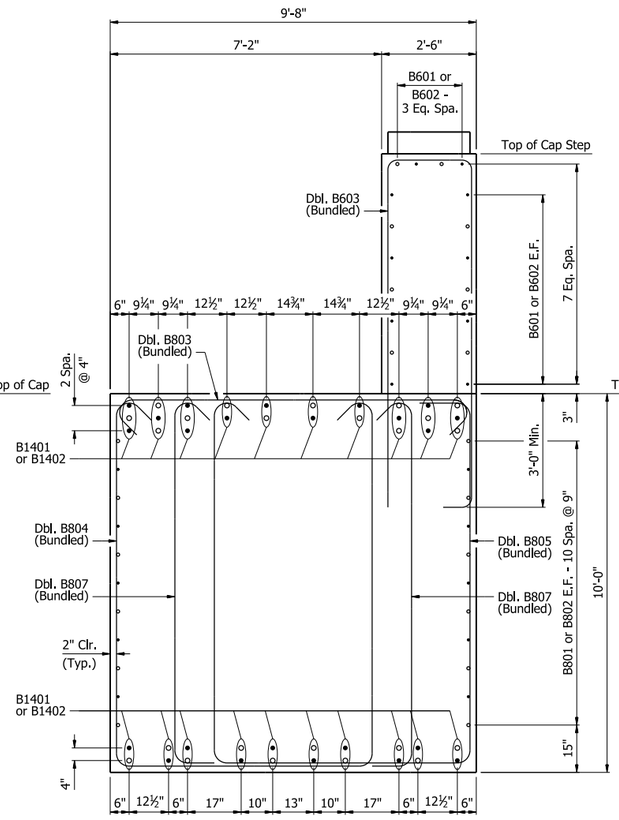
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	357	809
		07684 - INT. BENTS - 67417				

Notes:
Contractor shall adjust B1401 or B1402 bar spacing to accomodate anchor bolts, sheet metal sleeves, or vertical column steel. Contractor shall maintain a minimum and maximum spacing of 6" and 17", respectively.

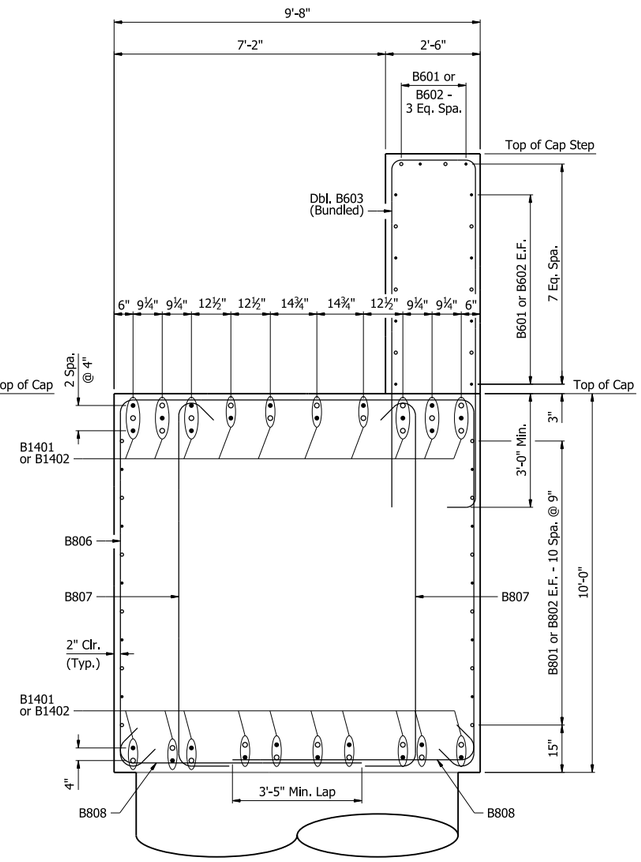
For location of "SECTION A-A" thru "SECTION C-C", and "VIEW D-D", see Dwg. No. 67414 thru 67416.



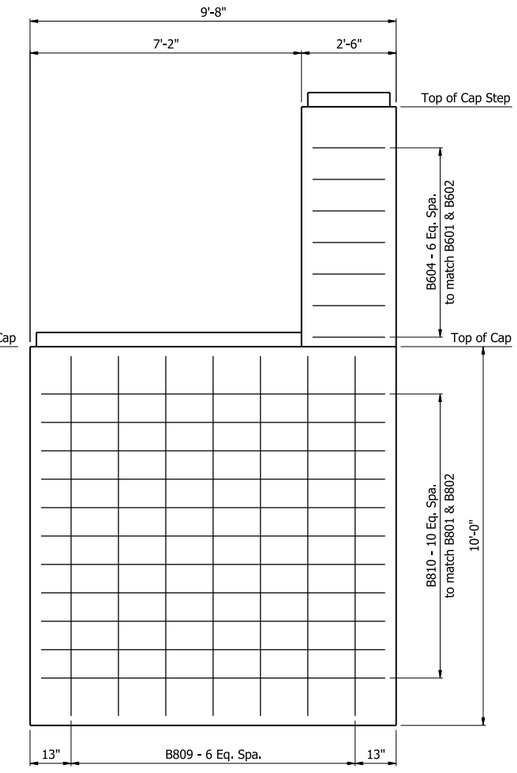
SECTION A-A
(Pedestal reinforcing not shown for clarity)



SECTION B-B
(Pedestal reinforcing not shown for clarity)



SECTION C-C
(Column reinforcing not shown for clarity)



VIEW D-D

PRINT DATE: 4/10/2024

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

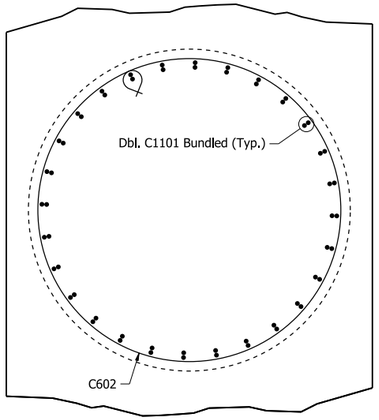
ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 4 OF 6
DETAILS OF INTERMEDIATE BENT NOS. 12 & 16
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

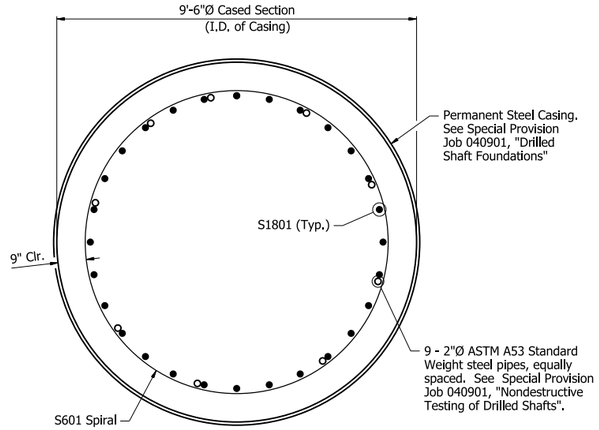
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CHECKED BY: DJB DATE: 12/18/23
DESIGNED BY: DJB DATE: 6/26/23
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BRIDGE NO. 07684 DRAWING NO. 67417

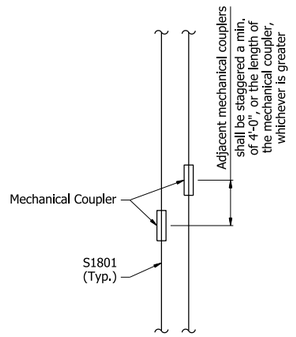
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	358	809
		07684 - INT. BENTS - 67418				



SECTION E-E
½" = 1'-0"
(Cap reinforcing not shown for clarity)



SECTION H-H
½" = 1'-0"



DRILLED SHAFT BAR SPLICE DETAIL
No Scale

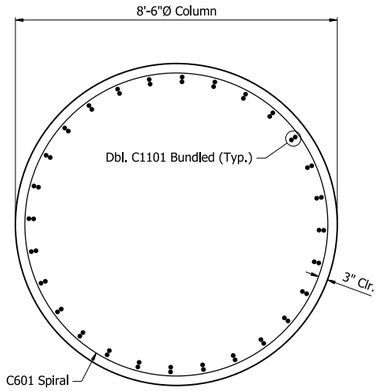
MECHANICAL COUPLER AND SPLICE NOTES:
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 8'-6" from top of shaft.

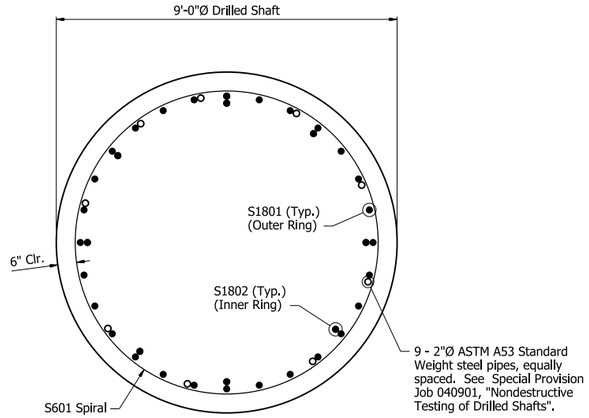
The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (108" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.

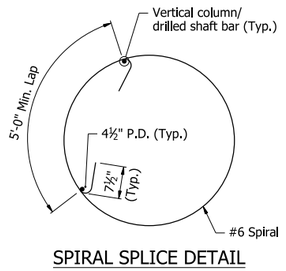
Notes:
For locations of "SECTION E-E" thru "SECTION J-J", see Dwg. No. 67414.



SECTION F-F
½" = 1'-0"



SECTION J-J
½" = 1'-0"



SPIRAL SPLICE DETAIL
No Scale

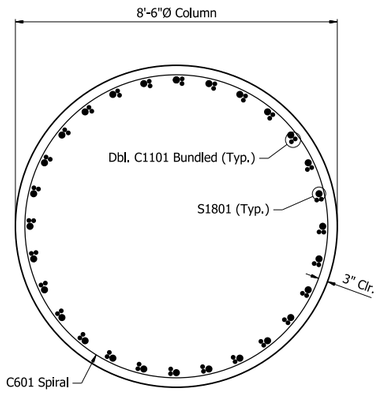
SPIRAL REINFORCING NOTES:
Spiral reinforcing shall be plain round or deformed steel bars meeting the requirements of AASHTO M31 or M322, Type A with mill test report (Grade 60) or shall be cold drawn wire meeting the requirements of AASHTO M32 or M225 (Grade 70) with a minimum diameter of 0.75".

Spiral reinforcement shall be paid for at the contract unit price bid per pound for "Reinforcing Steel-Bridge (Grade 60)". No additional payment shall be made for spacers, optional splices, or bracing needed for assembly, shipping, handling, or erecting.

Contractor may elect to lap splice the spiral reinforcing. In no case shall a spiral be lapped within 8'-6" of the top or bottom of the column or within 8'-6" of the top of the cased section.

Splices in spiral reinforcing shall be a minimum of 80 bar diameters.

Spiral reinforcing at lapped splices shall be terminated by a 135° hook with a 7½" tail around a vertical bar. See "SPIRAL SPLICE DETAIL". Hook may be field bent. Ends of spirals not lapped shall be terminated with 1½ turns.



SECTION G-G
½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
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4/18/24
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ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 5 OF 6
DETAILS OF INTERMEDIATE BENT NOS. 12 & 16
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

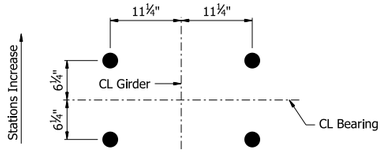
ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: DJB DATE: 12/18/23
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FILENAME: b04090111_b125.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67418

PRINT DATE: 4/10/2024

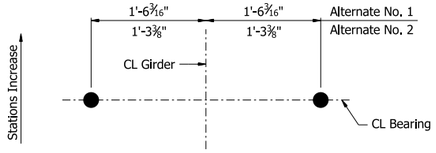
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		07684 - INT. BENTS - 67419				



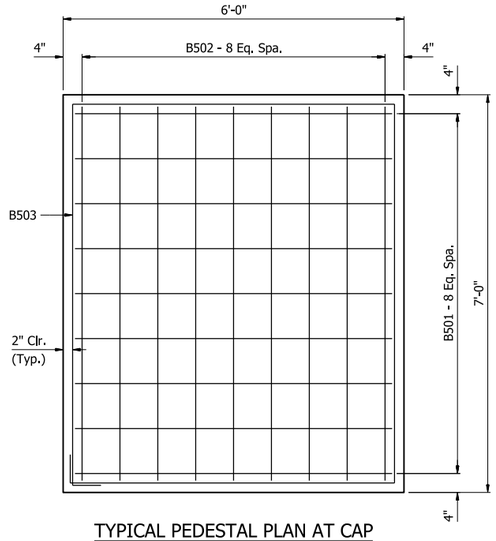
Notes:
For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 thru 67705.

For "DETAILS OF HLMR BEARING", see Dwg. No. 67706.

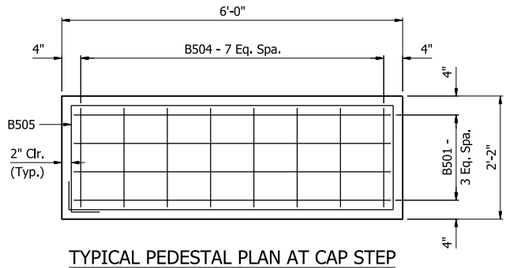
TYPICAL ANCHOR BOLT LAYOUT AT CAP
1" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT AT CAP STEP
1" = 1'-0"



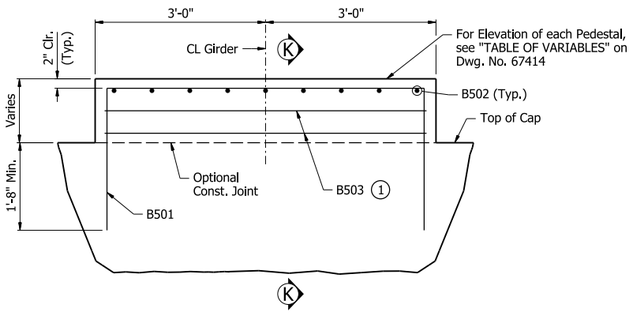
TYPICAL PEDESTAL PLAN AT CAP
¾" = 1'-0"



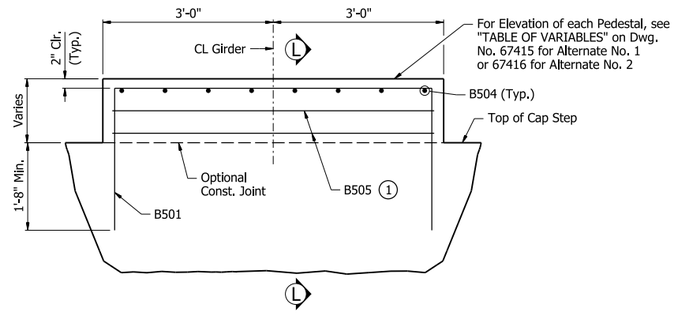
TYPICAL PEDESTAL PLAN AT CAP STEP
¾" = 1'-0"

TABLE OF VARIABLES

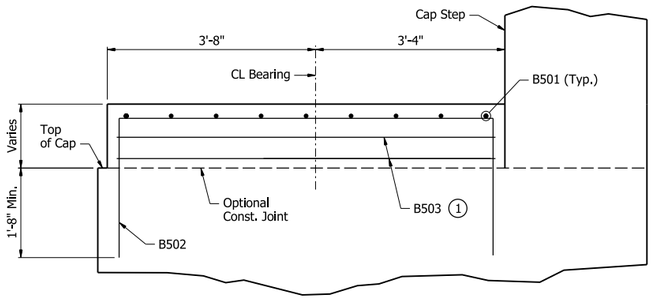
Alternate No.	Bent No.	"BN1"	"BN2"	"BL"	"CS"	"CL"	"SS"	"SL"
1	12	112	80	21'-0"	1695'-1"	38'-8"	3340'-5"	71'-9"
	16	112	80	21'-0"	2268'-6"	49'-0"	3091'-1"	66'-9"
2	12	108	72	23'-2"	1695'-1"	38'-8"	3340'-5"	71'-9"
	16	108	72	23'-2"	2268'-6"	49'-0"	3091'-1"	66'-9"



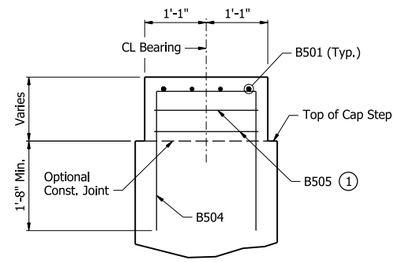
TYPICAL PEDESTAL ELEVATION AT CAP
¾" = 1'-0"



TYPICAL PEDESTAL ELEVATION AT CAP STEP
¾" = 1'-0"



SECTION K-K
¾" = 1'-0"



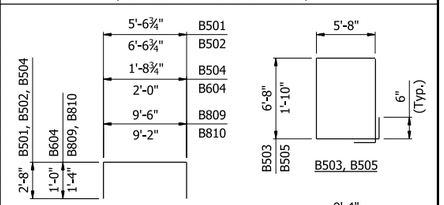
SECTION L-L
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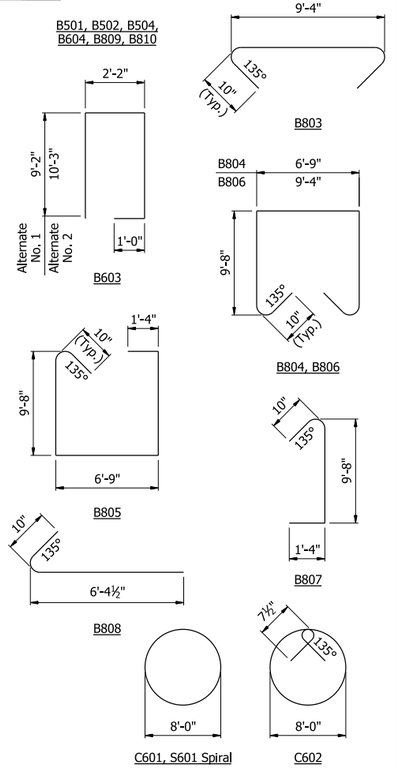
(1) 1-B503 or 1-B505 when Pedestal Height is less than 11";
2-B503 or 2-B505 spaced at 6" Max.

BAR LIST - PER BENT

Mark	Number Required	Length	Pin Dia.
B501	"BN1"	10'-8"	2½"
B502	72	11'-8"	2½"
B503	10	25'-2"	2½"
B504	"BN2"	6'-10"	2½"
B505	12	15'-6"	2½"
B601	18	60'-0"	Str.
B602	18	31'-1"	Str.
B603	234	"BL"	4½"
B604	14	3'-8"	4½"
B801	22	60'-0"	Str.
B802	22	31'-1"	Str.
B803	86	11'-0"	6"
B804	86	27'-4"	6"
B805	86	27'-8"	6"
B806	30	29'-11"	6"
B807	232	11'-8"	6"
B808	60	7'-3"	6"
B809	14	11'-9"	6"
B810	22	11'-5"	6"
B1401	46	54'-0"	Str.
B1402	46	33'-8"	Str.
C601	3	"CS"	Spiral
C602	30	26'-9"	4½"
C1101	168	"CL"	Str.
(2) S601	3	"SS"	Spiral
(2) S1801	84	"SL"	Str.
(2) S1802	24	30'-3"	Str.

Bending Diagrams
(Dimensions are out to out of bars)





All bars designated with an "E" suffix are to be epoxy coated.

(2) S1801 & S1802 longitudinal reinforcement and S601 spiral reinforcement are non-pay items which are subsidiary to item"Drilled Shaft (108" Dia.)". Individual lengths shall be determined by the Contractor.

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ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 6 OF 6
DETAILS OF INTERMEDIATE BENT NOS. 12 & 16
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

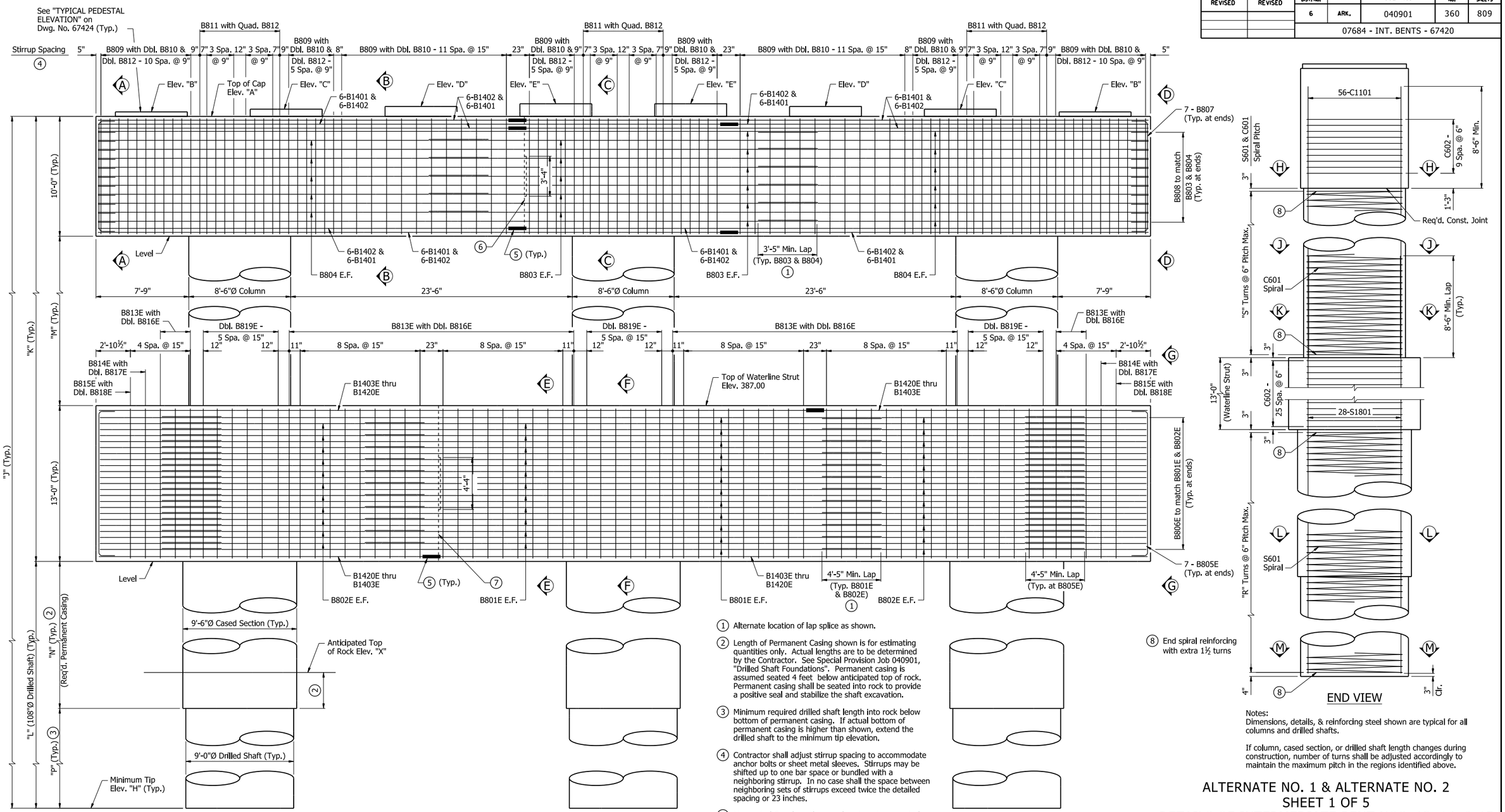
ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 12/14/23
CHECKED BY: DJB DATE: 12/18/23
DESIGNED BY: DJB DATE: 6/26/23
FILENAME: b04090111_b126.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67419

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	360	809
		07684 - INT. BENTS - 67420				



ELEVATION
(Looking Upstation)

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 4 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.
4. Contractor shall adjust stirrup spacing to accommodate anchor bolts or sheet metal sleeves. Stirrups may be shifted up to one bar space or bundled with a neighboring stirrup. In no case shall the space between neighboring sets of stirrups exceed twice the detailed spacing or 23 inches.
5. Mechanical Coupler. Alternate location of mechanical couplers as shown.
6. Optional Keyed Const. Joint (3'-4" x 3'-0" x 0'-2") (See "PLAN - CAP" on Dwg. No. 67421 for location.)
7. Optional Keyed Const. Joint (4'-4" x 3'-8" x 0'-2") (See "PLAN - WATERLINE STRUT" on Dwg. No. 67421 for location.)
8. End spiral reinforcing with extra 1½ turns

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of turns shall be adjusted accordingly to maintain the maximum pitch in the regions identified above.

Notes:
For "SECTION A-A", "SECTION B-B", "SECTION C-C", "VIEW D-D", "SECTION E-E", SECTION "F-F", & "VIEW G-G", see Dwg. No. 67422.

For "GENERAL NOTES", see Dwg. No. 67372.

Pedestal Elevations "B" thru "E" were calculated assuming a bearing height of 11 inches from top of pedestal concrete to bottom flange of girder. Contractor shall adjust elevations based on final bearing dimensions provided by bearing manufacturer.

TABLE OF VARIABLES

Bent No.	"A"	"B"	"C"	"D"	"E"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"	"S"	"X"
13	441.04	441.41	441.64	441.86	442.09	321.00	120'-0½"	67'-0½"	53'-0"	44'-0½"	26'-0"	27'-0"	105	88	352.00
14	444.55	444.93	445.15	445.38	445.60	318.00	126'-6⅜"	70'-6⅜"	56'-0"	47'-6⅜"	29'-0"	27'-0"	111	95	349.00
15	440.73	441.10	441.33	441.55	441.78	322.00	118'-8¾"	66'-8¾"	52'-0"	43'-8¾"	25'-0"	27'-0"	103	87	353.00

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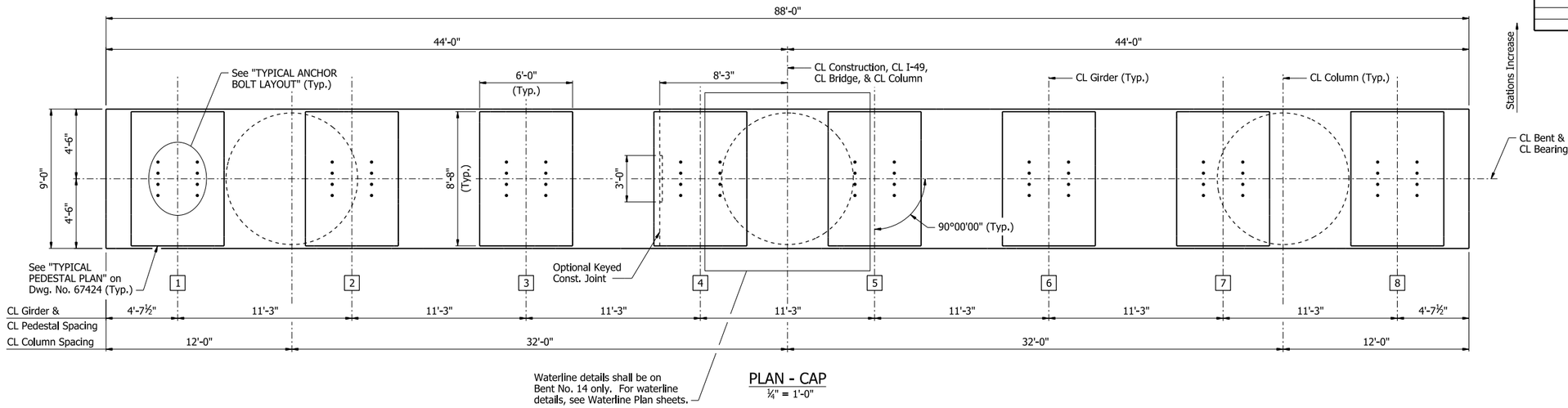
ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 1 OF 5
DETAILS OF INTERMEDIATE BENT NOS. 13, 14, & 15
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 11/20/23
CHECKED BY: DJB DATE: 11/22/23
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DRAWING NO. 67420

PRINT DATE: 4/10/2024

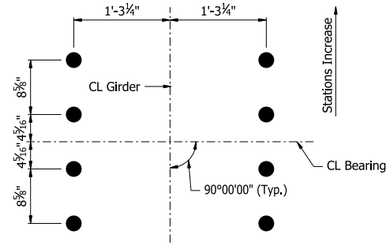
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		07684 - INT. BENTS - 67421				



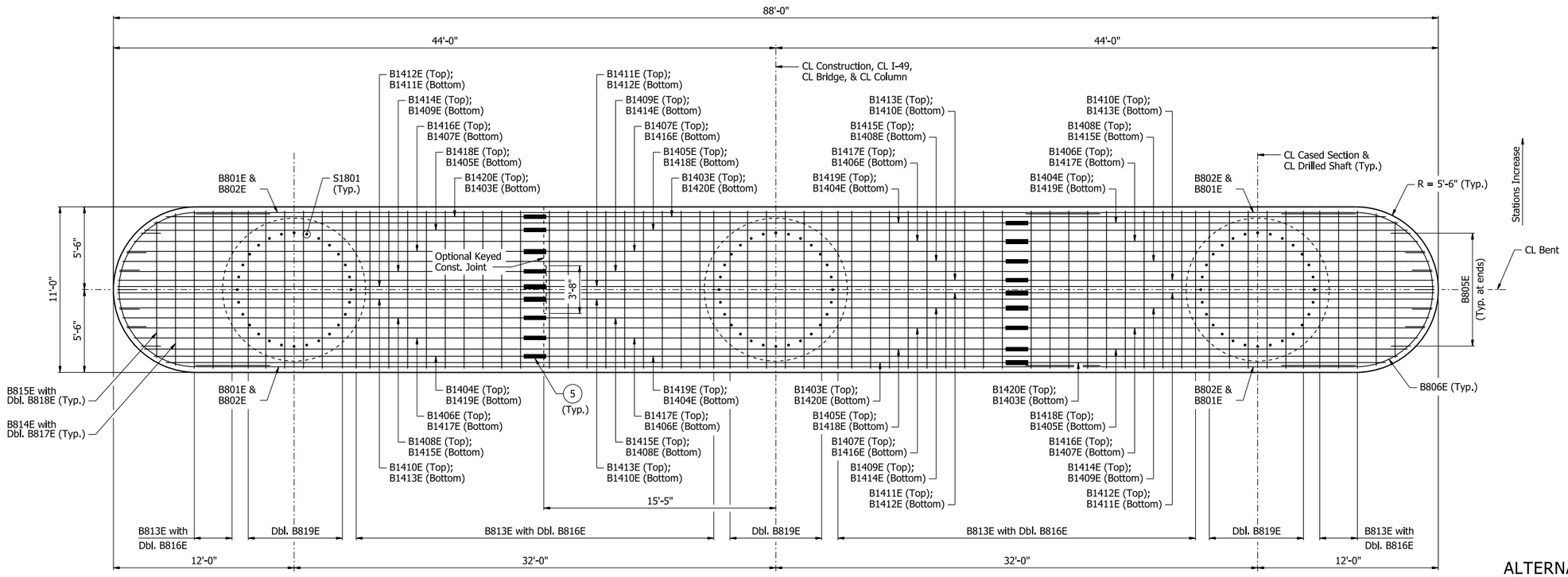
PLAN - CAP
¼" = 1'-0"

Notes:
For "ELEVATION", see Dwg. No. 67420.

For "DETAILS OF HLMR BEARING", see Dwg. No. 67706.



TYPICAL ANCHOR BOLT LAYOUT
1" = 1'-0"



PLAN - WATERLINE STRUT
¼" = 1'-0"

(5) Mechanical Coupler. Alternate location of mechanical couplers as shown.

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ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 2 OF 5
DETAILS OF INTERMEDIATE BENT NOS. 13, 14, & 15
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

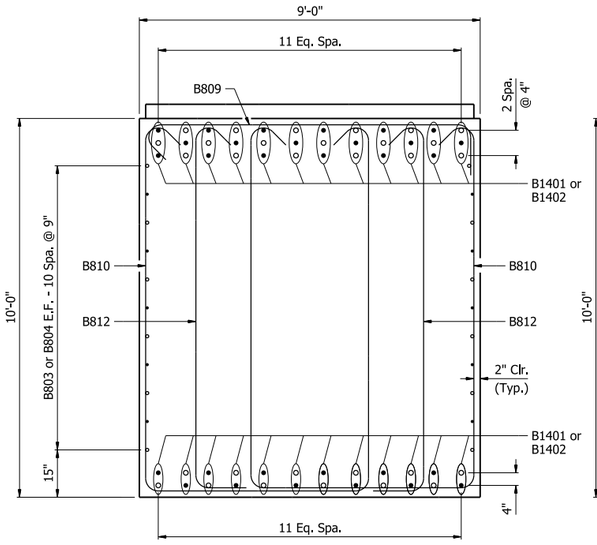
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: DJB DATE: 11/22/23
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FILENAME: b04090111_b132.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67421

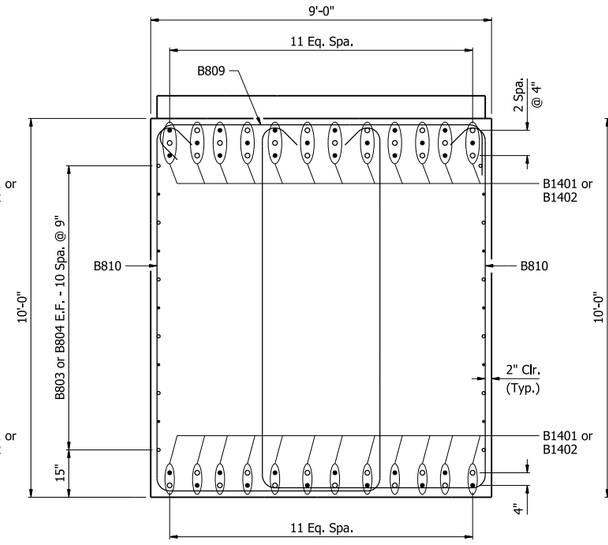
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		07684 - INT. BENTS - 67422				



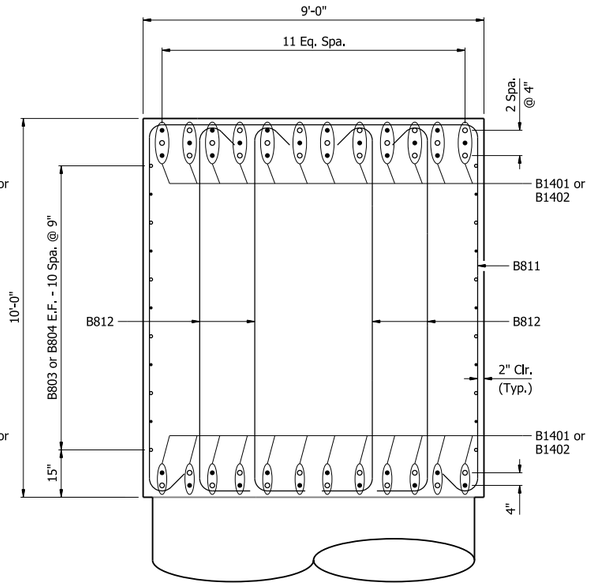
SECTION A-A

(Pedestal reinforcing not shown for clarity)



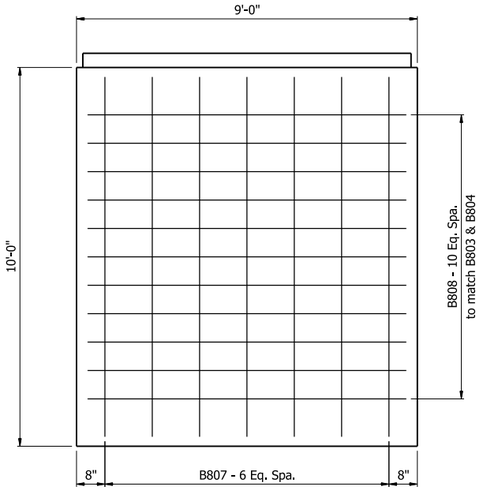
SECTION B-B

(Pedestal reinforcing not shown for clarity)

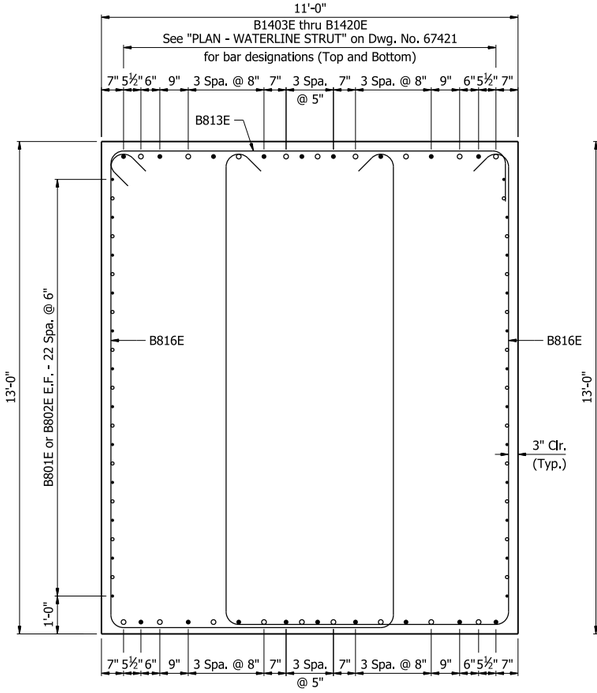


SECTION C-C

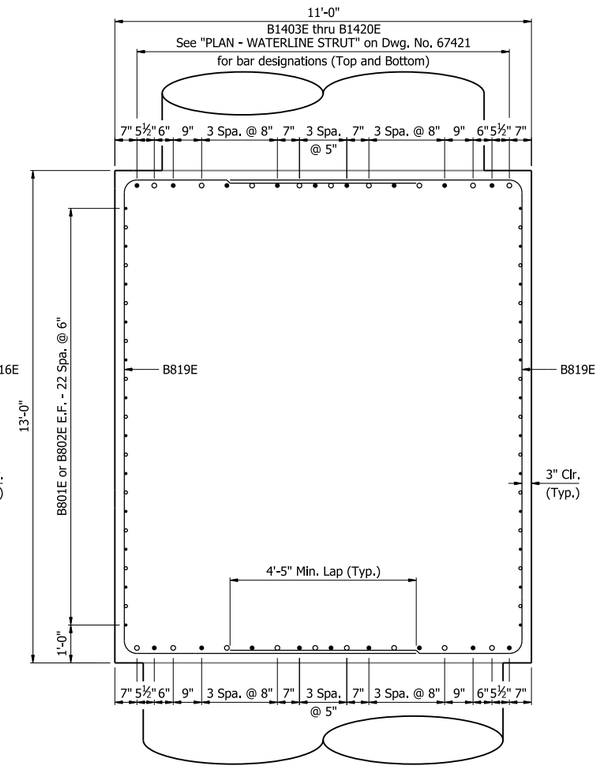
(Column reinforcing not shown for clarity)



VIEW D-D

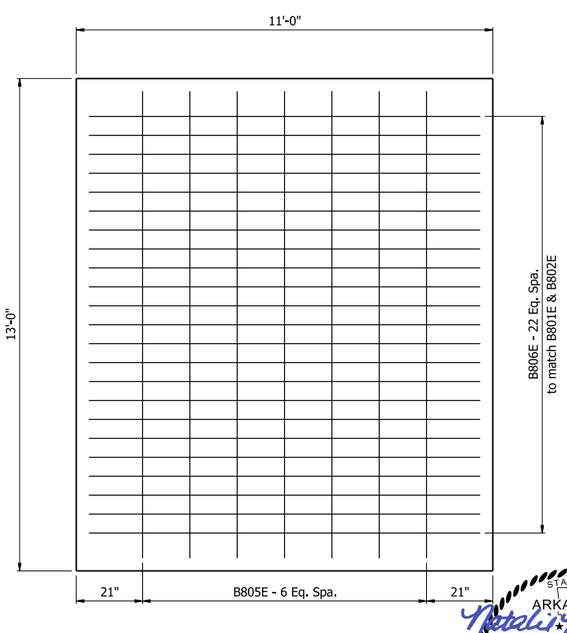


SECTION E-E



SECTION F-F

(Drilled Shaft reinforcing not shown for clarity)



VIEW G-G

Notes:
Contractor shall adjust B1401 or B1402 bar spacing to accomodate anchor bolts, sheet metal sleeves, or vertical column steel. Contractor shall maintain a minimum and maximum spacing of 6" and 17", respectively.

For location of "Section A-A" thru "Section C-C", "View D-D", "Section E-E", "Section F-F", and "View G-G", see Dwg. No. 67420.

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LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
NATALIE MCCOMBS

Natalie McCombs
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 3 OF 5
DETAILS OF INTERMEDIATE BENT NOS. 13, 14, & 15
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

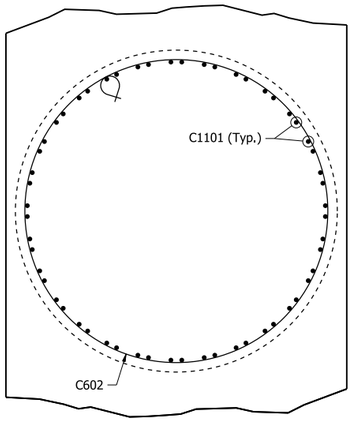
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CHECKED BY: DJB DATE: 11/22/23
DESIGNED BY: DJB DATE: 6/13/23
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SCALE: ½" = 1'-0"

BRIDGE NO. 07684 DRAWING NO. 67422

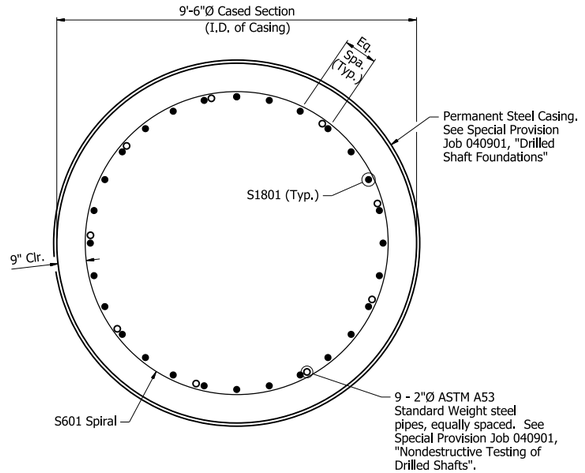
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		07684 - INT. BENTS - 67423				

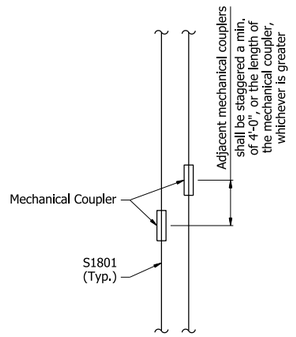
Notes:
For locations of "SECTION H-H" thru "SECTION M-M", see Dwg. No. 67420.



SECTION H-H
½" = 1'-0"
(Cap reinforcing not shown for clarity)



SECTION L-L
½" = 1'-0"



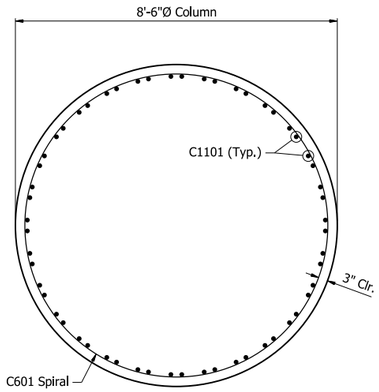
DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES:
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

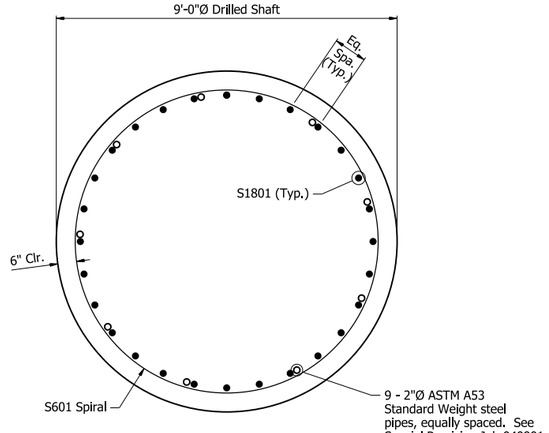
The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 8'-6" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

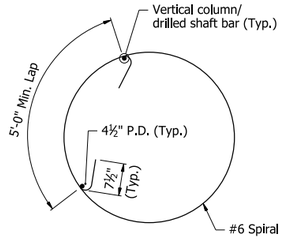
Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (108" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.



SECTION J-J
½" = 1'-0"



SECTION M-M
½" = 1'-0"



SPIRAL SPLICE DETAIL
No Scale

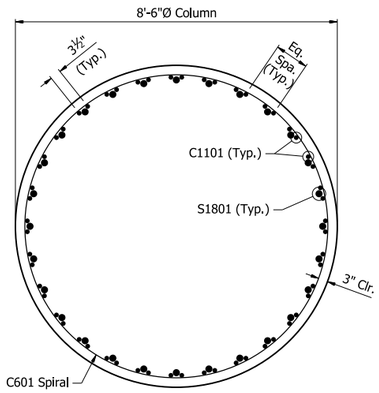
SPIRAL REINFORCING NOTES:
Spiral reinforcing shall be plain round or deformed steel bars meeting the requirements of AASHTO M31 or M322, Type A with mill test report (Grade 60) or shall be cold drawn wire meeting the requirements of AASHTO M32 or M225 (Grade 70) with a minimum diameter of 0.75".

Spiral reinforcement shall be paid for at the contract unit price bid per pound for "Reinforcing Steel-Bridge (Grade 60)". No additional payment shall be made for spacers, optional splices, or bracing needed for assembly, shipping, handling, or erecting.

Contractor may elect to lap splice the spiral reinforcing. In no case shall a spiral be lapped within 8'-6" of the top or bottom of the column or within 8'-6" of the top of the cased section.

Splices in spiral reinforcing shall be a minimum of 80 bar diameters.

Spiral reinforcing at lapped splices shall be terminated by a 135° hook with a 7½" tail around a vertical bar. See "SPIRAL SPLICE DETAIL". Hook may be field bent. Ends of spirals not lapped shall be terminated with 1½ turns.



SECTION K-K
½" = 1'-0"

PRINT DATE: 4/10/2024

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

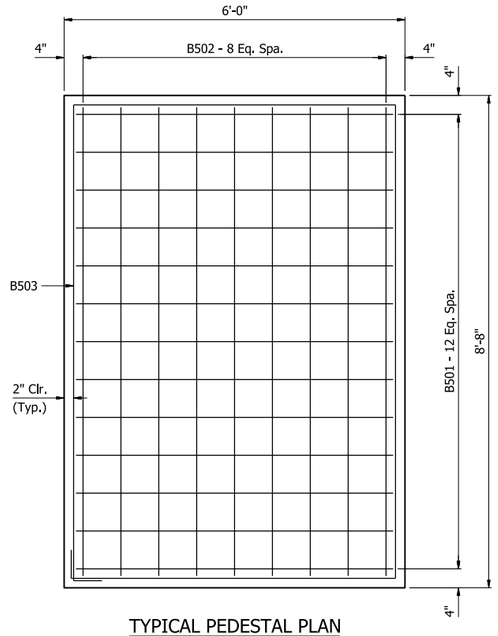
ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 4 OF 5
DETAILS OF INTERMEDIATE BENT NOS. 13, 14, & 15
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

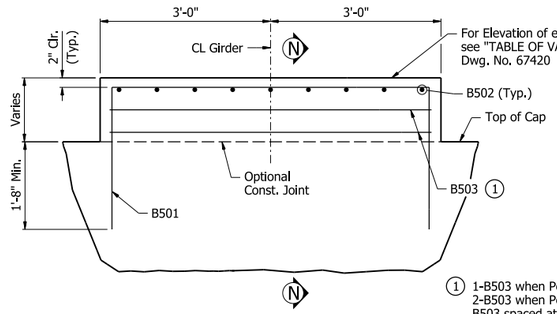
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CHECKED BY: DJB DATE: 11/22/23
DESIGNED BY: DJB DATE: 6/13/23
FILENAME: b04090111_b134.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67423

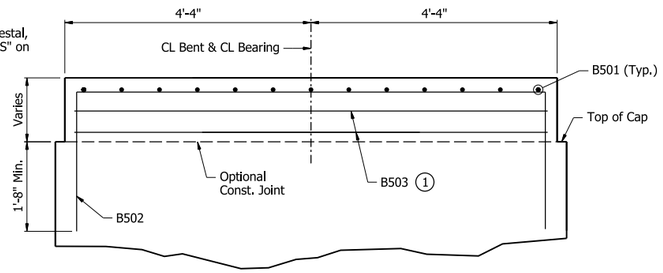
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	364	809
		07684 - INT. BENTS - 67424				



TYPICAL PEDESTAL PLAN



TYPICAL PEDESTAL ELEVATION



SECTION N-N

(1) 1-B503 when Pedestal Height is less than 11";
2-B503 when Pedestal Height is greater than 11";
B503 spaced at 6" Max.

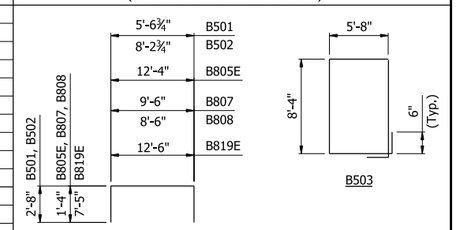
TABLE OF VARIABLES

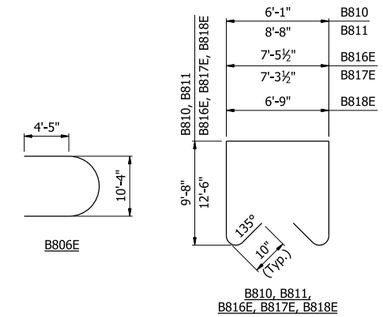
Bent No.	"CS"	"CL"	"SS"	"SL"
13	2268'-5"	52'-7"	2692'-4"	74'-3"
14	2442'-11"	56'-1"	2842'-2"	77'-3"
15	2243'-6"	52'-3"	2642'-5"	73'-3"

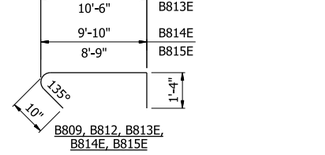
BAR LIST - PER BENT

Mark	Number Required	Length	Pin Dia.
B501	104	10'-8"	2½"
B502	72	13'-4"	2½"
B503	10	28'-6"	2½"
B801E	46	60'-0"	Str.
B802E	46	21'-5"	Str.
B803	22	60'-0"	Str.
B804	22	31'-1"	Str.
B805E	14	14'-7"	6"
B806E	46	24'-11"	-
B807	14	11'-9"	6"
B808	22	10'-9"	6"
B809	70	10'-8"	6"
B810	140	26'-9"	6"
B811	30	29'-4"	6"
B812	212	11'-8"	6"
B813E	46	12'-6"	6"
B814E	2	11'-10"	6"
B815E	2	10'-9"	6"
B816E	92	33'-9"	6"
B817E	4	33'-7"	6"
B818E	4	33'-0"	6"
B819E	36	27'-0"	6"
B1401	60	52'-8"	Str.
B1402	60	35'-0"	Str.
B1403E	4	56'-1"	Str.
B1404E	4	25'-2"	Str.
B1405E	4	57'-10"	Str.
B1406E	4	26'-7"	Str.
B1407E	4	59'-0"	Str.
B1408E	4	27'-4"	Str.
B1409E	4	59'-7"	Str.
B1410E	4	27'-8"	Str.
B1411E	4	59'-9"	Str.
B1412E	4	27'-9"	Str.
B1413E	4	59'-8"	Str.
B1414E	4	27'-7"	Str.
B1415E	4	59'-4"	Str.
B1416E	4	27'-0"	Str.
B1417E	4	58'-7"	Str.
B1418E	4	25'-10"	Str.
B1419E	4	57'-1"	Str.
B1420E	4	24'-1"	Str.
C601	3	"CS"	Spiral
C602	108	26'-9"	4½"
C1101	168	"CL"	Str.
(2) S601	3	"SS"	Spiral
(2) S1801	84	"SL"	Str.

Bending Diagrams (Dimensions are out to out of bars)









All bars designated with an "E" suffix are to be epoxy coated.

(2) S1801 longitudinal reinforcement and S601 spiral reinforcement are non-pay items which are subsidiary to item"Drilled Shaft (108" Dia.)". Individual lengths shall be determined by the Contractor.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
Natalie McCombs
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 5 OF 5
DETAILS OF INTERMEDIATE BENT NOS. 13, 14, & 15
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 11/20/23
CHECKED BY: DJB DATE: 11/22/23
DESIGNED BY: DJB DATE: 6/13/23
FILENAME: b04090111_b135.dgn
SCALE: ¾" = 1'-0"

BRIDGE NO. 07684 DRAWING NO. 67424

PRINT DATE: 4/10/2024

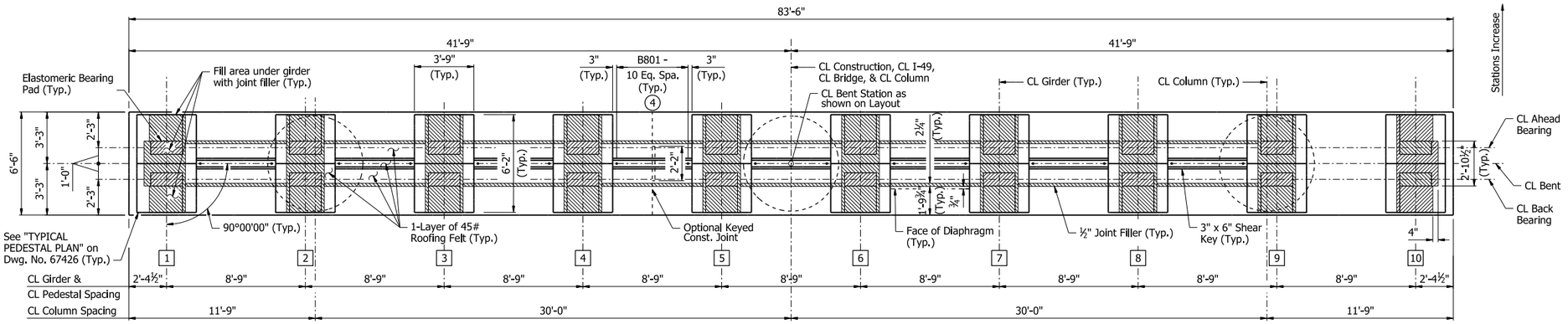
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	365	809
		07684 - INT. BENTS - 67425				

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67426.

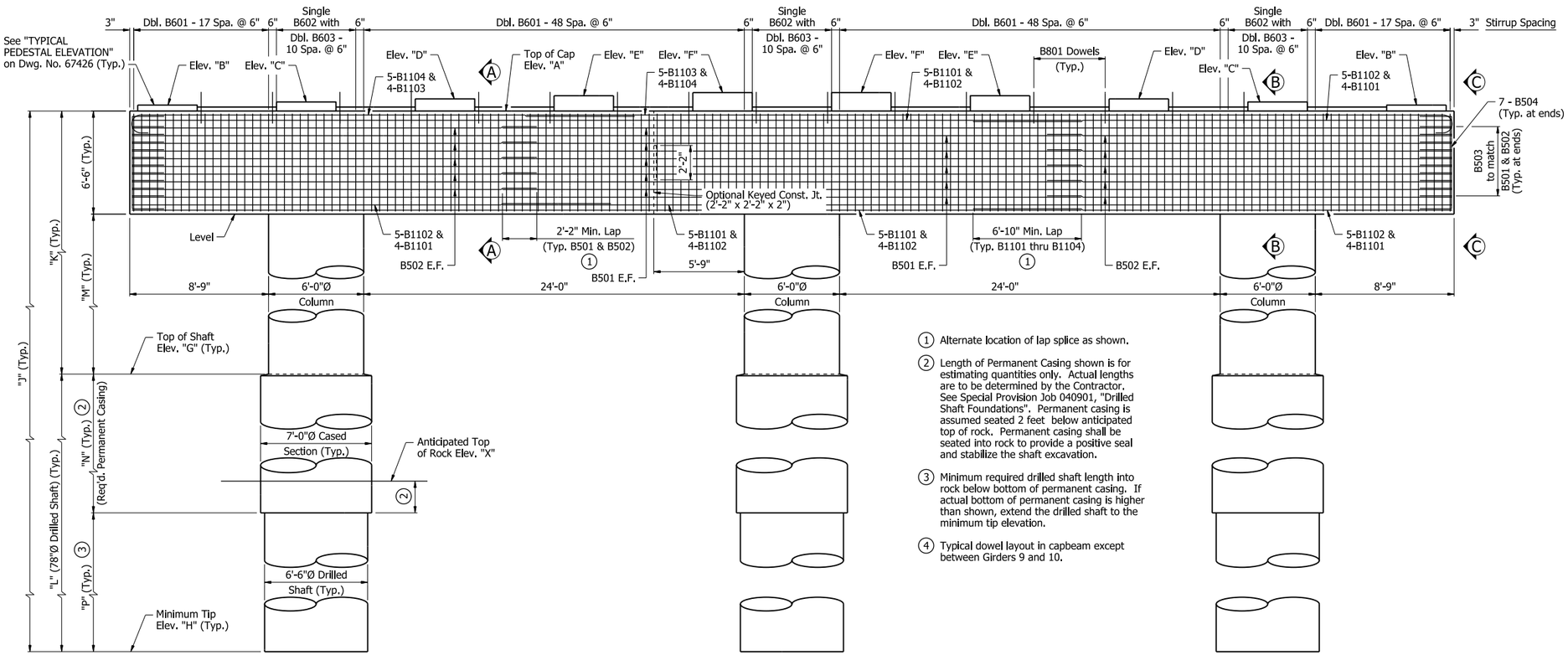
For "GENERAL NOTES", see Dwg. No. 67372.

Use 2¼" x ½" joint filler up the vertical face pedestals.

For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.

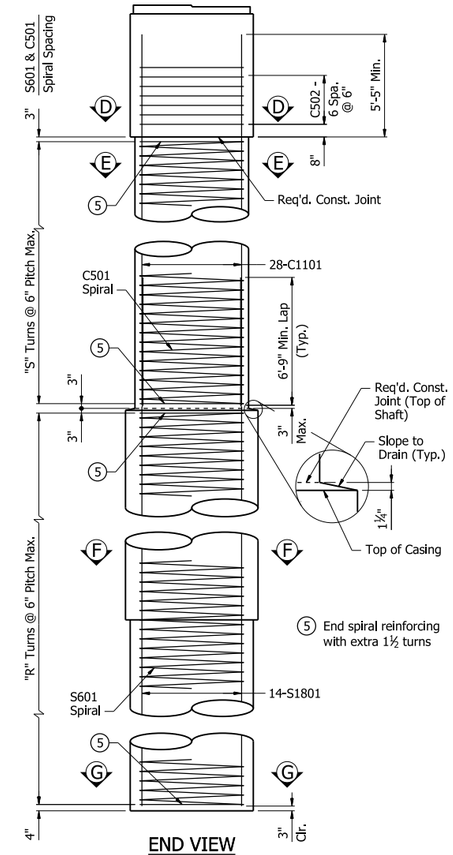


PLAN



ELEVATION
(Looking Upstation)

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.
4. Typical dowel layout in capbeam except between Girders 9 and 10.



END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of turns shall be adjusted accordingly to maintain the maximum pitch in the regions identified above.

TABLE OF VARIABLES

Bent No.	"A"	"B" Back Bearing	"B" Ahead Bearing	"C" Back Bearing	"C" Ahead Bearing	"D" Back Bearing	"D" Ahead Bearing	"E" Back Bearing	"E" Ahead Bearing	"F" Back Bearing	"F" Ahead Bearing	"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"	"S"	"X"
17	440.14	440.51	440.51	440.68	440.68	440.86	440.86	441.03	441.03	441.21	441.21	384.00	334.50	105'-7⅝"	56'-1⅝"	49'-6"	49'-7⅝"	32'-0"	17'-6"	98	99	354.00
18	438.08	438.49	438.45	438.66	438.62	438.84	438.80	439.01	438.97	439.19	439.15	385.00	333.50	104'-7"	53'-1"	51'-6"	46'-7"	34'-0"	17'-6"	102	93	353.00

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 17 & 18
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

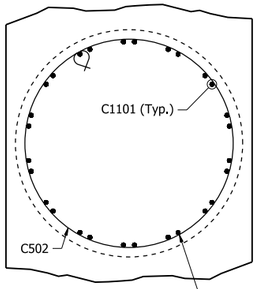
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: MGG DATE: 11/02/23
DESIGNED BY: MGG DATE: 7/21/23
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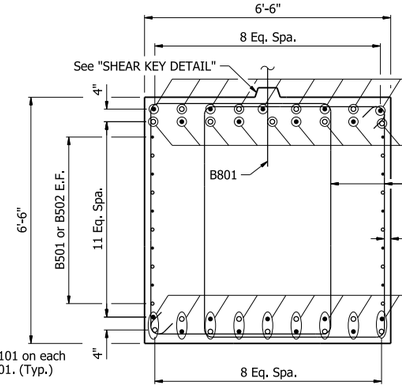
BRIDGE NO. 07684 DRAWING NO. 67425

PRINT DATE: 4/10/2024

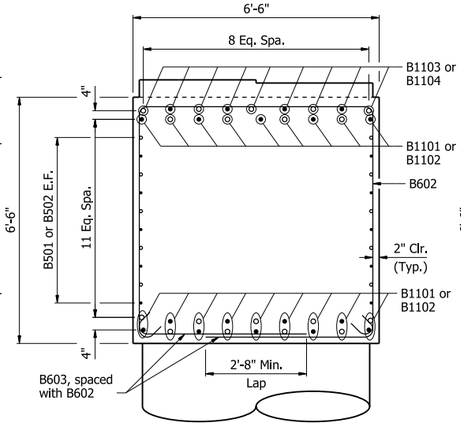
DATE REVISED	DATE REVISED	FED. RD. DST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	366	809
		07684 - INT. BENTS - 67426				



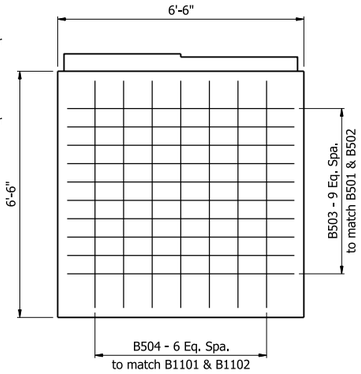
SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)



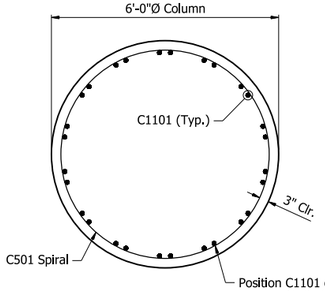
SECTION A-A
½" = 1'-0"



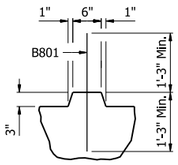
SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)



VIEW C-C
½" = 1'-0"

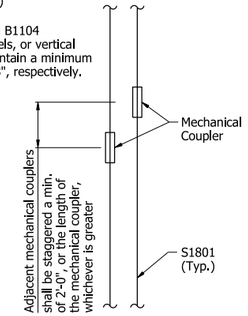


SECTION E-E
½" = 1'-0"



SHEAR KEY DETAIL
No Scale

Note:
Contractor shall adjust B1101 thru B1104 bar spacing to accommodate dowels, or vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 8", respectively.



DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES;
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 8'-4" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (78" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.

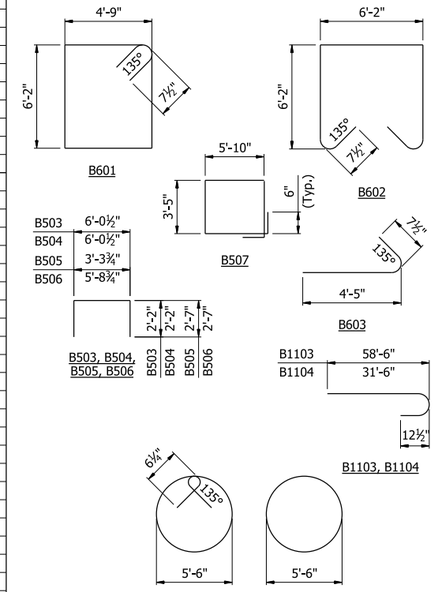
TABLE OF VARIABLES

Bent No.	"CS"	"CL"	"SS"	"SL"
17	1745'-8"	54'-10"	1725'-4"	56'-0"
18	1642'-11"	51'-9"	1793'-5"	58'-0"

BAR LIST - PER BENT

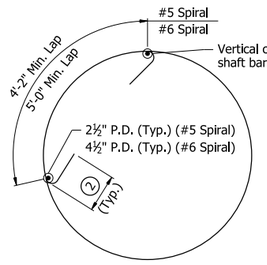
Mark	Number Required	Length	Pin Dia.
B501	20	60'-0"	Str.
B502	20	25'-4"	Str.
B503	20	10'-2"	2½"
B504	14	10'-2"	2½"
B505	100	8'-3"	2½"
B506	60	10'-8"	2½"
B507	12	19'-0"	2½"
B601	268	22'-8"	4½"
B602	33	19'-6"	4½"
B603	66	5'-1"	4½"
B801	90	2'-6"	Str.
B1101	27	60'-0"	Str.
B1102	27	30'-0"	Str.
B1103	9	60'-0"	11¼"
B1104	9	33'-0"	11¼"
C501	3	"CS"	Spiral
C502	21	18'-5"	2½"
C1101	84	"CL"	Str.
② S601	3	"SS"	Spiral
② S1801	42	"SL"	Str.

Bending Diagrams (Dimensions are out to out of bars)



All bars designated with an "E" suffix are to be epoxy coated.

② S1801 longitudinal reinforcement and S601 spiral reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (78" DIA.)". Individual lengths shall be determined by the Contractor.



SPIRAL SPLICE DETAIL
No Scale

② 6¼" at #5 spiral;
7½" at #6 spiral

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67425.

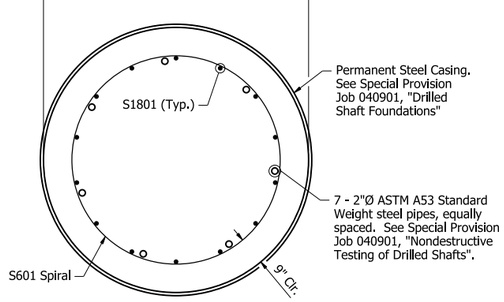
SPIRAL REINFORCING NOTES;
Spiral reinforcing shall be plain round or deformed steel bars meeting the requirements of AASHTO M31 or M322, Type A with mill test report (Grade 60) or shall be cold drawn wire meeting the requirements of AASHTO M32 or M225 (Grade 70) with a minimum diameter of 0.625".

Spiral reinforcement shall be paid for at the contract unit price bid per pound for "Reinforcing Steel-Bridge (Grade 60)". No additional payment shall be made for spacers, optional splices, or bracing needed for assembly, shipping, handling, or erecting.

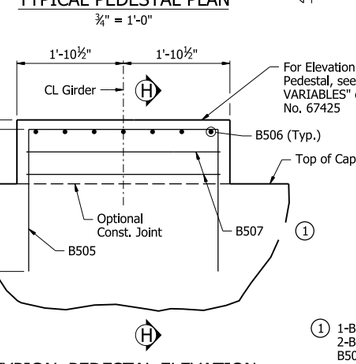
Contractor may elect to lap splice the spiral reinforcing. In no case shall a spiral be lapped within 8'-4" of the top or bottom of the column.

Splices in spiral reinforcing shall be a minimum of 80 bar diameters.

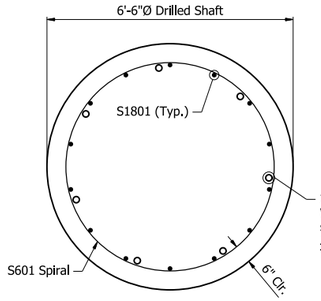
Spiral reinforcing at lapped splices shall be terminated by a 135° hook with a 6¼" tail at #5 spiral and a 7½" tail at #6 spiral around a vertical bar. See "SPIRAL SPLICE DETAIL". Hook may be field bent.Ends of spirals not lapped shall be terminated with 1½ turns.



SECTION F-F
½" = 1'-0"

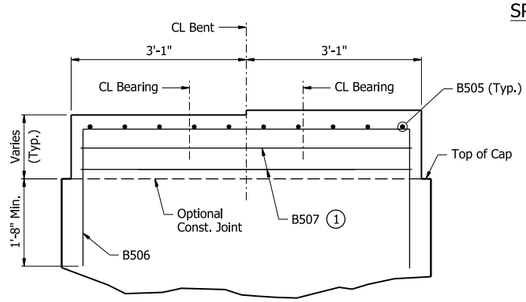


TYPICAL PEDESTAL PLAN
¾" = 1'-0"



SECTION G-G
½" = 1'-0"

TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"



SECTION H-H
¾" = 1'-0"

① 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 17 & 18
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 10/13/23
CHECKED BY: MGG DATE: 11/03/23
DESIGNED BY: MGG DATE: 7/21/23
FILENAME: b04090111_b172.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67426

PRINT DATE: 4/10/2024

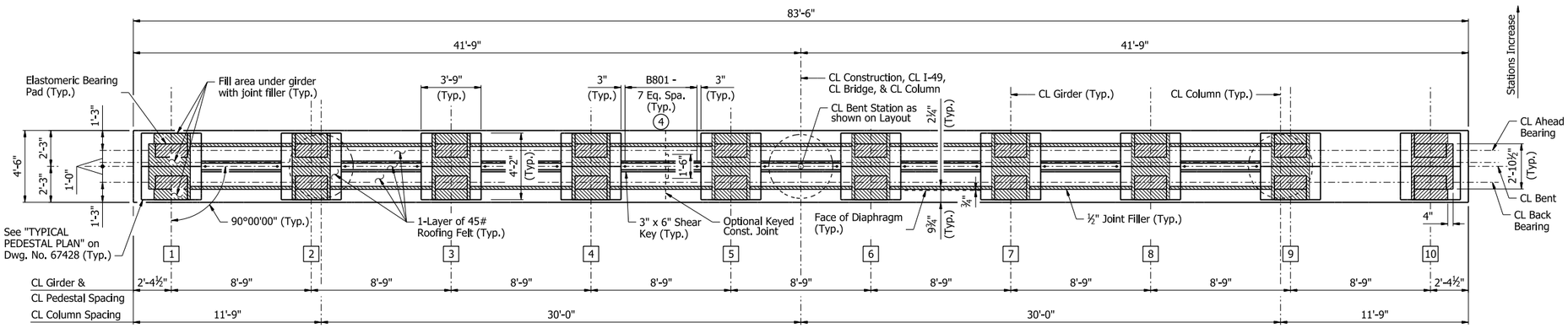
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	367	809
		07684 - INT. BENTS - 67427				

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67428.

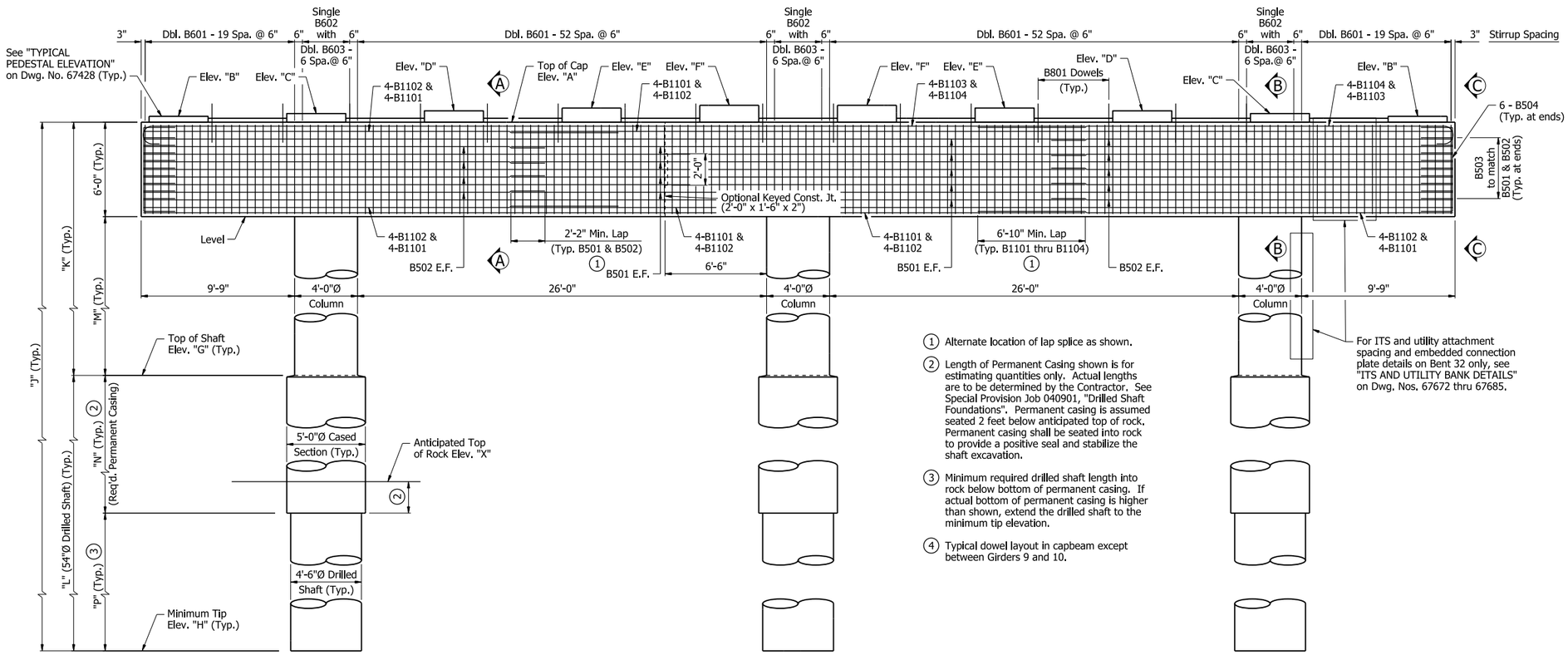
For "GENERAL NOTES", see Dwg. No. 67372.

Use 2¼" x ½" joint filler up the vertical face of pedestals.

For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.

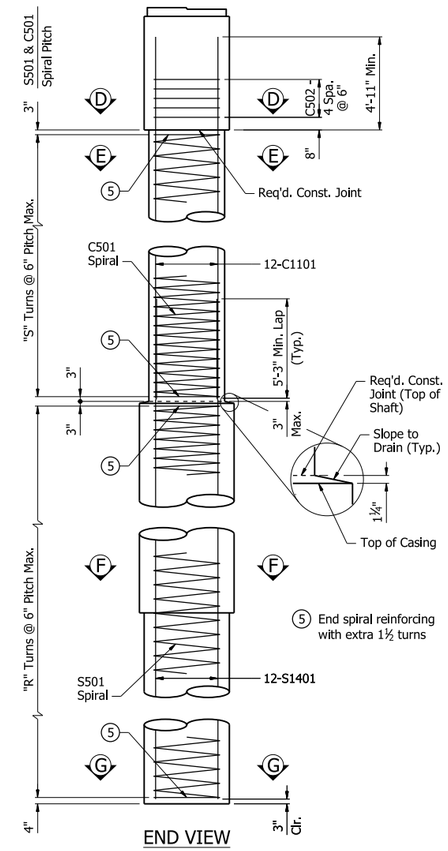


PLAN



ELEVATION
(Looking Upstation)

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.
4. Typical dowel layout in capbeam except between Girders 9 and 10.



END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of turns shall be adjusted accordingly to maintain the maximum pitch in the regions identified above.

TABLE OF VARIABLES

Bent No.	"A"	"B" Back Bearing	"B" Ahead Bearing	"C" Back Bearing	"C" Ahead Bearing	"D" Back Bearing	"D" Ahead Bearing	"E" Back Bearing	"E" Ahead Bearing	"F" Back Bearing	"F" Ahead Bearing	"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"	"S"	"X"
28	417.55	418.04	418.04	418.21	418.21	418.39	418.39	418.56	418.56	418.74	418.74	399.00	339.00	78'-6⅝"	18'-6⅝"	60'-0"	12'-6⅝"	50'-0"	10'-0"	119	25	351.00
29	415.53	416.00	416.00	416.17	416.17	416.35	416.35	416.52	416.52	416.70	416.70	398.00	342.00	73'-6⅜"	17'-6⅜"	56'-0"	11'-6⅜"	46'-0"	10'-0"	111	23	354.00
31	411.45	411.91	411.91	412.09	412.09	412.26	412.26	412.44	412.44	412.61	412.61	391.00	342.00	69'-5⅜"	20'-5⅜"	49'-0"	14'-5⅜"	40'-0"	9'-0"	97	28	353.00
32	409.41	409.87	409.87	410.05	410.05	410.22	410.22	410.40	410.40	410.57	410.57	392.00	338.00	71'-4⅞"	17'-4⅞"	54'-0"	11'-4⅞"	41'-0"	13'-0"	107	22	353.00

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
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ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 28, 29, 31, & 32
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

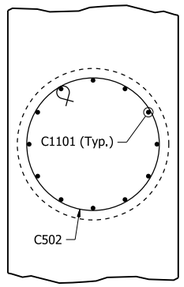
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 10/10/23
CHECKED BY: MGG DATE: 10/31/23
DESIGNED BY: MGG DATE: 6/16/23
FILENAME: b04090111_b281.dgn
SCALE: ¼" = 1'-0"

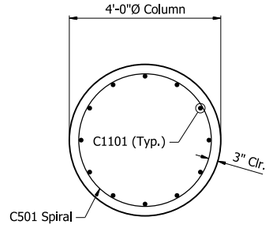
BRIDGE NO. 07684 DRAWING NO. 67427

PRINT DATE: 4/12/2024

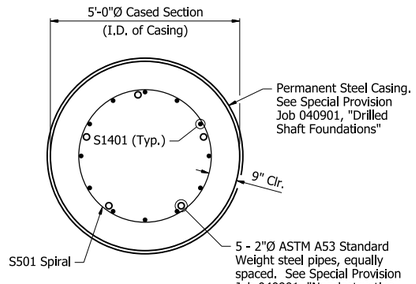
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	368	809
		07684 - INT. BENTS - 67428				



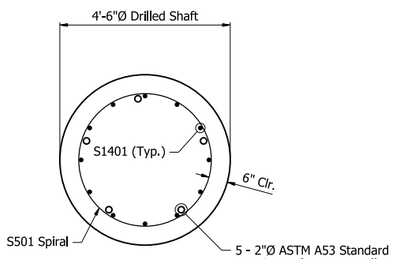
SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)



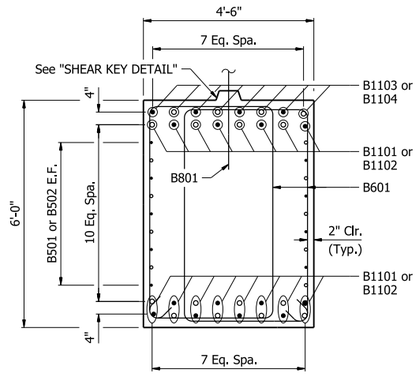
SECTION E-E
½" = 1'-0"



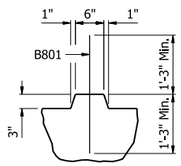
SECTION F-F
½" = 1'-0"



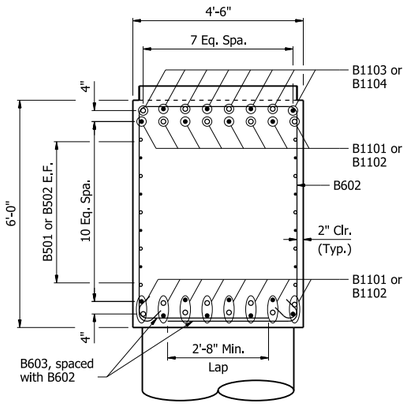
SECTION G-G
½" = 1'-0"



SECTION A-A
½" = 1'-0"

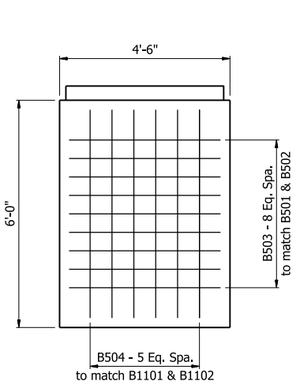


SHEAR KEY DETAIL
No Scale

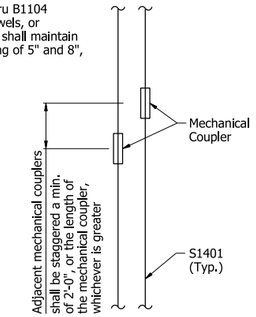


SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)

Note:
Contractor shall adjust B1101 thru B1104 bar spacing to accommodate dowels, or vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 8", respectively.



