CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	1
STA.		TO STA.		
*08-00602-00-BR	ILLINOIS	PROJECT		

1-15-10 Letting, Item 164

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED BRIDGE REPLACEMENT

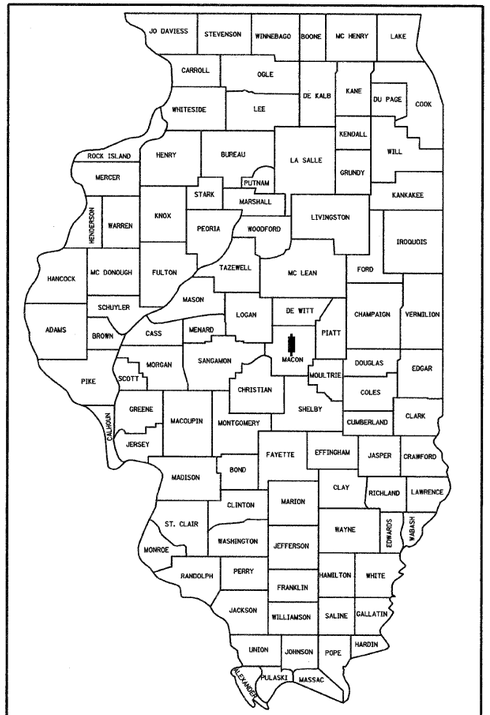
AMERICAN RECOVERY AND REINVESTMENT ACT AND STU FUNDS
SECTION 08–00602–00–BR
MACARTHUR ROAD OVER STEVENS CREEK
ROUTE FAU 7432
CITY OF DECATUR
MACON COUNTY
PROJECT NO. M–ARA–5169(045)
JOB NO. C–97–026–10

INDEX OF SHEETS

1	COVER SHEET
2	GENERAL NOTES AND QUANTITIES
3	TYPICAL SECTIONS
4	REMOVAL PLAN
5	PLAN AND PROFILE
6	GRADING PLAN
7–10	MAINTENANCE OF TRAFFIC PLAN
11–36	BRIDGE PLANS
37–47	CROSS SECTIONS

STANDARDS

420001–07	PAVEMENT JOINTS
420401–08	BRIDGE APPROACH PAVEMENT CONNECTOR
421001–02	BAR REINFORCEMENT FOR CRC PAVEMENT
515001–03	NAME PLATE FOR BRIDGES
542401–01	METAL END SECTIONS FOR PIPE CULVERTS
606001–04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
609001–05	BRIDGE APPROACH SHOULDER PAVEMENT AND DRAIN
635011–02	REFLECTOR MARKER AND MOUNTING DETAIL
701301–03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701321–10	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901–01	TRAFFIC CONTROL DEVICES
704001–06	TEMPORARY CONCRETE BARRIER
780001–02	TYPICAL PAVEMENT MARKINGS

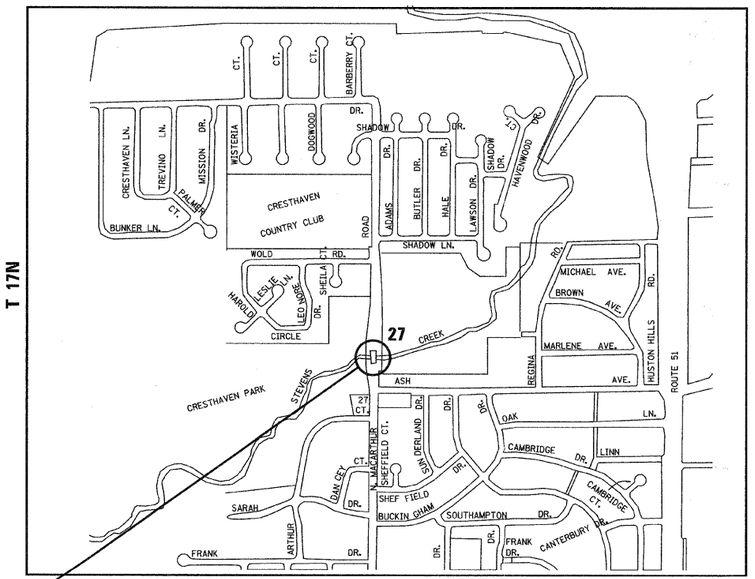


LOCATION OF SECTION INDICATED THUS: –

FUNCTIONAL CLASSIFICATION – MINOR ARTERIAL (URBAN)
2009 ADT = 7700
2029 ADT = 9600
DESIGN SPEED = 35 MPH

R 2E 3RD PM

T 17N

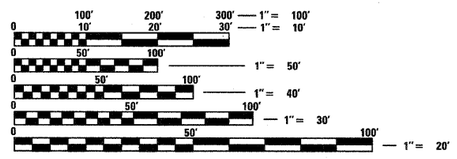


LOCATION MAP

PROPOSED
SECTION 08–00602–00–BR
BEGINS STATION 8+00.00
ENDS STATION 12+00.00
PROPOSED STRUCTURE
NO. 058–6025

TOTAL LENGTH 400.00 FEET = 0.08 MILES
NET LENGTH 400.00 FEET = 0.08 MILES

N



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123

HLC PROJECT NO. 5307
HLC FIELD BOOK NO. 486

STATE OF ILLINOIS
REGISTERED PROFESSIONAL ENGINEER
PATRICK P. WILSON
NUMBER 062-058444

Patrick P. Wilson
11/02/09
expires 11/30/11

HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
DECATUR (217) 422-8544
CHICAGO (773) 714-0060
ROCKFORD (815) 489-0050
184-001397

APPROVED October 30 20 09
CITY ENGINEER

PASSED
11/5 20 09
DISTRICT SEVEN ENGINEER OF LOCAL ROADS AND STREETS

Releasing For Bid Based on Limited Review 11/5 20 09
DEPUTY DIRECTOR OF HIGHWAYS
REGION FOUR ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	2
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

*08-00602-00-BR

SUMMARY OF QUANTITIES

	CODE NUMBER	PAY ITEM	UNIT	TOTAL
	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	161
	20200100	EARTH EXCAVATION	CU YD	7
	20300100	CHANNEL EXCAVATION	CU YD	1545
	20400800	FURNISHED EXCAVATION	CU YD	194
	20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	92
*	25000920	SEEDING, CLASS 1A (SPECIAL)	ACRE	0.1
	28100109	STONE RIPRAP, CLASS A5	SQ YD	290
	28200200	FILTER FABRIC	SQ YD	290
	42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	544
	42100610	PAVEMENT REINFORCEMENT 7"	SQ YD	544
	42101300	PROTECTIVE COAT	SQ YD	774
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	949
	44000100	PAVEMENT REMOVAL	SQ YD	737
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	507
	44000600	SIDEWALK REMOVAL	SQ FT	536
	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
	50200100	STRUCTURE EXCAVATION	CU YD	340
	50300225	CONCRETE STRUCTURES	CU YD	138.1
	50300255	CONCRETE SUPERSTRUCTURES	CU YD	325.8
	50300260	BRIDGE DECK GROOVING	SQ YD	475
	50300280	CONCRETE ENCASEMENT	CU YD	12.8
	50300300	PROTECTIVE COAT	SQ YD	1053
	50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
	50500505	STUD SHEAR CONNECTORS	EACH	2745
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	98650
	50800515	BAR SPLICERS	EACH	970
*	50901720	BICYCLE RAILING	FOOT	152
*	50901750	PARAPET RAILING	FOOT	178
	51100300	SLOPE WALL 6 INCH	SQ YD	446
	51201600	FURNISHING STEEL PILES HP12X53	FOOT	1700
	51202305	DRIVING PILES	FOOT	1700
	51203600	TEST PILE STEEL HP 12X53	EACH	2
	51205200	TEMPORARY SHEET PILING	SQ FT	352
	51500100	NAME PLATES	EACH	1
	52100520	ANCHOR BOLTS, 1"	EACH	40
	54215547	METAL END SECTIONS 12"	EACH	4
	58700300	CONCRETE SEALER	SQ FT	6200
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	60
	60100945	PIPE DRAINS 12"	FOOT	108
	60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	152
	60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B*6.24	FOOT	376
	60900115	TYPE B INLET BOX, STANDARD 609001	EACH	4
	60900515	CONCRETE THRUST BLOCKS	EACH	4
	63200310	GUARDRAIL REMOVAL	FOOT	204
	67100100	MOBILIZATION	L SUM	1
	70101205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1
*	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	550
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	550
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	220
	78300105	PAVEMENT MARKING REMOVAL	FOOT	116
*	K0030400	PERENNIAL PLANTS, DAYLILIES	UNIT	12
	X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1
	X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1
	Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2
	Z0030340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2

* SPECIALTY ITEMS

EARTHWORK SCHEDULE

LOCATION	1 20200100 EARTH EXCAVATION (CU YD)	2 *EXCAVATION TO BE USED IN EMBANKMENT (ADJUSTED FOR SHRINKAGE) (COL 1 X 0.75) (CU YD)	3 *EMBANKMENT (FILL) (CU YD)	4 20400800 FURNISHED EXCAVATION (COL 2 - COL 3) (CU YD)
8+00.00 TO 12+00.00	7	5	199	-194
TOTAL	7	5	199	-194

EARTH EXCAVATION SHRINKAGE FACTOR ASSUMED TO BE 25%

ITEMS MARKED WITH AN ASTERISK (*) ARE FOR INFORMATIONAL PURPOSES ONLY

GENERAL NOTES

1. The Design Engineer shall not guarantee the work of any Contractor or Subcontractor, shall have no supervision of the persons doing the work, shall have no charge of the work, shall not be responsible for safety in , on , or about the job site or have any control of the safety or adequacy of any equipment, building component, scaffolding, support, forms or other work aids. In addition, the Standard Specifications for Road and Bridge Construction shall be modified as follows:

Under Section 105, add the following sentence: Nothing contained herein shall relieve the Contractor of his/her duties to observe and comply with all applicable laws, nor shall the Engineer be responsible for the Contractor's compliance with such laws.

Under Article 107.01, add the following sentence: The Design Engineer shall not be responsible for the Contractor's duty to observe and comply with the provisions of this article, or for the Contractor's failure to do so.

2. All elevations are based on U.S.G.S. Mean Sea Level datum. The proposed grade elevations shown on the plan and profile sheets and station cross sections are the elevations for the finished surface at the locations indicated.

GENERAL NOTES AND QUANTITIES

REVISIONS		
No.	DATE	INITIALS
1		
2		
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SECTION 08-00602-00-BR MACARTHUR RD OVER STEVENS CR
CITY OF DECATUR MACON COUNTY

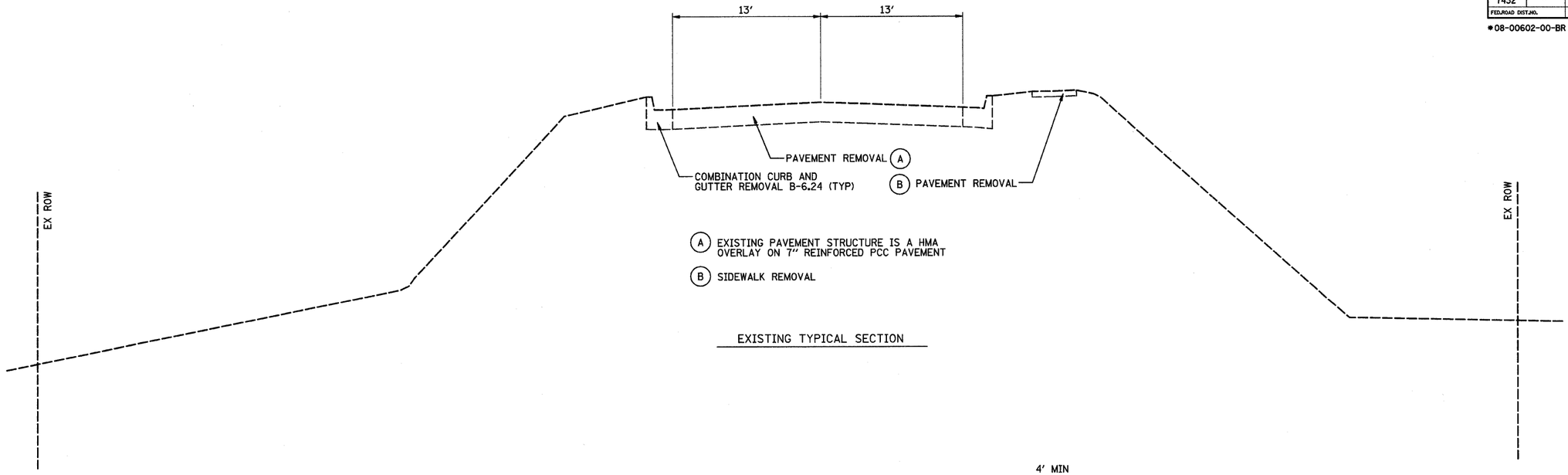
HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
184-001397
DECATUR (217) 422-8544 CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050

DRAWN BY	DATE DLB 7/09
CHECKED BY	DATE PFW 7/09
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU T432	*	MACON	47	3
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

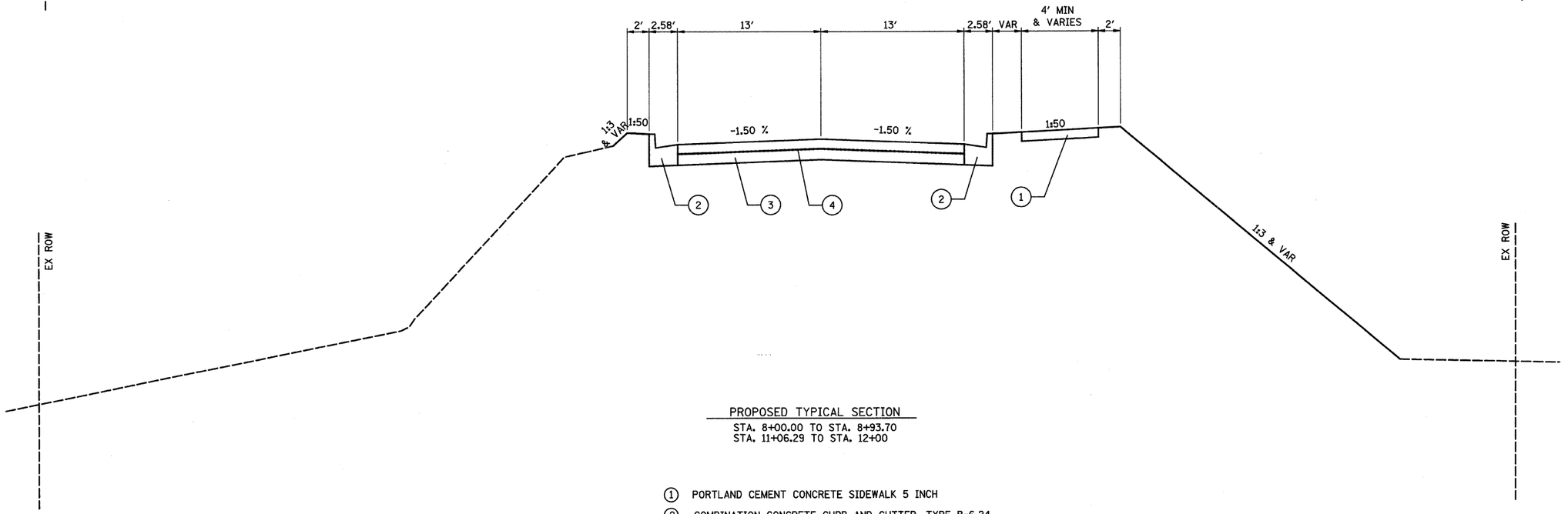
*08-00602-00-BR



(A) EXISTING PAVEMENT STRUCTURE IS A HMA OVERLAY ON 7" REINFORCED PCC PAVEMENT

(B) SIDEWALK REMOVAL

EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION

STA. 8+00.00 TO STA. 8+93.70
STA. 11+06.29 TO STA. 12+00

(1) PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH

(2) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24

(3) BRIDGE APPROACH PAVEMENT CONNECTOR (PCC), 7"

(4) PAVEMENT REINFORCEMENT

TYPICAL SECTIONS

REVISIONS		
No.	DATE	INITIALS
1		
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SECTION 08-00602-00-BR MACARTHUR RD OVER STEVENS CR

CITY OF DECATUR MACON COUNTY

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ROCKFORD (815) 489-0050

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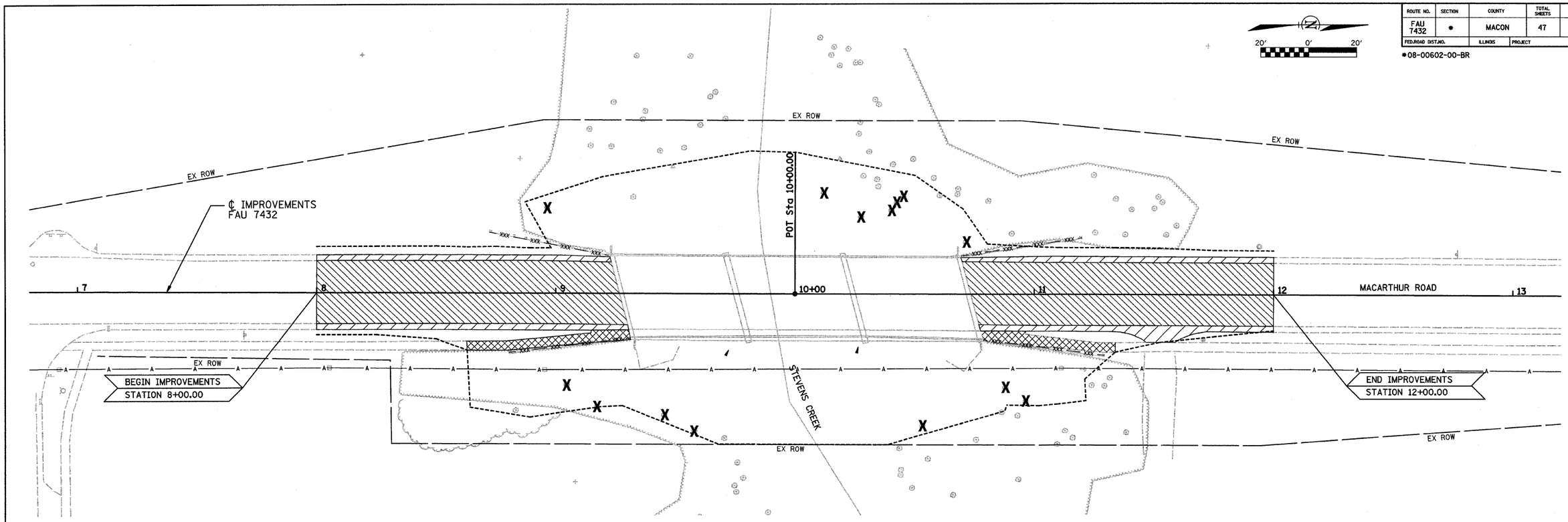
DLB	7/09
CHECKED BY	DATE
PPW	7/09
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	4
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

*08-00602-00-BR



LEGEND

- PAVEMENT REMOVAL
- COMBINATION CONCRETE CURB AND GUTTER REMOVAL
- SIDEWALK REMOVAL
- xxx — xxx — GUARDRAIL REMOVAL
- X DENOTES TREE REMOVAL (6 TO 15 UNITS DIAMETER)

REMOVAL PLAN

REVISIONS		
No.	DATE	INITIALS
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SECTION 08-00602-00-BR MACARTHUR RD OVER STEVENS CR
CITY OF DECATUR MACON COUNTY

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184-001397
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CHECKED BY PPW	DATE 7/09
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PROJECT No.	5307
SHEET No.	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	5
STA.		TO STA.		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		

*08-00602-00-BR

BASELINE COORDINATES

Point D0001 N 1,177,515.85 E 807,145.13 Sta 6+68.00

Course from D0001 to D0002 N 0 ° 14' 31" E Dist 332.00

Point D0002 N 1,177,847.85 E 807,146.53 Sta 10+00.00

Course from D0002 to D0003 N 0 ° 14' 31" E Dist 500.00

Point D0003 N 1,178,347.85 E 807,148.64 Sta 15+00.00

20' 0' 20'

+95.00 72.0 LT — EX ROW — CONSTRUCTION LIMITS — EX ROW — +95.00 72.0 LT

℄ IMPROVEMENTS FAU 7432

BRIDGE APPROACH PAVEMENT CONNECTOR (PCC), 7"

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24

METAL END SECTIONS 12" SEE STD 609001

+75.89 28.0 LT

+54.55 22.3 LT

POT Sta 10+00.00

+33.06 28.3 LT

+11.54 22.6 LT

CONSTRUCTION LIMITS

METAL END SECTIONS 12" SEE STD 609001

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24

BRIDGE APPROACH PAVEMENT CONNECTOR (PCC), 7"

PAINT PAVEMENT MARKING - LINE 4"

13' 13'