VIEW C-C
½" = 1'-0"



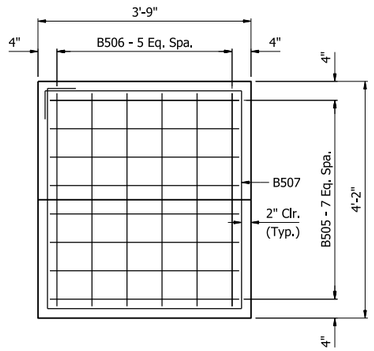
DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES:
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

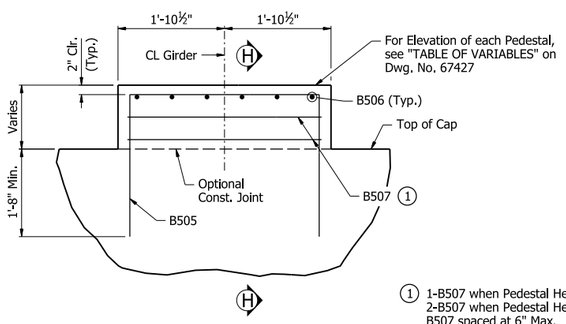
The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 5'-6" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (54" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.

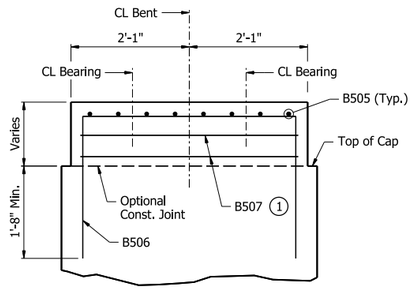


TYPICAL PEDESTAL PLAN
¾" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

(1) 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.



SECTION H-H
¾" = 1'-0"

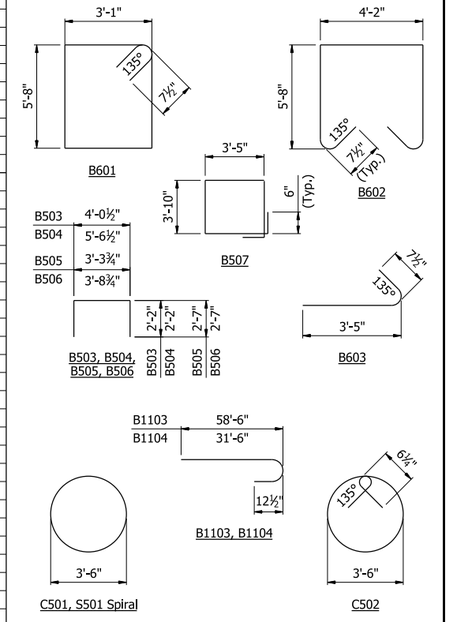
TABLE OF VARIABLES

Bent No.	"CS"	"CL"	"SS"	"SL"
28	303'-5"	17'-3"	1322'-2"	65'-3"
29	281'-9"	16'-3"	1235'-7"	61'-3"
31	336'-0"	19'-2"	1083'-10"	54'-3"
32	270'-11"	16'-1"	1192'-2"	59'-3"

BAR LIST - PER BENT

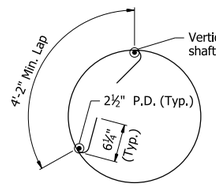
Mark	Number Required	Length	Pin Dia.
B501	18	60'-0"	Str.
B502	18	25'-4"	Str.
B503	18	8'-2"	2½"
B504	12	9'-8"	2½"
B505	80	8'-3"	2½"
B506	60	8'-8"	2½"
B507	12	15'-0"	2½"
B601	292	18'-4"	4½"
B602	21	16'-6"	4½"
B603	42	4'-1"	4½"
B801	64	2'-6"	Str.
B1101	24	60'-0"	Str.
B1102	24	30'-0"	Str.
B1103	8	60'-0"	11¼"
B1104	8	33'-0"	11¼"
C501	3	"CS"	Spiral
C502	15	12'-2"	2½"
C1101	36	"CL"	Str.
(2) S501	3	"SS"	Spiral
(2) S1401	36	"SL"	Str.

Bending Diagrams (Dimensions are out to out of bars)



All bars designated with an "E" suffix are to be epoxy coated.

(2) S1401 longitudinal reinforcement and S501 spiral reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (54" DIA.)". Individual lengths shall be determined by the Contractor.



SPIRAL SPLICE DETAIL
No Scale

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67427.

SPIRAL REINFORCING NOTES:
Spiral reinforcing shall be plain round or deformed steel bars meeting the requirements of AASHTO M31 or M322, Type A with mill test report (Grade 60) or shall be cold drawn wire meeting the requirements of AASHTO M32 or M225 (Grade 70) with a minimum diameter of 0.625".

Spiral reinforcement shall be paid for at the contract unit price bid per pound for "Reinforcing Steel-Bridge (Grade 60)". No additional payment shall be made for spacers, optional splices, or bracing needed for assembly, shipping, handling, or erecting.

Contractor may elect to lap splice the spiral reinforcing. In no case shall a spiral be lapped within 5'-6" of the top or bottom of the column.

Splices in spiral reinforcing shall be a minimum of 80 bar diameters.

Spiral reinforcing at lapped splices shall be terminated by a 135° hook with a 6¼" tail around a vertical bar. See "SPIRAL SPLICE DETAIL". Hook may be field bent. Ends of spirals not lapped shall be terminated with 1½ turns.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 28, 29, 31, & 32
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

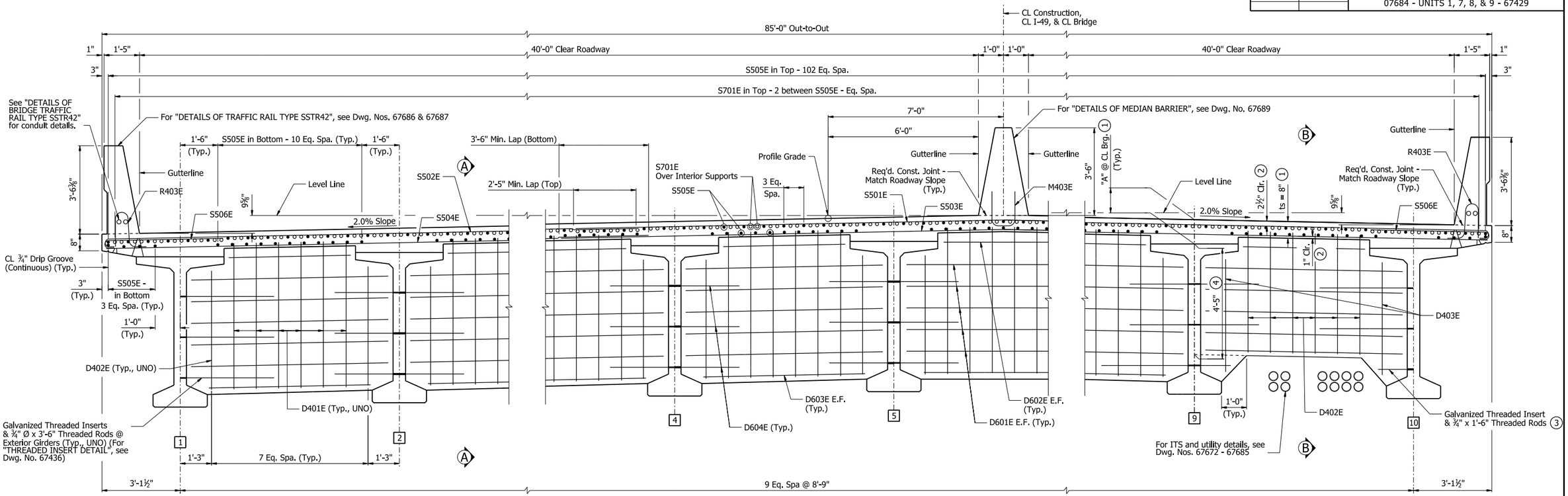
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JCP DATE: 10/10/23
CHECKED BY: MGG DATE: 11/1/23
DESIGNED BY: CZ DATE: 6/16/23
FILENAME: b04090111_b282.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67428

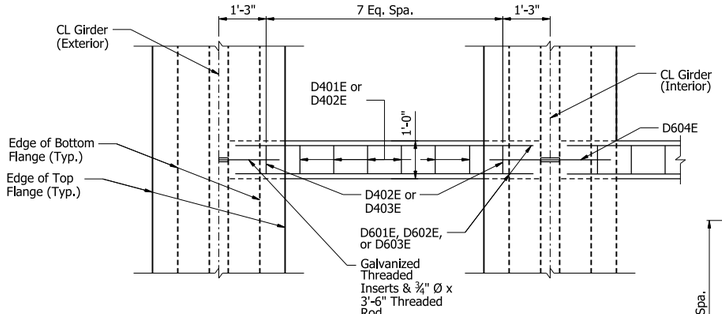
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	369	809
		07684 - UNITS 1, 7, 8, & 9 - 67429				

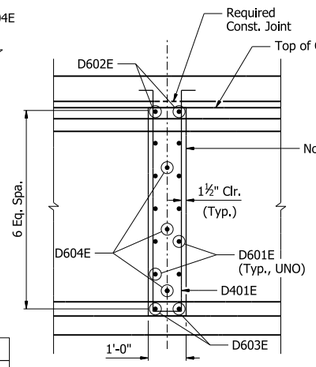


TYPICAL SECTION AT MID-SPAN CONCRETE DIAPHRAGMS

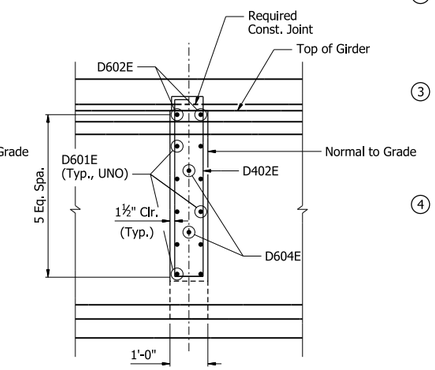
(Looking Upstation)



PLAN
Mid-Span Diaphragm



SECTION A-A



SECTION B-B

TABLE OF SECTION DEPTHS

Unit 1			Unit 7			Unit 8			Unit 9		
Girders 1-10			Girders 1-10			Girders 1-10			Girders 1-10		
Span	Bent	"A"	Span	Bent	"A"	Span	Bent	"A"	Span	Bent	"A"
1	1	1'-1¼"	24	24	1'-0⅝"	27	27	1'-0¼"	30	30	1'-0¼"
	2	1'-1¼"		25	1'-0½"		28	1'-0½"		31	1'-0½"
2	2	1'-1⅝"	25	25	1'-0¼"	28	28	1'-0¼"	31	31	1'-0¼"
	3	1'-1½"		26	1'-0½"		29	1'-0½"		32	1'-0½"
3	3	1'-1¼"	26	26	1'-0¼"	29	29	1'-0¼"	32	32	1'-0¼"
	4	1'-1½"		27	1'-0¼"		30	1'-0¼"		33	1'-0¼"

1 For "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE WHEN REMOVABLE DECK FORMING IS USED", see Dwg. No. 67434.

2 Tolerance: Minus = ¼" ; Plus = to the amount of slab thickening used to meet slab thickness tolerance. For "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE WHEN REMOVABLE DECK FORMING IS USED", see Dwg. No. 67434.

3 Galvanized threaded inserts shall be Dayton-Richmond F-42 Loop Ferrule Inserts or an approved equal. ¾" Ø threaded rods shall be AASHTO M270, Grade 36 or AASHTO M31 or M322 Type A, Gr. 60. Galvanized inserts and threaded rods are to be subsidiary to the item "PRESTRESSED CONCRETE GIRDERS (TYPE BT-72)". Galvanizing shall be in accordance with AASHTO M232 Class C or ASTM B695, Class 50.

4 Measured from top of girder to bottom of projected diaphragm

SLAB REINFORCING:

Longitudinal: S505E in Top and Bottom placed as shown
S701E in Top placed as shown over Interior Bents

Transverse: S501E and S502E in Top @ 7" Max.
S503E and S504E in Bottom @ 7" Max.
S506E in Top @ 7" Max., Bundled with S501E and S502E

Bar positions or clearances from the forms shall be maintained by means of stays, ties, hangers, or other approved devices per Subsection 804.06. Placement of slab bolsters or high-chairs with full length lower runners directly on removable deck forms will not be allowed.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22537
JORDAN R. GREENE
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 8
DETAILS OF 390'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 1, 7, 8, & 9
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

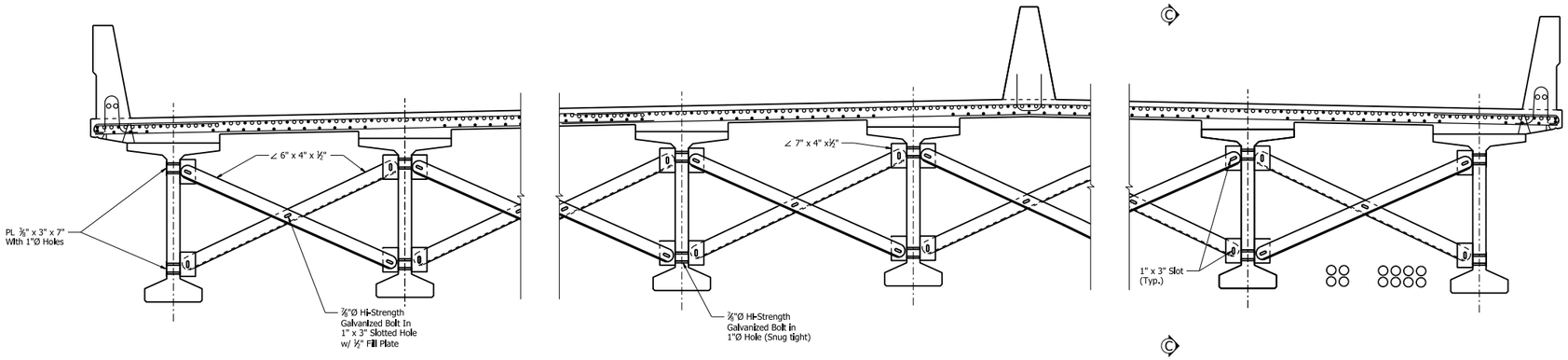
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: SAP DATE: 11/9/23 FILENAME: b04090111_s11.dgn
CHECKED BY: CCD DATE: 11/14/23 SCALE: 1/2" = 1'-0"
DESIGNED BY: RAM DATE: 5/10/23

BRIDGE NO. 07684 DRAWING NO. 67429

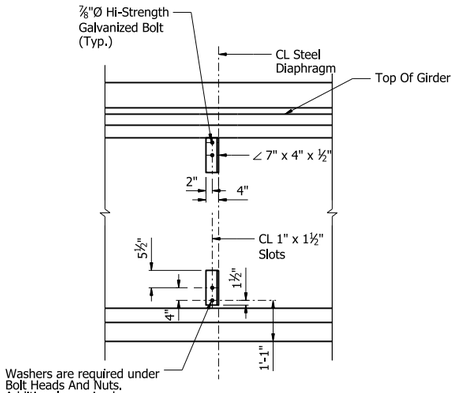
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	370	809
		07684 - UNITS 1, 7, 8, & 9 - 67430				



ALTERNATE TYPICAL SECTION AT MID-SPAN STEEL DIAPHRAGMS

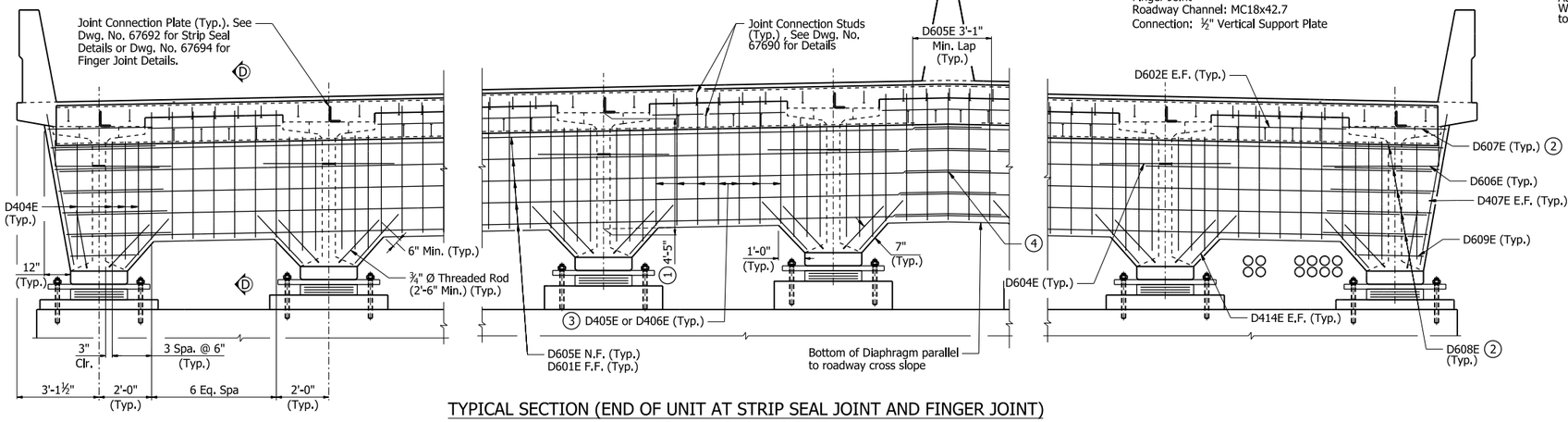
(Looking Upstation)
⅜" = 1'-0"



SECTION C-C

½" = 1'-0"

EXPANSION DEVICE:
Strip Seal
Roadway Channel: C15x33.9
Connection: MC 18x42.7 (Cope One Flange)
Finger Joint
Roadway Channel: MC18x42.7
Connection: ½" Vertical Support Plate



TYPICAL SECTION (END OF UNIT AT STRIP SEAL JOINT AND FINGER JOINT)

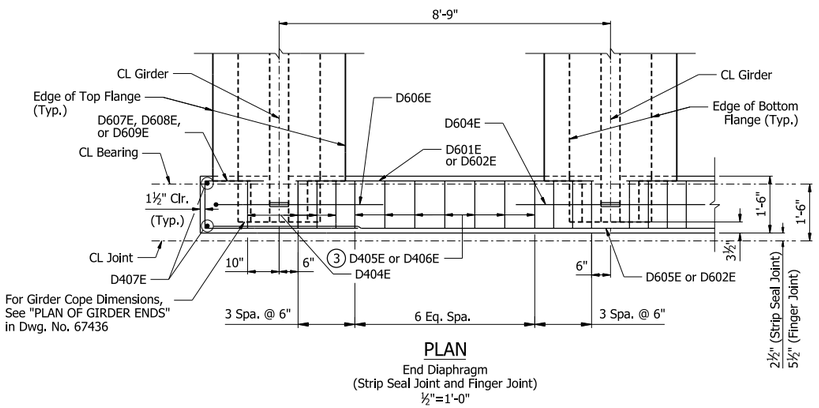
(Shown Looking Ahead At Bent 1, Bent 4, 24, 27, 30, & 33 Similar)
⅜" = 1'-0"

1. Measured from top of girder to bottom of projected diaphragm
2. Spaced with D605E or D602E
3. Strip Seal Joint - D405E
   Finger Joint - D406E
4. Field bend Bars D605E at roadway crown as necessary to maintain contact through lap splice and minimum clear. Bars D601E are straight at this location.

Notes:
For Slab Reinforcing Details, see Dwg. No. 67429.

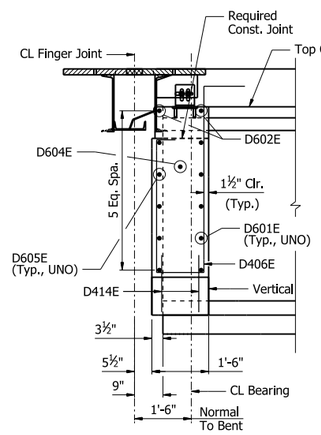
For ITS and Utility Support details, see Dwg. Nos. 67672-67685.

For Finger Joints see Dwg. No. 67694 for details. For Strip Seal Joints, see Dwg. No. 67692 for details.



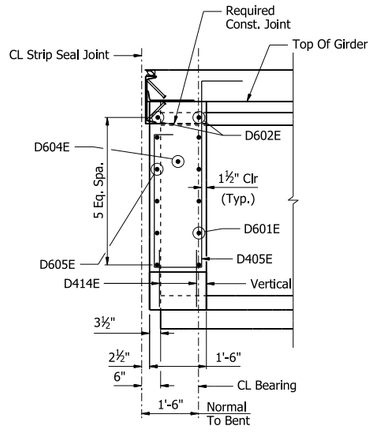
PLAN

End Diaphragm
(Strip Seal Joint and Finger Joint)
½"=1'-0"



SECTION D-D

Finger Joint
½" = 1'-0"



SECTION D-D

Strip Seal Joint
½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 22537
JORDAN R. GREENE

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 8
DETAILS OF 390'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 1, 7, 8, & 9
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

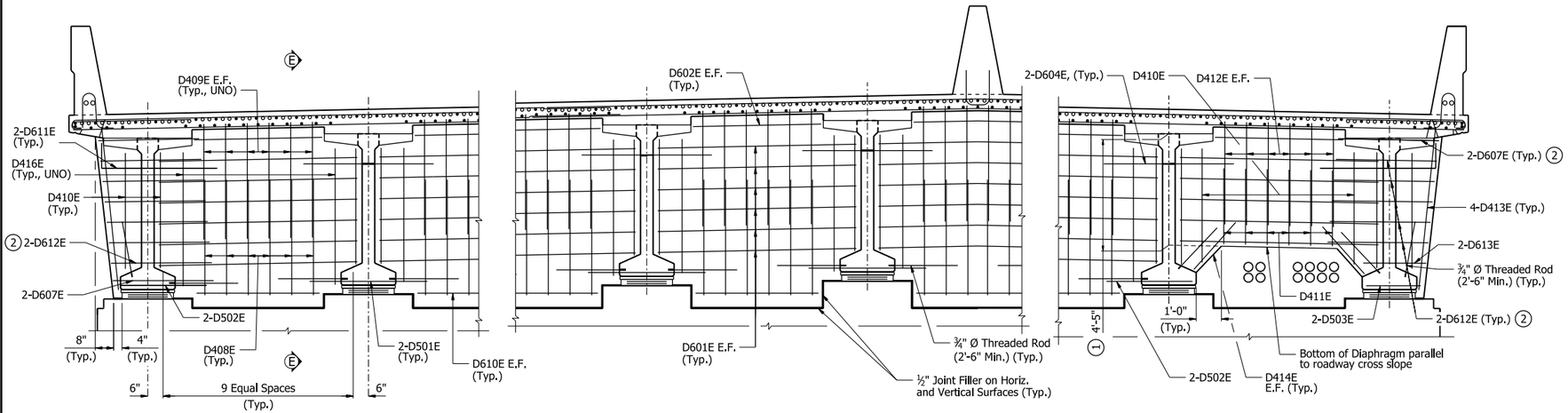
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MM DATE: 11/17/23
CHECKED BY: SAS DATE: 11/27/23
DESIGNED BY: RAM DATE: 5/2/23
FILENAME: b04090111_s12.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67430

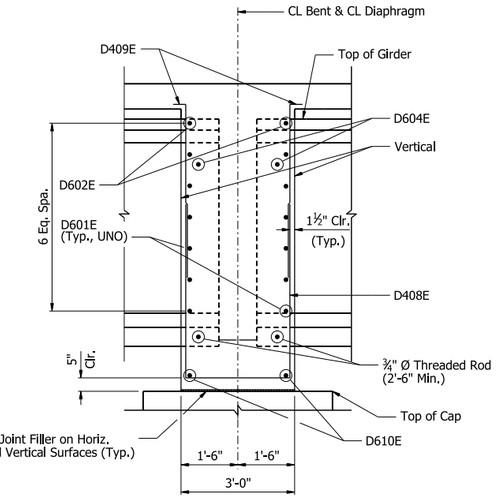
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	371	809
		07684 - UNITS 1, 7, 8, & 9 - 67431				



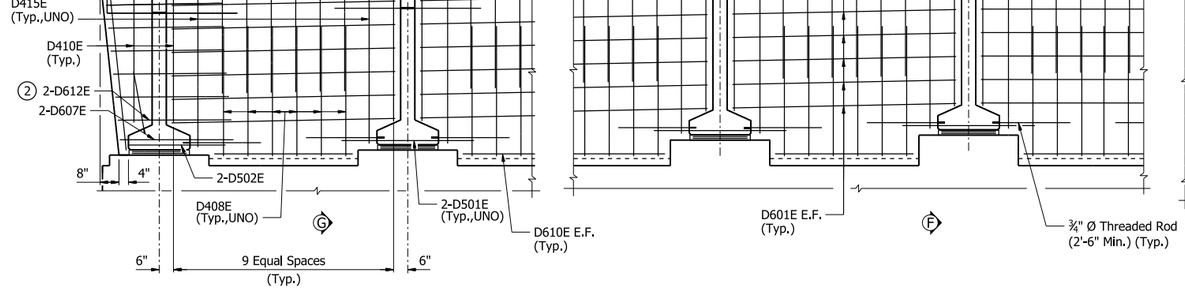
TYPICAL SECTION AT EXPANSION INTERMEDIATE BENTS

⅜" = 1'-0"



SECTION E-E

½" = 1'-0"



TYPICAL SECTION AT FIXED INTERMEDIATE BENTS

(Dowel Bars not Shown for Clarity)

⅜" = 1'-0"

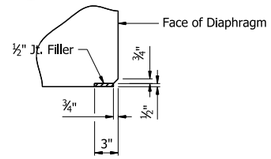
Notes:
For Slab Reinforcing details, see Dwg. No. 67429.

For ITS and Utility Support details, including cast-in bolts, see Dwg. Nos. 67672 - 67685.

For locations of Fixed or Expansion Intermediate Bents, see 67374 - 67382.

1 Measured from top of girder to bottom of projected diaphragm.

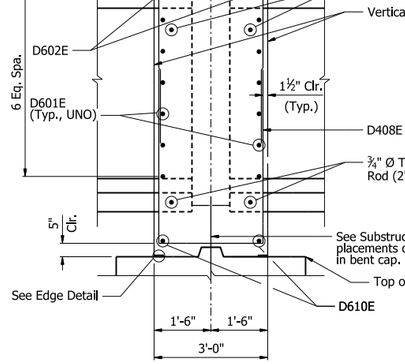
2 Spaced with D601E or D602E.



EDGE DETAIL

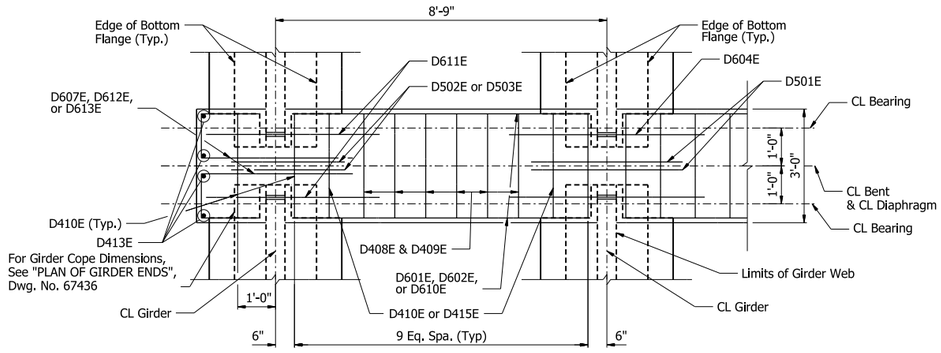
(At Fixed Bents)

1" = 1'-0"



SECTION F-F

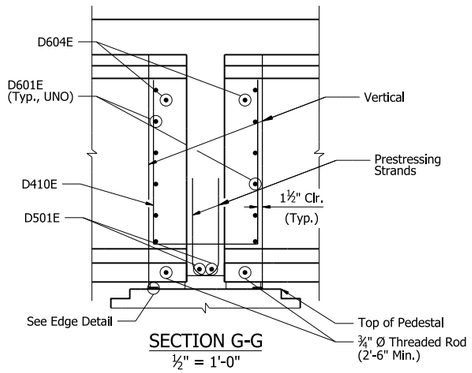
½" = 1'-0"



PLAN

Intermediate Bent Diaphragm

½" = 1'-0"



SECTION G-G

½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22537
JORDAN R. GREENE
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 3 OF 8
DETAILS OF 390'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 1, 7, 8, & 9
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

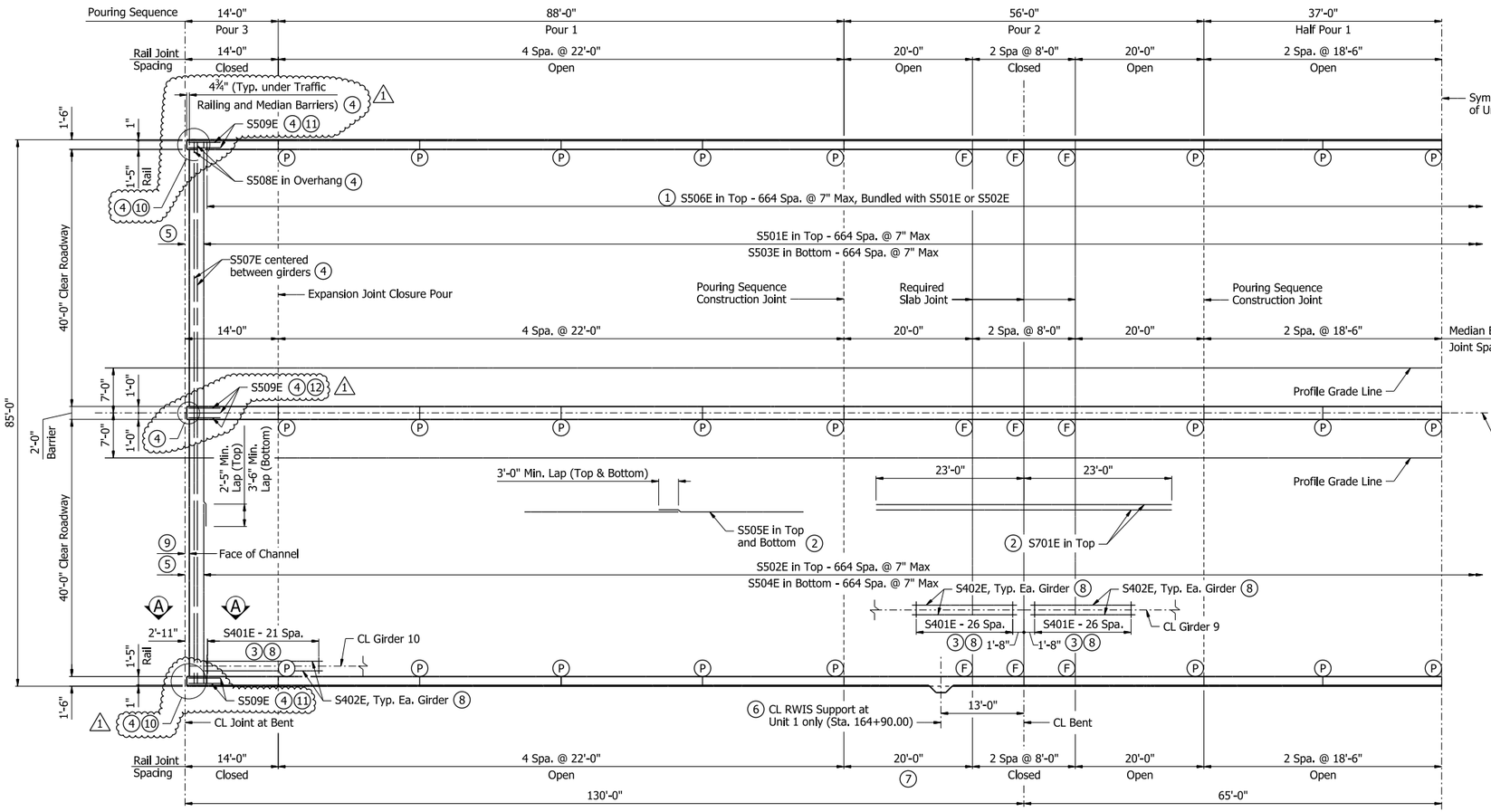
DRAWN BY: MM DATE: 11/17/23
CHECKED BY: SAS DATE: 11/28/23
DESIGNED BY: RAM DATE: 5/2/23
FILENAME: b04090111_s13.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67431

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
8/9/2024		6	ARK.	040901	372	809
		07684 - UNITS 1, 7, 8, & 9 - 67432				

1 Slab extension added below Rail and Median Barriers at Finger Joint locations. 8/9/2024



HALF REINFORCING PLAN AND POURING SEQUENCE

$\frac{3}{32}$" = 1'-0"

Slab Pouring Sequence Notes:

Pours with the same number may be placed simultaneously or separately. All Pour(s) 1 must be placed before Pour(s) 2 and 3 can be placed. A minimum of 48 hours shall elapse between the end of a pour and the start of the next pour. A minimum of 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated, and screeded off for entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

All end of unit and mid-span diaphragms shall be cast in place and poured a minimum of 48 hours before the slab is poured, unless otherwise noted. Intermediate bent diaphragms shall be cast monolithically with the slab.

At Finger Joints, after all incremental pours on both Units adjacent to the Finger Joint are complete, closure pour 3 on each side of the Finger Joint shall be poured simultaneously. For pours adjacent to Strip Seal Joints, see Dwg. No. 67692 to coordinate pours with joint installation. A minimum of 48 hours shall elapse between the last incremental pour and the closure pours.

A minimum of 72 hours shall elapse between completion of the slab and pouring of the bridge railing. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence(s) shown.

Notes:
Span lengths, slab pour lengths, and transverse reinforcement spacing shown are measured along Profile Grade Line.

Rail spacings shown are measured along respective gutterlines.

Required slab joints and pouring sequence joints shall align with rail joints at the gutterline.

For "TRANSVERSE SLAB JOINT DETAIL", see Dwg. No. 55007.

For "DETAILS OF BRIDGE TRAFFIC RAIL TYPE SSTR42", see Dwg. Nos. 67686 & 67687.

For "DETAILS OF MEDIAN BARRIER", see Dwg. No. 67689.

1 Typical both sides, see "REINFORCING DETAIL".

2 Place as shown in "TYPICAL SECTION AT MID-SPAN CONCRETE DIAPHRAGMS", see Dwg. No. 67429.

3 S401E spaced with G401E, typical each Girder. See Dwg. No. 67435 for details.

4 At Bents Nos. 4, 24, 27, & 30 only.

5 6" at Bents Nos. 1 & 33.
2'-6" at Bents Nos. 4, 24, 27, & 30.

6 For reinforcing details of RWIS support, see "DETAILS OF BRIDGE TRAFFIC RAIL TYPE SSTR42", Dwg. No. 67686.

7 Closed at RWIS
Open at All Others

8 For S401E and S402E placement, see "HAUNCH REINCFORCEMENT DETAIL" on DWG. NO. 67383.

9 1" @ 60 F (Bent Nos. 1 & 33)
6½" @ 60 F (Bent Nos. 4, 24, 27, & 30)

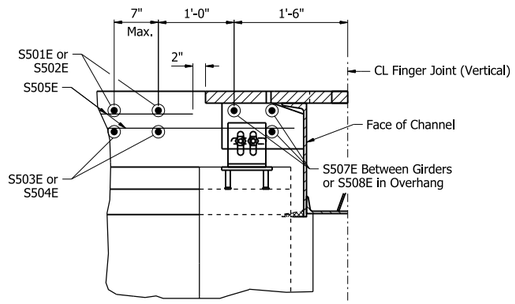
F CL Full-Depth Rail Joint

P CL Partial-Depth Rail Joint

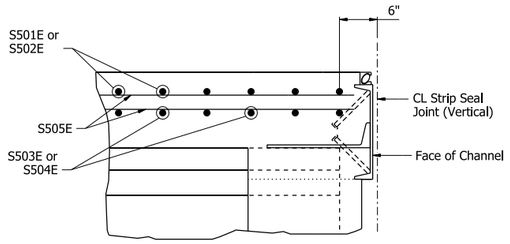
1 10 In the slab extension, cut R403E 8" leg to maintain concrete cover.

1 11 2-S509E in Top, 3-S509E in Bottom.

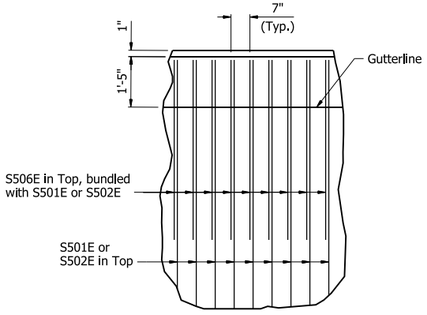
1 12 3-S509E @ Eq. Spa., Top and Bottom.



SECTION A-A
Finger Joint
(Bents 4, 24, 27, & 30 Only)
1" = 1'-0"



SECTION A-A
Strip Seal
(Bents 1 & 33 Only)
1" = 1'-0"



REINFORCING DETAIL
½" = 1'-0"

STATE OF ARKANSAS
JORDAN R. GREENE
LICENSED PROFESSIONAL ENGINEER
No. 22537
8/9/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 4 OF 8
DETAILS OF 390'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 1, 7, 8, & 9
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: SAP DATE: 10/17/23
CHECKED BY: CCD DATE: 11/15/23
DESIGNED BY: RAM DATE: 5/10/23
FILENAME: b04090111_s14.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67432

PRINT DATE: 8/2/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
8/9/2024		6	ARK.	040901	373	809
		07684 - UNITS 1, 7, 8, & 9 - 67433				

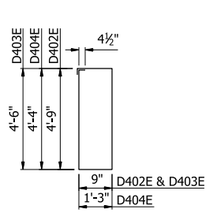
1 Slab extension added below Rail and Median Barriers at Finger Joint locations. 8/9/2024

BAR LIST - PER UNIT

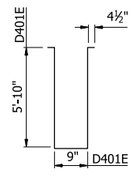
Mark	Number Required				Length				Pin Dia.
	Unit 1	Unit 7	Unit 8	Unit 9	Unit 1	Unit 7	Unit 8	Unit 9	
S401E	1520	1520	1520	1520	4'-4"	4'-4"	4'-4"	4'-4"	3"
S402E	120	120	120	120	13'-4"	13'-4"	13'-4"	13'-4"	Str.
S501E	665	665	665	665	60'-0"	60'-0"	60'-0"	60'-0"	3¾"
S502E	665	665	665	665	28'-3"	28'-3"	28'-3"	28'-3"	3¾"
S503E	665	665	665	665	60'-0"	60'-0"	60'-0"	60'-0"	Str.
S504E	665	665	665	665	28'-2"	28'-2"	28'-2"	28'-2"	Str.
S505E	1470	1470	1470	1470	58'-9"	58'-9"	58'-9"	58'-9"	Str.
S506E	1330	1330	1330	1330	7'-8"	7'-8"	7'-8"	7'-8"	3¾"
S507E	27	54	54	27	7'-5"	7'-5"	7'-5"	7'-5"	Str.
S508E	6	12	12	6	2'-9"	2'-9"	2'-9"	2'-9"	Str.
1 S509E	16	32	32	16	5'-0"	5'-0"	5'-0"	5'-0"	Str.
S701E	408	408	408	408	46'-0"	46'-0"	46'-0"	46'-0"	Str.
D401E	288	288	288	288	12'-10"	12'-10"	12'-10"	12'-10"	2"
D402E	132	132	132	132	11'-4"	11'-4"	11'-4"	11'-4"	2"
D403E	12	12	12	12	10'-10"	10'-10"	10'-10"	10'-10"	2"
D404E	112	112	112	112	11'-6"	11'-6"	11'-6"	11'-6"	2"
D405E	63	-	-	63	11'-1"	-	-	11'-1"	2"
D406E	63	126	126	63	10'-10"	10'-10"	10'-10"	10'-10"	2"
D407E	8	8	8	8	5'-7"	5'-7"	5'-7"	5'-7"	Str.
D408E	96	96	96	96	11'-9"	11'-9"	11'-9"	11'-9"	2"
D409E	192	192	192	192	4'-10"	4'-10"	4'-10"	4'-10"	2"
D410E	44	44	44	44	11'-3"	11'-3"	11'-3"	11'-3"	2"
D411E	12	12	12	12	8'-7"	8'-7"	8'-7"	8'-7"	2"
D412E	24	24	24	24	4'-4"	4'-4"	4'-4"	4'-4"	2"
D413E	16	16	16	16	6'-5"	6'-5"	6'-5"	6'-5"	Str.
D414E	80	80	80	80	2'-6"	2'-6"	2'-6"	2'-6"	Str.
D415E	32	32	32	32	13'-1"	13'-1"	13'-1"	13'-1"	2"
D501E	28	28	28	28	4'-8"	4'-8"	4'-8"	4'-8"	Str.
D502E	8	8	8	8	3'-5"	3'-5"	3'-5"	3'-5"	Str.
D503E	4	4	4	4	2'-2"	2'-2"	2'-2"	2'-2"	Str.
D601E	842	842	842	842	8'-0"	8'-0"	8'-0"	8'-0"	Str.
D602E	180	180	180	180	5'-0"	5'-0"	5'-0"	5'-0"	Str.
D603E	96	96	96	96	6'-5"	6'-5"	6'-5"	6'-5"	Str.
D604E	192	192	192	192	5'-6"	5'-6"	5'-6"	5'-6"	Str.
D605E	20	20	20	20	42'-9"	42'-9"	42'-9"	42'-9"	Str.
D606E	4	4	4	4	5'-3"	5'-3"	5'-3"	5'-3"	4½"
D607E	16	16	16	16	5'-0"	5'-0"	5'-0"	5'-0"	4½"
D608E	20	20	20	20	5'-6"	5'-6"	5'-6"	5'-6"	4½"
D609E	4	4	4	4	4'-0"	4'-0"	4'-0"	4'-0"	4½"
D610E	32	32	32	32	4'-9"	4'-9"	4'-9"	4'-9"	Str.
D611E	8	8	8	8	5'-5"	5'-5"	5'-5"	5'-5"	4½"
D612E	44	44	44	44	5'-10"	5'-10"	5'-10"	5'-10"	4½"
D613E	4	4	4	8	4'-4"	4'-4"	4'-4"	4'-4"	4½"
R400E	248	256	256	256	6'-3"	6'-3"	6'-3"	6'-3"	3"
R401E	1560	1560	1560	1560	7'-6"	7'-6"	7'-6"	7'-6"	3"
R402E	120	120	120	120	5'-6"	5'-6"	5'-6"	5'-6"	Str.
R403E	~~1550~~	~~1540~~	~~1540~~	~~1550~~	3'-8"	3'-8"	3'-8"	3'-8"	3"
R417E	160	160	160	160	21'-8"	21'-8"	21'-8"	21'-8"	Str.
R418E	80	80	80	80	7'-8"	7'-8"	7'-8"	7'-8"	Str.
R422E	40	40	40	40	13'-8"	13'-8"	13'-8"	13'-8"	Str.
R423E	80	80	80	80	18'-2"	18'-2"	18'-2"	18'-2"	Str.
R428E	80	80	80	80	19'-8"	19'-8"	19'-8"	19'-8"	Str.
	1 1560		1 1560						
R501E	6	-	-	-	10'-6"	-	-	-	3¾"
R502E	3	-	-	-	5'-11"	-	-	-	2½"
R503E	11	-	-	-	3'-3"	-	-	-	Str.
M401E	780	780	780	780	9'-0"	9'-0"	9'-0"	9'-0"	2"
M402E	60	60	60	60	5'-6"	5'-6"	5'-6"	5'-6"	Str.
M403E	775	770	770	775	4'-10"	4'-10"	4'-10"	4'-10"	3"
M417E	80	80	80	80	21'-8"	21'-8"	21'-8"	21'-8"	Str.
M418E	40	40	40	40	7'-8"	7'-8"	7'-8"	7'-8"	Str.
M422E	20	20	20	20	13'-8"	13'-8"	13'-8"	13'-8"	Str.
M423E	40	40	40	40	18'-2"	18'-2"	18'-2"	18'-2"	Str.
M428E	40	40	40	40	19'-8"	19'-8"	19'-8"	19'-8"	Str.

All bars designated with an "E" suffix are to be epoxy coated.

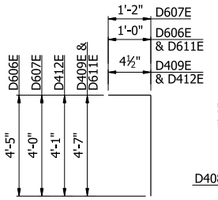
Bending Diagrams
(Dimensions are out to out of bars)



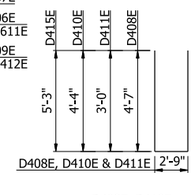
D402E, D403E & D404E



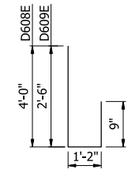
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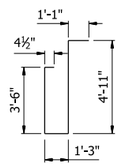
D409E, D412E,
D606E, D607E, & D611E



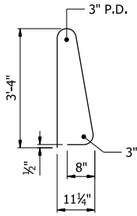
D408E, D410E,
D411E, & D415



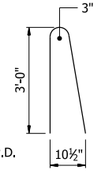
D608E, D609E,
D612E & D613E



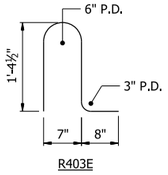
D406E



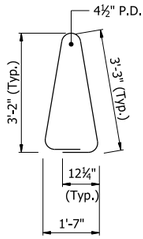
R401E



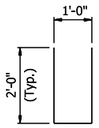
R400E



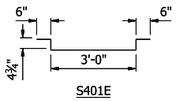
R403E



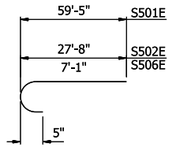
M401E



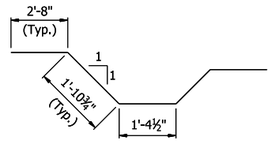
M403E



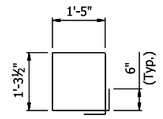
S401E



S501E, S502E, & S506E



R501E



R502E

PRINT DATE: 8/15/2024

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22537
JORDAN R. GREENE
8/9/24
BRIDGE ENGINEER

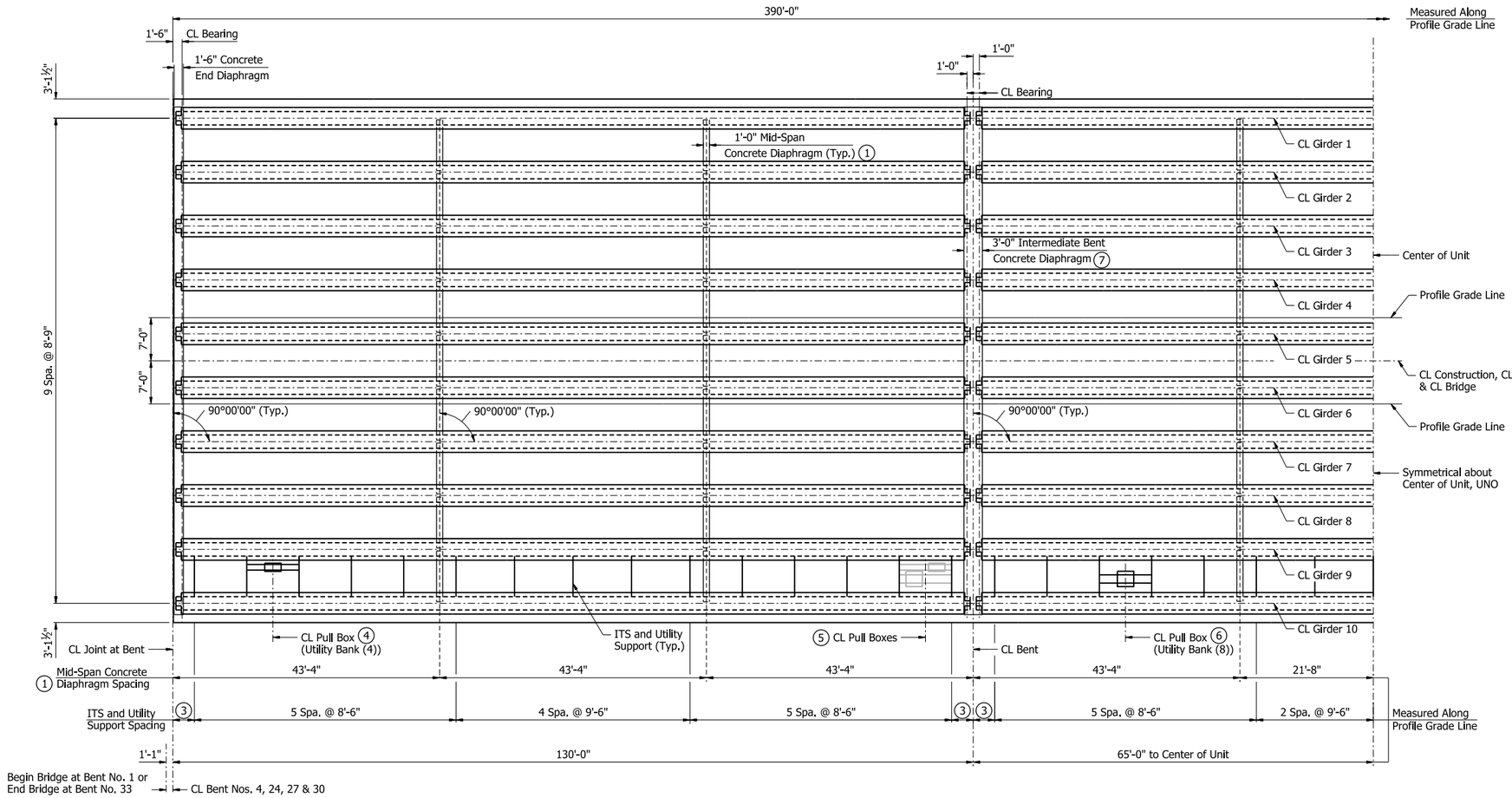
ALTERNATE NO. 1
SHEET 5 OF 8
DETAILS OF 390'-0" CONTINUOUS
PRESTRESSED CONCRETE GIRDER UNITS 1, 7, 8, & 9
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

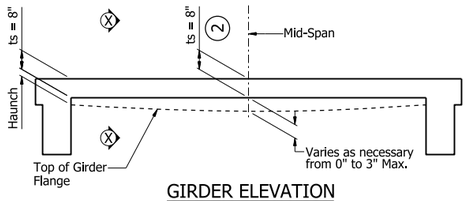
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CHECKED BY: CCD DATE: 12/8/23
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SCALE: NO SCALE

BRIDGE NO. 07684 DRAWING NO. 67433

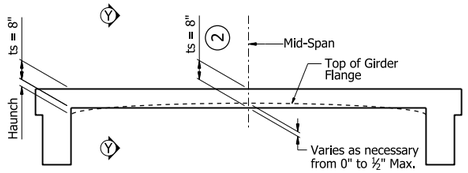
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	374	809
		07684 - UNITS 1, 7, 8, & 9 - 67434				



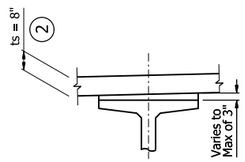
HALF FRAMING PLAN
3/32" = 1'-0"



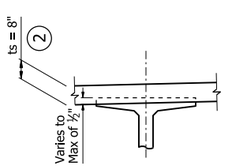
GIRDER ELEVATION
No Scale



GIRDER ELEVATION
No Scale



SECTION X-X
No Scale



SECTION Y-Y
No Scale

ADJUSTMENT FOR SLAB THICKNESS TOLERANCE WHEN REMOVABLE DECK FORMING IS USED

Notes:

For details of ITS and Utility Supports, see Dwg. Nos. 67672 - 67685

For Diaphragm details, see Dwg. Nos. 67429 - 67431.

(1) Galvanized steel diaphragms may be used in place of concrete diaphragms at mid-span diaphragm locations only.

(2) Tolerance : Minus =¼ "; Plus=½ ". Haunch forming is required and shall be adjusted to maintain slab thickness tolerance. See Std. Dwg. No. 55005 for tolerances when permanent steel deck forms are used.

"GIRDER ELEVATION" sketches show the range of acceptability of the top of girder relative to bottom of slab after the placement of the slab. When the top of the girder projects more than a ½" into the slab, a rise in grade will be necessary. Girders shall be set in a sufficient number of spans so when adjustment is necessary the profile grade can be adjusted over suitable increments so the revised grade line will produce a smooth riding surface. Variation of haunch height will be at the Contractor's expense.

(3) 3'-6"

(4) Sta. 163+89.25 (Unit 1)
Sta. 215+86.75 (Unit 9)

(5) Sta. 207+00.75 (Unit 7)
Sta. 211+88.25 (Unit 8)

(6) Sta. 165+27.75 (Unit 1)
Sta. 214+39.75 (Unit 9)

(7) 3'-0" Concrete Exp. Bent Diaphragm at Bent No. 3.
3'-0" Fix. Bent Diaphragm at Bent Nos. 2, 25, 26, 28, 29, 31, & 32.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 6 OF 8
DETAILS OF 390'-0" CONTINUOUS
PRESTRESSED CONCRETE GIRDER UNITS 1, 7, 8, & 9
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

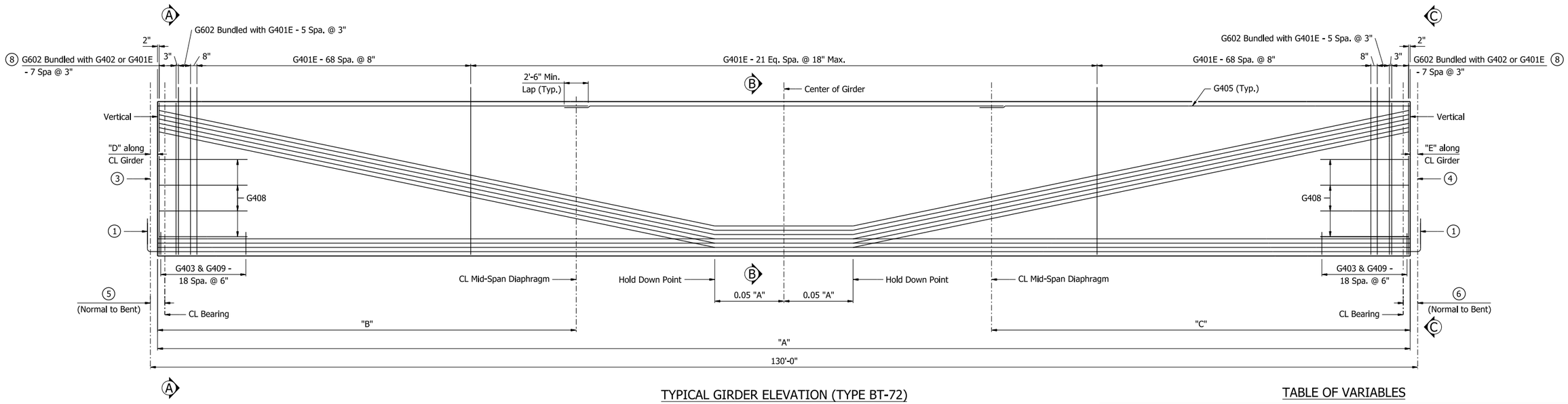
ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: AB DATE: 9/29/23
CHECKED BY: KSM DATE: 10/13/23
DESIGNED BY: RAM DATE: 5/30/23
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SCALE: AS NOTED

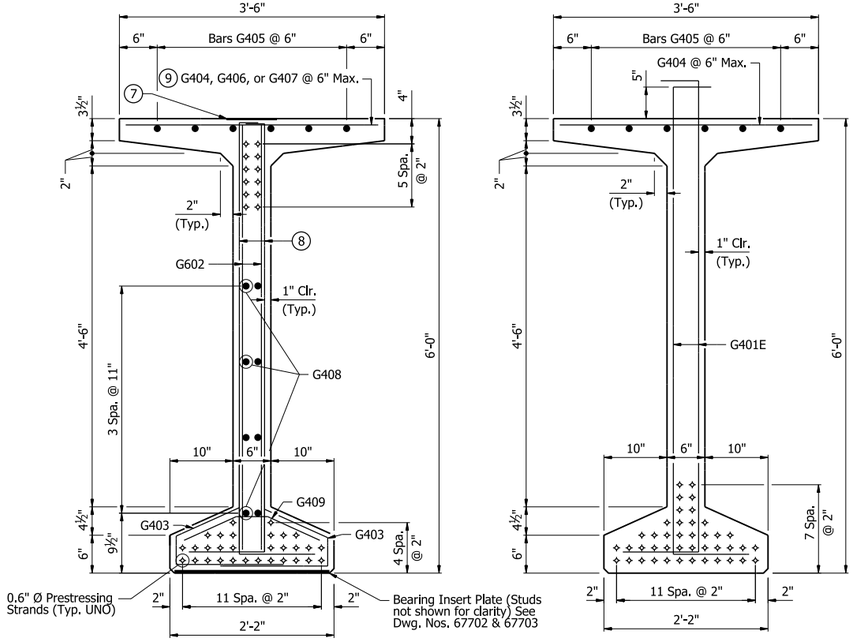
BRIDGE NO. 07684 DRAWING NO. 67434

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	375	809
		07684 - UNITS 1, 7, 8, & 9 - 67435				



TYPICAL GIRDER ELEVATION (TYPE BT-72)

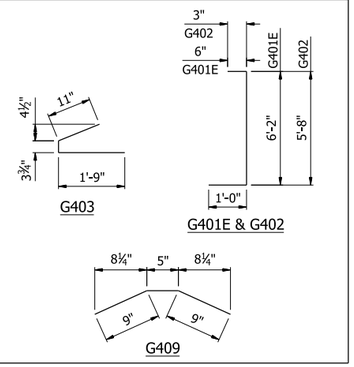


SECTION A-A

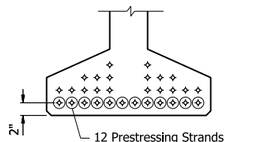
SECTION B-B

BAR LIST - PER GIRDER

	Mark	Number Required	Length	Pin Dia.	Bending Diagrams (Dimensions are out to out of bars)
Spans 1, 3, 24, 26, 27, 29, 30, & 32	G301	(2) 24	1'-3"	Str.	
	G401E	356	7'-6"	2"	
	G402	16	6'-9"	2"	
	G403	76	2'-11"	2"	
	G404	255	3'-2"	Str.	
	G405	18	44'-7"	Str.	
	G406	2	6"	Str.	
	G407	2	1'-2"	Str.	
	G408	16	9'-2"	Str.	
	G409	38	1'-11"	2"	
	G602	56	5'-6"	Str.	
Spans 2, 25, 28, & 31	G301	(2) 24	1'-3"	Str.	
	G401E	372	7'-6"	2"	
	G403	76	2'-11"	2"	
	G404	255	3'-2"	Str.	
	G405	18	44'-7"	Str.	
	G406	4	6"	Str.	
	G408	16	9'-2"	Str.	
	G409	38	1'-11"	2"	
	G602	56	5'-6"	Str.	



All bars designated with an "E" suffix are to be epoxy coated.



VIEW C-C

Notes:
For "General Notes", see Dwg. No. 67372.

ITS and Utility Support bolt sleeves must be cast into the girder web. Bolt sleeves may be shifted vertically no more than 1" as necessary to avoid prestressing strands. For ITS and Utility Support details, see Dwg. Nos. 67672 through 67685. For ITS and Utility Support locations, see "HALF FRAMING PLAN" on Dwg. No. 67434.

For additional details, see Dwg. No. 67436.

Drawings show general features of design only. Shop drawing shall be submitted to the Engineer and approval secured before fabrication has begun.

TABLE OF VARIABLES

Span	(3)	(4)	(5)	(6)
1	CL Joint at End Bent No. 1	CL Bent No. 2	1'-6" (End Bent No. 1)	1'-0" (Bent No. 2)
2	CL Bent No. 2	CL Bent No. 3	1'-0" (Bent No. 2)	1'-0" (Bent No. 3)
3	CL Bent No. 3	CL Joint at Bent No. 4	1'-0" (Bent No. 3)	1'-6" (Bent No. 4)
24	CL Joint at Bent No. 24	CL Bent No. 25	1'-6" (Bent No. 24)	1'-0" (Bent No. 25)
25	CL Bent No. 25	CL Bent No. 26	1'-0" (Bent No. 25)	1'-0" (Bent No. 26)
26	CL Bent No. 26	CL Joint at Bent No. 27	1'-0" (Bent No. 26)	1'-6" (Bent No. 27)
27	CL Joint at Bent No. 27	CL Bent No. 28	1'-6" (Bent No. 27)	1'-0" (Bent No. 28)
28	CL Bent No. 28	CL Bent No. 29	1'-0" (Bent No. 28)	1'-0" (Bent No. 29)
29	CL Bent No. 29	CL Joint at Bent No. 30	1'-0" (Bent No. 29)	1'-6" (Bent No. 30)
30	CL Joint at Bent No. 30	CL Bent No. 31	1'-6" (Bent No. 30)	1'-0" (Bent No. 31)
31	CL Bent No. 31	CL Bent No. 32	1'-0" (Bent No. 31)	1'-0" (Bent No. 32)
32	CL Bent No. 32	CL Joint at End Bent No. 33	1'-0" (Bent No. 32)	1'-6" (End Bent No. 33)

TABLE OF VARIABLES - DIMENSIONS

Span	Girder	"A"	"B"	"C"	"D"	"E"
1, 2, 25, 28, 31, & 32	1-10	129'-0"	42'-10	42'-10	6"	6"
3, 26, & 29	1-10	128'-9"	42'-10	42'-7"	6"	9"
24, 27, & 30	1-10	128'-9"	42'-7"	42'-10"	9"	6"

(1) Prestressing strands at Bents at the ends of each Unit shall be sawn flush with the end of the girder. Prestressing strands at all other Bents shall be bent up into diaphragms as shown in the "THREADED INSERT DETAIL", see Dwg. No. 67436.

(2) 12-G301 bars required for exterior girders.

(7) Bearing Plate for Finger Joints shown, Begin of Spans 24, 27, & 30, End of Spans 3, 26, & 29, (Studs not shown for clarity). See Dwg. Nos. 67694 & 67695 for details. For Strip Seal Joints, Begin of Span 1 and End of Span 32, see Dwg. No. 67692 for girder connection details.

(8) G402 at ends of units, G401E at all other locations.

(9) G406 and G407 in Girder Ends, see Dwg. No. 67436, fo details.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22537
JORDAN R. GREENE
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 7 OF 8
DETAILS OF 390'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 1, 7, 8, & 9
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: RAM DATE: 10/19/23
CHECKED BY: KSM DATE: 10/24/23
DESIGNED BY: RAM DATE: 5/30/23
FILENAME: b04090111_s17.dgn
SCALE: No Scale

BRIDGE NO. 07684 DRAWING NO. 67435

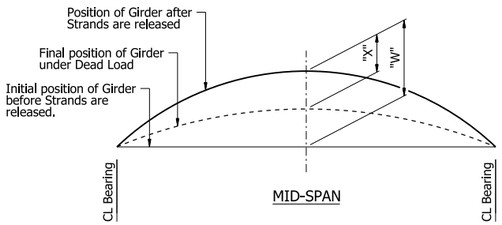
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	376	809
		07684 - UNITS 1, 7, 8, & 9 - 67436				

TABLE OF VARIABLES

	Girder 1		Girders 2-8		Girder 9		Girder 10	
	"X"	"W"	"X"	"W"	"X"	"W"	"X"	"W"
Span 1	1⅞"	4⅝"	2¼"	4⅝"	2⅜"	4⅝"	2"	4⅝"
Span 2	1⅞"	4⅝"	2¼"	4⅝"	2¼"	4⅝"	1⅞"	4⅝"
Span 3	1⅞"	4⅝"	2¼"	4⅝"	2⅜"	4⅝"	2"	4⅝"
Span 24	1⅞"	4⅝"	2¼"	4⅝"	2⅜"	4⅝"	2"	4⅝"
Span 25	1⅞"	4⅝"	2¼"	4⅝"	2¼"	4⅝"	1⅞"	4⅝"
Span 26	1⅞"	4⅝"	2¼"	4⅝"	2⅜"	4⅝"	2"	4⅝"
Span 27	1⅞"	4⅝"	2¼"	4⅝"	2⅜"	4⅝"	2"	4⅝"
Span 28	1⅞"	4⅝"	2¼"	4⅝"	2¼"	4⅝"	1⅞"	4⅝"
Span 29	1⅞"	4⅝"	2¼"	4⅝"	2⅜"	4⅝"	2"	4⅝"
Span 30	1⅞"	4⅝"	2¼"	4⅝"	2⅜"	4⅝"	2"	4⅝"
Span 31	1⅞"	4⅝"	2¼"	4⅝"	2¼"	4⅝"	1⅞"	4⅝"
Span 32	1⅞"	4⅝"	2¼"	4⅝"	2⅜"	4⅝"	2"	4⅝"

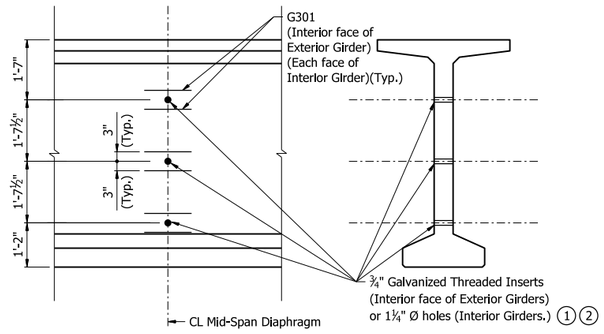
Note:
Camber and deflection values shown are based on a concrete girder strength, f'c = 9000 psi. Greater strengths may require adjustments. The Contractor shall be responsible for any adjustments necessary to meet slab thickness tolerance and to achieve an acceptable finished grade.



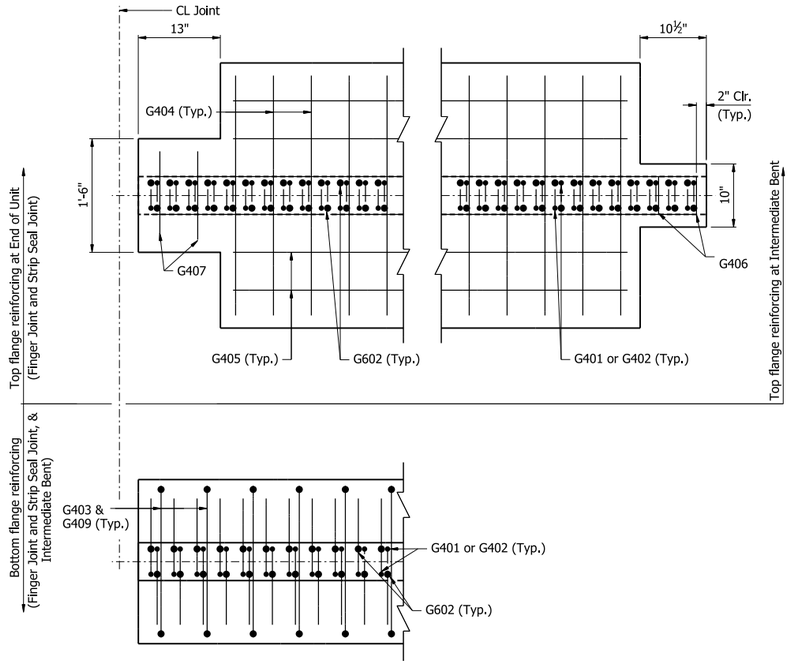
"W" is expected camber of girder at 90 days after release (prestress + dead load of girder).

"X" is dead load deflection of slab + diaphragms + composite dead load.

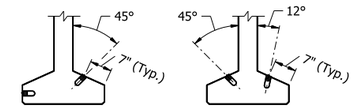
CAMBER & DEFLECTIONS (INCHES)



THREADED INSERT DETAIL
Mid-Span Concrete Diaphragm
Scale: ¼" = 1'-0"



PLAN OF GIRDER ENDS
Scale: ½" = 1'-0"



DETAIL A
Scale: ¼" = 1'-0"

DETAIL B
Scale: ¼" = 1'-0"

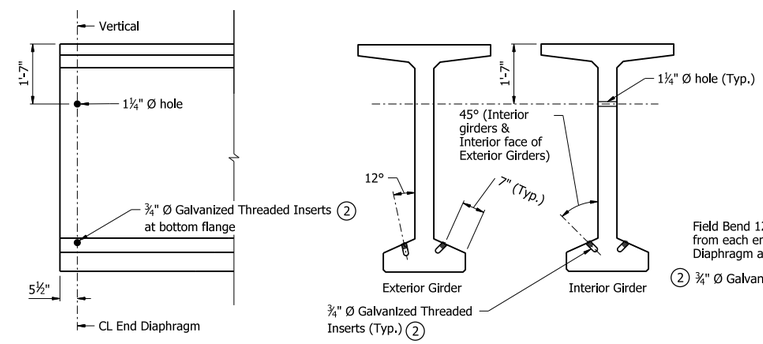
Notes:
Concrete Strength for Prestressed Girders shall be f'c = 9,000 psi, f'ci = 7,000 psi

For ITS and Utility Support details, including cast-in bolt sleeves, see Dwg. Nos. 67672 - 67685.

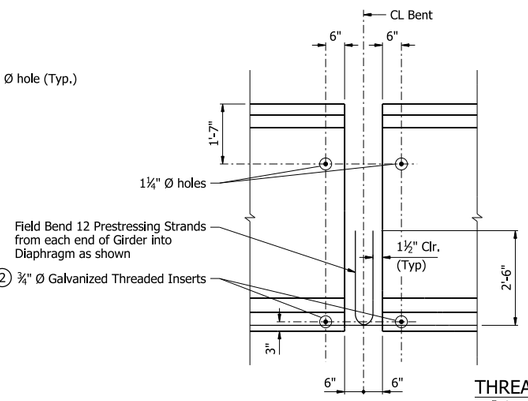
For "General Notes", see Dwg. No. 67372.

1 Inserts shown are for mid-span concrete diaphragms, see Dwg. No. 67430 for alternate steel diaphragms.

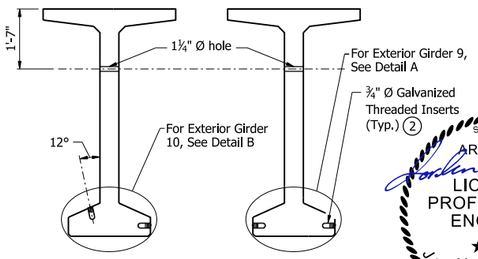
2 Galvanized ¾"Ø Dayton-Richmond F-42 Loop Ferrule insert or an approved equal. These are to be subsidiary to the item "PRESTRESSED CONCRETE GIRDERS (TYPE BT-72)".



THREADED INSERT DETAIL
End Diaphragm
Scale: ¼" = 1'-0"



THREADED INSERT DETAIL
Intermediate Bent Diaphragm
(Fixed and Expansion)
Scale: ¼" = 1'-0"



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 22537
JORDAN R. GREENE

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 8 OF 8
DETAILS OF 390'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 1, 7, 8, & 9
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

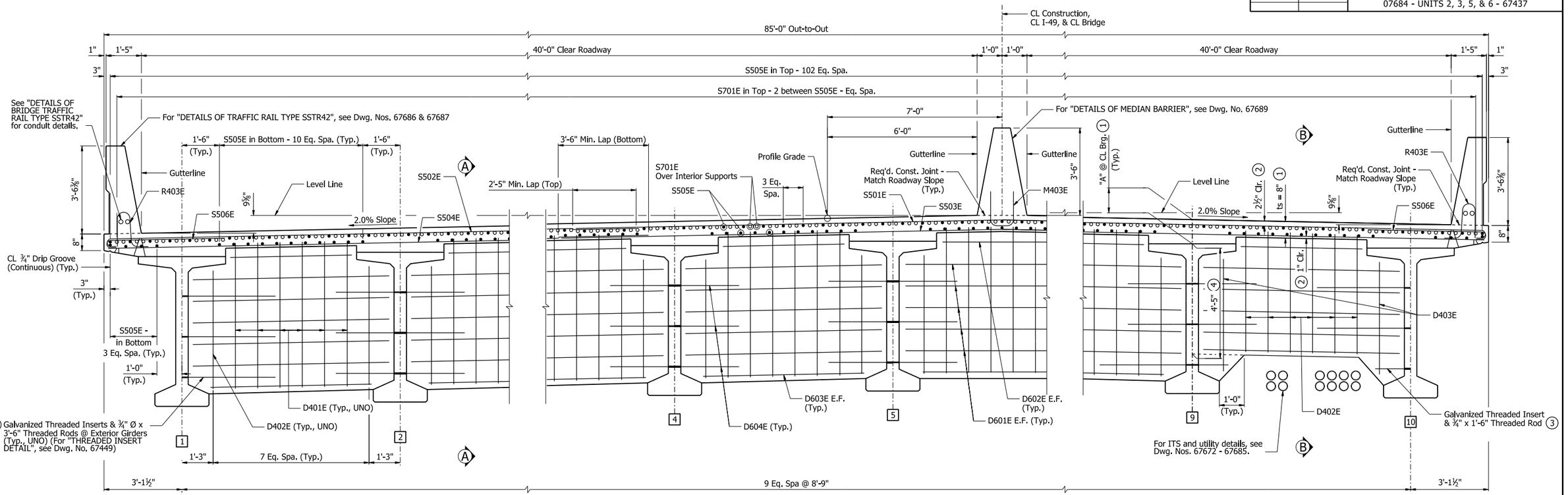
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: RAM DATE: 9/14/23
CHECKED BY: KSM DATE: 10/30/23
DESIGNED BY: RAM DATE: 5/30/23
FILENAME: b04090111_s18.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67436

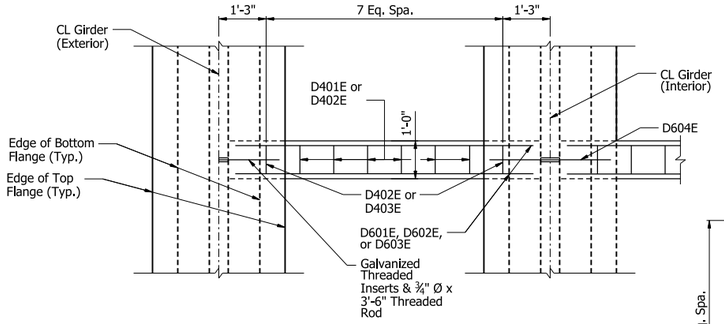
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		07684 - UNITS 2, 3, 5, & 6 - 67437				

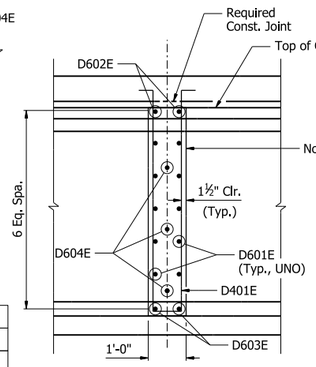


TYPICAL SECTION AT MID-SPAN CONCRETE DIAPHRAGMS

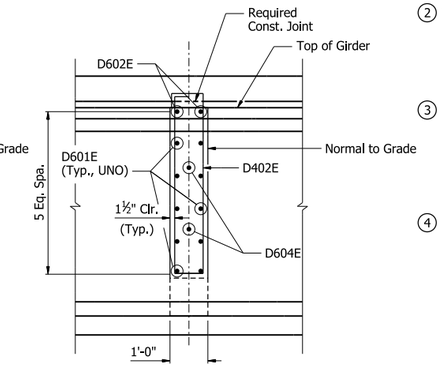
(Looking Upstation)



PLAN
Mid-Span Diaphragm



SECTION A-A



SECTION B-B

TABLE OF SECTION DEPTHS

Unit 2			Unit 3			Unit 5			Unit 6		
Girders 1-10			Girders 1-10			Girders 1-10			Girders 1-10		
Span	Bent	"A"	Span	Bent	"A"	Span	Bent	"A"	Span	Bent	"A"
4	4	1'-1½"	8	8	1'-0¼"	16	16	1'-0¼"	20	20	1'-0¼"
	5	1'-1¼"		9	1'-0¼"		17	1'-0¼"		21	1'-0¼"
5	5	1'-0"	9	9	1'-0¼"	17	17	1'-0"	21	21	1'-0"
	6	1'-0"		10	1'-0¼"		18	1'-0"		22	1'-0¼"
6	6	1'-0"	10	10	1'-0¼"	18	18	1'-0¼"	22	22	1'-0"
	7	1'-0"		11	1'-0¼"		19	1'-0⅜"		23	1'-0⅜"
7	7	1'-0"	11	11	1'-0¼"	19	19	1'-0"	23	23	1'-0"
	8	1'-0"		12	1'-0¼"		20	1'-0"		24	1'-0"

(1) For "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE WHEN REMOVABLE DECK FORMING IS USED", see Dwg. No. 67445.

(2) Tolerance: Minus = ¼" ; Plus = to the amount of slab thickening used to meet slab thickness tolerance. For "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE WHEN REMOVABLE DECK FORMING IS USED", see Dwg. No. 67445.

(3) Galvanized threaded inserts shall be Dayton-Richmond F-42 Loop Ferrule Inserts or an approved equal. ¾" Ø threaded rods shall be AASHTO M270, Grade 36 or AASHTO M31 or M322 Type A, Gr. 60. Galvanized inserts and threaded rods are to be subsidiary to the item "PRESTRESSED CONCRETE GIRDERS (TYPE BT-72)". Galvanizing shall be in accordance with AASHTO M232 Class C or ASTM B695, Class 50.

(4) Measured from top of girder to bottom of projected diaphragm.

SLAB REINFORCING:

Longitudinal: S505E in Top and Bottom placed as shown
S701E in Top placed as shown over Interior Bents

Transverse: S501E and S502E in Top @ 7" Max.
S503E and S504E in Bottom @ 7" Max.
S506E in Top @ 7" Max., Bundled with S501E and S502E

Bar positions or clearances from the forms shall be maintained by means of stays, ties, hangers, or other approved devices per Subsection 804.06. Placement of slab bolsters or high-chairs with full length lower runners directly on removable deck forms will not be allowed.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22537
JORDAN R. GREENE
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 13
DETAILS OF 520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 2, 3, 5, & 6
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

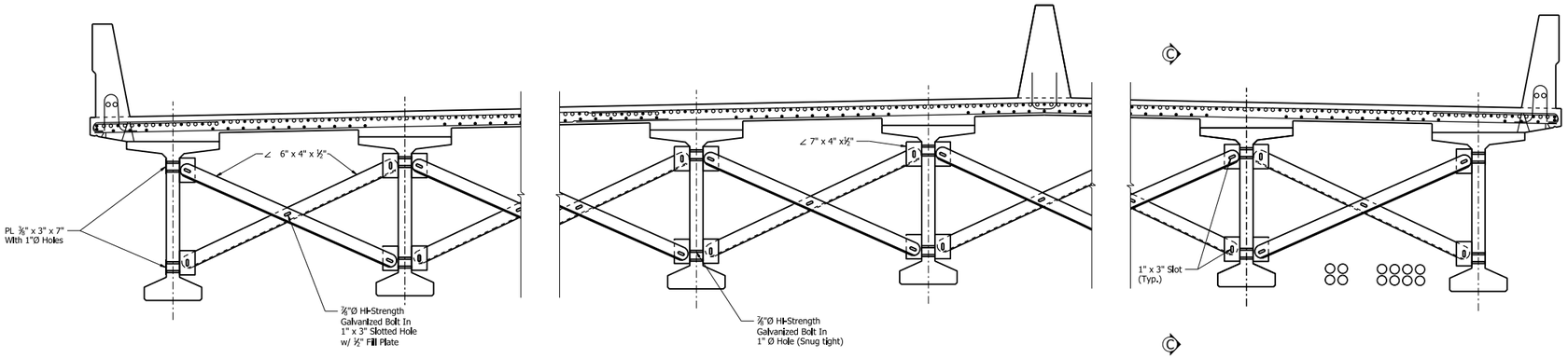
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: SAP DATE: 11/9/23 FILENAME: b04090111_s21.dgn
CHECKED BY: CCD DATE: 11/14/23 SCALE: 1/2" = 1'-0"
DESIGNED BY: RAM DATE: 5/10/23

BRIDGE NO. 07684 DRAWING NO. 67437

PRINT DATE: 4/10/2024

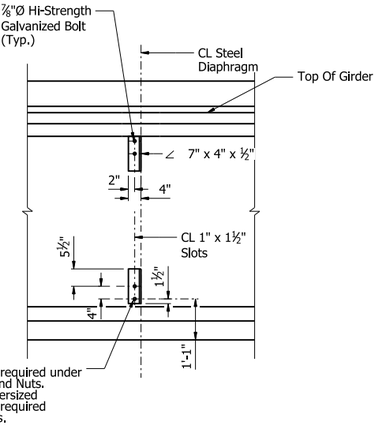
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	378	809
		07684 - UNITS 2, 3, 5, & 6 - 67438				



ALTERNATE TYPICAL SECTION AT MID-SPAN STEEL DIAPHRAGMS

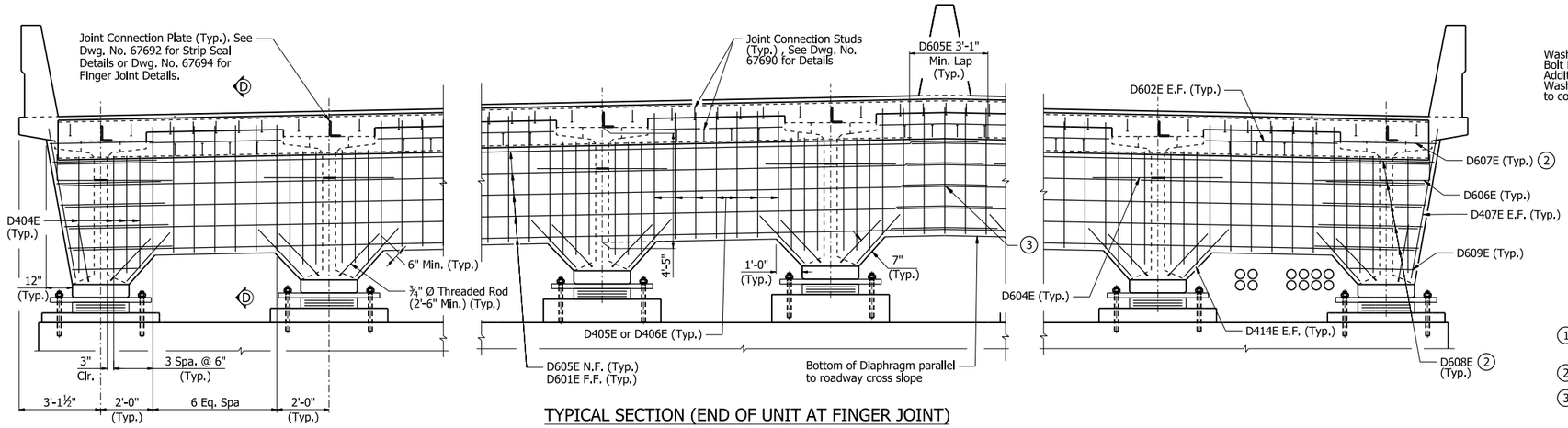
(Looking Upstation)
⅜" = 1'-0"

EXPANSION DEVICE:
Roadway Channel: MC18x42.7
Connection: ½" Vertical Support Plate



SECTION C-C

½" = 1'-0"



TYPICAL SECTION (END OF UNIT AT FINGER JOINT)

(Shown Looking Ahead At Bent 4, Bents 8, 20, and 24 Similar)
⅜" = 1'-0"

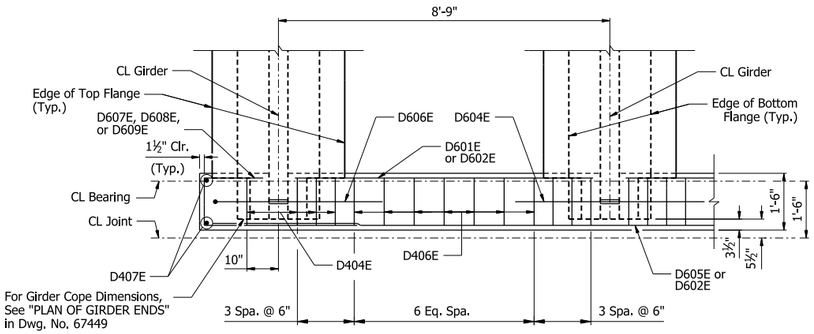
1 Measured from top of girder to bottom of projected diaphragm

2 Spaced with D605E or D602E

3 Field bend Bars D605E at roadway crown as necessary to maintain contact through lap splice and minimum clear. Bars D601E are straight at this location.

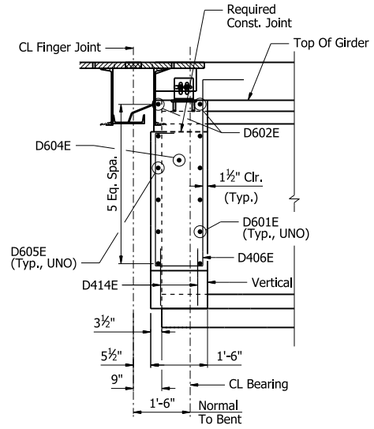
Notes:
For Slab Reinforcing details, see Dwg. No. 67437.

For ITS and Utility Support details, see Dwg. Nos. 67672 - 67685.



PLAN

End Diaphragm at Finger Joint
½" = 1'-0"



SECTION D-D

½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 22537
JORDAN R. GREENE

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 13
DETAILS OF 520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 2, 3, 5, & 6
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

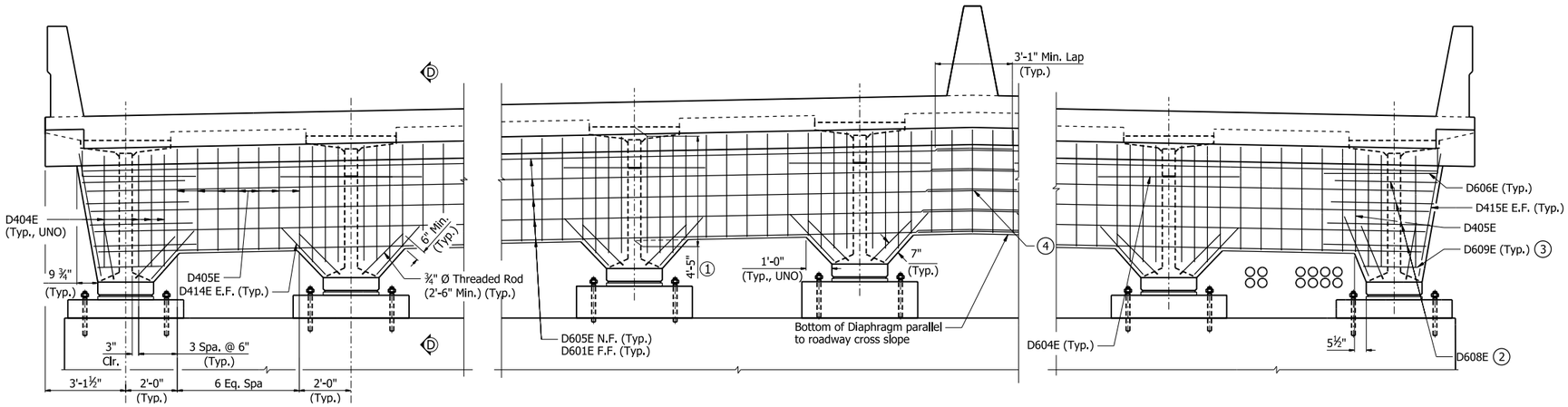
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JMM DATE: 11/10/23
CHECKED BY: KSM DATE: 11/13/23
DESIGNED BY: RAM DATE: 5/2/23
FILENAME: b04090111_s22.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67438

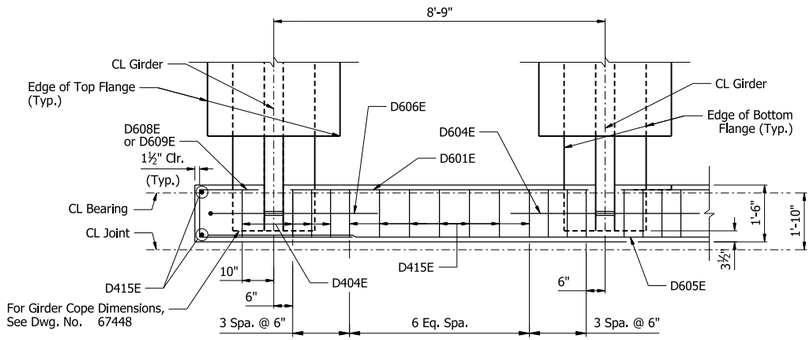
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	379	809
		07684 - UNITS 3 & 5 - 67439				



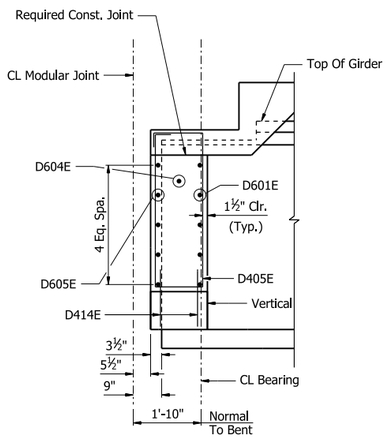
TYPICAL SECTION (END OF UNIT AT MODULAR JOINT)

(Shown Looking Ahead At Bent 16,
Bent 12 Similar)
⅜" = 1'-0"



PLAN

End Diaphragm at Modular Joint
(Bent 16 Shown, Bent 12 Similar)
½" = 1'-0"



SECTION D-D

Modular Joint at Bents 12 & 16
½" = 1'-0"

Notes:
Slab Reinforcing and Modular Joint Blockout Reinforcing not shown, see Dwg. No. 67442 for details.

The end diaphragm details shown apply to modular joint locations only. For end diaphragm details at finger joint locations, see Dwg. No. 67438.

For ITS and Utility Support details, see Dwg. Nos. 67672 - 67685.

(1) Measured from top of girder to bottom of projected diaphragm

(2) Spaced with D605E

(3) Field cut as necessary to maintain min. concrete cover of 1½"

(4) Field bend Bars D605E at roadway crown as necessary to maintain contact through lap splice and minimum clear. Bars D601E are straight at this location.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 22537
JORDAN R. GREENE

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 3 OF 13
DETAILS OF 520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 3 & 5 I-49 OVER ARKANSAS RIVER HWY. 22 - GUN CLUB RD. (F) CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

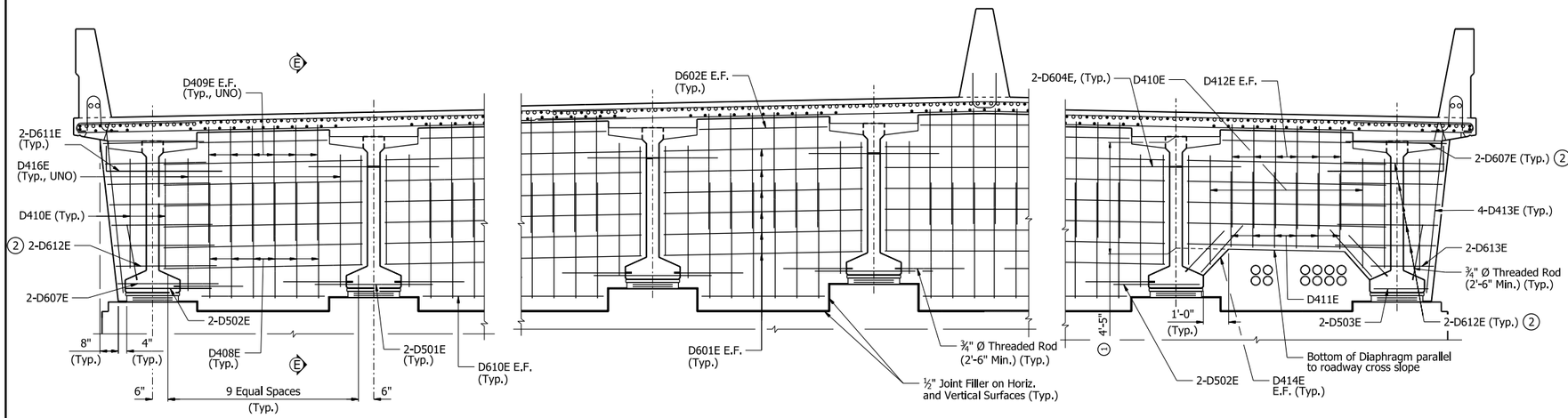
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MM DATE: 11/22/23
CHECKED BY: KSM DATE: 11/28/23
DESIGNED BY: RAM DATE: 5/2/23
FILENAME: b04090111_s23.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67439

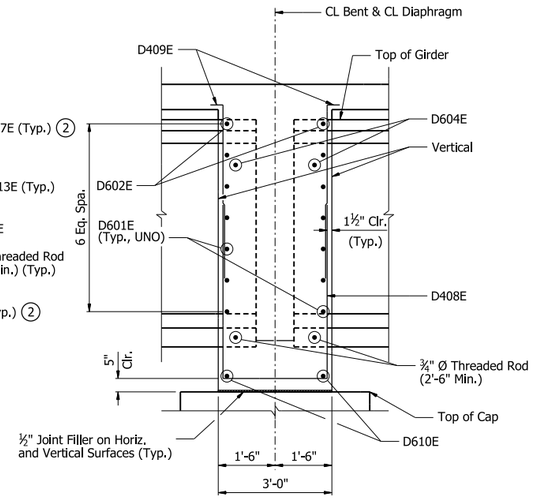
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		07684 - UNITS 2, 3, 5, & 6 - 67440				



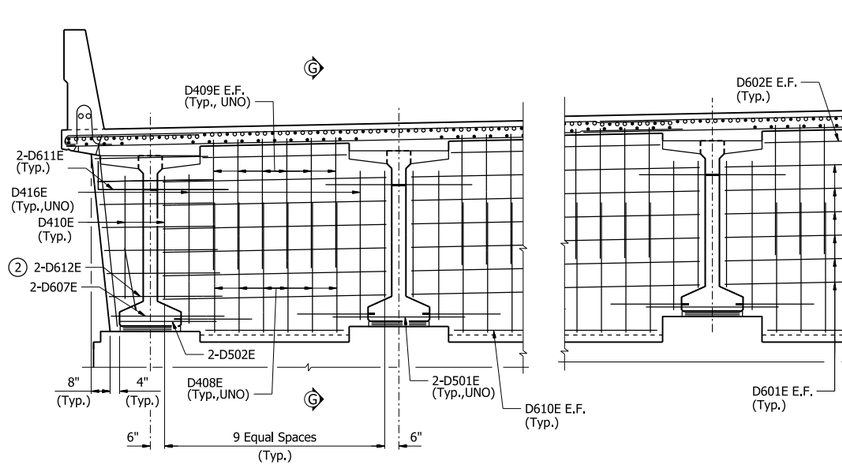
TYPICAL SECTION AT EXPANSION INTERMEDIATE BENTS

⅜" = 1'-0"



SECTION E-E

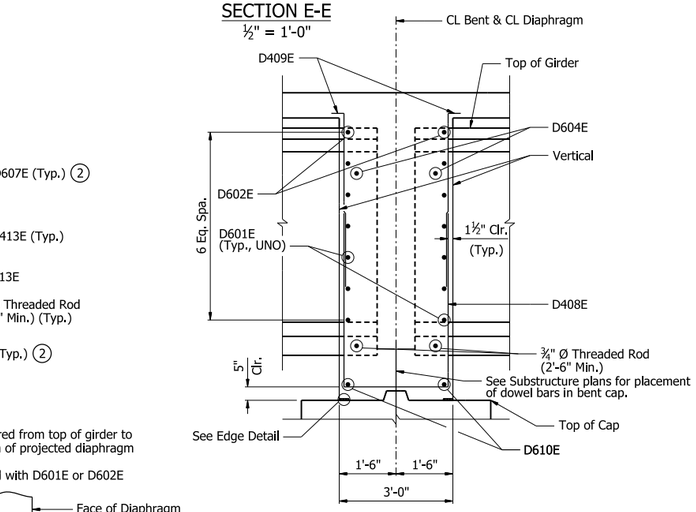
½" = 1'-0"



TYPICAL SECTION AT FIXED INTERMEDIATE BENTS

(Dowel Bars not Shown for Clarity)

⅜" = 1'-0"



SECTION G-G

½" = 1'-0"

Notes:

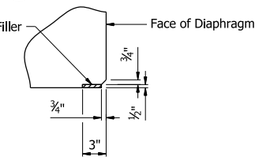
For Slab Reinforcing details, see Dwg. No. 67437.

For ITS and Utility Support details, see Dwg. Nos. 67672 - 67685.

For locations of Fixed or Expansion Intermediate Bents, see 67374 - 67382.

1 Measured from top of girder to bottom of projected diaphragm

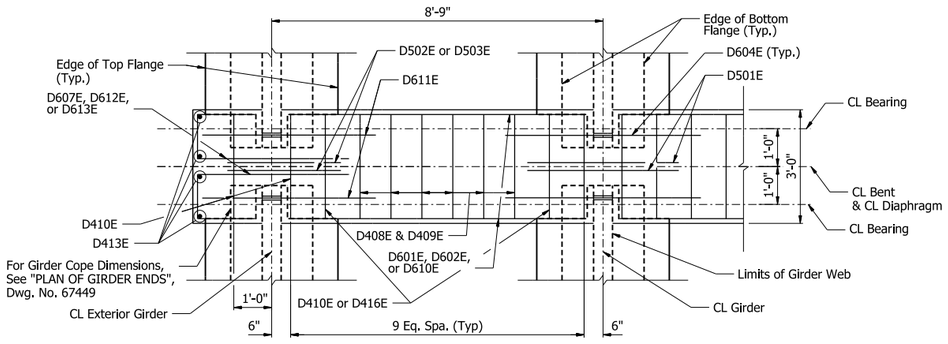
2 Spaced with D601E or D602E



EDGE DETAIL

(At Fixed Bents)

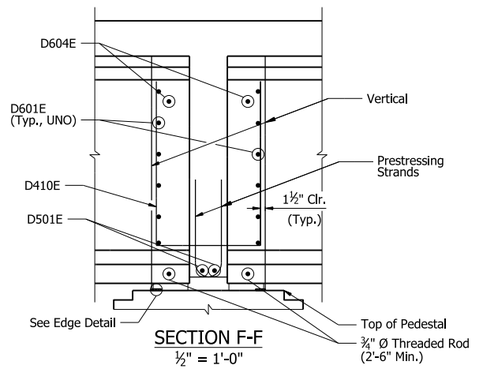
1" = 1'-0"



PLAN

Intermediate Bent Diaphragm

½" = 1'-0"



SECTION F-F

½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22537
JORDAN R. GREENE

4/18/24

BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 4 OF 13
DETAILS OF 520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 2, 3, 5, & 6
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

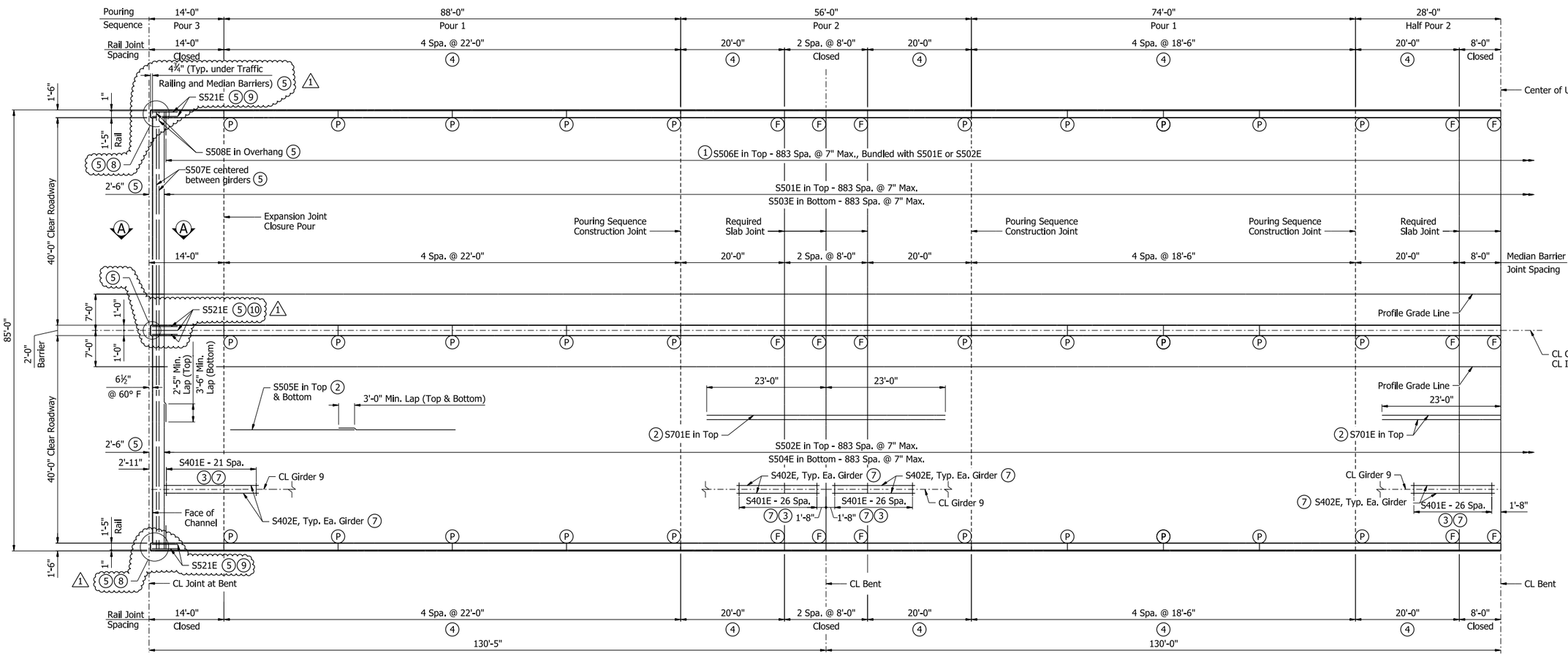
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CHECKED BY: KSM DATE: 11/13/23
DESIGNED BY: RAM DATE: 5/2/23
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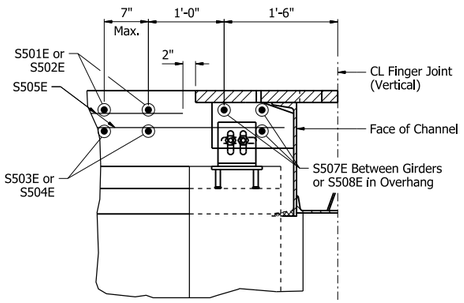
BRIDGE NO. 07684 DRAWING NO. 67440

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
8/9/2024		6	ARK.	040901	381	809
		07684 - UNITS 2, 3, 5, & 6 - 67441				

1 Slab extension added below Rail and Median Barriers at Finger Joint locations. 8/9/2024





SECTION A-A
Finger Joint
1" = 1'-0"
Bents 4, 8, 20, & 24 Only

HALF REINFORCING PLAN AND POURING SEQUENCE - UNITS 2, 3, 5, & 6

3/32" = 1'-0"

Slab Pouring Sequence Notes:

Pours with the same number may be placed simultaneously or separately. All Pour(s) 1 must be placed before Pour(s) 2 and 3 can be placed. A minimum of 48 hours shall elapse between the end of a pour and the start of the next pour. A minimum of 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated, and screeded off for entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

All end of unit and mid-span diaphragms shall be cast in place and poured a minimum of 48 hours before the slab is poured, unless otherwise noted. Intermediate bent diaphragms shall be cast monolithically with the slab.

After all incremental pours on both Units adjacent to the Finger Joint are complete, closure pour 3 on each side of the Finger Joint shall be poured simultaneously. A minimum of 48 hours shall elapse between the last incremental pour and the closure pours.

A minimum of 72 hours shall elapse between completion of the slab and pouring of the bridge railing. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence(s) shown.

1 8 In the slab extension, cut R403E 8" leg to maintain concrete cover.

1 9 2-S521E in Top, 3-S521E in Bottom.

1 10 3-S521E @ Eq. Spa., Top and Bottom.

1 Typical both sides, see "REINFORCING DETAIL" on Dwg. No. 67444.

2 Place as shown in "TYPICAL SECTION AT MID-SPAN CONCRETE DIAPHRAGMS", see Dwg. No. 67437.

3 S401E spaced with G401E, typical each Girder. See Dwg. Nos. 67446 for details.

4 Unit 2: Rail Panels are open, Sta. 167+77.00 to Sta. 168+85.00, Sta. 169+01.00 to Sta. 170+15.00, Sta 170+31.00 to Sta. 170+88.00. Rail Panels are closed, Sta. 170+88.00 to Sta. 172+69.00.
Unit 3: Rail Panels are closed at this location.
Unit 5 and Unit 6: Rail Panels are open in this location.

5 At Finger Joints (Bents 4, 8, 20 & 24). For Reinforcing Plan at Modular Joints (Bents 12 & 16), see Dwg. No. 67442.

6 Units 2 & 6: Symmetrical about Center of Unit, UNO. For Unit 3 Sta. 175+43.00 to 178+03.00 and Unit 5 Sta. 193+93.00 to 196+53.00 Reinforcing Plan and Pour Sequence, see Dwg. Nos. 67442 & 67443.

7 For S401E and S402E placement, see "HAUNCH REINCFORCEMENT DETAIL" on Dwg. No. 67383.

F CL Full-Depth Rail Joint

P CL Partial-Depth Rail Joint

Notes:
Span lengths, slab pour lengths, and transverse reinforcement spacing shown are measured along Profile Grade Line.

Rail spacings shown are measured along respective gutterlines.

Required slab joints and pouring sequence joints shall align with rail joints at the gutterline.

For "TRANSVERSE SLAB JOINT DETAIL", see Dwg. No. 55007

For "DETAILS FOR BRIDGE TRAFFIC RAIL TYPE SSTR42", see Dwg. Nos. 67686 & 67687.

For "DETAILS OF MEDIAN BARRIER", see Dwg. Nos. 67689.

For "PLAN OF REINFORCING AT DECK DRAINS", see Dwg. No. 67707.

DECK DRAIN LOCATIONS	
Left Gutter	Right Gutter
170+57.83	170+57.83
174+47.83	174+47.83
177+11.67	177+11.67

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22537
JORDAN R. GREENE
8/9/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 5 OF 13
DETAILS OF 520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 2, 3, 5, & 6
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

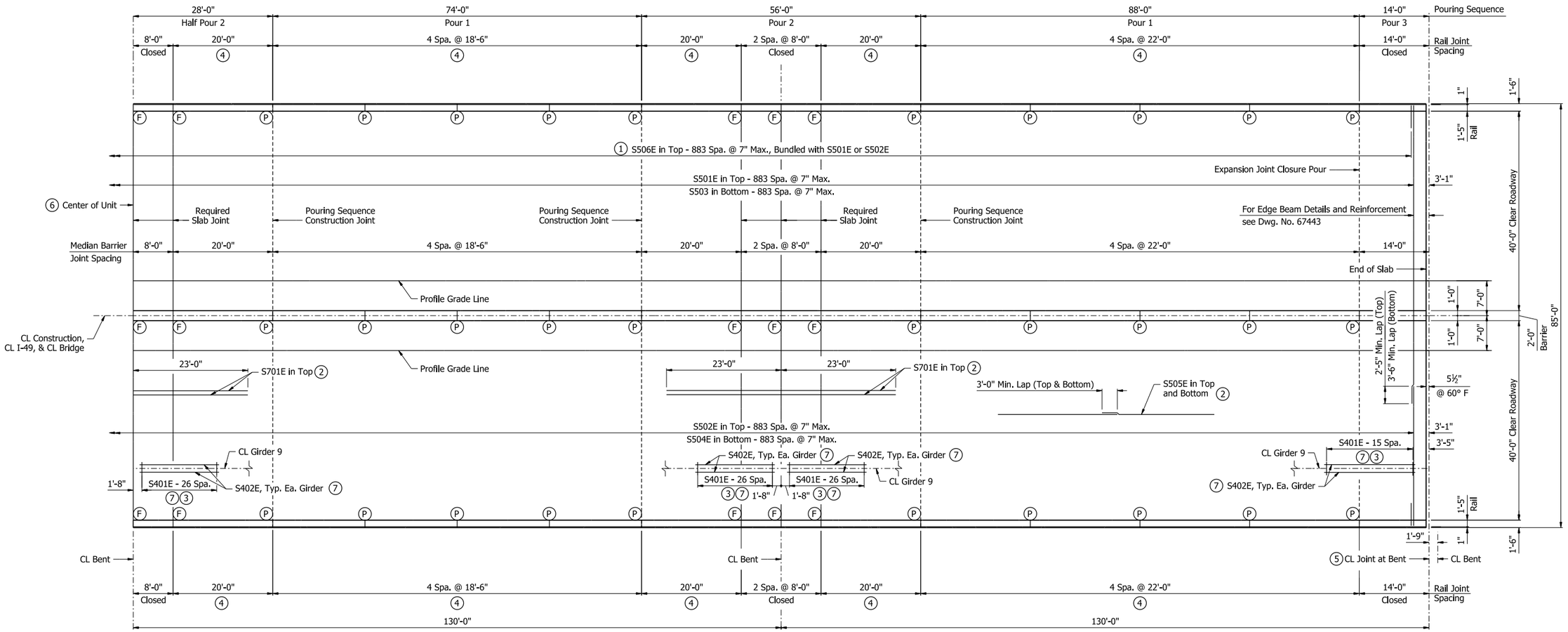
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: SAP DATE: 10/17/23
CHECKED BY: CCD DATE: 11/16/23
DESIGNED BY: RAM DATE: 5/10/23
FILENAME: b04090111_s25.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67441

PRINT DATE: 8/15/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	382	809
		07684 - UNITS 3 & 5 - 67442				



HALF REINFORCING PLAN AND POURING SEQUENCE - UNITS 3 & 5 (6)

(Unit 3 Shown, Unit 5 Similar)

Notes:

Span lengths, slab pour lengths, and transverse reinforcement spacing shown are measured along Profile Grade Line.

Rail spacings shown are measured along respective gutterlines.

Required slab joints and pouring sequence joints shall align with rail joints at the gutterline.

For "TRANSVERSE SLAB JOINT DETAIL", see Dwg. No. 55007.

For "DETAILS FOR BRIDGE TRAFFIC RAIL TYPE SSTR42", see Dwg. Nos. 67686 & 67687.

For "DETAILS OF MEDIAN BARRIER", see Dwg. Nos. 67689.

(1) Typical both sides, see "REINFORCING DETAIL" on Dwg. No. 67444.

(2) Place as shown in "TYPICAL SECTION AT MID-SPAN CONCRETE DIAPHRAGMS", see Dwg. No. 67437.

(F) CL Full-Depth Rail Joint

(P) CL Partial-Depth Rail Joint

(3) S401E spaced with G401E , typical each Girder. See Dwg. Nos. 67446 - 67447 for details.

(4) Unit 3: Rail panels are closed in this location.
Unit 5: Rail panels are open in this location.

(5) Bent 12 & 16 only.

(6) For Unit 3 Sta. 172+83.00 to 175+43.00 and Unit 5 Sta. 196+53.00 to 199+13.00 Reinforcing Plan and Pour Sequence, see Dwg. No. 67441.

(7) For S401E and S402E placement, see "HAUNCH REINCFORCEMENT DETAIL" on Dwg. No. 67383.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22537
JORDAN R. GREENE
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 6 OF 13
DETAILS OF 520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 3 & 5
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

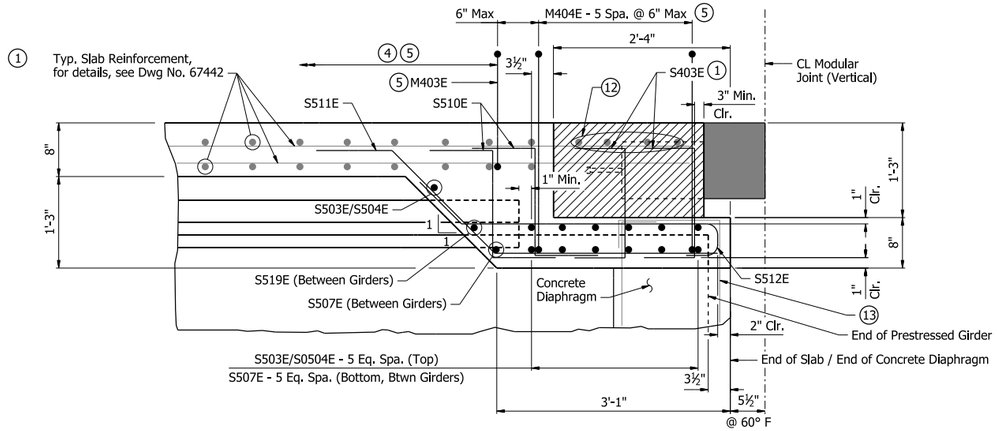
ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: SAP DATE: 12/28/23
CHECKED BY: CZ DATE: 12/5/23
DESIGNED BY: RAM DATE: 5/10/23
FILENAME: b04090111_s26.dgn
SCALE: 3/32" = 1'-0"

BRIDGE NO. 07684 DRAWING NO. 67442

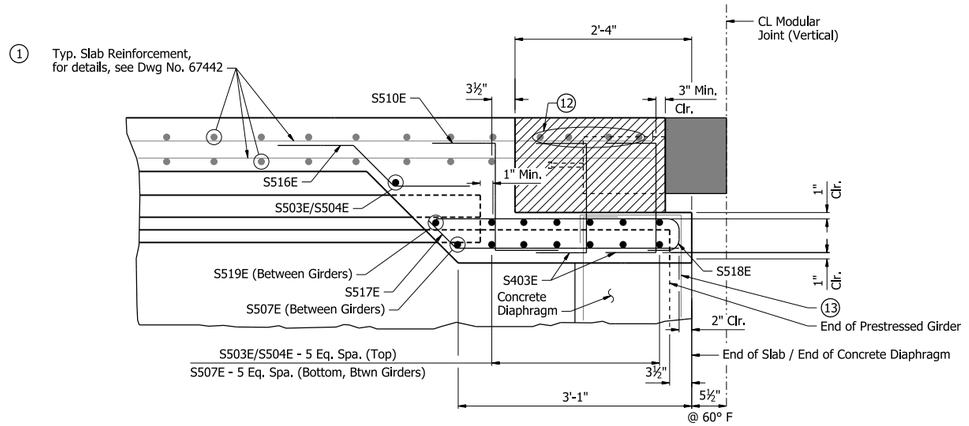
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	383	809
		07684 - UNITS 2, 3, 5, & 6 - 67443				



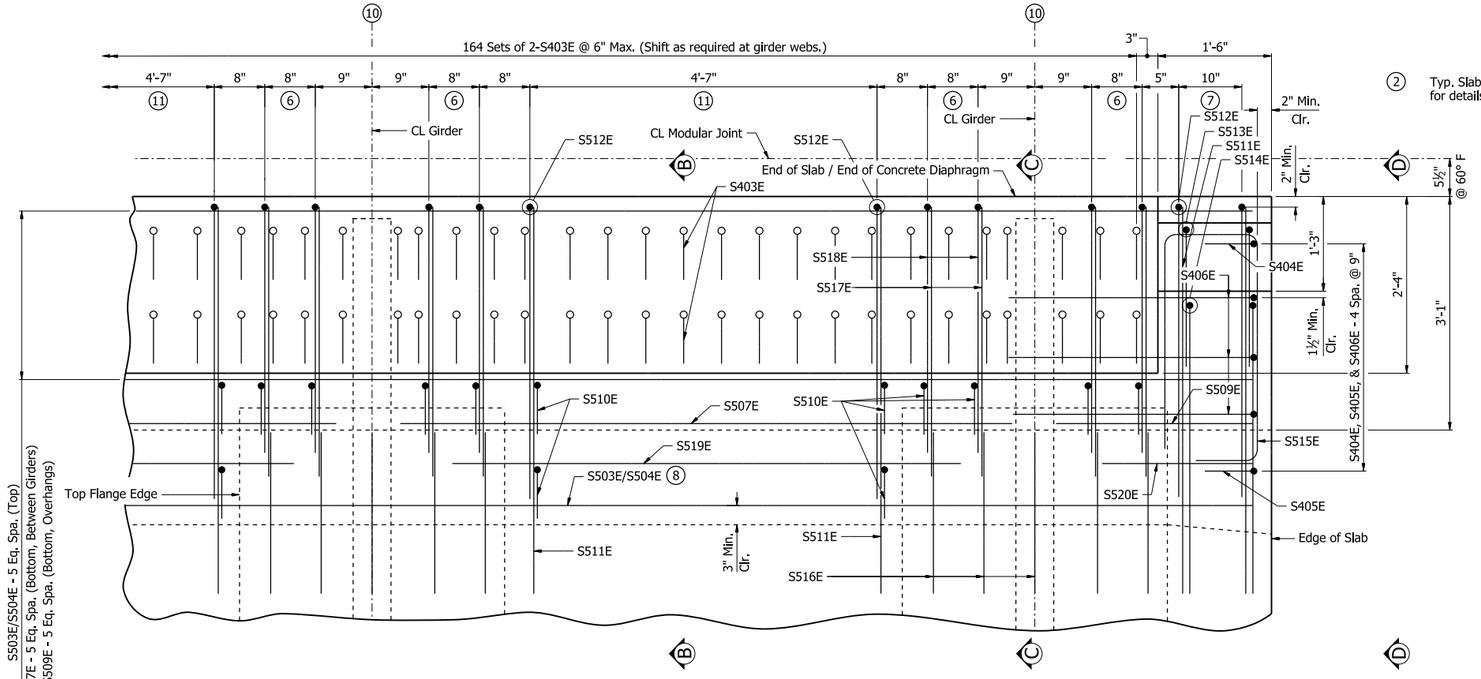
MODULAR JOINTS - BETWEEN GIRDERS

SECTION B-B

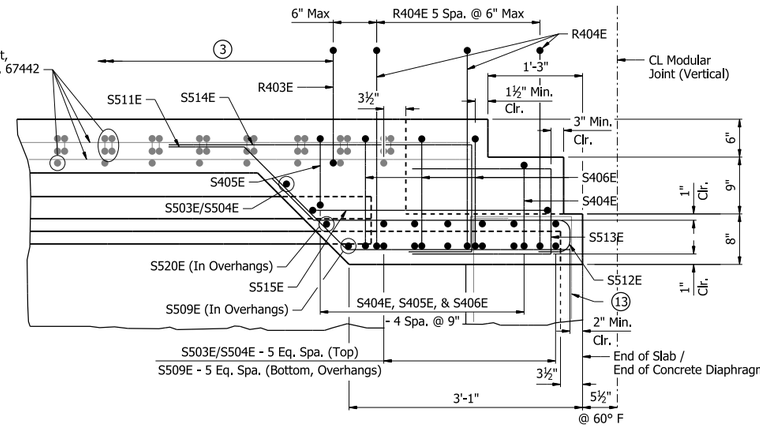


MODULAR JOINTS - AT GIRDERS
(Same as Section B-B, UNO)

SECTION C-C



PARTAIL REINFORCING PLAN AT BENTS WITH MODULAR JOINTS (9)



MODULAR JOINTS - UNDER RAIL
(Same as Section B-B, UNO)

SECTION D-D

Notes:
For details of Modular Joint, see Dwg. Nos. 67698 & 67699.

1. Cut bars as necessary to clear support boxes.
2. Cut longitudinal slab bars 2" from step.
3. For R403E spacing, see Dwg. No. 67686.
4. For M403E spacing, see Dwg. No. 67689.
5. M403E & M404E bars are at Median Barrier location only.
6. 2 Sets of 1-S510E, 1-S516E, 1-S517E, & 1-S518E @ 8" at Girder (Typ.)
7. 3 Sets of 1-S511E, 1-S512E, 1-S513E, 1-S514E Spa. @ 5"+/-
8. Field bend as necessary to maintain clearance.
9. Typical slab and concrete diaphragm reinforcement not shown.
10. 1-S516E at CL Girder.
11. 8 Sets of 2-S510E, 1-S511E, 1-S512E, Spa. @ 8" Max. between girders (Typ.)
12. Modular Joint Blockout Reinforcing S503E/S504E, See Dwg. No. 67698 for details. Extend 2" from edge of slab where possible.
13. Concrete Diaphragm reinforcement, for details see Dwg. No. 67439. Field bend or cut as necessary to accommodate Edge Beam reinforcement.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22537
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4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 7 OF 13
DETAILS OF 520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 2, 3, 5, & 6
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: RAM DATE: 11/27/23
CHECKED BY: BTJ DATE: 12/6/23
DESIGNED BY: JRD DATE: 10/12/23
FILENAME: b04090111_s27.dgn
SCALE: NO SCALE

BRIDGE NO. 07684 DRAWING NO. 67443

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
8/9/2024		6	ARK.	040901	384	809
		07684 - UNITS 2, 3, 5, & 6 - 67444				

BAR LIST - PER UNIT

Mark	Number Required				Length				Pin Dia.
	Unit 2	Unit 3	Unit 5	Unit 6	Unit 2	Unit 3	Unit 5	Unit 6	
S401E	2060	2000	2000	2060	4'-4"	4'-4"	4'-4"	4'-4"	3"
S402E	160	160	160	160	13'-4"	13'-4"	13'-4"	13'-4"	Str.
S403E	-	328	328	-	-	2'-8"	2'-8"	-	3"
S404E	-	2	2	-	-	2'-3"	2'-3"	-	3"
S405E	-	2	2	-	-	2'-0"	2'-0"	-	3"
S406E	-	6	6	-	-	7'-0"	7'-0"	-	3"
S501E	884	884	884	884	60'-0"	60'-0"	60'-0"	60'-0"	3¾"
S502E	884	884	884	884	28'-3"	28'-3"	28'-3"	28'-3"	3¾"
S503E	884	895	895	884	60'-0"	60'-0"	60'-0"	60'-0"	Str.
S504E	884	895	895	884	28'-2"	28'-2"	28'-2"	28'-2"	Str.
S505E	2100	2100	2100	2100	54'-8"	54'-8"	54'-8"	54'-8"	Str.
S506E	1768	1768	1768	1768	7'-8"	7'-8"	7'-8"	7'-8"	3¾"
S507E	54	90	90	54	7'-5"	7'-5"	7'-5"	7'-5"	Str.
S508E	12	6	6	12	2'-9"	2'-9"	2'-9"	2'-9"	Str.
S509E	-	14	14	-	-	2'-6"	2'-6"	-	Str.
S510E	-	184	184	-	-	3'-0"	3'-0"	-	3¾"
S511E	-	78	78	-	-	5'-9"	5'-9"	-	3¾"
S512E	-	78	78	-	-	4'-10"	4'-10"	-	3¾"
S513E	-	6	6	-	-	4'-6"	4'-6"	-	3¾"
S514E	-	6	6	-	-	6'-2"	6'-2"	-	3¾"
S515E	-	2	2	-	-	7'-7"	7'-7"	-	3¾"
S516E	-	50	50	-	-	2'-6"	2'-6"	-	3¾"
S517E	-	40	40	-	-	3'-6"	3'-6"	-	3¾"
S518E	-	40	40	-	-	3'-11"	3'-11"	-	3¾"
S519E	-	9	9	-	-	6'-0"	6'-0"	-	Str.
S520E	-	2	2	-	-	1'-9"	1'-9"	-	Str.
S521E	32	16	16	32	5'-0"	5'-0"	5'-0"	5'-0"	Str.
S701E	612	612	612	612	46'-0"	46'-0"	46'-0"	46'-0"	Str.
D401E	384	384	384	384	12'-10"	12'-10"	12'-10"	12'-10"	2"
D402E	176	176	176	176	11'-4"	11'-4"	11'-4"	11'-4"	2"
D403E	16	16	16	16	10'-10"	10'-10"	10'-10"	10'-10"	2"
D404E	112	111	111	112	11'-6"	11'-6"	11'-6"	11'-6"	2"
D405E	-	64	64	-	-	10'-6"	10'-6"	-	2"
D406E	126	63	63	126	10'-10"	10'-10"	10'-10"	10'-10"	2"
D407E	8	4	4	8	5'-7"	5'-7"	5'-7"	5'-7"	Str.
D408E	144	144	144	144	11'-9"	11'-9"	11'-9"	11'-9"	2"
D409E	288	288	288	288	4'-10"	4'-10"	4'-10"	4'-10"	2"
D410E	66	66	66	66	11'-3"	11'-3"	11'-3"	11'-3"	2"
D411E	18	18	18	18	8'-7"	8'-7"	8'-7"	8'-7"	2"
D412E	36	36	36	36	4'-4"	4'-4"	4'-4"	4'-4"	2"
D413E	24	24	24	24	6'-5"	6'-5"	6'-5"	6'-5"	Str.
D414E	84	84	84	84	2'-6"	2'-6"	2'-6"	2'-6"	Str.
D415E	-	4	4	-	-	4'-7"	4'-7"	-	Str.
D416E	48	48	48	48	13'-1"	13'-1"	13'-1"	13'-1"	2"
D501E	42	42	42	42	4'-8"	4'-8"	4'-8"	4'-8"	Str.
D502E	12	12	12	12	3'-5"	3'-5"	3'-5"	3'-5"	Str.
D503E	6	6	6	6	2'-2"	2'-2"	2'-2"	2'-2"	Str.
D601E	1128	1128	1128	1128	8'-0"	8'-0"	8'-0"	8'-0"	Str.
D602E	234	216	216	234	5'-0"	5'-0"	5'-0"	5'-0"	Str.
D603E	128	128	128	128	6'-5"	6'-5"	6'-5"	6'-5"	Str.
D604E	256	256	256	256	5'-6"	5'-6"	5'-6"	5'-6"	Str.
D605E	20	20	20	20	42'-9"	42'-9"	42'-9"	42'-9"	Str.
D606E	4	4	4	4	5'-3"	5'-3"	5'-3"	5'-3"	4½"
D607E	22	20	20	22	5'-0"	5'-0"	5'-0"	5'-0"	4½"
D608E	20	20	20	20	5'-6"	5'-6"	5'-6"	5'-6"	4½"
D609E	4	4	4	4	4'-0"	4'-0"	4'-0"	4'-0"	4½"
D610E	48	48	48	48	4'-9"	4'-9"	4'-9"	4'-9"	Str.
D611E	12	12	12	12	5'-5"	5'-5"	5'-5"	5'-5"	4½"
D612E	66	66	66	66	5'-10"	5'-10"	5'-10"	5'-10"	4½"
D613E	6	6	6	6	4'-4"	4'-4"	4'-4"	4'-4"	4½"
	1 2080		2068 1		2080 1				
R400E	224	-	352	352	6'-3"	-	6'-3"	6'-3"	3"
R401E	2080	2080	2080	2080	7'-6"	7'-6"	7'-6"	7'-6"	3"
R402E	160	160	160	160	5'-6"	5'-6"	5'-6"	5'-6"	Str.
R403E	~~2060~~	~~2058~~	~~2058~~	~~2060~~	3'-8"	3'-8"	3'-8"	3'-8"	3"
R404E	-	12	12	-	-	6'-1"	6'-1"	-	3"
R417E	160	160	160	160	21'-8"	21'-8"	21'-8"	21'-8"	Str.
R418E	120	120	120	120	7'-8"	7'-8"	7'-8"	7'-8"	Str.
R422E	40	40	40	40	13'-8"	13'-8"	13'-8"	13'-8"	Str.
R423E	160	160	160	160	18'-2"	18'-2"	18'-2"	18'-2"	Str.
R428E	120	120	120	120	19'-8"	19'-8"	19'-8"	19'-8"	Str.

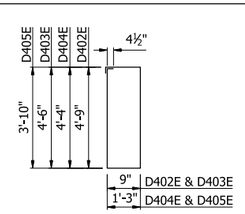
All bars designated with an "E" suffix are to be epoxy coated.

Mark	Number Required				Length				Pin Dia.
	Unit 2	Unit 3	Unit 5	Unit 6	Unit 2	Unit 3	Unit 5	Unit 6	
M401E	1040	1040	1040	1040	9'-0"	9'-0"	9'-0"	9'-0"	2"
M402E	80	80	80	80	5'-6"	5'-6"	5'-6"	5'-6"	Str.
M403E	1030	1029	1029	1030	4'-10"	4'-10"	4'-10"	4'-10"	3"
M404E	-	6	6	-	-	7'-2"	7'-2"	-	3"
M417E	80	80	80	80	21'-8"	21'-8"	21'-8"	21'-8"	Str.
M418E	60	60	60	60	7'-8"	7'-8"	7'-8"	7'-8"	Str.
M422E	20	20	20	20	13'-8"	13'-8"	13'-8"	13'-8"	Str.
M423E	80	80	80	80	18'-2"	18'-2"	18'-2"	18'-2"	Str.
M428E	60	60	60	60	19'-8"	19'-8"	19'-8"	19'-8"	Str.
X601E	24	48	-	-	9'-0"	9'-0"	-	-	Str.
X602E	24	48	-	-	6'-2"	6'-2"	-	-	Str.
X603E	48	96	-	-	5'-0"	5'-0"	-	-	Str.

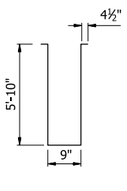
1 Slab extension added below Rail and Median Barriers at Finger Joint locations. 8/9/2024

1

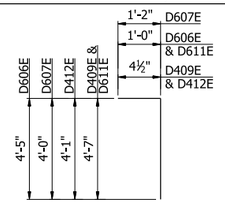
Bending Diagrams
(Dimensions are out to out of bars)



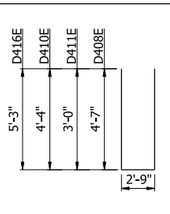
D402E, D403E, D404E & D405E



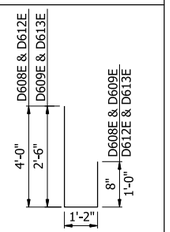
D401E



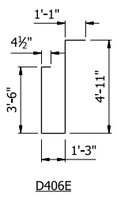
D409E, D412E,
D606E, D607E, & D611E



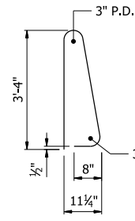
D408E, D410E,
D411E, & D416E



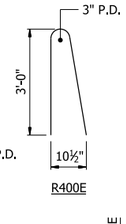
D608E & D609E



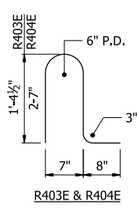
D406E



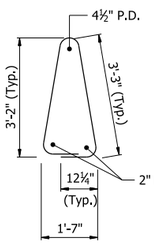
R401E



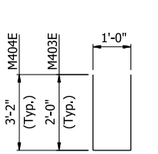
R400E



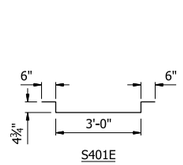
R403E & R404E



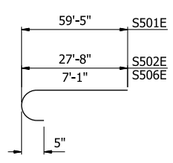
M401E



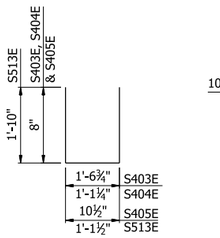
M403E & M404E



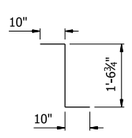
S401E



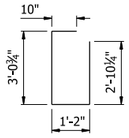
S501E, S502E, & S506E



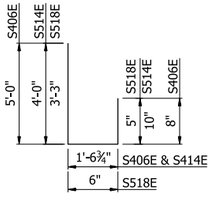
S403E, S404E, S405E,
& S513E



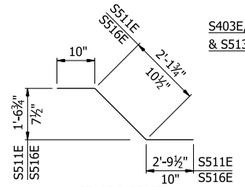
S510E



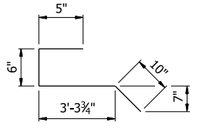
S515E



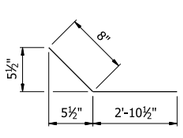
S406E, S514E, & S518E



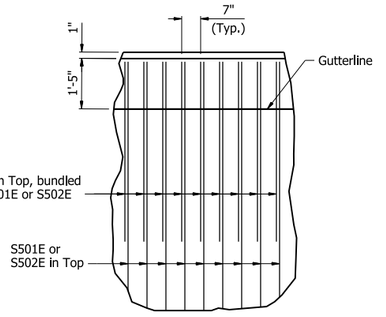
S511E & S516E



S512E



S517E



REINFORCING DETAIL
½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 22537
JORDAN R. GREENE
8/9/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 8 OF 13
DETAILS OF 520'-0" CONTINUOUS
PRESTRESSED CONCRETE GIRDER UNITS 2, 3, 5, & 6
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

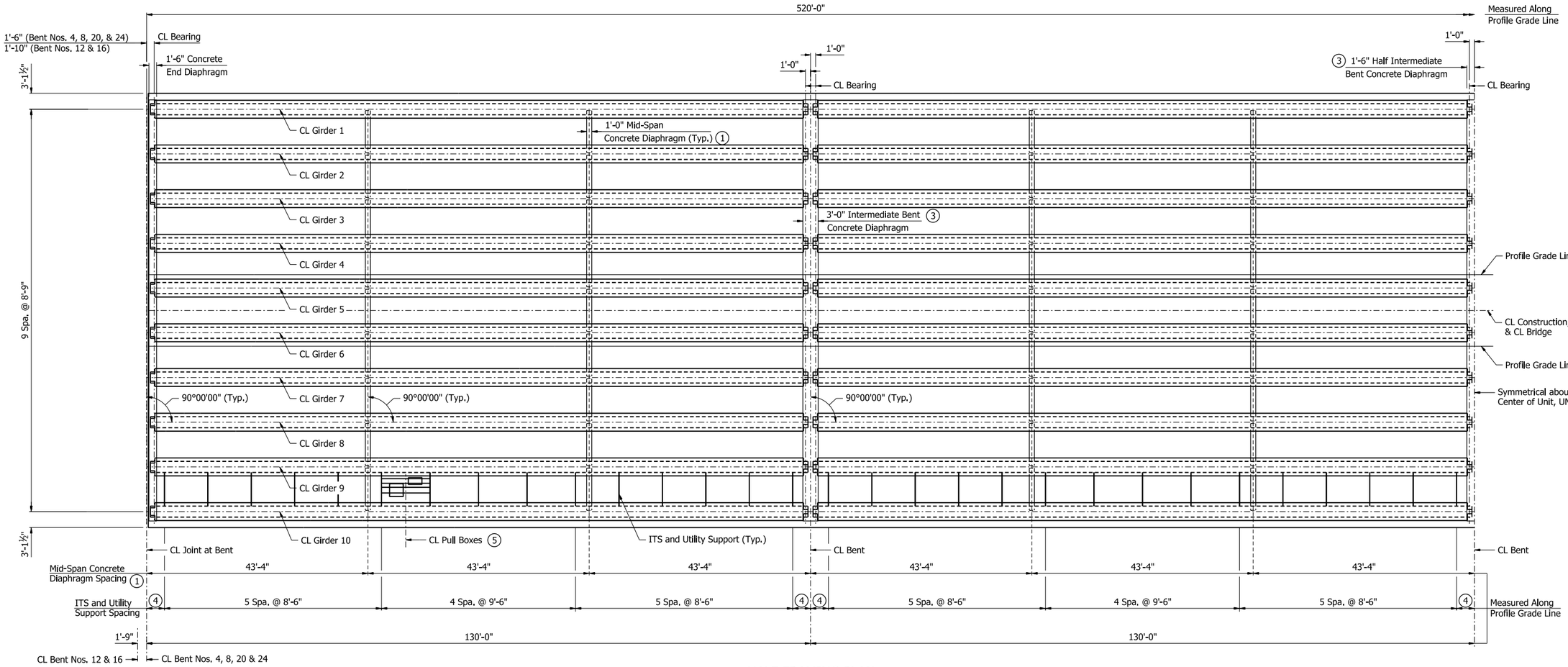
ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: JRG DATE: 12/8/23
DESIGNED BY: RAM DATE: 12/8/23
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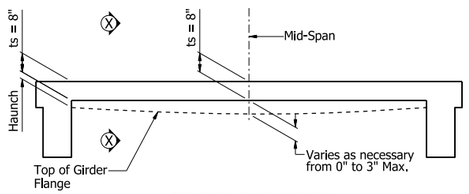
BRIDGE NO. 07684 DRAWING NO. 67444

PRINT DATE: 8/15/2024

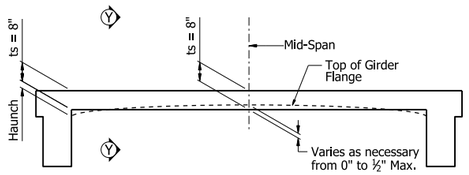
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	385	809
		07684 - UNITS 2, 3, 5, & 6 - 67445				



HALF FRAMING PLAN
3/32" = 1'-0"



GIRDER ELEVATION
No Scale

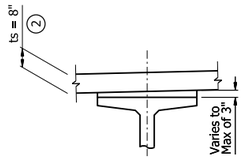


GIRDER ELEVATION
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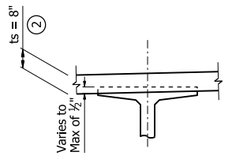
Notes:

For details of ITS and Utility Supports, see Dwg. Nos. 67672 - 67685

For Diaphragm details, see Dwg. Nos. 67437 - 67440.



SECTION X-X
No Scale



SECTION Y-Y
No Scale

ADJUSTMENT FOR SLAB THICKNESS TOLERANCE WHEN REMOVABLE DECK FORMING IS USED

1. Galvanized steel diaphragms may be used in place of concrete diaphragms at mid-span diaphragm locations only.
2. Tolerance : Minus =¼ "; Plus=½ ". Haunch forming is required and shall be adjusted to maintain slab thickness tolerance. See Std. Dwg. No. 55005 for tolerances when permanent steel deck forms are used.

   "GIRDER ELEVATION" sketches show the range of acceptability of the top of girder relative to bottom of slab after the placement of the slab. When the top of the girder projects more than a ½" into the slab, a rise in grade will be necessary. Girders shall be set in a sufficient number of spans so when adjustment is necessary the profile grade can be adjusted over suitable increments so the revised grade line will produce a smooth riding surface. Variation of haunch height will be at the Contractor's expense.
3. 3'-0" Concrete Fix Bent Diaphragm at Bent Nos. 6, 7, 10, 11, 17, 18, 21, & 22.
   3'-0" Concrete Exp. Bent Diaphragm at Bent Nos. 5, 9, 19, & 23.
4. 3'-6"
5. Sta. 168+13.75 (Unit 2)
   Sta. 173+07.75 (Unit 3)
   Sta. 177+69.75 (Unit 3)
   Sta. 197+58.25 (Unit 5)
   Sta. 202+23.75 (Unit 6)

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22537
JORDAN R. GREENE

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 9 OF 13
DETAILS OF 520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 2, 3, 5 & 6
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

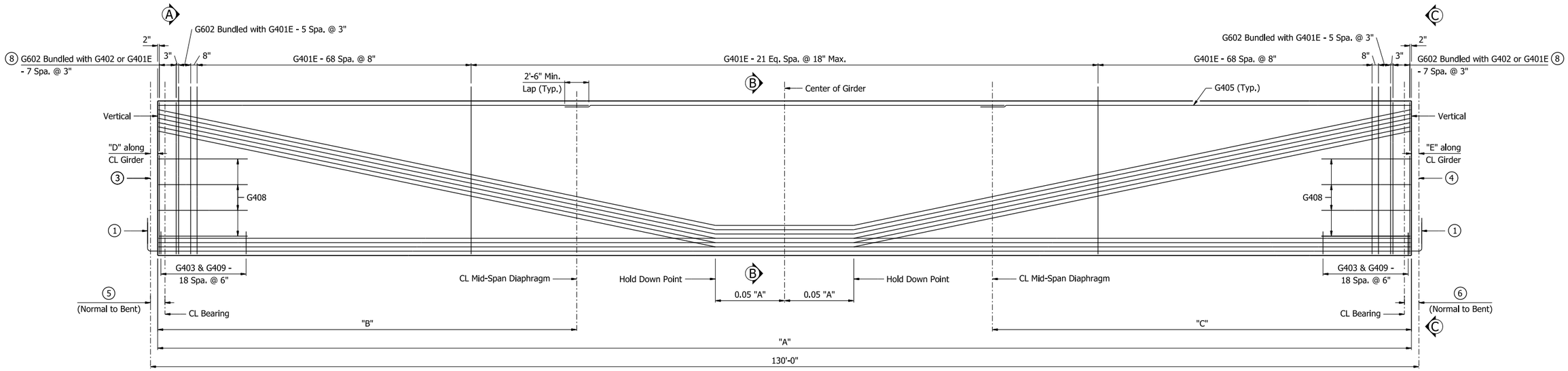
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: KSM DATE: 10/16/23
DESIGNED BY: RAM DATE: 5/2/23
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SCALE: AS NOTED

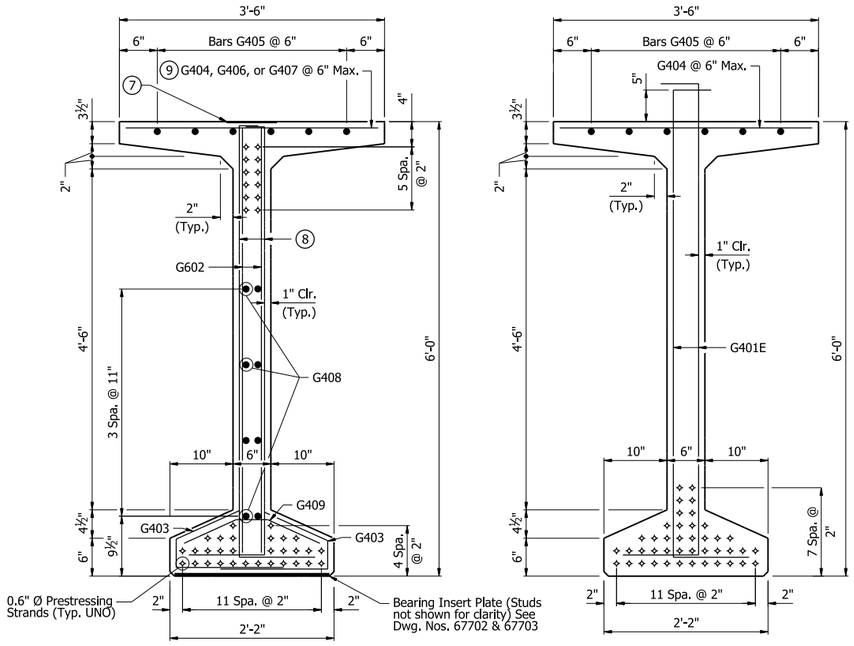
BRIDGE NO. 07684 DRAWING NO. 67445

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	386	809
		07684 - UNITS 2, 3, 5, & 6 - 67446				



SPANS 4-7 & 20-23 GIRDER ELEVATION (TYPE BT-72)

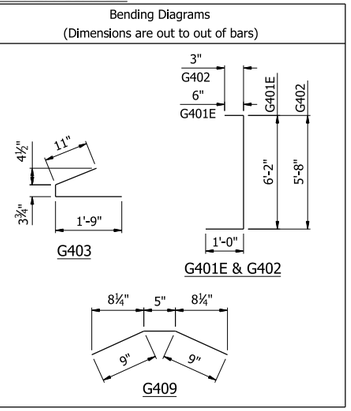


SECTION A-A

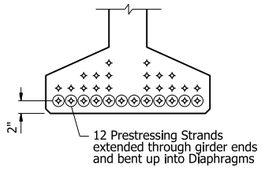
SECTION B-B

BAR LIST - PER GIRDER

	Mark	Number Required	Length	Pin Dia.	Bending Diagrams (Dimensions are out to out of bars)
Spans 4, 7, 20, & 23	G301	(2) 24	1'-3"	Str.	
	G401E	356	7'-6"	2"	
	G402	16	6'-9"	2"	
	G403	76	2'-11"	2"	
	G404	255	3'-2"	Str.	
	G405	18	44'-7"	Str.	
	G406	2	6"	Str.	
	G407	2	1'-2"	Str.	
	G408	16	9'-2"	Str.	
	G409	38	1'-11"	2"	
	G602	56	5'-6"	Str.	
Spans 5, 6, 21, & 22	G301	(2) 24	1'-3"	Str.	
	G401E	372	7'-6"	2"	
	G403	76	2'-11"	2"	
	G404	255	3'-2"	Str.	
	G405	18	44'-7"	Str.	
	G406	4	6"	Str.	
	G408	16	9'-2"	Str.	
	G409	38	1'-11"	2"	
	G602	56	5'-6"	Str.	



All bars designated with an "E" suffix are to be epoxy coated.



VIEW C-C

Notes:
For "General Notes", see Dwg. No. 67372.

ITS and Utility Support bolt sleeves must be cast into the girder web. Bolt sleeves may be shifted vertically no more than 1" as necessary to avoid prestressing strands. For ITS and Utility Support details, see Dwg. Nos. 67672 through 67685. For ITS and Utility Support locations, see "HALF FRAMING PLAN" on Dwg. No. 67445.

For additional details, see Dwg. No. 67449.

Deck Drain connection bolt pipe sleeves must be cast into girder web. Bolt sleeves may be shifted vertically no more than 1" as necessary to avoid prestressing strands. For locations and details, see Dwg. No. 67707.

Drawings show general features of design only. Shop drawing shall be submitted to the Engineer and approval secured before fabrication has begun.

TABLE OF VARIABLES

Span	(3)	(4)	(5)	(6)
4	CL Joint at Bent No. 4	CL Bent No. 5	1'-6" (Bent No. 4)	1'-0" (Bent No. 5)
5	CL Bent No. 5	CL Bent No. 6	1'-0" (Bent No. 5)	1'-0" (Bent No. 6)
6	CL Bent No. 6	CL Bent No. 7	1'-0" (Bent No. 6)	1'-0" (Bent No. 7)
7	CL Bent No. 7	CL Joint at Bent No. 8	1'-0" (Bent No. 7)	1'-6" (Bent No. 8)
20	CL Joint at Bent No. 20	CL Bent No. 21	1'-6" (Bent No. 20)	1'-0" (Bent No. 21)
21	CL Bent No. 21	CL Bent No. 22	1'-0" (Bent No. 21)	1'-0" (Bent No. 22)
22	CL Bent No. 22	CL Bent No. 23	1'-0" (Bent No. 22)	1'-0" (Bent No. 23)
23	CL Bent No. 23	CL Joint at Bent No. 24	1'-0" (Bent No. 23)	1'-6" (Bent No. 24)

TABLE OF VARIABLES - DIMENSIONS

Span	Girder	"A"	"B"	"C"	"D"	"E"
4 & 20	1-10	128'-9"	42'-7"	42'-10"	9"	6"
5, 6, 21, 22	1-10	129'-0"	42'-10"	42'-10"	6"	6"
7 & 23	1-10	128'-9"	42'-10"	42'-7"	6"	9"

(1) Prestressing strands at Bents at the ends of each Unit shall be sawn flush with the end of the girder. Prestressing strands at all other Bents shall be bent up into diaphragms as shown in the "THREADED INSERT DETAIL", see Dwg. No. 67449.

(2) 12-G301 bars required for exterior girders.

(7) Bearing Plate, Begin of Spans 4 & 20, End of Spans 7 & 23 (Studs not shown for clarity). See Dwg. Nos. 67694 & 67695 for details.

(8) G402 at ends of units, G401E at all other locations.

(9) G406 and G407 in Girder Ends, see Dwg. No. 67449, for details.

ALTERNATE NO. 1
SHEET 10 OF 13
DETAILS OF 520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 2 & 6
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER ★★★ No. 22537 JORDAN R. GREENE

4/18/24

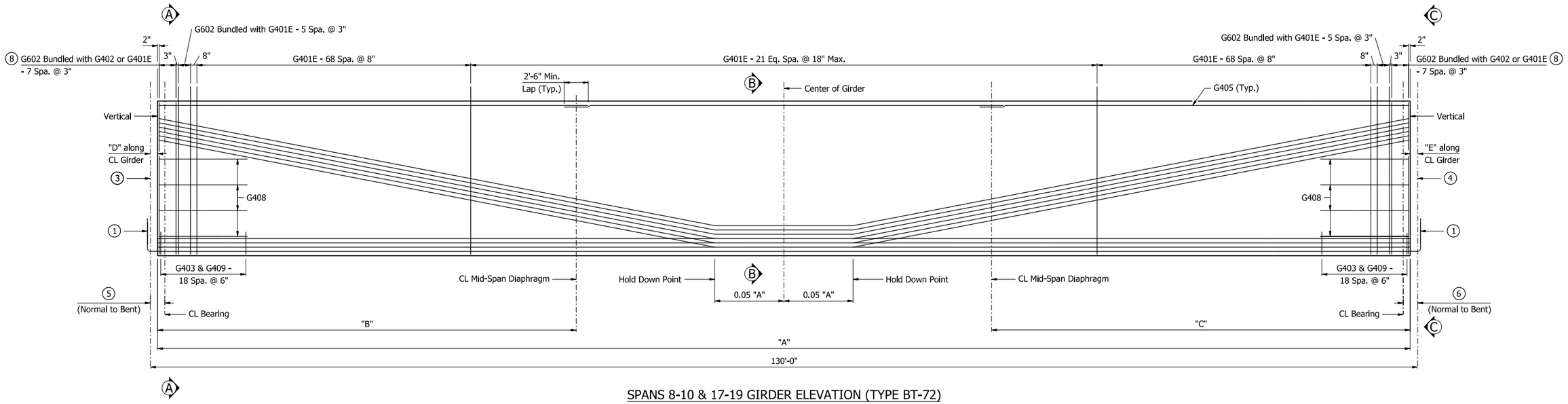
BRIDGE ENGINEER

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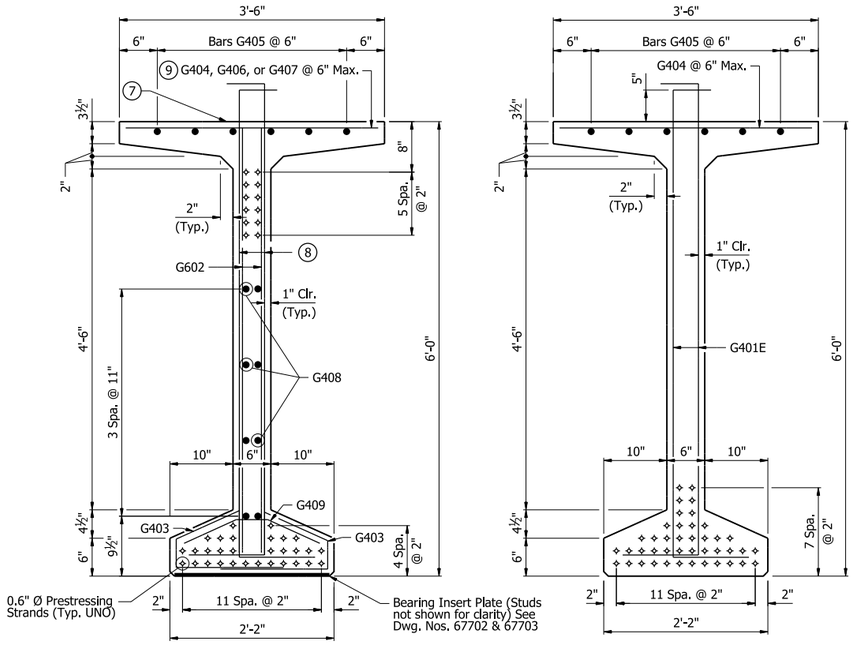
BRIDGE NO. 07684 DRAWING NO. 67446

PRINT DATE: 4/13/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		07684 - UNITS 2, 3, 5, & 6 - 67447				



SPANS 8-10 & 17-19 GIRDER ELEVATION (TYPE BT-72)

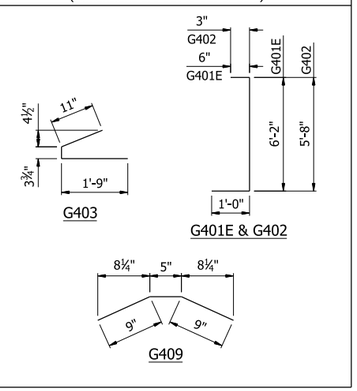


SECTION A-A

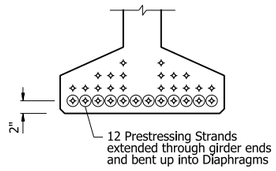
SECTION B-B

BAR LIST - PER GIRDER

	Mark	Number Required	Length	Pin Dia.	Bending Diagrams (Dimensions are out to out of bars)
Spans 8 & 19	G301	(2) 24	1'-3"	Str.	
	G401E	356	7'-6"	2"	
	G402	16	6'-9"	2"	
	G403	76	2'-11"	2"	
	G404	255	3'-2"	Str.	
	G405	18	44'-7"	Str.	
	G406	2	6"	Str.	
	G407	2	1'-2"	Str.	
	G408	16	9'-2"	Str.	
	G409	38	1'-11"	2"	
	G602	56	5'-6"	Str.	
Spans 9, 10, 17, & 18	G301	(2) 24	1'-3"	Str.	
	G401E	372	7'-6"	2"	
	G403	76	2'-11"	2"	
	G404	255	3'-2"	Str.	
	G405	18	44'-7"	Str.	
	G406	4	6"	Str.	
	G408	16	9'-2"	Str.	
	G409	38	1'-11"	2"	
	G602	56	5'-6"	Str.	



All bars designated with an "E" suffix are to be epoxy coated.



VIEW C-C

Notes:
For "General Notes", see Dwg. No. 67372.

ITS and Utility Support bolt sleeves must be cast into the girder web. Bolt sleeves may be shifted vertically no more than 1" as necessary to avoid prestressing strands. For ITS and Utility Support details, see Dwg. Nos. 67672 through 67685. For ITS and Utility Support locations, see "HALF FRAMING PLAN" on Dwg. No. 67445.

For additional details, see Dwg. No. 67449.

Drawings show general features of design only. Shop drawing shall be submitted to the Engineer and approval secured before fabrication has begun.

TABLE OF VARIABLES

Span	(3)	(4)	(5)	(6)
8	CL Joint at Bent No. 8	CL Bent No. 9	1'-6" (Bent No. 8)	1'-0" (Bent No. 9)
9	CL Bent No. 9	CL Bent No. 10	1'-0" (Bent No. 9)	1'-0" (Bent No. 10)
10	CL Bent No. 10	CL Bent No. 11	1'-0" (Bent No. 10)	1'-0" (Bent No. 11)
17	CL Bent No. 17	CL Bent No. 18	1'-0" (Bent No. 17)	1'-0" (Bent No. 18)
18	CL Bent No. 18	CL Bent No. 19	1'-0" (Bent No. 18)	1'-0" (Bent No. 19)
19	CL Bent No. 19	CL Joint at Bent No. 20	1'-0" (Bent No. 19)	1'-6" (Bent No. 20)

TABLE OF VARIABLES - DIMENSIONS

Span	Girder	"A"	"B"	"C"	"D"	"E"
8	1-10	128'-9"	42'-7"	42'-10"	9"	6"
9, 10, 17, & 18	1-10	129'-0"	42'-10"	42'-10"	6"	6"
19	1-10	128'-9"	42'-10"	42'-7"	6"	9"

(1) Prestressing strands at Bents at the ends of each unit shall be sawn flush with the end of the girder. Prestressing strands at all other bents shall be bent up into diaphragms as shown in the "THREADED INSERT DETAIL", see Dwg. No. 67449.

(2) 12-G301 bars required for exterior girders.

(7) Bearing Plate, Begin of Span 8, End of Span 19 (Studs not shown for clarity). See Dwg. Nos. 67694 & 67695 for details.

(8) G402 at ends of units, G401E at all other locations.

(9) G406 and G407 in Girder Ends, see Dwg. No. 67449, for details.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 22537
JORDAN R. GREENE

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 11 OF 13
DETAILS OF 520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 3 & 5
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

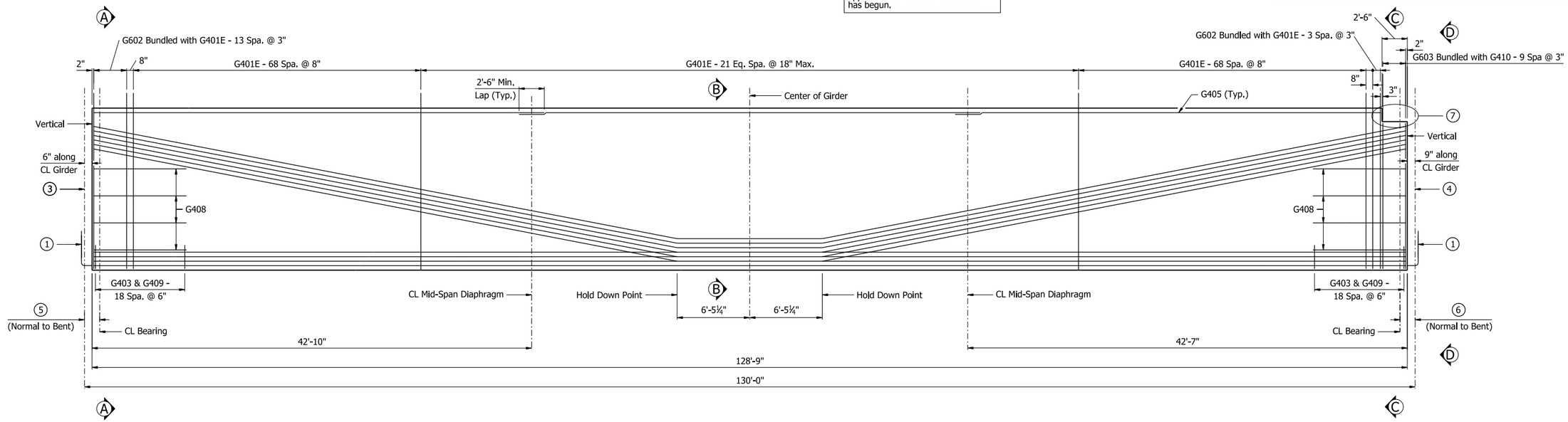
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DESIGNED BY: RWF DATE: 6/16/23
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BRIDGE NO. 07684 DRAWING NO. 67447

PRINT DATE: 4/10/2024

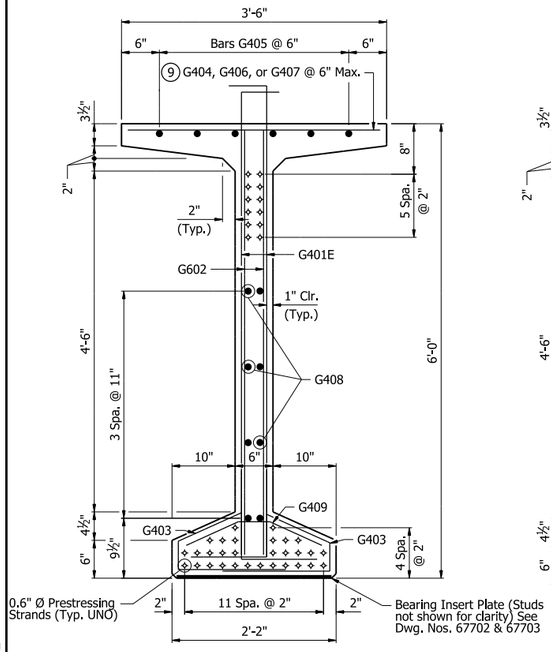
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		07684 - UNITS 3 & 5 - 67448				

Drawings show general features of design only. Shop drawing shall be submitted to the Engineer and approval secured before fabrication has begun.

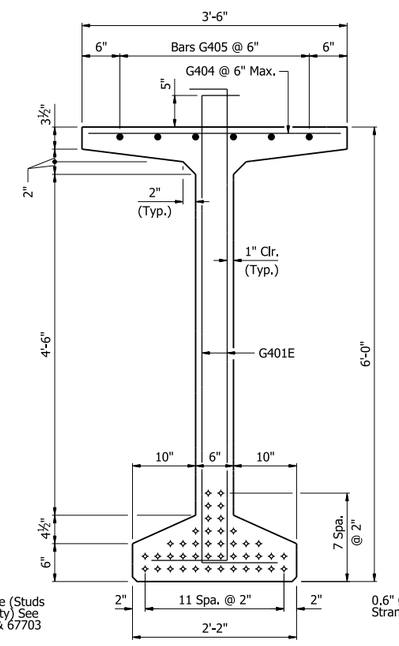


SPANS 11 & 16 GIRDER ELEVATION (TYPE BT-72)

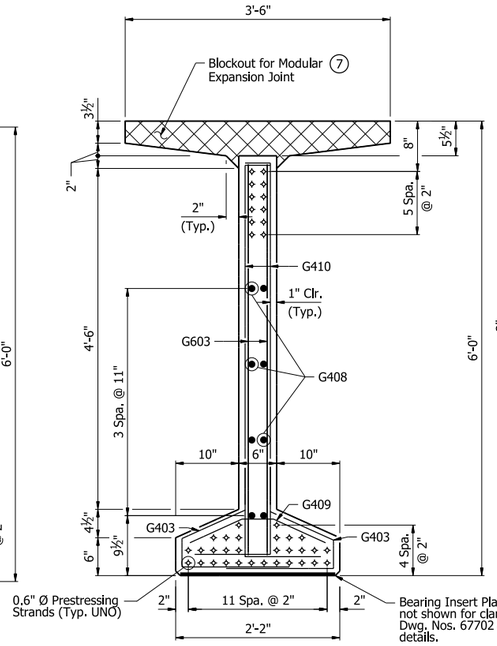
(Span 11 shown, Span 16 opposite hand)



SECTION A-A



SECTION B-B

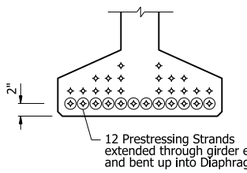


SECTION C-C

Notes:
For "General Notes" see Dwg. No. 67372.