7 8 9 10+00 11 12 13

PCC SIDEWALK, 5 INCH

+11.10 17.9 RT

MACARTHUR ROAD

PCC SIDEWALK, 5 INCH

EX ROW

+63.00 24.0 RT

+98.41 17.6 RT

METAL END SECTIONS 12" SEE STD 609001

+30.96 27.1 RT

+70.94 38.6 RT

+92.47 32.8 RT

+28.05 38.6 RT

+49.30 32.6 RT

METAL END SECTIONS 12" SEE STD 609001

+83.55 27.1 RT

+34.00 24.2 RT

CONTROL POINT NO. 3

FE +52.6

FIELD ENTRANCE TO BE RELOCATED BY OTHERS

END IMPROVEMENTS STATION 12+00.00

BEGIN IMPROVEMENTS STATION 8+00.00

+30.85 28.3 RT

+31.49 63.0 RT

ASH AVENUE

EX ROW

CONSTRUCTION LIMITS

STONE RIPRAP CLASS A5 SEE DETAIL

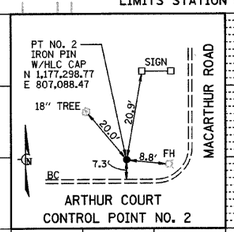
STONE RIPRAP CLASS A5 SEE DETAIL

CONSTRUCTION LIMITS

EX ROW

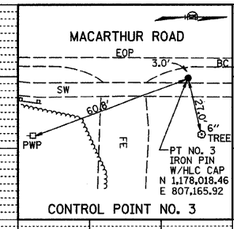
+95.00 63.0 RT

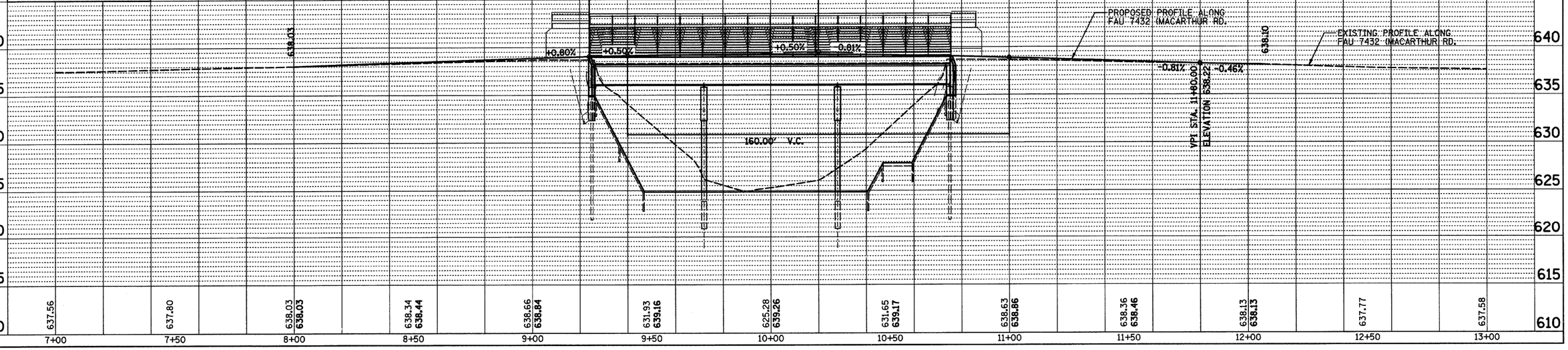
NOTE:
1. SIDEWALKS SHALL BE CONSTRUCTED TO THE NEAREST JOINT
2. PAINT PAVEMENT MARKING - LINE 4" LIMITS STATION 5+69 TO STATION 14+31



BENCHMARK 5307-1
"M" IN MUELLER ON FIRE HYDRANT AT THE INTERSECTION OF MACARTHUR ROAD AND ARTHUR COURT. ELEVATION 643.48

BENCHMARK 5307-2
"M" IN MUELLER ON FIRE HYDRANT AT THE INTERSECTION OF MACARTHUR ROAD AND ASH AVENUE. ELEVATION 640.03





PLAN — SURVEYED, PLOTTED, DRAWN, CHECKED, NOTEBOOK, AUTH. OF, CHECKED, NO., RT. OF WAY, CHECKED — BY, DATE

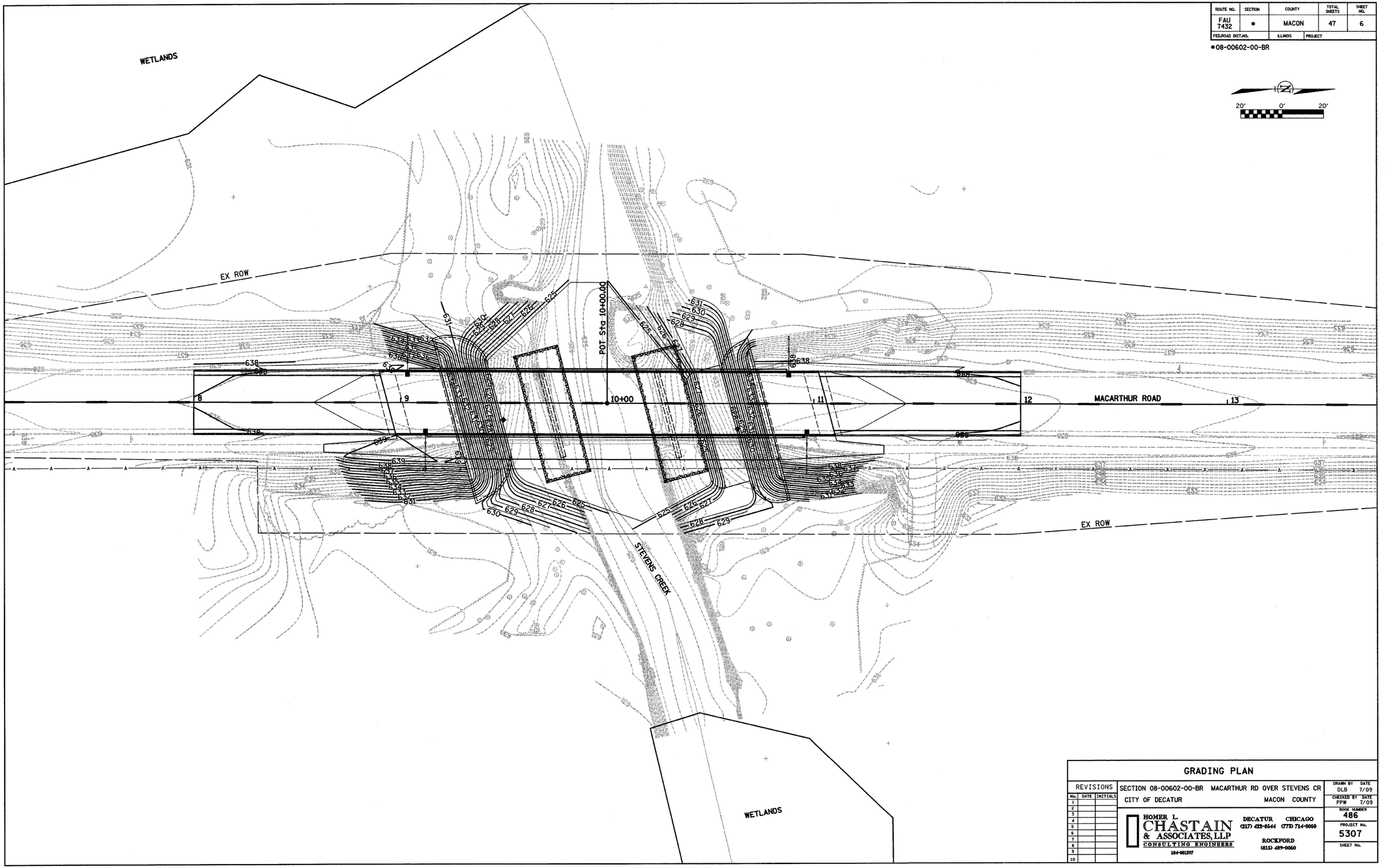
PROFILE — SURVEYED, PLOTTED, DRAWN, CHECKED, NOTEBOOK, PASS. VOID, NO., STRUCTURE NOTATIONS CHK'D — BY, DATE

HOOKER & CHASTAIN & ASSOCIATES, LTD.
CONSULTING ENGINEERS
DECATUR (217) 422-9444 CHICAGO (773) 714-0000 ROCKFORD (815) 489-0000
184-000289

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	6
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

*08-00602-00-BR



GRADING PLAN

REVISIONS

No.	DATE	INITIALS
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SECTION 08-00602-00-BR MACARTHUR RD OVER STEVENS CR

CITY OF DECATUR MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
184-001397

DECATUR (217) 422-8544 CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050

DRAWN BY / DATE	DLB 7/09
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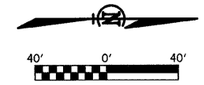
PROJECT No.	5307
SHEET No.	

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	7
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

*08-00602-00-BR



① TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED.

② BARRIER WALL/GUARDRAIL MARKERS AT 25' CTS. SEE STANDARDS 704001 & 635011.

③ THESE VERTICAL PANELS AT 25' CTS. MAY BE OMITTED WHEN THE GUARDRAIL, W/MARKERS, EXTENDS TO AT LEAST THIS POINT ON THE TAPER.

SYMBOLS

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- DOUBLE VERTICAL PANEL (SEE DETAIL)
- CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER

NOTES:
THE CITY/ENGINEER MAY MODIFY THE FINAL LOCATION OF THE TRAFFIC CONTROL SIGNS TO AVOID PLACING IN AN INTERSECTION OR ENTRANCE.

TRAFFIC SIGNAL STAGE 1 PLAN

REVISIONS		
No.	DATE	INITIALS
1		
2		
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SECTION 08-00602-00-BR MACARTHUR RD OVER STEVENS CR
CITY OF DECATUR MACON COUNTY

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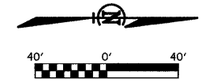
DECATUR (217) 422-8544 CHICAGO (773) 714-0050
ROCKFORD (815) 489-8050

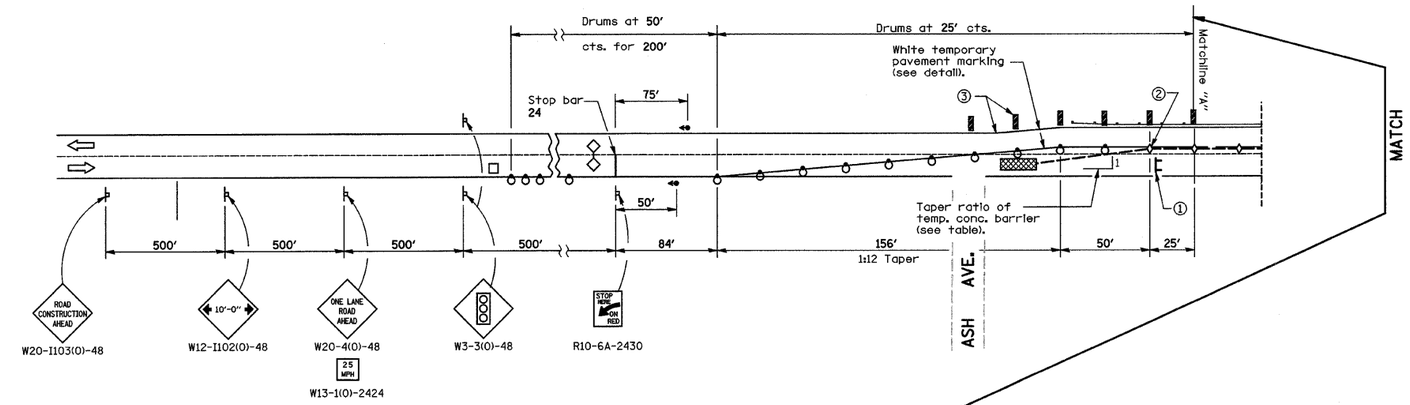
DRAWN BY	DLB
DATE	7/09
CHECKED BY	PPW
DATE	7/09
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

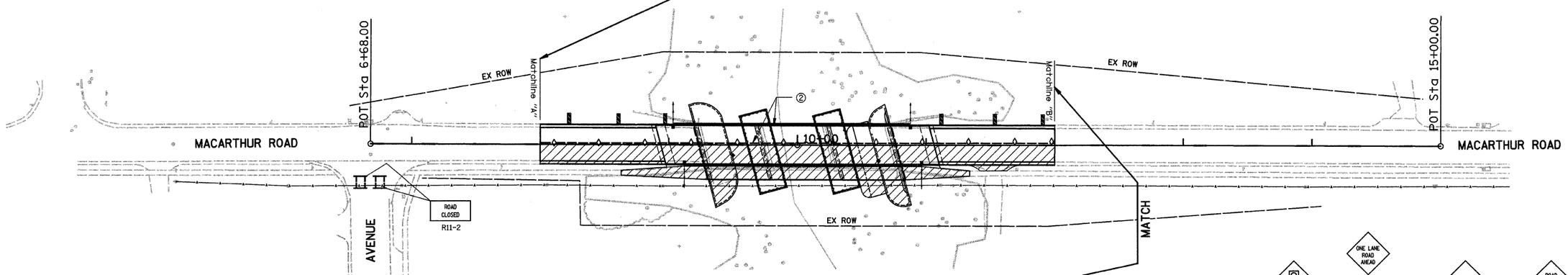
CONTRACT NO. 95608

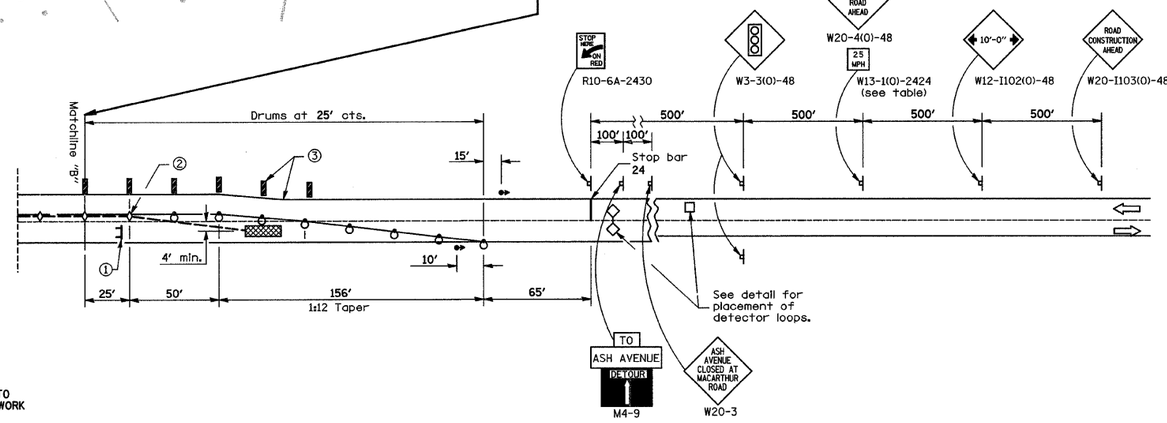
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU T432	*	MACON	47	8
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

*08-00602-00-BR









① TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED.

② BARRIER WALL/GUARDRAIL MARKERS AT 25' CTS. SEE STANDARDS 704001 & 635011.

③ THESE VERTICAL PANELS AT 25' CTS. MAY BE OMITTED WHEN THE GUARDRAIL, W/MARKERS, EXTENDS TO AT LEAST THIS POINT ON THE TAPER.

SYMBOLS

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- SIGN
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- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- DOUBLE VERTICAL PANEL (SEE DETAIL)
- CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER

NOTES:
THE CITY/ENGINEER MAY MODIFY THE FINAL LOCATION OF THE TRAFFIC CONTROL SIGNS TO AVOID PLACING IN AN INTERSECTION OR ENTRANCE.

TRAFFIC SIGNAL STAGE 2 PLAN

REVISIONS		
No.	DATE	INITIALS
1		
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SECTION 08-00602-00-BR MACARTHUR RD OVER STEVENS CR
CITY OF DECATUR MACON COUNTY

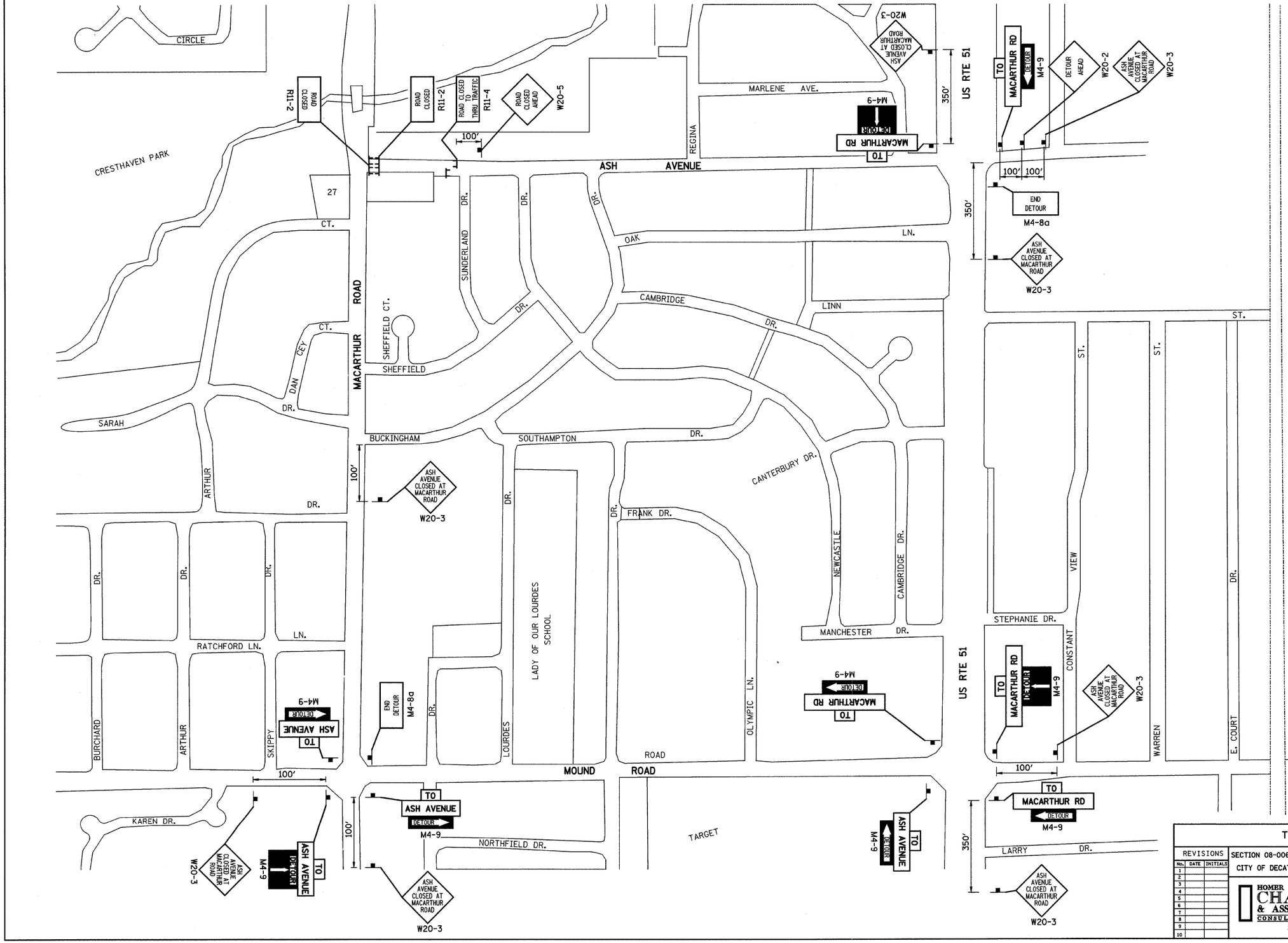
HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
184-001297
DECATUR (217) 422-8544
CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050

DRAWN BY DLB	DATE 7/09
CHECKED BY PPW	DATE 7/09
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	9
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

*08-00602-00-BR



TRAFFIC DETOUR PLAN

REVISIONS		
No.	DATE	INITIALS
1		
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SECTION 08-00602-00-BR MACARTHUR RD OVER STEVENS CR

CITY OF DECATUR MACON COUNTY

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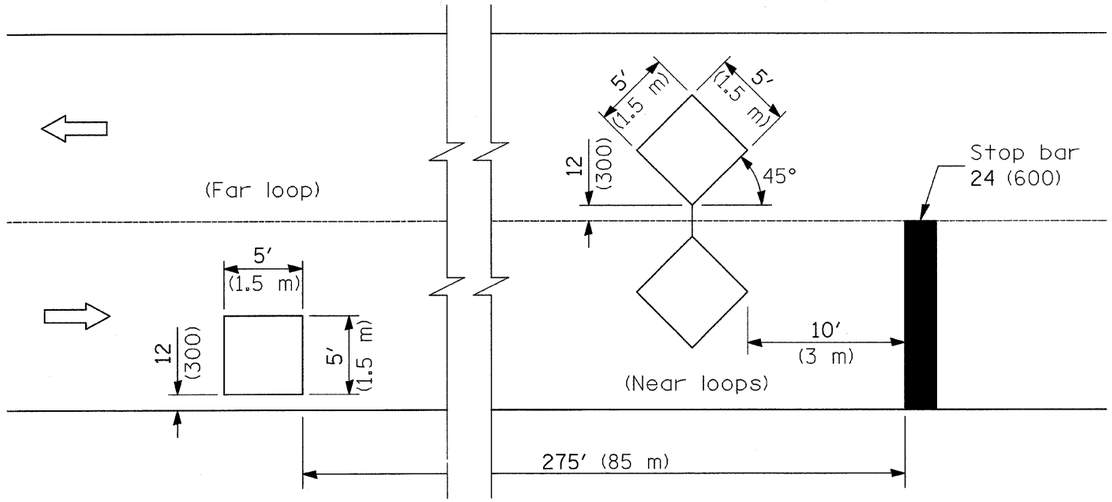
DRAWN BY DATE	DLB 7/09
CHECKED BY DATE	PPW 7/09
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	10
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

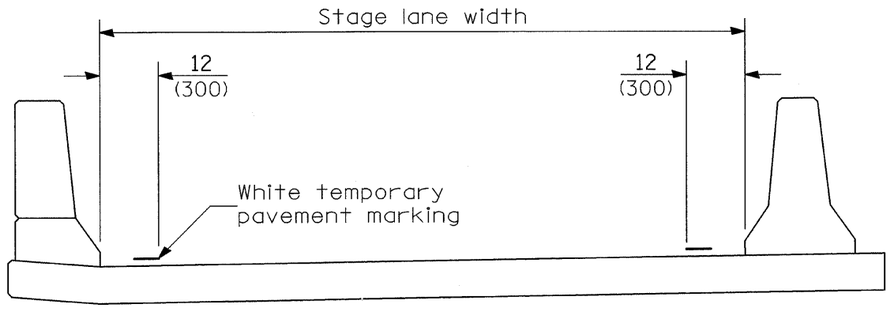
*08-00602-00-BR



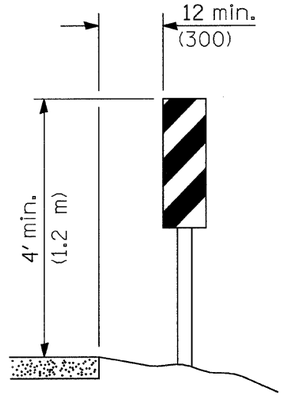
DETECTOR LOOPS

TRAFFIC SIGNAL SEQUENCE						
PHASE	A			B		
INTERVAL	1	2	3	4	5	6
NORTHBOUND	G	Y	R	R	R	R
SOUTHBOUND	R	R	R	G	Y	R
WESTBOUND	R	R	R	R	R	R

TEMPORARY CONCRETE BARRIER	
NORMAL POSTED SPEED	TAPER RATIO
40 mph AND ABOVE	12:1
BELOW 40 mph	8:1



TEMPORARY PAVEMENT MARKING



VERTICAL PANELS

(Post mounted, one each side)

GENERAL NOTES

Temporary concrete barrier shall be according to Standard 704001.

All dimensions are in inches (millimeters) unless otherwise shown.