ITS and Utility Support bolt sleeves must be cast into the girder web. Bolt sleeves may be shifted vertically no more than 1" as necessary to avoid prestressing strands. For ITS and Utility Support details, see Dwg. Nos. 67672 through 67685. For ITS and Utility Support locations, see "HALF FRAMING PLAN" on Dwg. No. 67445.

For additional details, see Dwg. No. 67449.



VIEW D-D

(1) Prestressing strands at Bent No. 12 and 16 shall be sawn flush with the end of the girder. Prestressing strands at Bent No. 11 and 17 shall be bent up into diaphragms as shown in the "THREADED INSERT DETAIL", see Dwg. No. 67449.

(2) 12-G301 bars required for exterior girders.

(7) For "DETAILS OF MODULAR JOINTS", see Dwg. No. 67698.

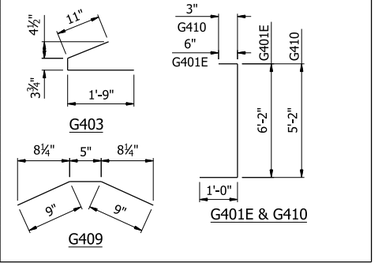
(9) G406 in Girder End, see Dwg. No. 67449, for details.

TABLE OF VARIABLES

Span	(3)	(4)	(5)	(6)
11	CL Bent No. 11	CL Joint at Bent No. 12	1'-0" (Bent No. 11)	1'-10" (Bent No. 12)
16	CL Bent No. 17	CL Joint at Bent No. 16	1'-0" (Bent No. 17)	1'-10" (Bent No. 16)

BAR LIST - PER GIRDER

Mark	Number Required	Length	Pin Dia.	Bending Diagrams (Dimensions are out to out of bars)
G301	(2) 24	1'-3"	Str.	
G401E	352	7'-6"	2"	
G403	76	2'-11"	2"	
G404	251	3'-2"	Str.	
G405	18	44'-7"	Str.	
G406	2	6"	Str.	
G408	16	9'-2"	Str.	
G409	38	1'-11"	2"	
G410	20	6'-3"	2"	
G602	36	5'-6"	Str.	
G603	20	5'-2"	Str.	



All bars designated with an "E" suffix are to be epoxy coated.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 22537
JORDAN R. GREENE
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 12 OF 13
DETAILS OF 520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 3 & 5
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: RAM DATE: 10/18/23
CHECKED BY: KSM DATE: 10/26/23
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BRIDGE NO. 07684 DRAWING NO. 67448

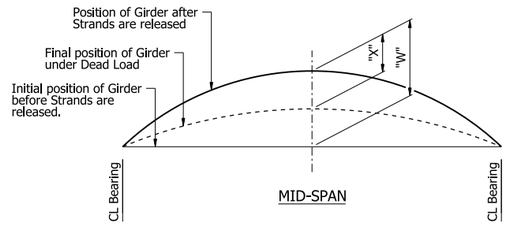
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	389	809
		07684 - UNITS 2, 3, 5, & 6 - 67449				

TABLE OF VARIABLES

	Girder 1		Girders 2-8		Girder 9		Girder 10	
	"X"	"W"	"X"	"W"	"X"	"W"	"X"	"W"
Span 4	1⅞"	4⅜"	2¼"	4⅝"	2⅜"	4⅝"	2"	4⅝"
Span 5	1⅞"	4⅜"	2¼"	4⅝"	2⅜"	4⅝"	1⅞"	4⅝"
Span 6	1⅞"	4⅜"	2¼"	4⅝"	2⅜"	4⅝"	1⅞"	4⅝"
Span 7	1⅞"	4⅜"	2¼"	4⅝"	2⅜"	4⅝"	1⅞"	4⅝"
Span 8	1⅞"	4¾"	2¼"	4¾"	2⅜"	4¾"	1⅞"	4¾"
Span 9	1⅞"	4¾"	2¼"	4¾"	2⅜"	4¾"	1⅞"	4¾"
Span 10	1⅞"	4¾"	2¼"	4¾"	2⅜"	4¾"	1⅞"	4¾"
Span 11	1⅞"	4¾"	2¼"	4¾"	2⅜"	4¾"	1⅞"	4¾"
Span 16	1⅞"	4¾"	2¼"	4¾"	2⅜"	4¾"	1⅞"	4¾"
Span 17	1⅞"	4¾"	2¼"	4¾"	2⅜"	4¾"	1⅞"	4¾"
Span 18	1⅞"	4¾"	2¼"	4¾"	2⅜"	4¾"	1⅞"	4¾"
Span 19	1⅞"	4¾"	2¼"	4¾"	2⅜"	4¾"	1⅞"	4¾"
Span 20	1⅞"	4⅜"	2¼"	4⅝"	2⅜"	4⅝"	1⅞"	4⅝"
Span 21	1⅞"	4⅜"	2¼"	4⅝"	2⅜"	4⅝"	1⅞"	4⅝"
Span 22	1⅞"	4⅝"	2¼"	4⅝"	2⅜"	4⅝"	1⅞"	4⅝"
Span 23	1⅞"	4⅜"	2¼"	4⅝"	2⅜"	4⅝"	1⅞"	4⅝"

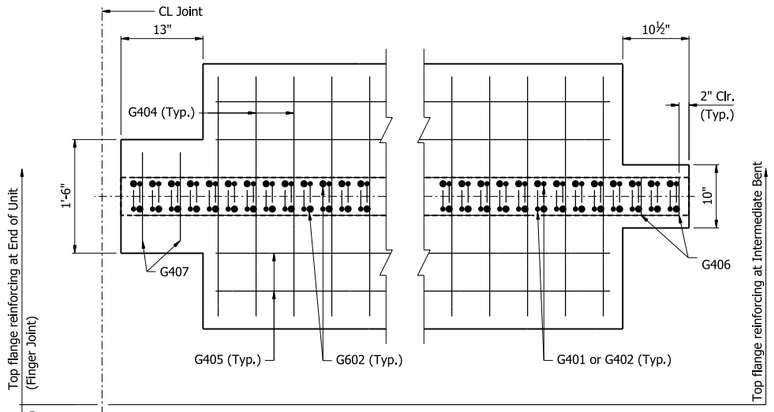
Note:
Camber and deflection values shown are based on a concrete girder strength, f'c = 9000 psi. Greater strengths may require adjustments. The Contractor shall be responsible for any adjustments necessary to meet slab thickness tolerance and to achieve an acceptable finished grade.



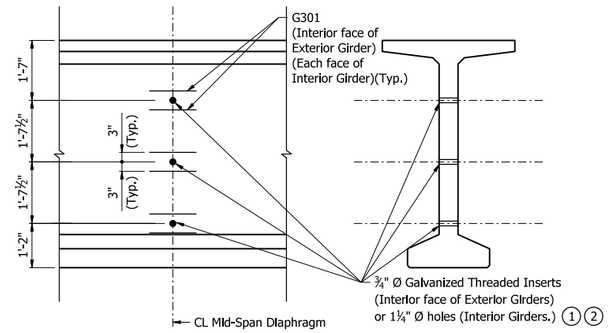
"W" is expected camber of girder at 90 days after release (prestress + dead load of girder).

"X" is dead load deflection of slab + diaphragms + composite dead load.

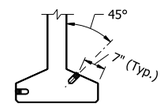
CAMBER & DEFLECTIONS (INCHES)



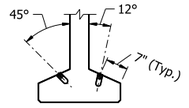
PLAN OF GIRDER ENDS ③
Scale: ½" = 1'-0"



THREADED INSERT DETAIL
Mid-Span Diaphragm
Scale: ¼" = 1'-0"



DETAIL A
Scale: ¼" = 1'-0"



DETAIL B
Scale: ¼" = 1'-0"

Notes:

Concrete Strength for Prestressed Girders shall be f'c = 9,000 psi, f'ci = 7,000 psi

For ITS and Utility Support details, including cast-in bolt sleeves, see Dwg. Nos. 67672 - 67685.

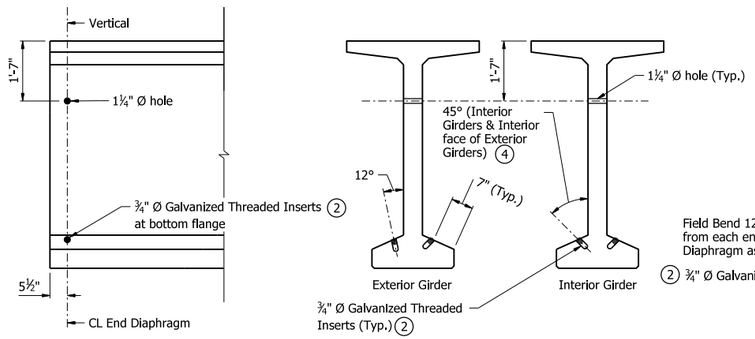
For "General Notes", see Dwg. No. 67372.

① Inserts shown are for mid-span concrete diaphragms, see Dwg. No. 67438 for alternate steel diaphragms.

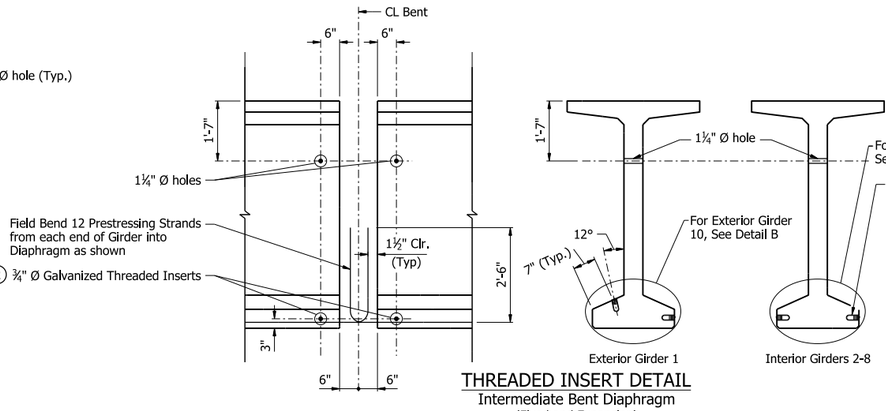
② Galvanized ¾"Ø Dayton-Richmond F-42 Loop Ferrule insert or an approved equal. These are to be subsidiary to the item "PRESTRESSED CONCRETE GIRDERS (TYPE BT-72)".

③ Girder Ends at Finger Joints and Intermediate Bents shown. For Girder Ends at Modular Joints, see Dwg. No. 67448.

④ At Bent 12 and 16, threaded inserts should be set at 12° on both the interior and exterior faces of Girder 10.



THREADED INSERT DETAIL
End Diaphragm
(Finger Joint and Modular Joint)
Scale: ¼" = 1'-0"



THREADED INSERT DETAIL
Intermediate Bent Diaphragm
(Fixed and Expansion)
Scale: ¼" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 22537
JORDAN R. GREENE

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 13 OF 13
DETAILS OF 520'-0" CONTINUOUS PRESTRESSED CONCRETE GIRDER UNITS 2, 3, 5, & 6
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

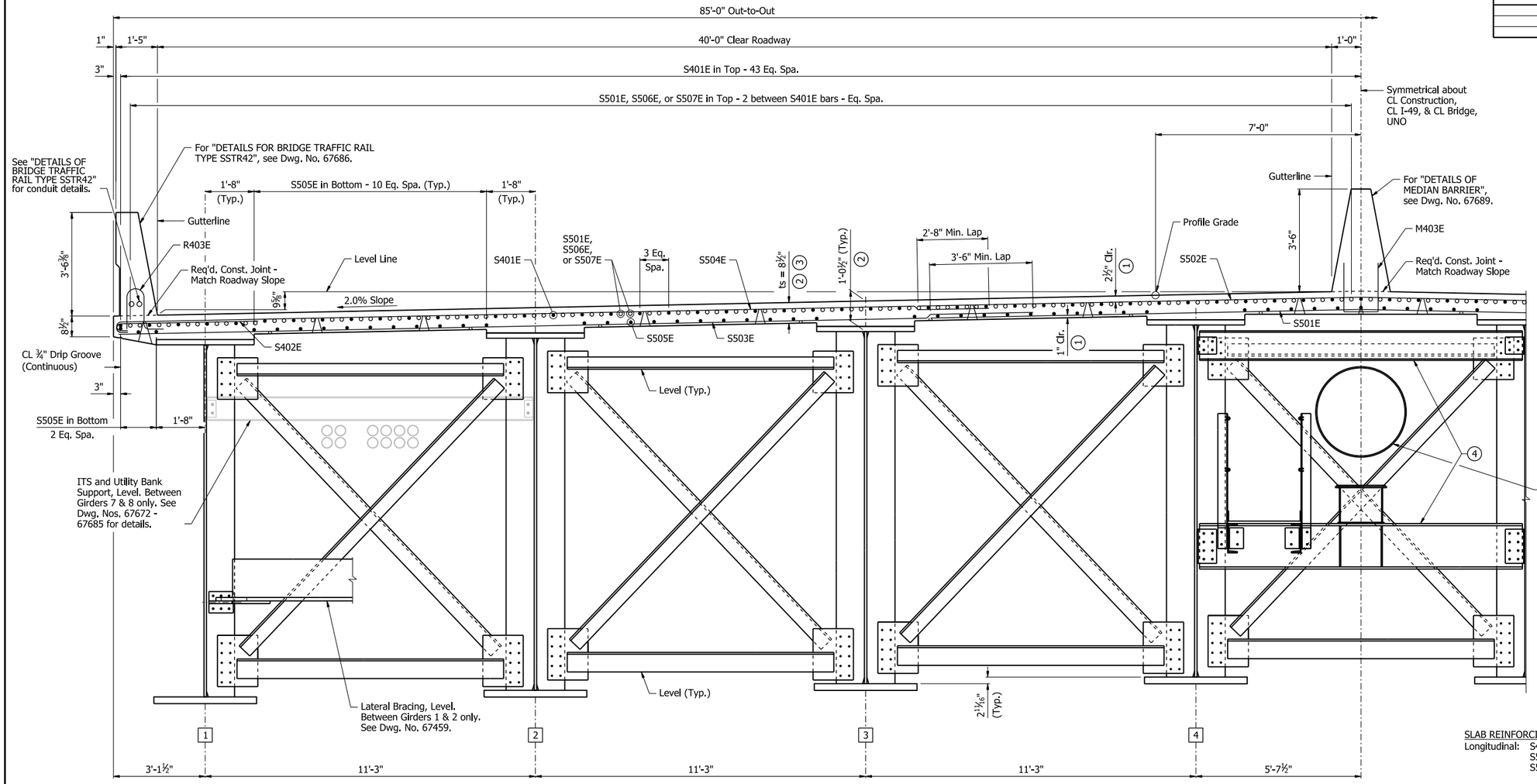
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: AB DATE: 9/14/23
CHECKED BY: KSM DATE: 10/30/23
DESIGNED BY: RAM DATE: 5/2/23
FILENAME: b04090111_s213.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67449

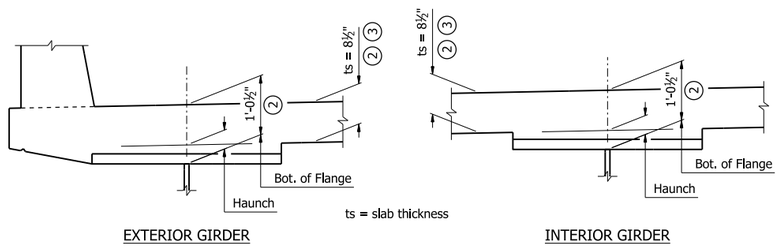
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	390	809
		07684 - UNIT 4 - 67450				



TYPICAL ROADWAY SECTION

(Looking Upstation)
½" = 1'-0"



ADJUSTMENT FOR SLAB THICKNESS TOLERANCE

¾" = 1'-0"

Notes:
Bar positions or clearances from the forms shall be maintained by means of stays, ties, hangers, or other approved devices per Subsection 804.06. Placement of slab bolsters or high-chairs with full-length lower runners directly on removable deck forms will not be allowed.

For details of Bridge Finishes and Protective Surface Treatment, see Dwg. No. 67372.

For "REINFORCING PLAN AND POURING SEQUENCE", see Dwg. Nos. 67461 & 67462.

For typical section details near joints, see Dwg. No. 67700.

For X-Frame details, see Dwg. Nos. 67456 - 67458.

(1) Tolerance: Minus = ¼"; Plus equal to the amount of slab thickening used to meet slab thickness tolerance. See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE".

(2) Haunch dimensions may vary within the following limits to maintain the grade and slab thickness tolerance:

Top Flange	Haunch Adjustment Tolerance	
	Plus	Minus
1⅛" x 24"	⅞"	2⅝"
1⅛" x 27"	⅞"	2⅝"
1¼" x 24"	1"	2½"
1¼" x 26"	1"	2½"
1¼" x 28"	1"	2½"
1½" x 27"	1¼"	2¼"
1½" x 29"	1¼"	2⅛"
1⅝" x 24"	1⅜"	2⅛"
1⅝" x 26"	1⅜"	2⅛"
1⅝" x 27"	1⅜"	2⅛"
1¾" x 27"	1½"	2"
2⅛" x 40"	1¾"	1½"

No increase in concrete and structural steel quantities will be made to maintain tolerances. Tolerances shown are applicable for both removable deck forming and permanent steel deck forms. Payment for concrete shall be based on removable deck forming.

(3) Tolerance: Minus = ¼"; Plus = ½". Haunch forming is required and shall be adjusted to maintain slab thickness tolerance.

(4) Waterline and Inspection Access Supports, Level. Between Girders 4 & 5 only. See Dwg. Nos. 67465 - 67471 for details.

SLAB REINFORCING:

Longitudinal: S401E in Top placed as shown
S501E, S506E, or S507E in Top placed as shown over Intermediate Bents
S505E in Bottom placed as shown

Transverse: Alternate S502E and S504E in Top @ 6" Max.
Alternate S501E and S503E in Bottom @ 7½" Max.
S402E in Top @ 12" Max., Bundled with S502E or S504E

PRINT DATE: 4/10/2024

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 1 OF 15
DETAILS OF 1590'-0" CONTINUOUS PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

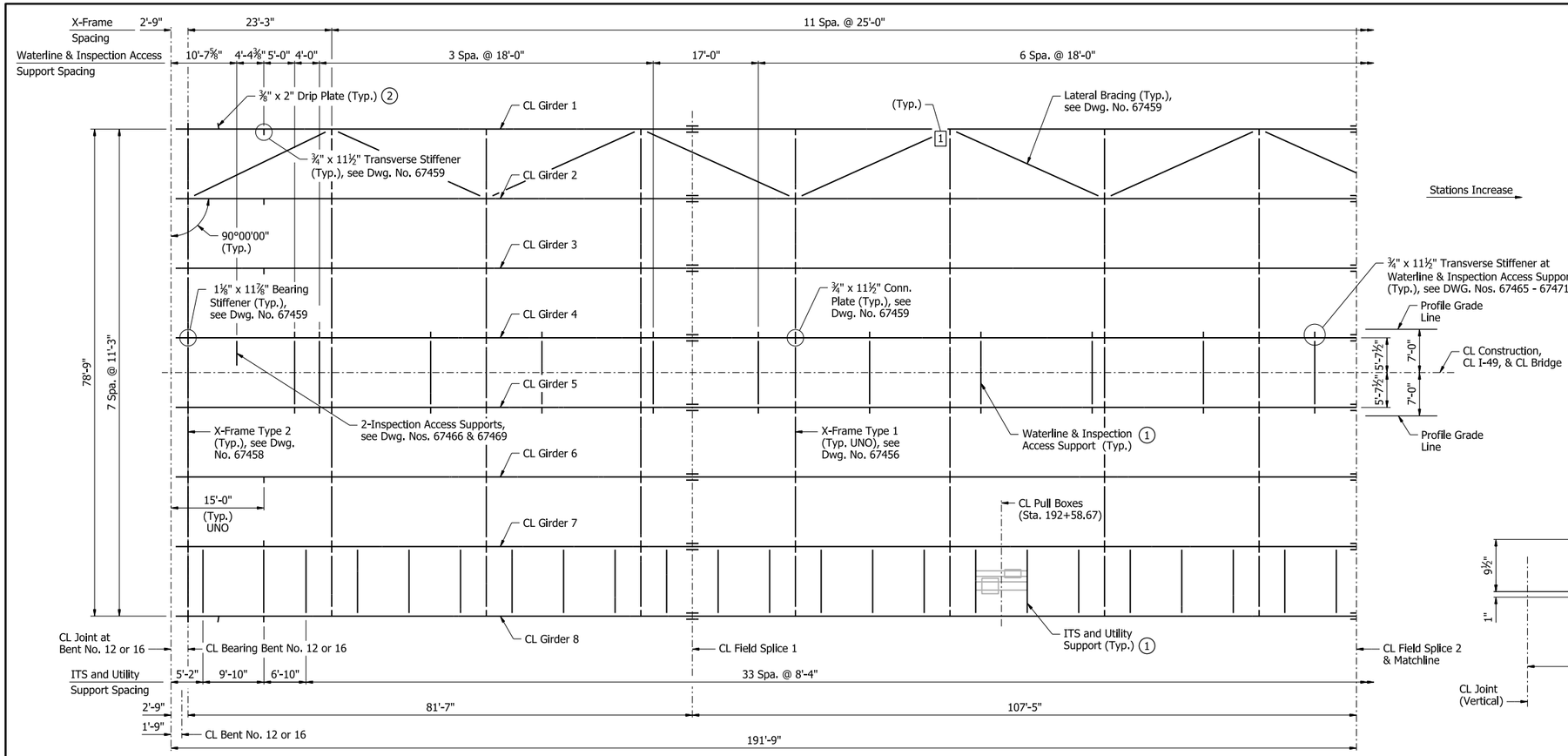
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 9/8/23 FILENAME: b04090111_s41.dgn
CHECKED BY: RLW DATE: 10/27/23 SCALE: AS NOTED
DESIGNED BY: RCR DATE: 7/21/22

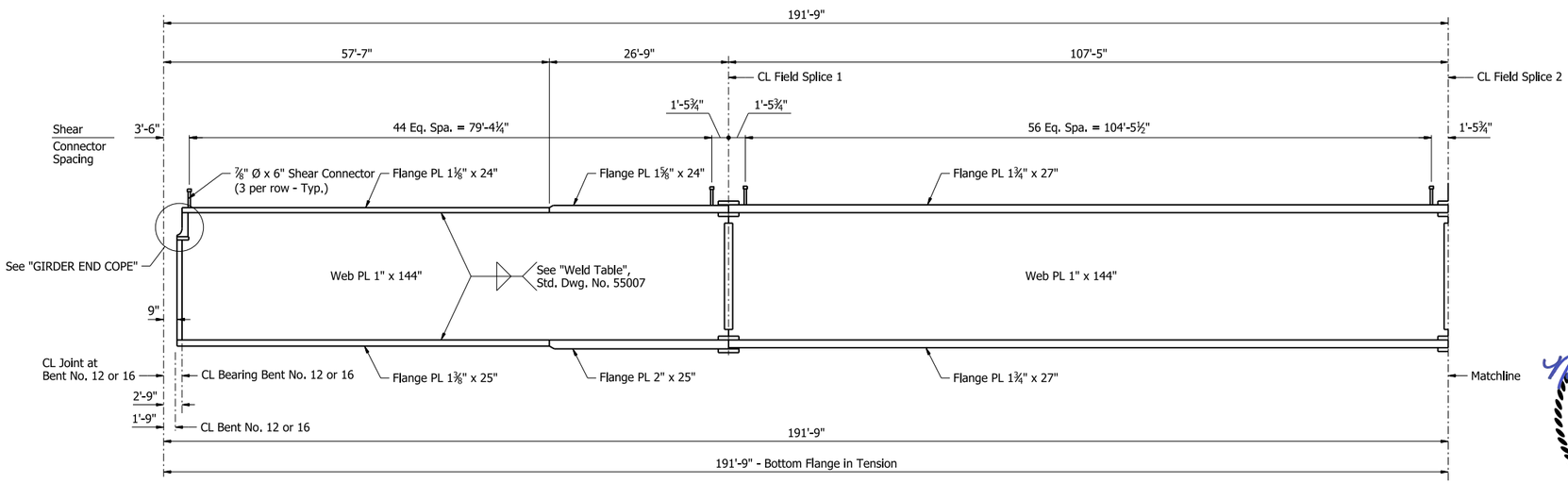
BRIDGE NO. 07684 DRAWING NO. 67450

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	391	809
		07684 - UNIT 4 - 67451				



PARTIAL FRAMING PLAN

3/32" = 1'-0"



PARTIAL GIRDER ELEVATION

No Scale

Notes:
All Structural Steel shall be ASTM A709, Grade 50W unless otherwise noted, Grade 50W shall be paid for as "Structural Steel in Plate Girder Spans (M270-Gr50W)." Grade HPS 70W Steel shall be paid for as "Structural Steel in Plate Girder Spans (M270-GrHPS70W)."

For "DETAILS OF FIELD SPLICES", see Dwg. No. 67455.

For Dead Load Deflections, see Dwg. No. 67460.

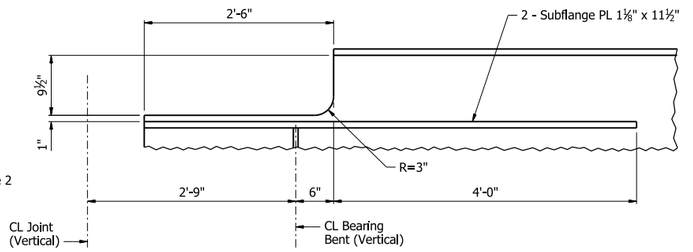
For ITS and utility details, see Dwg. Nos. 67672 - 67685.

For details of Waterline and Inspection Access Supports, see Dwg. Nos. 67465 - 67471.

(1) ITS, Utility & Waterline and Inspection Access supports will not be placed at Bent X-Frame locations.

(2) Location of drip plate is not symmetrical about Center of Unit. It shall be placed on the up-hill side of each bent. Stop weld 1" from edge of flange. See Std. Dwg. No. 55007 for additional details.

[#] Indicates Lateral Bracing Connection Type, see Dwg. No. 67459.



AT BENT NOS. 12 & 16

GIRDER END COPE

1" = 1'-0"

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No. 15778
NATALIE MCCOMBS

4/18/24

BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 2 OF 15
DETAILS OF 1590'-0" CONTINUOUS PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

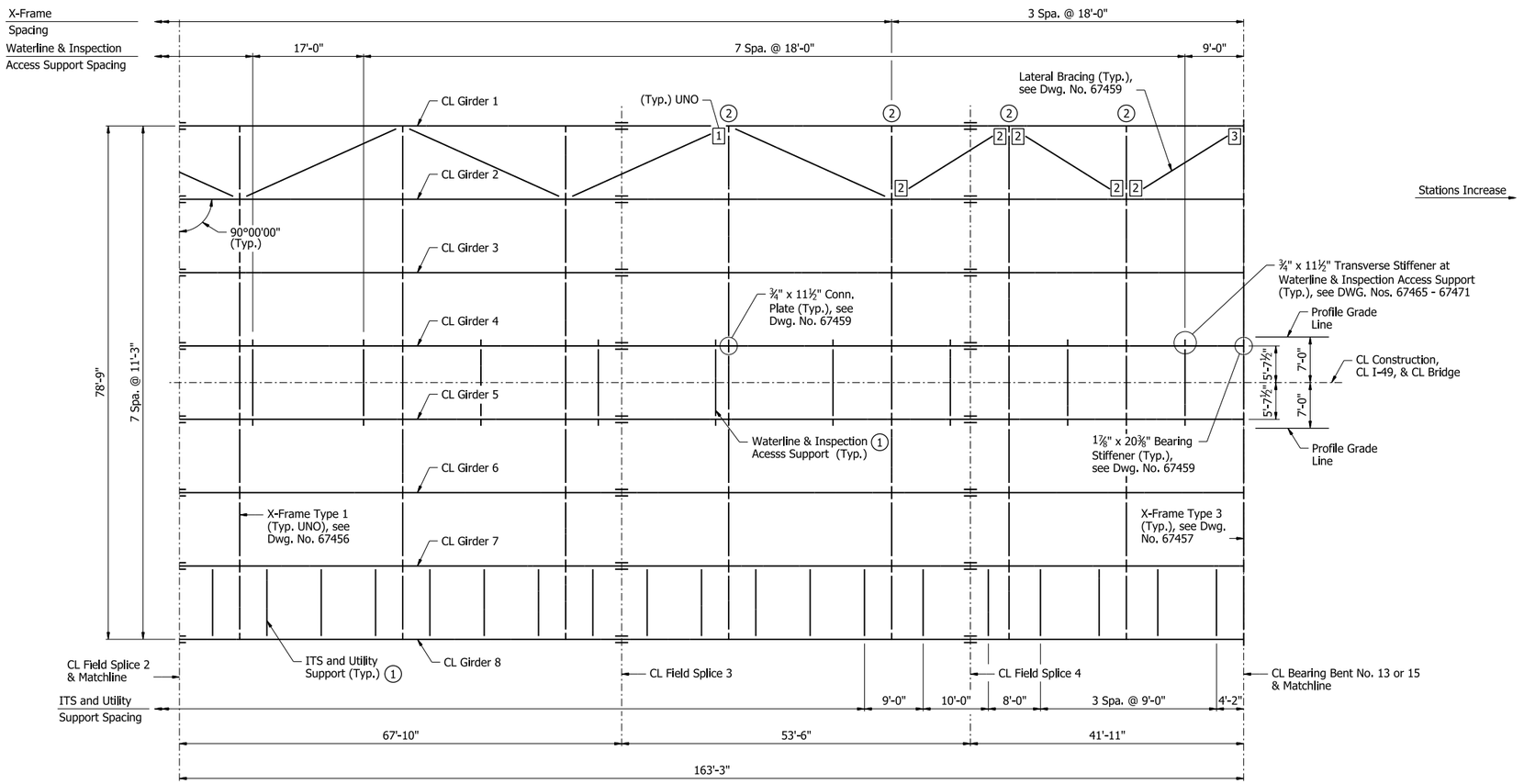
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 9/6/23
CHECKED BY: RLW DATE: 10/4/23
DESIGNED BY: AMW DATE: 5/10/23
FILENAME: b04090111_s42.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67451

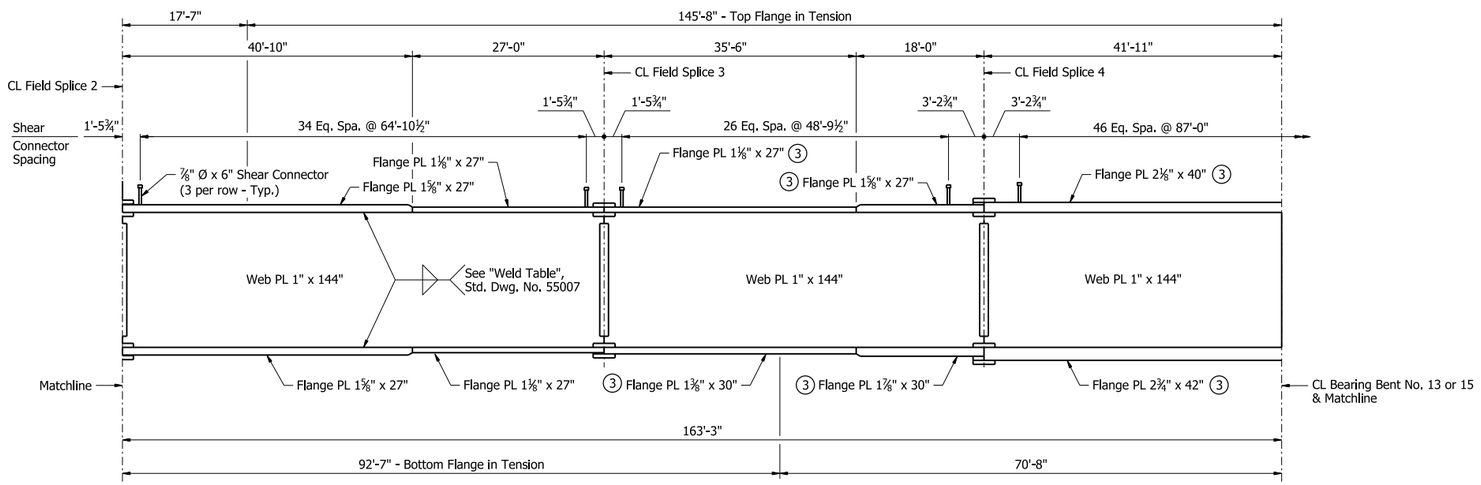
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	392	809
		07684 - UNIT 4 - 67452				



PARTIAL FRAMING PLAN

3/32" = 1'-0"



PARTIAL GIRDER ELEVATION

No Scale

Notes:
For additional notes, see Dwg. No. 67451.

(1) ITS, Utility & Waterline and Inspection Access supports will not be placed at Bent X-Frame locations.

(2) Connection Plates acting as transverse stiffeners. (Typical all girders.)

(3) ASTM A709, Grade HPS 70W Steel.

[#] Indicates Lateral Bracing Connection Type, see 67459.

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LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
NATALIE MCCOMBS

4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 3 OF 15
DETAILS OF 1590'-0" CONTINUOUS PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

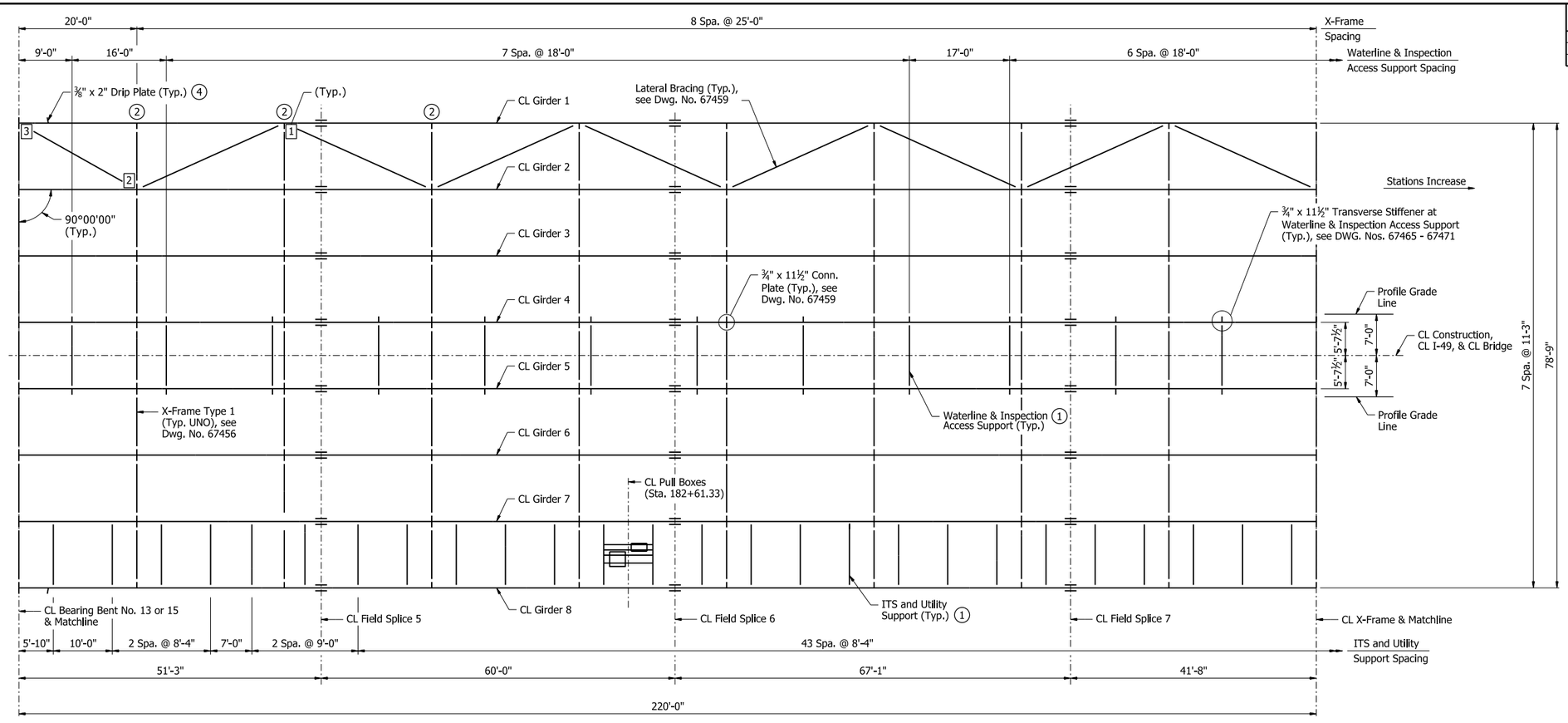
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 8/17/23
CHECKED BY: RLW DATE: 10/5/23
DESIGNED BY: AMW DATE: 5/10/23
FILENAME: b04090111_s43.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67452

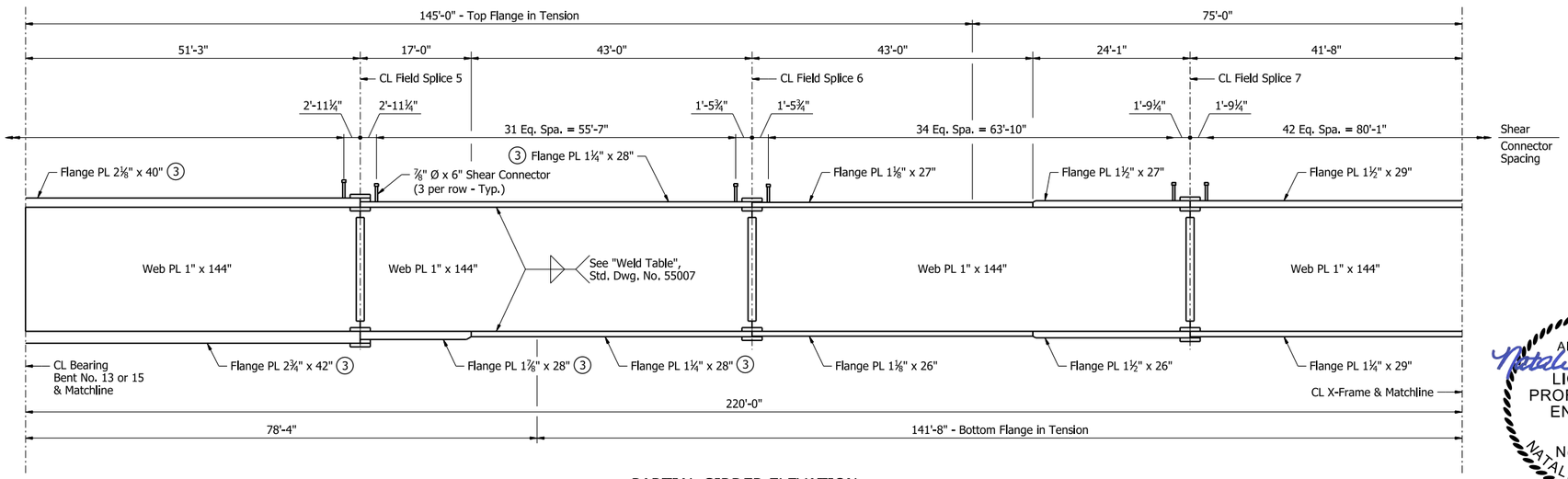
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	393	809
		07684 - UNIT 4 - 67453				



PARTIAL FRAMING PLAN

3/32" = 1'-0"



PARTIAL GIRDER ELEVATION

No Scale

Notes:
For additional notes, see Dwg. No. 67451.

(1) ITS, Utility & Waterline and Inspection Access supports will not be placed at Bent X-Frame locations.

(2) Connection Plates acting as transverse stiffeners. (Typical all girders.)

(3) ASTM A709, Grade HPS 70W Steel.

(4) Location of drip plate is not symmetrical about Center of Unit. It shall be placed on the up-hill side of each bent. Stop weld 1" from edge of flange. See Std. Dwg. No. 55007 for additional details.

[#] Indicates Lateral Bracing Connection Type, see 67459.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
NATALIE MCCOMBS

4/18/24

BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 4 OF 15
DETAILS OF 1590'-0" CONTINUOUS PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

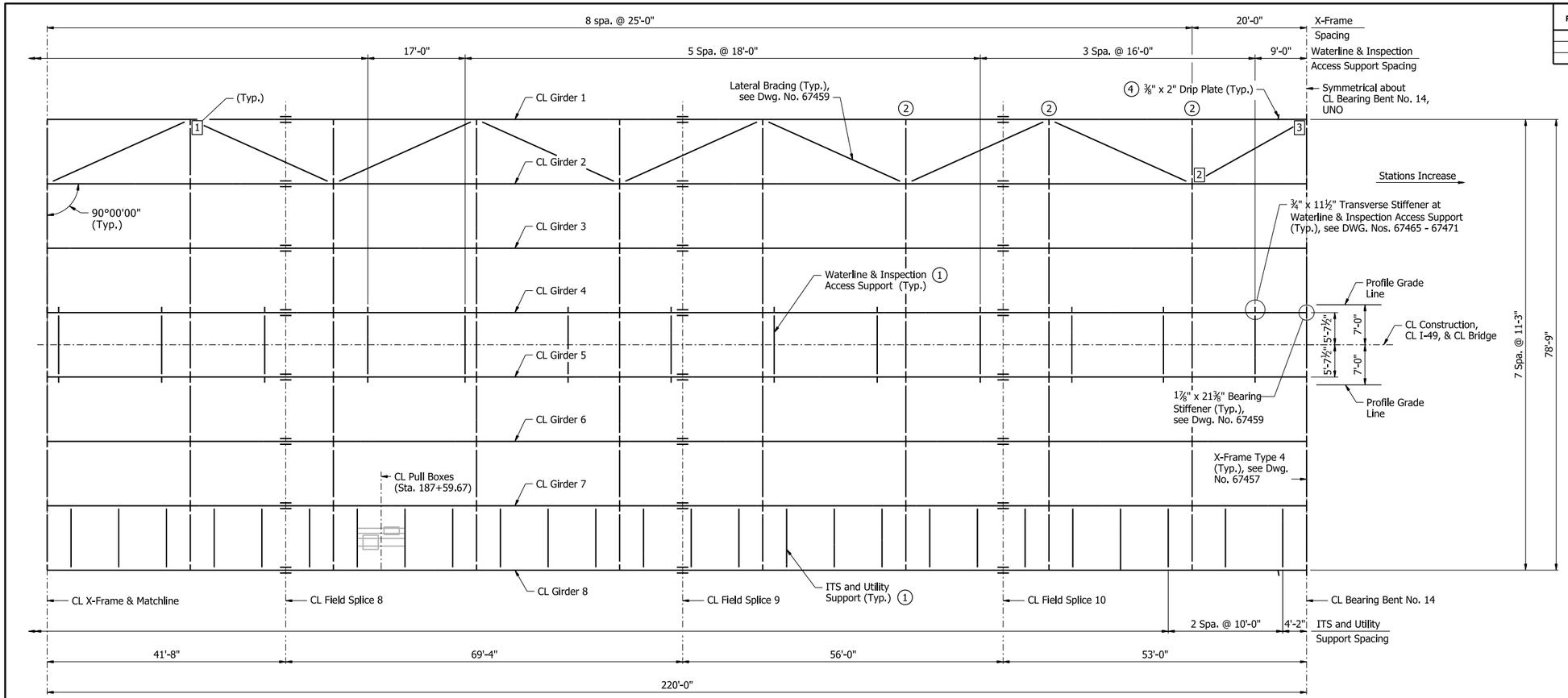
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 8/17/23
CHECKED BY: RLW DATE: 10/5/23
DESIGNED BY: AMW DATE: 5/10/23
FILENAME: b04090111_s44.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67453

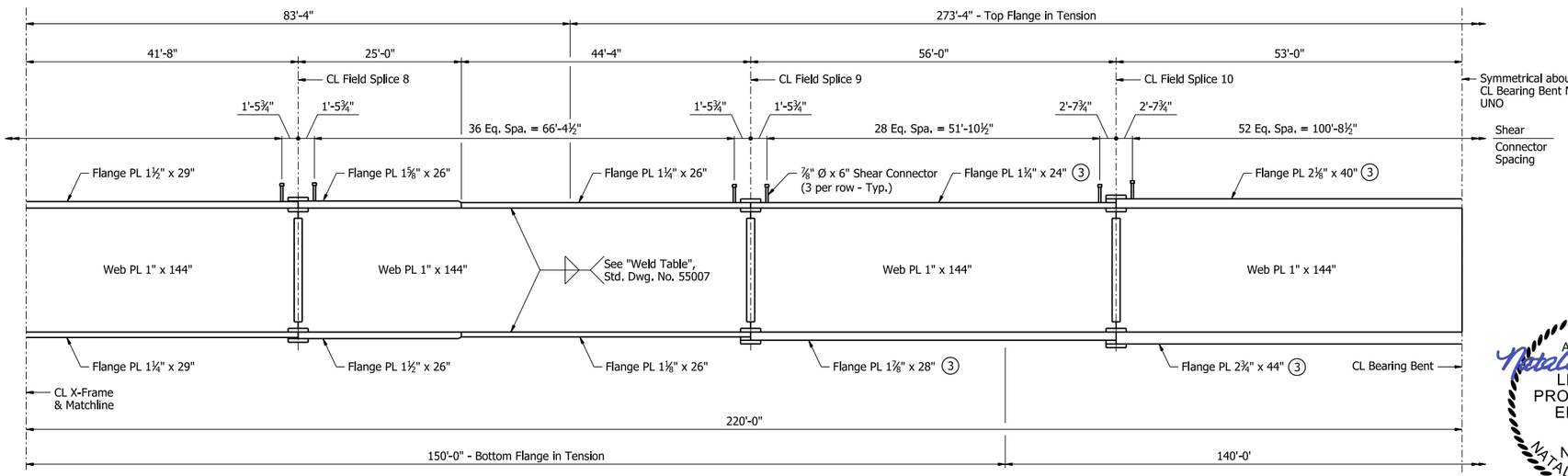
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	394	809
		07684 - UNIT 4 - 67454				



PARTIAL FRAMING PLAN

$\frac{3}{32}$" = 1'-0"



PARTIAL GIRDER ELEVATION

No Scale

Notes:
For additional notes, see Dwg. No. 67451.

1. ITS, Utility & Waterline and Inspection Access supports will not be placed at Bent X-Frame locations.
2. Connection Plates acting as transverse stiffeners. (Typical all girders.)
3. ASTM A709, Grade HPS 70W Steel.
4. Location of drip plate is not symmetrical about Center of Unit. It shall be placed on the up-hill side of each bent. Stop weld 1" from edge of flange. See Std. Dwg. No. 55007 for additional details.

[#] Indicates Lateral Bracing Connection Type, see 67459.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
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4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 5 OF 15
DETAILS OF 1590'-0" CONTINUOUS PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 8/17/23
CHECKED BY: RLW DATE: 10/5/23
DESIGNED BY: AMW DATE: 5/10/23
FILENAME: b04090111_s45.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67454

PRINT DATE: 4/10/2024

TABLE OF VARIABLES

Field Splice	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"I"	"J"	"K"	"L"	"M"	"N"	"O"	"P"	"Q"	"R"	"S"	"T"	"U"	"V"	"W"	"X"	"Y"	"Z"	"AA"	"AB"
1	2'-5½"	2'-0"	1"	⅛"	11"	1"	2"	2	3½"	3	4'-9½"	2'-1"	1⅛"	¼"	11½"	1¼"	4"	1	5½"	3"	7	2"	4⅜"	11'-2¾"	4'-2½"	35	3¾"	6
2	2'-5½"	2'-3"	⅞"	⅛"	1'-0½"	1"	2"	2	4¼"	3	4'-2½"	2'-3"	⅞"	⅛"	1'-0½"	1"	4"	1	6½"	3"	6	2"	3¾"	11'-4½"	4'-2½"	38	3½"	6
3	2'-5½"	2'-3"	⅝"	0"	1'-0½"	¾"	2"	2	4¼"	3	2'-5½"	2'-3"	¾"	¼"	1'-0½"	¾"	2"	2	4¼"	3"	3	2"	3¾"	11'-4½"	1'-10½"	28	4¾"	2
4	5'-11½"	2'-3"	1⅛"	½"	1'-0½"	1¼"	4"	1	6½"	9	3'-7½"	2'-6"	1¼"	⅞"	1'-2"	1⅜"	1¾"	3	3½"	2¾"	5	1¾"	6½"	10'-11"	4'-2½"	34	3¾"	6
5	5'-4½"	2'-4"	⅞"	⅞"	1'-1"	1"	5"	1	6"	8	4'-9½"	2'-4"	1¼"	⅞"	1'-1"	1⅜"	2"	2	4½"	3"	7	2"	7¼"	10'-9½"	3'-7½"	36	3½"	5
6	2'-5½"	2'-3"	⅝"	⅛"	1'-0½"	¾"	2"	2	4¼"	3	2'-5½"	2'-2"	⅝"	⅛"	12"	¾"	2"	2	4"	3"	3	2"	4⅞"	11'-2¾"	1'-3½"	21	6¼"	1
7	3'-0½"	2'-3"	¾"	0"	1'-0½"	1"	2"	2	4¼"	4	4'-2½"	2'-2"	⅞"	¼"	12"	⅞"	4"	1	6"	3"	6	2"	5½"	11'-1"	3'-7½"	37	3½"	5
8	2'-5½"	2'-2"	1"	⅛"	1'-0"	1"	2"	2	4"	3	4'-2½"	2'-2"	⅞"	¼"	12"	⅞"	4"	1	6"	3"	6	2"	7¼"	10'-9½"	4'-2½"	36	3½"	6
9	2'-5½"	2'-0"	¾"	0"	11"	⅞"	2"	2	3½"	3	3'-0½"	2'-2"	⅝"	¾"	12"	¾"	2"	2	4"	3"	4	2"	6¼"	10'-11½"	1'-3½"	32	4"	1
10	4'-9½"	2'-0"	⅞"	⅞"	11"	1"	3"	1	6"	7	4'-9½"	2'-4"	1¼"	⅞"	1'-1"	1⅜"	2"	2	4½"	3"	7	2"	7¼"	10'-9½"	3'-7½"	36	3½"	5

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	395	809
		07684 - UNIT 4 - 67455				

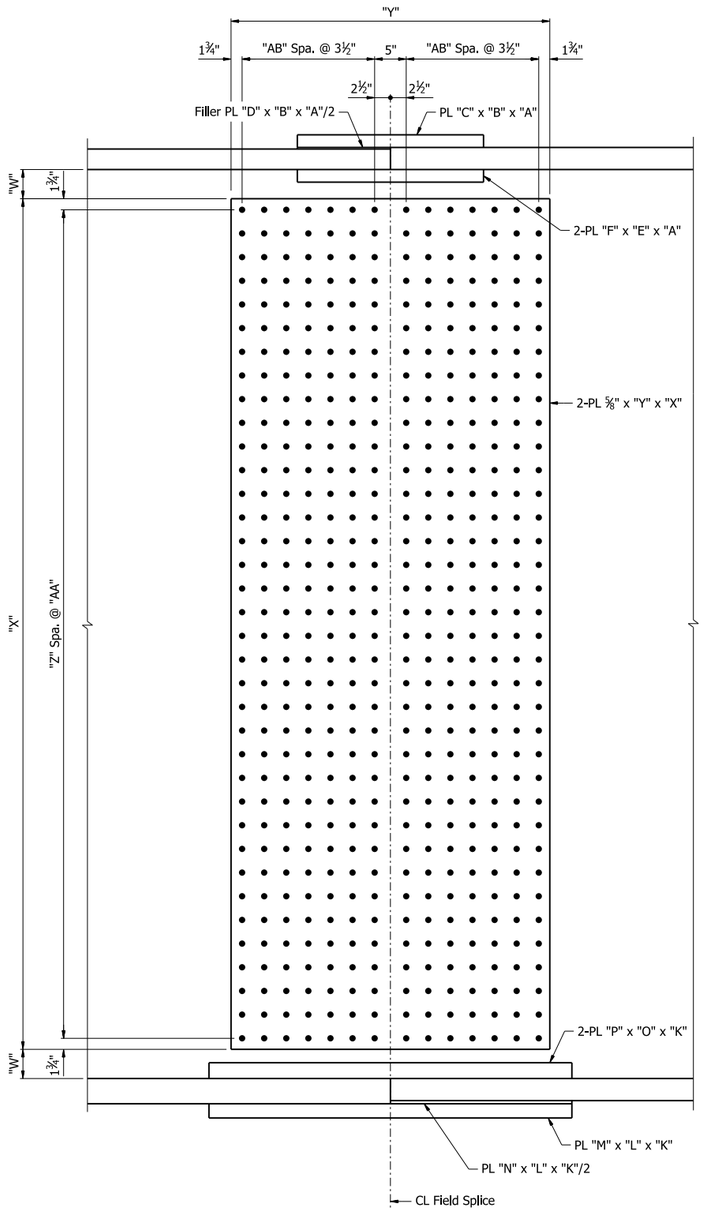
Notes:
For location of field splices, see Dwg. Nos. 67451, 67452, 67453, & 67454.

All field splice bolts shall be ASTM F3125, Gr. A325, 1"Ø H.S. bolts.

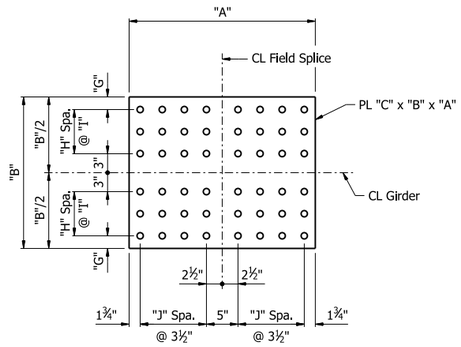
All holes for splice bolts shall be 1⅛"Ø.

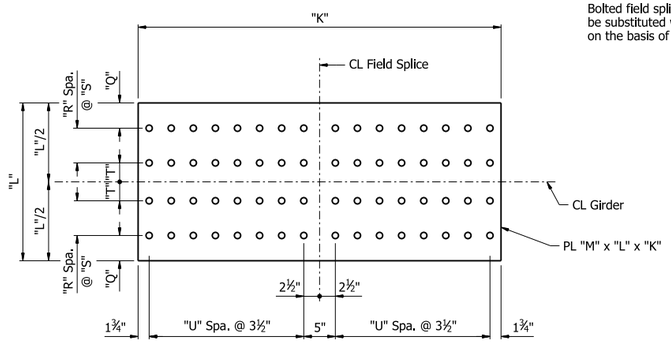
All structural steel shall be ASTM A709, Grade 50W, unless otherwise noted, and shall be paid for as "Structural Steel in Plate Girder Spans (M270-Gr50W)."

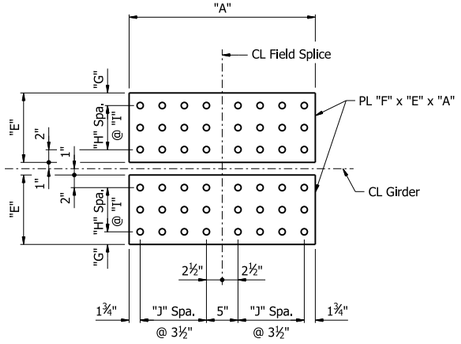
Bolted field splices may either be eliminated or shop weld splices may be substituted with the approval of the Engineer. Payment will be made on the basis of plan quantities.



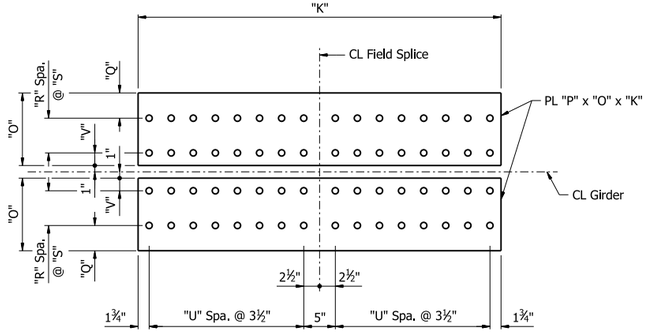
WEB SPLICE







TOP FLANGE SPLICE



BOTTOM FLANGE SPLICE

DETAILS OF FIELD SPLICES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 6 OF 15
DETAILS OF 1590'-0" CONTINUOUS
PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 10/01/23
CHECKED BY: MJ DATE: 10/09/23
DESIGNED BY: KBJ DATE: 7/24/23
FILENAME: b04090111_s46.dgn
SCALE: NO SCALE

BRIDGE NO. 07684 DRAWING NO. 67455

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	396	809
		07684 - UNIT 4 - 67456				

Notes:
All Structural Steel for X-Frames shall be ASTM A709, Grade 50W unless otherwise noted, and shall be paid for as "Structural Steel in Plate Girder Spans (M270-Gr50W)."

For location of X-Frames, see Dwg. Nos. 67451 - 67454.

All bolts shall be ASTM F3125, Gr. A325, 1"Ø H.S. bolts.

All holes shall be drilled for X-Frames connection and shall be 1⅛"Ø.

For Connection Plate details, see Dwg. No. 67459.

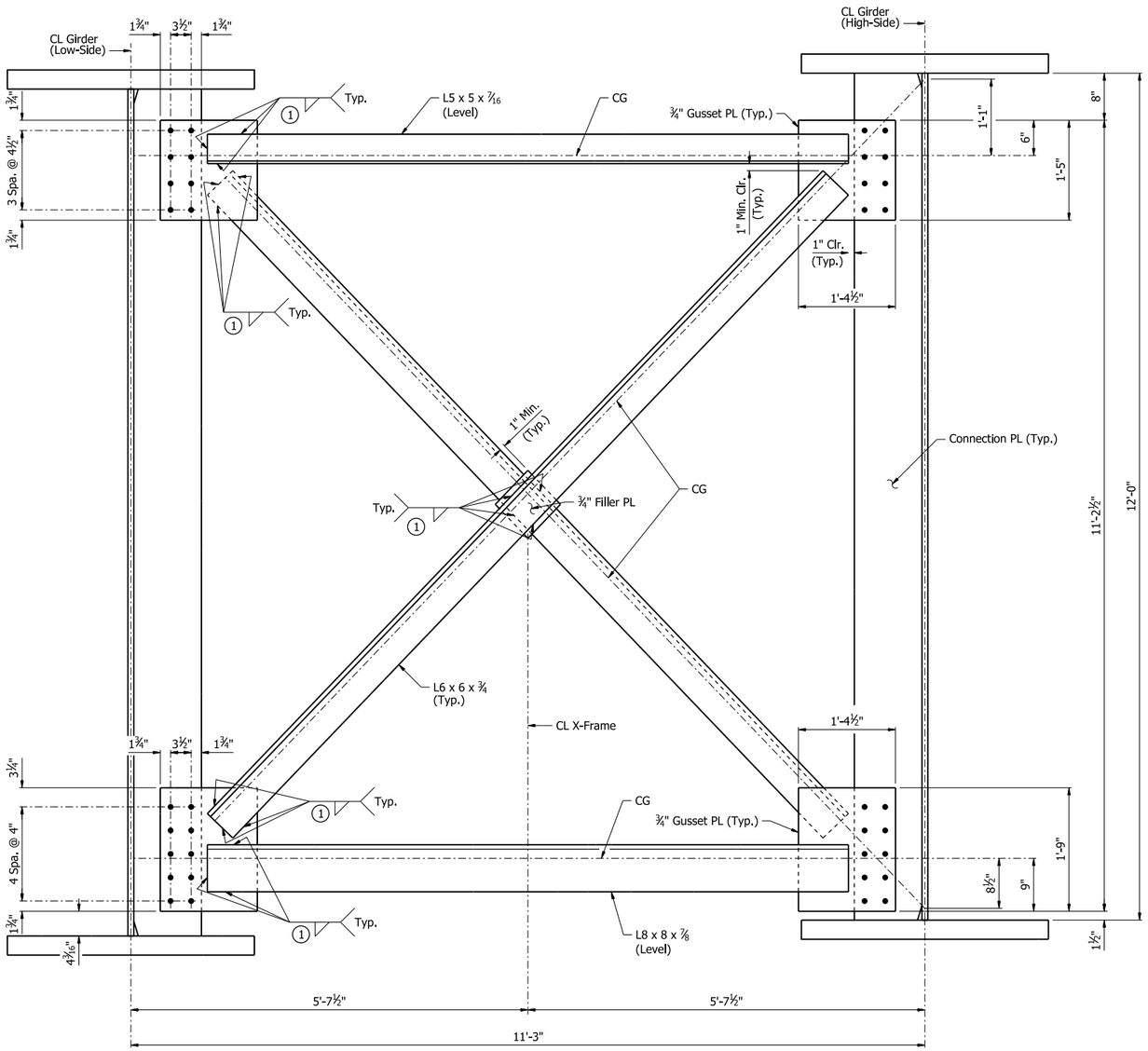
Lateral Bracing not shown, see Dwg. No. 67459.

ITS and Utility Supports not shown, see Dwg. Nos. 67672 - 67685 for details.

Waterline and Inspection Access Supports not shown, see Dwg. Nos. 67465 - 67471 for details.

X-Frames are symmetric about CL, UNO.

(1) See "WELD TABLE", Std. Dwg. No. 55007.



DETAIL OF TYPE 1 X-FRAMES

PRINT DATE: 4/10/2024

STATE OF ARKANSAS
Natalie M. Combs
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

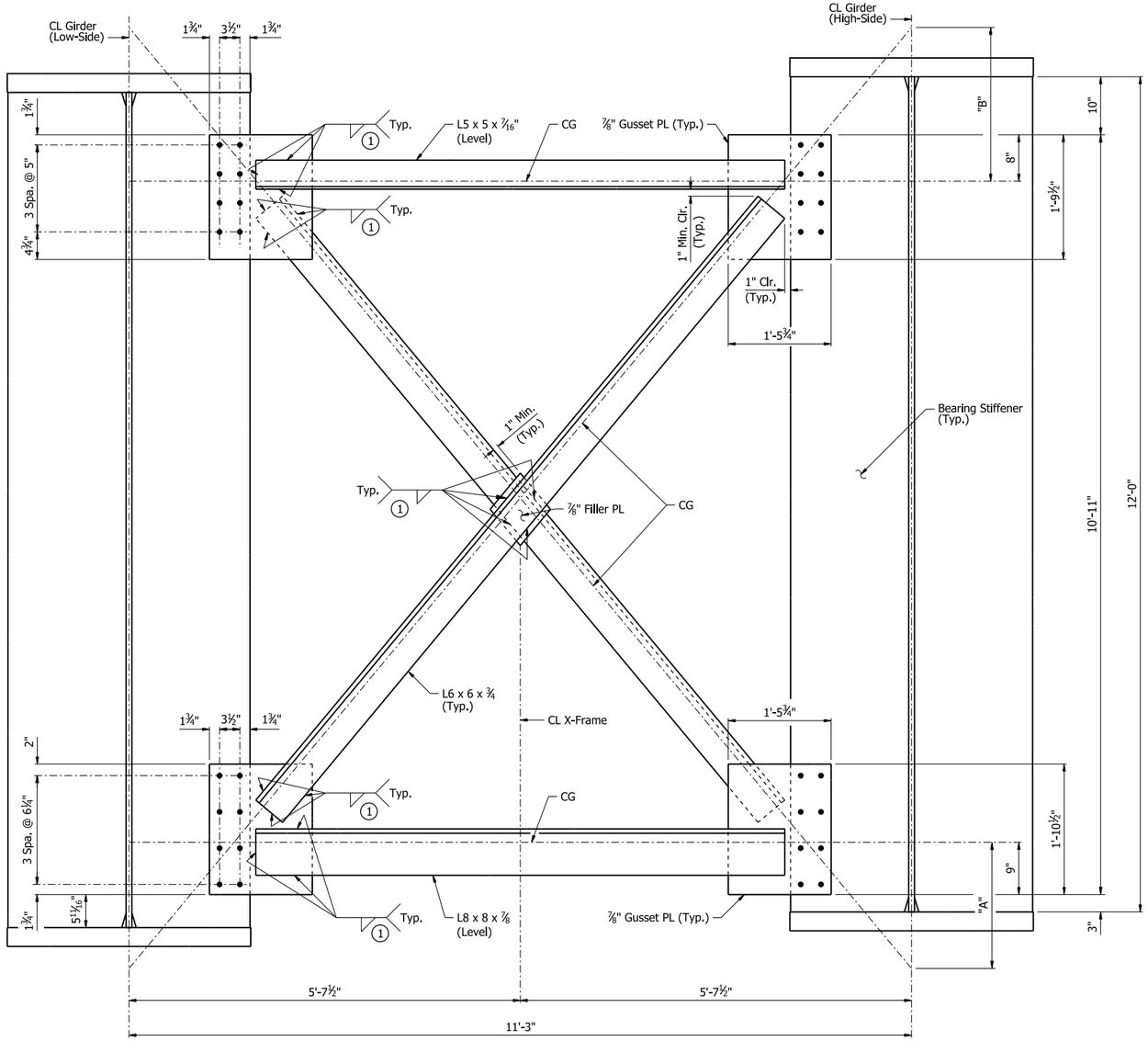
ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 7 OF 15
DETAILS OF 1590'-0" CONTINUOUS
PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 8/17/23
CHECKED BY: RLW DATE: 10/9/23
DESIGNED BY: AMW DATE: 5/10/23
FILENAME: b04090111_s47.dgn
SCALE: 1" = 1'-0"

BRIDGE NO. 07684 DRAWING NO. 67456

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	397	809
		07684 - UNIT 4 - 67457				



DETAIL OF TYPE 3 & 4 X-FRAMES

TABLE OF VARIABLES

X-Frame Type	"A"	"B"
3	1'-9½"	2'-1¼"
4	1'-11¼"	2'-2¼"

Notes:
All Structural Steel for X-Frames shall be ASTM A709, Grade 50W unless otherwise noted, and shall be paid for as "Structural Steel in Plate Girder Spans (M270-Gr50W)."

For location of X-Frames, see Dwg. Nos. 67451 - 67454.

All bolts shall be ASTM F3125, Gr. A325, 1"Ø H.S. bolts.

All holes shall be drilled for X-Frames connection and shall be 1⅛"Ø.

For Bearing Stiffener details, see Dwg. No. 67459.

Lateral Bracing not shown, see Dwg. No. 67459.

ITS and Utility supports not shown, see Dwg. Nos. 67672 - 67685 for details.

Waterline and Inspection Access Supports not shown, see Dwg. Nos. 67465 - 67471 for details.

X-Frames are symmetric about CL, UNO.

(1) See "WELD TABLE", Std. Dwg. No. 55007.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 8 OF 15
DETAILS OF 1590'-0" CONTINUOUS
PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 8/17/23
CHECKED BY: RLW DATE: 10/9/23
DESIGNED BY: AMW DATE: 5/10/23
FILENAME: b04090111_s48.dgn
SCALE: 1" = 1'-0"

BRIDGE NO. 07684 DRAWING NO. 67457

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	398	809
		07684 - UNIT 4 - 67458				

Notes:
All Structural Steel for X-Frames shall be ASTM A709, Grade 50W unless otherwise noted, and shall be paid for as "Structural Steel in Plate Girder Spans (M270-Gr50W)."

For location of X-Frames, see Dwg. Nos. 67451 - 67454.

All bolts shall be ASTM F3125, Gr. A325, 1"Ø H.S. bolts.

All holes shall be drilled for X-Frames connection and shall be 1⅛"Ø.

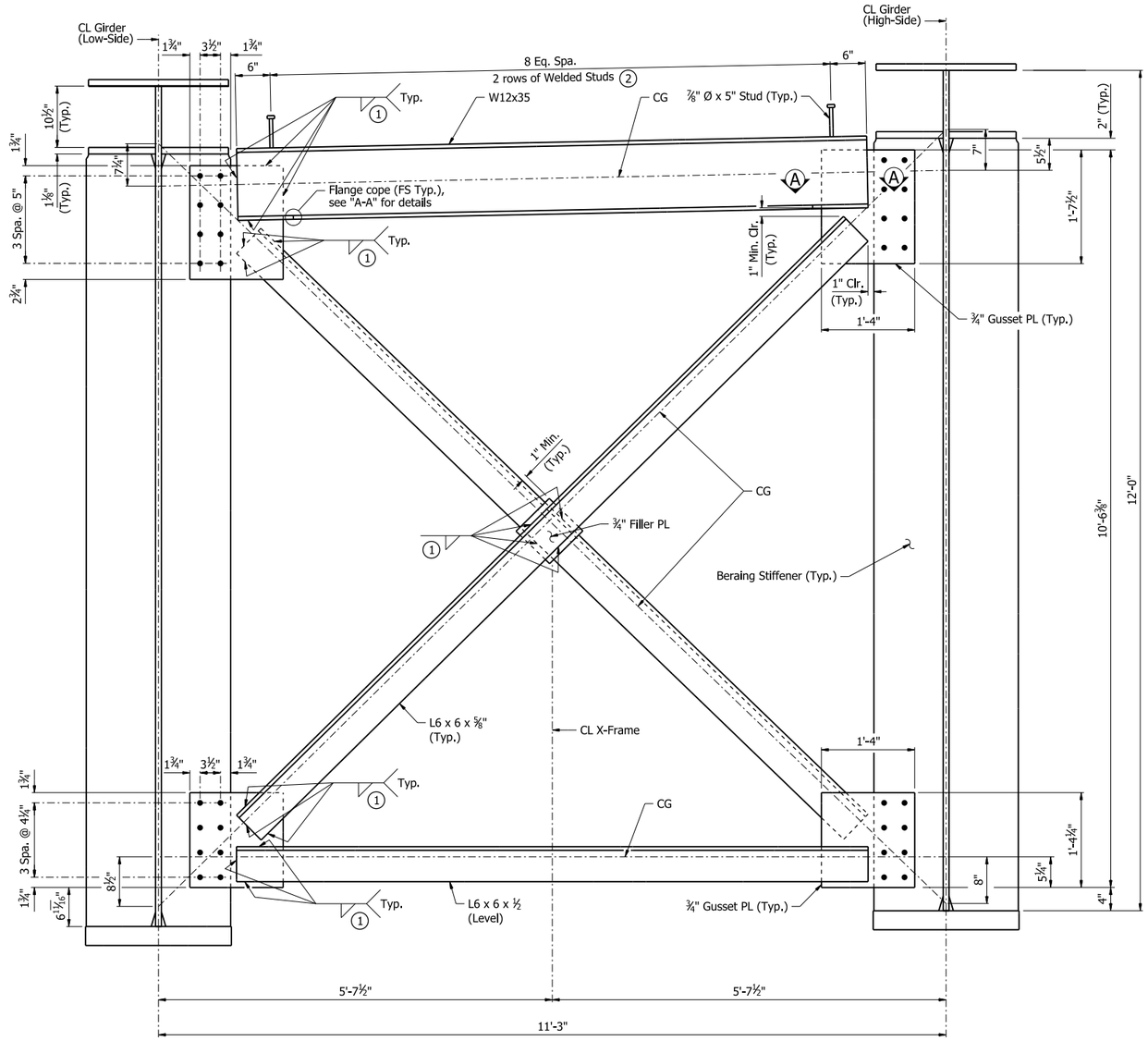
For Bearing Stiffener details, see Dwg. No. 67459.

Lateral Bracing not shown, see Dwg. No. 67459.

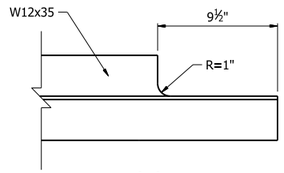
ITS and Utility Supports not shown, see Dwg. Nos. 67672 - 67685 for details.

X-Frames are symmetric about CL, UNO.

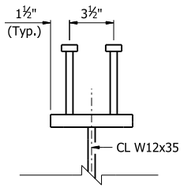
(1) See "WELD TABLE", Std. Dwg. No. 55007.



DETAIL OF TYPE 2 X-FRAMES



A-A



(2) SHEAR CONNECTOR DETAIL

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 9 OF 15
DETAILS OF 1590'-0" CONTINUOUS
PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

DRAWN BY:	CTK	DATE:	8/21/23
CHECKED BY:	RLW	DATE:	10/9/23
DESIGNED BY:	AMW	DATE:	5/10/23

FILENAME: b04090111_s49.dgn
SCALE: 1" = 1'-0"

BRIDGE NO. 07684 DRAWING NO. 67458

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	399	809
		07684 - UNIT 4 - 67459				

Notes:
All Structural Steel shall be ASTM 709, Grade 50W unless otherwise noted, and shall be paid for as "Structural Steel in Plate Girder Spans (M270-Gr50W)."

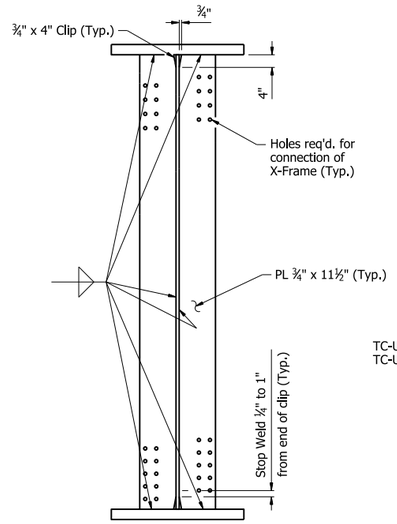
For location of stiffeners, lateral bracing connections, and connection plates, see Dwg. Nos. 67451 - 67454.

For details of X-Frames, see Dwg. Nos. 67456 - 67458.

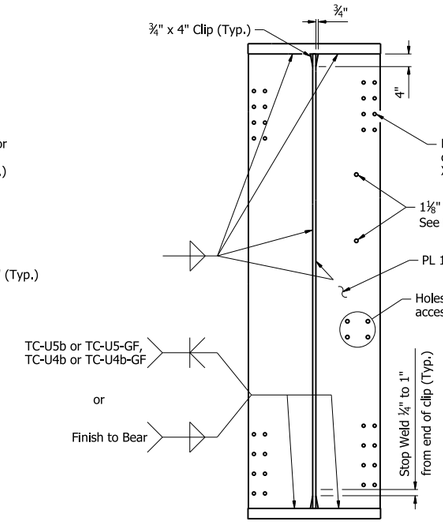
See "WELD TABLE" for minimum weld sizes on Std. Dwg. No. 55007.

(1) If permanent steel bridge deck forms are used, the Fabricator shall clip the plates as necessary to accommodate the deck form support.

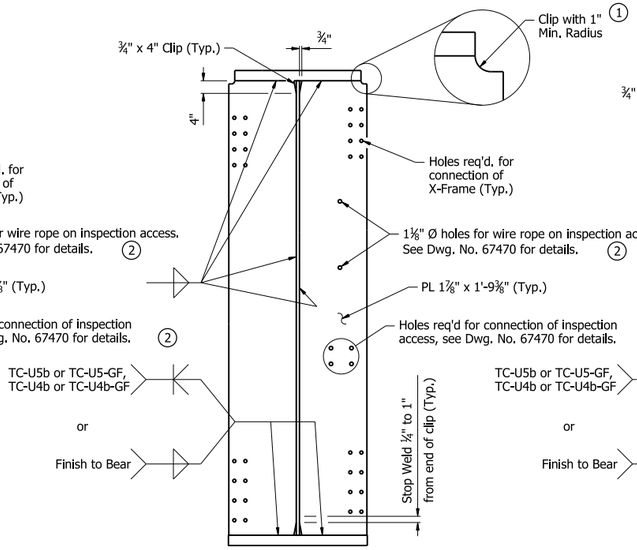
(2) Girder 4 bearing stiffener on inspection access side only.



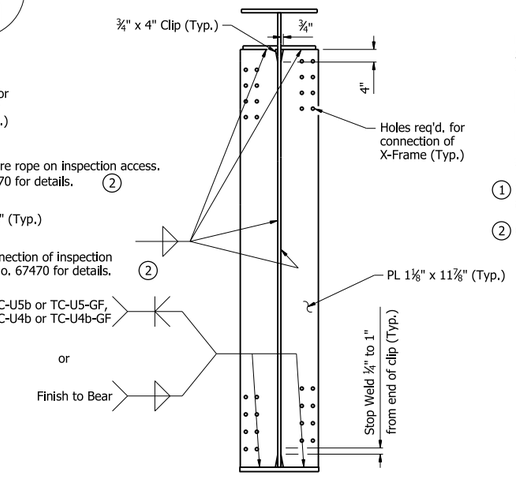
CONNECTION PLATES
(Located at X-Frame Type 1)
½" = 1'-0"



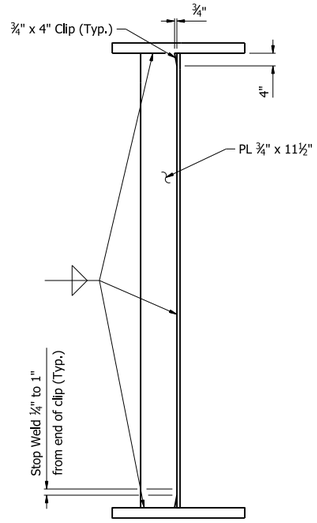
BEARING STIFFENERS
AT BENT NOS. 13 & 15
(Located at X-Frame Type 3)
½" = 1'-0"



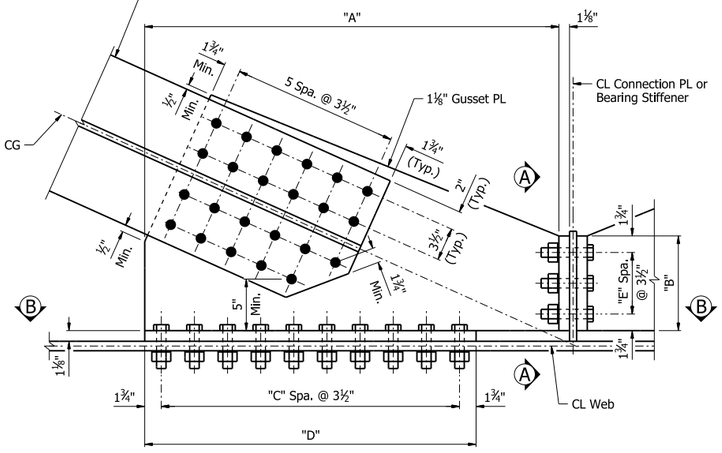
BEARING STIFFENERS
AT BENT NO. 14
(Located at X-Frame Type 4)
½" = 1'-0"



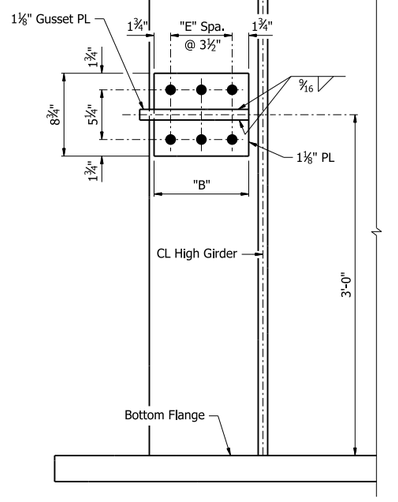
BEARING STIFFENERS
AT BENT NOS. 12 & 16
(Located at X-Frame Type 2)
½" = 1'-0"



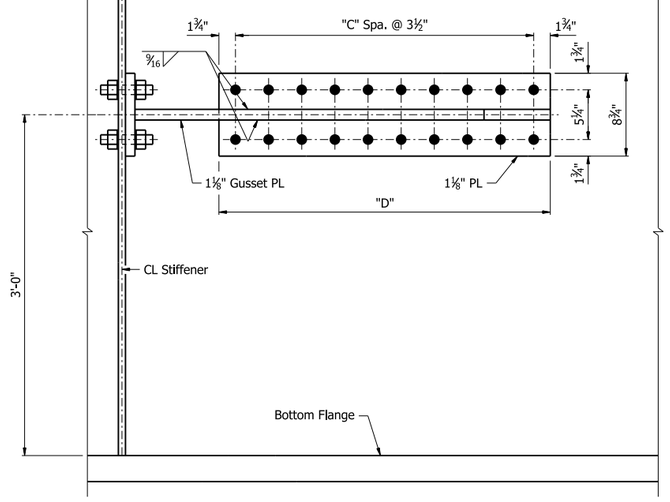
TRANSVERSE STIFFENER
½" = 1'-0"



LATERAL BRACING CONNECTION
(Looking down)
1½" = 1'-0"



SECTION A-A
1½" = 1'-0"



SECTION B-B
1½" = 1'-0"
WT not shown for clarity

TABLE OF VARIABLES

Connection Type.	"A"	"B"	"C"	"D"	"E"
1	3'-8"	10½"	11	3'-6"	2
2	3'-3"	10½"	9	2'-11"	2
3	3'-3"	1'-5½"	9	2'-11"	4

STATE OF ARKANSAS
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No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 10 OF 15
DETAILS OF 1590'-0" CONTINUOUS
PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 9/6/23
CHECKED BY: CCD DATE: 10/12/23
DESIGNED BY: AMW DATE: 8/17/23
FILENAME: b04090111_s410.dgn
SCALE: AS NOTED

BRIDGE NO. 07684
DRAWING NO. 67459

PRINT DATE: 4/12/2024

TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

Span	Point of Deflection	Structural Steel								Structural Steel + Slab								Structural Steel + Slab + Rail							
		Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6	Girder 7	Girder 8	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6	Girder 7	Girder 8	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6	Girder 7	Girder 8
Span 12	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.05	1.249	1.255	1.260	1.265	1.260	1.246	1.230	1.214	2.828	2.849	2.865	2.876	2.872	2.852	2.827	2.797	3.029	3.046	3.067	3.090	3.096	3.085	3.076	3.071
	0.1	2.427	2.438	2.448	2.456	2.447	2.420	2.391	2.360	5.490	5.528	5.559	5.578	5.570	5.534	5.487	5.431	5.878	5.913	5.953	5.994	6.006	5.988	5.971	5.959
	0.15	3.486	3.501	3.514	3.522	3.509	3.474	3.433	3.390	7.868	7.920	7.961	7.986	7.974	7.926	7.860	7.783	8.422	8.474	8.530	8.583	8.600	8.580	8.558	8.539
	0.2	4.386	4.403	4.418	4.425	4.408	4.367	4.317	4.264	9.873	9.932	9.981	10.008	9.993	9.937	9.857	9.765	10.567	10.630	10.698	10.760	10.781	10.761	10.736	10.713
	0.25	5.120	5.139	5.155	5.161	5.141	5.095	5.039	4.979	11.489	11.556	11.609	11.637	11.620	11.557	11.468	11.365	12.298	12.371	12.448	12.517	12.542	12.522	12.495	12.471
	0.3	5.664	5.685	5.700	5.705	5.684	5.634	5.574	5.509	12.663	12.731	12.786	12.815	12.796	12.729	12.635	12.526	13.556	13.635	13.717	13.789	13.817	13.799	13.772	13.747
	0.35	6.014	6.033	6.048	6.053	6.029	5.978	5.915	5.847	13.381	13.446	13.501	13.529	13.509	13.441	13.344	13.234	14.328	14.405	14.489	14.564	14.593	14.577	14.552	14.528
	0.4	6.152	6.173	6.188	6.192	6.168	6.116	6.052	5.983	13.609	13.675	13.729	13.757	13.736	13.667	13.571	13.462	14.577	14.657	14.741	14.816	14.846	14.831	14.807	14.786
	0.45	6.091	6.110	6.125	6.129	6.106	6.054	5.991	5.923	13.387	13.450	13.503	13.530	13.510	13.442	13.348	13.241	14.345	14.421	14.505	14.579	14.608	14.593	14.570	14.551
	0.5	5.838	5.856	5.871	5.875	5.852	5.803	5.742	5.676	12.752	12.813	12.864	12.891	12.871	12.806	12.715	12.611	13.671	13.744	13.824	13.895	13.923	13.908	13.886	13.867
	0.55	5.408	5.427	5.441	5.445	5.424	5.377	5.320	5.258	11.737	11.800	11.850	11.876	11.858	11.796	11.709	11.609	12.590	12.662	12.737	12.805	12.831	12.816	12.793	12.774
	0.6	4.828	4.845	4.859	4.865	4.846	4.803	4.750	4.694	10.405	10.464	10.512	10.537	10.521	10.464	10.383	10.290	11.168	11.233	11.303	11.366	11.389	11.372	11.350	11.331
	0.65	4.127	4.144	4.157	4.163	4.147	4.109	4.062	4.013	8.817	8.872	8.917	8.941	8.927	8.876	8.804	8.720	9.471	9.528	9.591	9.648	9.668	9.650	9.629	9.611
	0.7	3.341	3.355	3.367	3.374	3.361	3.328	3.289	3.247	7.054	7.103	7.141	7.163	7.152	7.108	7.047	6.976	7.586	7.633	7.685	7.734	7.750	7.732	7.713	7.698
	0.75	2.523	2.535	2.545	2.552	2.542	2.515	2.484	2.452	5.239	5.279	5.311	5.329	5.321	5.286	5.237	5.180	5.643	5.677	5.718	5.759	5.771	5.754	5.738	5.727
	0.8	1.740	1.750	1.758	1.764	1.757	1.737	1.715	1.692	3.522	3.553	3.576	3.591	3.586	3.560	3.525	3.483	3.801	3.825	3.854	3.885	3.893	3.878	3.867	3.860
	0.85	1.068	1.075	1.080	1.084	1.080	1.067	1.053	1.038	2.074	2.093	2.108	2.118	2.115	2.098	2.077	2.050	2.244	2.258	2.275	2.296	2.301	2.290	2.283	2.279
	0.9	0.550	0.554	0.557	0.560	0.558	0.550	0.543	0.535	0.994	1.006	1.013	1.019	1.018	1.009	0.998	0.984	1.081	1.088	1.095	1.107	1.110	1.103	1.100	1.099
	0.95	0.184	0.185	0.185	0.187	0.186	0.183	0.181	0.179	0.280	0.283	0.285	0.287	0.287	0.284	0.281	0.277	0.307	0.307	0.309	0.314	0.315	0.312	0.311	0.312
Span 13	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.05	0.174	0.176	0.177	0.180	0.179	0.175	0.172	0.169	0.597	0.604	0.609	0.614	0.613	0.607	0.599	0.589	0.640	0.644	0.649	0.658	0.659	0.653	0.649	0.648
	0.1	0.615	0.621	0.625	0.630	0.628	0.618	0.608	0.598	1.829	1.852	1.867	1.878	1.875	1.858	1.836	1.809	1.962	1.978	1.995	2.016	2.020	2.007	1.997	1.990
	0.15	1.289	1.298	1.306	1.313	1.308	1.290	1.272	1.252	3.618	3.655	3.683	3.700	3.694	3.665	3.625	3.576	3.877	3.908	3.940	3.974	3.981	3.963	3.945	3.930
	0.2	2.175	2.188	2.199	2.207	2.198	2.173	2.144	2.113	5.904	5.959	5.999	6.022	6.013	5.971	5.911	5.838	6.318	6.370	6.420	6.467	6.479	6.457	6.431	6.406
	0.25	3.160	3.176	3.189	3.196	3.183	3.151	3.112	3.070	8.358	8.424	8.474	8.500	8.487	8.434	8.358	8.265	8.940	9.006	9.073	9.131	9.148	9.125	9.095	9.064
	0.3	4.123	4.140	4.153	4.159	4.143	4.104	4.056	4.006	10.658	10.729	10.784	10.813	10.796	10.734	10.645	10.540	11.399	11.477	11.555	11.622	11.645	11.623	11.591	11.558
	0.35	4.962	4.980	4.993	4.998	4.978	4.934	4.880	4.822	12.570	12.643	12.699	12.727	12.708	12.641	12.544	12.431	13.448	13.533	13.618	13.692	13.719	13.699	13.669	13.638
	0.4	5.601	5.619	5.632	5.635	5.613	5.564	5.506	5.443	13.925	13.997	14.052	14.079	14.057	13.987	13.887	13.771	14.906	14.994	15.083	15.160	15.190	15.174	15.147	15.119
	0.45	6.012	6.027	6.040	6.042	6.018	5.968	5.907	5.841	14.684	14.749	14.802	14.827	14.804	14.733	14.633	14.518	15.729	15.814	15.903	15.981	16.014	16.000	15.977	15.954
	0.5	6.162	6.178	6.190	6.192	6.168	6.117	6.055	5.988	14.785	14.847	14.898	14.921	14.898	14.827	14.728	14.618	15.851	15.934	16.022	16.100	16.133	16.121	16.100	16.083
	0.55	6.030	6.046	6.058	6.060	6.036	5.986	5.925	5.859	14.215	14.272	14.321	14.344	14.321	14.252	14.156	14.050	15.257	15.333	15.418	15.494	15.526	15.515	15.495	15.480
	0.6	5.637	5.654	5.667	5.670	5.647	5.599	5.541	5.478	13.070	13.130	13.178	13.201	13.179	13.113	13.021	12.917	14.044	14.121	14.201	14.274	14.304	14.291	14.271	14.254
	0.65	5.015	5.031	5.044	5.048	5.028	4.984	4.930	4.872	11.432	11.491	11.537	11.560	11.541	11.479	11.393	11.294	12.301	12.372	12.446	12.514	12.540	12.525	12.504	12.485
	0.7	4.194	4.211	4.223	4.229	4.212	4.173	4.125	4.075	9.384	9.440	9.483	9.505	9.489	9.434	9.357	9.267	10.115	10.178	10.243	10.303	10.325	10.308	10.287	10.269
	0.75	3.248	3.263	3.275	3.282	3.269	3.236	3.197	3.155	7.098	7.146	7.184	7.204	7.191	7.145	7.081	7.006	7.671	7.719	7.773	7.824	7.840	7.823	7.804	7.789
	0.8	2.274	2.286	2.296	2.303	2.294	2.269	2.239	2.208	4.805	4.844	4.873	4.890	4.881	4.845	4.797	4.740	5.213	5.248	5.286	5.326	5.338	5.321	5.306	5.296
	0.85	1.388	1.397	1.404	1.410	1.405	1.387	1.368	1.348	2.779	2.805	2.824	2.836	2.831	2.807	2.775	2.738	3.034	3.052	3.076	3.105	3.112	3.097	3.087	3.083
	0.9	0.697	0.702	0.706	0.711	0.708	0.698	0.687	0.677	1.270	1.285	1.294	1.301	1.298	1.285	1.269	1.249	1.400	1.409	1.420	1.437	1.440	1.430	1.425	1.426
	0.95	0.217	0.219	0.220	0.222	0.221	0.217	0.214	0.211	0.306	0.310	0.312	0.314	0.314	0.309	0.304	0.298	0.348	0.348	0.350	0.357	0.358	0.353	0.352	0.354
Span 14	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.05	0.215	0.217	0.218	0.220	0.219	0.216	0.212	0.209	0.745	0.753	0.759	0.764	0.763	0.757	0.750	0.740	0.787	0.791	0.797	0.806	0.808	0.802	0.798	0.797
	0.1	0.692	0.698	0.702	0.707	0.704	0.694	0.684	0.674	2.149	2.172	2.188	2.200	2.198	2.182	2.161	2.135	2.279	2.296	2.314	2.335	2.340	2.327	2.318	2.313
	0.15	1.382	1.391	1.398	1.405	1.400	1.382	1.363	1.343	4.101	4.138	4.167	4.185	4.181	4.154	4.115	4.069	4.356	4.386	4.420	4.454	4.462	4.445	4.429	4.415
	0.2	2.266	2.278	2.289	2.296	2.287	2.262	2.233	2.202	6.553	6.609	6.650	6.674	6.666	6.627	6.570	6.500	6.961	7.013	7.063	7.111	7.124	7.103	7.080	7.057
	0.25	3.238	3.253	3.266	3.273	3.260	3.227	3.189	3.147	9.190	9.256	9.307	9.335	9.324	9.274	9.201	9.112	9.763	9.830	9.896	9.955	9.974	9.953	9.925	9.896
	0.3	4.183	4.200	4.213	4.219	4.203	4.164	4.116	4.065	11.696	11.768	11.824	11.854	11.840	11.781	11.696	11.596	12.428	12.506	12.584	12.652	12.676	12.656	12.627	12.599
	0.35	5.002	5.019	5.033	5.038	5.018	4.973	4.919	4.861	13.851	13.924	13.981	14.011	13.994	13.930	13.837	13.730	14.720	14.805	14.891	14.965	14.994	14.977	14.950	14.923
	0.4	5.624	5.642	5.655	5.658	5.636	5.588	5.529	5.466	15.501	15.572	15.629	15.658	15.639	15.571	15.475	15.364	16.476	16.564	16.653	16.732	16.764	16.750	16.725	16.702
	0.45	6.016	6.033	6.046	6.048	6.025	5.974	5.912	5.846	16.586	16.654	16.710	16.738	16.718	16.648	16.549	16.437	17.628	17.715	17.808	17.889	17.923	17.911	17.888	17.868
	0.5	6.148	6.166	6.178	6.180	6.156	6.105	6.042	5.975	17.038	17.109	17.166	17.194	17.172	17.101	17.001	16.887	18.105	18.197	18.290	18.372	18.407	18.395	18.373	18.352
	0.55	5.999	6.015	6.028	6.031	6.007	5.956	5.894	5.828	16.768	16.840	16.898	16.927	16.906	16.835	16.734	16.616	17.813	17.905	18.000	18.081	18.115	18.102	18.077	18.051
	0.6	5.590	5.608	5.621	5.624	5.601	5.553	5.494	5.430	15.802	15.880	15.939	15.969	15.949	15.879	15.779	15.661	16.783	16.878	16.970	17.050	17.081	17.065	17.037	17.007
	0.65	4.952	4.970	4.983	4.988	4.968	4.923	4.868	4.810	14.212	14.289	14.350	14.380	14.362	14.296	14.199	14.085	15.091	15.180	15.269	15.345	15.373	15.354	15.322	15.290
	0.7	4.114	4.131	4.144	4.150	4.134	4.094	4.046	3.995	12.045	12.121	12.179	12.209	12.194	12.133	12.044	11.939	12.788	12.870	12.950	13.019	13.042	13.020	12.988	12.954
	0.75	3.154	3.169	3.181	3.188	3.175	3.142	3.103	3.061	9.485	9.553	9.606	9.634	9.622	9.570	9.494	9.401	10.068	10.137	10.205	10.265	10.283	10.260	10.229	10.197
	0.8	2.170	2.183	2.193	2.200	2.191	2.166	2.136	2.105	6.777	6.834	6.876	6.900	6.892	6.851	6.791	6.718	7.192	7.245	7.297	7.345	7.357	7.335	7.310	7.284
	0.85	1.285	1.295	1.301	1.308	1.303	1.285	1.266	1.246	4.253	4.292	4.321	4.339	4.334	4.306	4.265	4.217	4.513	4.545	4.578	4.613	4.621	4.602	4.584	4.569
	0.9	0.613	0.618	0.622	0.627	0.625	0.614	0.604	0.594	2.243	2.266	2.282	2.294	2.291	2.275	2.253	2.226	2.376	2.393	2.411	2.432	2.436	2.423	2.413	2.406
	0.95	0.173	0.175	0.176	0.178	0.177	0.173	0.170	0.167	0.799	0.807	0.813	0.818	0.817	0.811	0.803	0.793	0.843	0.847	0.853	0.862	0.863	0.857	0.853	0.852
Span 15	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.05	0.185	0.186	0.186	0.188	0.187	0.185	0.182	0.180	0.125	0.127	0.129	0.131	0.130	0.127	0.124	0.120	0.152	0.151	0.153	0.158	0.159	0.155	0.155	0.156
	0.1	0.551	0.556	0.558	0.562	0.560	0.553	0.545	0.538	0.689	0.700	0.707	0.712	0.710	0.701	0.690	0.677	0.775	0.781	0.789	0.800	0.803	0.796	0.793	0.794
	0.15	1.070	1.077	1.082	1.087	1.084	1.071	1.057	1.042	1.625	1.643	1.656	1.665	1.662	1.645	1.624	1.598	1.795	1.807	1.823	1.843	1.848	1.838	1.832	1.830
	0.2	1.743	1.753	1.761	1.767	1.761	1.741	1.720	1.697	2.939	2.966	2.987	3.001	2.995	2.969	2.935	2.896	3.217	3.238	3.265	3.295	3.304	3.290	3.280	3.275
	0.25	2.525	2.538	2.549	2.556	2.547	2.520	2.490	2.458	4.540	4.576	4.604	4.621	4.613	4.578	4.531	4.477	4.942	4.973	5.012	5.052	5.064	5.048	5.034	5.027
	0.3	3.343	3.359	3.371	3.378	3.366	3.334	3.295	3.254	6.270	6.314	6.349	6.369	6.358	6.315	6.255	6.187	6.800	6.844	6.893	6.941	6.957	6.941	6.925	6.914
	0.35	4.130	4.147	4.161	4.168	4.153	4.115	4.069	4.020	7.981	8.032	8.074	8.096	8.082	8.031	7.961	7.879	8.634	8.688	8.748	8.804	8.824	8.808	8.789	8.775
	0.4	4.831	4.849	4.864	4.870	4.852	4.809	4.757	4.702	9.546	9.601	9.646	9.670	9.653	9.597	9.517	9.427	10.307	10.369	10.437	10.500	10.523	10.508	10.488	10.472
	0.45	5.410	5.430	5.445	5.450	5.430	5.384	5.327	5.266	10.877	10.936	10.984	11.008	10.989	10.928	10.842	10.745	11.728	11.797	11.871	11.939	11.965	11.951	11.931	11.914
	0.5	5.841	5.860	5.875	5.880	5.858	5.809	5.749	5.684	11.910	11.968	12.017	12.042	12.022	11.957	11.867	11.765	12.827	12.898	12.976	13.048	13.076	13.063	13.042	13.026
	0.55	6.093	6.114	6.129	6.134	6.111	6.060	5.998	5.931	12.580	12.642	12.693	12.718	12.697	12.630	12.536	12.431	13.537	13.612	13.694	13.768	13.798	13.784	13.763	13.747
	0.6	6.155	6.176	6.192	6.196	6.173	6.122	6.059	5.991	12.854	12.918	12.970	12.997	12.976	12.907	12.812	12.704	13.821	13.899	13.982	14.057	14.088	14.074	14.051	14.033
	0.65	6.016	6.035	6.052	6.057	6.034	5.984	5.922	5.854	12.691	12.754	12.807	12.834	12.814	12.746	12.650	12.541	13.636	13.712	13.796	13.870	13.900	13.885	13.862	13.840
	0.7	5.666	5.687	5.703	5.709	5.688	5.639	5.579	5.515	12.048	12.116	12.169	12.197	12.177	12.111	12.018	11.910	12.940	13.018	13.100	13.172	13.200	13.184	13.159	13.136
	0.75	5.121	5.141	5.157	5.164	5.145	5.099	5.044	4.984	10.961	11.025	11.078	11.105	11.088	11.025	10.937	10.835	11.768	11.840	11.917	11.986	12.011	11.993	11.967	11.944
	0.8	4.387	4.405	4.420	4.427	4.411	4.370	4.321	4.269	9.438	9.496	9.544	9.570	9.556	9.499	9.421	9.329	10.131	10.193	10.261	10.324	10.345	10.326	10.302	10.280
	0.85	3.487	3.503	3.516	3.524	3.511	3.476	3.436	3.393	7.535	7.586	7.626	7.650	7.638	7.591	7.525	7.449	8.088	8.139	8.195	8.248	8.265	8.246	8.225	8.207
	0.9	2.428	2.439	2.449	2.458	2.449	2.422	2.393	2.363	5.264	5.301	5.332	5.351	5.343	5.307	5.259	5.204	5.651	5.685	5.726	5.767	5.779	5.762	5.745	5.734
	0.95	1.249	1.255	1.260	1.266	1.261	1.246	1.231	1.215	2.714	2.734	2.750	2.761	2.757	2.737	2.712	2.683	2.914	2.931	2.953	2.975	2.981	2.971	2.962	2.957
	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

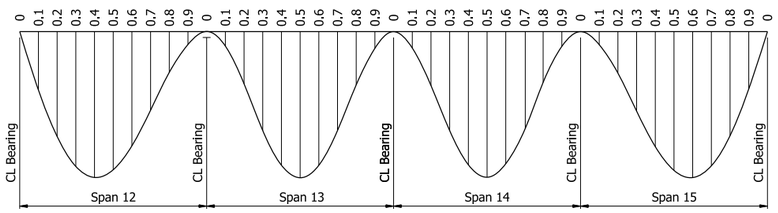
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	400	809
		07684 - UNIT 4 - 67460				

Notes:
Camber for dead load deflection +/- ¼" tolerance. Deflections shown are along CL Girder from a chord from CL Bearing to CL Bearing. Negative sign (-) indicates point above chord. Vertical curve corrections are not included. Superelevation transition corrections not included.

The additional weight of the ITS and utility support brackets, catwalk, supports for the waterline and catwalk, and the waterline itself are included with the structural steel dead load deflections.

The additional weight for the permanent steel deck forms are included in the structural steel + slab dead load deflections.

The weight of the conduits are included in the structural steel + slab + rail dead load deflections.



DEAD LOAD DEFLECTION DIAGRAM

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 11 OF 15
DETAILS OF 1590'-0" CONTINUOUS
PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 8/15/23
CHECKED BY: CCD DATE: 10/13/23
DESIGNED BY: FL DATE: 7/10/23
FILENAME: b04090111_s411.dgn
SCALE: NO SCALE

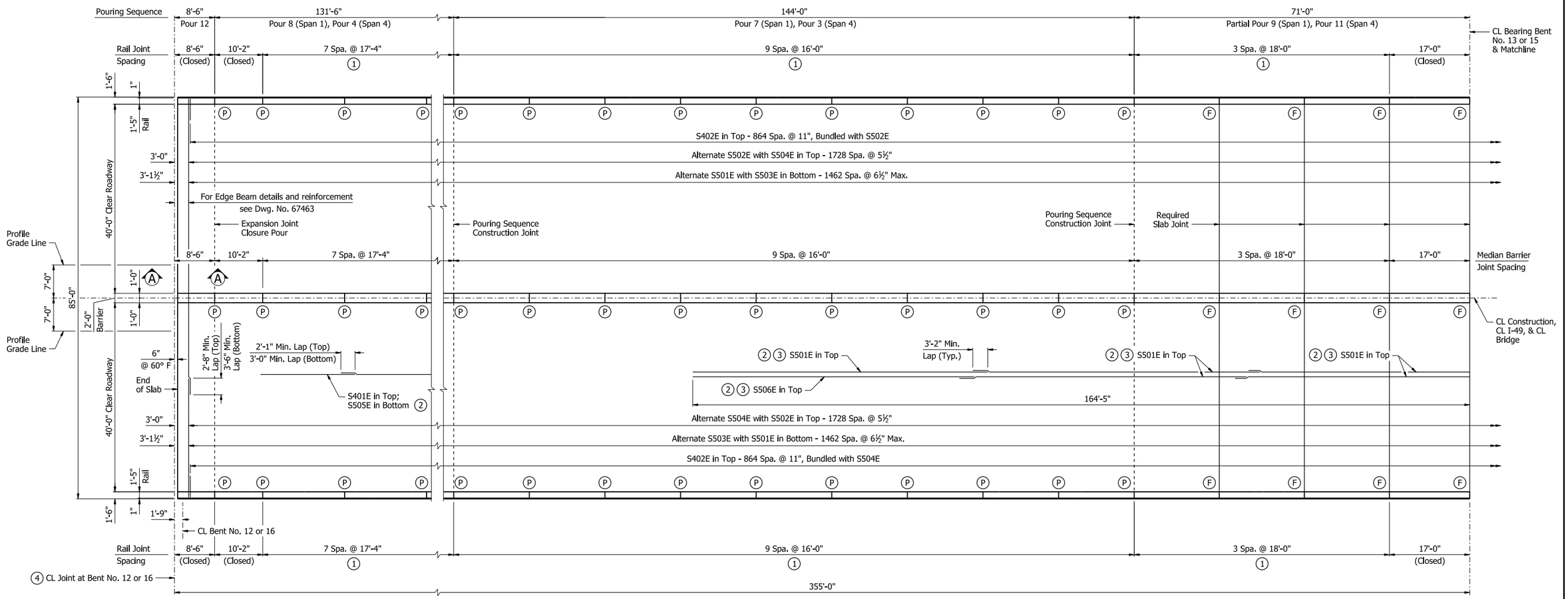
BRIDGE NO. 07684 DRAWING NO. 67460

PRINT DATE: 4/10/2024

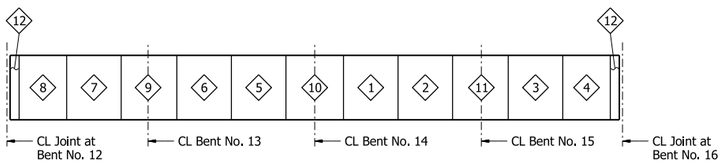
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	401	809
				07684 - UNIT 4 - 67461		

(F) CL Full-Depth Rail Joint

(P) CL Partial-Depth Rail Joint. Partial-depth rail joints to be utilized in locations not shown.



PARTIAL REINFORCING PLAN AND POURING SEQUENCE



SCHEMATIC POURING SEQUENCE

No Scale

(#) Show Pour Number

Slab Pouring Sequence Notes:

Pours with the same number may be placed simultaneously or separately. All pours must be placed in order sequentially. A minimum of 48 hours shall elapse between the end of a pour and the start of the next pour. A minimum of 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated, and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

After all incremental pours on both Units adjacent to the Modular Joint are complete, closure pour 12 on each side of Modular Joint shall be poured simultaneously. A minimum of 48 hours shall elapse between the last incremental pour and the closure pours.

A minimum of 72 hours shall elapse between completion of the slab and the pouring of the bridge railing. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence(s) shown.

Notes:

Required slab joints and pouring sequence joints shall align with rail joints at the gutterline.

For "TRANSVERSE SLAB JOINT DETAIL", see Dwg. No. 55007.

For "DETAILS FOR BRIDGE TRAFFIC RAIL TYPE SSTR42", see Dwg. No. 67686.

For "DETAILS OF MEDIAN BARRIER", see Dwg. No. 67689.

For "SECTION A-A", see Dwg. No. 67463.

(1) Rail panels are closed, Sta. 178+21.67 to Sta. 181+41.00. Rail panels are open, Sta. 190+55.00 to 193+74.33.

(2) Place as shown in "TYPICAL ROADWAY SECTION", see Dwg. No. 67450.

(3) Alternate location of lap splice as shown.

(4) For Joint types, see Dwg. Nos. 67374 - 67382.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 12 OF 15
DETAILS OF 1590'-0" CONTINUOUS PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 9/8/23
CHECKED BY: RLW DATE: 10/27/23
DESIGNED BY: RCR DATE: 7/21/22
FILENAME: b04090111_s412.dgn
SCALE: 3/32" = 1'-0"

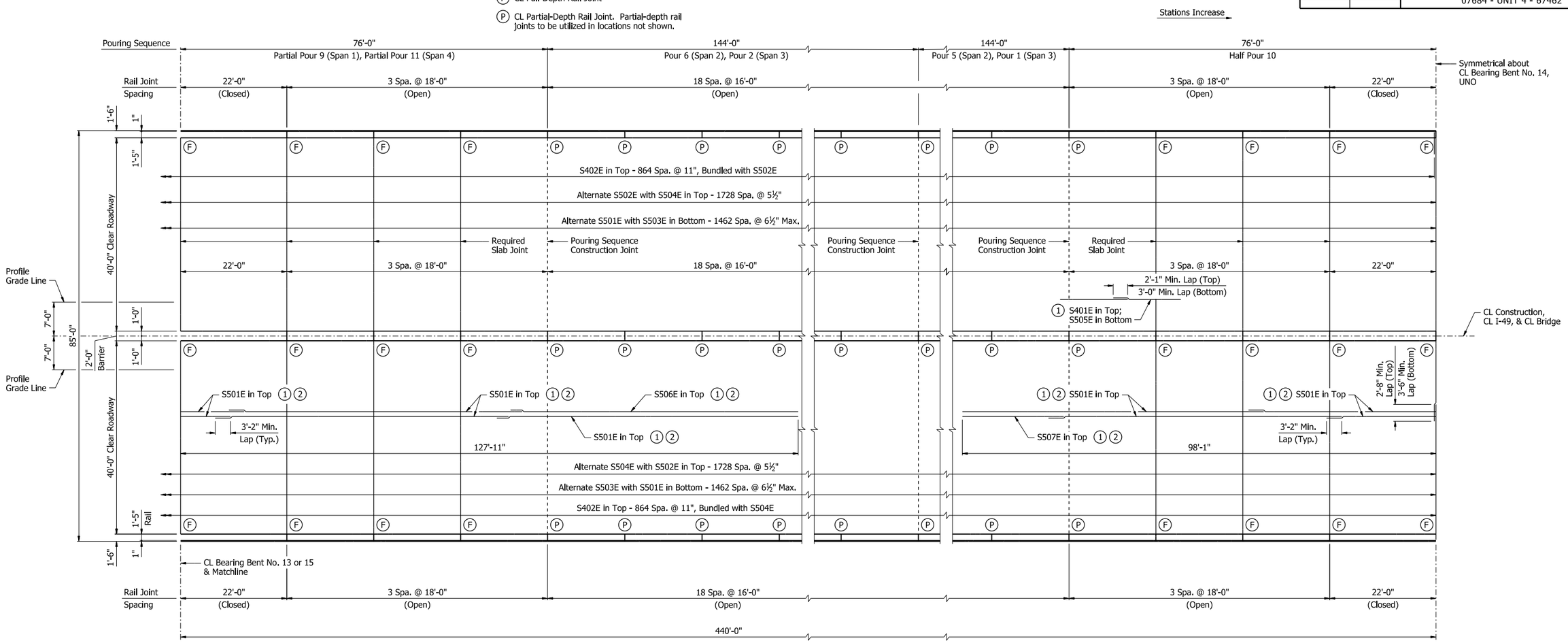
BRIDGE NO. 07684 DRAWING NO. 67461

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	402	809
		07684 - UNIT 4 - 67462				

Ⓕ CL Full-Depth Rail Joint

Ⓟ CL Partial-Depth Rail Joint. Partial-depth rail joints to be utilized in locations not shown.



PARTIAL REINFORCING PLAN AND POURING SEQUENCE

Slab Pouring Sequence Notes:
Pours with the same number may be placed simultaneously or separately. All pours must be placed in order sequentially. A minimum of 48 hours shall elapse between the end of a pour and the start of the next pour. A minimum of 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated, and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between completion of the slab and the pouring of the bridge railing. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence(s) shown.

Notes:
Required slab joints and pouring sequence joints shall align with rail joints at the gutterline.

For "TRANSVERSE SLAB JOINT DETAIL", see Dwg. No. 55007.

For "DETAILS FOR BRIDGE TRAFFIC RAIL TYPE SSTR42", see Dwg. No. 67686.

For "DETAILS OF MEDIAN BARRIER", see Dwg. No. 67689 .

For "SECTION A-A", see Dwg. No. 67463.

① Place as shown in "TYPICAL ROADWAY SECTION", see Dwg. No. 67450.

② Alternate location of lap splice as shown.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 13 OF 15
DETAILS OF 1590'-0" CONTINUOUS PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

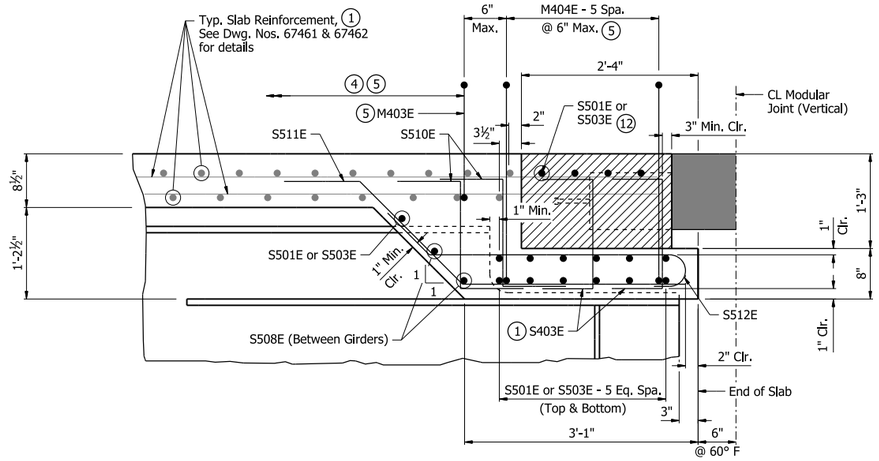
ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 9/8/23
CHECKED BY: RLW DATE: 10/27/23
DESIGNED BY: RCR DATE: 7/21/22
FILENAME: b04090111_s413.dgn
SCALE: 3/32" = 1'-0"

BRIDGE NO. 07684 DRAWING NO. 67462

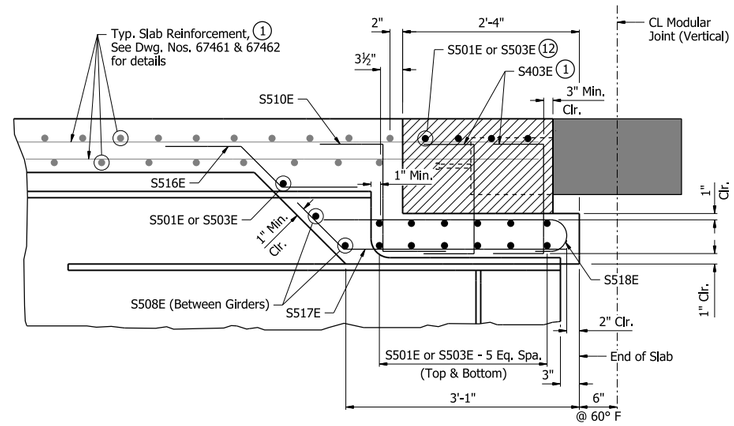
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	403	809
		07684 - UNIT 4 - 67463				



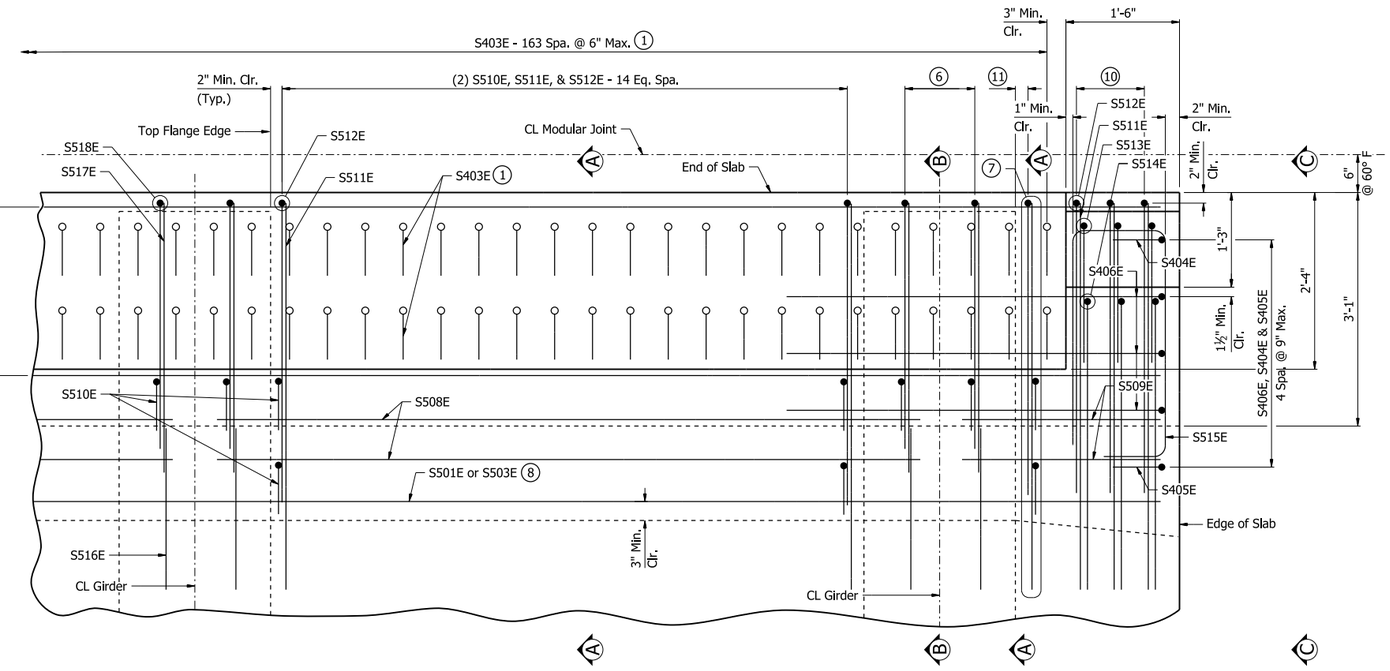
AT BENTS WITH MODULAR JOINTS - BETWEEN GIRDERS & PARTIAL OVERHANG

SECTION A-A
1"=1'-0"

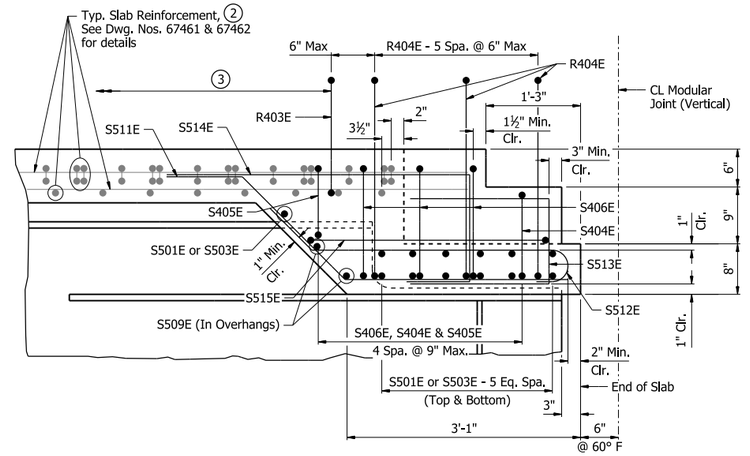


AT BENTS WITH MODULAR JOINTS - AT GIRDERS
(Same as Section A-A, UNO)

SECTION B-B
1"=1'-0"



PARTAIL REINFORCING PLAN AT BENTS WITH MODULAR JOINTS (9)
No Scale



AT BENTS WITH MODULAR JOINTS - UNDER RAIL
(Same as Section A-A, UNO)

SECTION C-C
1"=1'-0"

Notes:
For details of Finger Joint, see Dwg. Nos. 67696 & 67697.

For details of Modular Joint, see Dwg. Nos. 67700 & 67701.

(1) Cut bars as necessary to clear support boxes.
(2) Cut longitudinal slab bars 2" from step.
(3) For R403E spacing, see Dwg. No. 67686.
(4) For M403E spacing, see Dwg. No. 67689.
(5) M403E & M404E bars are at Median Barrier location only.
(6) S510E, S516E, S517E & S518E - 1 Spa. @ 11" Max, centered around CL Girder.
(7) 1 set - (2) S510E, S511E & S512E.
(8) Field bend as necessary to maintain clearance.
(9) Typical slab reinforcement not shown.
(10) S511E, S512E, S513E & S514E - 2 Spa. @ 5¼" Max.
(11) 2" Min. Clr.
(12) Modular Joint Blockout Reinforcing, see Dwg. No. 67700 for details. Extend 2" from edge of slab where possible.

STATE OF ARKANSAS
NATALIE M. COMBS
LICENSED PROFESSIONAL ENGINEER
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 14 OF 15
DETAILS OF 1590'-0" CONTINUOUS PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 11/28/23
CHECKED BY: RCR DATE: 11/28/23
DESIGNED BY: RCR DATE: 7/21/22
FILENAME: b04090111_s414.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67463

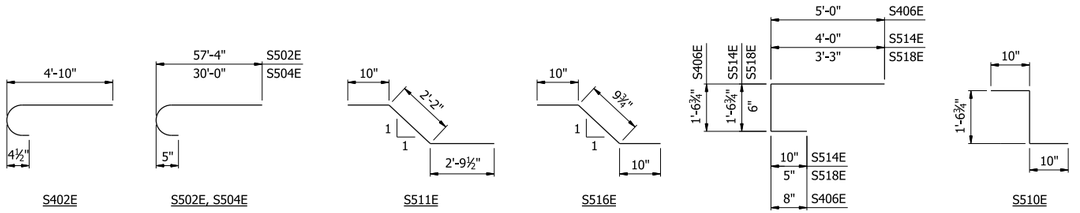
PRINT DATE: 4/10/2024

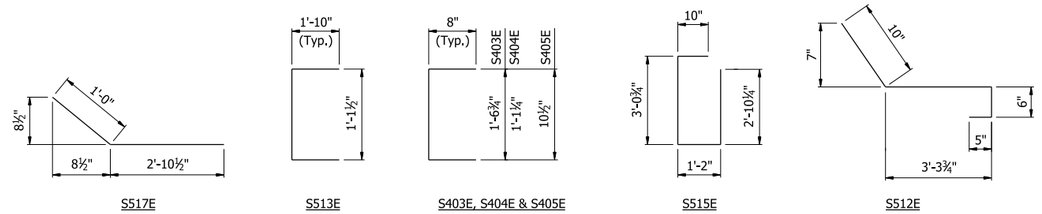
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	404	809
		07684 - UNIT 4 - 67464				

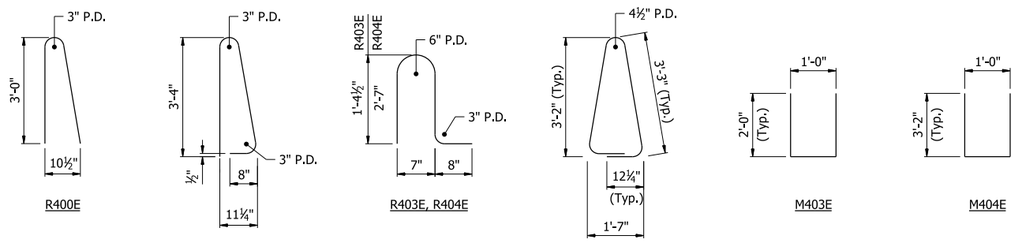
BAR LIST

Mark	Number Required	Length	Pin Dia.
S401E	3219	45'-0"	Str.
S402E	3458	5'-4"	3"
S403E	656	2'-8"	3"
S404E	4	2'-3"	3"
S405E	4	2'-0"	3"
S406E	12	7'-0"	3"
S501E	5195	57'-4"	Str.
S502E	3457	57'-11"	3¾"
S503E	2959	30'-10"	Str.
S504E	3457	30'-7"	3¾"
S505E	2324	59'-8"	Str.
S506E	344	21'-6"	Str.
S507E	172	33'-8"	Str.
S508E	28	10'-11"	Str.
S509E	8	2'-9"	Str.
S510E	460	3'-0"	3¾"
S511E	226	5'-9"	3¾"
S512E	226	4'-10"	3¾"
S513E	12	4'-6"	3¾"
S514E	12	6'-2"	3¾"
S515E	4	7'-7"	3¾"
S516E	32	2'-6"	3¾"
S517E	32	3'-11"	3¾"
S518E	32	3'-11"	3¾"
R400E	1072	6'-3"	Str.
R401E	6118	7'-6"	3"
R402E	592	5'-6"	Str.
R403E	6094	3'-8"	3"
R404E	24	6'-1"	3"
R409E	40	8'-2"	Str.
R410E	40	9'-10"	Str.
R413E	1080	15'-8"	Str.
R414E	40	16'-8"	Str.
R415E	280	17'-0"	Str.
R416E	360	17'-8"	Str.
R417E	80	21'-8"	Str.
M401E	3186	9'-0"	2"
M402E	296	5'-6"	Str.
M403E	3174	4'-10"	3"
M404E	12	7'-2"	3"
M409E	20	8'-2"	Str.
M410E	20	9'-10"	Str.
M413E	540	15'-8"	Str.
M414E	20	16'-8"	Str.
M415E	140	17'-0"	Str.
M416E	180	17'-8"	Str.
M417E	40	21'-8"	Str.

Bending Diagrams
(Dimensions are out to out of bars)







All bars designated with an "E" suffix are to be epoxy coated.

PRINT DATE: 4/10/2024

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 15778
NATALIE MCCOMBS
4/18/24
BRIDGE ENGINEER

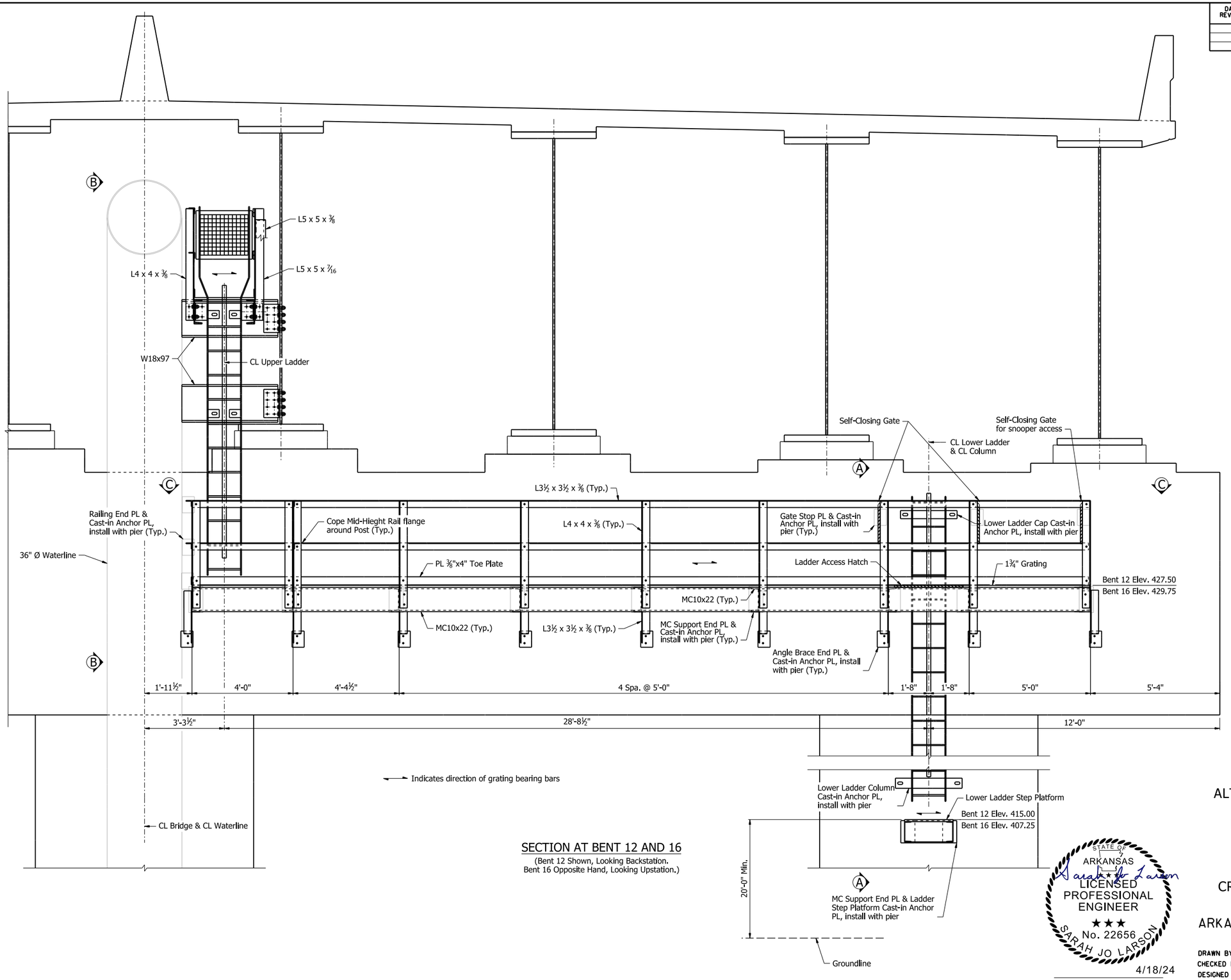
ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 15 OF 15
DETAILS OF 1590'-0" CONTINUOUS
PLATE GIRDER UNIT 4
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 11/27/23
CHECKED BY: RCR DATE: 11/30/23
DESIGNED BY: RCR DATE: 7/21/22
FILENAME: b04090111_s415.dgn
SCALE: NO SCALE

BRIDGE NO. 07684
DRAWING NO. 67464

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	405	809
		07684 - WATERLINE - 67465				



SECTION AT BENT 12 AND 16

(Bent 12 Shown, Looking Backstation. Bent 16 Opposite Hand, Looking Upstation.)

Notes:
All Structural Steel for waterline supports, connection angles, bolsters, and inspection walkway shall be ASTM A709, Grade 50 steel unless otherwise noted, and shall be paid for as "Structural Steel in Plate Girder Spans (M270-Gr50W)."

For "SECTION A-A" & "SECTION B-B", see Dwg. No. 67468.

For "SECTION C-C", see Dwg. No. 67467.

For location of Waterline Supports, see Dwg. Nos. 67451 - 67454.

For X-Frame details, see Dwg. Nos. 67456 - 67458.

For details of Waterline Pipe, Rollers, and Expansion Joint, see Waterline Plans.

Waterline is located at CL Bridge. Inspection Walkway and Pier Platform access at Bents 12 & 16 is located on the West side of waterline.

Welding for Ladder and supports shall be in accordance All hardwarewith AWS D1.1, current edition. Welding filler metal shall be matching.

Welds on ladder side rails shall be ground smooth.

All inspection walkway and waterline support components, unless noted otherwise, shall be hot-dip galvanized after fabrication in accordance with Subsection 807.19. Any galvanized coating that is damaged during transportation or construction, including field drilling, shall be repaired according to Subsection 807.88.

All bolts connecting to cast-in anchor plates shall be Type 1 bolts with lock washers and shall have sufficient length to achieve full thread engagement with cast-in anchor plate. All hardware shall be hot-dip galvanized in accordance with Subsection 807.06.

All bolts shall be ASTM F3125, Gr. A325, 1" Ø H.S. bolts.

All bolts connecting galvanized steel components shall be Type 1, hot-dip galvanized bolts with complimentary washers and heavy hex nut, UNO in accordance with Subsection 807.06.

Bolts connecting L8x8's to 50W bridge girder webs shall be Type 3 bolts with complimentary washers and heavy hex nut.

All holes for waterline supports, inspection walkway and platforms shall be drilled and shall be 1⅛" Ø unless otherwise noted.

Ladder rungs shall be coated with a non-slip, grit-impregnated coating.

Grating for inspection walkway on bridge and for Lower Ladder Platform Step shall be Welded Steel Grating with 1" x 3/16" bearing bars at 1 3/16" on center with cross bars at 4" on center. Grating for inspection platform on pier shall be Welded Steel Grating with 1¾" x 3/16" bearing bars at 1 3/16" on center with cross bars at 4" on center. Grating shall be welded with a serrated top surface for non-slip purposes. Edges shall be banded with bars ¼" less in height than bearing bars. Banding bars shall be flush with the top of the grating. Grating shall be handled and stored to prevent damage. Any grating section with bent or otherwise damaged bars or parts shall not be installed.

Grating shall be attached to the framing in accordance with the manufacturer recommendations. The Contractor shall provide calculations and details for the grating and grating connections to the channels for review by the Engineer.

Wire rope shall be ⅝" Ø ASTM A1023 IPS galvanized steel rope and shall be able to resist a minimum tensile force of 10,000 lbs.

Wire rope railing and fastening components shall be able to resist a 200 lb vertical force applied to one strand at the midpoint and shall not deflect more than 2" vertically. See "INSPECTION ACCESS" Special Provision.

Fall Protection Ladder Safety Systems, Self-Closing Gates and Ladder Access Hatch shall be provided to meet all applicable OSHA requirements. Details of connections and dimensions pertaining to selected manufacturer's products shall be shown in shop drawings and approved by the Engineer.

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 1 OF 7
DETAILS OF INSPECTION ACCESS
AND WATERLINE SUPPORTS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

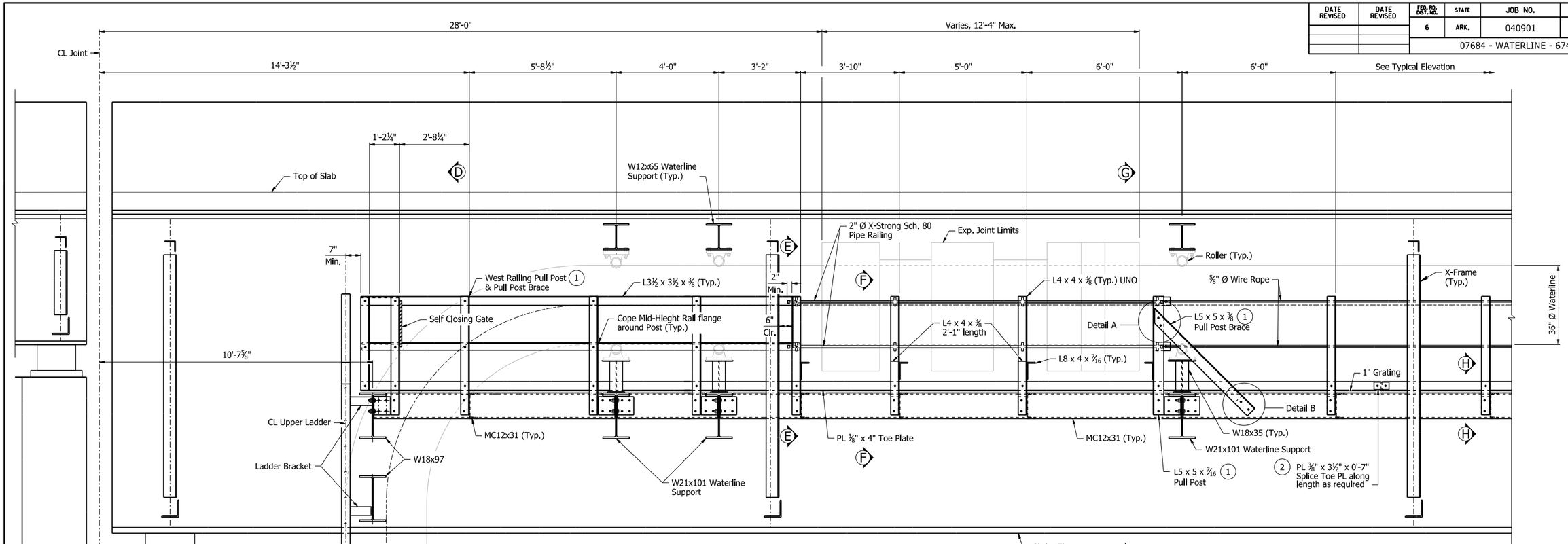
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22656
SARAH JO LARSON
4/18/24
BRIDGE ENGINEER

DRAWN BY: CTK DATE: 7/7/23
CHECKED BY: SJL DATE: 11/16/23
DESIGNED BY: SJL DATE: 7/3/23
FILENAME: b04090111_sx1.dgn
SCALE: ½" = 1'-0"

BRIDGE NO. 07684 DRAWING NO. 67465

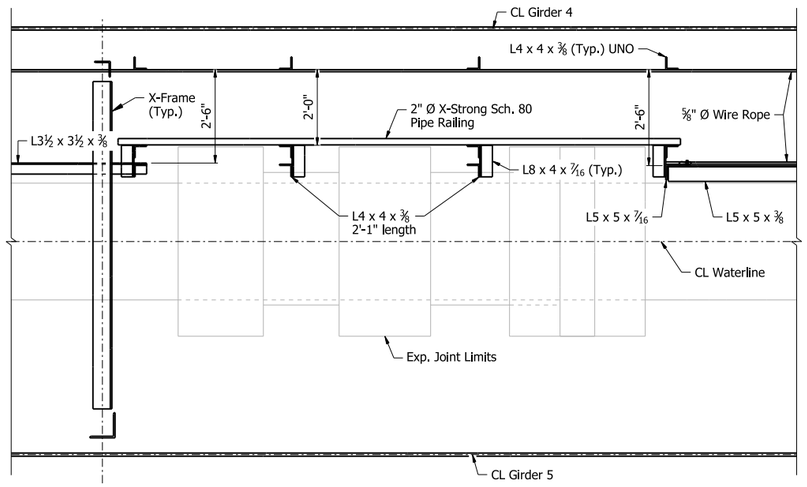
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	406	809
		07684 - WATERLINE - 67466				



ELEVATION AT BENTS 12 & 16

(Bent 12 shown, Bent 16 opposite hand)
(East Railing Shown)



RAILING PLAN NEAR EXPANSION JOINT

Notes:
For additional notes, see Dwg. No. 67465.

For "SECTION F-F", see Dwg. No. 67467.

For "SECTION D-D", see Dwg. No. 67469.

For "SECTION G-G", "DETAIL A" & "DETAIL B", see Dwg. No. 67470.

For "SECTION E-E" & "SECTION H-H", see Dwg. No. 67471.

1. Locate Pull Posts and Pull Post Brace at end of all wire rope runs. Position Pull Posts along length of bridge to avoid conflict with X-frames. L3½x3½ railing to extend from end to Pull Post on West Railing. Pull Post assumed to be located every 400' for quantity weight. See "INSPECTION ACCESS" Special Provision.
2. Assumed Toe PL Splice every 40'-0" for quantity weight.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22656
SARAH JO LARSON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 2 OF 7
DETAILS OF INSPECTION ACCESS AND WATERLINE SUPPORTS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 7/7/23
CHECKED BY: SJL DATE: 11/16/23
DESIGNED BY: SJL DATE: 7/3/23
FILENAME: b04090111_sx2.dgn
SCALE: ½" = 1'-0"

BRIDGE NO. 07684 DRAWING NO. 67466

PRINT DATE: 4/12/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	407	809
		07684 - WATERLINE - 67467				

North Arrow shown is for Bent 12

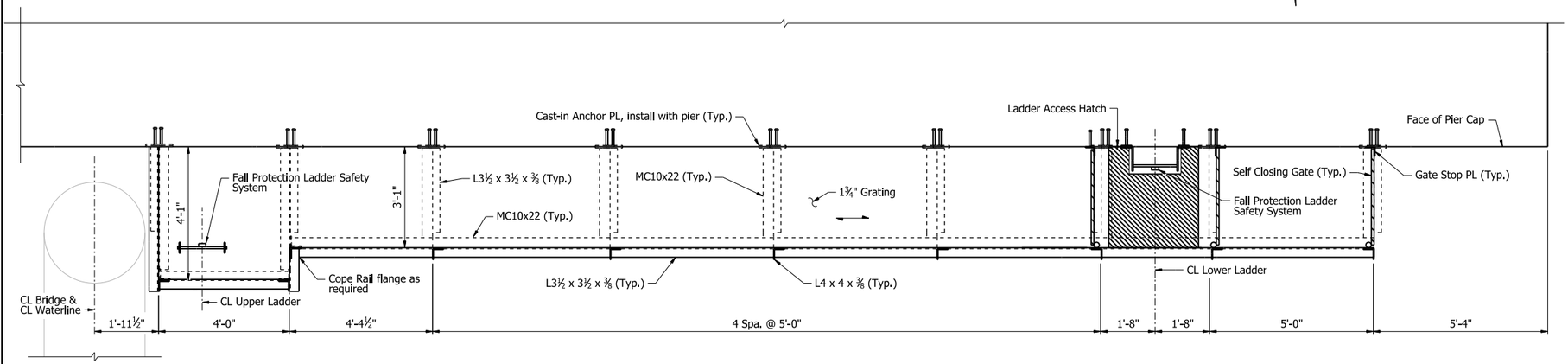
Notes:
For additional notes, see Dwg. No. 67465.

For location of "SECTION C-C", see Dwg. No. 67465.

For location of "SECTION F-F", see Dwg. No. 67466.

For location of "SECTION J-J" & "SECTION K-K", see Dwg. No. 67468.

(1) Assumed Toe PL Splice every 40'-0" for quantity weight.

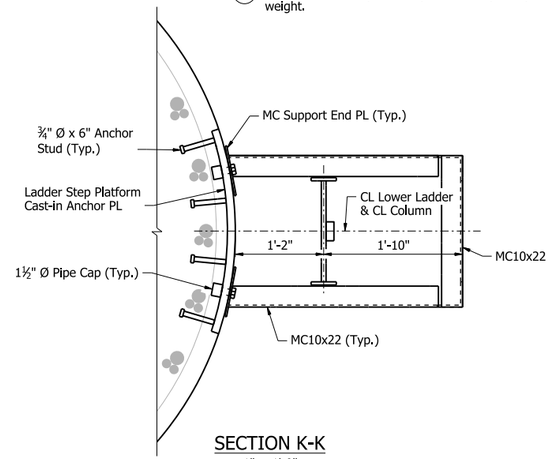


Indicates direction of grating bearing bars

SECTION C-C

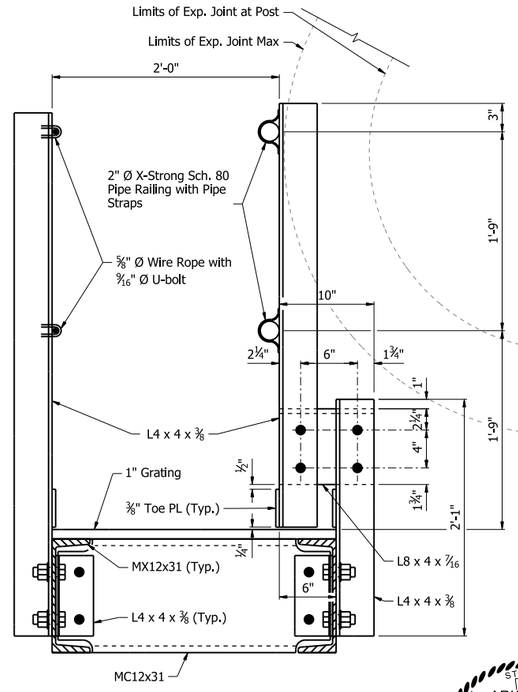
½" = 1'-0"

(Bent 12 Shown, Looking Backstation. Bent 16 Opposite Hand, Looking Upstation.)



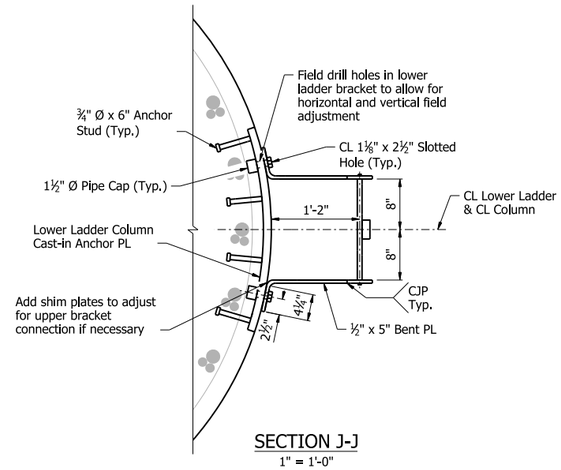
SECTION K-K

1" = 1'-0"



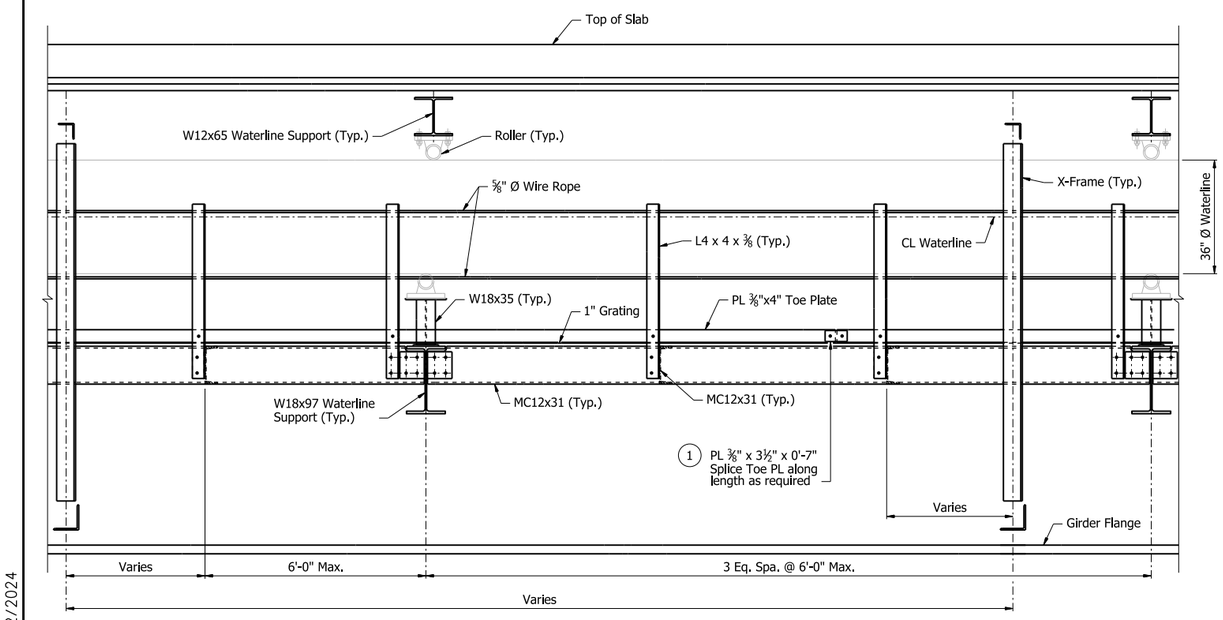
SECTION F-F

1½" = 1'-0"



SECTION J-J

1" = 1'-0"



TYPICAL ELEVATION

½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22656
SARAH JO LARSON

4/18/24

BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 3 OF 7
DETAILS OF INSPECTION ACCESS AND WATERLINE SUPPORTS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 10/12/23
CHECKED BY: SJL DATE: 11/16/23
DESIGNED BY: SJL DATE: 7/3/23

FILENAME: b04090111_sx3.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67467

PRINT DATE: 4/12/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	408	809
		07684 - WATERLINE - 67468				

Notes:
For additional notes, see Dwg. No. 67465.

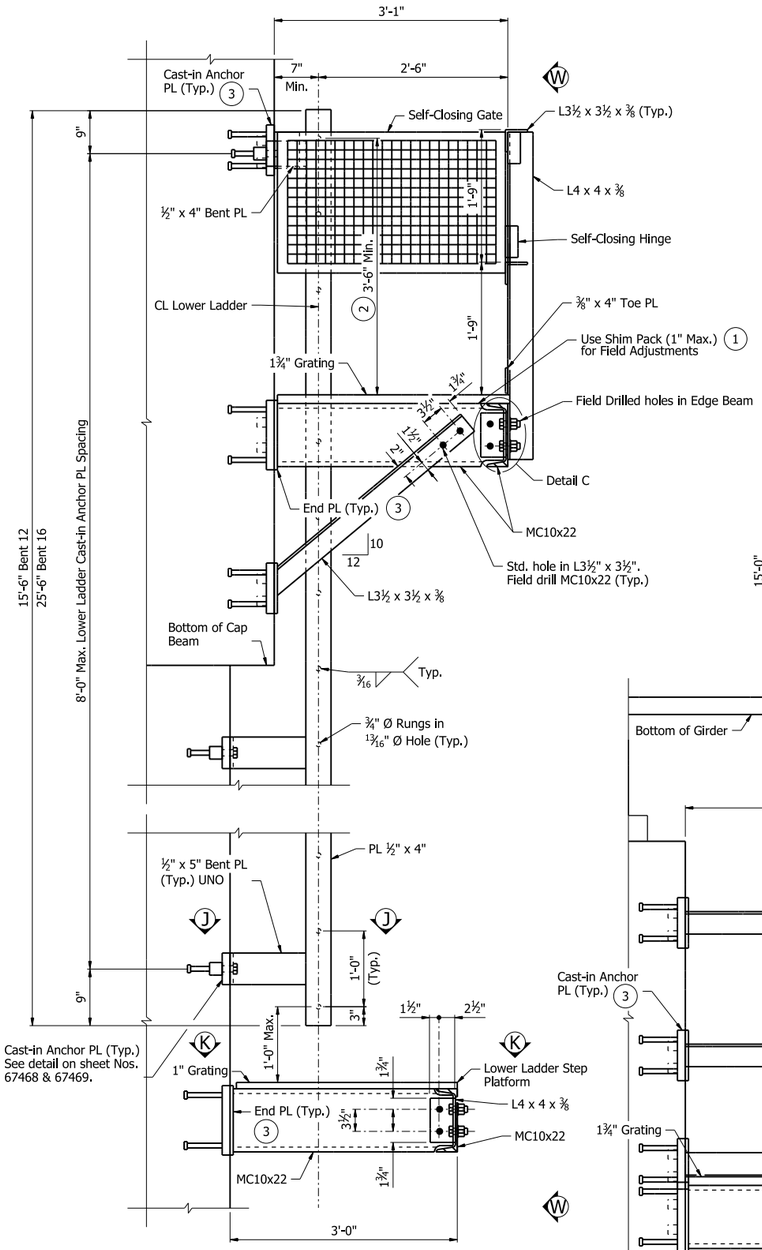
For location of "SECTION A-A" & "SECTION B-B", see Dwg. No. 67465.

For "SECTION J-J" & "SECTION K-K", see Dwg. No. 67467.

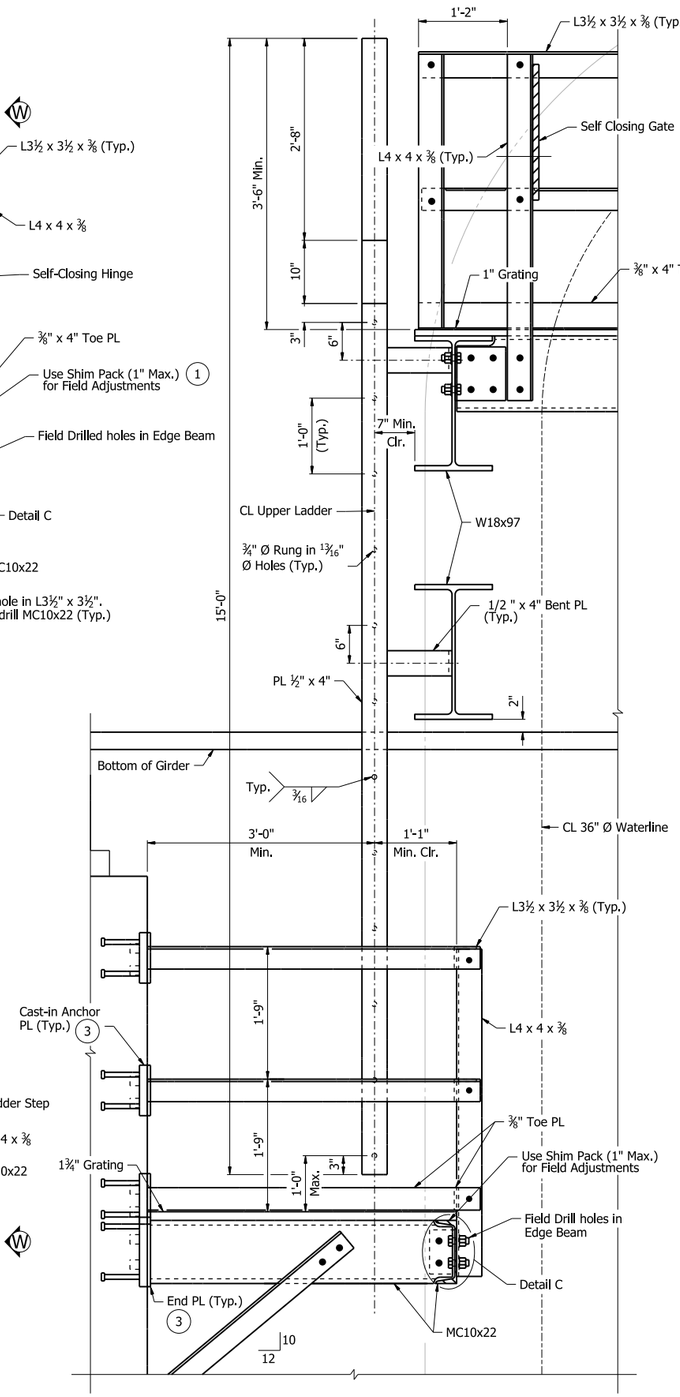
(1) 1" Max shim Pack to be used if required for field adjustment of MC Supports. ½" Shim Pack is assumed for quantity weight.

(2) Measured to lower ladder top rung.

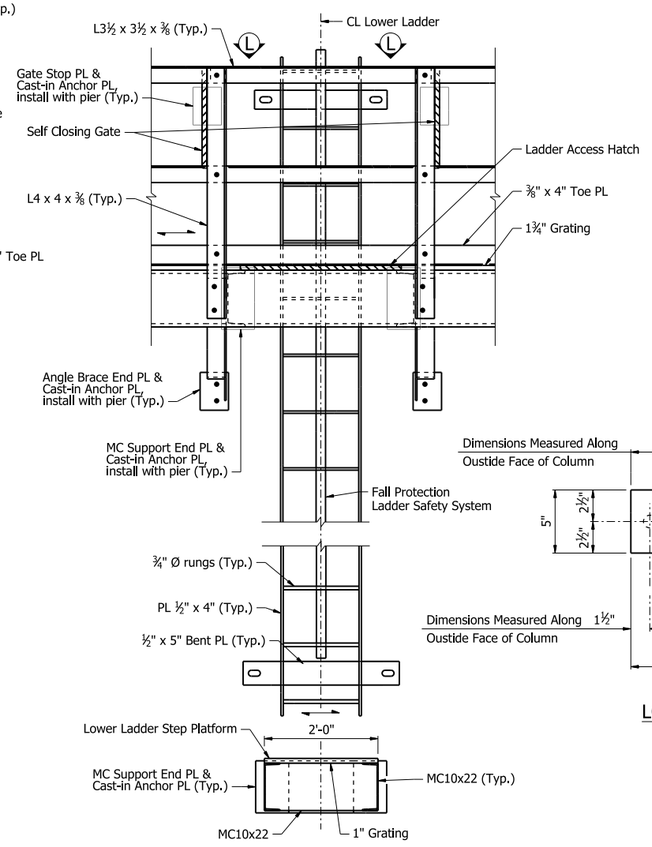
(3) See detail on sheet No. 67469.



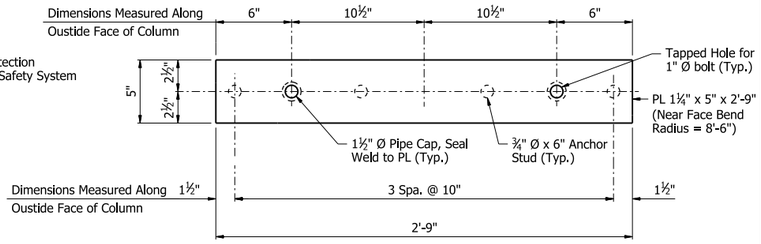
SECTION A-A
1" = 1'-0"



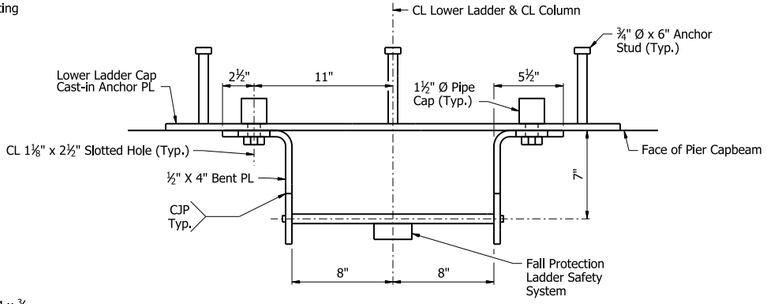
SECTION B-B
1" = 1'-0"



SECTION W-W
¾" = 1'-0"

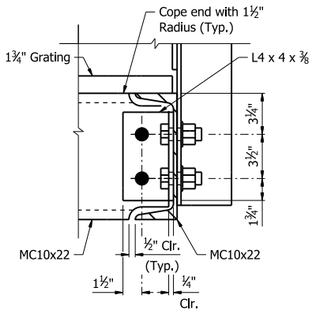


LOWER LADDER COLUMN CAST-IN ANCHOR PL
2" = 1'-0"



SECTION L-L
2" = 1'-0"

Indicates direction of grating bearing bars



DETAIL C
2" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22656
SARAH JO LARSON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 4 OF 7
DETAILS OF INSPECTION ACCESS AND WATERLINE SUPPORTS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 7/7/23
CHECKED BY: SJL DATE: 11/16/23
DESIGNED BY: SJL DATE: 7/3/23
FILENAME: b04090111_sx4.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67468

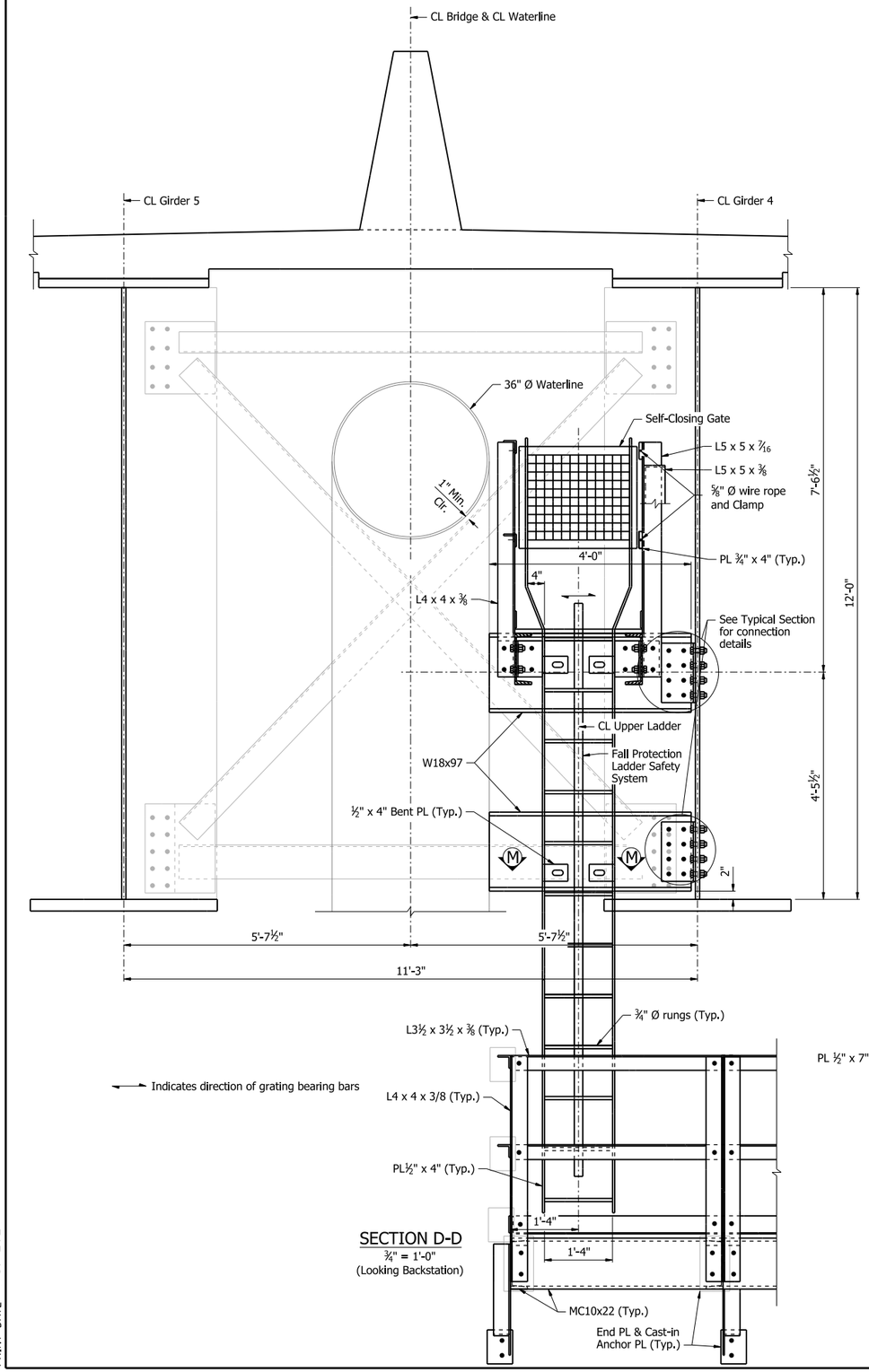
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	409	809
		07684 - WATERLINE - 67469				

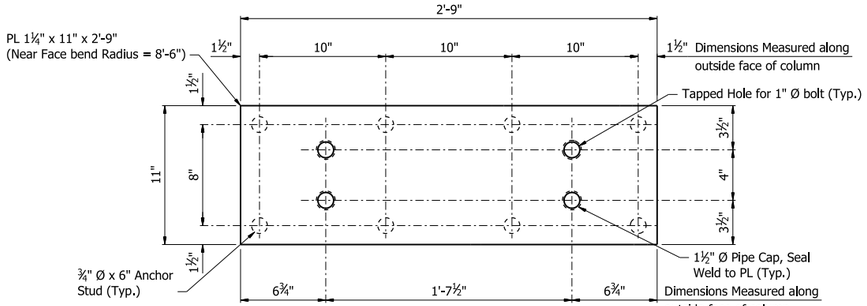
Notes:
For additional notes, see Dwg. No. 67465.