TRAFFIC CONTROL PLAN

REVISIONS		
No.	DATE	INITIALS
1		
2		
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SECTION 08-00602-00-BR MACARTHUR RD OVER STEVENS CR
CITY OF DECATUR MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
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486	
PROJECT No.	
5307	
SHEET No.	

CONTRACT NO. 95608

Existing structure SN 058-6005:
The existing bridge is a 148'-2" back to back abutments, 36' out to out of deck, three span PPC deck beam structure on pile bent pier and abutments. It was constructed in 1972 and was built on precast concrete piling at the abutments and piers.

Traffic is to be maintained using Staged Construction.

No salvage.

Bench Mark:
BM 5307-1 "M" in Mueller on fire hydrant at the corner of MacArthur Road and Arthur Ct.
Elev 643.48

Bench Mark:
BM 5307-2 "M" in Mueller on fire hydrant at the corner of MacArthur Road and Ash Avenue
Elev 640.03

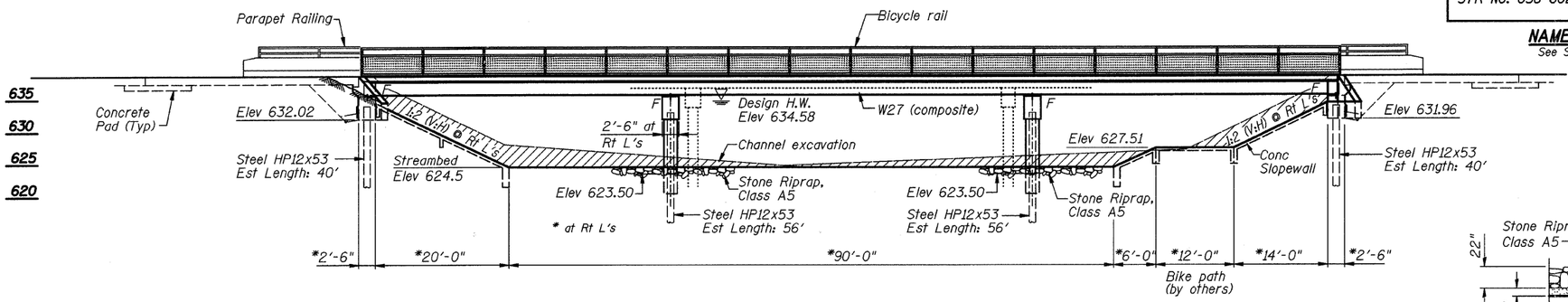
STEVENS CREEK
BUILT 20 BY
CITY OF DECATUR
SECTION 08-00602-00-BR
PROJECT NO.
STA 10+00.00
STR NO. 058-6025 LOADING HL93

NAME PLATE
See Std. 515001

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	11
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

• 08-00602-00-BR

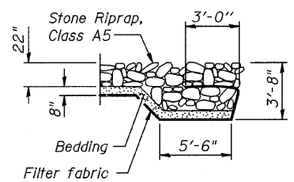
Sheet No. 1 of 26 Sheets



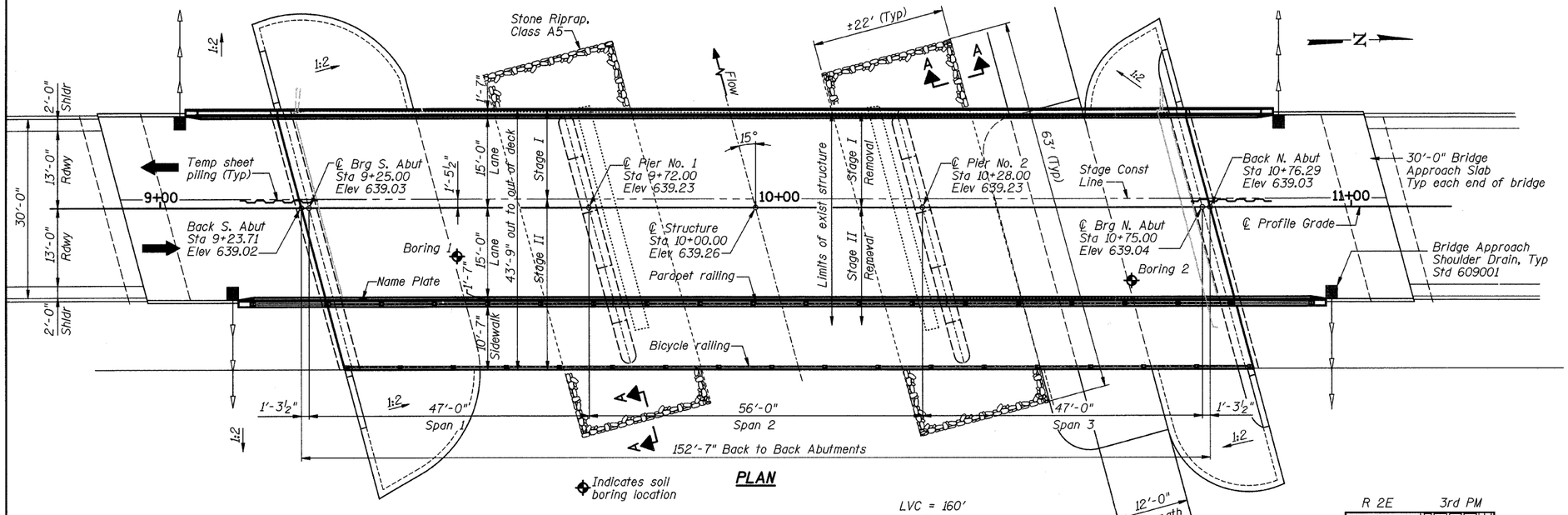
ELEVATION

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Abut. 1	Pier 1	Pier 2	Abut. 2
	632.02	621.50	621.50	631.96

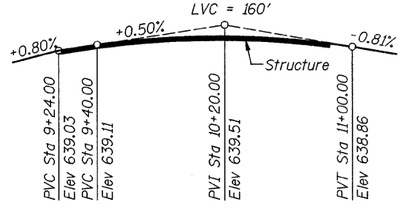


SECTION A-A



◆ Indicates soil boring location

PLAN

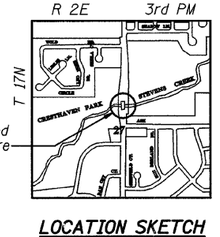


CONSTRUCTION PROFILE

WATERWAY INFORMATION

Drainage Area = 46.01 sq mi — Low Grade Elev. 636.77 @ Sta. 15+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	30	3,806	1042	1187	634.68	0.26	0.11	634.94	634.79
Base	100	4,966	1131	1290	635.43	0.35	0.17	635.78	635.60
Max. Calc.	500	6,612	1245	1324	636.31	0.17	0.36	636.48	636.67



LOCATION SKETCH

INDEX OF SHEETS

1 General Plan
2 General Structure Data
3 Foundation Plan and Slopewall Details
4 Stage Construction Details
5 Temporary Concrete Barrier For Stage Construction
6 Top of Slab Elevations
7 Top of Slab Elevations
8 Top of South Approach Slab Elevations
9 Top of North Approach Slab Elevations
10 Bridge Approach Slab Details
11 Bridge Approach Slab Details
12 Deck Plan And Cross Section
13 Superstructure Details
14 Superstructure Details
15 Superstructure Details
16 Bicycle Railing
17 Framing Plan and Design Data
18 Framing Details
19 Bearing Details
20 South Abutment Details
21 North Abutment Details
22 Pier No. 1 Details
23 Pier No. 2 Details
24 HP Pile Details
25 Bar Splicer Assmbly Details
26 Cantilever Forming Brackets

LOADING HL93

Allow 50 lb/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications 4th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (M270 Grade 50W structural steel)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Bedrock Acceleration Coefficient (A) = .065
Site Coefficient (S) = 2.4

LICENSED STRUCTURAL ENGINEER
JEREMY BUENING
081-006696
STATE OF ILLINOIS

DATE: 11/02/09
EXP: 11/30/10

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH THE REQUIREMENTS OF THE CURRENT "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

GENERAL PLAN

REVISIONS		
No.	DATE	INITIALS
1		
2		
3		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
184-001397
DECATUR (217) 422-6544 CHICAGO (773) 714-0650
ROCKFORD (815) 489-0050

DRAWN BY	DATE
R KING	07/09
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JMB	07/09
BOOK NUMBER	
486	
PROJECT No.	
5307	
SHEET No.	

Sheet No. 2 of 26 Sheets

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	12
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

• 08-00602-00-BR

GENERAL NOTES:

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts (in painted areas and M164 Type 3 in unpainted areas). Bolts $^{7}/_{8}$" ϕ in holes $^{15}/_{16}$" ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 100,310 lb

All structural steel shall be AASHTO M270, Grade 50W

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions

Reinforcement bars designated (E) shall be epoxy coated.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of $^{1}/_{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

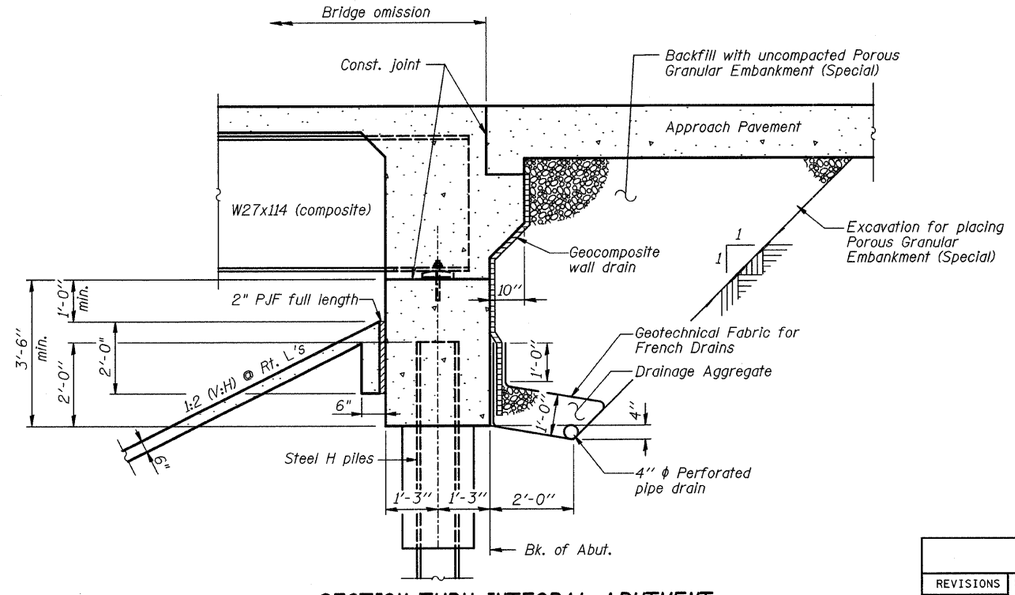
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

Concrete Sealer shall be applied to the exposed areas of the piers and slope wall.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Porous Granular Embankment (Special)	Cu. Yd.		92	92
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		340	340
Concrete Structures	Cu. Yd.		138.1	138.1
Concrete Superstructure	Cu. Yd.	325.8		325.8
Bridge Deck Grooving	Sq. Yd.	475		475
Concrete Encasement	Cu. Yd.		12.8	12.8
Protective Coat	Sq. Yd.	1053		1053
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	2745		2745
Reinforcement Bars, Epoxy Coated	Pound	87,330	11,320	98,650
Bar Splicers	Each	898	72	970
Furnishing Steel Piles HP12x 53	Foot		1700	1700
Driving Piles	Foot		1700	1700
Test Pile Steel HP12x53	Each		2	2
Temporary Sheet Piling	Sq. Ft.		352	352
Name Plates	Each	1		1
Anchor Bolt 1" ϕ	Each		40	40
Geocomposite Wall Drain	Sq. Yd.		60	60
Pipe Underdrains for Structures, 4"	Foot		152	152
Bicycle Railing	Foot	152		152
Parapet Railing	Foot	178		178
Slopewall 6 inch	Sq. Yd.			446
Concrete Sealer	Sq. Ft.		6200	6200
Underwater Structure Excavation Protection - Location 1	Each			1
Underwater Structure Excavation Protection - Location 2	Each			1
Stone Riprap, Class A5	Sq. Yd.			290



SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

GENERAL STRUCTURE DATA

REVISIONS		
No.	DATE	INITIALS
1		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
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ROCKFORD (815) 489-0060

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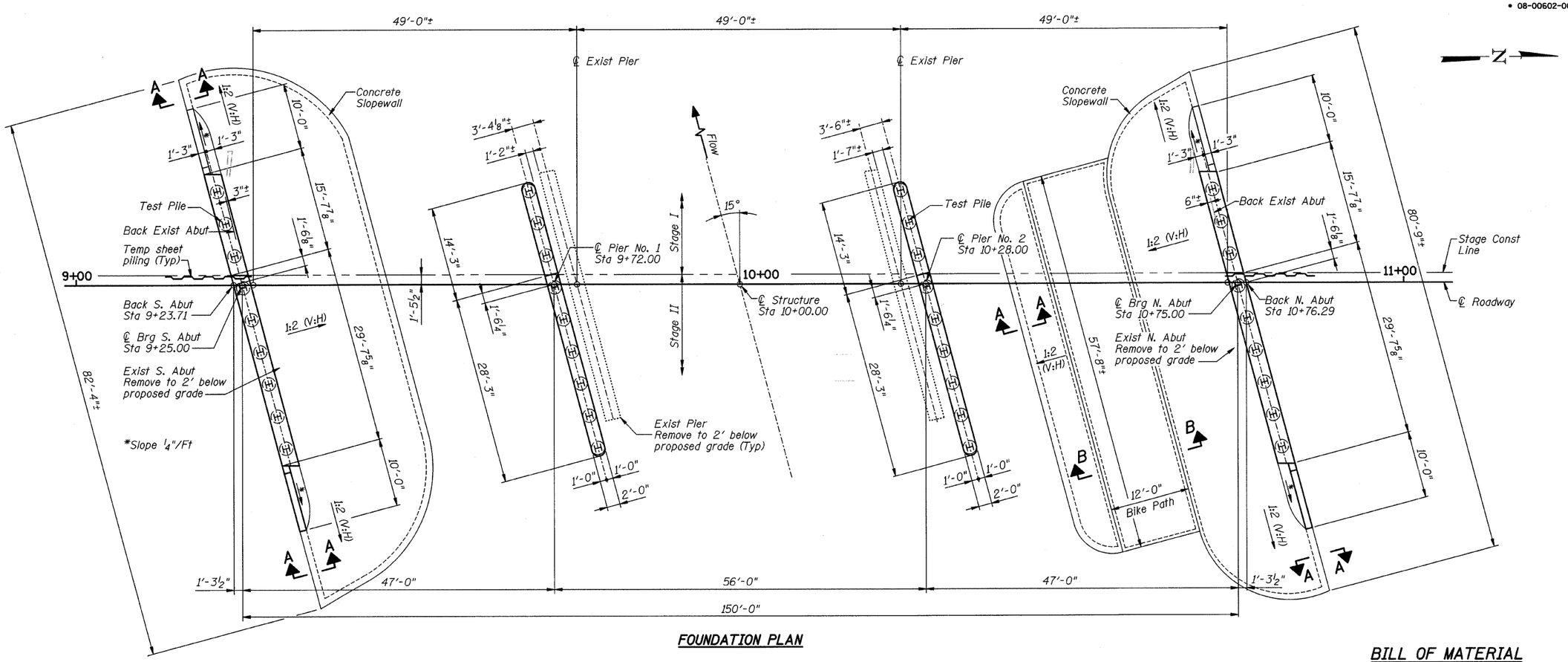
CHECKED BY DATE	JMB 07/09
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

CONTRACT NO. 95608

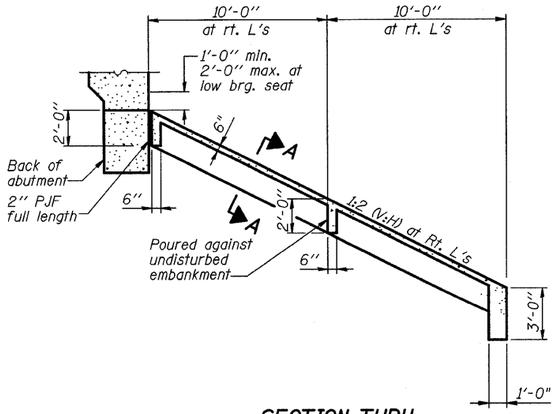
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	13
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

Sheet No. 3 of 26 Sheets

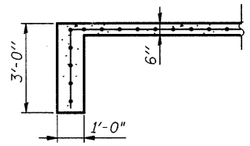
• 08-00602-00-BR



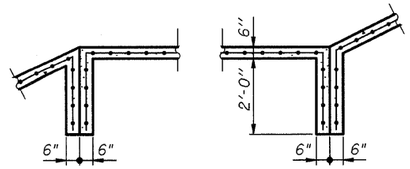
FOUNDATION PLAN



SECTION THRU CONCRETE SLOPEWALL



SECTION A-A



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Slope Wall 6 Inch	Sq. Yd.	446
Concrete Sealer	Sq. Ft.	4015

Notes:

Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Concrete Sealer shall be applied to all exposed areas of Slope Wall.

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

FOUNDATION PLAN AND SLOPEWALL DETAILS

REVISIONS		
No.	DATE	INITIALS
1		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
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ROCKFORD (815) 489-0050

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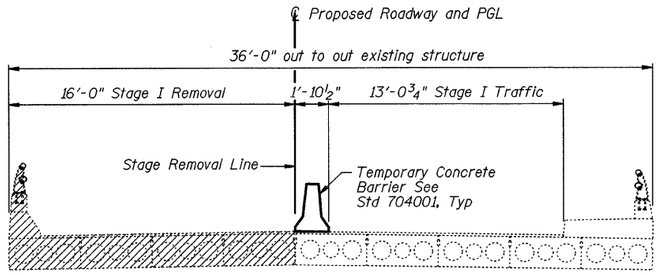
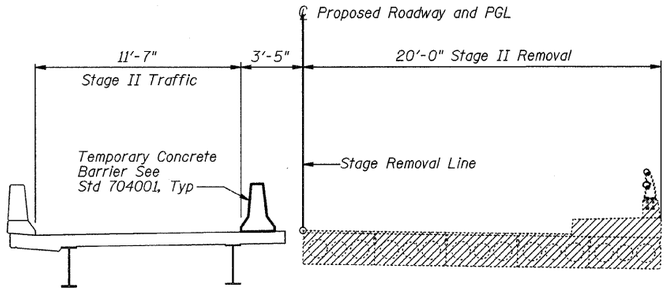
SHEET No.	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	14
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

• 08-00602-00-BR

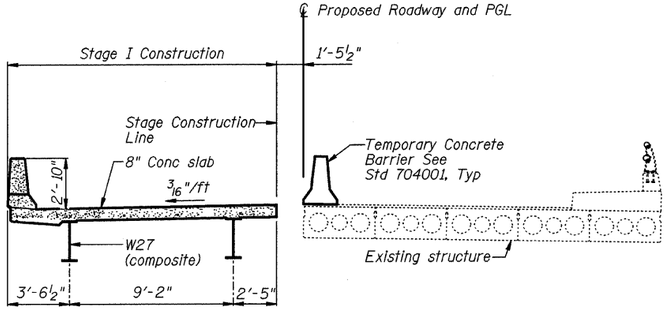


STAGE I REMOVAL
Looking North

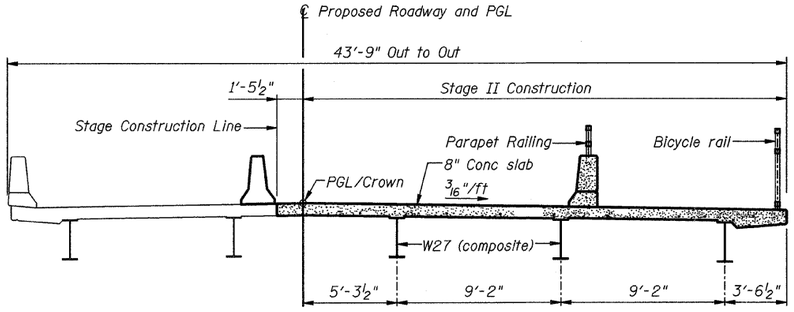


STAGE II CROSS SECTION
Looking North

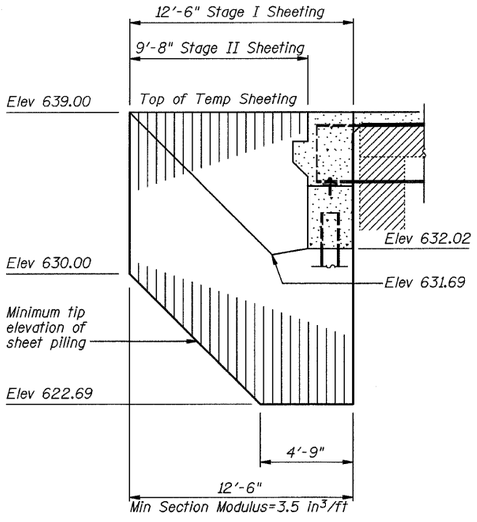
Note:
Cantilever forming brackets from Stage I construction shall be left in place until Stage II construction is complete and deck has cured a minimum of 7 days. Brackets are left in place to minimize deck deflections due to temporary concrete barrier.



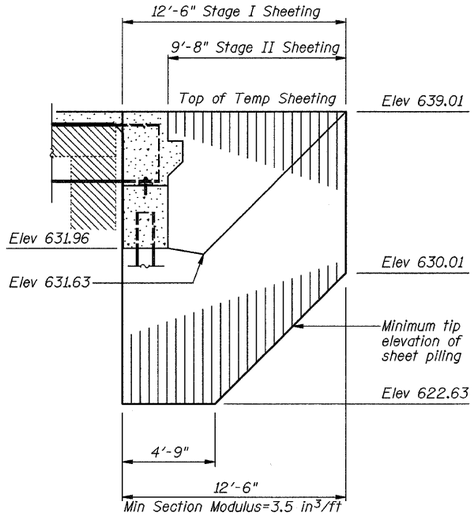
STAGE I CONSTRUCTION
Looking North



STAGE II CROSS SECTION
Looking North



TEMPORARY SHEET PILING
At S. Abut



TEMPORARY SHEET PILING
At N. Abut

NOTES:

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

For quantity of Temporary Road Barrier See Roadway Plans.

Hatched area indicates Removal of Existing Structures.

For details of Temporary Concrete Barrier See Sheet 5 of 26

BILL OF MATERIAL

Item	Unit	Total
Temporary Sheet Piling	Sq. Ft.	352

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

STAGE CONSTRUCTION DETAILS

REVISIONS		
No.	DATE	INITIALS
1		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
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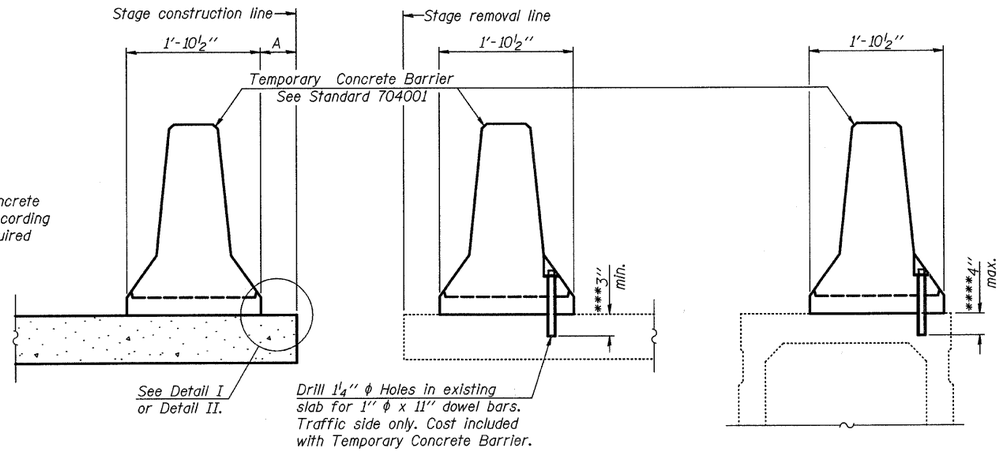
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU T432	*	MACON	47	15
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

• 08-00602-00-BR

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB **EXISTING SLAB** **EXISTING DECK BEAM**

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝"ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

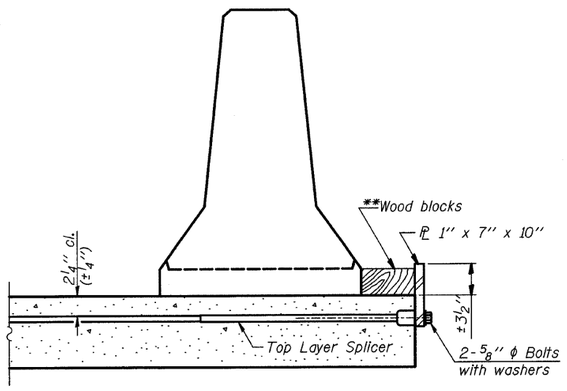
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

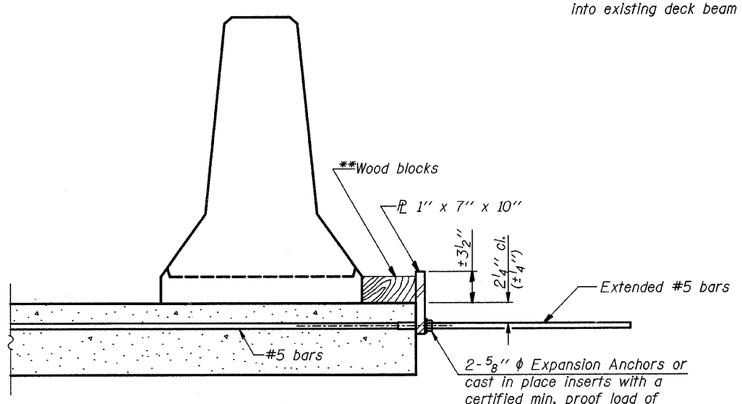
SECTIONS THRU SLAB OR DECK BEAM

***Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

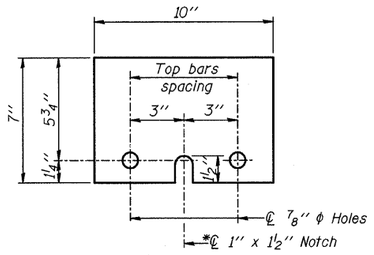
****If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

**Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

REVISIONS		
No.	DATE	INITIALS
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
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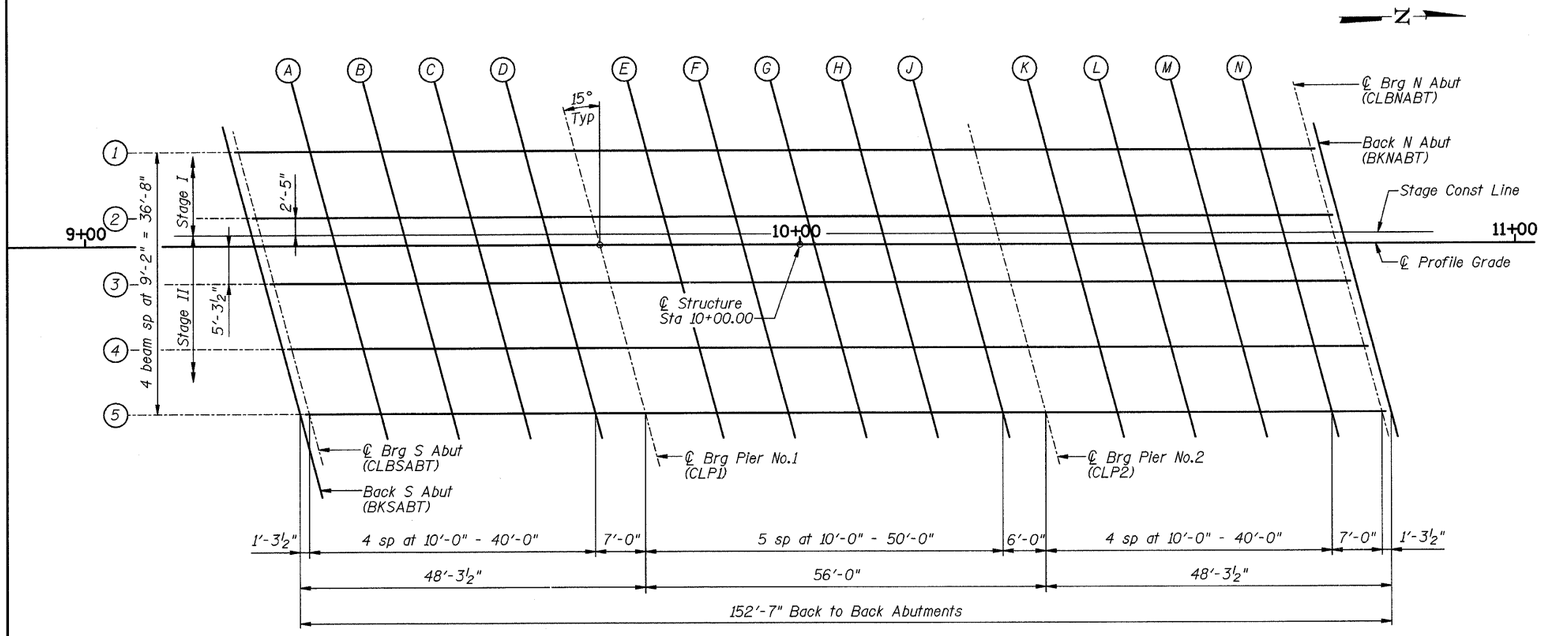
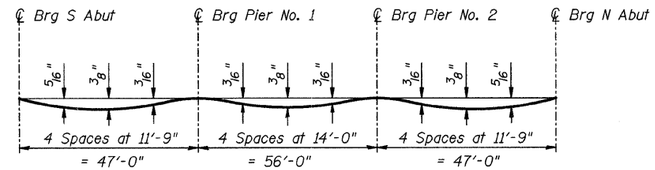
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU T432	*	MACON	47	16
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

Sheet No. 6 of 26 Sheets

• 08-00602-00-BR



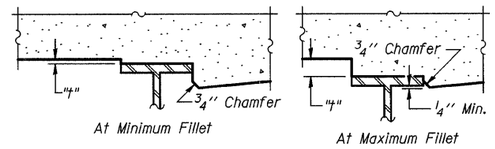
DECK ELEVATION LAYOUT



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

GIRDER 1				
Location	Station	Offset	Theoretical Grade Elevation	Elevations Adjusted for Dead Load Deflection
BKSABUT	920.215	-13.042	638.796	638.796
CLBRGS	921.505	-13.042	638.806	638.806
A	931.505	-13.042	638.864	638.888
B	941.505	-13.042	638.914	638.947
C	951.505	-13.042	638.958	638.984
D	961.505	-13.042	638.995	639.006
CLP1	968.505	-13.042	639.015	639.015
E	978.505	-13.042	639.038	639.046
F	988.505	-13.042	639.052	639.076
G	998.505	-13.042	639.059	639.088
H	1008.505	-13.042	639.057	639.077
J	1018.505	-13.042	639.046	639.053
CLP2	1024.505	-13.042	639.036	639.036
K	1034.505	-13.042	639.013	639.023
L	1044.505	-13.042	638.982	639.011
M	1054.505	-13.042	638.942	638.976
N	1064.505	-13.042	638.894	638.914
CLBRGN	1071.505	-13.042	638.856	638.856
BKNABUT	1072.795	-13.042	638.848	638.848

GIRDER 2				
Location	Station	Offset	Theoretical Grade Elevation	Elevations Adjusted for Dead Load Deflection
BKSABUT	922.672	-3.875	638.959	638.959
CLBRGS	923.962	-3.875	638.969	638.969
A	933.962	-3.875	639.019	639.043
B	943.962	-3.875	639.069	639.102
C	953.962	-3.875	639.111	639.137
D	963.962	-3.875	639.146	639.157
CLP1	970.962	-3.875	639.165	639.165
E	980.962	-3.875	639.186	639.193
F	990.962	-3.875	639.198	639.222
G	1000.962	-3.875	639.202	639.231
H	1010.962	-3.875	639.198	639.218
J	1020.962	-3.875	639.186	639.193
CLP2	1026.962	-3.875	639.175	639.175
K	1036.962	-3.875	639.149	639.159
L	1046.962	-3.875	639.116	639.145
M	1056.962	-3.875	639.074	639.108
N	1066.962	-3.875	639.024	639.044
CLBRGN	1073.962	-3.875	638.985	638.985
BKNABUT	1075.252	-3.875	638.977	638.977

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

TOP OF SLAB ELEVATIONS

REVISIONS		
No.	DATE	INITIALS
1		
2		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
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PROJECT No. 5307
SHEET No.

CONTRACT NO. 95608

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	17
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

* 08-00602-00-BR

STAGED CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevation	Elevations Adjusted for Dead Load Deflection
BKSABUT	923.319	-1.458	639.002	639.002
CLBRGS	924.609	-1.458	639.010	639.010
A	934.609	-1.458	639.060	639.084
B	944.609	-1.458	639.109	639.143
C	954.609	-1.458	639.152	639.177
D	964.609	-1.458	639.185	639.197
CLP1	971.609	-1.458	639.204	639.204
E	981.609	-1.458	639.224	639.232
F	991.609	-1.458	639.236	639.260
G	1001.609	-1.458	639.240	639.269
H	1011.609	-1.458	639.235	639.255
J	1021.609	-1.458	639.223	639.230
CLP2	1027.609	-1.458	639.211	639.211
K	1037.609	-1.458	639.185	639.195
L	1047.609	-1.458	639.151	639.181
M	1057.609	-1.458	639.109	639.143
N	1067.609	-1.458	639.059	639.078
CLBRGN	1074.609	-1.458	639.018	639.018
BKNABUT	1075.899	-1.458	639.011	639.011

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevation	Elevations Adjusted for Dead Load Deflection
BKSABUT	923.710	0.000	639.028	639.028
CLBRGS	925.000	0.000	639.035	639.035
A	935.000	0.000	639.085	639.109
B	945.000	0.000	639.134	639.167
C	955.000	0.000	639.176	639.201
D	965.000	0.000	639.209	639.220
CLP1	972.000	0.000	639.228	639.228
E	982.000	0.000	639.248	639.255
F	992.000	0.000	639.259	639.283
G	1002.000	0.000	639.263	639.292
H	1012.000	0.000	639.258	639.278
J	1022.000	0.000	639.245	639.252
CLP2	1028.000	0.000	639.233	639.233
K	1038.000	0.000	639.207	639.216
L	1048.000	0.000	639.173	639.202
M	1058.000	0.000	639.130	639.164
N	1068.000	0.000	639.079	639.099
CLBRGN	1075.000	0.000	639.039	639.039
BKNABUT	1076.290	0.000	639.031	639.031

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevation	Elevations Adjusted for Dead Load Deflection
BKSABUT	925.128	5.292	638.953	638.953
CLBRGS	926.418	5.292	638.959	638.959
A	936.418	5.292	639.009	639.033
B	946.418	5.292	639.058	639.091
C	956.418	5.292	639.098	639.124
D	966.418	5.292	639.131	639.142
CLP1	973.418	5.292	639.149	639.149
E	983.418	5.292	639.167	639.175
F	993.418	5.292	639.178	639.202
G	1003.418	5.292	639.180	639.209
H	1013.418	5.292	639.174	639.194
J	1023.418	5.292	639.160	639.167
CLP2	1029.418	5.292	639.147	639.147
K	1039.418	5.292	639.120	639.129
L	1049.418	5.292	639.084	639.114
M	1059.418	5.292	639.041	639.075
N	1069.418	5.292	638.989	639.008
CLBRGN	1076.418	5.292	638.948	638.948
BKNABUT	1077.708	5.292	638.940	638.940

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevation	Elevations Adjusted for Dead Load Deflection
BKSABUT	927.584	14.458	638.822	638.822
CLBRGS	928.874	14.458	638.828	638.828
A	938.874	14.458	638.878	638.902
B	948.874	14.458	638.925	638.958
C	958.874	14.458	638.964	638.990
D	968.874	14.458	638.994	639.005
CLP1	975.874	14.458	639.011	639.011
E	985.874	14.458	639.027	639.035
F	995.874	14.458	639.036	639.060
G	1005.874	14.458	639.036	639.065
H	1015.874	14.458	639.028	639.048
J	1025.874	14.458	639.012	639.019
CLP2	1031.874	14.458	638.998	638.998
K	1041.874	14.458	638.969	638.978
L	1051.874	14.458	638.931	638.961
M	1061.874	14.458	638.885	638.920
N	1071.874	14.458	638.832	638.851
CLBRGN	1078.874	14.458	638.789	638.789
BKNABUT	1080.164	14.458	638.781	638.781

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevation	Elevations Adjusted for Dead Load Deflection
BKSABUT	930.040	23.625	638.691	638.691
CLBRGS	931.330	23.625	638.698	638.698
A	941.330	23.625	638.747	638.771
B	951.330	23.625	638.792	638.825
C	961.330	23.625	638.829	638.855
D	971.330	23.625	638.857	638.868
CLP1	978.330	23.625	638.872	638.872
E	988.330	23.625	638.887	638.894
F	998.330	23.625	638.893	638.917
G	1008.330	23.625	638.891	638.920
H	1018.330	23.625	638.881	638.901
J	1028.330	23.625	638.863	638.870
CLP2	1034.330	23.625	638.848	638.848
K	1044.330	23.625	638.817	638.826
L	1054.330	23.625	638.777	638.807
M	1064.330	23.625	638.730	638.764
N	1074.330	23.625	638.674	638.693
CLBRGN	1081.330	23.625	638.630	638.630
BKNABUT	1082.620	23.625	638.621	638.621

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

TOP OF SLAB ELEVATIONS

REVISIONS		
No.	DATE	INITIALS
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	18
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

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WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End of South appr pavement	8+89.69	-15.00	638.43
A	8+99.69	-15.00	638.53
B	9+09.69	-15.00	638.66
Back S. Abut	9+19.69	-15.00	638.76

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End of South appr pavement	8+90.49	-12.00	638.56
A	9+00.49	-12.00	638.64
B	9+10.49	-12.00	638.72
Back S. Abut	9+20.49	-12.00	638.80

℄ PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
End of South appr pavement	8+93.71	0.00	638.79
A	9+03.71	0.00	638.87
B	9+13.71	0.00	638.95
Back S. Abut	9+23.71	0.00	639.03

STAGE CONSTRUCTION JOINT

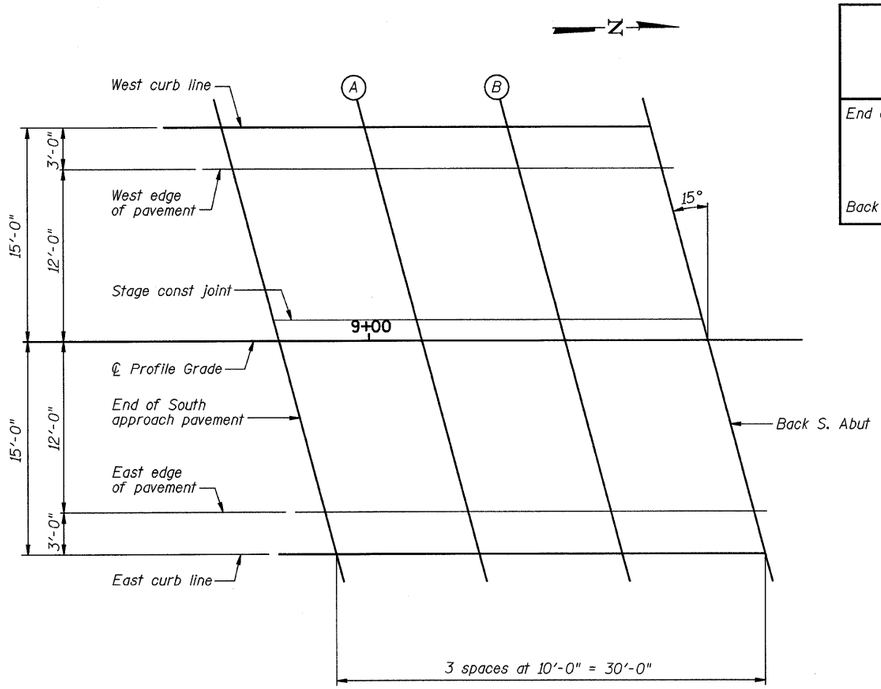
Location	Station	Offset	Theoretical Grade Elevations
End of South appr pavement	8+93.32	-1.46	638.76
A	9+03.32	-1.46	638.84
B	9+13.32	-1.46	638.92
Back S. Abut	9+23.32	-1.46	639.00

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End of South appr pavement	8+96.93	12.00	638.61
A	9+06.93	12.00	638.69
B	9+16.93	12.00	638.77
Back S. Abut	9+26.93	12.00	638.84

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End of South appr pavement	8+97.73	15.00	638.50
A	9+07.73	15.00	638.60
B	9+17.73	15.00	638.72
Back S. Abut	9+27.73	15.00	638.81



PLAN

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

TOP OF SOUTH APPROACH SLAB ELEVATIONS

REVISIONS		
No.	DATE	INITIALS
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	19
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

• 08-00602-00-BR

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back N. Abut	10+72.27	-15.00	638.82
A	10+82.27	-15.00	638.74
B	10+92.27	-15.00	638.62
End of North appr pavement	11+02.27	-15.00	638.52

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back N. Abut	10+73.08	-12.00	638.85
A	10+83.08	-12.00	638.78
B	10+93.08	-12.00	638.71
End of North appr pavement	11+03.08	-12.00	638.63

℄ PROFILE GRADE LINE

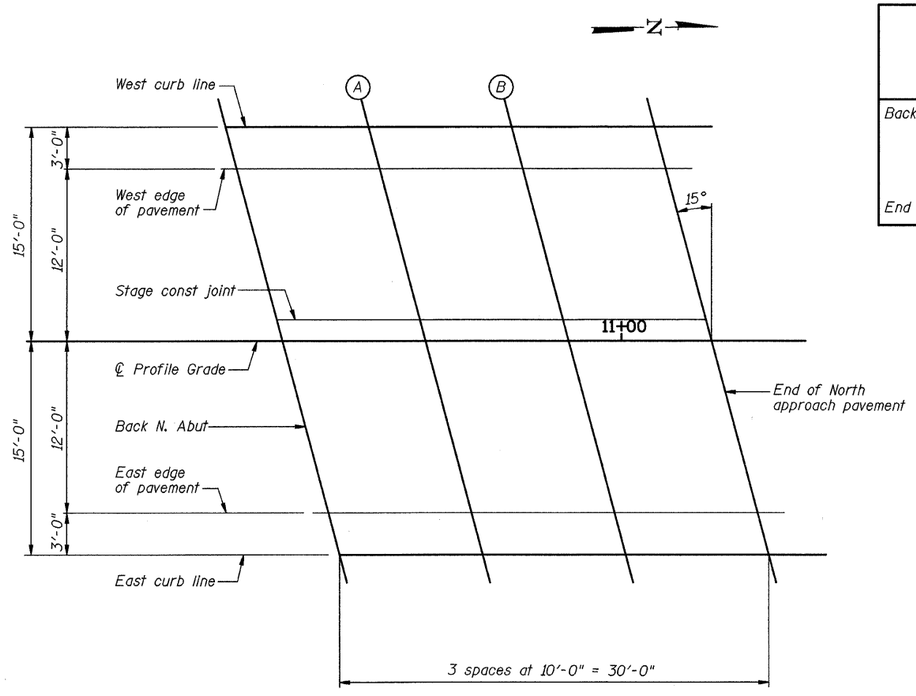
Location	Station	Offset	Theoretical Grade Elevations
Back N. Abut	10+76.29	0.00	639.03
A	10+86.29	0.00	638.97
B	10+95.29	0.00	638.89
End of North appr pavement	11+06.29	0.00	638.81

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
Back N. Abut	10+75.90	-1.46	639.01
A	10+85.90	-1.46	638.95
B	10+95.90	-1.46	638.87
End of North appr pavement	11+05.90	-1.46	638.79

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back N. Abut	10+79.51	12.00	638.81
A	10+89.51	12.00	638.74
B	10+99.51	12.00	638.66
End of North appr pavement	11+09.51	12.00	638.58



PLAN

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back N. Abut	10+80.31	15.00	638.77
A	10+90.31	15.00	638.68
B	11+00.31	15.00	638.56
End of North appr pavement	11+10.31	15.00	638.46

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

TOP OF NORTH APPROACH SLAB ELEVATIONS

REVISIONS		
No.	DATE	INITIALS
1		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
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CONTRACT NO. 95608