For location of "SECTION D-D", see Dwg. No. 67466.

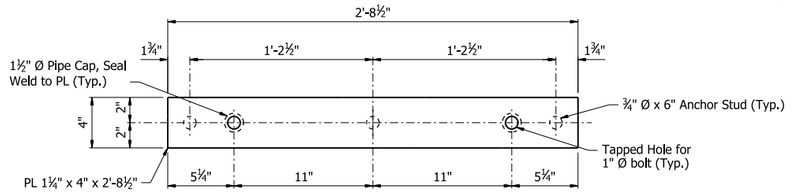
(1) Some End PLs and Cast-in Anchor PLs are reverse hand. Member orientation and dimensions shall be as shown on sheet 67465. Layout and orientation of all inspection access members shall be shown in the shop drawings and approved by the engineer.



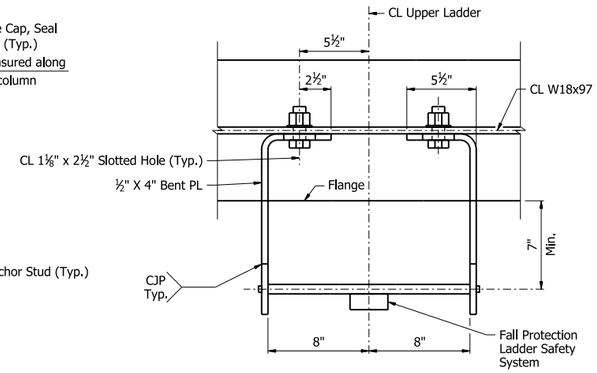
SECTION D-D
¾" = 1'-0"
(Looking Backstation)



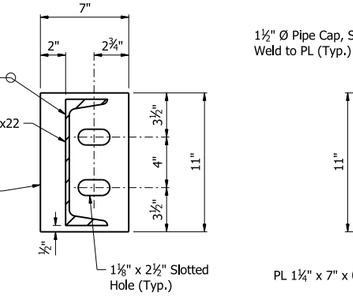
LADDER STEP PLATFORM CAST-IN ANCHOR PL
2" = 1'-0"



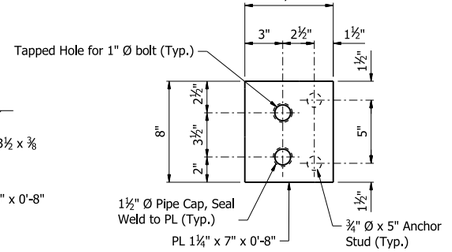
LOWER LADDER CAP CAST-IN ANCHOR PL
2" = 1'-0"



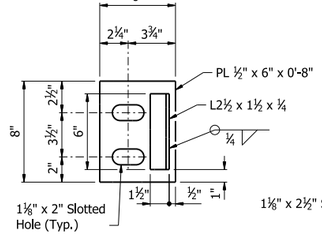
SECTION M-M
2" = 1'-0"



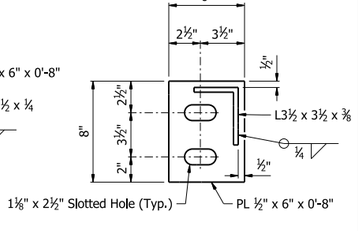
ANGLE BRACE END PL (1)
2" = 1'-0"



ANGLE BRACE, TOE PL, RAILING, & GATE STOP CAST-IN ANCHOR PL (1)
2" = 1'-0"

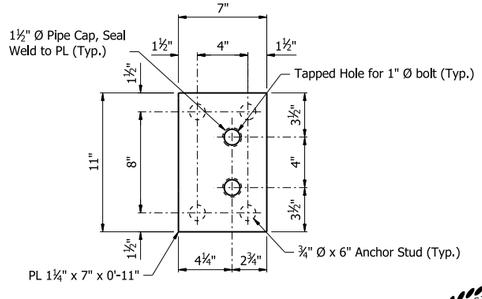


GATE STOP PL (1)
2" = 1'-0"



RAILING END PL (1)
2" = 1'-0"
(Toe PL End PL similar)

MC SUPPORT END PL (1)
2" = 1'-0"
(MC Support at Pier Capbeam shown, MC Support at Column will be at an angle to PL)



MC SUPPORT CAST-IN ANCHOR PL (1)
2" = 1'-0"

STATE OF ARKANSAS
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ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 5 OF 7
DETAILS OF INSPECTION ACCESS AND WATERLINE SUPPORTS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 7/7/23
CHECKED BY: SJL DATE: 11/16/23
DESIGNED BY: SJL DATE: 7/3/23
FILENAME: b04090111_sx5.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67469

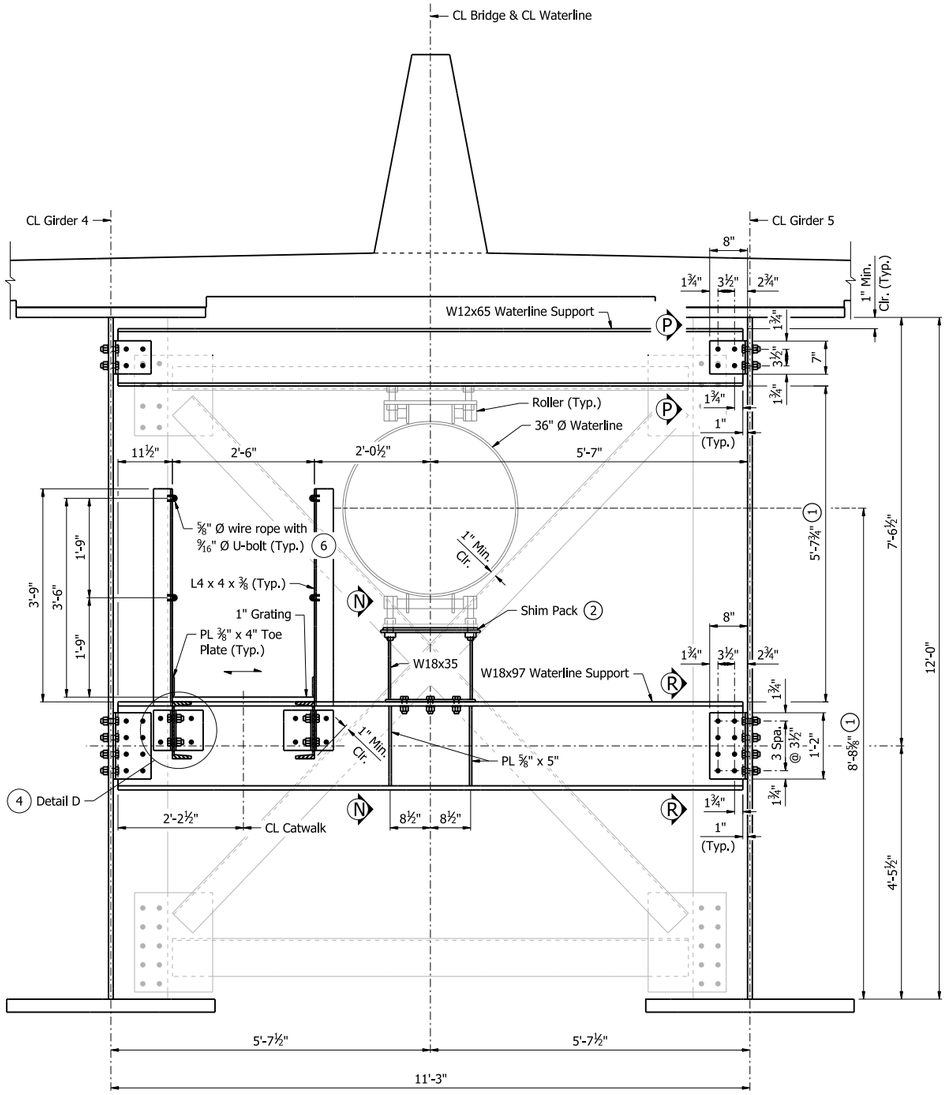
PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	410	809
		07684 - WATERLINE - 67470				

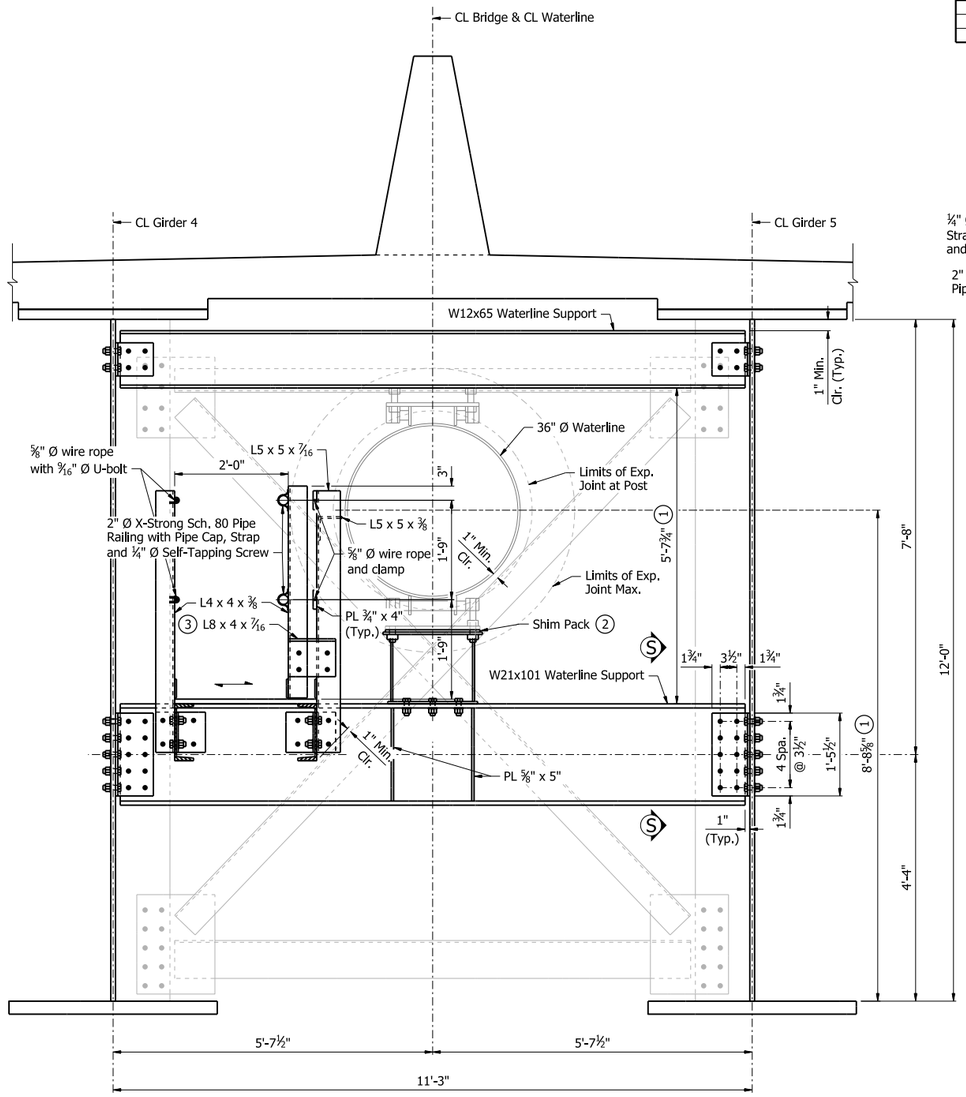
Notes:
For additional notes, see Dwg. No. 67465.

For "SECTION N-N", "SECTION P-P", "SECTION R-R" & "DETAIL D", see Dwg. No. 67471.

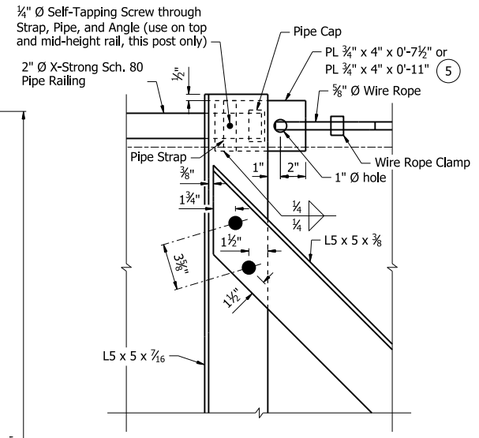
For location of "SECTION G-G", "DETAIL A" & "DETAIL B", see Dwg. No. 67466.



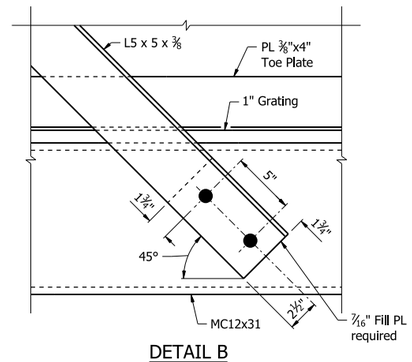
TYPICAL SECTION
¾" = 1'-0"



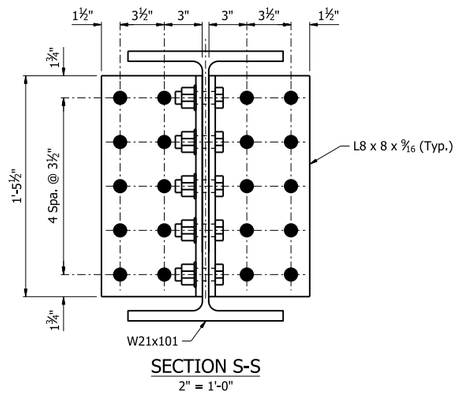
SECTION G-G
¾" = 1'-0"
Similar to Typical Section UNO



DETAIL A
2" = 1'-0"



DETAIL B
2" = 1'-0"



SECTION S-S
2" = 1'-0"

Indicates direction of grating bearing bars

1. Dimension shown can be adjusted to fit waterline geometry.
2. ½" Shim Pack to be used if required for field adjustment of waterline. ¼" Shim Pack is assumed for quantity weight.
3. See Section F-F for inset Post connection details.
4. At Bearing Stiffener locations, MC12x31 walkway support member will connect to bearing stiffener similar to connection shown in Detail D.
5. Intermediate pull-post tab PL similar to shown, but extends on both sides of pull-post.
6. At Bearing Stiffener locations, ⅝" Ø wire rope will pass through pre-drilled holes.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 22656
SARAH JO LARSON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 6 OF 7
DETAILS OF INSPECTION ACCESS AND WATERLINE SUPPORTS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 7/7/23
CHECKED BY: SJL DATE: 11/16/23
DESIGNED BY: SJL DATE: 7/3/23
FILENAME: b04090111_sx6.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67470

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	411	809
		07684 - WATERLINE - 67471				

Notes:
For additional notes, see Dwg. No. 67465.

For location of "SECTION E-E" & "SECTION H-H", see Dwg. No. 67466.

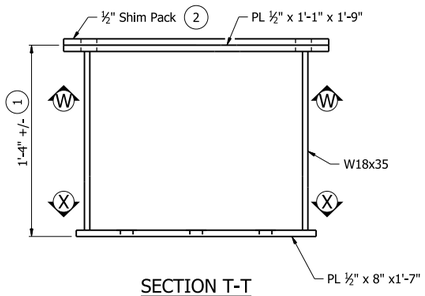
For location of "SECTION N-N", "SECTION P-P", "SECTION R-R" & "DETAIL D", see Dwg. No. 67470.

(1) Height of bolster to be adjusted to allow for waterline to clear crossframes by 1" min.

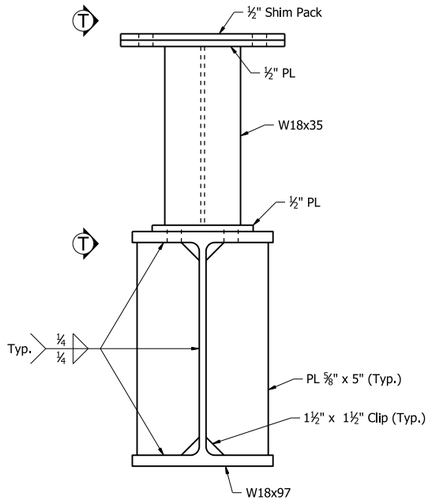
(2) ½" Shim Pack to be used if required for field adjustment of waterline. ¼" Shim Pack is assumed for quantity weight.

(3) See Section F-F for inset Post connection details.

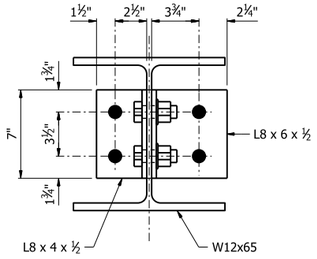
(4) At Bearing Stiffener locations, MC12x31 walkway support member will connect to bearing stiffener similar to connection shown in Detail D.



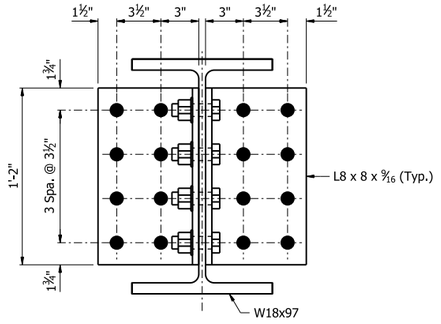
SECTION T-T
2" = 1'-0"
W18x97 not shown for clarity



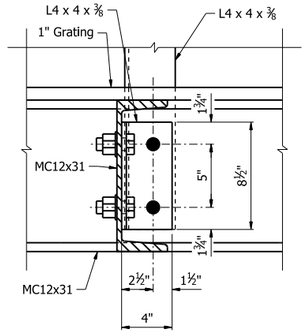
SECTION N-N
2" = 1'-0"
Roller not shown for clarity



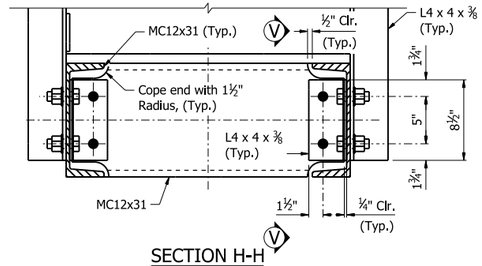
SECTION P-P
2" = 1'-0"



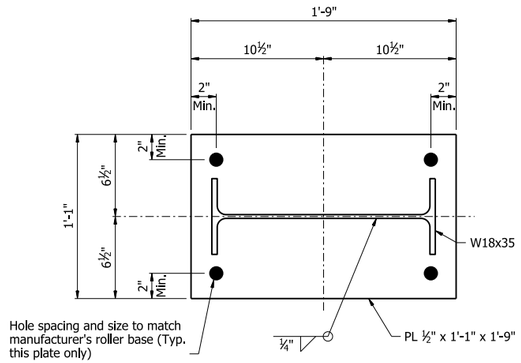
SECTION R-R
2" = 1'-0"



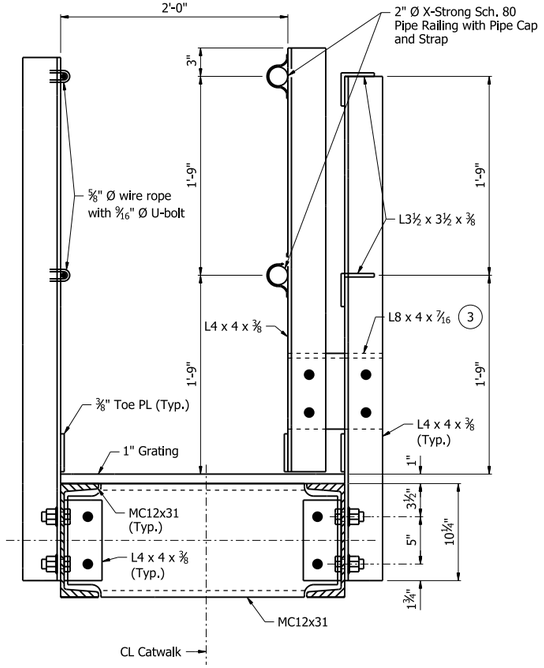
SECTION V-V
2" = 1'-0"



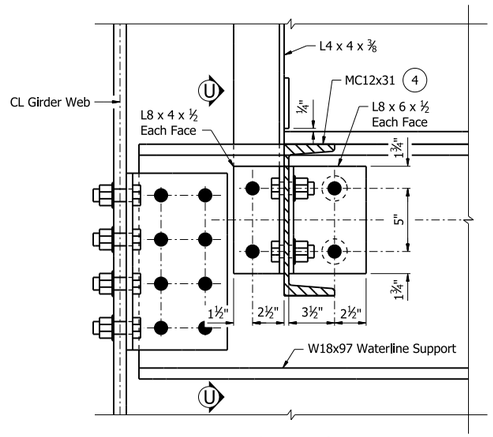
SECTION H-H
1½" = 1'-0"



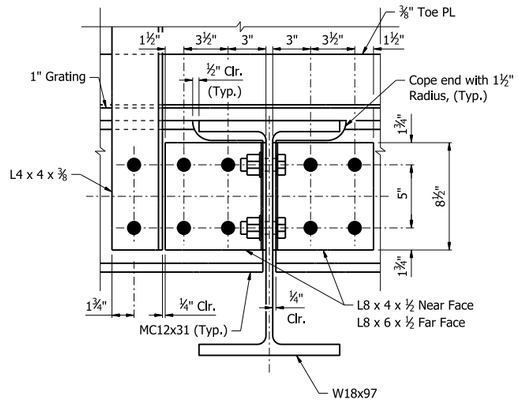
SECTION W-W
2" = 1'-0"



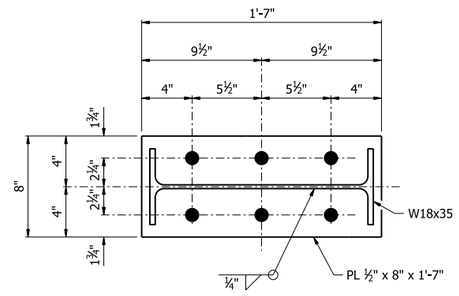
SECTION E-E
1½" = 1'-0"



DETAIL D
2" = 1'-0"



SECTION U-U
2" = 1'-0"



SECTION X-X
2" = 1'-0"

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 7 OF 7
DETAILS OF INSPECTION ACCESS
AND WATERLINE SUPPORTS
I-49 OVER ARKANSAS RIVER
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD & SEBASTIAN COUNTIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 22656
SARAH JO LARSON
4/18/24
BRIDGE ENGINEER

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CTK DATE: 7/7/23
CHECKED BY: SJL DATE: 11/16/23
DESIGNED BY: SJL DATE: 7/3/23
FILENAME: b04090111_sx7.dgn
SCALE: AS NOTED

BRIDGE NO. 07684 DRAWING NO. 67471

PRINT DATE: 4/10/2024

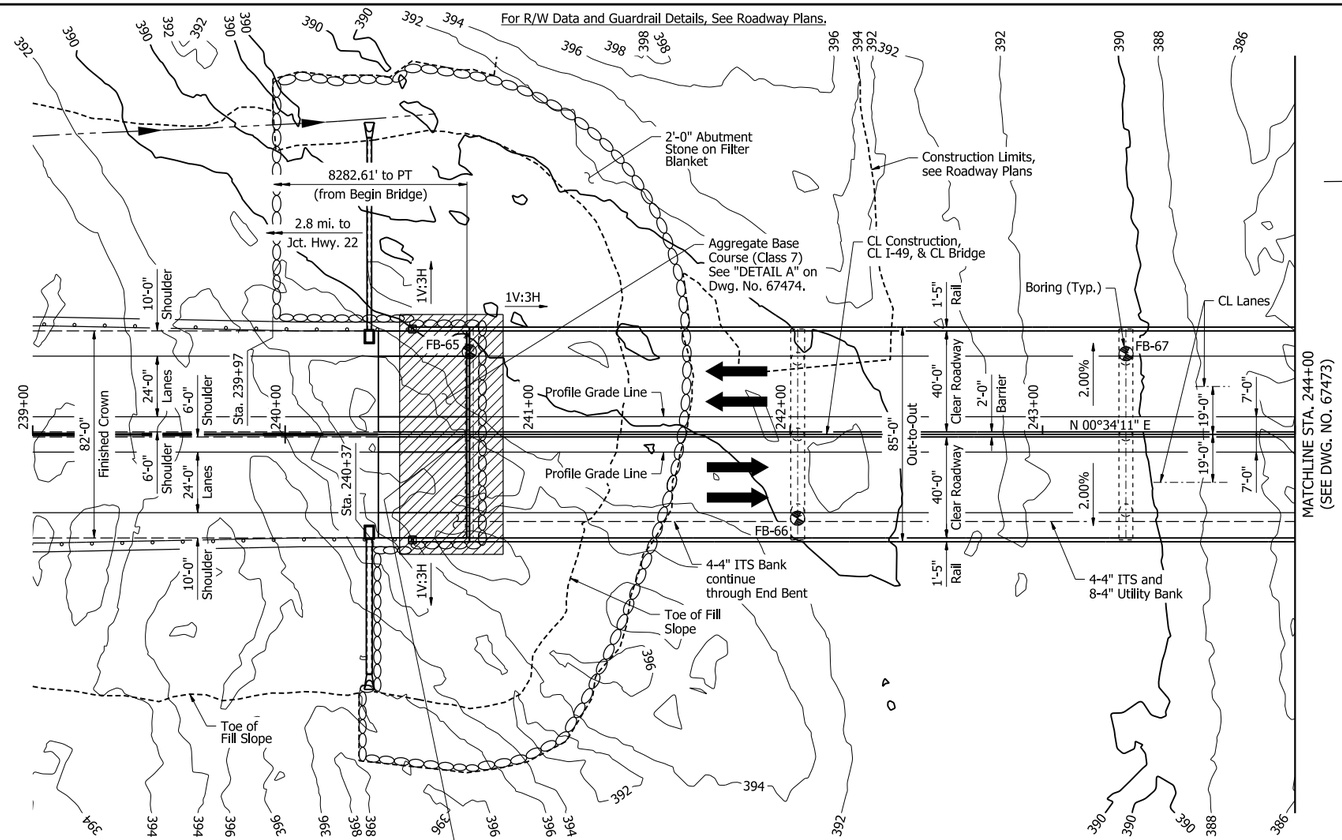
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	412	809
		07685 - BRIDGE LAYOUTS - 67472				

Notes:
Use Type F Approach Gutters, Type F Approach Slabs (W=36'-0") and Type 1 Special Median Approach Slab (W=6'-0") at beginning of bridge. See Dwg. No. 67712 for Bridge Approach Details.

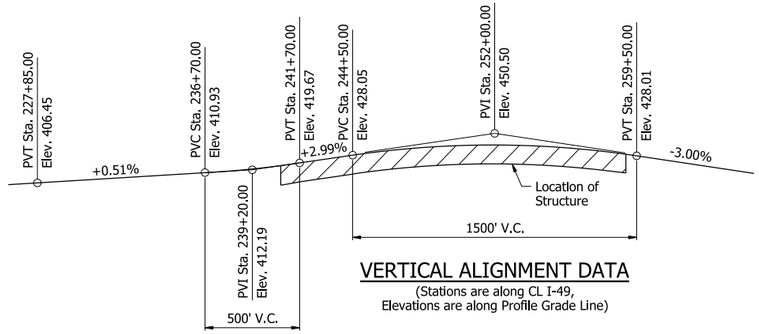
For General Notes, see Dwg. No. 67372.

All bents are normal to CL I-49.

For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

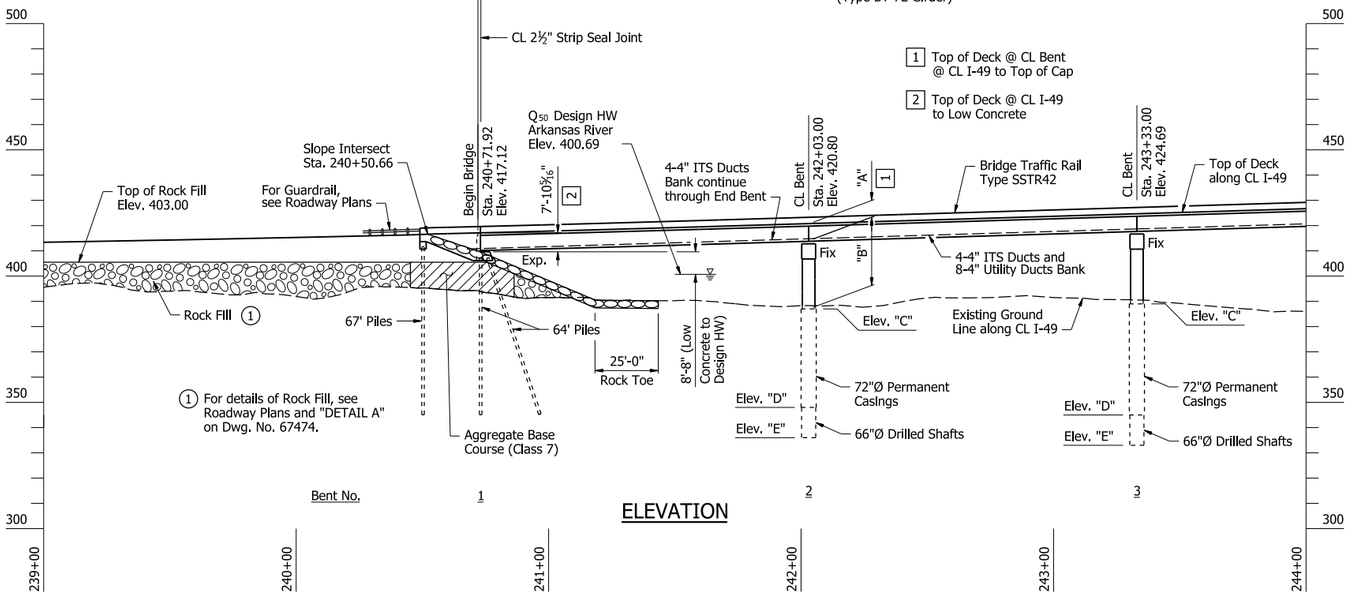


PLAN



VERTICAL ALIGNMENT DATA

(Stations are along CL I-49, Elevations are along Profile Grade Line)

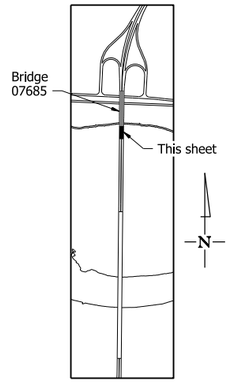


ELEVATION

Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.

TABLE OF VARIABLES

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 2	8'-5⅝"	25'-4½"	387.00	348.00	322.00
Bent No. 3	8'-4¼"	27'-4⅛"	389.00	345.00	321.00



SITE PLAN
No Scale

ALTERNATE NO. 1
SHEET 1 OF 5
LAYOUT OF BRIDGE
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19996
BRENT T. JONES
4/18/24
BRIDGE ENGINEER

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

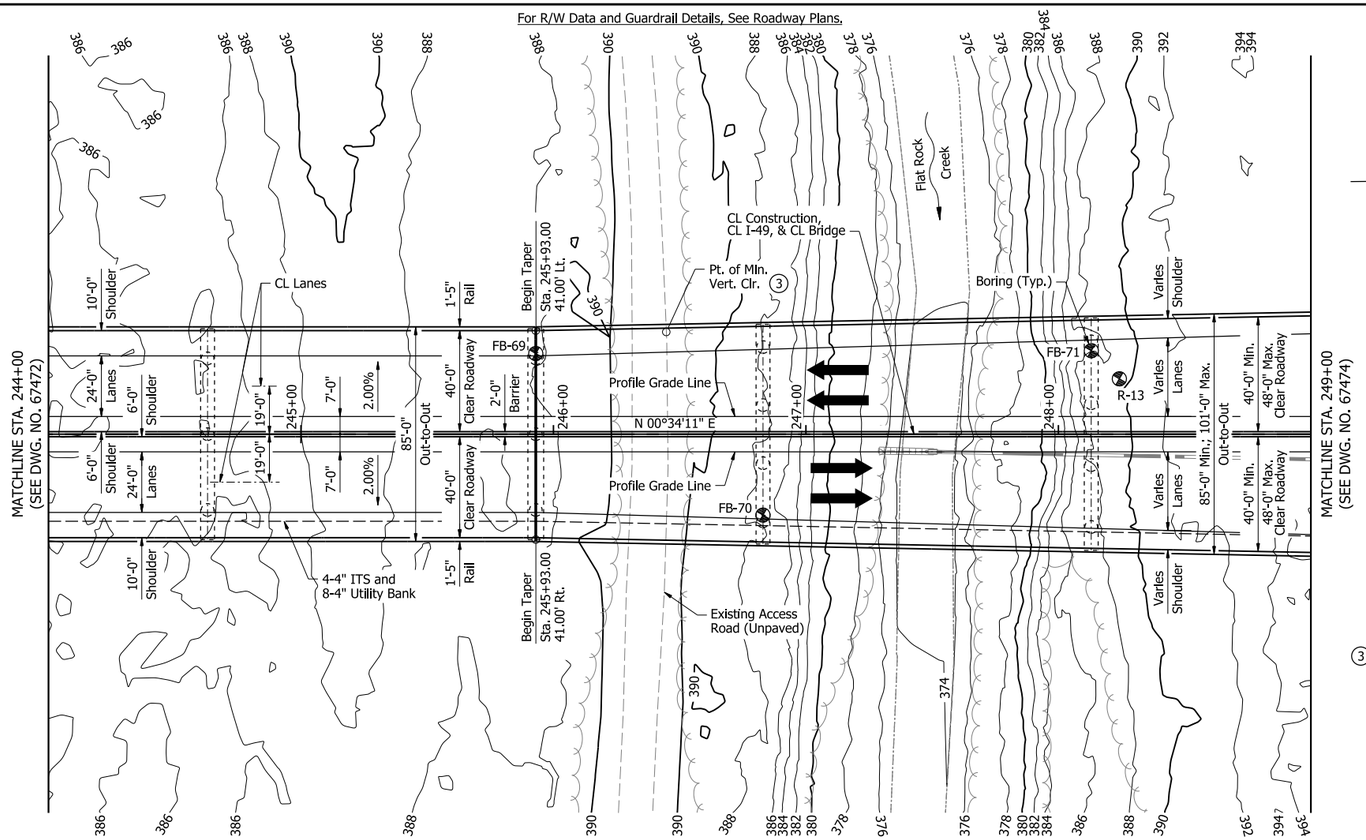
DRAWN BY: CTK DATE: 1/30/23
CHECKED BY: QL DATE: 12/4/23
DESIGNED BY: BTJ DATE: 12/2/22
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SCALE: 1" = 30'-0"

BRIDGE NO. 07685 DRAWING NO. 67472

PRINT DATE: 4/9/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	413	809
		07685 - BRIDGE LAYOUTS - 67473				

For R/W Data and Guardrail Details, See Roadway Plans.



PLAN

3 Sta. 246+44.74, Offset 40.36' Lt.

Notes:
For General Notes, see Dwg. No. 67372.

All bents are normal to CL I-49.

For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

HYDRAULIC DATA

FLOOD DESCRIPTION	FREQUENCY	TOTAL 1 DISCHARGE	DISCHARGE BRIDGE 07685	2 NATURAL WATER SURFACE ELEVATION	WATER SURFACE ELEV. WITH BACKWATER
	YEARS	CFS	CFS	FEET	FEET
Design	50	415,000	20,636	401.34	401.36
Base	100	480,000	26,278	403.37	403.37
Extreme	500	600,000	34,475	405.38	405.39
Overtopping	>500	615,000	35,687	405.83	405.85

1 The total discharge includes flow at this site and at Bridge 07684 (Arkansas River Channel)

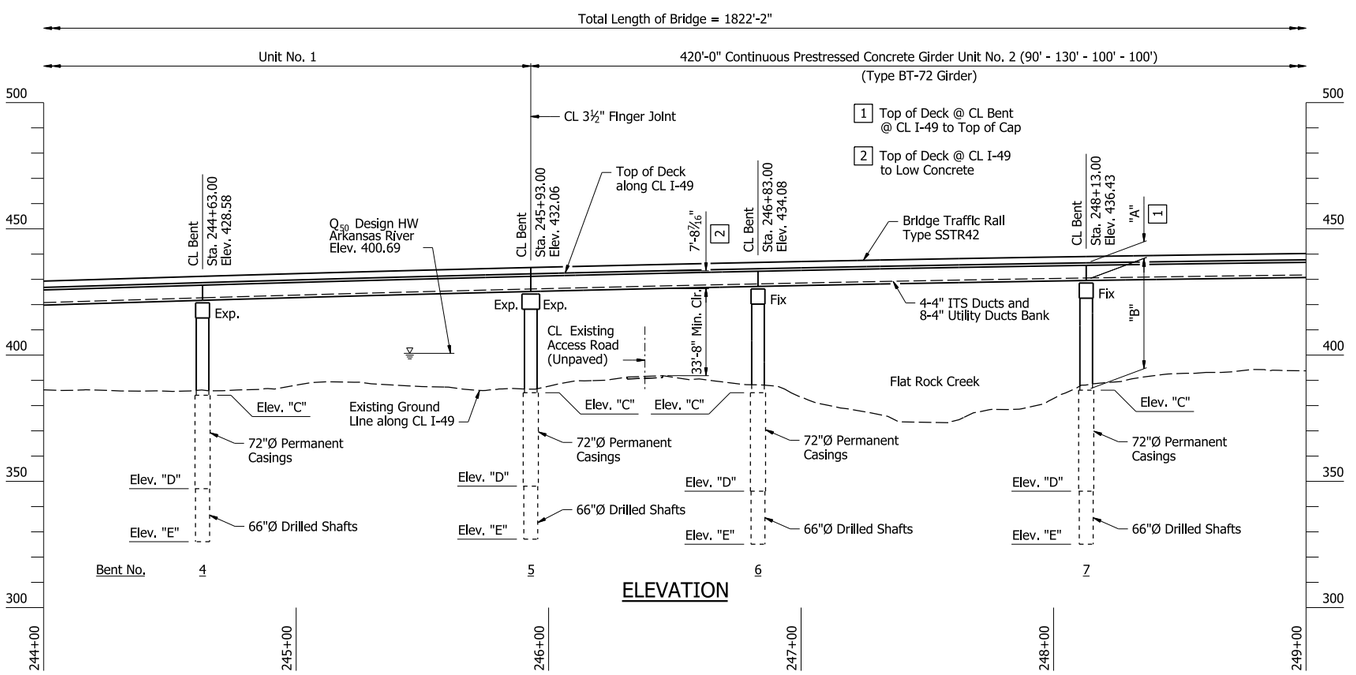
2 Unconstricted water surface without structure or roadway approaches.

Q100 backwater elevation for existing structure = N/A, no existing structure

Proposed Bridge Low Chord Elevation = 409.37 feet at Station 240+76.67.

Drainage Area (Bridge 07684 and 07685) = 151,000 square miles.

Historical H.W. Elev. = 406.96 feet (from upstream USGS stream gage 07250550 on June 1, 2019 with a discharge of 570,000 cfs)

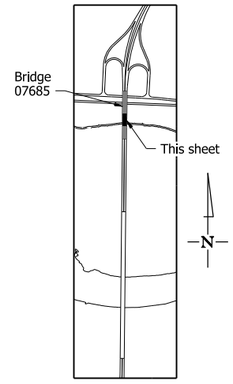


ELEVATION

Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.

TABLE OF VARIABLES

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 4	8'-7"	36'-0"	384.00	345.00	321.00
Bent No. 5	8'-9 7/16"	38'-2 7/16"	385.00	348.00	334.00
Bent No. 6	8'-3 7/16"	40'-9 5/16"	385.00	346.00	331.00
Bent No. 7	8'-4½"	42'-0¾"	386.00	346.00	331.00



SITE PLAN
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19996
BRENT T. JONES
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 5
LAYOUT OF BRIDGE
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

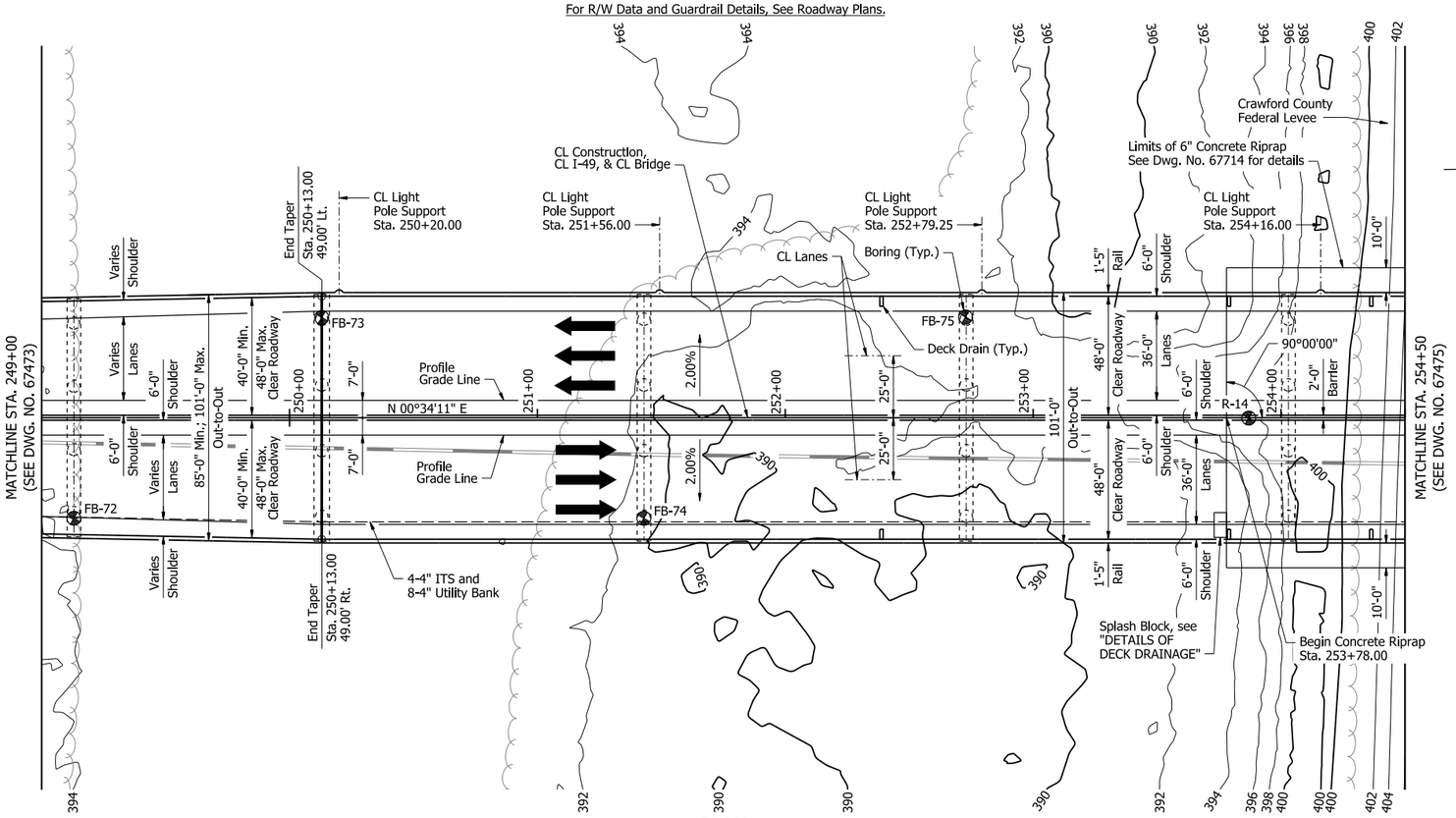
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CHECKED BY: QL DATE: 12/4/23
DESIGNED BY: BTJ DATE: 12/2/22
FILENAME: b040901116_l2.dgn
SCALE: 1" = 30'-0"

BRIDGE NO. 07685 DRAWING NO. 67473

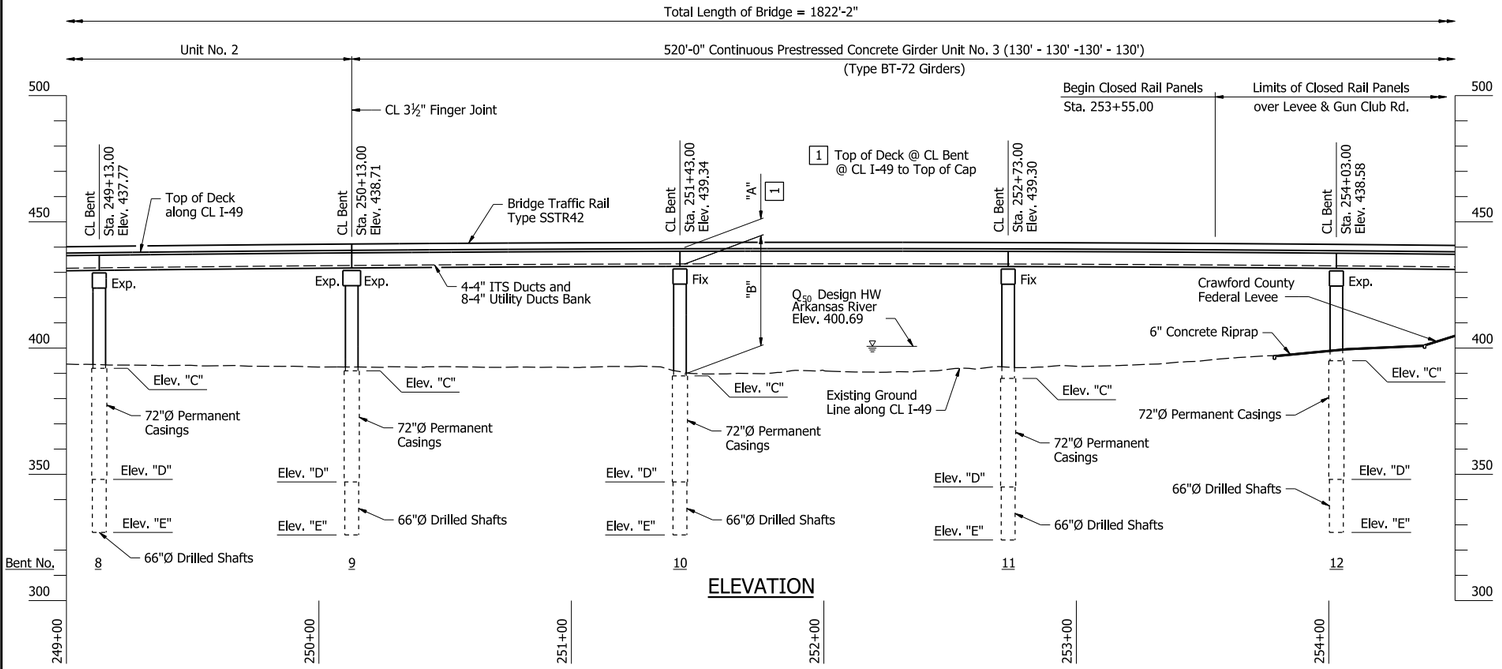
PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	414	809
		07685 - BRIDGE LAYOUTS - 67474				

For R/W Data and Guardrail Details, See Roadway Plans.



PLAN



ELEVATION

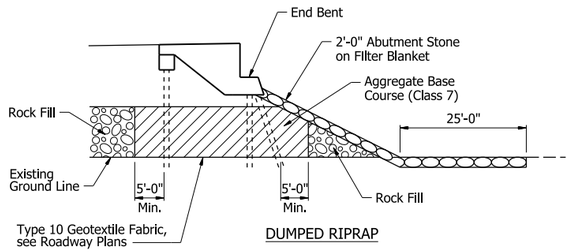
Notes:
For General Notes, see Dwg. No. 67372.

All bents are normal to CL I-49.

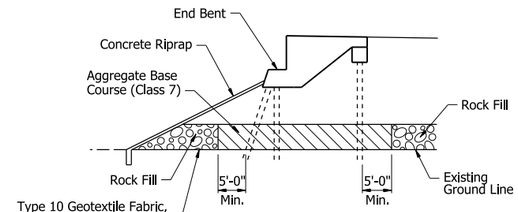
For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

For details of Light Pole Support, see Dwg. No. 67686.

For "DETAILS OF DECK DRAINAGE", see Dwg. Nos. 67707 thru 67711.



DUMPED RIPRAP



CONCRETE RIPRAP

Where rock fill is used for embankment construction, aggregate base course (Class 7), in accordance with Section 303.02, shall be placed as shown in areas where piling will be located. Aggregate base course (Class 7) shall be paid for as "Rock Fill".

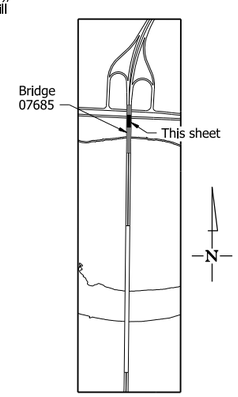
At the Contractor's option, preboring or other methods as approved by the Engineer may be used to facilitate pile installation thru the aggregate base course (Class 7) material at these locations. Preboring or other methods used for installation of piles where rock fill is used for embankment construction will not be paid for separately, but shall be included in item "Steel Piling".

DETAIL A
No Scale

Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.

TABLE OF VARIABLES

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 8	8'-7¾"	37'-1½"	392.00	348.00	331.00
Bent No. 9	8'-10½"	38'-10⅛"	391.00	347.00	332.00
Bent No. 10	8'-5"	41'-11"	389.00	347.00	332.00
Bent No. 11	8'-5"	42'-10½"	388.00	345.00	330.00
Bent No. 12	8'-8"	34'-10⅞"	395.00	342.00	327.00



SITE PLAN
No Scale

ALTERNATE NO. 1
SHEET 3 OF 5
LAYOUT OF BRIDGE
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER ★★★ No. 19996 BRENT T. JONES
4/18/24
BRIDGE ENGINEER

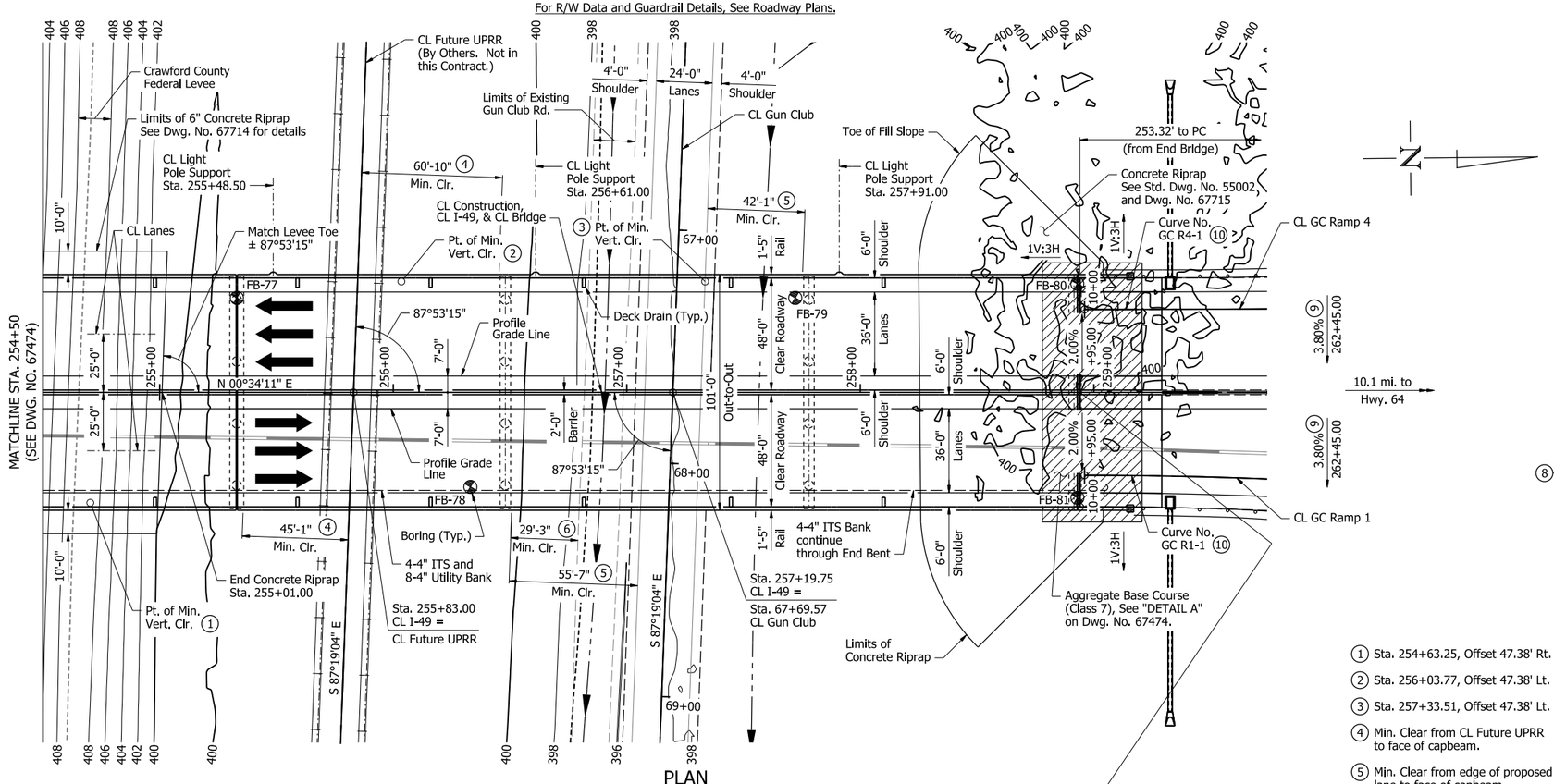
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CHECKED BY: QL DATE: 12/4/23
DESIGNED BY: BTJ DATE: 12/2/22
FILENAME: b040901116_l3.dgn
SCALE: 1" = 30'-0"

BRIDGE NO. 07685 DRAWING NO. 67474

PRINT DATE: 4/9/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	415	809
		07685 - BRIDGE LAYOUTS - 67475				

For R/W Data and Guardrail Details, See Roadway Plans.



Notes:
Use Type 1 Special Approach Gutters, Type F Approach Slabs (W=44'-0") and Type 2 Special Median Approach Slab (W=6'-0") at end of Bridge. See Dwg. No. 67713 for Bridge Approach Details.

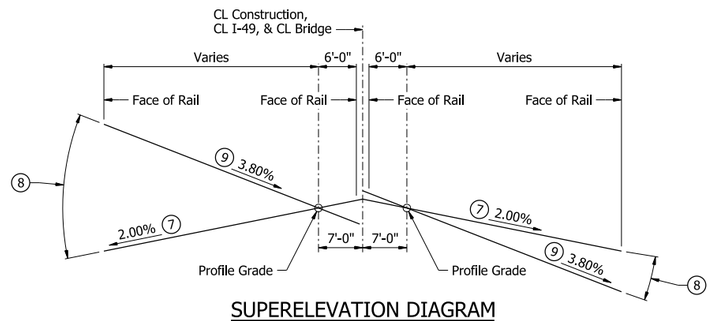
For General Notes, see Dwg. No. 67372.

All bents are normal to CL I-49.

For details of ITS and Utility Banks, see "ITS AND UTILITY BANK DETAILS".

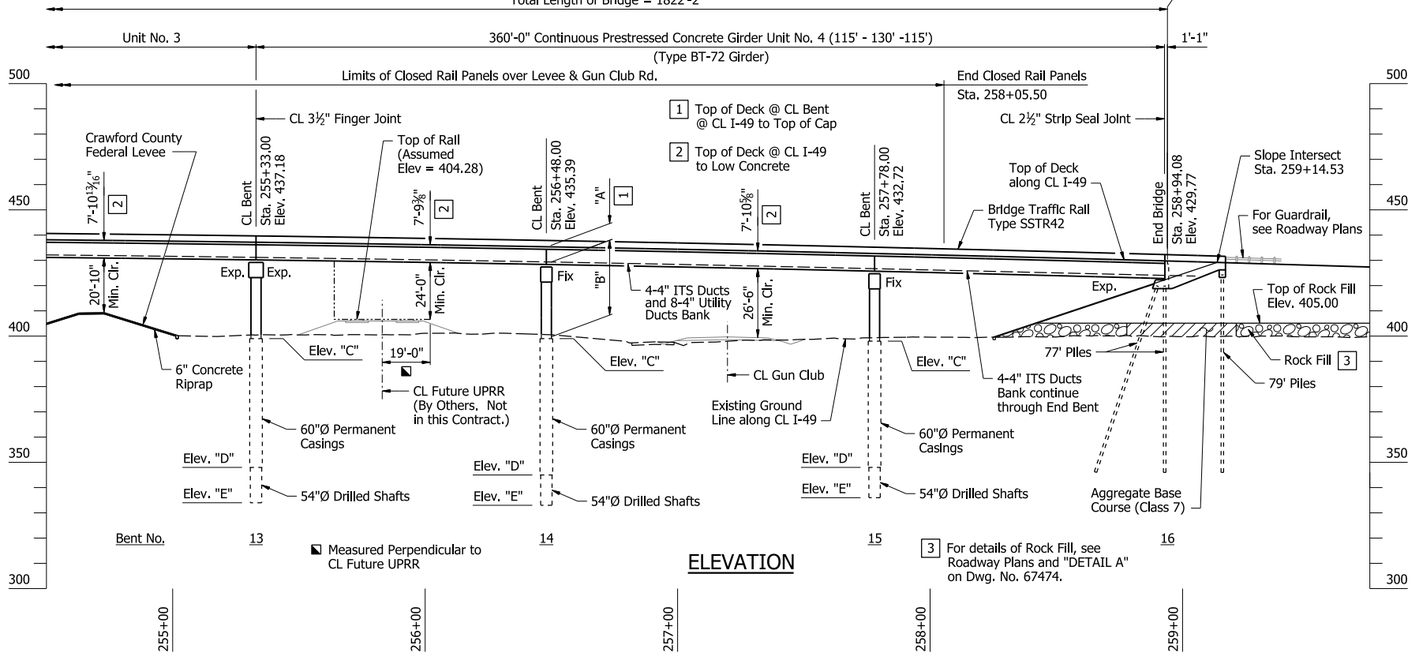
For details of Light Pole Support, see Dwg. No. 67686.

For "DETAILS OF DECK DRAINAGE", see Dwg. Nos. 67707 thru 67711.



SUPERELEVATION DIAGRAM
Looking Ahead

1. Sta. 254+63.25, Offset 47.38' Rt.
2. Sta. 256+03.77, Offset 47.38' Lt.
3. Sta. 257+33.51, Offset 47.38' Lt.
4. Min. Clear from CL Future UPRR to face of capbeam.
5. Min. Clear from edge of proposed lane to face of capbeam.
6. Min. Clear from edge of existing lane to face of capbeam.
7. Cross Slope constant 2.00% (Sta. 160+52.00 to Sta. 258+95.00)
8. Cross Slope varies from 2.00% (Sta. 258+95.00) to 3.80% (Sta. 262+45.00)
9. Cross Slope constant 3.80% (Sta. 262+45.00 to Sta. 320+50.00)
10. See Roadway for ramp curve data

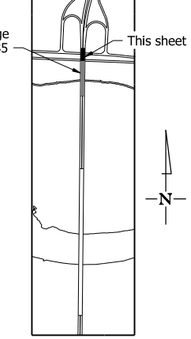


ELEVATION

Note:
Elevations shown are actual top of deck elevations at CL I-49. Any vertical dimension referenced to Top of Deck is based on actual top of deck elevation at CL I-49. Stations shown are along CL I-49.

TABLE OF VARIABLES

Location	"A"	"B"	"C"	"D"	"E"
Bent No. 13	8'-10½"	29'-3⅜"	399.00	348.00	336.50
Bent No. 14	8'-5¼"	27'-11⅜"	399.00	345.00	333.50
Bent No. 15	8'-4⅞"	26'-3¾"	398.00	348.00	336.50



SITE PLAN
No Scale

ALTERNATE NO. 1
SHEET 4 OF 5
LAYOUT OF BRIDGE
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19996
BRENT T. JONES
4/18/24
BRIDGE ENGINEER

DRAWN BY: CTK DATE: 1/30/23
CHECKED BY: QL DATE: 12/4/23
DESIGNED BY: BTJ DATE: 12/2/22
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BRIDGE NO. 07685 DRAWING NO. 67475

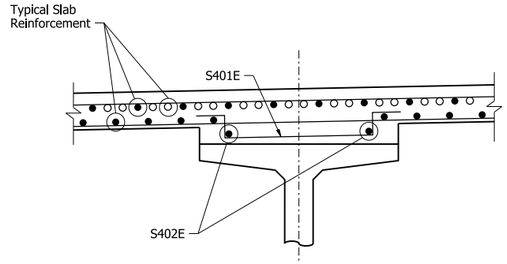
PRINT DATE: 4/9/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	416	809
		07685 - BRIDGE LAYOUTS - 67476				

GENERAL NOTES

GENERAL NOTES: For project specific general notes, see Dwg. No. 67372 and 67373

DETAIL DRAWINGS:	DRAWING NO(S).
Schedule of Bridge Quantities	67368
General Notes	67372 - 67373
Layout of Bridge	67472 - 67476
Elevation of Soil Borings	67477 - 67480
End Bents 1 & 16	67481 - 67486
Bent Nos. 2 & 3	67487 - 67488
Bent No. 4	67489 - 67490
Bent No. 5	67491 - 67492
Bent Nos. 6 & 7	67493 - 67494
Bent No. 8	67495 - 67497
Bent No. 9	67498 - 67500
Bent Nos. 10 & 11	67501 - 67503
Bent No. 12	67504 - 67506
Bent No. 13	67507 - 67509
Bent Nos. 14 & 15	67510 - 67512
520'-0" Continuous Prestressed Concrete Girder Unit 1	67513 - 67520
420'-0" Continuous Prestressed Concrete Girder Unit 2	67521 - 67531
520'-0" Continuous Prestressed Concrete Girder Unit 3	67532 - 67539
360'-0" Continuous Prestressed Concrete Girder Unit 4	67540 - 67548
ITS and Utility Bank Supports	67672 - 67675, 67677 - 67679, & 67684 - 67685
Bridge Traffic Rail Type SSTR42	67686 - 67688
Median Barrier	67689
Sections Near Joints	67690
Armored Joint with Neoprene Strip Seal	67692
Finger Joints	67694 - 67695
Elastomeric Bearings	67702 - 67703
Deck Drainage	67707 - 67711
Bridge Approaches	67712 - 67713
Levee Concrete Riprap	67714
Supplemental Details of Concrete Riprap	67715
Dumped Riprap and Filter Blanket	55001
Concrete Riprap	55002
Permanent Steel Deck Forms	55005
Type D Name Plate	55010
Steel H-Piling	55020
Type F Approach Gutters	55030F
Type F Approach Slabs	55040F1
Bridge Traffic Rail Type SSTR42	55071



HAUNCH REINFORCEMENT DETAIL

Scale: ¾"=1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 19996
BRENT T. JONES

4/18/24

BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 5 OF 5
LAYOUT OF BRIDGE
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

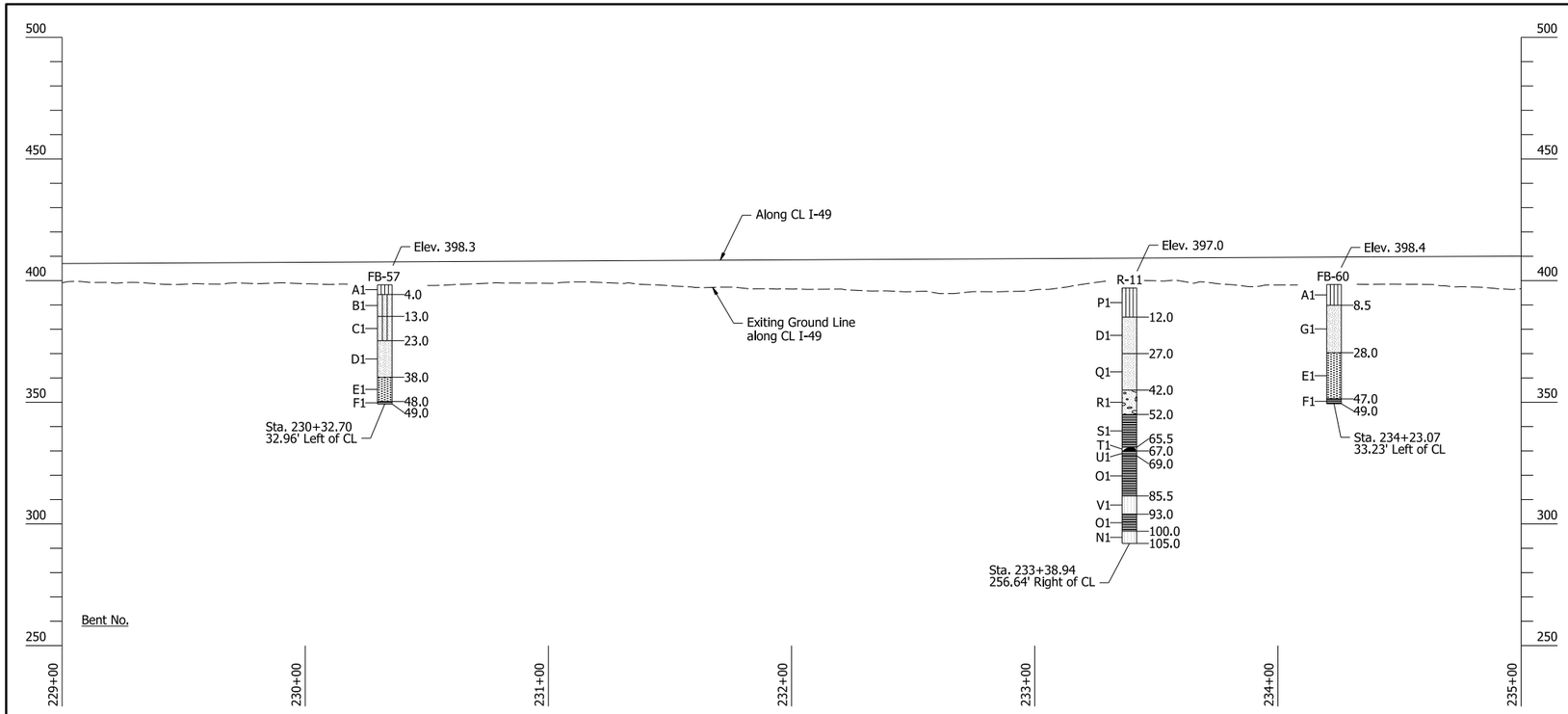
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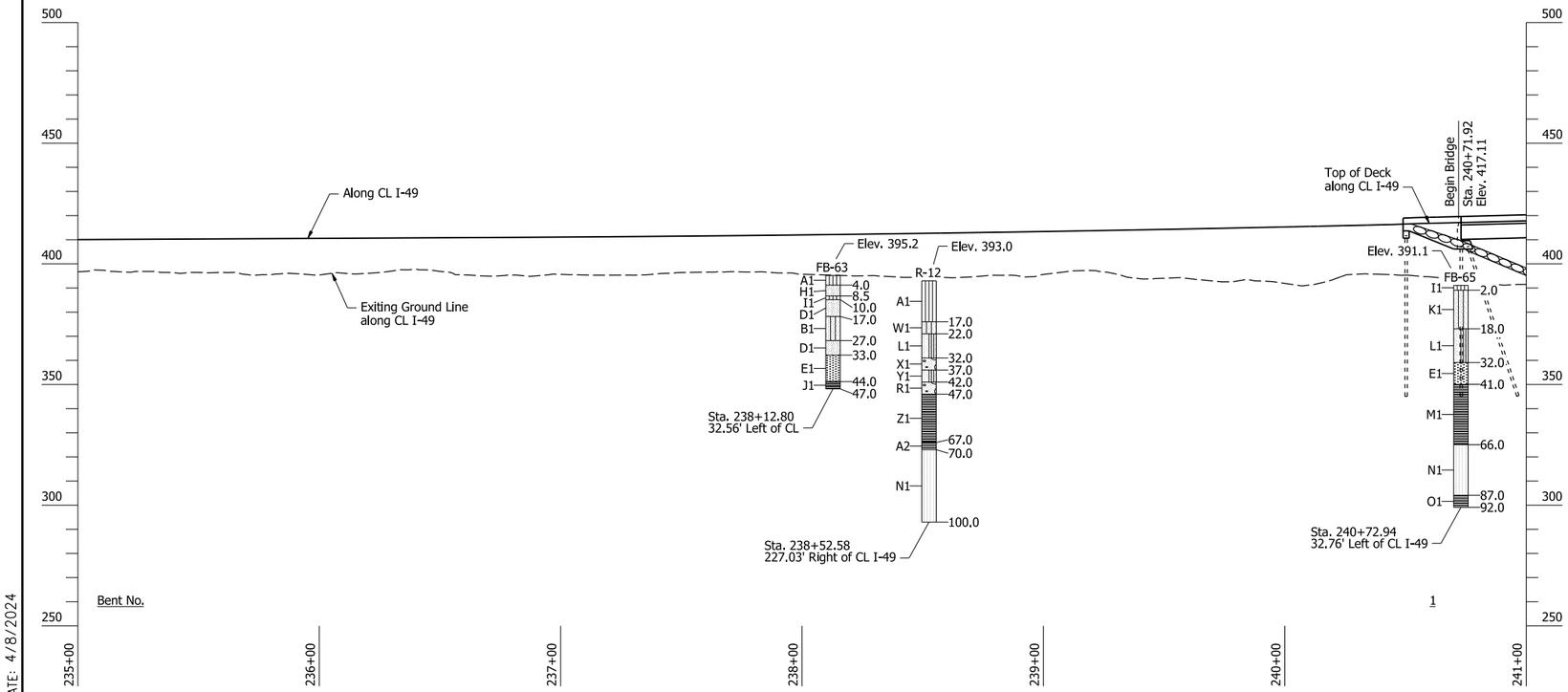
BRIDGE NO. 07685 DRAWING NO. 67476

PRINT DATE: 4/9/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	417	809
		07685 - BRIDGE LAYOUTS - 67477				



ELEVATION OF SOIL BORINGS



ELEVATION OF SOIL BORINGS

PRINT DATE: 4/8/2024

"N" VALUES

FB-57 - Sta. 230+9.17', 71.57' Left of CL I-49

0.5-1.5	N=2
2.5-3.5	N=3
4.5-5.5	N=5
6.5-7.5	N=4
9.0-10.0	N=7
14.0-15.0	N=4
19.0-20.0	N=11
24.0-25.0	N=27
29.0-30.0	N=15
34.0-35.0	N=18
39.0-40.0	N=14
44.0-45.0	N=11
48.0-49.0	N=50/6"

FB-60 - Sta. 233+99.19', 5.28' Left of CL I-49

0.5-1.5	N=2
2.5-3.5	N=2
4.5-5.5	N=4
6.5-7.5	N=5
9.0-10.0	N=9
14.0-15.0	N=9
19.0-20.0	N=10
24.0-25.0	N=22
29.0-30.0	N=14
34.0-35.0	N=8
39.0-40.0	N=12
44.0-45.0	N=18
48.0-49.0	N=50/6"

FB-63 - Sta. 237+89.19', 71.10' Left of CL I-49

0.5-1.5	N=2
2.5-3.5	N=3
4.5-5.5	N=7
6.5-7.5	N=7
9.0-10.0	N=5
14.0-15.0	N=17
19.0-20.0	N=9
24.0-25.0	N=16
29.0-30.0	N=17
34.0-35.0	N=11
39.0-40.0	N=13
44.0-45.0	N=39
45.0-46.0	N=50/5"

FB-65 - Sta. 240+72.94', 32.76' Left of CL I-49

0.5-1.5	N=33
2.5-3.5	N=3
4.5-5.5	N=3
6.5-7.5	N=3
9.0-10.0	N=3
14.0-15.0	N=3
19.0-20.0	N=12
24.0-25.0	N=12
29.0-30.0	N=25
34.0-35.0	N=10
39.0-40.0	N=19
42.0-43.0	N=50/2"

R-11 - Sta. 233+38.94, 256.64' Right of CL

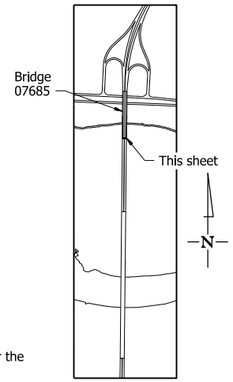
0.5-1.5	N=4
2.5-3.5	N=4
4.5-5.5	N=5
6.5-7.5	N=6
9.0-10.0	N=9
14.0-15.0	N=12
19.0-20.0	N=14
24.0-25.0	N=10
29.0-30.0	N=23
34.0-35.0	N=28
39.0-40.0	N=24
44.0-45.0	N=32
49.0-50.0	N=41
54.0-55.0	N=50/2"

R-12 - Sta. 238+52.58, 227.03' Right of CL I-49

0.5-1.5	N=3
2.5-3.5	N=4
4.5-5.5	N=5
6.5-7.5	N=6
9.0-10.0	N=7
14.0-15.0	N=5
19.0-20.0	N=50/11"
24.0-25.0	N=14
29.0-30.0	N=5
34.0-35.0	N=14
39.0-40.0	N=46
44.0-45.0	N=31

BORING LEGEND

A1 - ML-Very loose reddish brown fine sandy silt
A2 - SHALE-Low hardness to moderately hard dark gray shale w/occasional fractures, horizontal bedding
B1 - SM-Very Loose tan silty fine sand
C1 - SM-Very loose to loose tan silty fine sand
D1 - SP-Medium dense gray and tan fine sand
E1 - SW-Medium dense tan and gray fine to coarse sand
F1 - SHALE-Moderately hard dark gray shale
G1 - SP-Loose brown and tan fine sand
H1 - SP-Loose silty fine sand
I1 - ML-Very loose brown silt
J1 - SHALE-Low hardness dark gray shale
K1- SM-Very loose tan silty fine sand
L1- SP-SM-Medium dense tan and gray fine sand
M1 - SHALE-Moderately hard dark gray shale, slightly weathered w/some fractures, horizontal bedding
N1 - SANDSTONE-Moderately hard gray fine-grained sandstone w/ shale partings
O1 - SHALE-Moderately hard dark gray shale w/ sandstone partings
P1 - ML-Very loose to loose tan fine sandy silt
Q1 - SP-Medium dense tan fine to medium sand
R1 - SPG-Dense tan and gray fine to coarse sand w/some fine gravel
S1 - SHALE-Moderately hard dark gray weathered shale, fractured w/some highly weathered seams
T1 - COAL-Low hardness coal, easily fractured
U1 - SHALE-Low hardness dark gray highly weathered shale, horizontal bedding
V1 - SANDSTONE-Moderately hard to hard gray fine-grained sandstone w/interbedded gray shale, horizontal bedding
W1 - SM-Very dense tan silty fine sand
X1 - SPG-Medium dense tan fine to coarse sand w/some fine gravel
Y1 - SP-SM-Dense tan and gray fine sand
Z1 - SHALE-Low hardness to moderately hard dark gray weathered shale w/some highly weathered seams and layers



SITE PLAN
No Scale

Note:
Soil descriptions have been condense for the purposes of this drawing.

See Final Geotechnical Report for additional information on individual borings.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21612
MICHAEL J. L. DESTIGTER
04/17/2024
BRIDGE ENGINEER

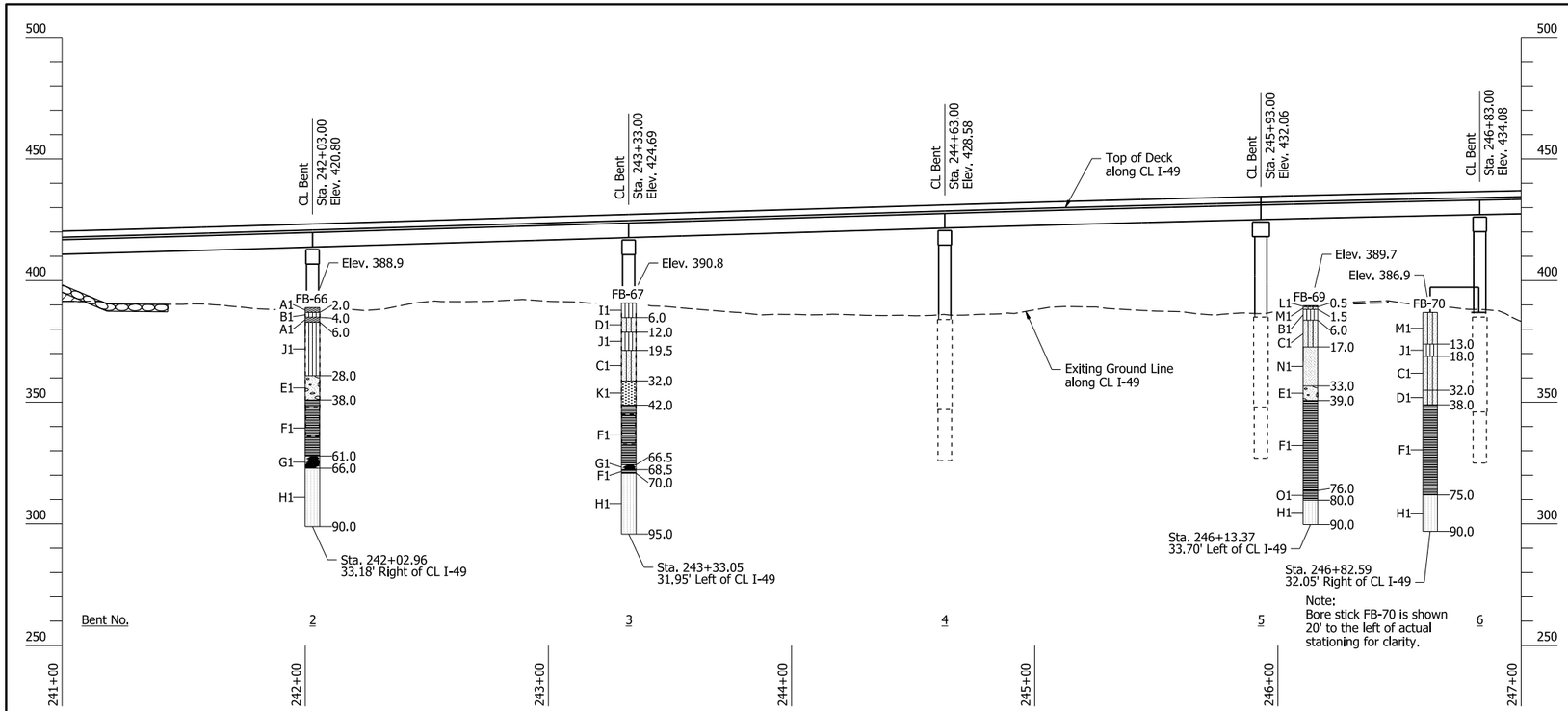
ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 1 OF 4
ELEVATION OF SOIL BORINGS
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

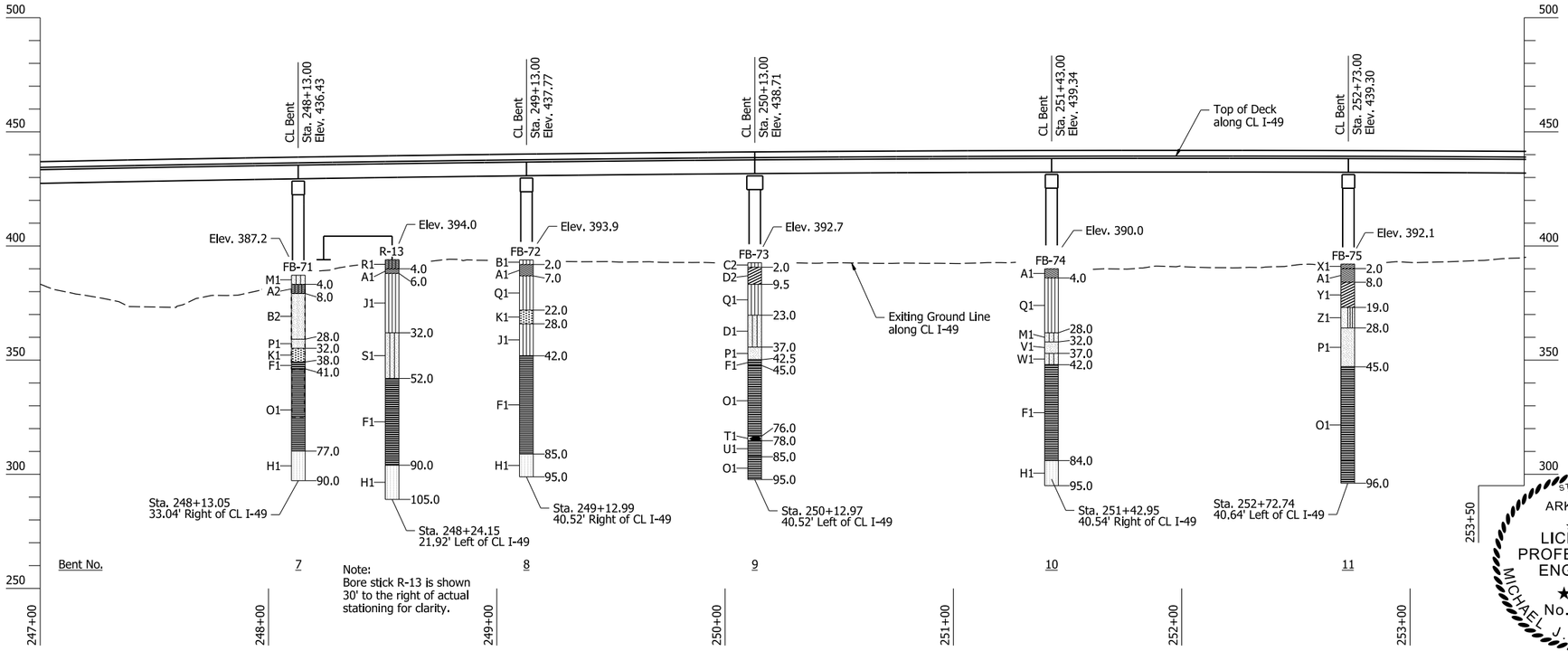
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DESIGNED BY: MJLD DATE: 8/15/23
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SCALE: 1" = 30'

BRIDGE NO. 07685 DRAWING NO. 67477

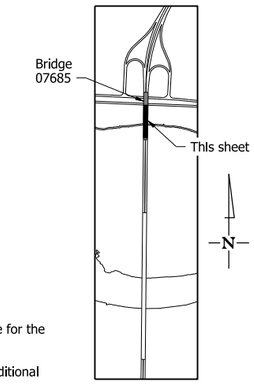
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	418	809
		07685 - BRIDGE LAYOUTS - 67478				



ELEVATION OF SOIL BORINGS



ELEVATION OF SOIL BORINGS



SITE PLAN
No Scale

Note:
Soil descriptions have been condense for the purposes of this drawing.