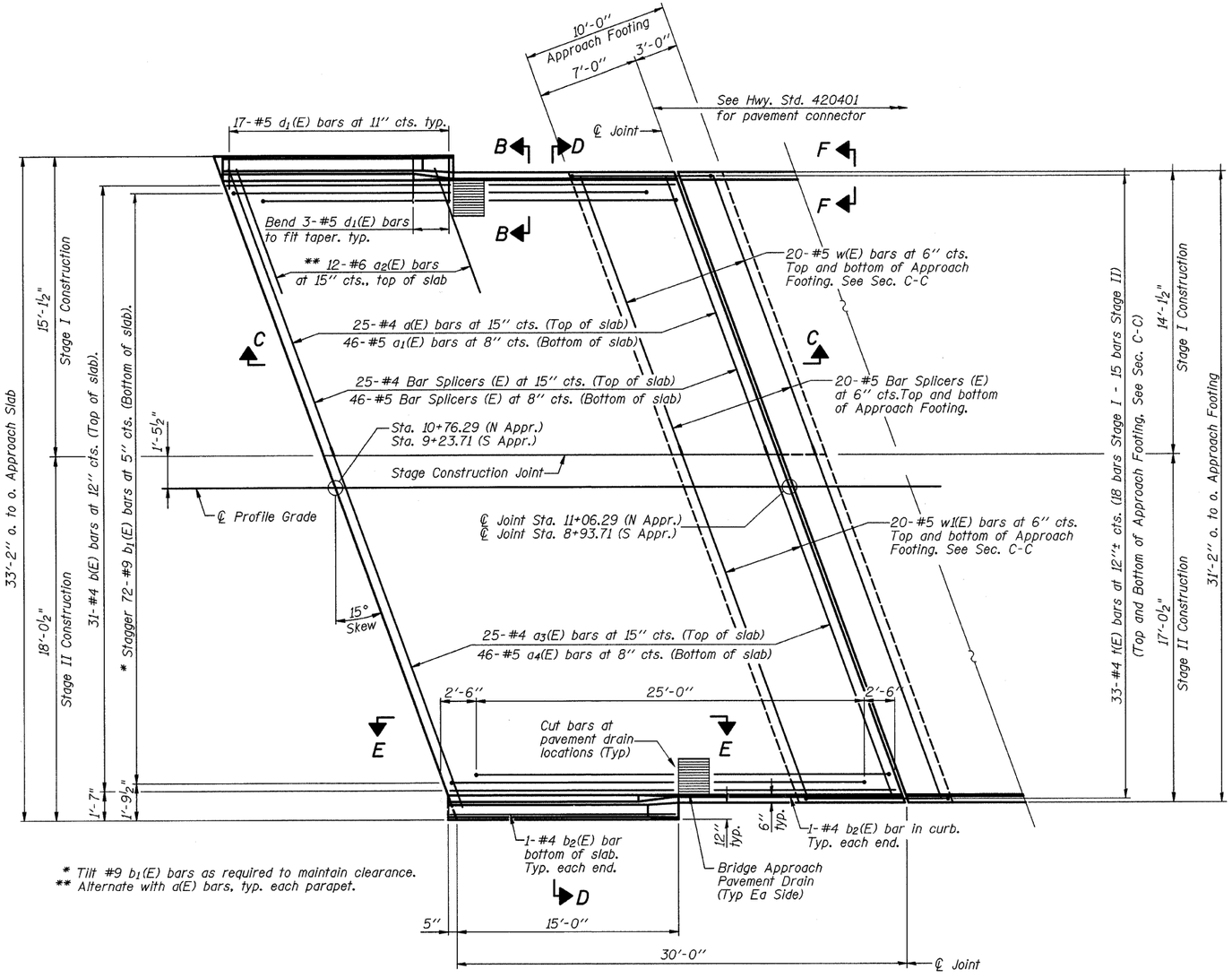
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	20
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

Sheet No. 10 of 26 Sheets

• 08-00602-00-BR

Notes:
See sheet 11 of 26 for Sections C-C & D-D and View E-E.
a(E), a_1(E), and w(E) bar spacings measured perpendicular to ℄ Rdwy.

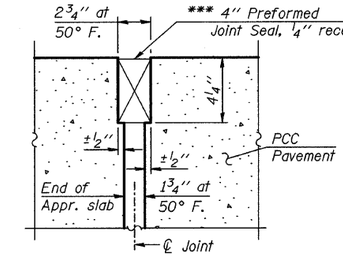
*** Cost included with Concrete Superstructure.



* Tilt #9 b_1(E) bars as required to maintain clearance.
** Alternate with d(E) bars, typ. each parapet.

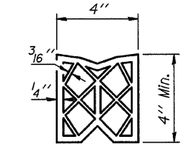
APPROACH SLAB PLAN

North approach shown, South approach similar

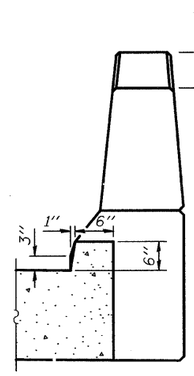


RIGID PAVEMENT

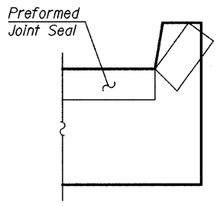
DETAIL A



PREFORMED JOINT SEAL



VIEW B-B
(Exit ends only)



VIEW F-F

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.

(Sheet 1 of 2)
MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

BRIDGE APPROACH SLAB DETAILS

REVISIONS		
No.	DATE	INITIALS
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

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PROJECT No.	5307
SHEET No.	

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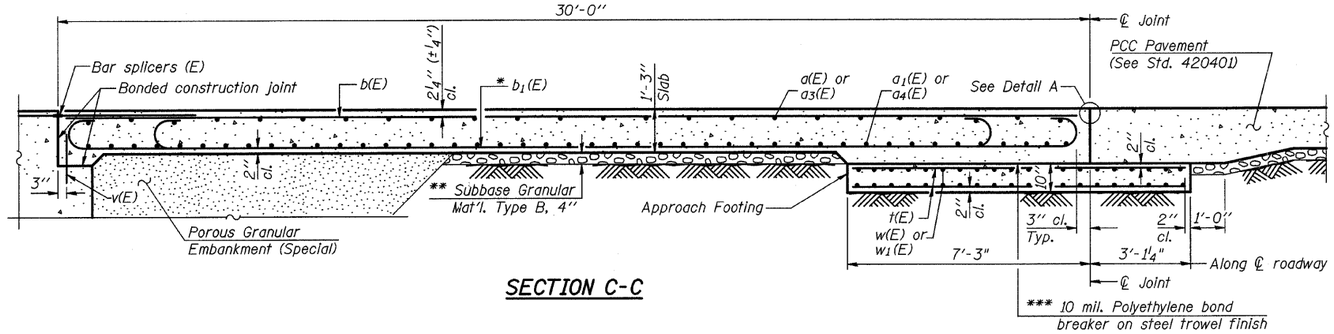
Sheet No. 11 of 26 Sheets

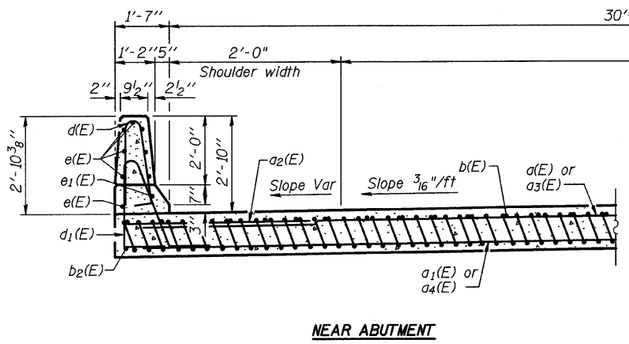
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU T432	*	MACON	47	21
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

• 08-00602-00-BR

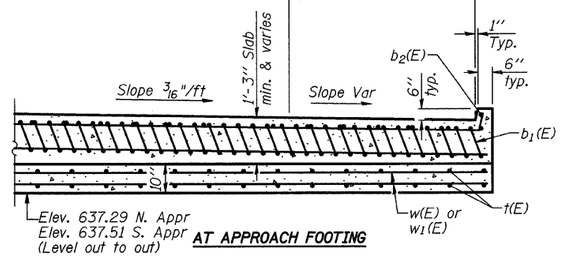


SECTION C-C

Notes:
See sheet 10 of 26 for Detail A and View B-B.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet 15 of 26.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 25 of 26.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 26.



NEAR ABUTMENT



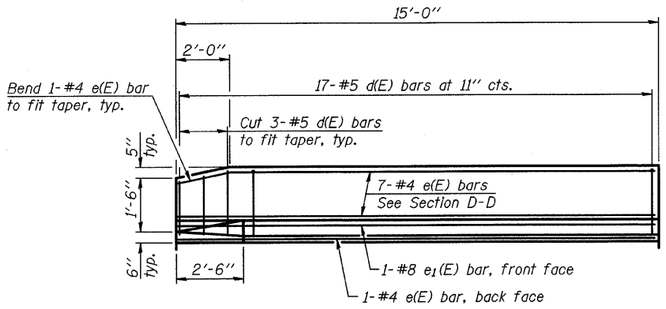
AT APPROACH FOOTING

SECTION D-D

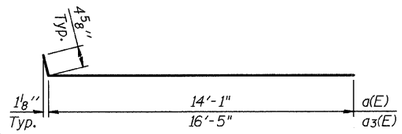
(See Plan for dimensions not shown)

* Tilt #9 $b_1(E)$ bars as required to maintain clearance.

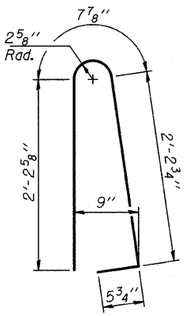
*** Cost included with Concrete Superstructure.



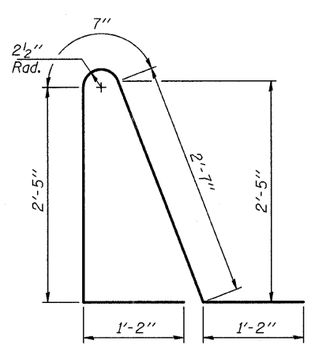
VIEW E-E



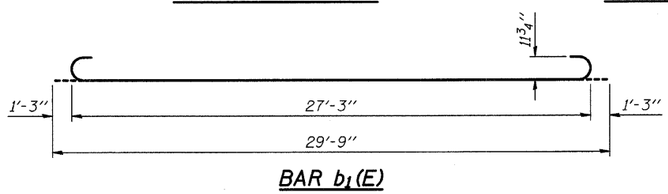
BAR a(E) AND a3(E)



BAR d(E)



BAR $d_1(E)$



BAR $b_1(E)$

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	50	#4	14'-6"	
$a_1(E)$	92	#5	14'-1"	
$a_2(E)$	48	#6	6'-0"	
$a_3(E)$	50	#4	16'-10"	
$a_4(E)$	92	#5	16'-5"	
b(E)	62	#4	29'-8"	
$b_1(E)$	144	#9	29'-9"	
$b_2(E)$	8	#4	14'-8"	
d(E)	68	#5	5'-7"	
$d_1(E)$	68	#5	7'-11"	
e(E)	32	#4	14'-8"	
$e_1(E)$	4	#8	14'-8"	
t(E)	132	#4	10'-0"	
w(E)	80	#5	14'-5"	
$w_1(E)$	80	#5	17'-5"	
Concrete Superstructure		Cu. Yd.	96.9	
Concrete Structures		Cu. Yd.	20.3	
Protective Coat		Sq. Yd.	236	
Reinforcement Bars, Epoxy Coated		Pound	25,240	

(Sheet 2 of 2)

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

BRIDGE APPROACH SLAB DETAILS

REVISIONS		
No.	DATE	INITIALS
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
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BA-R 10-31-08

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	22
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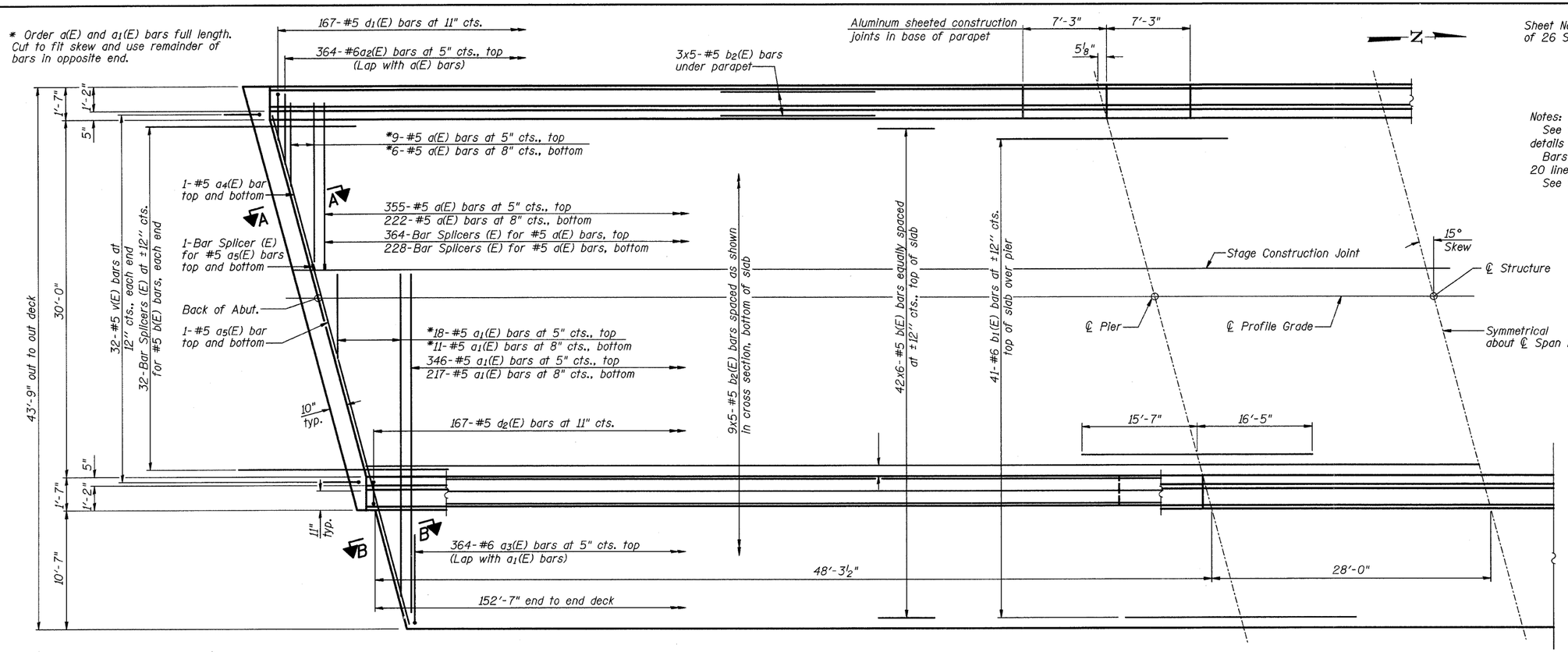
• 08-00602-00-BR

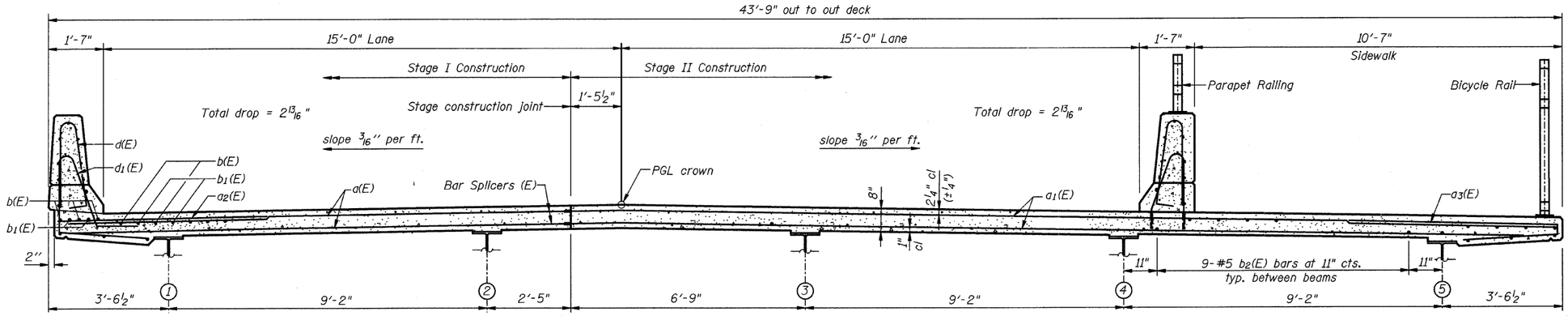
Sheet No. 12 of 26 Sheets

* Order a(E) and a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



Notes:
See Sheets 13 thru 15 of 26 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 13 of 26 for parapet reinforcement.

PARTIAL PLAN



NEAR PIER — NEAR MIDSPAN

CROSS SECTION
(Looking Up Station)

MIN BAR LAP
(Deck)
#5 bar = 2'-2"

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

DECK PLAN AND CROSS SECTION

REVISIONS		
No.	DATE	INITIALS
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
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CONTRACT NO. 95608

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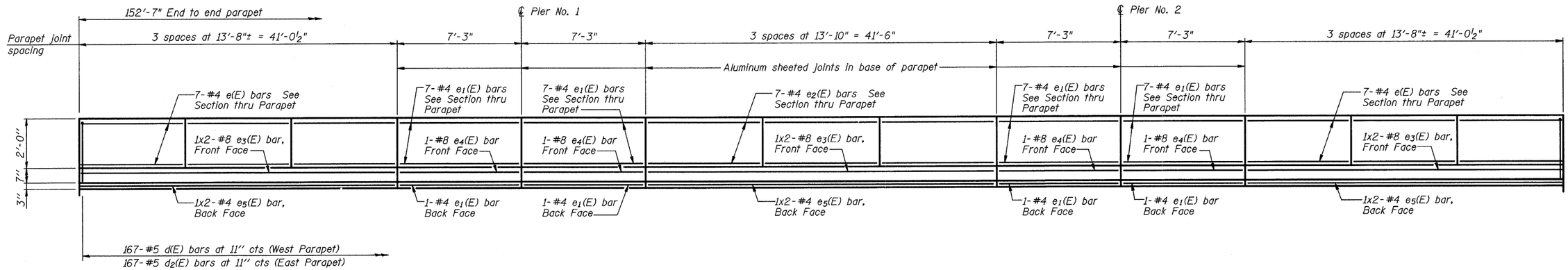
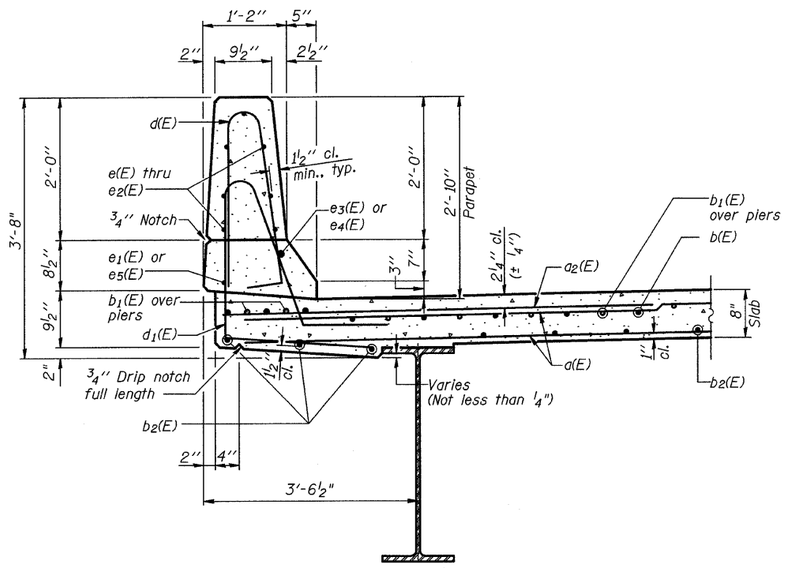
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	23
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

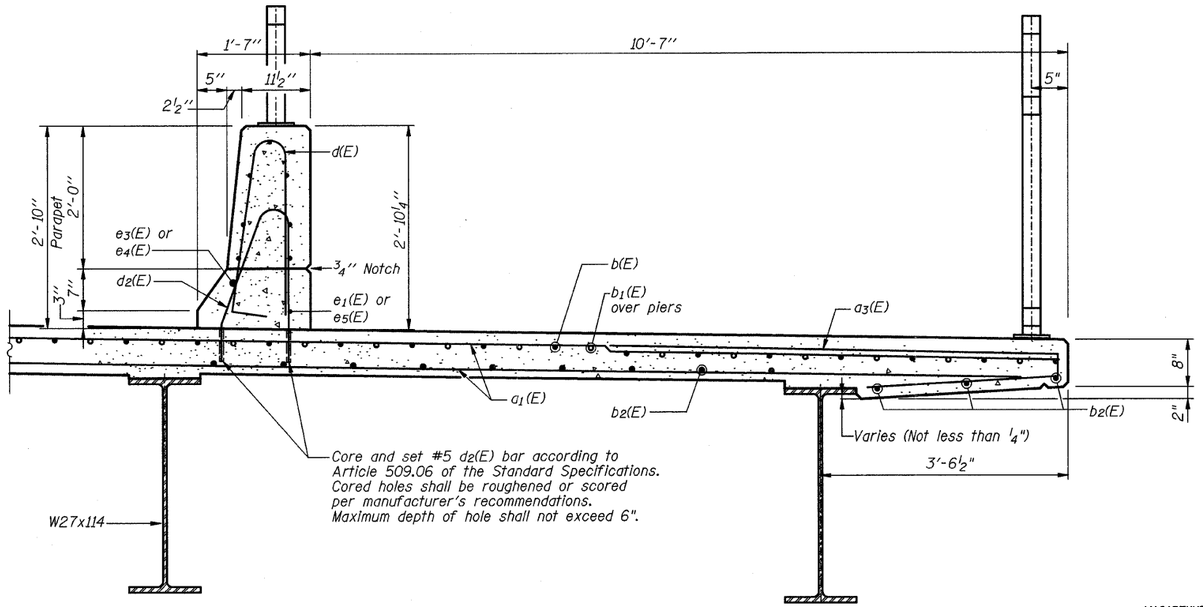
• 08-00602-00-BR



INSIDE ELEVATION OF PARAPET



SECTION THRU PARAPET



SECTION THRU SIDEWALK

MINIMUM BAR LAP

(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"

(Sheet 1 of 3)
MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

SUPERSTRUCTURE DETAILS

REVISIONS		
No.	DATE	INITIALS
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
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CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	24
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

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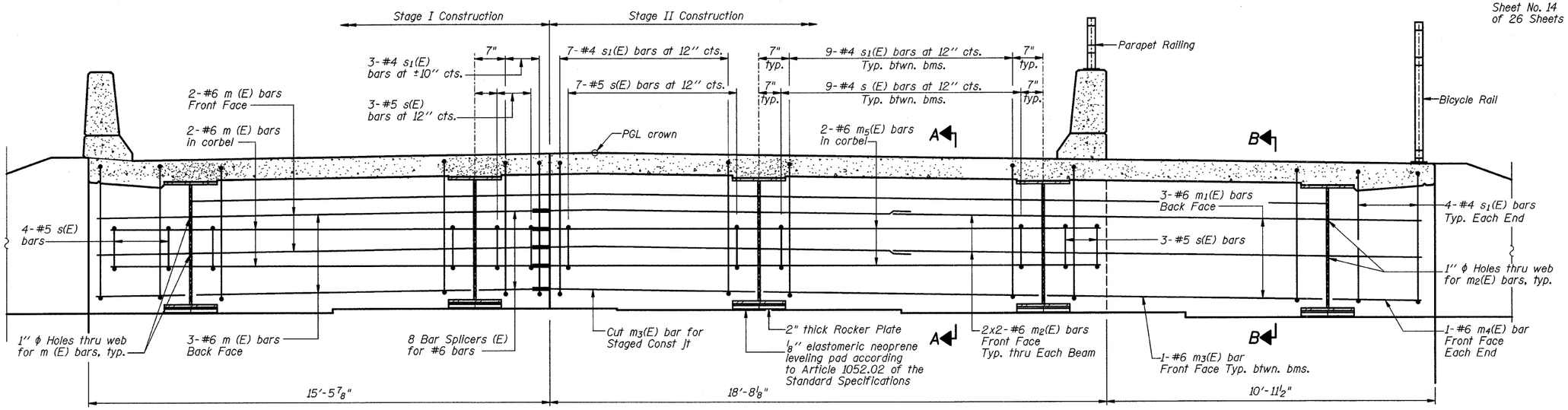
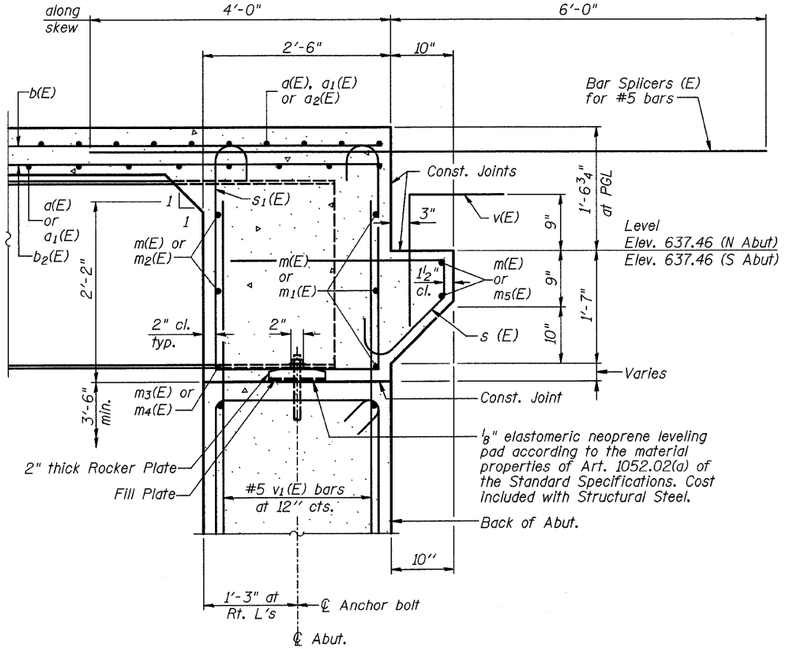


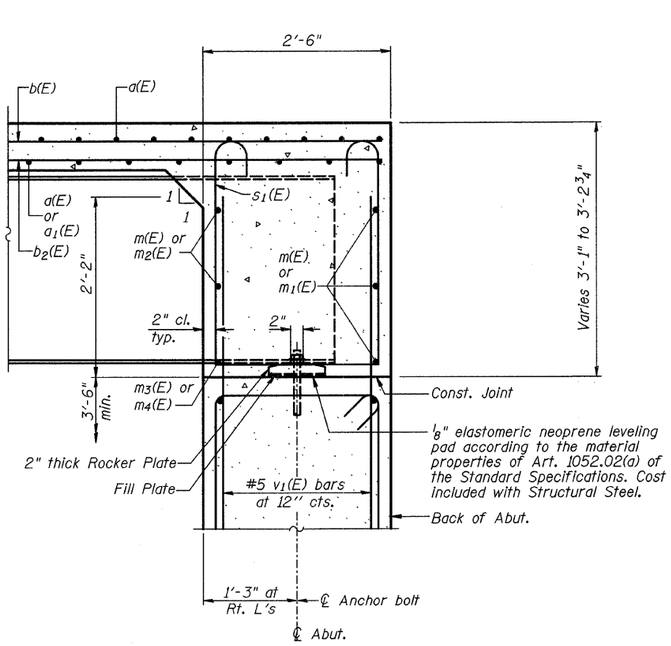
DIAPHRAGM ELEVATION AT ABUTMENT

MIN. BAR LAP
#6 bar = 2'-7"



SECTION A-A

Dimensions at right angles to abutment, except as shown.



SECTION B-B

Dimensions at right angles to abutment, except as shown.

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 15 of 26.
Concrete in diaphragm is included with Concrete Superstructure.
The s(E) and s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

(Sheet 2 of 3)
MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

SUPERSTRUCTURE DETAILS

REVISIONS		
No.	DATE	INITIALS
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
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Sheet No. 15 of 26 Sheets

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	25
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

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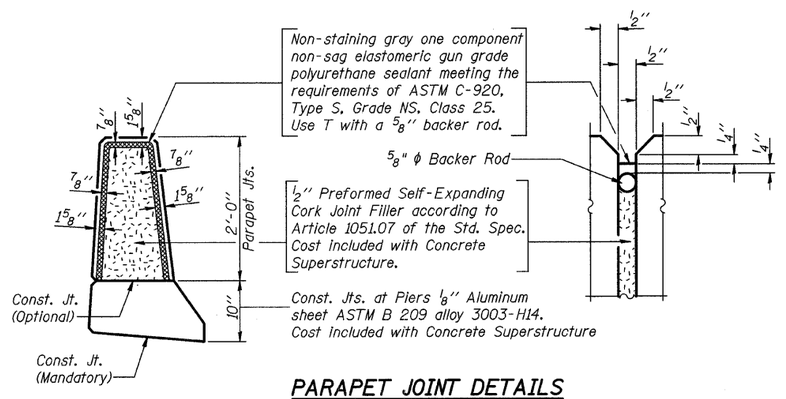
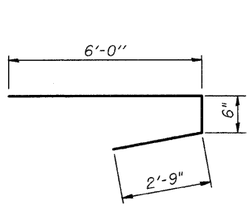
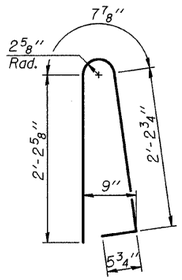


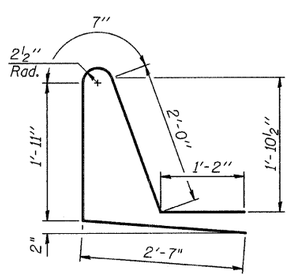
PARAPET JOINT DETAILS



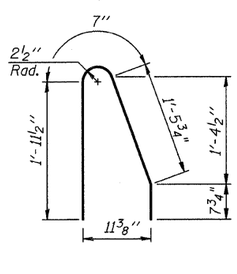
BAR d3(E)



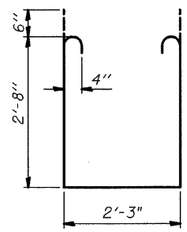
BAR d(E)



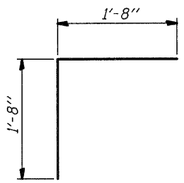
BAR d1(E)



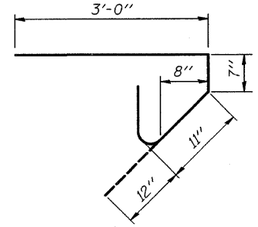
BAR d2(E)



BAR s1(E)



BAR v(E)



BAR s(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	592	#5	14'-8"	
a1(E)	592	#5	28'-4"	
a2(E)	364	#6	6'-0"	
a3(E)	364	#6	9'-3"	
a4(E)	4	#5	14'-2"	
a5(E)	4	#5	29'-5"	
b(E)	252	#5	27'-3"	
b1(E)	82	#6	32'-0"	
b2(E)	210	#5	32'-3"	
d(E)	334	#5	5'-7"	
d1(E)	167	#5	8'-3"	
d2(E)	167	#5	4'-8"	
e(E)	84	#4	13'-5"	
e1(E)	64	#4	7'-0"	
e2(E)	42	#4	13'-7"	
e3(E)	12	#8	22'-4"	
e4(E)	8	#8	7'-0"	
e5(E)	12	#4	21'-4"	
m(E)	14	#6	15'-3"	
m1(E)	6	#6	29'-5"	
m2(E)	8	#6	15'-11"	
m3(E)	8	#6	9'-3"	
m4(E)	4	#6	3'-2"	
m5(E)	4	#6	18'-5"	
s(E)	70	#5	5'-6"	
s1(E)	90	#4	8'-7"	
v(E)	64	#5	3'-4"	
Reinforcement Bars, Epoxy Coated		Pound	62,090	
Concrete Superstructure		Cu. Yds.	228.9	
Protective Coat		Sq. Yds.	817	

Bars indicated thus 1 x 3 - #5 etc. indicates 1 line of bars with 3 lengths per line.

(Sheet 3 of 3)

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

SUPERSTRUCTURE DETAILS

REVISIONS		
No.	DATE	INITIALS
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
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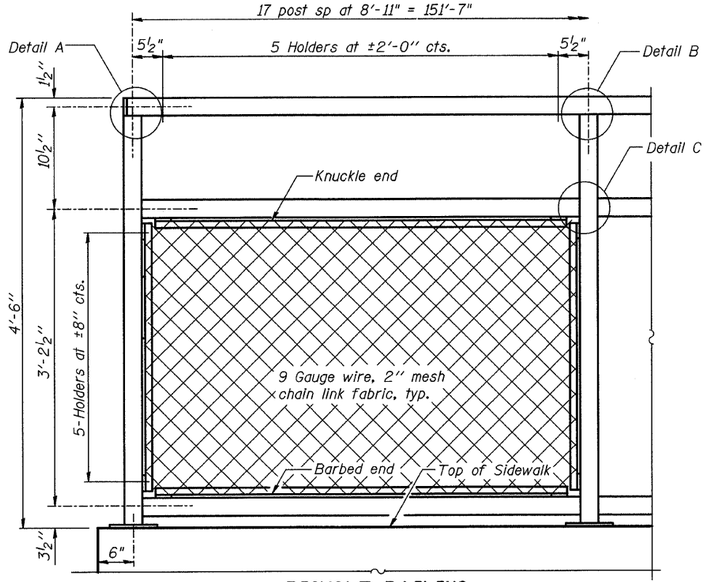
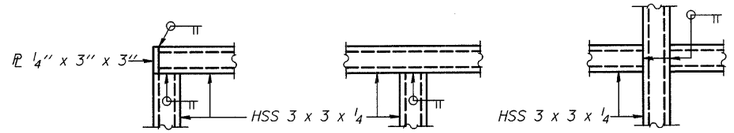
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	26
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

Sheet No. 16 of 26 Sheets

• 08-00602-00-BR

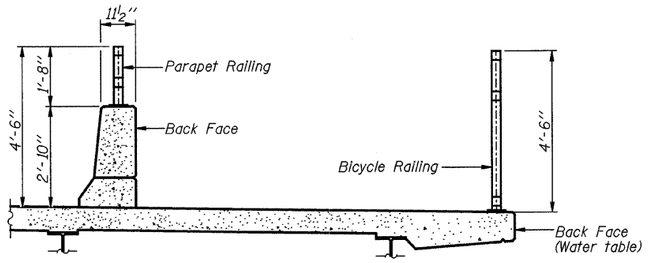


BICYCLE RAILING

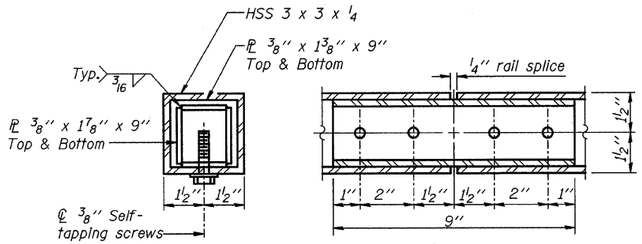


DETAIL A DETAIL B DETAIL C

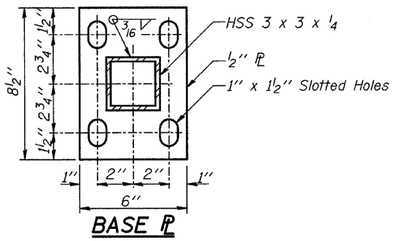
Note:
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



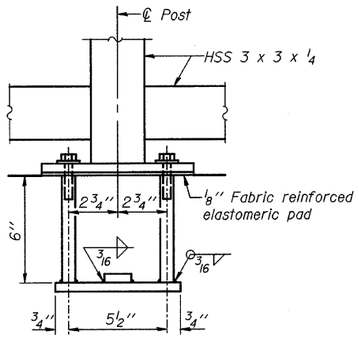
SECTION THRU DECK

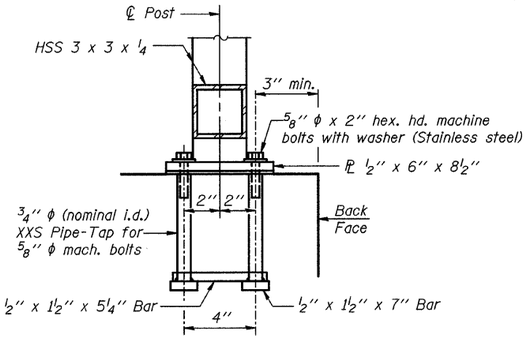


RAIL SPLICE



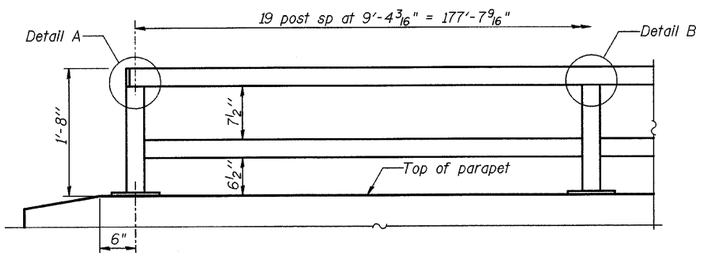
BASE PL





ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



PARAPET RAILING ELEVATION

(Inside Face of Two Element Rail)

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	152
Parapet Railing	Foot	178

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

BICYCLE RAILING

REVISIONS		
No.	DATE	INITIALS
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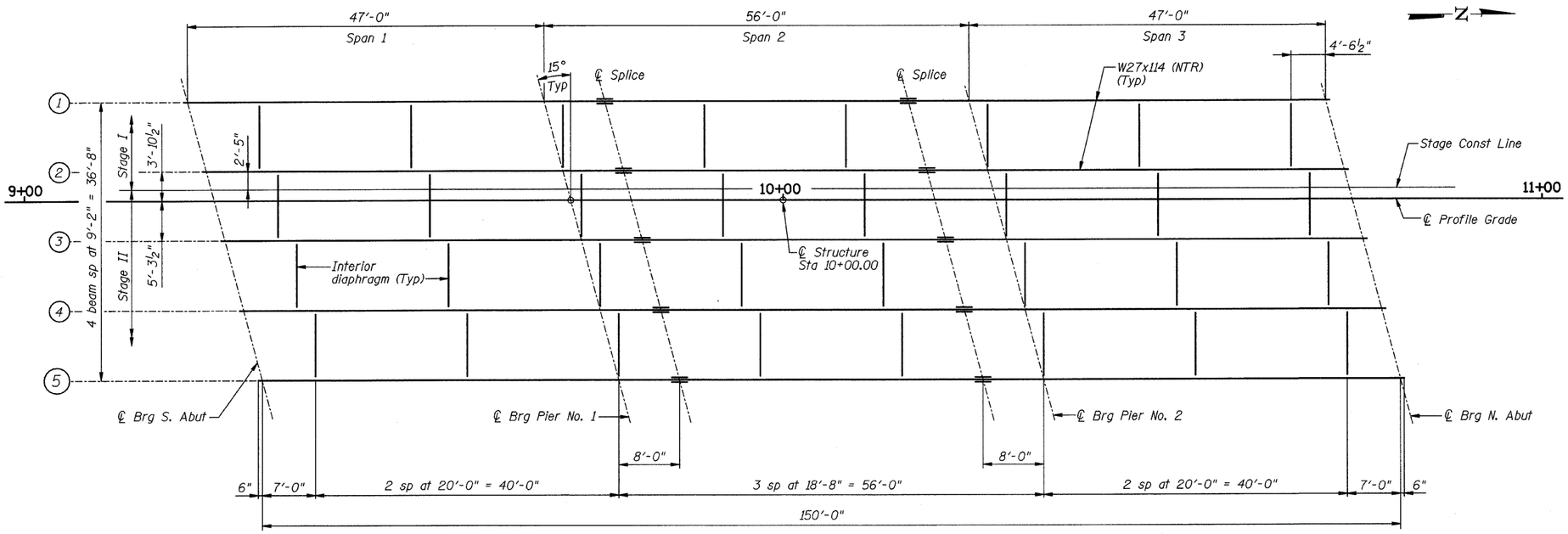
CHECKED BY DATE	JMB 07/09
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

R-29 5-16-08 (10'-0" Maximum Post Spacing)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	27
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

• 08-00602-00-BR



FRAMING PLAN

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
I_s	(in^4)	4080	4080	4080
$I_c(n)$	(in^4)	12965		12965
$I_c(3n)$	(in^4)	9858		9858
S_s	(in^3)	299	299	299
$S_c(n)$	(in^3)	474		474
$S_c(3n)$	(in^3)	431		431
Z	(in^3)			
DC1	(k/')	1.045	1.045	1.045
M_{DC1}	('k)	166	280	132
DC2	(k/')	0.18	0.18	0.18
M_{DC2}	('k)	31	42	28
DW	(k/')	0.458	0.458	0.458
M_{DW}	('k)	70	94	62
M_{L+Imp}	('k)	658	444	675
M_u(Strength I)	('k)	1503	1321	1474
$\phi_f M_n$, $\phi_f M_{nc}$	('k)	2400	1429	2433
f_s DC1	(ksi)	4.20	11.24	3.34
f_s DC2	(ksi)	0.79	1.69	0.71
f_s DW	(ksi)	1.77	3.77	1.57
f_s 1.3(L+I)	(ksi)	21.7	23.2	22.2
f_s (Service II)	(ksi)	28.4	39.9	27.8
f_s (Total)(Strength I)	(ksi)			
V_r	(k)	17.9	25.9	18.2

INTERIOR GIRDER REACTION TABLE HL93 Loading			
		S Abut N Abut	Pier No. 1 Pier No. 2
R_{DC1}	(k)	20.1	60.0
R_{DC2}	(k)	3.4	10.3
R_{DW}	(k)	7.5	23.0
R_{L+Imp}	(k)	80.3	118.1
R_{Total}	(k)	111.2	211.4

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

Z: Plastic Section Modulus of the steel section in non-composite areas. Omit line in Moment Table if not used in design calculations ($in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+Imp}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+Imp}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

$\phi_f M_{nc}$: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\ M_{L+Imp}$

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+Imp}$

V_r: Factored shear range computed according to Article 6.10.10.

NOTES

All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

For Beam Elevations, Field Splice and Interior Diaphragm Details, see Sheet No. 18 of 26.

For details of diaphragms at abutments see Sheet No. 14 of 26.

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

FRAMING PLAN AND DESIGN DATA

REVISIONS		
No.	DATE	INITIALS
1		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
184-001397
DECATUR (217) 422-6544 CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050

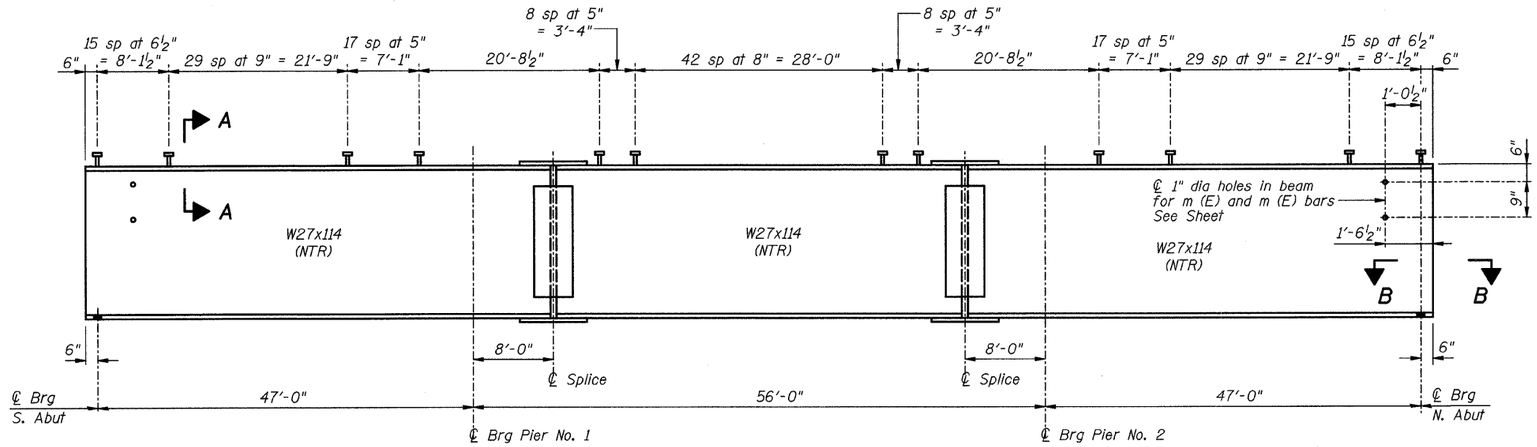
DRAWN BY	DATE
R KING	07/09
CHECKED BY	DATE
JMB	07/09
BOOK NUMBER	
486	
PROJECT No.	
5307	
SHEET No.	