See Final Geotechnical Report for additional information on individual borings.

See Sheet 3 for blow counts and soil descriptions.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21612
MICHAEL J. L. DESTIGTER
04/17/2024
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 2 OF 4
ELEVATION OF SOIL BORINGS
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: BNG DATE: 8/22/23
CHECKED BY: MJLD DATE: 1/10/24
DESIGNED BY: MJLD DATE: 8/15/23
FILENAME: b040901116_l7.dgn
SCALE: 1" = 30'

BRIDGE NO. 07685 DRAWING NO. 67478

PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	419	809
		07685 - BRIDGE LAYOUTS - 67479				

"N" VALUES

FB-66 - Sta. 242+02.96, 33.18' Right of CL I-49

0.5-1.5	N=6
2.5-3.5	N=6
6.5-7.5	N=7
9.0-10.0	N=10
14.0-15.0	N=8
19.0-20.0	N=10
24.0-25.0	N=12
29.0-30.0	N=15
34.0-35.0	N=22
39.0-40.0	N=50/1"

FB-67 - Sta. 243+33.05, 31.95' Left of CL I-49

0.5-1.5	N=4
2.5-3.5	N=7
4.5-5.5	N=6
6.5-7.5	N=12
9.0-10.0	N=8
14.0-15.0	N=7
19.0-20.0	N=5
24.0-25.0	N=2
29.0-30.0	N=11
34.0-35.0	N=25
39.0-40.0	N=26
44.0-45.0	N=50/1"

FB-69 - Sta. 245+93.00, 31.94' Left of CL I-49

0.5-1.5	N=4
4.5-5.5	N=5
9.0-10.0	N=10
14.0-15.0	N=24
19.0-20.0	N=5
24.0-25.0	N=6
29.0-30.0	N=8
34.0-35.0	N=13
39.0-40.0	N=50/3"

FB-70 - Sta. 246+82.59, 32.05' Right of CL I-49

0.5-1.5	N=5
2.5-3.5	N=12
4.5-5.5	N=13
6.5-7.5	N=9
9.0-10.0	N=6
14.0-15.0	N=6
19.0-20.0	N=9
24.0-25.0	N=16
29.0-30.0	N=11
34.0-35.0	N=11
39.0-40.0	No Blows

FB-71 - Sta. 248+13.05, 33.04' Right of CL I-49

0.5-1.5	N=4
2.5-3.5	N=5
4.5-5.5	N=4
6.5-7.5	N=6
9.0-10.0	N=4
14.0-15.0	N=4
19.0-20.0	N=12
24.0-25.0	N=11
29.0-30.0	N=15
34.0-35.0	N=14
39.0-40.0	N=50/2"

FB-72 - Sta. 249+12.99, 40.52' Right of CL I-49

0.5-1.5	N=6
4.5-5.5	N=6
9.0-10.0	N=10
14.0-15.0	N=6
19.0-20.0	N=4
24.0-25.0	N=14
29.0-30.0	N=6
34.0-35.0	no SPT
39.0-40.0	no SPT
44.0-45.0	no SPT

FB-73 - Sta. 250+12.97, 40.52' Left of CL I-49

2.5-3.5	N=7
4.5-5.5	N=3
9.0-10.0	N=11
14.0-15.0	N=6
19.0-20.0	N=3
24.0-25.0	N=21
29.0-30.0	N=4
34.0-35.0	N=5
39.0-40.0	N=13
44.0-45.0	N=50/1"

FB-74 - Sta. 251+42.95, 40.54' Right of CL I-49

0.5-1.5	N=5
4.5-5.5	N=11
6.5-7.5	N=7
9.0-10.0	N=4
14.0-15.0	N=4
19.0-20.0	N=2
24.0-25.0	N=7
29.0-30.0	N=3
34.0-35.0	N=2
39.0-40.0	N=32
44.0-45.0	N=50/3"

FB-75 - Sta. 252+72.74, 40.64' Left of CL I-49

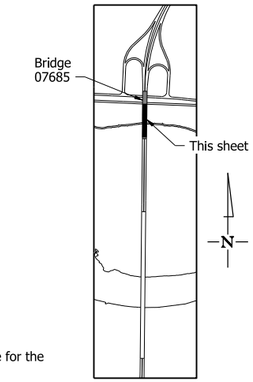
0.5-1.5	N=7
2.5-3.5	N=6
6.5-7.5	N=5
9.0-10.0	N=1
19.0-20.0	N=4
24.0-25.0	N=9
29.0-30.0	N=18
34.0-35.0	N=16
39.0-40.0	N=17
44.0-45.0	N=50/5"

R-13 - Sta. 248+24.15, 21.92' Left of CL I-49

0.5-1.5	N=6
2.5-3.5	N=5
4.5-5.5	N=5
9.0-10.0	N=8
14.0-15.0	N=9
19.0-20.0	N=4
24.0-25.0	N=24
29.0-30.0	N=21
34.0-35.0	N=30
39.0-40.0	N=37
44.0-45.0	N=34
49.0-50.0	N=40
54.0-55.0	N=50/1"

BORING LEGEND

A1 - CL-Soft reddish brown silty clay
A2 - CL-ML-Very loose to loose reddish brown clayey silt
B1 - ML-Loose reddish brown silt
B2 - SP-Loose reddish tan fine to coarse sand
C1 - SM-Loose tan silty fine sand
C2 - ML-Soft brown clayey silt
D1 - SM- Medium dense tan silty fine sand
D2 - CH-Soft brown clay w/some silt pockets
E1 - SPG-Medium dense tan and gray fine to coarse sand w/some fine to coarse gravel
F1 - SHALE-Moderately hard dark gray shale
G1 - COAL-Low hardness black coal
H1 - SANDSTONE-Moderately hard gray fine-grained sandstone
I1 - ML-Very loose to loose reddish tan fine sandy silt
J1 - ML-Loose brown fine sandy silt
K1 - SW-Medium dense tan fine to coarse sand w/some fine gravel
L1 - CL-ML-Very loose brown clayey silt
M1 - SM-Very loose tan silty fine sand
N1 - SP-Loose dark gray fine to medium sand
O1 - SHALE-Moderately hard dark gray shale with sandstone partings
P1 - SP-Medium dense tan fine to coarse sand
Q1 - ML-Medium dense reddish brown and reddish tan fine sandy silt
R1 - CL-ML-Loose reddish brown clayey silt
S1 - SM-Dense tan silty fine sand
T1 - COAL-Moderately hard black coal
U1 - SHALE-Hard dark gray shale w/occasional gray fine-grained sandstone partings
V1 - SP-Very loose brown and tan fine to medium sand
W1 - SM-Dense tan and brown fine to coarse sand w/some fine to coarse gravel
X1 - CL-Firm reddish brown silty clay
Y1 - CH-Stiff brown and gray clay, blocky w/ferrous stains
Z1 - SP-SM-Very loose to loose reddish tan fine sand, slightly silty



SITE PLAN
No Scale

Note:
Soil descriptions have been condense for the purposes of this drawing.

See Final Geotechnical Report for additional information on individual borings.

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 3 OF 4
ELEVATION OF SOIL BORINGS
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS ★★★ LICENSED PROFESSIONAL ENGINEER ★★★ No. 21612 MICHAEL J. L. DESTIGTER

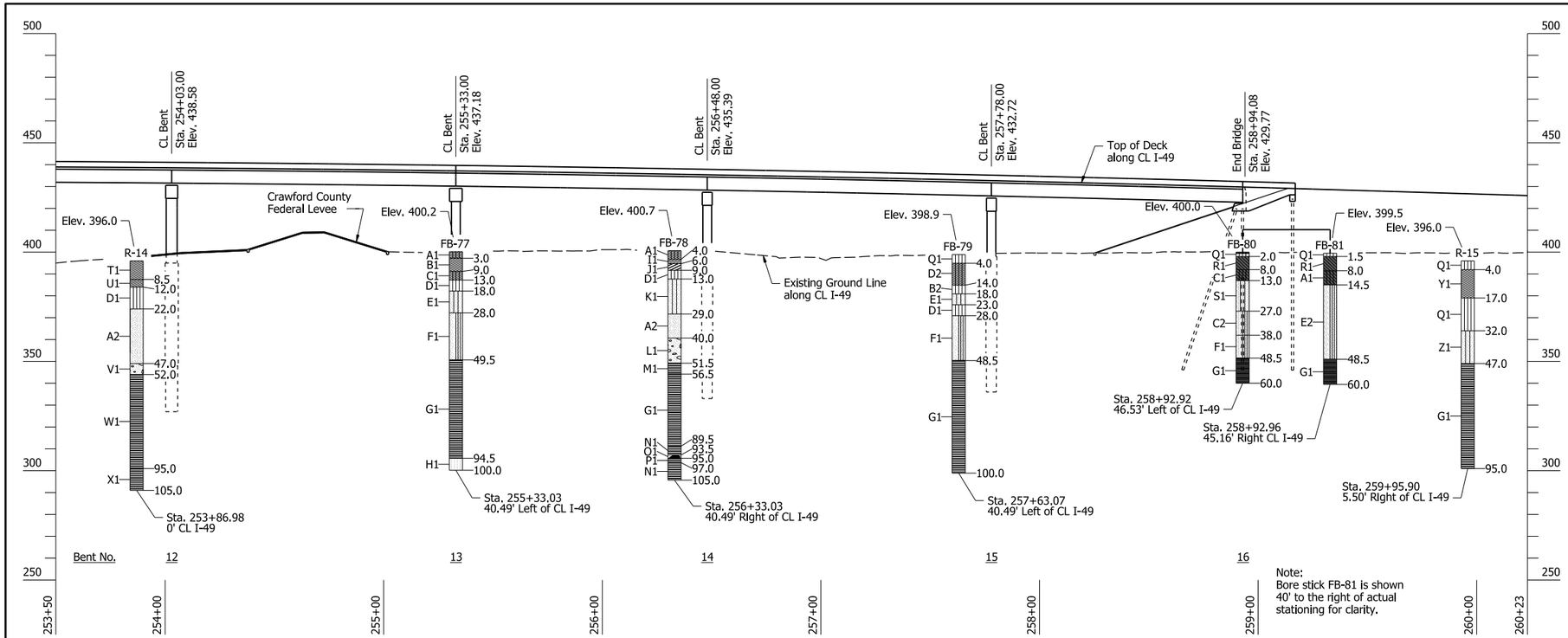
04/17/2024
BRIDGE ENGINEER

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CHECKED BY: MJLD DATE: 1/10/24
DESIGNED BY: MJLD DATE: 8/15/23
FILENAME: b040901116_l8.dgn
SCALE: 1" = 30'

BRIDGE NO. 07685 DRAWING NO. 67479

PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	420	809
		07685 - BRIDGE LAYOUTS - 67480				



Note:
Bore stick FB-81 is shown 40' to the right of actual stationing for clarity.

ELEVATION OF SOIL BORINGS

"N" VALUES

FB-77 - Sta. 255+33.03, 40.49' Left of CL I-49

0.5-1.5	N=6
2.5-3.5	N=6
6.5-7.5	N=6
14.0-15.0	N=8
19.0-20.0	N=22
24.0-25.0	N=3
29.0-30.0	N=11
34.0-35.0	N=10
39.0-40.0	N=26
44.0-45.0	N=15
49.0-50.0	N=50/4"

FB-78 - Sta. 256+33.03, 40.49' Right of CL I-49

0.5-1.5	N=5
4.5-5.5	N=10
9.0-10.0	N=6
14.0-15.0	N=7
19.0-20.0	N=35
24.0-25.0	N=9
29.0-30.0	N=10
34.0-35.0	N=10
39.0-40.0	N=25
44.0-45.0	N=14
49.0-50.0	N=25
54.0-55.0	N=50/1"

FB-79 - Sta. 257+63.07, 40.49' Left of CL I-49

2.5-3.5	N=7
4.5-5.5	N=10
6.5-7.5	N=6
9.0-10.0	N=6
19.0-20.0	N=16
24.0-25.0	N=8
29.0-30.0	N=25
34.0-35.0	N=28
39.0-40.0	N=28
44.0-45.0	N=19
48.5-48.5	no blows

FB-80 - Sta. 258+92.92, 46.53' Left of CL I-49

0.5-1.5	N=5
2.5-3.5	N=7
9.0-10.0	N=7
14.0-15.0	N=10
19.0-20.0	N=15
24.0-25.0	N=9
29.0-30.0	N=37
34.0-35.0	N=9
39.0-40.0	N=14
44.0-45.0	N=31
48.5-49.5	N=50/4"

FB-81 - Sta. 258+92.96, 45.16' Right of CL I-49

0.5-1.5	N=5
4.5-5.5	N=9
6.5-7.5	N=10
9.0.0-10	N=5
19.0-20.0	N=10
24.0-25.0	N=8
29.0-30.0	N=5
34.0-35.0	N=7
39.0-40.0	N=31
44.0-45.0	N=35
48.5-49.5	N=50/3"

R-14 - Sta. 253+86.98, 0' CL I-49

0.5-1.5	N=3
2.5-3.5	N=4
6.5-7.5	N=9
9.0-10.0	N=10
14.0-15.0	N=9
19.0-20.0	N=8
24.0-25.0	N=15
29.0-30.0	N=50/4"
34.0-35.0	N=24
39.0-40.0	N=18
44.0-45.0	N=11
49.0-50.0	N=50/10"
54.0-55.0	N=50/2"

R-15 - Sta. 259+95.90, 5.50' Right of CL I-49

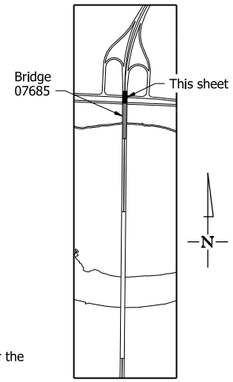
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2.5-3.5	N=14
4.5-5.5	N=14
9.0-10.0	N=7
14.0-15.0	N=7
19.0-20.0	N=6
24.0-25.0	N=0
29.0-30.0	N=16
34.0-35.0	N=50
39.0-40.0	N=20
44.0-45.0	N=39
49.0-50.0	N=50/1"

BORING LEGEND

A1 - CL-ML-Soft dark brown clayey silt
A2 - SP-Medium dense tan fine to coarse sand
B1 - CL-Soft dark brown silty clay
B2 - ML-Medium dense reddish brown fine sandy silt
C1 - CL-ML-Firm brown clayey silt
C2 - SP-SM-Dense reddish tan fine sand, slightly silty
D1 - ML-Loose tan and reddish tan fine sandy silt
D2 - CL-ML-Firm to stiff brown clayey silt
E1 - SM-Medium dense tan silty fine sand
E2 - SP-SM-Loose to medium dense tan silty fine sand w/fine sandy silt seams and layers
F1 - SP-SM-Medium dense tan fine to medium sand
G1 - SHALE-Moderately hard dark gray shale, horizontal bedding
H1 - SANDSTONE-Hard gray fine-grained sandstone w/some dark gray shale partings, horizontal bedding
I1 - CL-Firm to stiff dark brown silty clay w/silt pockets
J1 - CH-Firm to stiff dark brown clay
K1 - SM-Loose reddish brown silty fine sand
L1 - SPG-Medium dense tan fine to coarse sand w/fine to coarse gravel
M1 - SHALE-Low hardness dark gray shale, slightly weathered
N1 - SHALE-Moderately hard dark gray shale w/interbedded fine-grained sandstone partings
O1 - COAL-Low hardness black coal
P1 - SHALE-Hard dark gray shale w/some clayey shale seams, horizontal bedding
Q1 - ML-Loose brown silt
R1 - CL-Firm brown silty clay
S1 - SM-Loose to medium dense tan silty fine sand w/fine sandy silt seams and layers
T1 - CL-Very soft reddish brown silty clay
U1 - CLS-Stiff reddish tan fine sandy clay
V1 - SPG-Dense tan fine to coarse sand w/some fine to coarse gravel
W1 - SHALE-Low hardness to moderately hard dark gray shale w/occasional sandstone partings, slightly weathered, horizontal bedding
X1 - SHALE-Moderately hard to hard dark gray shale w/very close, very thin, interbedded fine-grained sandstone partings, horizontal bedding
Y1 - CL-Stiff brown to reddish brown silty clay, slightly sandy
Z1 - SM-Dense to very dense reddish tan silty fine sand w/occasional fine-gravel

Note:
Soil descriptions have been condense for the purposes of this drawing.

See Final Geotechnical Report for additional information on individual borings.



SITE PLAN
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
MICHAEL J. L. DESTIGTER
No. 21612
04/17/2024
BRIDGE ENGINEER

ALTERNATE NO. 1 & ALTERNATE NO. 2
SHEET 4 OF 4
ELEVATION OF SOIL BORINGS
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

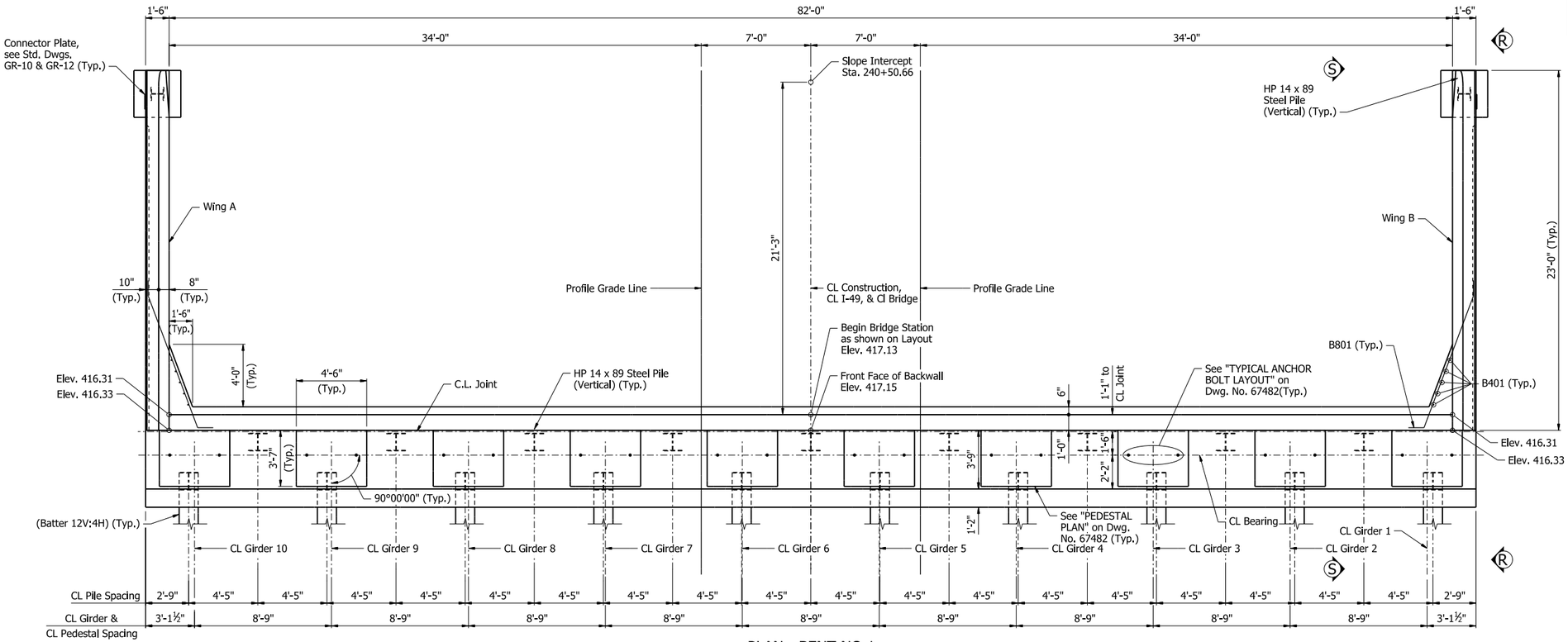
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: MJLD DATE: 8/15/23

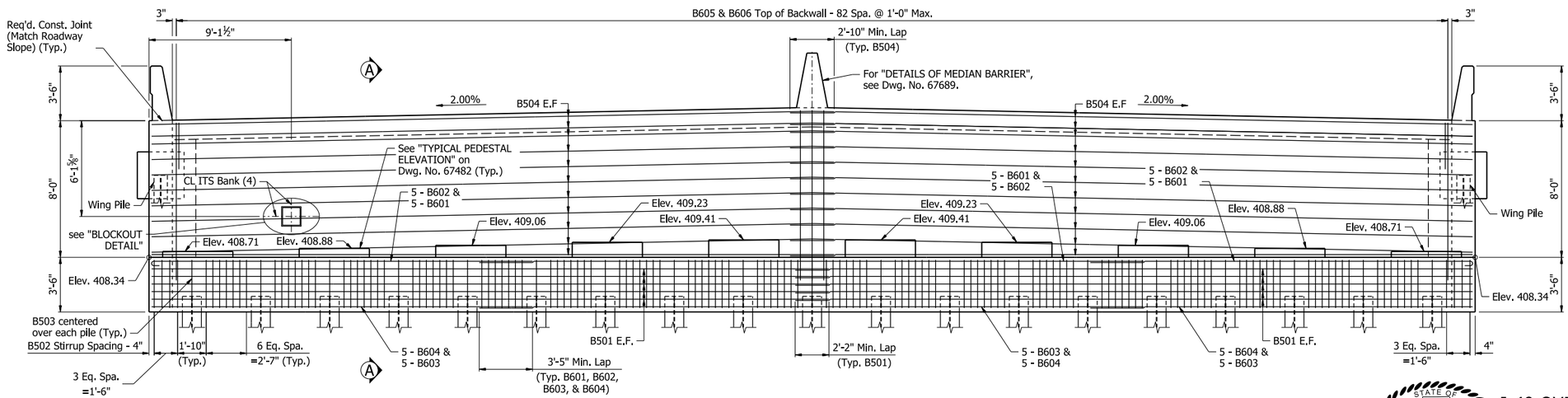
BRIDGE NO. 07685 DRAWING NO. 67480

PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	421	809
		07685 - END BENTS - 67481				



PLAN - BENT NO.1



ELEVATION - BENT NO. 1

Looking Back

NOTES:

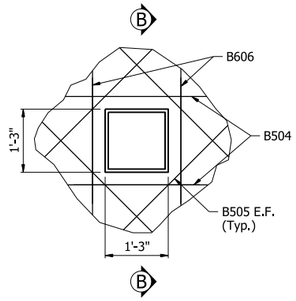
For general notes, see Dwg. No. 67372.

For details of steel piling, see Std. Dwg. No. 55020.

For "Section A-A", "VIEW R-R" & "VIEW S-S", see Dwg. No. 67482.

Class 2 Protective Surface Treatment shall be applied to the roadway face and top of the wing rails, and the top of the backwall.

All exposed corners shall be chamfered ¾" UNO.

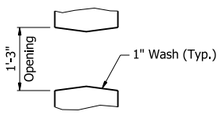


BLOCKOUT DETAIL

No Scale

Contractor shall adjust B606 and B504 Bars to accommodate blockout.

For Blockout Details and Construction Sequencing Notes, see Dwg. No. 67672.



SECTION B-B

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 3
DETAILS OF END BENT NO. 1
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

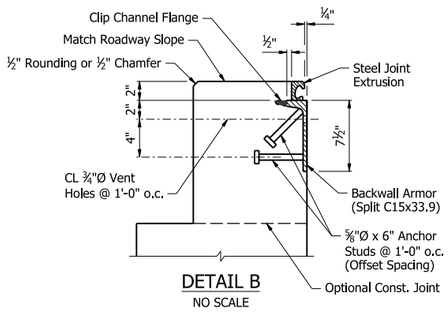
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: AT DATE: 11/17/23
DESIGNED BY: JRR DATE: 9/18/23
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SCALE: ¼" = 1'-0"

BRIDGE NO. 07685 DRAWING NO. 67481

PRINT DATE: 4/12/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
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		07685 - END BENTS - 67482				

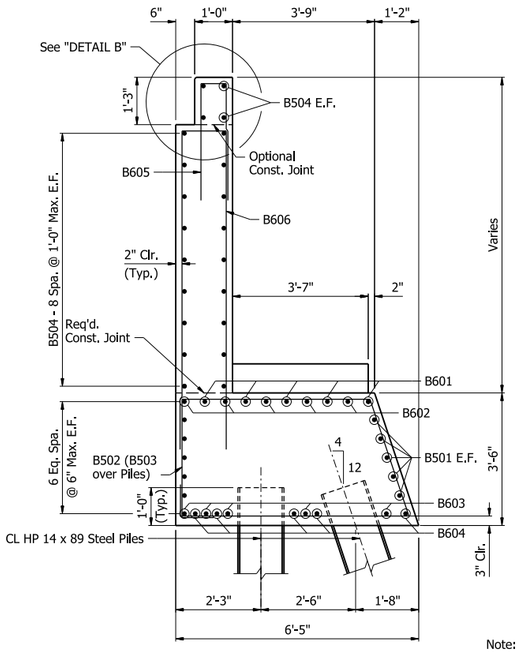


DETAIL B
NO SCALE

For additional joint details, see Std. Dwg. No. 55009.

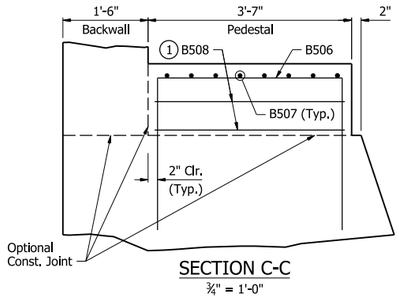
Concrete shall be hand-packed under the joint armor in the backwall.

Transverse spacing between top anchor studs and vent holes shall be 6".



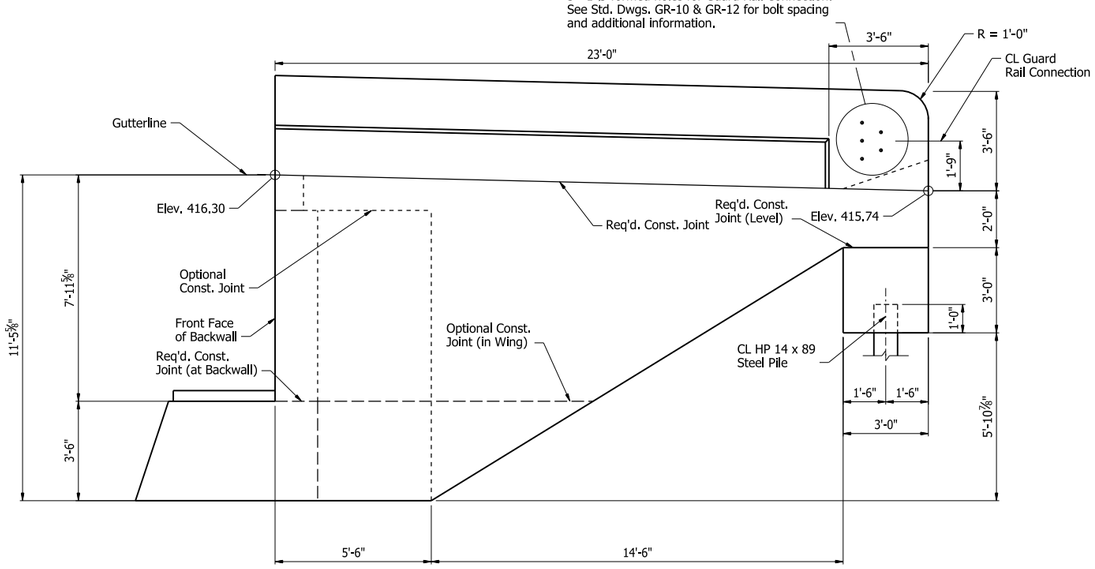
SECTION A-A
⅜" = 1'-0"

Note:
Contractor shall adjust B601 & B602 bar spacing to accommodate anchor bolts or sheet metal sleeves. Contractor shall maintain a minimum spacing of 3" and a maximum spacing of 8".

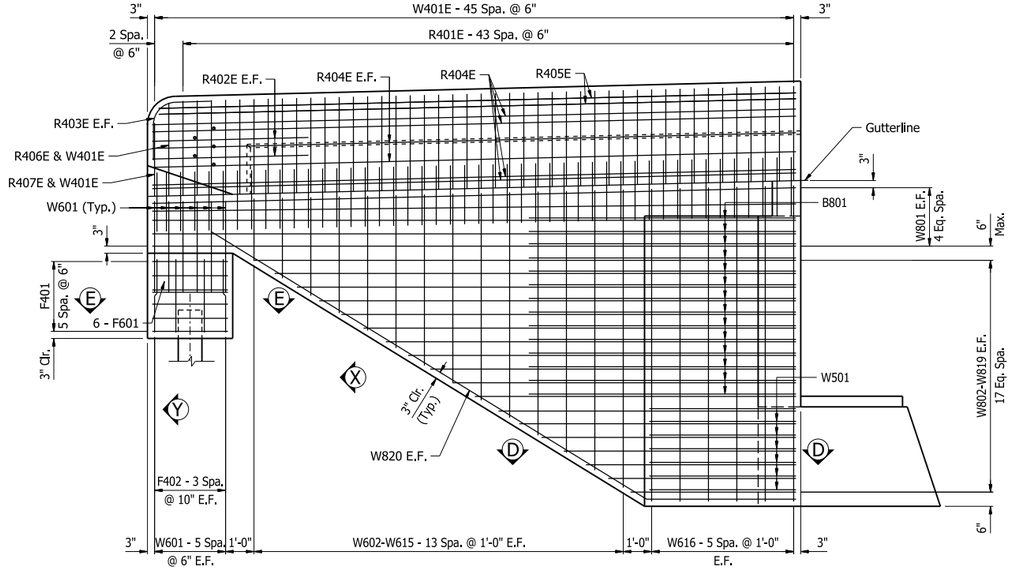


SECTION C-C
¾" = 1'-0"

5 - 1"Ø formed holes for Guard Rail Connection. See Std. Dwgs. GR-10 & GR-12 for bolt spacing and additional information.



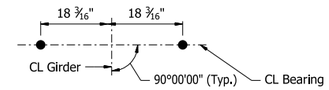
VIEW R-R
⅜" = 1'-0"



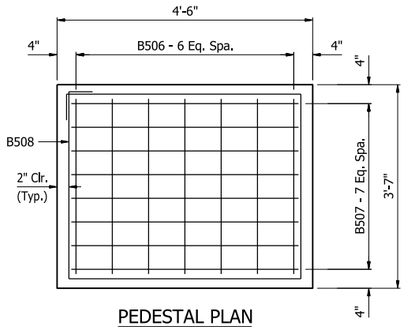
VIEW S-S
⅜" = 1'-0"

Notes:
For "VIEW W-W", "SECTION X-X" & "SECTION Y-Y", see Dwg. No. 67483.

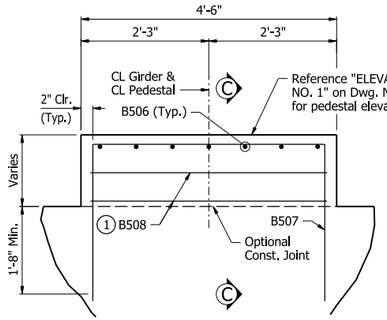
For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.



TYPICAL ANCHOR BOLT LAYOUT
1" = 1'-0"



PEDESTAL PLAN
¾" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

1 1-B508 when Pedestal Height is less than 11";
2-B508 when Pedestal Height is greater than 11";
B508 spaced at 6" Max.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
★★★
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 3
DETAILS OF END BENT NO. 1
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

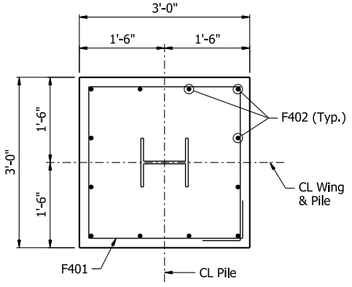
ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MJ DATE: 11/08/23
CHECKED BY: AT DATE: 11/17/23
DESIGNED BY: JRR DATE: 9/18/23
FILENAME: b040901116_b12.dgn
SCALE: AS NOTED

BRIDGE NO. 07685 DRAWING NO. 67482

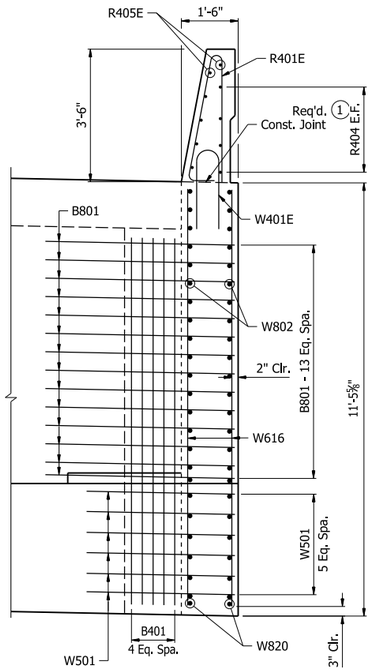
PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	423	809
		07685 - END BENTS - 67483				

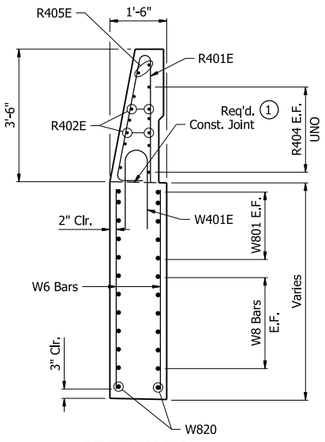


SECTION E-E
¾" = 1'-0"

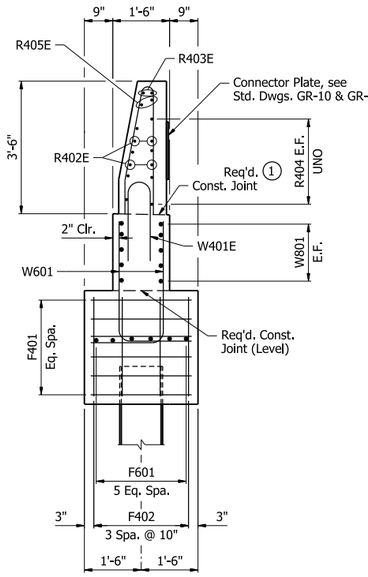
Match roadway slope for both Wingwalls (1)



VIEW W-W
½" = 1'-0"



SECTION X-X
½" = 1'-0"

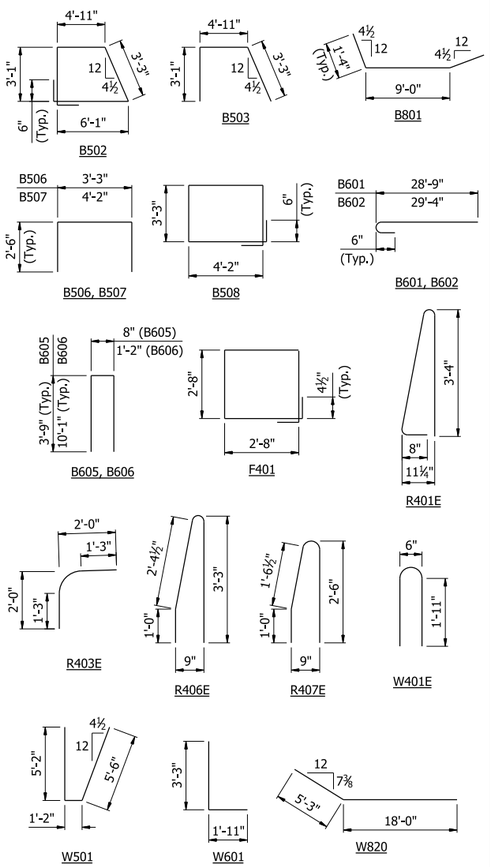


SECTION Y-Y
½" = 1'-0"

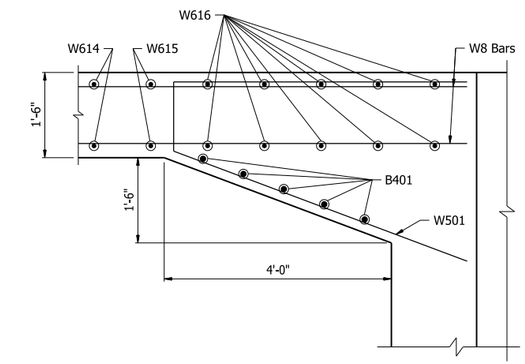
BAR LIST - PER BENT

Mark	Number Required	Length	Pin Dia.
B401	10	9'-11"	Str.
B501	20	43'-5"	Str.
B502	134	18'-0"	2½"
B503	19	11'-1"	2½"
B504	44	43'-9"	Str.
B505	8	2'-0"	Str.
B506	70	8'-1"	2½"
B507	80	9'-0"	2½"
B508	12	15'-4"	2½"
B601	10	29'-5"	4½"
B602	10	60'-0"	4½"
B603	10	28'-1"	Str.
B604	10	60'-0"	Str.
B605	83	7'-10"	4½"
B606	83	21'-0"	4½"
B801	28	11'-7"	6"
F401	12	11'-0"	2"
F402	24	2'-7"	Str.
F601	12	2'-8"	Str.
R401E	88	7'-6"	3"
R402E	8	5'-6"	Str.
R403E	4	3'-8"	8½"
R404E	16	22'-8"	Str.
R405E	4	22'-6"	Str.
R406E	2	6'-8"	3"
R407E	2	5'-1"	3"
W401E	92	4'-7"	3"
W501	12	11'-7"	3¾"
W601	24	5'-0"	4½"
W602 To W615	4 Each	2'-3" To 10'-6"	Str.
W616	24	11'-2"	Str.
W801	20	22'-8"	Str.
W802 To W819	4 Each	5'-11" To 19'-1"	Str.
W820	4	23'-1"	6"

Bending Diagrams
(Dimensions are out to out of bars)

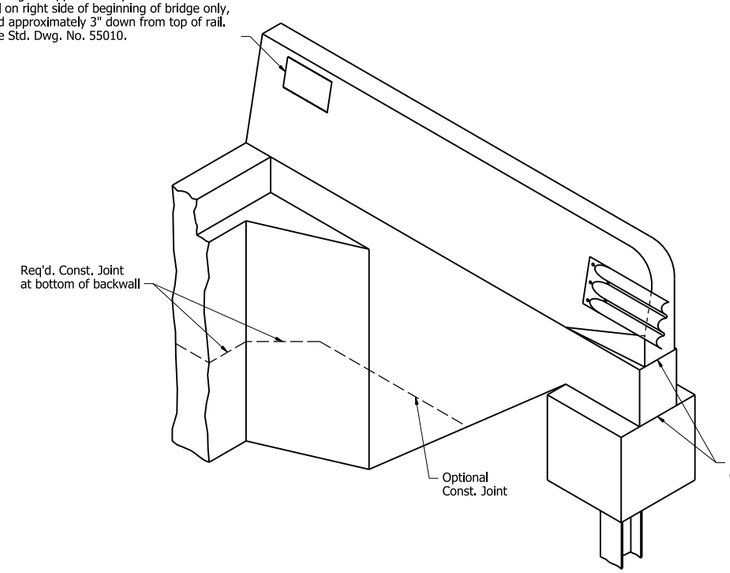


All bars designated with an "E" suffix are to be epoxy coated.



SECTION D-D
¾" = 1'-0"

Place Type D Bridge Name Plate on front face of wing rail approximately 1'-0" from end of rail on right side of beginning of bridge only, and approximately 3" down from top of rail. See Std. Dwg. No. 55010.



THREE DIMENSIONAL VIEW OF WING AND RAIL
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

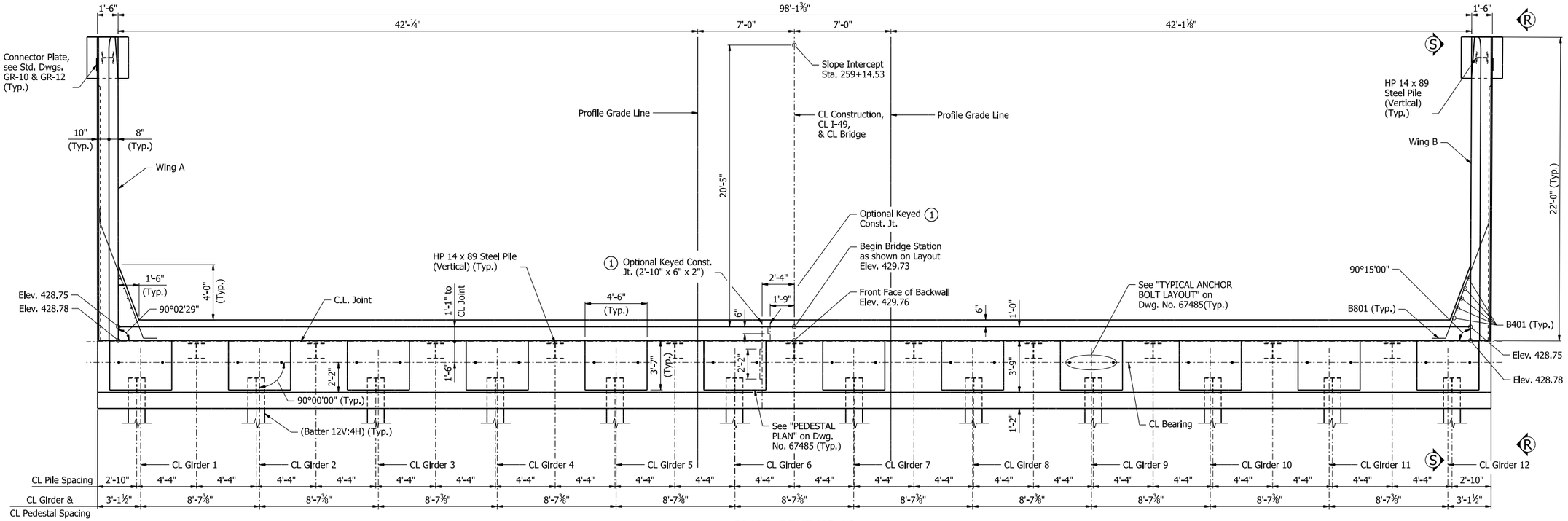
ALTERNATE NO. 1
SHEET 3 OF 3
DETAILS OF END BENT NO. 1
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

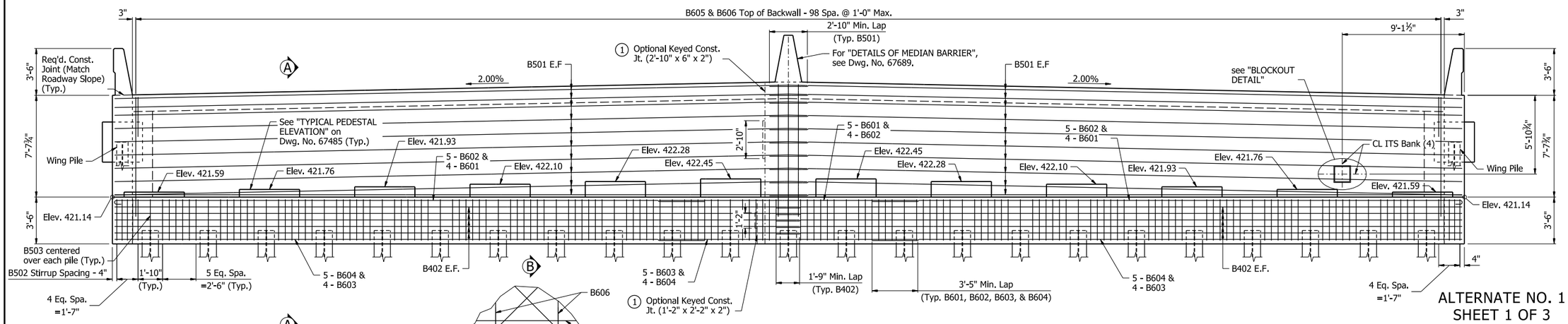
DRAWN BY: MJ DATE: 11/08/23
CHECKED BY: AT DATE: 11/17/23
DESIGNED BY: JRR DATE: 9/18/23
FILENAME: b040901116_b13.dgn
SCALE: AS NOTED
BRIDGE NO. 07685
DRAWING NO. 67483

PRINT DATE: 4/10/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	424	809
		07685 - END BENTS - 67484				



PLAN - BENT NO.16



ELEVATION - BENT NO. 16
Looking Back

NOTES:
For general notes, see Dwg. No. 67372.

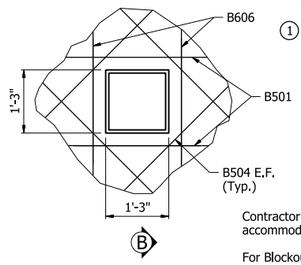
For details of steel piling, see Std. Dwg. No. 55020.

For "Section A-A", "VIEW R-R" & "VIEW S-S", see Dwg. No. 67485

Class 2 Protective Surface Treatment shall be applied to the roadway face and top of the wing rails, and the top of the backwall.

All exposed corners shall be chamfered ¾" UNO.

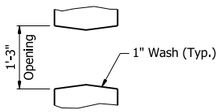
1 Membrane Waterproofing, Type C, or approved equal shall encompass the optional construction joint on both fill face and front face of backwall and capbeam. Membrane shall extend a minimum of 9" each side of joint. Quantity and payment is considered subsidiary to backwall construction.



BLOCKOUT DETAIL
No Scale

Contractor shall adjust B606 and B501 Bars to accommodate blockout.

For Blockout Details and Construction Sequencing Notes, see Dwg. No. 67672.



SECTION B-B
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 3
DETAILS OF END BENT NO. 16
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

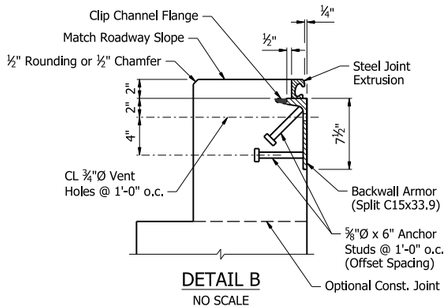
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JVS DATE: 10/16/23
CHECKED BY: AT DATE: 11/20/23
DESIGNED BY: AT DATE: 09/20/23
FILENAME: b040901116_b161.dgn
SCALE: ¼" = 1'-0"

BRIDGE NO. 07685 DRAWING NO. 67484

PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	425	809
		07685 - END BENTS - 67485				

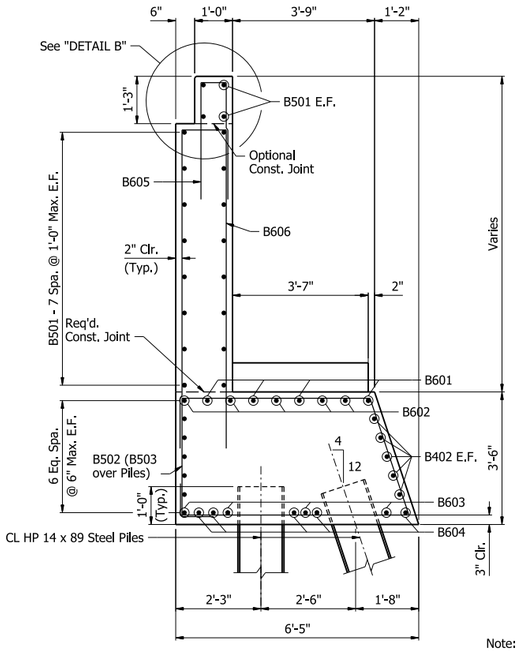


DETAIL B
NO SCALE

For additional joint details, see Std. Dwg. No. 55009.

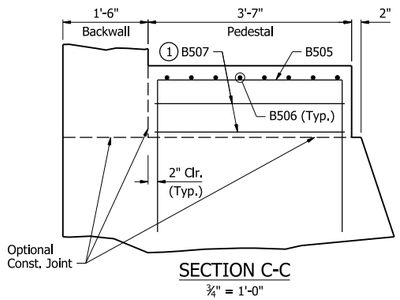
Concrete shall be hand-packed under the joint armor in the backwall.

Transverse spacing between top anchor studs and vent holes shall be 6".

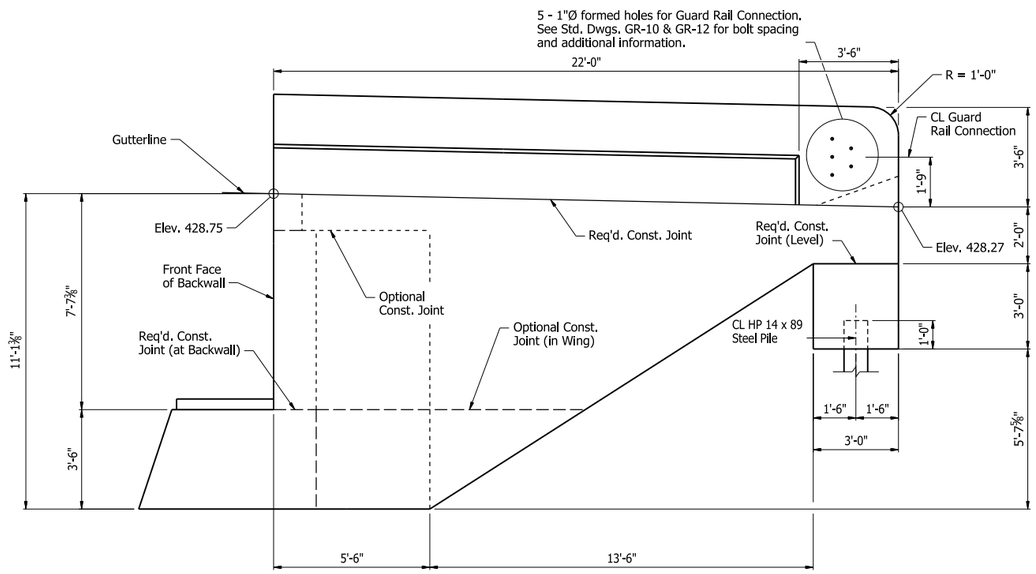


SECTION A-A
⅜" = 1'-0"

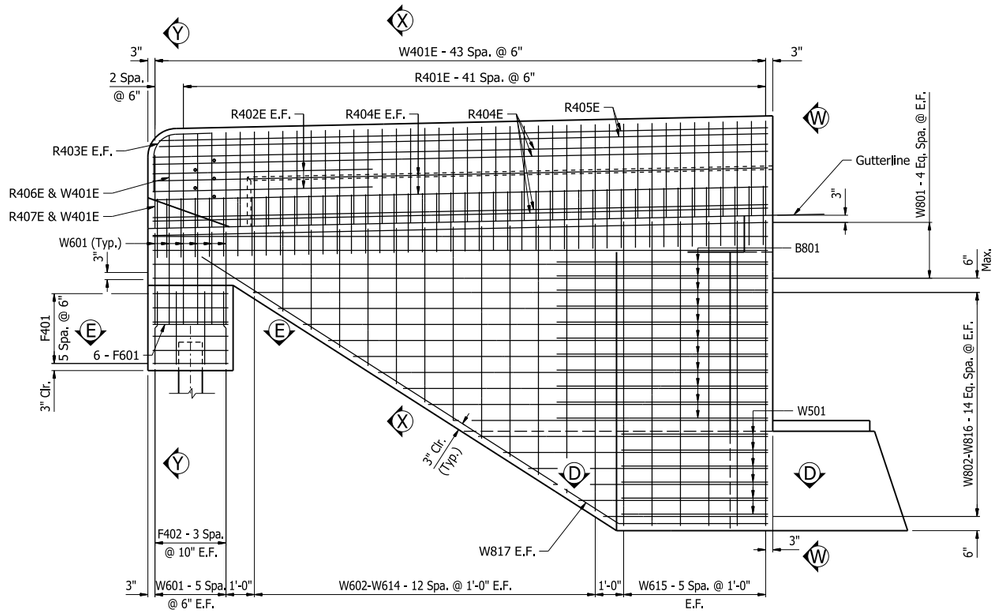
Note:
Contractor shall adjust B601 & B602 bar spacing to accommodate anchor bolts or sheet metal sleeves. Contractor shall maintain a minimum spacing of 3" and a maximum spacing of 8".



SECTION C-C
¾" = 1'-0"



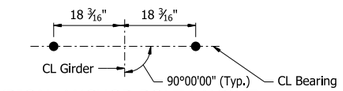
VIEW R-R
⅜" = 1'-0"



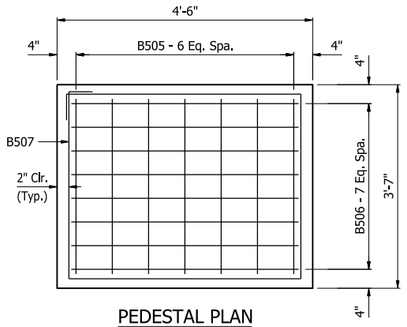
VIEW S-S
⅜" = 1'-0"

Notes:
For "VIEW W-W", "SECTION X-X" & "SECTION Y-Y", see Dwg. No. 67486.

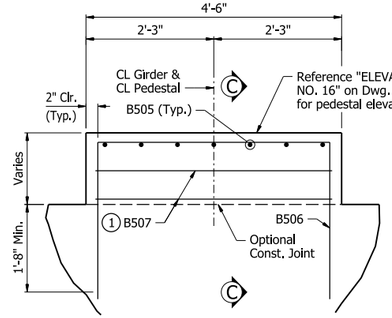
For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.



TYPICAL ANCHOR BOLT LAYOUT
1" = 1'-0"



PEDESTAL PLAN
¾" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

1 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697
4/18/24
BRIDGE ENGINEER

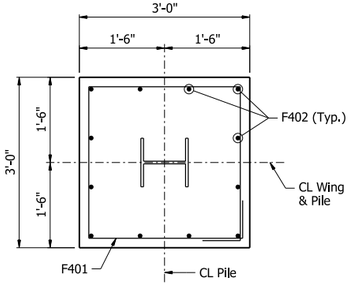
ALTERNATE NO. 1
SHEET 2 OF 3
DETAILS OF END BENT NO. 16
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JVS DATE: 10/16/23
CHECKED BY: AT DATE: 11/20/23
DESIGNED BY: AT DATE: 9/20/23
FILENAME: b040901116_b162.dgn
SCALE: AS NOTED
BRIDGE NO. 07685
DRAWING NO. 67485

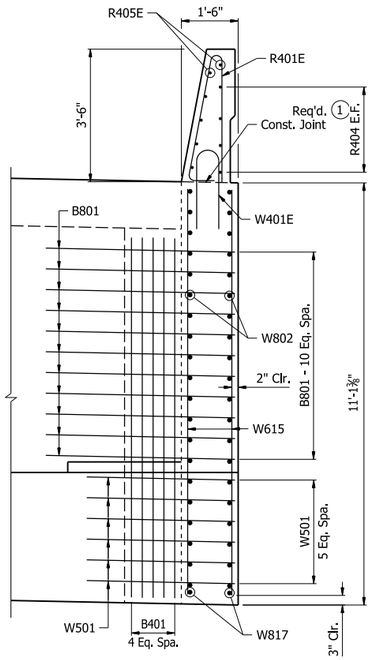
PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	426	809
		07685 - END BENTS - 67486				

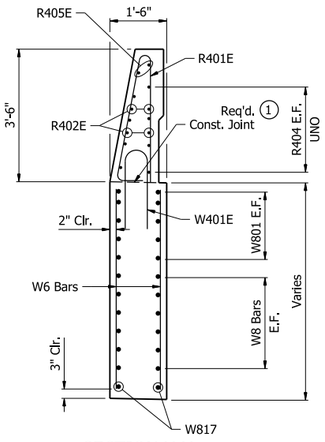


SECTION E-E
¾" = 1'-0"

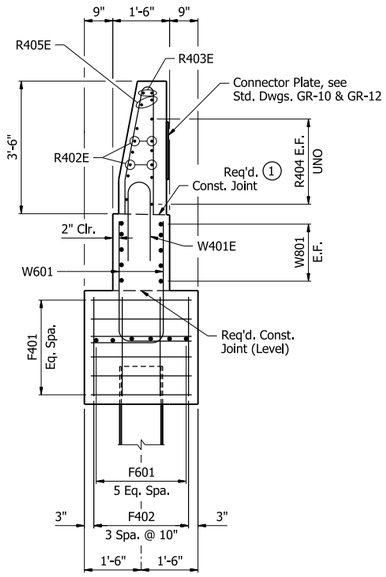
Match roadway slope for both Wingwalls (1)



VIEW W-W
½" = 1'-0"



SECTION X-X
½" = 1'-0"

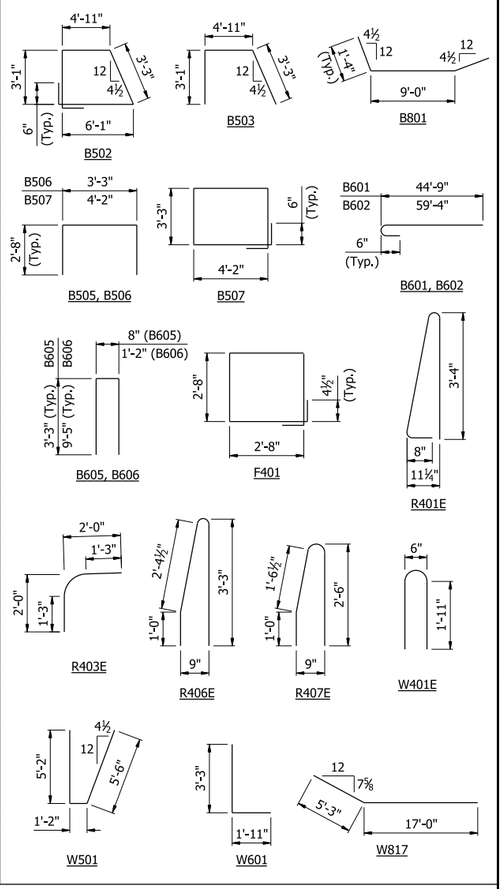


SECTION Y-Y
½" = 1'-0"

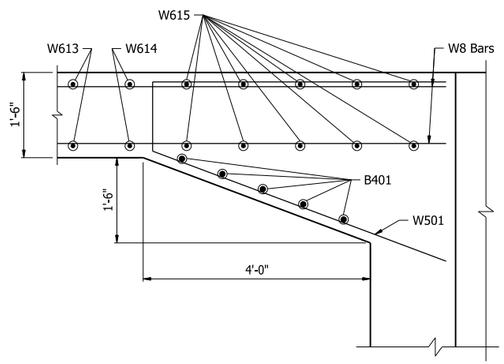
BAR LIST - PER BENT

Mark	Number Required	Length	Pin Dia.
B401	10	9'-7"	Str.
B402	20	51'-3"	Str.
B501	40	51'-9"	Str.
B502	142	18'-0"	2½"
B503	23	11'-1"	2½"
B504	8	2'-0"	Str.
B505	84	8'-5"	2½"
B506	96	9'-4"	2½"
B507	18	15'-4"	2½"
B601	9	45'-5"	4½"
B602	9	60'-0"	4½"
B603	9	44'-1"	Str.
B604	9	60'-0"	Str.
B605	99	6'-10"	4½"
B606	99	19'-8"	4½"
B801	22	11'-7"	6"
F401	12	11'-0"	2"
F402	24	2'-7"	Str.
F601	12	2'-8"	Str.
R401E	84	7'-6"	3"
R402E	8	5'-6"	Str.
R403E	4	3'-8"	8½"
R404E	16	21'-8"	Str.
R405E	4	21'-6"	Str.
R406E	2	6'-8"	3"
R407E	2	5'-1"	3"
W401E	88	4'-7"	3"
W501	12	11'-7"	3¾"
W601	24	5'-0"	4½"
W602 To W614	4 Each	2'-2" To 10'-7"	Str.
W615	24	10'-10"	Str.
W801	20	21'-8"	Str.
W802 To W816	4 Each	5'-11" To 18'-1"	Str.
W817	4	22'-1"	6"

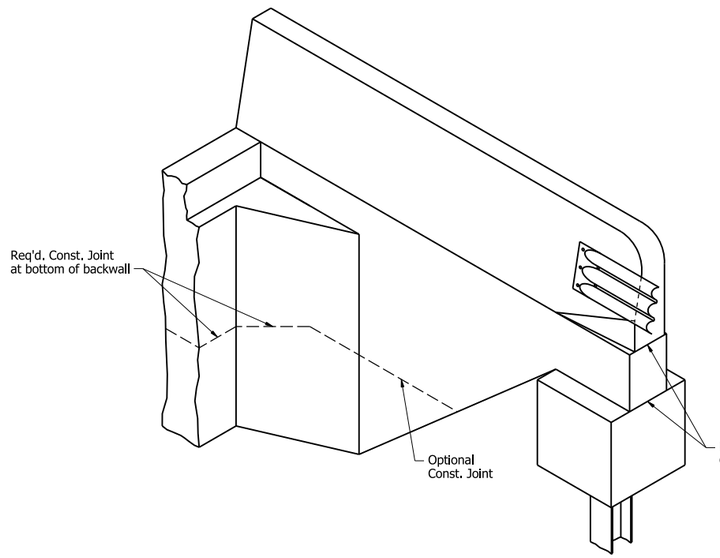
Bending Diagrams
(Dimensions are out to out of bars)



All bars designated with an "E" suffix are to be epoxy coated.



SECTION D-D
¾" = 1'-0"



THREE DIMENSIONAL VIEW OF WING AND RAIL
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 3 OF 3
DETAILS OF END BENT NO. 16
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JVS DATE: 10/16/23
CHECKED BY: AT DATE: 11/20/23
DESIGNED BY: AT DATE: 9/20/23
FILENAME: b040901116_b163.dgn
SCALE: AS NOTED

BRIDGE NO. 07685 DRAWING NO. 67486

PRINT DATE: 4/8/2024

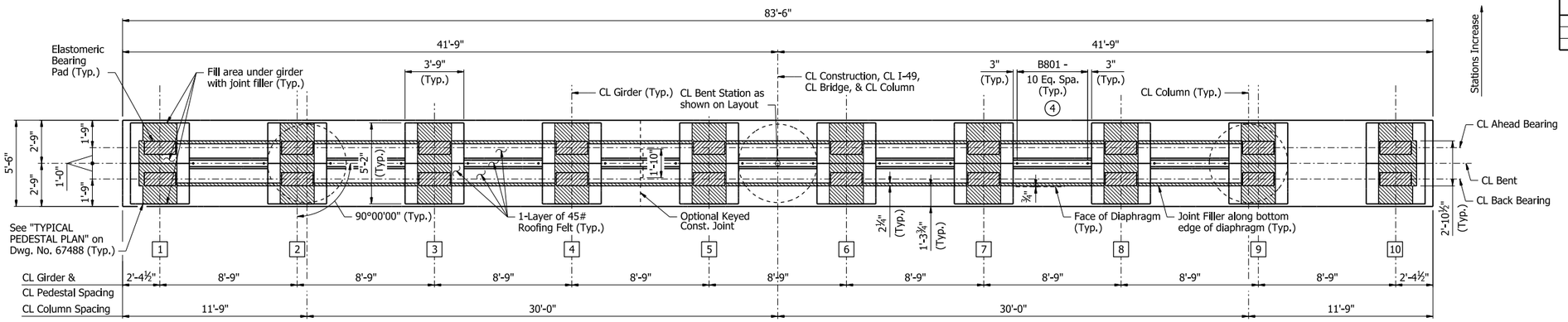
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	427	809
		07685 - INT. BENTS - 67487				

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67488.

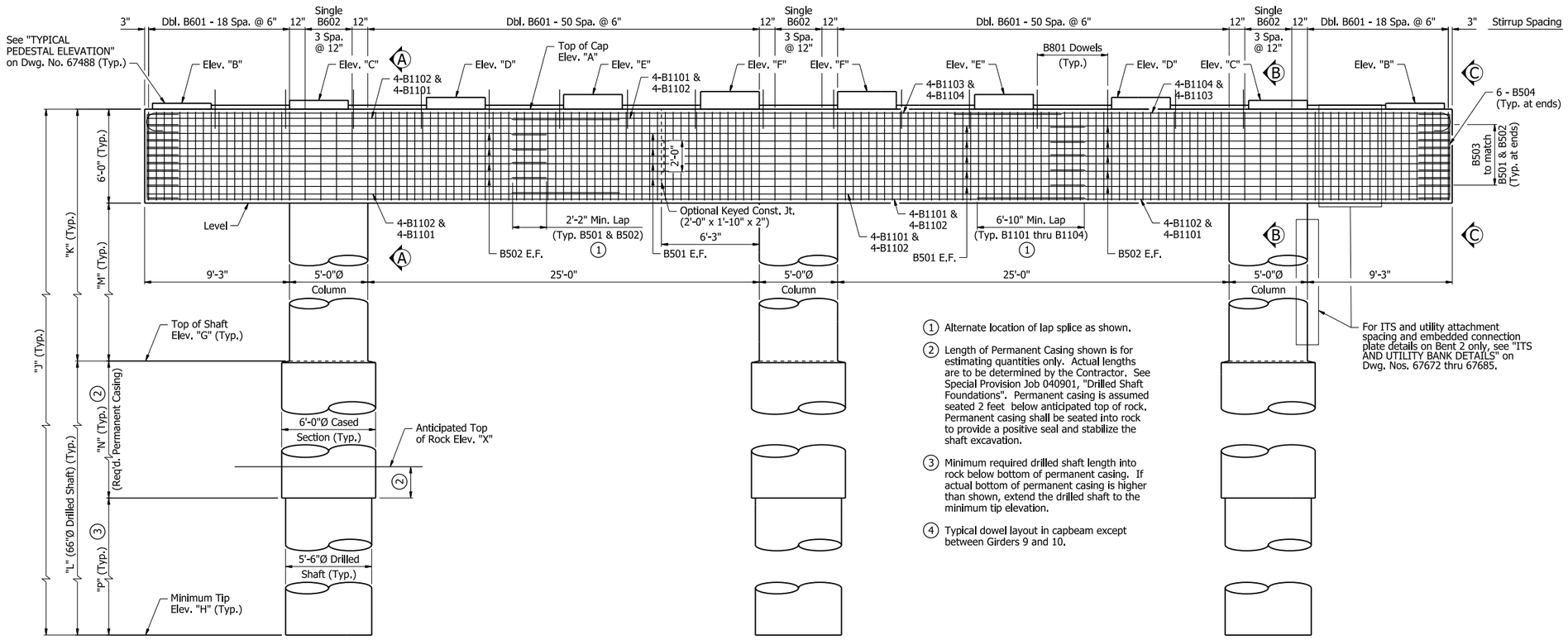
For "GENERAL NOTES", see Dwg. No. 67372.

Use 2¼" x ½" joint filler up the vertical face of pedestals.

For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.

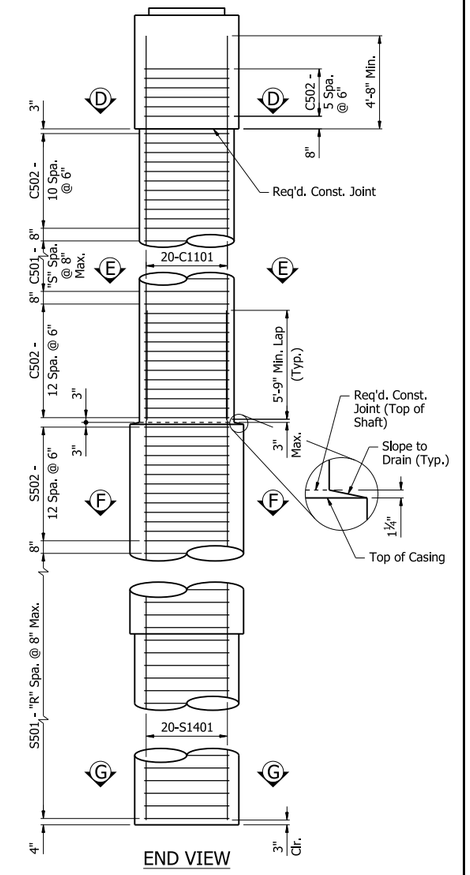


PLAN



ELEVATION
(Looking Upstation)

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.
4. Typical dowel layout in capbeam except between Girders 9 and 10.



END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of ties shall be adjusted accordingly to maintain the maximum spacing of ties in the regions identified above.

TABLE OF VARIABLES

Bent No.	"A"	"B"		"C"		"D"		"E"		"F"		"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"	"S"	"X"
		Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing											
2	412.37	412.75	412.87	412.92	412.05	413.10	413.22	413.27	413.40	413.45	413.57	387.00	322.00	90'-4½"	25'-4½"	65'-0"	19'-4½"	39'-0"	26'-0"	87	10	350.00
3	416.34	416.71	416.76	416.89	416.94	417.06	417.11	417.24	417.29	417.41	417.46	389.00	321.00	95'-4⅛"	27'-4⅛"	68'-0"	21'-4⅛"	44'-0"	24'-0"	92	13	347.00

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 2 & 3
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

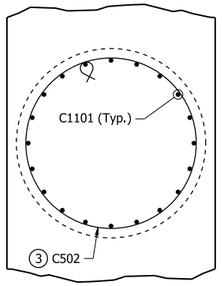
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 10/19/23
CHECKED BY: WJS DATE: 11/20/23
DESIGNED BY: CZ DATE: 7/26/23
FILENAME: b040901116_b21.dgn
SCALE: ¼" = 1'-0"

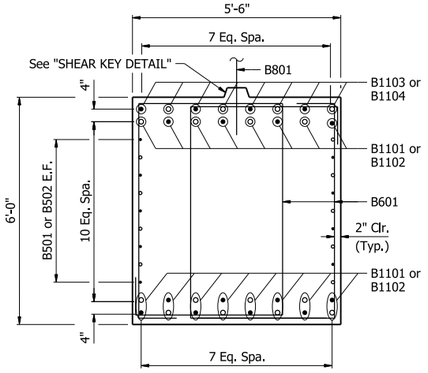
BRIDGE NO. 07685 DRAWING NO. 67487

PRINT DATE: 4/8/2024

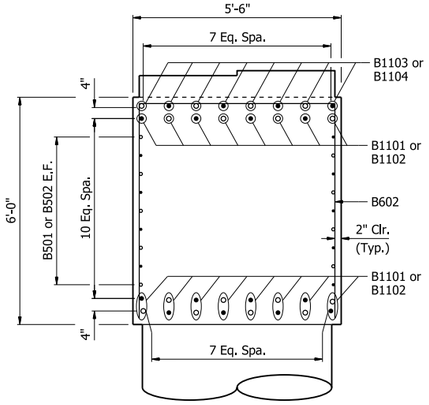
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	428	809
		07685 - INT. BENTS - 67488				



SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)

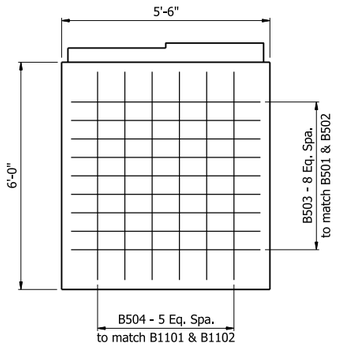


SECTION A-A
½" = 1'-0"



SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)

Note:
Contractor shall adjust B1101 thru B1104 bar spacing to accommodate dowels, or vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 9", respectively.



VIEW C-C
½" = 1'-0"

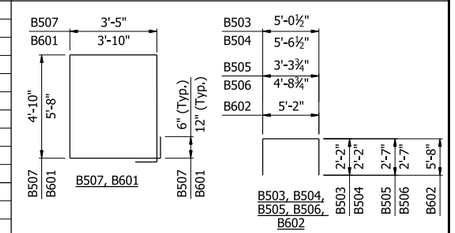
TABLE OF VARIABLES

Bent No.	"CN"	"CL"	"SN"	"SL"
2	33	23'-10"	264	70'-9"
3	42	26'-1"	279	73'-9"

BAR LIST - PER BENT

Mark	Number Required	Length	Pin Dia.
B501	18	60'-0"	Str.
B502	18	25'-4"	Str.
B503	18	9'-2"	2½"
B504	12	9'-8"	2½"
B505	80	8'-3"	2½"
B506	60	9'-8"	2½"
B507	12	17'-0"	2½"
B601	280	20'-2"	4½"
B602	12	16'-2"	4½"
B801	90	2'-6"	Str.
B1101	24	60'-0"	Str.
B1102	24	30'-0"	Str.
B1103	8	60'-0"	11¼"
B1104	8	33'-0"	11¼"
C501	"CN"	16'-10"	-
C502	87	15'-4"	2½"
C1101	60	"CL"	Str.
3 S501	"SN"	16'-10"	-
3 S502	39	15'-4"	2½"
3 S1401	60	"SL"	Str.

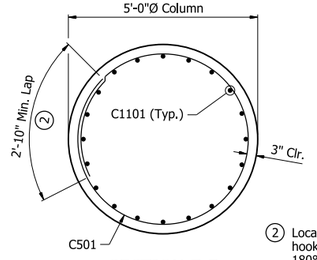
Bending Diagrams (Dimensions are out to out of bars)



All bars designated with an "E" suffix are to be epoxy coated.

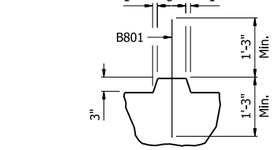
3 S1401 longitudinal reinforcement and S501 & S502 tie reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (66" DIA.)". Individual lengths shall be determined by the Contractor.

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67487.

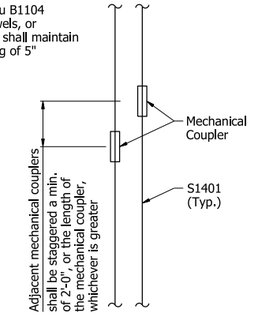


SECTION E-E
½" = 1'-0"

2 Location of splices or end hooks shall be alternated 180° at adjacent ties.



SHEAR KEY DETAIL
No Scale



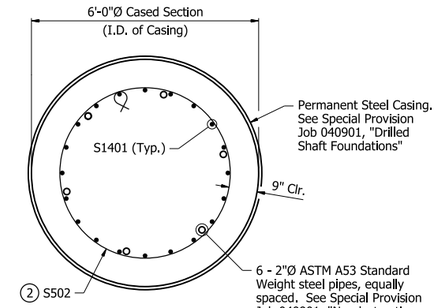
DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES;
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

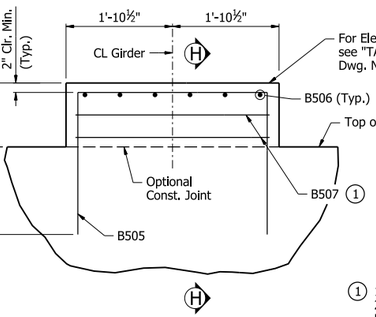
The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 6'-0" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

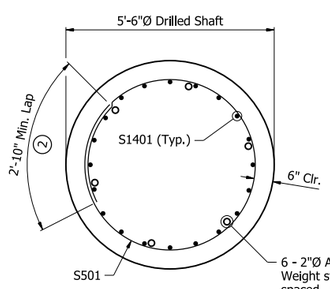
Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (66" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.



SECTION F-F
½" = 1'-0"



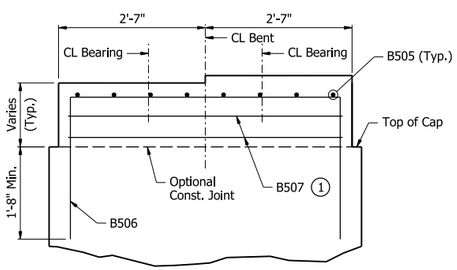
TYPICAL PEDESTAL PLAN
¾" = 1'-0"



SECTION G-G
½" = 1'-0"

TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

1 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.



SECTION H-H
¾" = 1'-0"

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 2 & 3
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

DRAWN BY: CEM DATE: 10/19/23
CHECKED BY: WJS DATE: 11/20/23
DESIGNED BY: CZ DATE: 7/26/23
FILENAME: b040901116_b22.dgn
SCALE: AS NOTED

BRIDGE NO. 07685 DRAWING NO. 67488

PRINT DATE: 4/8/2024

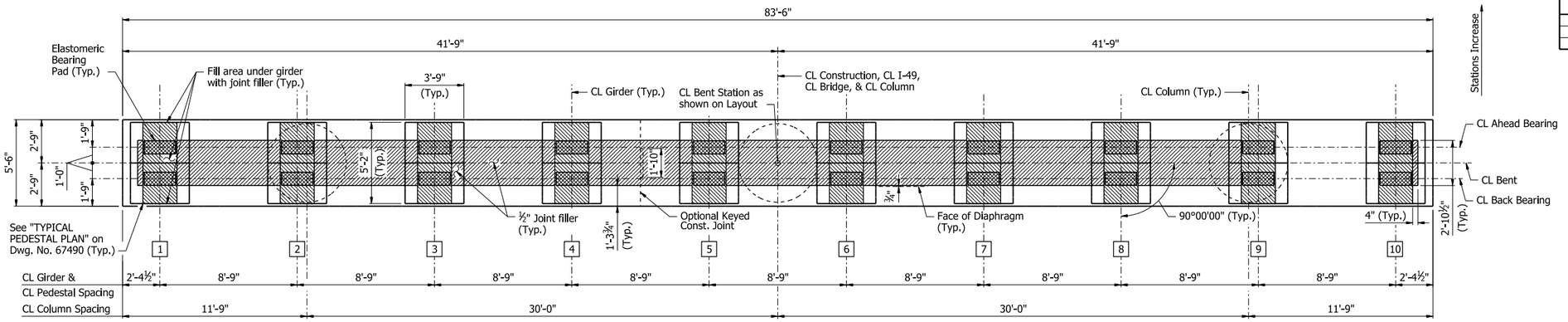
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	429	809
		07685 - INT. BENTS - 67489				

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67490.