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	28
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

Sheet No. 18 of 26 Sheets

• 08-00602-00-BR



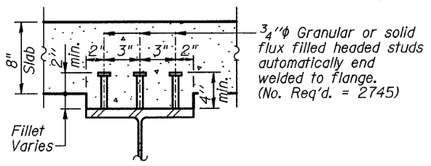
BEAM ELEVATION

"NTR" denotes plates to which notch toughness requirements are applicable.

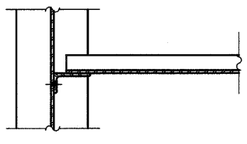
*TOP OF BEAM ELEVATIONS

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5
℄ Brg at S. Abut	638.098	638.261	638.244	638.115	637.986
℄ Brg at Pier No. 1	638.307	638.457	638.441	638.303	638.164
℄ Splice 1	638.328	638.471	638.459	638.316	638.173
℄ Splice 2	638.338	638.481	638.459	638.306	638.173
℄ Brg at Pier No. 2	638.328	638.467	638.439	638.290	638.140
℄ Brg at N. Abut	638.148	638.277	638.240	638.081	637.922

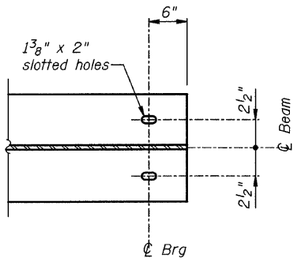
* For fabrication only



SECTION A-A

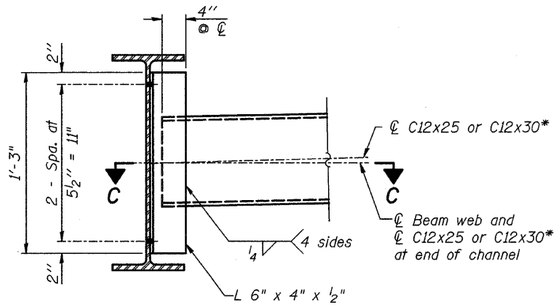


SECTION C-C



SECTION B-B

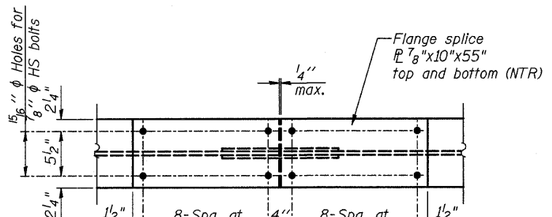
(N. Abut shown
S. Abut similar)



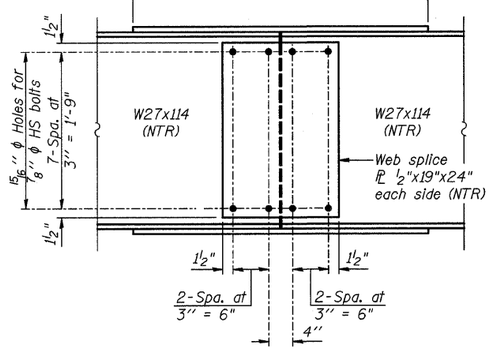
INTERIOR DIAPHRAGM

(32 Required)

Note:
Two hardened washers required for each set of oversized holes.
* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no extra cost to the Department.
** ¾" ϕ HS bolts, 15/16" ϕ holes



PLAN



ELEVATION

SPLICE DETAIL

(10 Required)

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	2745
Furnishing and Erecting Structural Steel	LS	1

Note:

Structural steel shall be ASHTO M270 Grade 50W.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch toughness, Zone 2.

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

FRAMING DETAILS

REVISIONS		
No.	DATE	INITIALS
1		
2		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
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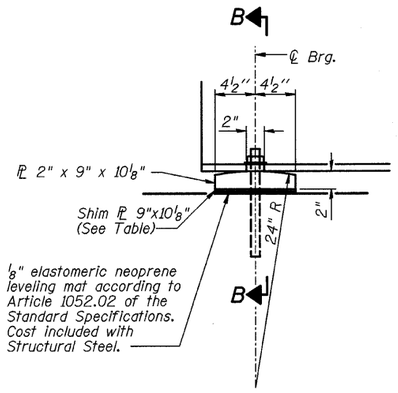
CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050

DRAWN BY DATE	R KING 07/09
CHECKED BY DATE	JMB 07/09
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

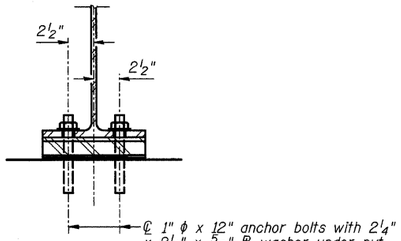
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	29
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

Sheet No. 19 of 26 Sheets

• 08-00602-00-BR



ELEVATION AT ABUTMENT

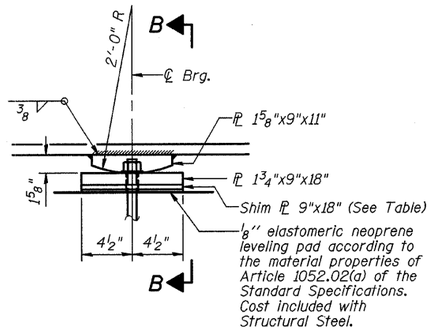


SECTION B-B

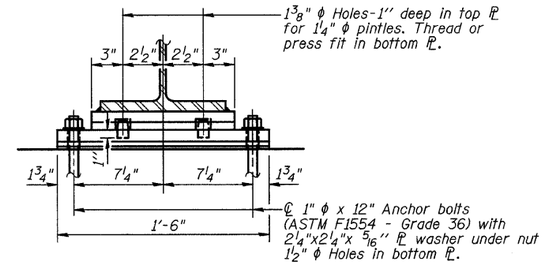
FIXED BEARING

SHIM ℄ TABLE

	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5
S Abut		⅛"			
Pier 1		¼"			
Pier 2		⅜"			
N Abut		⅜"			

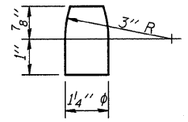


ELEVATION AT PIER



SECTION B-B

FIXED BEARING



PINTLE

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts 1" ϕ	Each	40

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

BEARING DETAILS

REVISIONS		
No.	DATE	INITIALS
1		
2		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
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ROCKFORD (815) 489-0050

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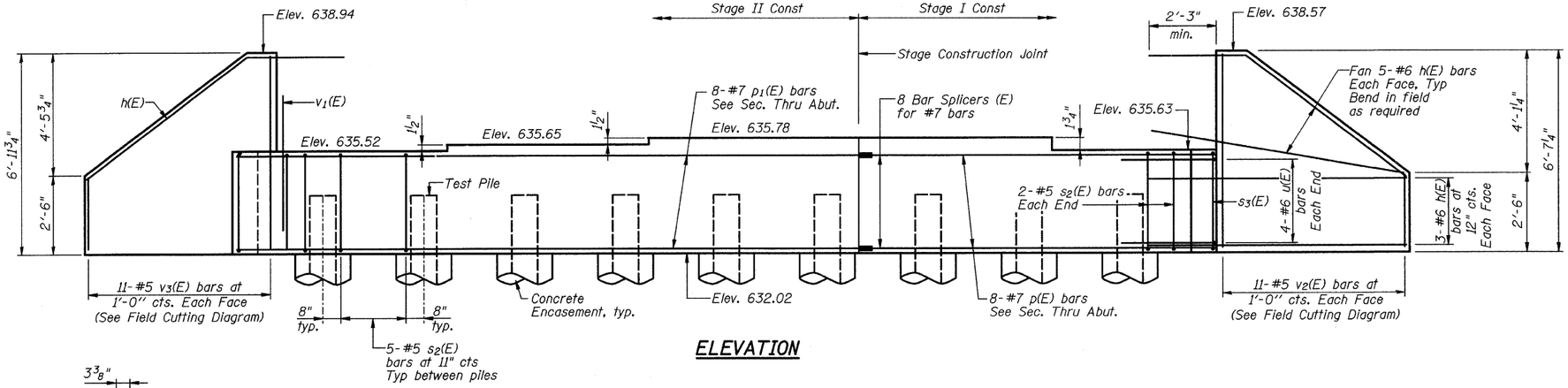
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

CONTRACT NO. 95608

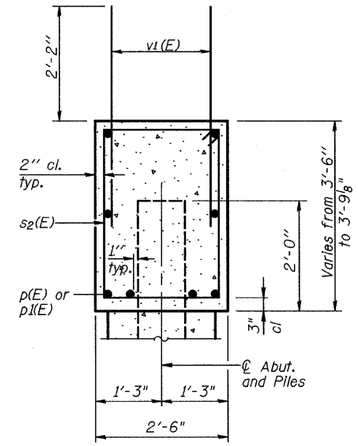
Sheet No. 20 of 26 Sheets

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	30
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

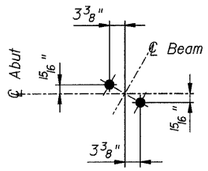
• 08-00602-00-BR



ELEVATION

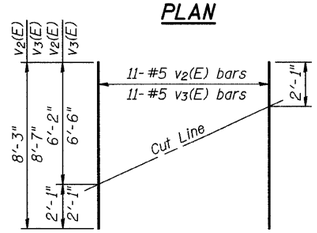


SEC. THRU ABUT.



A.B. LAYOUT DETAIL

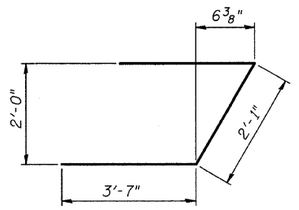
PLAN



FIELD CUTTING DIAGRAM

Order $v_2(E)$ & $v_3(E)$ full length. Cut as shown and use remainder of bars in opposite face.

BARS $s_2(E)$ & $s_3(E)$



BAR u(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	32	#6	13'-2"	
p(E)	8	#7	15'-3"	
p1(E)	8	#7	29'-3"	
s2(E)	44	#5	11'-5"	
s3(E)	4	#5	11'-7"	
u(E)	8	#6	9'-3"	
v1(E)	92	#5	4'-4"	
v2(E)	11	#5	8'-3"	
v3(E)	11	#5	8'-7"	
Structure Excavation		Cu. Yd.	142	
Concrete Structures		Cu. Yd.	17.3	
Reinforcement Bars, Epoxy Coated		Pound	2650	
Furnishing Steel Piles HP12x53		Foot	320	
Driving Piles		Foot	320	
Test Pile Steel HP12x53		Each	1	
Concrete Encasement		Cu. Yd.	3.2	

PILE DATA

Type: Steel HP12x53
Nominal Required Bearing: 231 kips
Factored Resistance Available: 77 kips
Est. Length: 40'
No. Production Piles: 8
No. Test Piles: 1

Note:
Pour steps monolithically with cap.
Reinforcement Bars designated (E) shall be epoxy coated.
For details of Bar Splicers, see sheet 25 of 26.
For details of piles and Concrete Encasement, see sheet 24 of 26.
All edges shall have standard 3/4" chamfer.
Space reinforcement in cap to miss anchor bolts.

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

SOUTH ABUTMENT DETAILS

REVISIONS		
No.	DATE	INITIALS
1		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
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ROCKFORD (815) 489-0050

DRAWN BY R KING DATE 07/09
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BOOK NUMBER 486
PROJECT No. 5307
SHEET No.

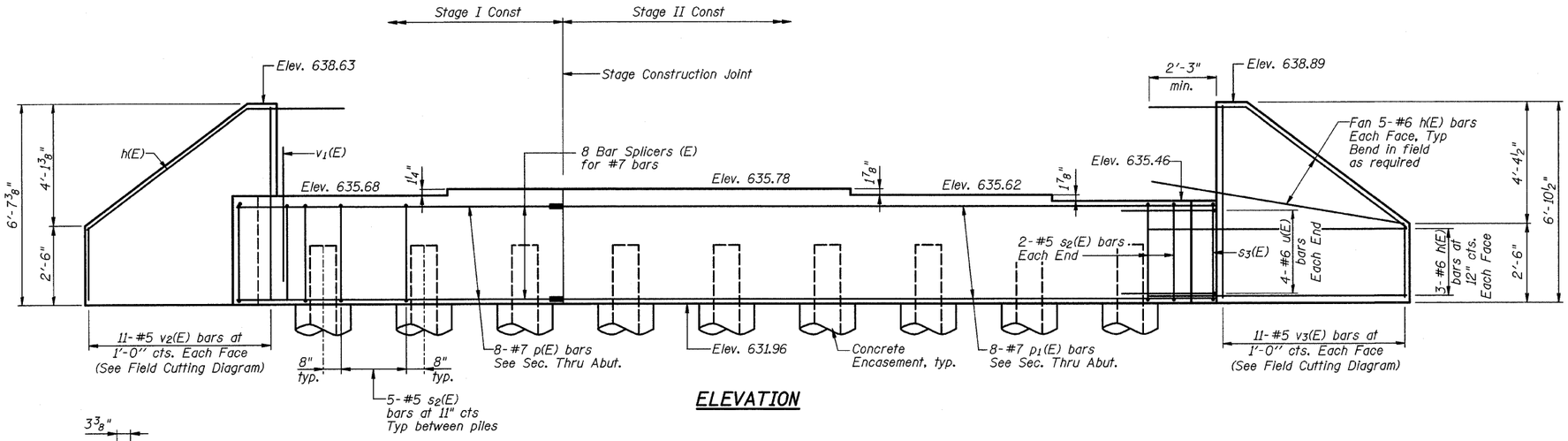
AI-R 5-16-08

CONTRACT NO. 95608

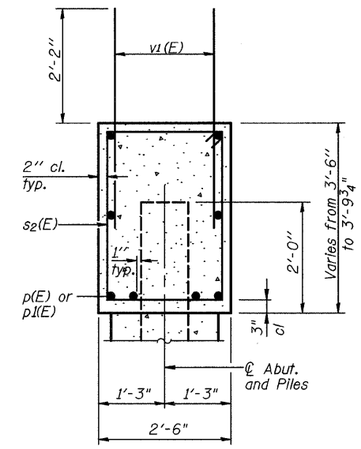
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	31
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

Sheet No. 21 of 26 Sheets

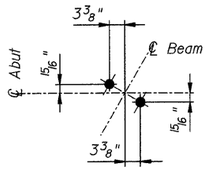
• 08-00602-00-BR



ELEVATION

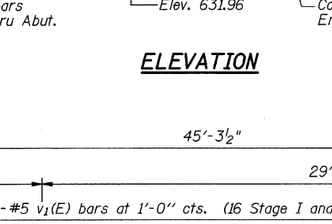


SEC. THRU ABUT.



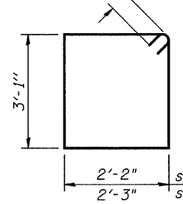
A.B. LAYOUT DETAIL

PLAN

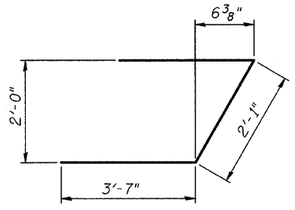


FIELD CUTTING DIAGRAM

Order $v_2(E)$ & $v_3(E)$ full length. Cut as shown and use remainder of bars in opposite face.



BARS $s_2(E)$ & $s_3(E)$



BAR u(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
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p(E)	8	#7	15'-3"	
p1(E)	8	#7	29'-3"	
s2(E)	44	#5	11'-5"	
s3(E)	4	#5	11'-7"	
u(E)	8	#6	9'-3"	
v1(E)	92	#5	4'-4"	
v2(E)	11	#5	8'-3"	
v3(E)	11	#5	8'-7"	
Structure Excavation			Cu. Yd.	142
Concrete Structures			Cu. Yd.	17.1
Reinforcement Bars, Epoxy Coated			Pound	2650
Furnishing Steel Piles HP12x53			Foot	360
Driving Piles			Foot	360
Concrete Encasement			Cu. Yd.	3.2

PILE DATA

Type: Steel HP12x53
Nominal Required Bearing: 231 kips
Factored Resistance Available: 77 kips
Est. Length: 40'
No. Production Piles: 9

Note:
Pour steps monolithically with cap.
Reinforcement Bars designated (E) shall be epoxy coated.
For details of Bar Splicers, see sheet 25 of 26.
For details of piles and Concrete Encasement, see sheet 24 of 26.
All edges shall have standard 3/4" chamfer.
Space reinforcement in cap to miss anchor bolts.

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

NORTH ABUTMENT DETAILS

REVISIONS		
No.	DATE	INITIALS
1		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

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PROJECT No.	5307
SHEET No.	

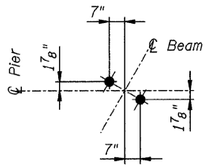
AI-R 5-16-08

CONTRACT NO. 95608

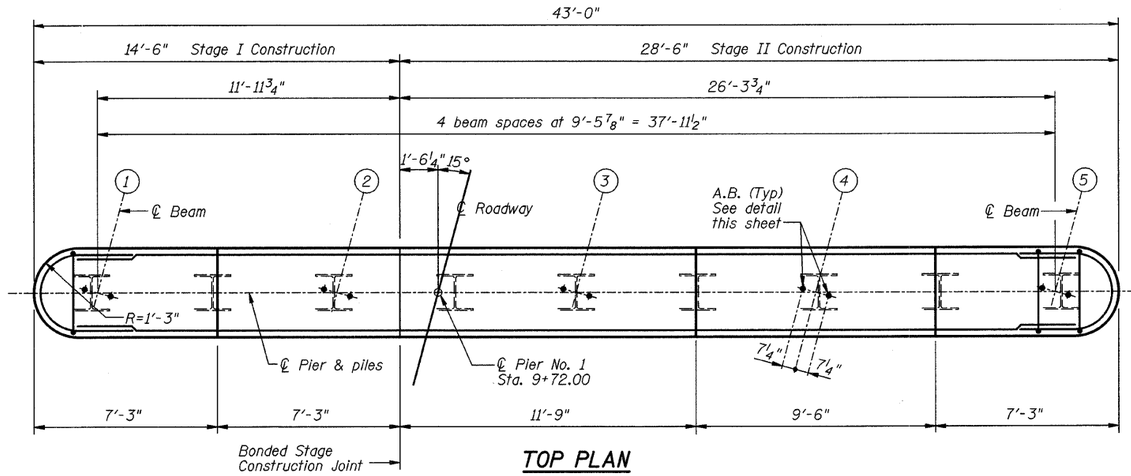
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	32
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

Sheet No. 22 of 26 Sheets

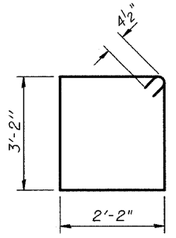
• 08-00602-00-BR



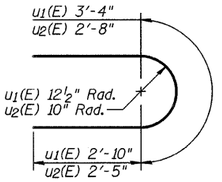
A.B. LAYOUT DETAIL



TOP PLAN



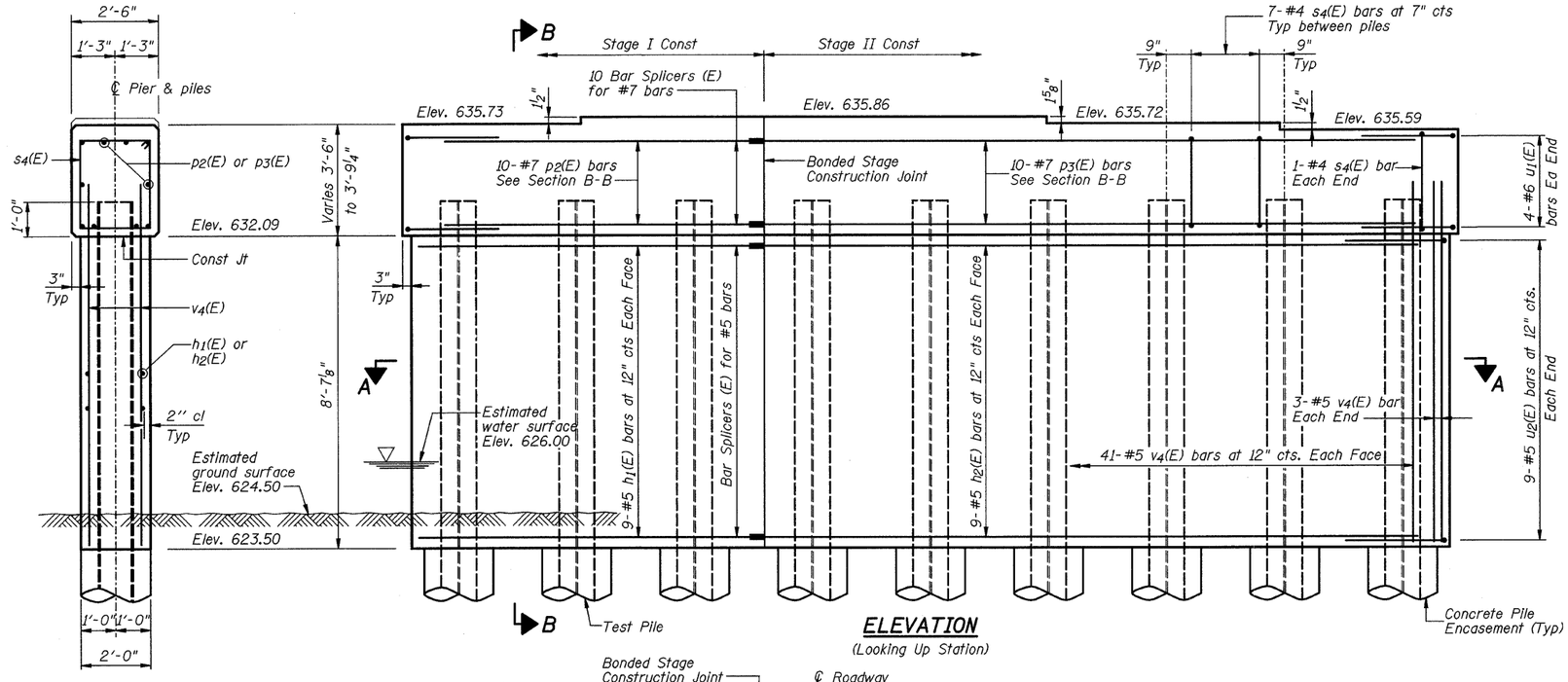
BAR s4(E)



BARS u1(E) & u2(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	18	#5	12'-8"	—
h2(E)	18	#5	27'-3"	—
p2(E)	10	#7	12'-11"	—
p3(E)	10	#7	27'-6"	—
s4(E)	58	#4	11'-5"	□
u1(E)	8	#6	9'-0"	⊃
u2(E)	18	#5	7'-6"	⊃
v4(E)	88	#5	9'-8"	—
Structure Excavation			Cu. Yd.	28
Concrete Structures			Cu. Yd.	41.7
Reinforcement Bars, Epoxy Coated			Pound	3010
Furnishing Steel Piles HP12x53			Foot	540
Driving Piles			Foot	540
Concrete Encasement			Cu. Yd.	3.2
Concrete Sealer			Sq. Ft.	1092
Underwater Structure Excavation Protection - Location 1			Each	1



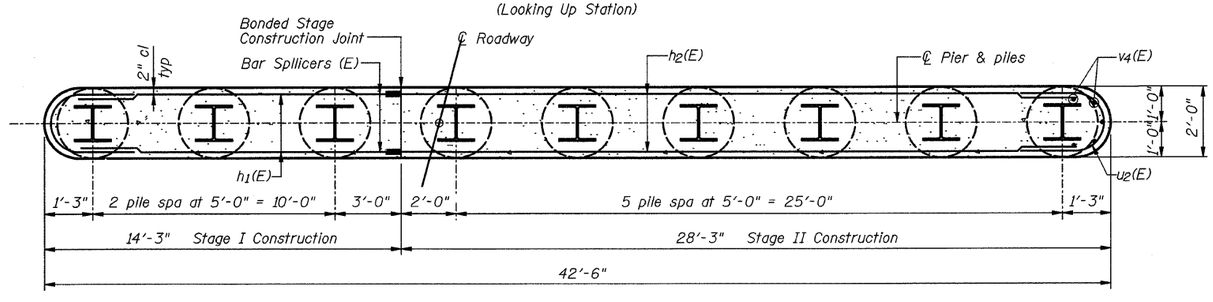
ELEVATION

(Looking Up Station)

SECTION B-B

PILE DATA

Type: Steel HP12x53
Nominal Required Bearing: 309 kips
Allowable Resistance Available: 103 kips
Est. Length: 60'
No. Req'd: 9
Test Pile: 0



SECTION A-A

Note:
Pour steps monolithically with cap.
Reinforcement Bars designated (E) shall be epoxy coated.
For details of Bar Splicers, see sheet 25 of 26.
For details of piles and Concrete Encasement, see sheet 24 of 26.
All edges shall have standard 3/4" chamfer.
Space reinforcement in cap to miss anchor bolts.
If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.
All exposed concrete shall have Concrete Sealer applied.