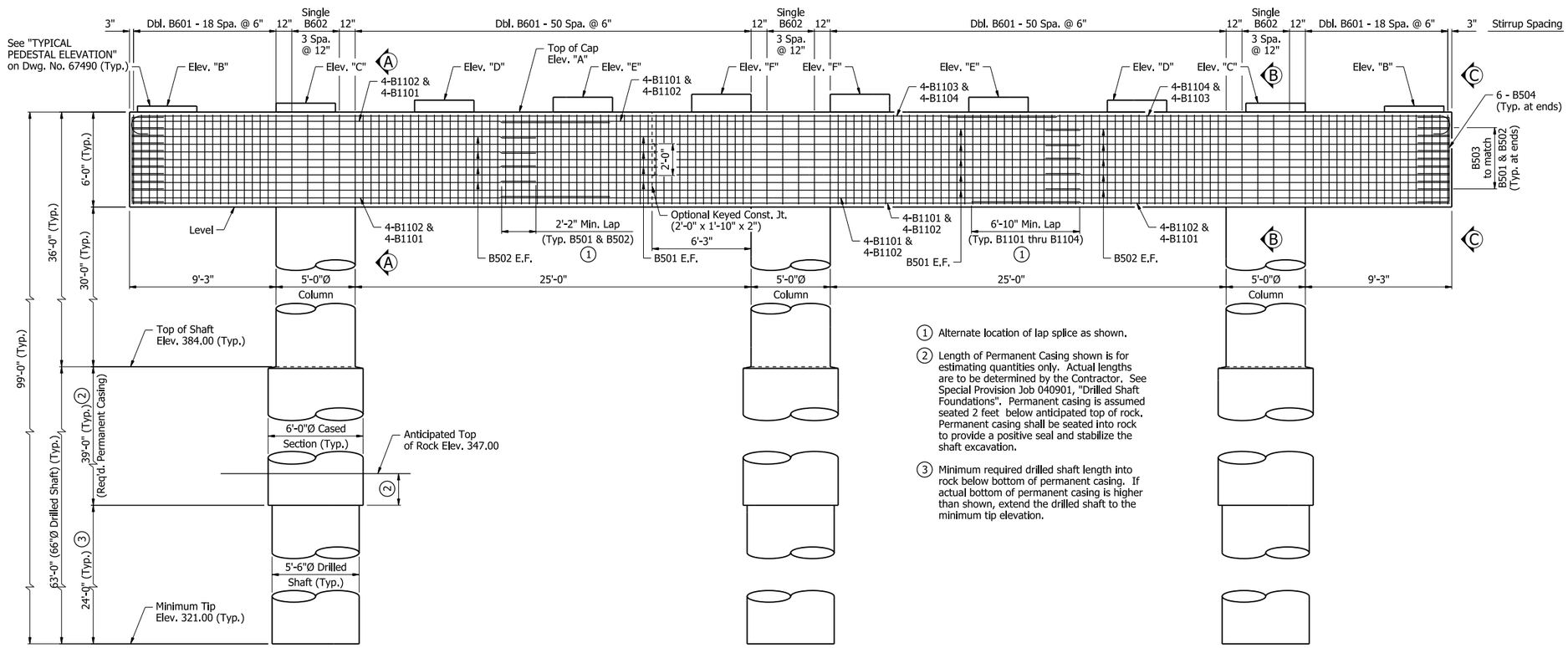
For "GENERAL NOTES", see Dwg. No. 67372.

Use ½" joint filler up the vertical face of pedestals.

For 'DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.



PLAN

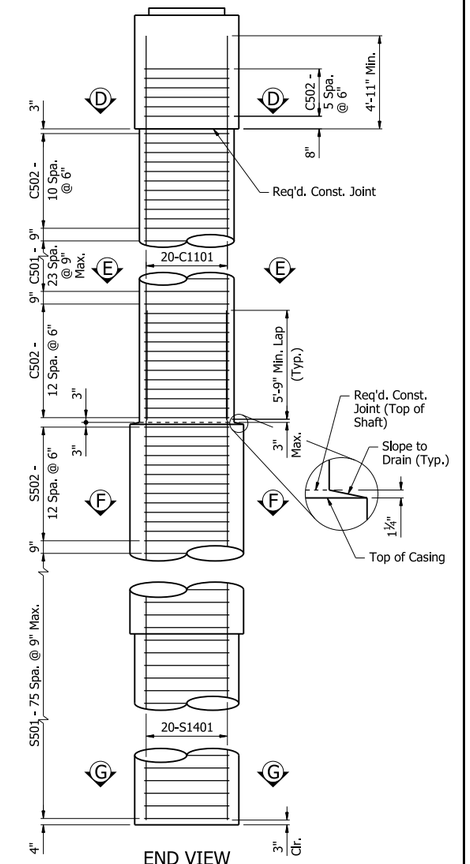


ELEVATION
(Looking Upstation)

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.

TABLE OF VARIABLES

"A"	"B"		"C"		"D"		"E"		"F"	
	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing
420.00	420.38	420.44	420.56	420.62	420.73	420.79	420.91	421.97	421.08	421.14



END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of ties shall be adjusted accordingly to maintain the maximum spacing of ties in the regions identified above.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NO. 4
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

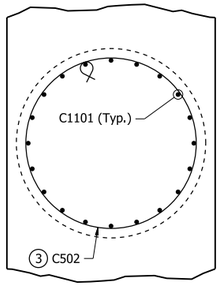
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MGG DATE: 11/13/23
CHECKED BY: QL DATE: 11/22/23
DESIGNED BY: PEG DATE: 7/25/23
FILENAME: b040901116_b41.dgn
SCALE: ¼" = 1'-0"

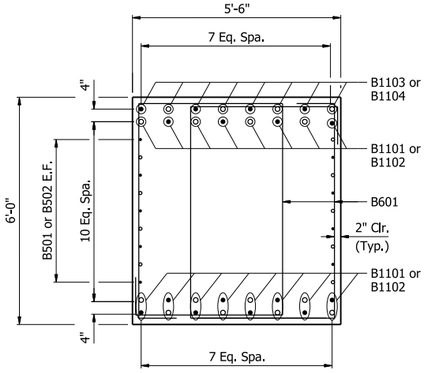
BRIDGE NO. 07685 DRAWING NO. 67489

PRINT DATE: 4/8/2024

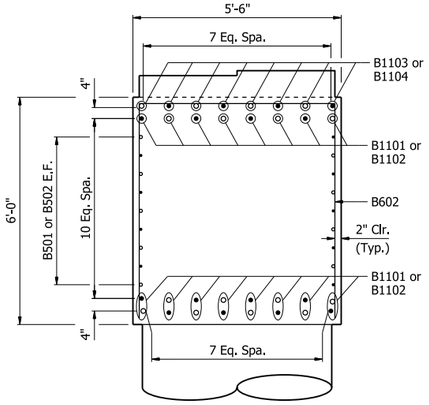
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	430	809
		07685 - INT. BENTS - 67490				



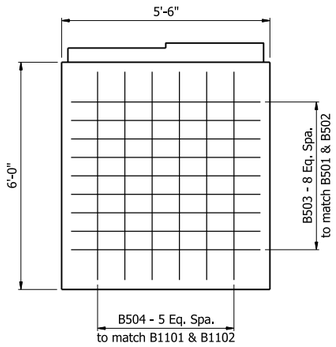
SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)



SECTION A-A
½" = 1'-0"

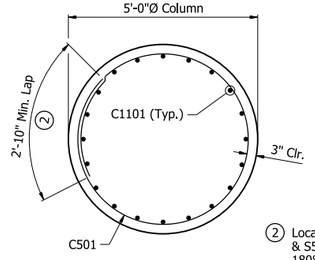


SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)



VIEW C-C
½" = 1'-0"

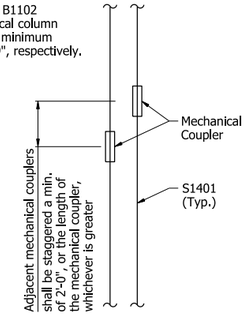
Note:
Contractor shall adjust B1101 and B1102 bar spacing to accommodate vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 9", respectively.



SECTION E-E
½" = 1'-0"

2 Location of lap splices in C501 & S501 ties shall be alternated 180° at adjacent ties.

3 Location of end hooks in C502 & S502 ties shall be alternated 180° at adjacent ties.



DRILLED SHAFT BAR SPLICE DETAIL
No Scale

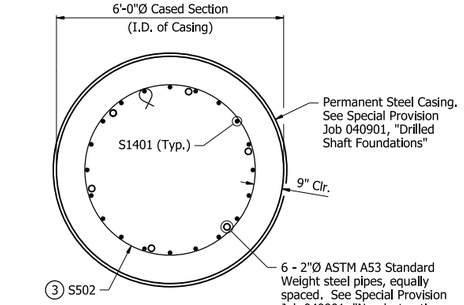
MECHANICAL COUPLER AND SPLICE NOTES;
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 6'-0" from top of shaft.

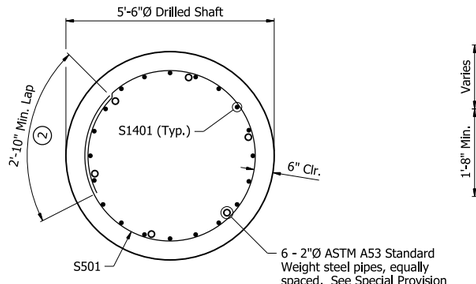
The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (66" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.

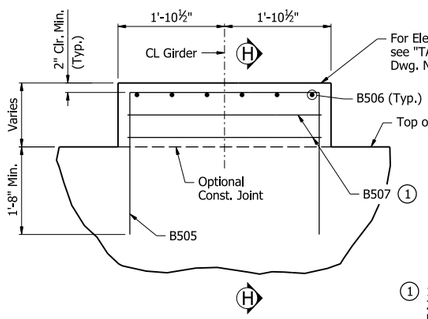
TYPICAL PEDESTAL PLAN
¾" = 1'-0"



SECTION F-F
½" = 1'-0"

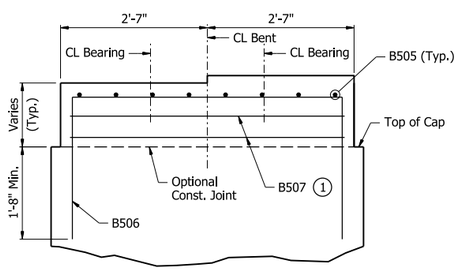


SECTION G-G
½" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

1 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.

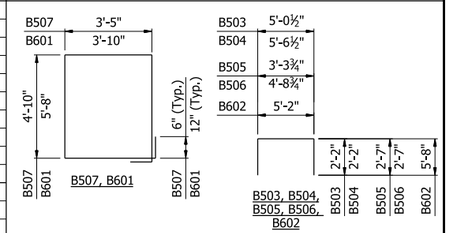


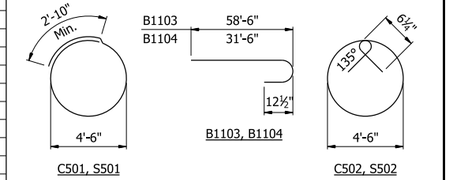
SECTION H-H
¾" = 1'-0"

BAR LIST - PER BENT

Mark	Number Required	Length	Pin Dia.
B501	18	60'-0"	Str.
B502	18	25'-4"	Str.
B503	18	9'-2"	2½"
B504	12	9'-8"	2½"
B505	80	8'-3"	2½"
B506	60	9'-8"	2½"
B507	12	17'-0"	2½"
B601	280	20'-2"	4½"
B602	12	16'-2"	4½"
B1101	24	60'-0"	Str.
B1102	24	30'-0"	Str.
B1103	8	60'-0"	11¼"
B1104	8	33'-0"	11¼"
C501	72	16'-10"	-
C502	90	15'-4"	2½"
C1101	60	34'-11"	Str.
4 S501	228	16'-10"	-
4 S502	39	15'-4"	2½"
4 S1401	60	68'-9"	Str.

Bending Diagrams (Dimensions are out to out of bars)





All bars designated with an "E" suffix are to be epoxy coated.

4 S1401 longitudinal reinforcement and S501 & S502 tie reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (66" DIA.)". Individual lengths shall be determined by the Contractor.

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67489.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NO. 4
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

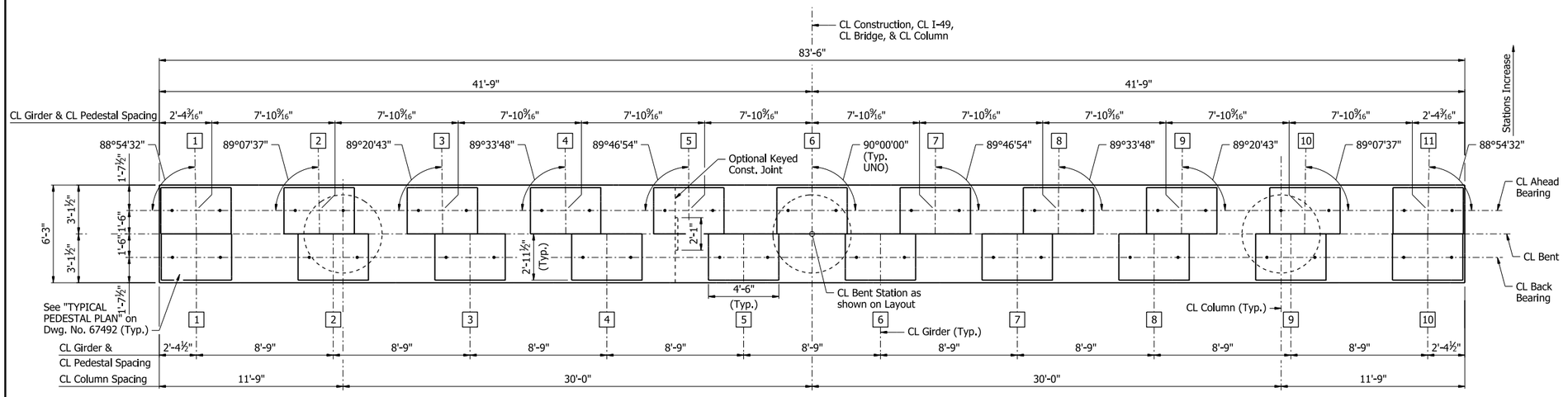
ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CEM DATE: 10/19/23
CHECKED BY: QL DATE: 11/22/23
DESIGNED BY: PEG DATE: 7/25/23
FILENAME: b040901116_b42.dgn
SCALE: AS NOTED

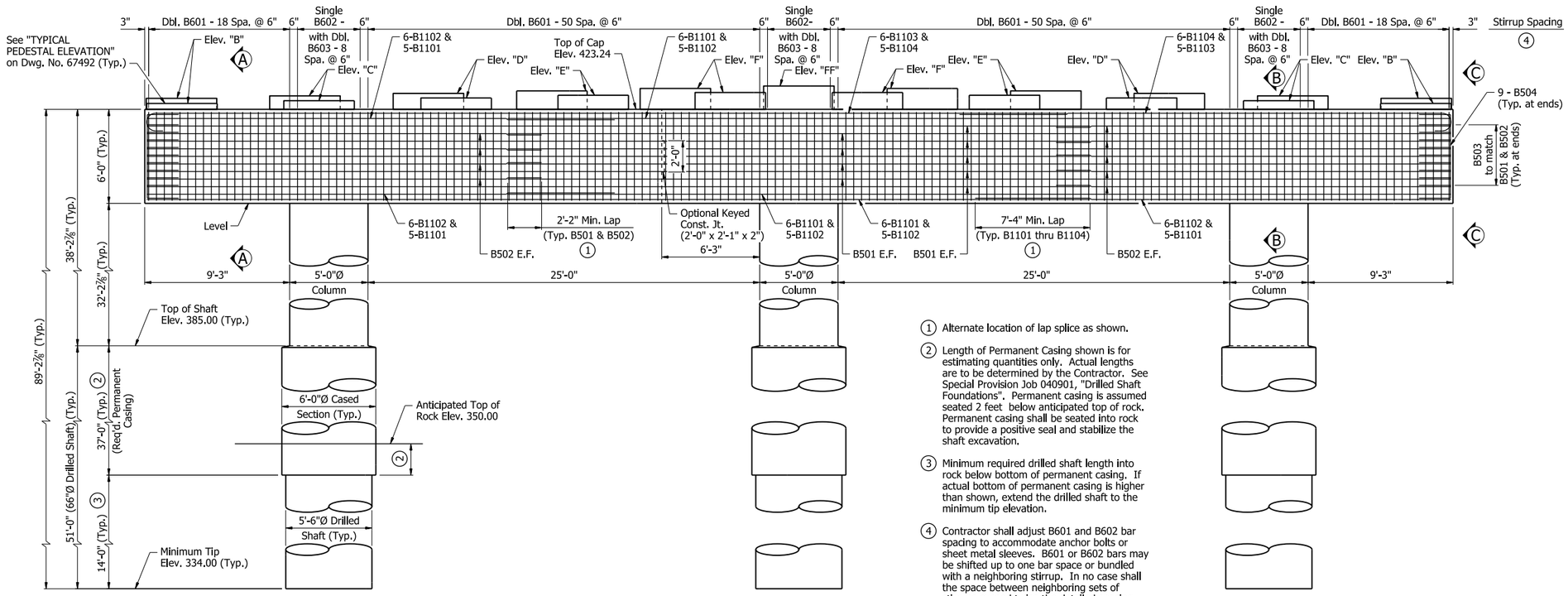
BRIDGE NO. 07685 DRAWING NO. 67490

PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	431	809
		07685 - INT. BENTS - 67491				



PLAN



ELEVATION
(Looking Upstation)

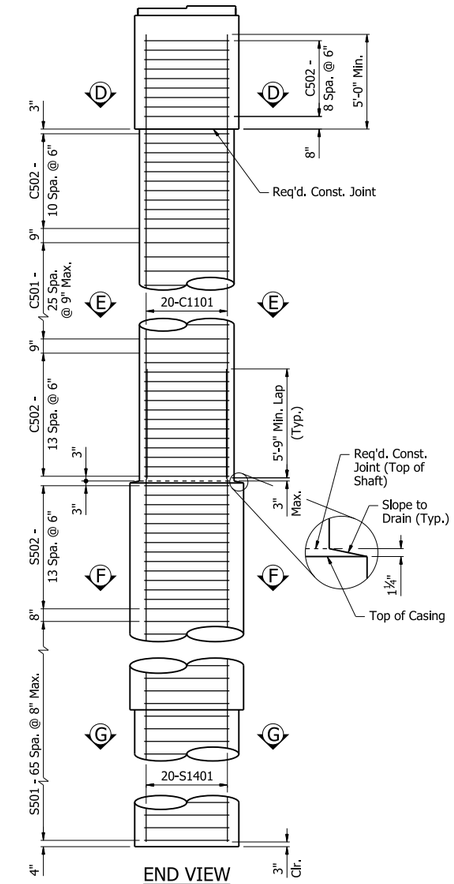
1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.
4. Contractor shall adjust B601 and B602 bar spacing to accommodate anchor bolts or sheet metal sleeves. B601 or B602 bars may be shifted up to one bar space or bundled with a neighboring stirrup. In no case shall the space between neighboring sets of stirrups exceed twice the detailed spacing.

TABLE OF VARIABLES

"B"		"C"		"D"		"E"		"F"		"FF"	
Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing
423.62	423.95	423.79	424.10	423.97	424.26	424.14	424.42	424.32	424.58	-	424.73

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67492.

For "GENERAL NOTES", see Dwg. No. 67372.



END VIEW

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of ties shall be adjusted accordingly to maintain the maximum spacing of ties in the regions identified above.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NO. 5
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

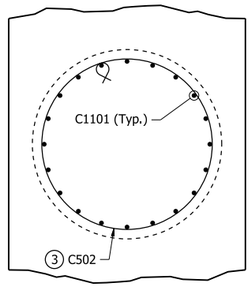
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MGG DATE: 11/19/23
CHECKED BY: QL DATE: 11/28/23
DESIGNED BY: PEG DATE: 8/10/23
FILENAME: b040901116_b51.dgn
SCALE: ¼" = 1'-0"

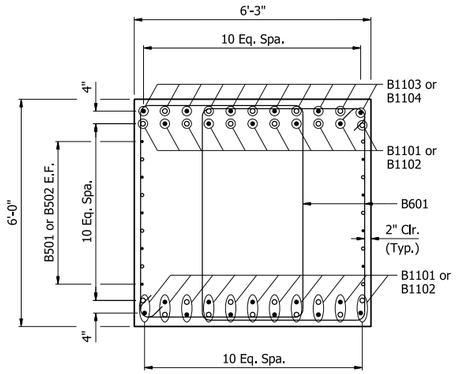
BRIDGE NO. 07685 DRAWING NO. 67491

PRINT DATE: 4/8/2024

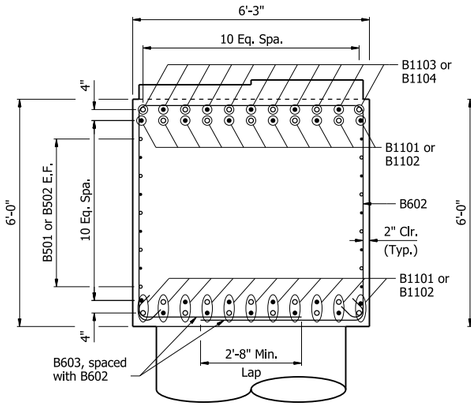
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	432	809
		07685 - INT. BENTS - 67492				



SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)

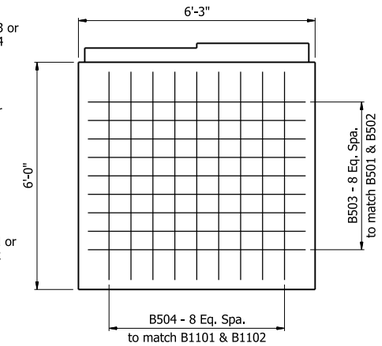


SECTION A-A
½" = 1'-0"

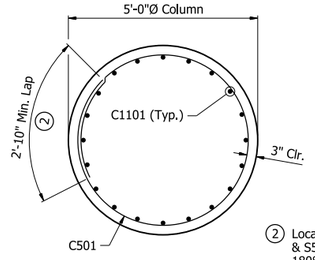


SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)

Note:
Contractor shall adjust B1101 thru B1104 bar spacing to accommodate anchor bolts, sheet metal sleeves, or vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 9", respectively.



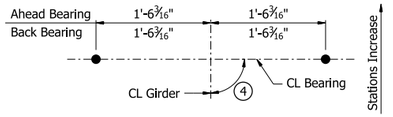
VIEW C-C
½" = 1'-0"



SECTION E-E
½" = 1'-0"

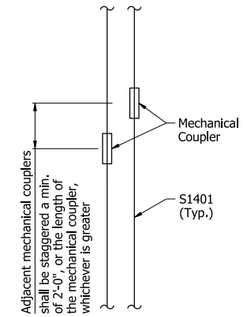
② Location of lap splices in C501 & S501 ties shall be alternated 180° at adjacent ties.

③ Location of end hooks in C502 & S502 ties shall be alternated 180° at adjacent ties.



TYPICAL ANCHOR BOLT LAYOUT
1" = 1'-0"

④ Angle between CL Girder and CL Bearing varies by bearing location, as shown in Plan view on Dwg. No. 67491. Position anchor bolts parallel to the CL Bearing and CL Bent.



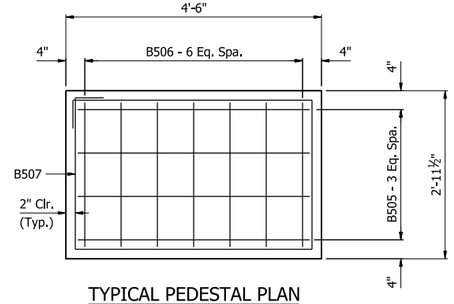
DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES:
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

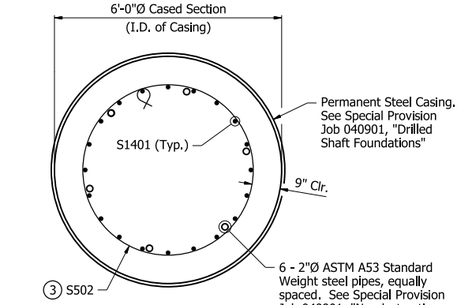
The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 6'-0" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

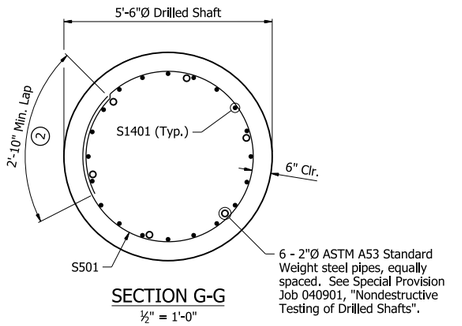
Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (66" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.



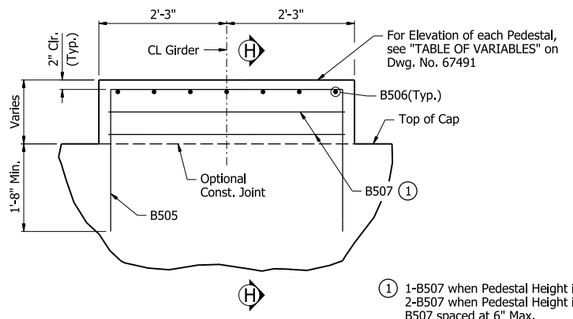
TYPICAL PEDESTAL PLAN
¾" = 1'-0"



SECTION F-F
½" = 1'-0"

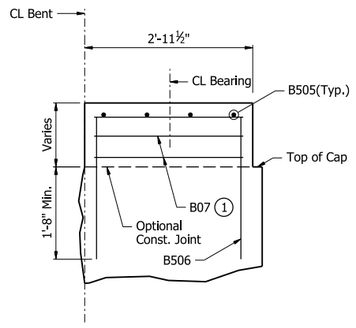


SECTION G-G
½" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

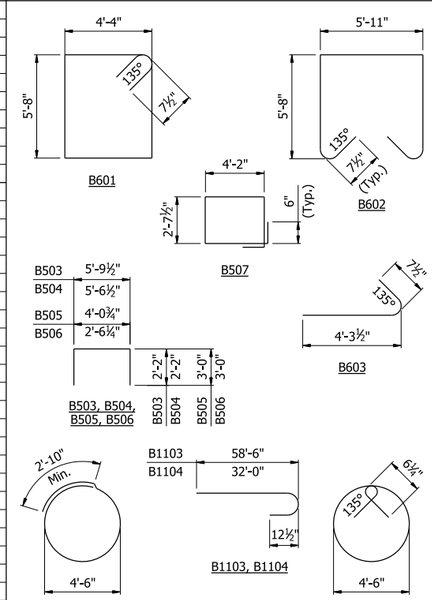
① 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.



SECTION H-H
¾" = 1'-0"

BAR LIST

	Mark	Number Required	Length	Pin Dia.	Bending Diagrams (Dimensions are out to out of bars)
	B501	18	60'-0"	Str.	
	B502	18	25'-4"	Str.	
	B503	18	9'-11"	2½"	
	B504	18	9'-8"	2½"	
	B505	84	9'-10"	2½"	
	B506	147	8'-4"	2½"	
	B507	30	14'-1"	2½"	
	B601	280	20'-10"	4½"	
	B602	27	18'-3"	4½"	
	B603	54	4'-11"	4½"	
	B1101	33	60'-0"	Str.	
	B1102	33	30'-6"	Str.	
	B1103	11	60'-0"	11¼"	
	B1104	11	33'-6"	11¼"	
	C501	78	16'-10"	-	
	C502	102	15'-4"	2½"	
	C1101	60	37'-0"	Str.	
5	S501	198	16'-10"	-	
5	S502	42	15'-4"	2½"	
5	S1401	60	56'-9"	Str.	



All bars designated with an "E" suffix are to be epoxy coated.

⑤ S1401 longitudinal reinforcement and S501 & S502 tie reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (66" DIA.)". Individual lengths shall be determined by the Contractor.

Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67491.

For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NO. 5
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MGG DATE: 11/19/23
CHECKED BY: QL DATE: 11/28/23
DESIGNED BY: PEG DATE: 8/10/23
FILENAME: b040901116_b52.dgn
SCALE: AS NOTED

BRIDGE NO. 07685 DRAWING NO. 67492

PRINT DATE: 4/8/2024

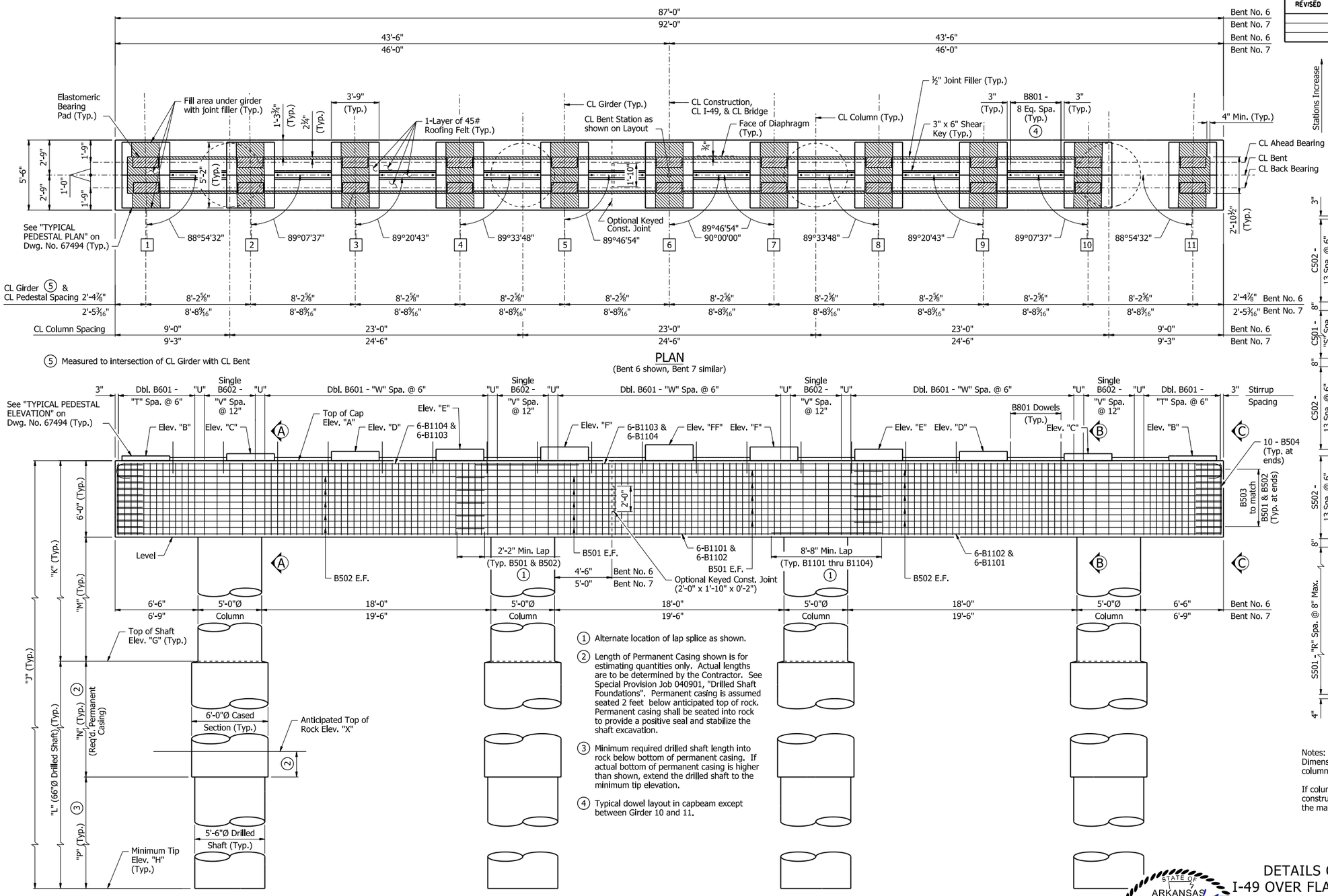
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	433	809
				07685 - INT. BENTS - 67493		

Notes:
For "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67494.

For "GENERAL NOTES", see Dwg. No. 67372.

Use 2¼" x ½" joint filler up the vertical face of pedestals.

For "DETAILS OF ELASTOMERIC BEARINGS" , see Dwg. Nos. 67702 and 67703.



PLAN
(Bent 6 shown, Bent 7 similar)

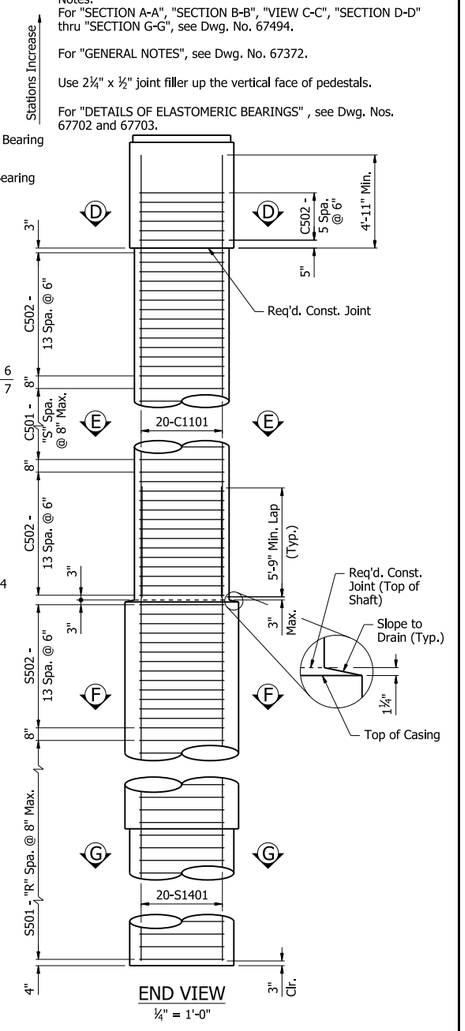
(1) Alternate location of lap splice as shown.

(2) Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.

(3) Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.

(4) Typical dowel layout in capbeam except between Girder 10 and 11.

ELEVATION
(Looking Upstation)
(Bent 6 shown, Bent 7 similar)



END VIEW
¼" = 1'-0"

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

If column, cased section, or drilled shaft length changes during construction, number of ties shall be adjusted accordingly to maintain the maximum spacing of ties in the regions identified above.

TABLE OF VARIABLES

Bent No.	"A"	"B" Back Bearing	"B" Ahead Bearing	"C" Back Bearing	"C" Ahead Bearing	"D" Back Bearing	"D" Ahead Bearing	"E" Back Bearing	"E" Ahead Bearing	"F" Back Bearing	"F" Ahead Bearing	"FF" Back Bearing	"FF" Ahead Bearing	"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"	"S"	"T"	"U"	"V"	"W"	"X"
6	425.80	426.18	426.18	426.34	426.34	426.51	426.51	426.67	426.67	426.83	426.83	427.00	427.00	385.00	331.00	94'-9⅝"	40'-9⅝"	54'-0"	34'-9⅝"	39'-0"	15'-0"	70	30	12	9"	4	35	348.00
7	428.06	428.44	428.44	428.61	428.61	428.79	428.79	428.96	428.96	429.14	429.14	429.31	429.31	386.00	331.00	97'-0¾"	42'-0¾"	55'-0"	36'-0¾"	40'-0"	15'-0"	71	32	13	12"	3	39	348.00



4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 6 & 7
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

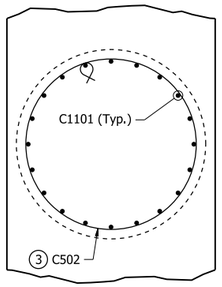
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MGG DATE: 11/11/23
CHECKED BY: DJB DATE: 11/20/23
DESIGNED BY: CZ DATE: 9/8/23
FILENAME: b040901116_b61.dgn
SCALE: ¼" = 1'-0"

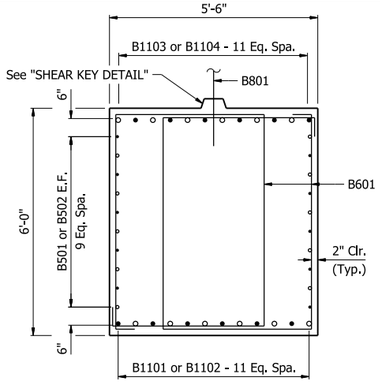
BRIDGE NO. 07685 DRAWING NO. 67493

PRINT DATE: 4/8/2024

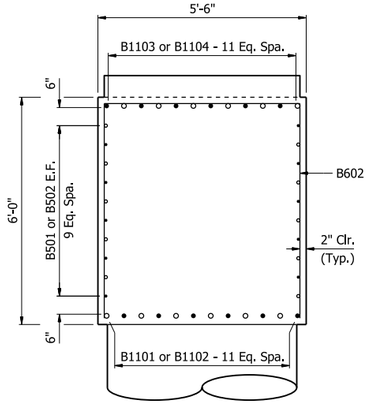
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	434	809
		07685 - INT. BENTS - 67494				



SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)

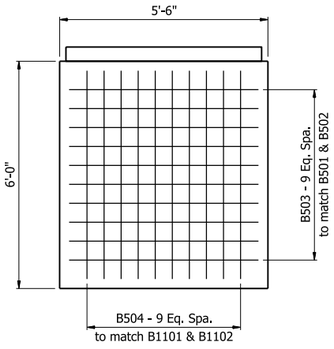


SECTION A-A
½" = 1'-0"

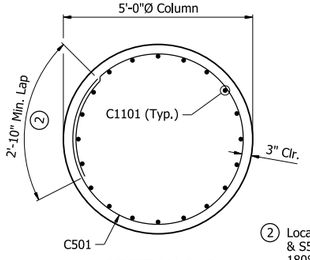


SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)

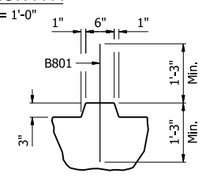
Note:
Contractor shall adjust B1101 thru B1104 bar spacing to accommodate dowels or vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 8", respectively. B1101 thru B1104 bars may be bundled as required to maintain the minimum spacing so long as the maximum spacing is not exceeded.



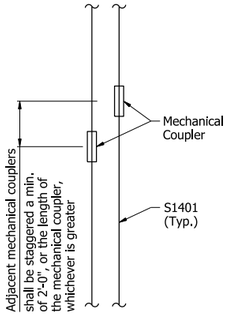
VIEW C-C
½" = 1'-0"



SECTION E-E
½" = 1'-0"



SHEAR KEY DETAIL
No Scale



DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES;
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 6'-0" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (66" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.

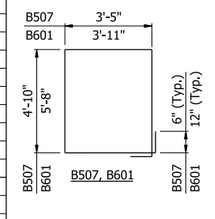
TABLE OF VARIABLES

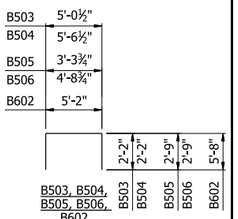
Bent No.	"BN1"	"BN2"	"BL1"	"BL2"	"BL3"	"CN"	"CL"	"SN"	"SL"
6	268	20	28'-10"	35'-4"	38'-4"	124	39'-6"	284	59'-9"
7	296	16	33'-10"	40'-4"	43'-4"	132	40'-9"	288	60'-9"

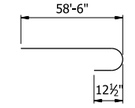
BAR LIST - PER BENT

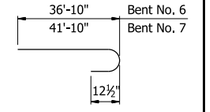
Mark	Number Required	Length	Pin Dia.
B501	20	60'-0"	Str.
B502	20	"BL1"	Str.
B503	20	9'-2"	2½"
B504	20	9'-8"	2½"
B505	88	8'-7"	2½"
B506	66	10'-0"	2½"
B507	14	17'-0"	2½"
B601	"BN1"	20-4"	4½"
B602	"BN2"	16'-2"	4½"
B801	81	2'-6"	Str.
B1101	12	60'-0"	Str.
B1102	12	"BL2"	Str.
B1103	12	60'-0"	11¼"
B1104	12	"BL3"	11¼"
C501	"CN"	16'-10"	-
C502	136	15'-4"	2½"
C1101	80	"CL"	Str.
(4) S501	"SN"	16'-10"	-
(4) S502	56	15'-4"	2½"
(4) S1401	80	"SL"	Str.

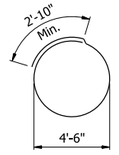
Bending Diagrams
(Dimensions are out to out of bars)

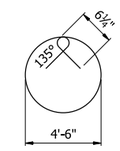












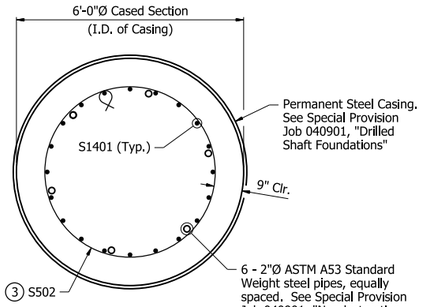
All bars designated with an "E" suffix are to be epoxy coated.

(4) S1401 longitudinal reinforcement and S501 & S502 tie reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (66" DIA.)". Individual lengths shall be determined by the Contractor.

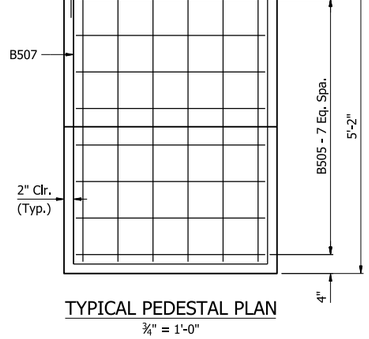
Notes:
For locations of "SECTION A-A", "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", see Dwg. No. 67493.

(2) Location of lap splices in C501 & S501 ties shall be alternated 180° at adjacent ties.

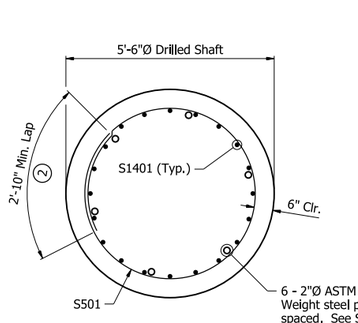
(3) Location of end hooks in C502 & S502 ties shall be alternated 180° at adjacent ties.



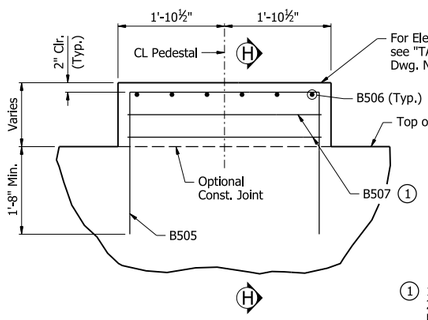
SECTION F-F
½" = 1'-0"



TYPICAL PEDESTAL PLAN
¾" = 1'-0"

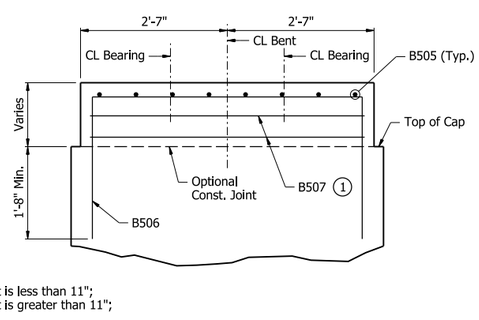


SECTION G-G
½" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

(1) 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.



SECTION H-H
¾" = 1'-0"

ALTERNATE NO. 1
SHEET 2 OF 2
DETAILS OF INTERMEDIATE BENT NOS. 6 & 7
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

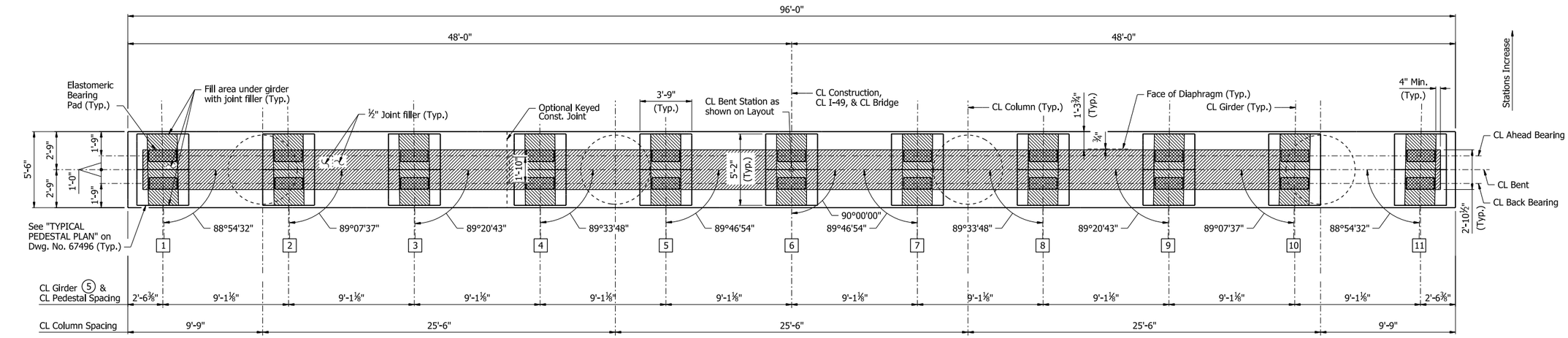
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

DRAWN BY: MGG DATE: 11/11/23
CHECKED BY: DJB DATE: 11/20/23
DESIGNED BY: CZ DATE: 9/8/23
FILENAME: b040901116_b62.dgn
SCALE: AS NOTED

BRIDGE NO. 07685 DRAWING NO. 67494

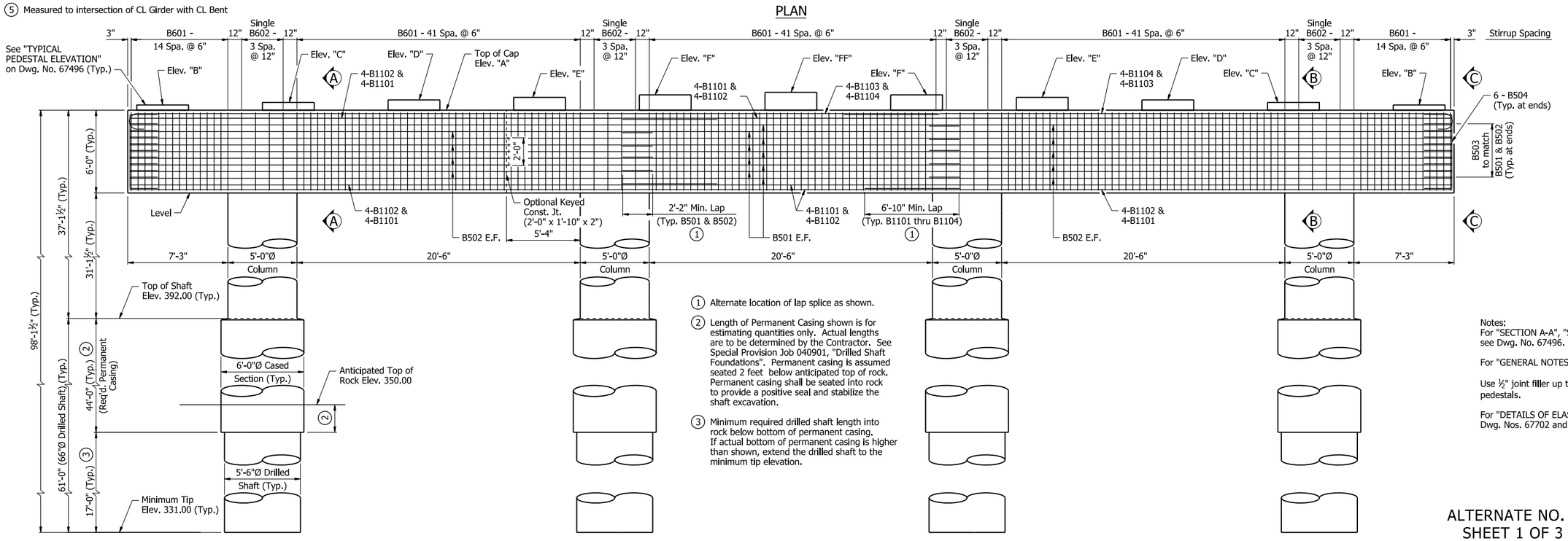
PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	435	809
		07685 - INT. BENTS - 67495				



⑤ Measured to intersection of CL Girder with CL Bent

PLAN



ELEVATION

(Looking Upstation)

① Alternate location of lap splice as shown.

② Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.

③ Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.

TABLE OF VARIABLES

"A"	"B"		"C"		"D"		"E"		"F"		"FF"	
	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing
429.12	429.50	429.57	429.68	429.76	429.87	429.94	430.05	430.12	430.23	430.30	430.41	430.48

Notes:
For "SECTION A-A", "SECTION B-B", & "VIEW C-C", see Dwg. No. 67496.

For "GENERAL NOTES", see Dwg. No. 67372.

Use ½" joint filler up the vertical face of pedestals.

For "DETAILS OF ELASTOMERIC BEARINGS" , see Dwg. Nos. 67702 and 67703.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 3
DETAILS OF INTERMEDIATE BENT NO. 8
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

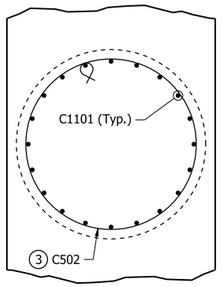
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MGG DATE: 11/14/23
CHECKED BY: QL DATE: 11/21/23
DESIGNED BY: MGG DATE: 8/22/23
FILENAME: b040901116_b81.dgn
SCALE: ¼" = 1'-0"

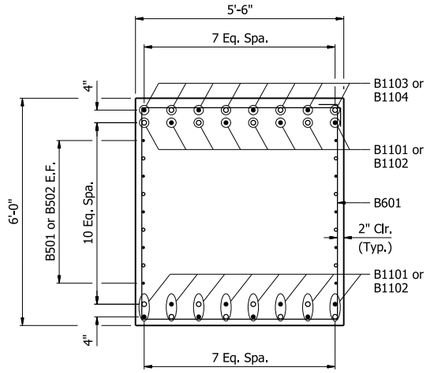
BRIDGE NO. 07685 DRAWING NO. 67495

PRINT DATE: 4/8/2024

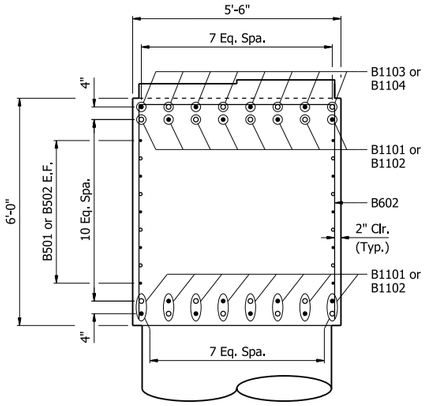
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	436	809
		07685 - INT. BENTS - 67496				



SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)

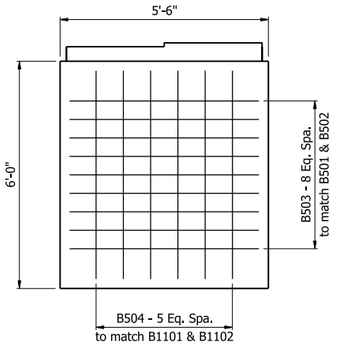


SECTION A-A
½" = 1'-0"

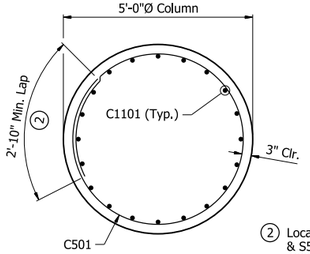


SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)

Note:
Contractor shall adjust B1101 and B1102 bar spacing to accommodate vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 9", respectively.



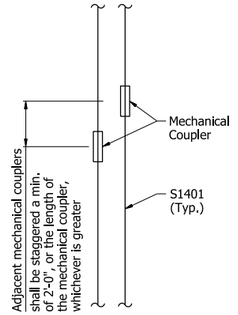
VIEW C-C
½" = 1'-0"



SECTION E-E
½" = 1'-0"

2 Location of lap splices in C501 & S501 ties shall be alternated 180° at adjacent ties.

3 Location of end hooks in C502 & S502 ties shall be alternated 180° at adjacent ties.



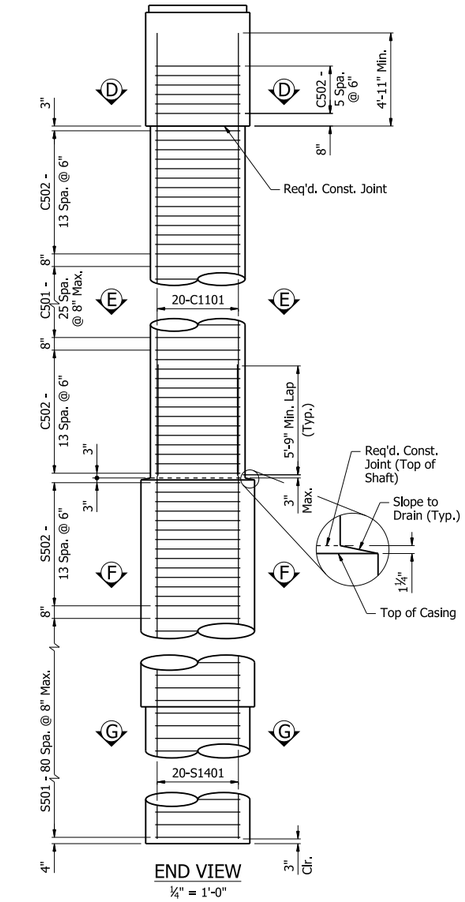
DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES:
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 6'-2" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

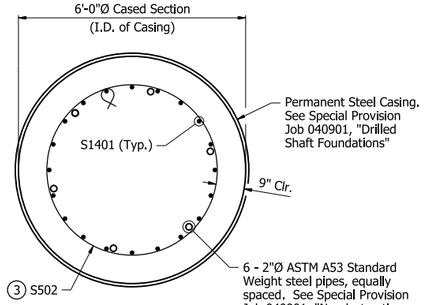
Mechanical couplers shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (66" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.



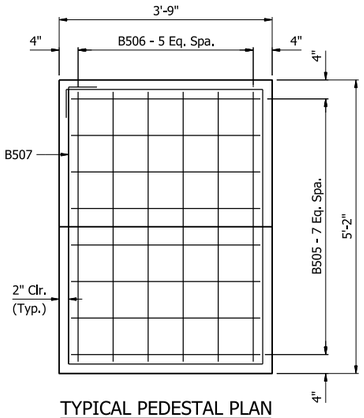
END VIEW
¼" = 1'-0"

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

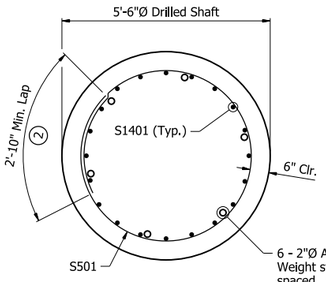
If column, cased section, or drilled shaft length changes during construction, number of ties shall be adjusted accordingly to maintain the maximum spacing of ties in the regions identified above.



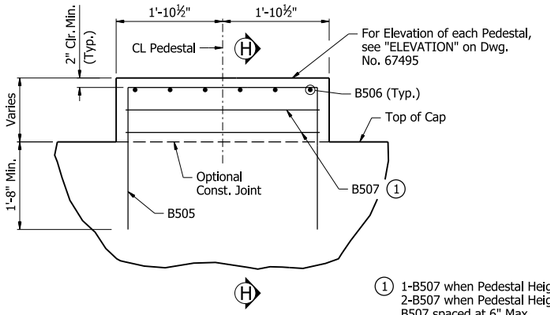
SECTION F-F
½" = 1'-0"



TYPICAL PEDESTAL PLAN
¾" = 1'-0"

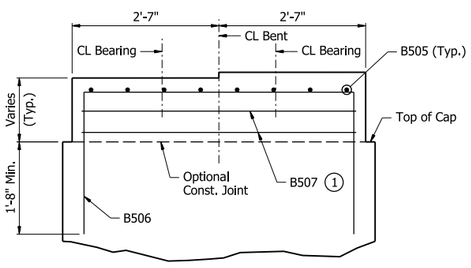


SECTION G-G
½" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

1 1-B507 when Pedestal Height is less than 11";
2-B507 when Pedestal Height is greater than 11";
B507 spaced at 6" Max.



SECTION H-H
¾" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 3
DETAILS OF INTERMEDIATE BENT NO. 8
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MGG DATE: 11/14/23
CHECKED BY: QL DATE: 11/21/23
DESIGNED BY: MGG DATE: 8/22/23
FILENAME: b040901116_b82.dgn
SCALE: AS NOTED

BRIDGE NO. 07685 DRAWING NO. 67496

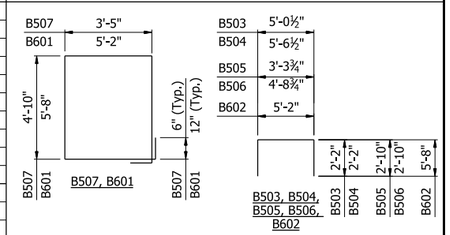
PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	437	809
		07685 - INT. BENTS - 67497				

BAR LIST

Mark	Number Required	Length	Pin Dia.
B501	18	60'-0"	Str.
B502	18	37'-10"	Str.
B503	18	9'-2"	2½"
B504	12	9'-8"	2½"
B505	88	8'-9"	2½"
B506	66	10'-2"	2½"
B507	16	17'-0"	2½"
B601	156	22'-10"	4½"
B602	16	16'-2"	4½"
B1101	24	60'-0"	Str.
B1102	24	42'-6"	Str.
B1103	8	60'-0"	11¼"
B1104	8	45'-6"	11¼"
C501	104	16'-10"	-
C502	136	15'-4"	2½"
C1101	80	35'-10"	Str.
(1) S501	324	16'-10"	-
(1) S502	56	15'-4"	2½"
(1) S1401	80	66'-9"	Str.

Bending Diagrams
(Dimensions are out to out of bars)



All bars designated with an "E" suffix are to be epoxy coated.

(1) S1401 longitudinal reinforcement and S501 & S502 tie reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (66" DIA.)". Individual lengths shall be determined by the Contractor.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 3 OF 3
DETAILS OF INTERMEDIATE BENT NO. 8
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

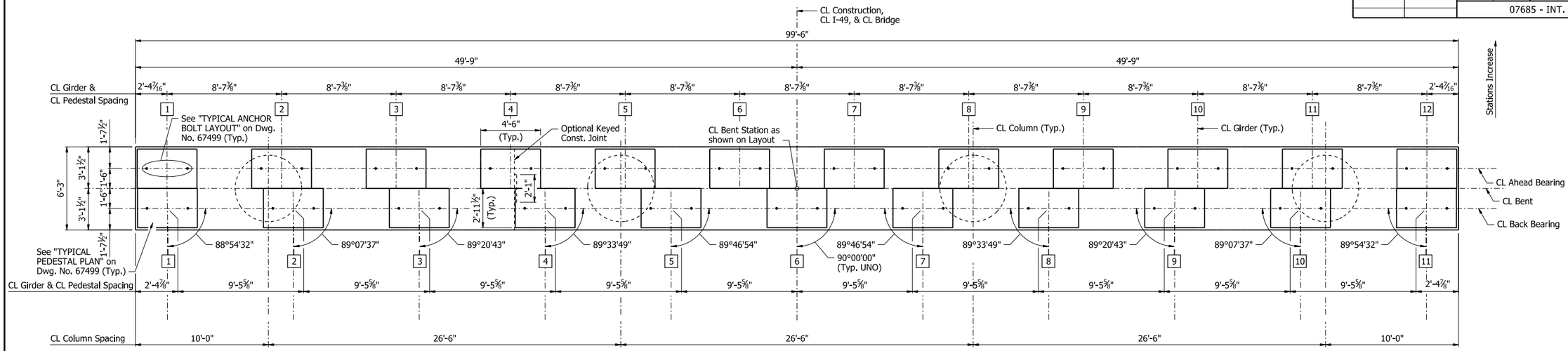
ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MGG DATE: 11/14/23
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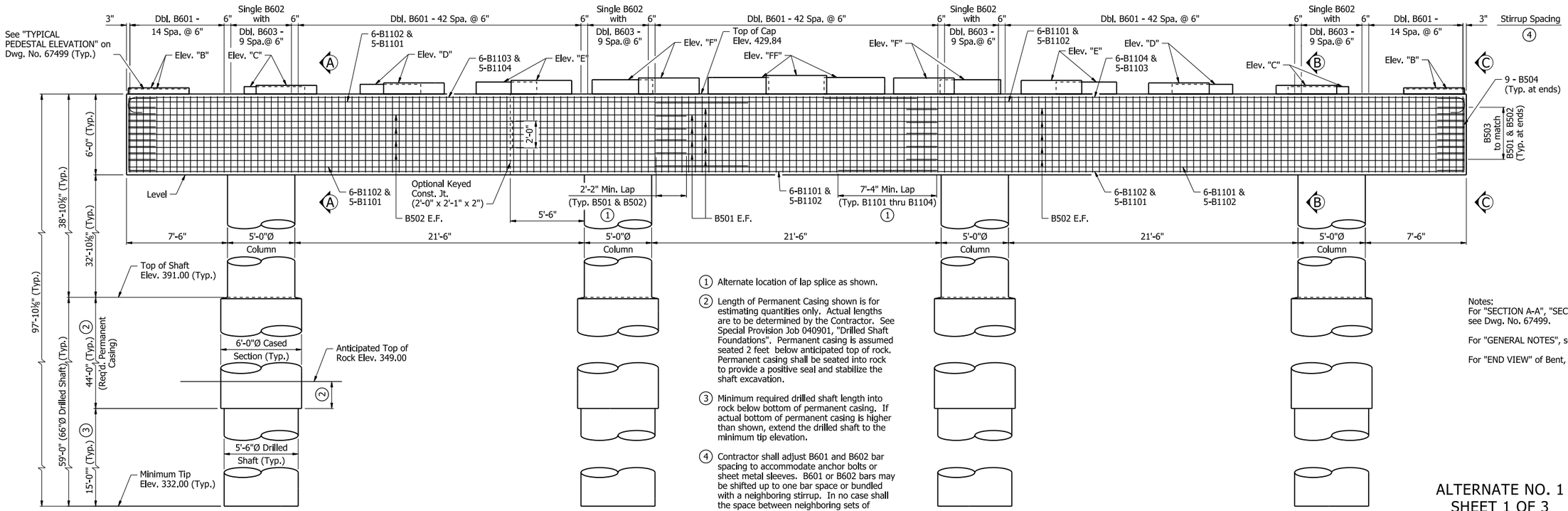
BRIDGE NO. 07685 DRAWING NO. 67497

PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	438	809
		07685 - INT. BENTS - 67498				



PLAN



ELEVATION

(Looking Upstation)

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.
4. Contractor shall adjust B601 and B602 bar spacing to accommodate anchor bolts or sheet metal sleeves. B601 or B602 bars may be shifted up to one bar space or bundled with a neighboring stirrup. In no case shall the space between neighboring sets of stirrups exceed twice the detailed spacing.

TABLE OF VARIABLES

"B"		"C"		"D"		"E"		"F"		"FF"	
Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing	Back Bearing	Ahead Bearing
430.27	430.22	430.46	430.39	430.65	430.56	430.84	430.73	431.03	430.91	431.22	431.08

Notes:
For "SECTION A-A", "SECTION B-B", & "VIEW C-C", see Dwg. No. 67499.

For "GENERAL NOTES", see Dwg. No. 67372.

For "END VIEW" of Bent, see Dwg. No. 67499.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 3
DETAILS OF INTERMEDIATE BENT NO. 9
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

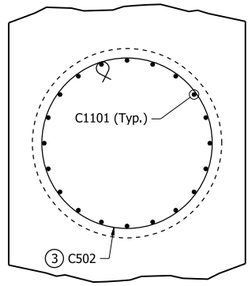
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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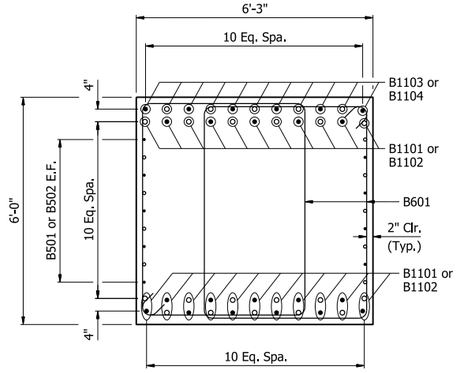
BRIDGE NO. 07685 DRAWING NO. 67498

PRINT DATE: 4/8/2024

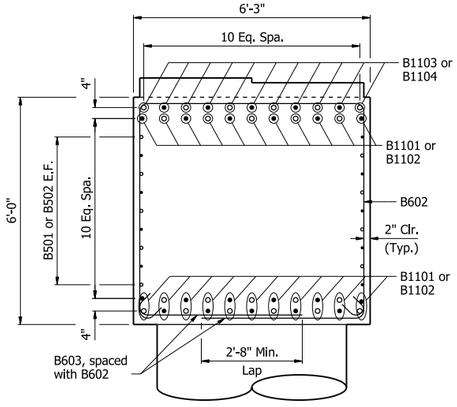
DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	439	809
		07685 - INT. BENTS - 67499				



SECTION D-D
½" = 1'-0"
(Cap reinforcing not shown for clarity)

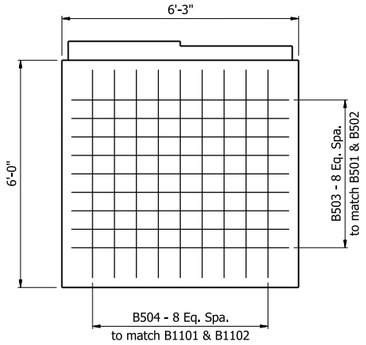


SECTION A-A
½" = 1'-0"

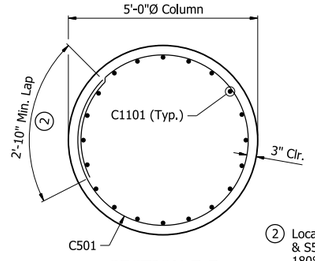


SECTION B-B
½" = 1'-0"
(Pedestal and column reinforcing not shown for clarity)

Note:
Contractor shall adjust B1101 thru B1104 bar spacing to accommodate anchor bolts, sheet metal sleeves, or vertical column steel. Contractor shall maintain a minimum and maximum spacing of 5" and 9", respectively.



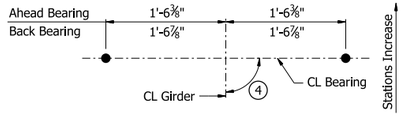
VIEW C-C
½" = 1'-0"



SECTION E-E
½" = 1'-0"

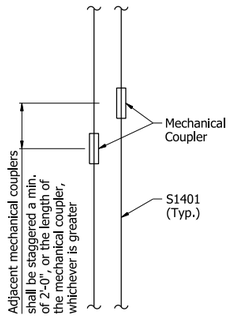
2 Location of lap splices in C501 & S501 ties shall be alternated 180° at adjacent ties.

3 Location of end hooks in C502 & S502 ties shall be alternated 180° at adjacent ties.



TYPICAL ANCHOR BOLT LAYOUT
1" = 1'-0"

4 Angle between CL Girder and CL Bearing varies by bearing location, as shown in Plan view on Dwg. No. 67498. Position anchor bolts parallel to the CL Bearing and CL Bent.



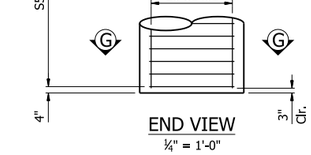
DRILLED SHAFT BAR SPLICE DETAIL
No Scale

MECHANICAL COUPLER AND SPLICE NOTES:
Contractor shall be required to use mechanical couplers to splice reinforcing bars whose lengths given in the Bar List exceed 60'-0". The bars shall be assembled as shown in "DRILLED SHAFT BAR SPLICE DETAIL".

The Contractor may choose location of splices for convenience, so long as no bar to be spliced is less than 5'-0" in length and no closer than 6'-0" from top of shaft.

The Contractor may also elect to splice bars whose lengths are less than 60'-0" to provide ease of construction, so long as the previous mentioned requirements are met.

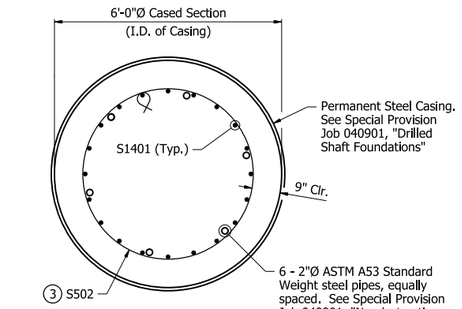
Mechanical coupler shall maintain the clearances shown in "DRILLED SHAFT BAR SPLICE DETAIL". Not more than alternate bars shall be spliced at a given location. Payment for mechanical couplers shall be subsidiary to the item "DRILLED SHAFT (66" DIA.)". The couplers shall develop at least 125% of the specified yield strength of the bar.



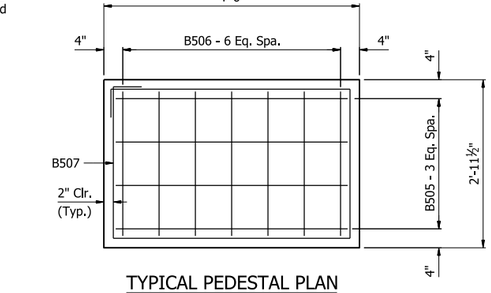
END VIEW
¼" = 1'-0"

Notes:
Dimensions, details, & reinforcing steel shown are typical for all columns and drilled shafts.

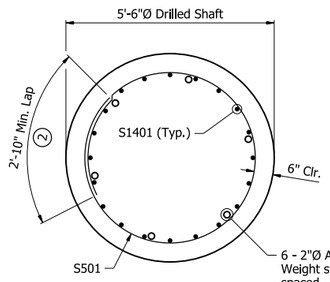
If column, cased section, or drilled shaft length changes during construction, number of ties shall be adjusted accordingly to maintain the maximum spacing of ties in the regions identified above.



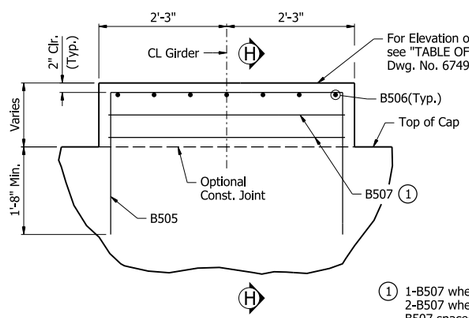
SECTION F-F
½" = 1'-0"



TYPICAL PEDESTAL PLAN
¾" = 1'-0"

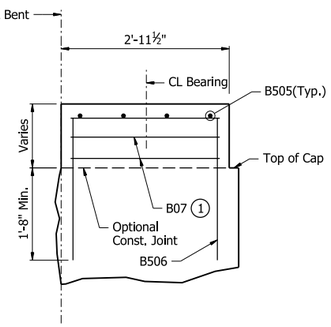


SECTION G-G
½" = 1'-0"



TYPICAL PEDESTAL ELEVATION
¾" = 1'-0"

1 1-B507 when Pedestal Height is less than 11"; 2-B507 when Pedestal Height is greater than 11"; B507 spaced at 6" Max.



PART SECTION H-H
¾" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 2 OF 3
DETAILS OF INTERMEDIATE BENT NO. 9
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MGG DATE: 11/15/23
CHECKED BY: WJS DATE: 11/27/23
DESIGNED BY: PEG DATE: 8/22/23
FILENAME: b040901116_b92.dgn
SCALE: AS NOTED

BRIDGE NO. 07685 DRAWING NO. 67499

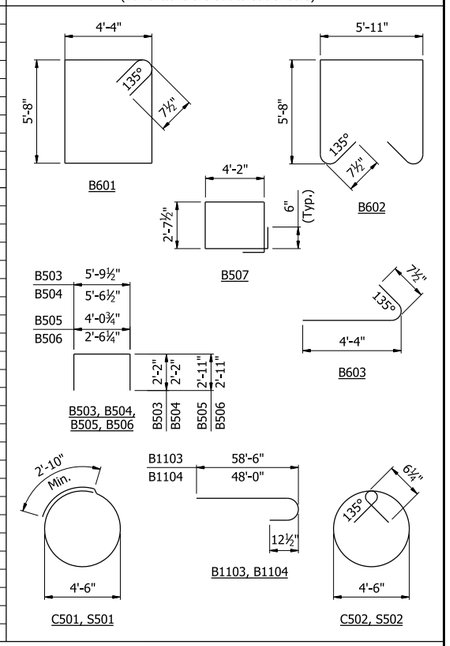
PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	440	809
		07685 - INT. BENTS - 67500				

BAR LIST

Mark	Number Required	Length	Pin Dia.
B501	18	60'-0"	Str.
B502	18	41'-4"	Str.
B503	18	9'-11"	2½"
B504	18	9'-8"	2½"
B505	92	9'-8"	2½"
B506	161	8'-2"	2½"
B507	32	14'-1"	2½"
B601	318	20'-10"	4½"
B602	40	18'-3"	4½"
B603	80	5'-0"	4½"
B1101	33	60'-0"	Str.
B1102	33	46'-6"	Str.
B1103	11	60'-0"	11¼"
B1104	11	49'-6"	11¼"
C501	112	16'-10"	-
C502	132	15'-4"	2½"
C1101	80	37'-8"	Str.
(1) S501	316	16'-10"	-
(1) S502	52	15'-4"	2½"
(1) S1401	80	64'-9"	Str.

Bending Diagrams
(Dimensions are out to out of bars)



All bars designated with an "E" suffix are to be epoxy coated.

(1) S1401 longitudinal reinforcement and S501 & S502 tie reinforcement are non-pay items which are subsidiary to item "DRILLED SHAFT (66" DIA.)". Individual lengths shall be determined by the Contractor.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
W. JOSEPH STURGEON
No. 21697
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 3 OF 3
DETAILS OF INTERMEDIATE BENT NO. 9
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

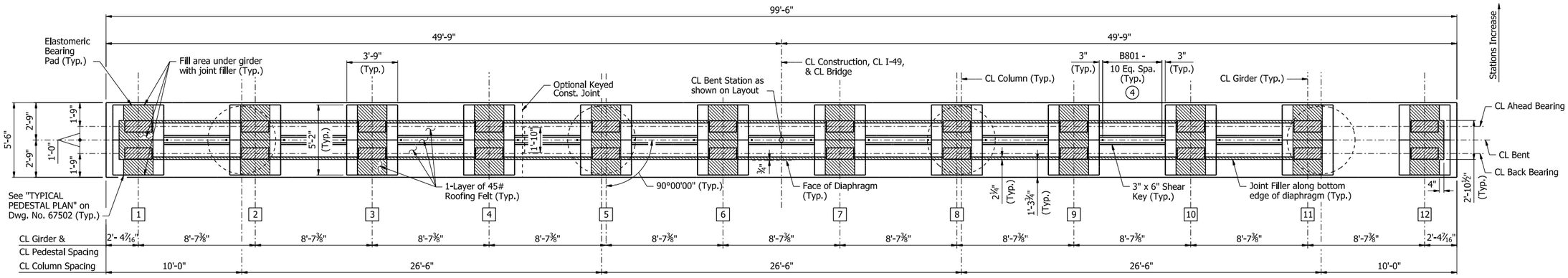
ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MGG DATE: 11/15/23
CHECKED BY: WJS DATE: 11/27/23
DESIGNED BY: PEG DATE: 8/22/23
FILENAME: b040901116_b93.dgn
SCALE: NO SCALE

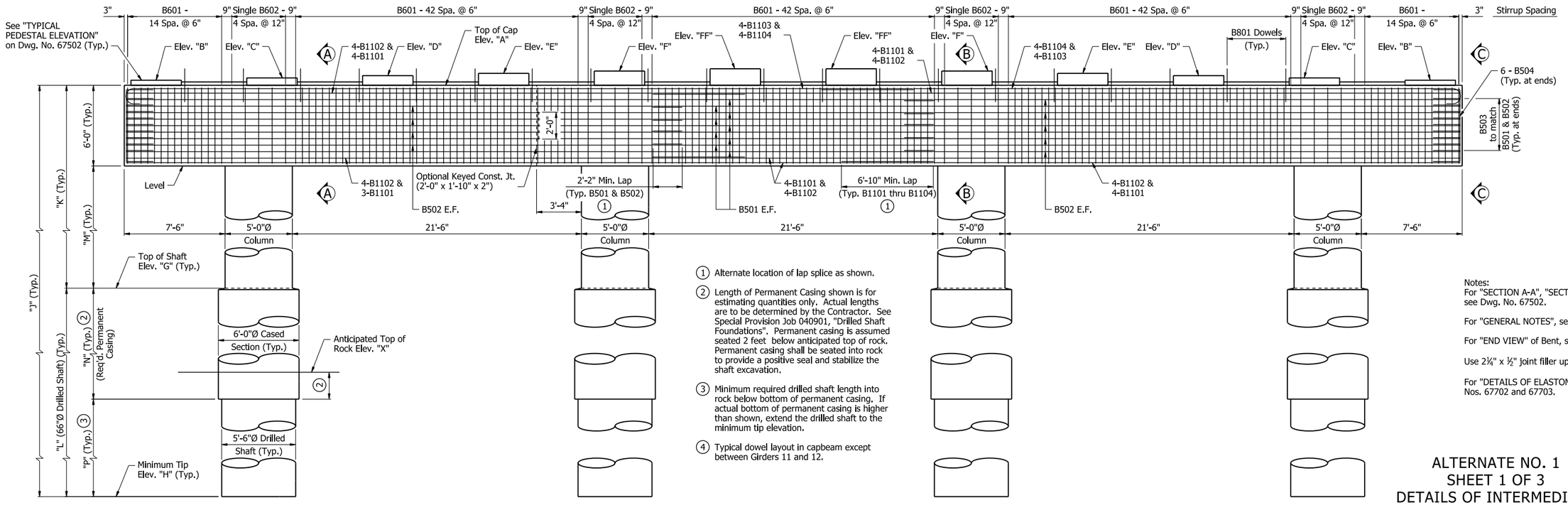
BRIDGE NO. 07685 DRAWING NO. 67500

PRINT DATE: 4/8/2024

DATE REVISED	DATE REVISED	FED. RD. DIST. NO.	STATE	JOB NO.	SHEET NO.	TOTAL SHEETS
		6	ARK.	040901	441	809
		07685 - INT. BENTS - 67501				



PLAN



ELEVATION
(Looking Upstation)

1. Alternate location of lap splice as shown.
2. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined by the Contractor. See Special Provision Job 040901, "Drilled Shaft Foundations". Permanent casing is assumed seated 2 feet below anticipated top of rock. Permanent casing shall be seated into rock to provide a positive seal and stabilize the shaft excavation.
3. Minimum required drilled shaft length into rock below bottom of permanent casing. If actual bottom of permanent casing is higher than shown, extend the drilled shaft to the minimum tip elevation.
4. Typical dowel layout in capbeam except between Girders 11 and 12.

Notes:
For "SECTION A-A", "SECTION B-B", & "VIEW C-C", see Dwg. No. 67502.

For "GENERAL NOTES", see Dwg. No. 67372.

For "END VIEW" of Bent, see Dwg. No. 67502.

Use 2¼" x ½" joint filler up the vertical face of pedestals.

For "DETAILS OF ELASTOMERIC BEARINGS", see Dwg. Nos. 67702 and 67703.

TABLE OF VARIABLES

Bent No.	"A"	"B" Back Bearing	"B" Ahead Bearing	"C" Back Bearing	"C" Ahead Bearing	"D" Back Bearing	"D" Ahead Bearing	"E" Back Bearing	"E" Ahead Bearing	"F" Back Bearing	"F" Ahead Bearing	"FF" Back Bearing	"FF" Ahead Bearing	"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"X"
10	430.92	431.30	431.30	431.48	431.48	431.65	431.65	431.82	431.82	431.99	431.99	432.16	432.16	389.00	332.00	98'-11"	41'-11"	57'-0"	35'-11"	42'-0"	15'-0"	349.00
11	430.88	431.26	431.26	431.43	431.43	431.60	431.60	431.77	431.77	431.95	431.95	432.12	432.12	388.00	330.00	100'-10½"	42'-10½"	58'-0"	36'-10½"	43'-0"	15'-0"	347.00

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 21697
W. JOSEPH STURGEON
4/18/24
BRIDGE ENGINEER

ALTERNATE NO. 1
SHEET 1 OF 3
DETAILS OF INTERMEDIATE
BENT NOS. 10 & 11
I-49 OVER FLAT ROCK CREEK, LEVEE, & GUN CLUB RD.
HWY. 22 - GUN CLUB RD. (F)
CRAWFORD COUNTY

ROUTE 549 SEC. 6
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MGG DATE: 11/11/23
CHECKED BY: QL DATE: 11/29/23
DESIGNED BY: MGG DATE: 8/22/23
FILENAME: b040901116_b101.dgn
SCALE: ¼" = 1'-0"

BRIDGE NO. 07685 DRAWING NO. 67501

PRINT DATE: 4/8/2024