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

PIER NO. 1 DETAILS

REVISIONS		
No.	DATE	INITIALS
1		
2		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
184-001897
DECATUR (217) 422-8544 CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050

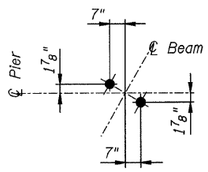
DRAWN BY DATE	R KING 07/09
CHECKED BY DATE	JMB 07/09
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

CONTRACT NO. 95608

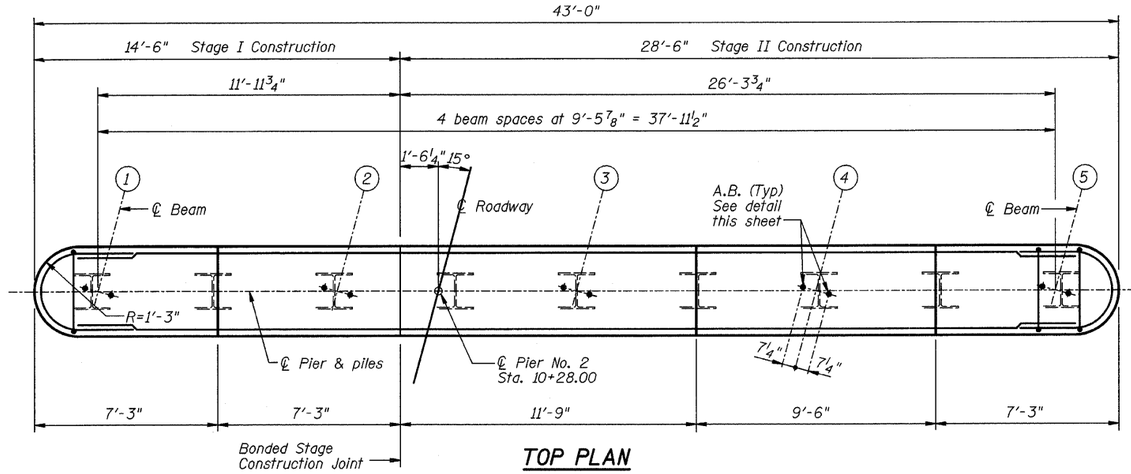
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	33
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

Sheet No. 23 of 26 Sheets

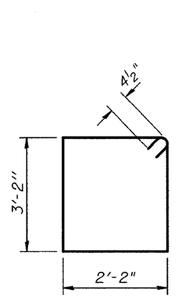
• 08-00602-00-BR



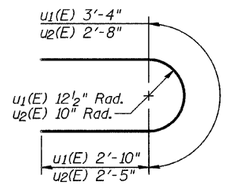
A.B. LAYOUT DETAIL



TOP PLAN



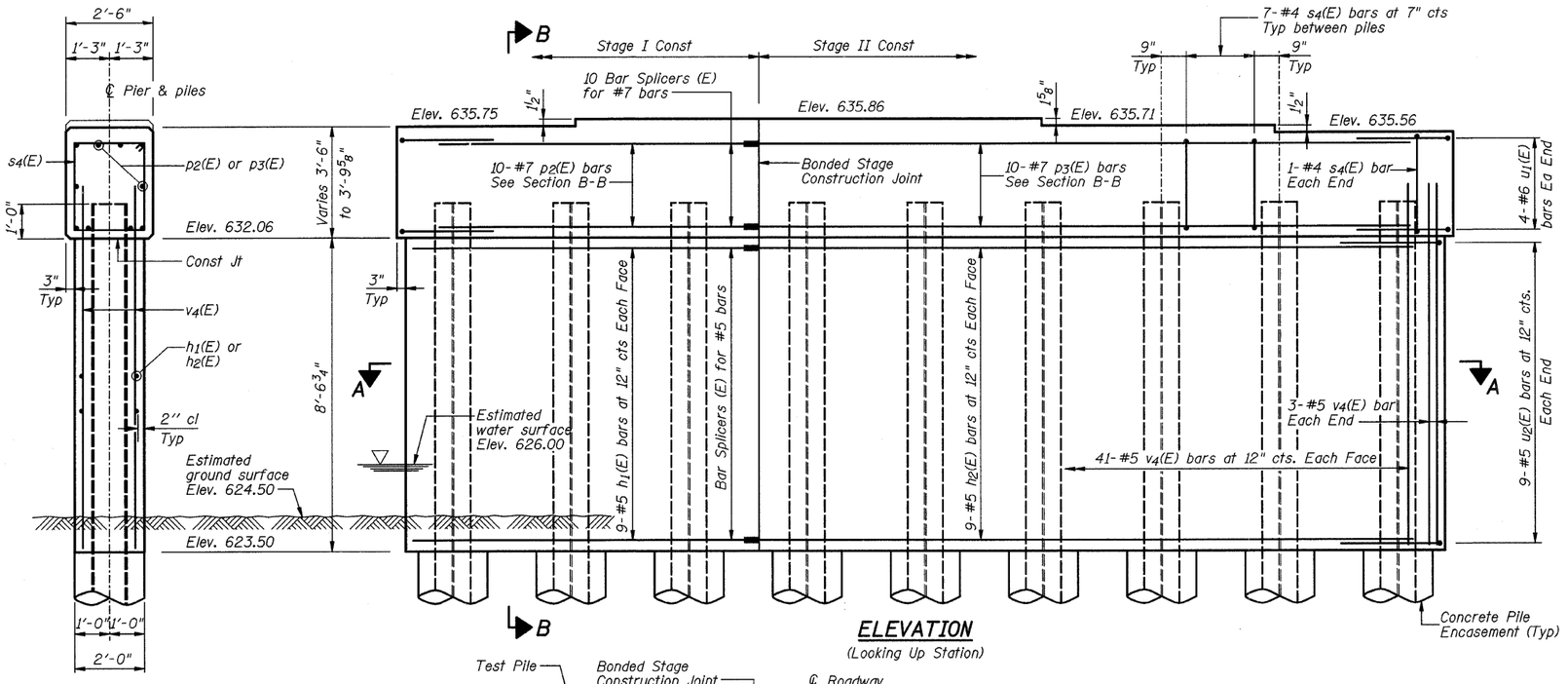
BAR s4(E)



BARS u1(E) & u2(E)

BILL OF MATERIAL

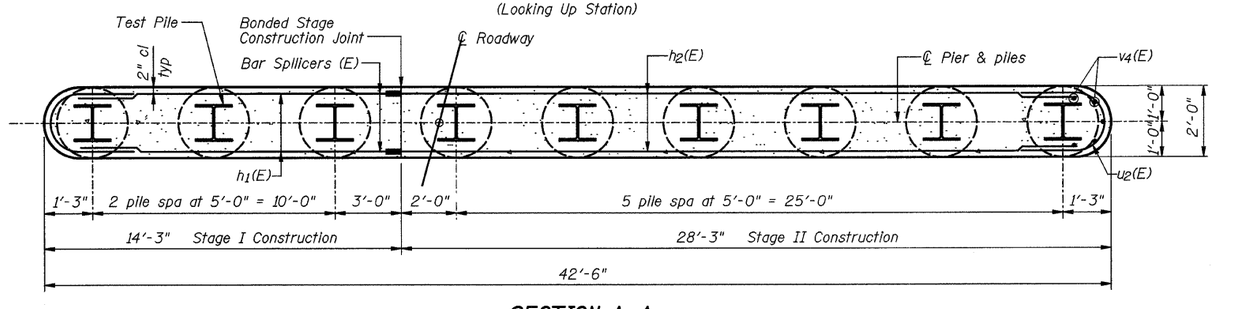
Bar	No.	Size	Length	Shape
h1(E)	18	#5	12'-8"	—
h2(E)	18	#5	27'-3"	—
p2(E)	10	#7	12'-11"	—
p3(E)	10	#7	27'-6"	—
s4(E)	58	#4	11'-5"	□
u1(E)	8	#6	9'-0"	⊃
u2(E)	18	#5	7'-6"	⊃
v4(E)	88	#5	9'-8"	—
Structure Excavation			Cu. Yd.	28
Concrete Structures			Cu. Yd.	41.7
Reinforcement Bars, Epoxy Coated			Pound	3010
Furnishing Steel Piles HP12x53			Foot	480
Driving Piles			Foot	480
Test Pile Steel HP12x53			Each	1
Concrete Encasement			Cu. Yd.	3.2
Concrete Sealer			Sq. Ft.	1092
Underwater Structure Excavation Protection - Location 2			Each	1



SECTION B-B

ELEVATION

(Looking Up Station)



SECTION A-A

PILE DATA

Type: Steel HP12x53
Nominal Required Bearing: 309 kips
Allowable Resistance Available: 103 kips
Est. Length: 60'
No. Req'd: 8
Test Pile: 1

Note:

Pour steps monolithically with cap.

Reinforcement Bars designated (E) shall be epoxy coated.

For details of Bar Splicers, see sheet 25 of 26.

For details of piles and Concrete Encasement, see sheet 24 of 26.

All edges shall have standard 3/4" chamfer.

Space reinforcement in cap to miss anchor bolts.

If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

All exposed concrete shall have Concrete Sealer applied.

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

PIER NO. 2 DETAILS

REVISIONS		
No.	DATE	INITIALS
1		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
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ROCKFORD (815) 489-0050

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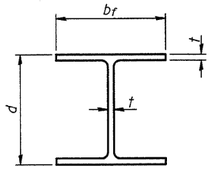
R KING	07/09
CHECKED BY	DATE
JMB	07/09
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	34
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

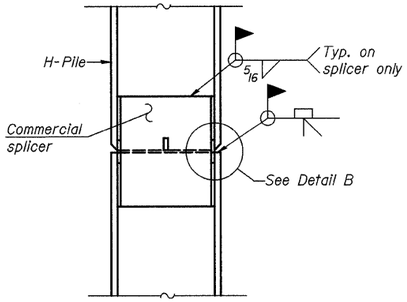
Sheet No. 24 of 26 Sheets

• 08-00602-00-BR



STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



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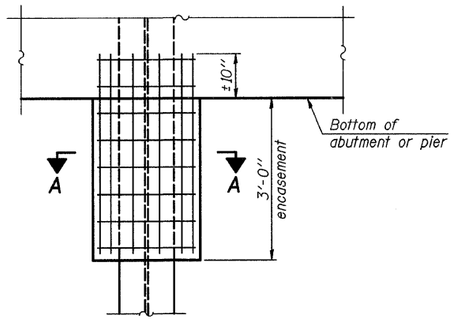

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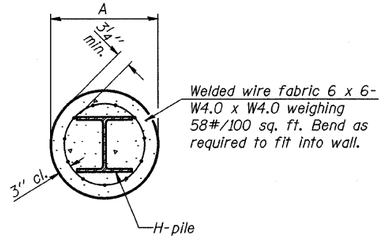
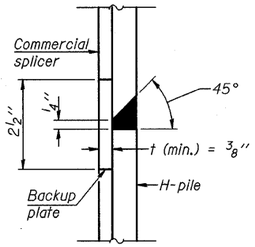


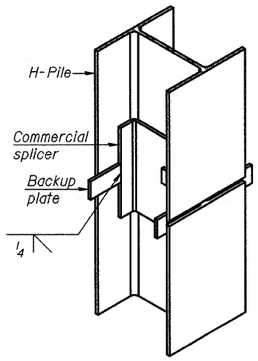
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

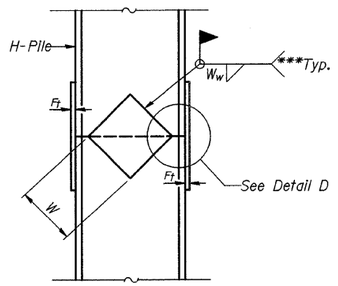
PILE ENCASEMENT



DETAIL "B"



ISOMETRIC VIEW



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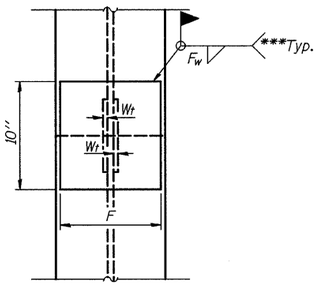
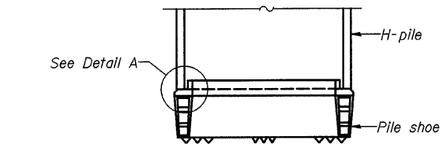


END VIEW

WELDED COMMERCIAL SPLICE



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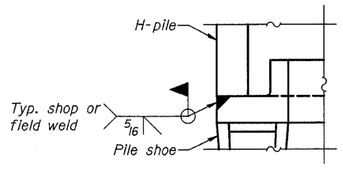
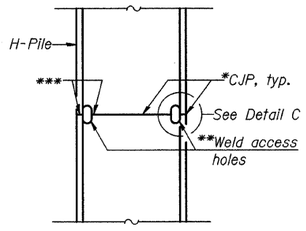


DETAIL A

H-PILE SHOE ATTACHMENT



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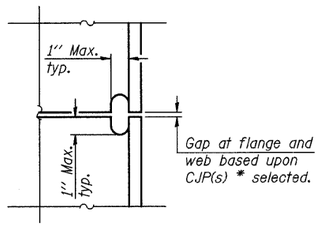
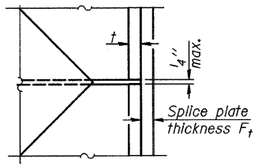


DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

*** Interrupt welds 1/4" from end of each pile.

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

HP PILE DETAILS

REVISIONS		
No.	DATE	INITIALS
1		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
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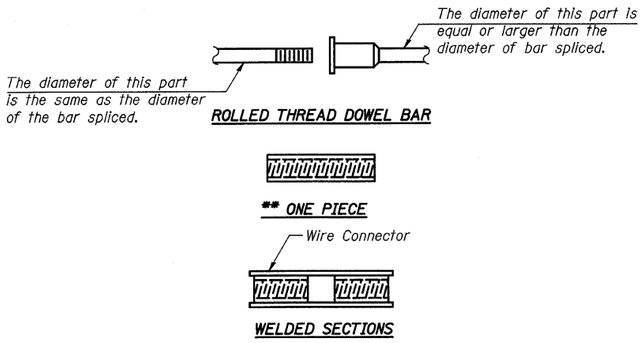
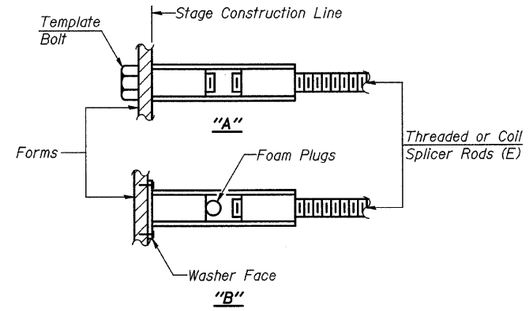
PROJECT No. 5307
SHEET No.

F-HP 10-1-08



BAR SPLICER ASSEMBLY ALTERNATIVES

**Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" :Set bar splicer assembly by means of a template bolt.
"B" :Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

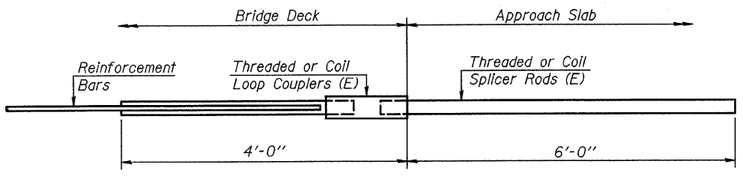
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times fy \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times fy \times A_t$

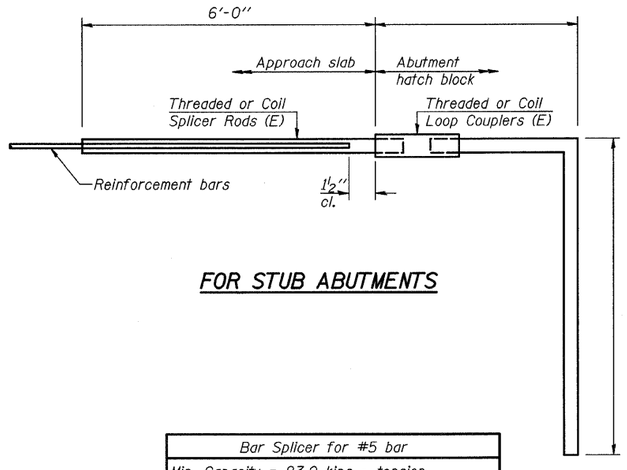
Where fy = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



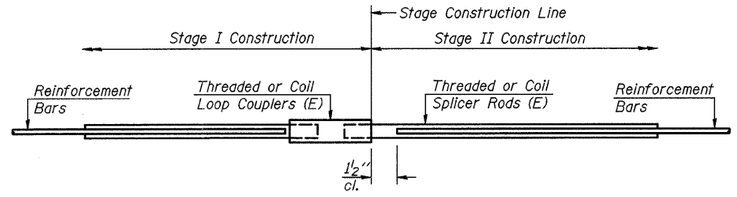
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 64



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#5	596	Deck
#6	16	Diaphragms
#7	16	Abutments
#5	36	Piers
#7	20	Piers
#4	50	Approach Slabs
#5	172	Approach Slabs

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

BAR SPLICER ASSEMBLY DETAILS

REVISIONS		
No.	DATE	INITIALS
1		
2		
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SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
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R KING	07/09
CHECKED BY	DATE
JMB	07/09
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

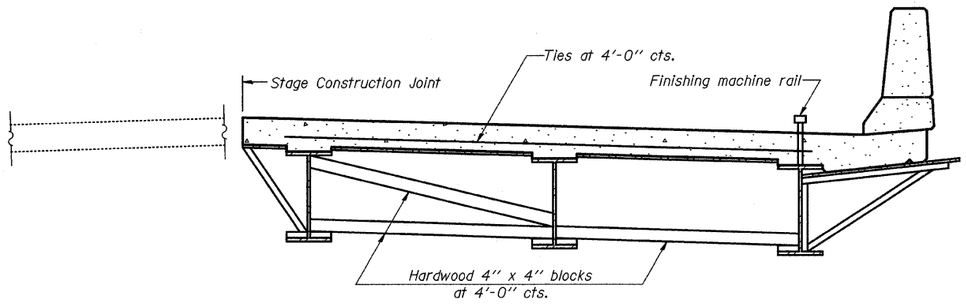
BSD-1 5-16-08

CONTRACT NO. 95608

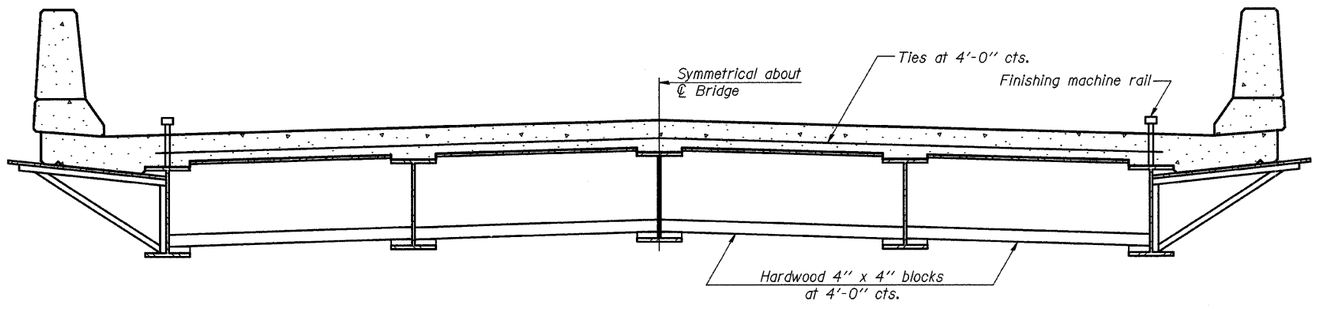
Sheet No. 26 of 26 Sheets

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 7432	*	MACON	47	36
FED.ROAD DIST.NO.		ILLINOIS	PROJECT	

• 08-00602-00-BR



FORM BRACES FOR STAGE CONSTRUCTION



FORM BRACES FOR STANDARD CONSTRUCTION

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

SB-1 11-1-06

MACARTHUR ROAD (FAU 7432) OVER STEVENS CREEK

CANTILEVER FORMING BRACKETS

REVISIONS		
No.	DATE	INITIALS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

SECTION 08-00602-00-BR MACARTHUR ROAD (FAU 7432)
SN 058-6025
STA 10+00.00 MACON COUNTY

HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
184-001397
DECATUR (217) 422-6544 CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050

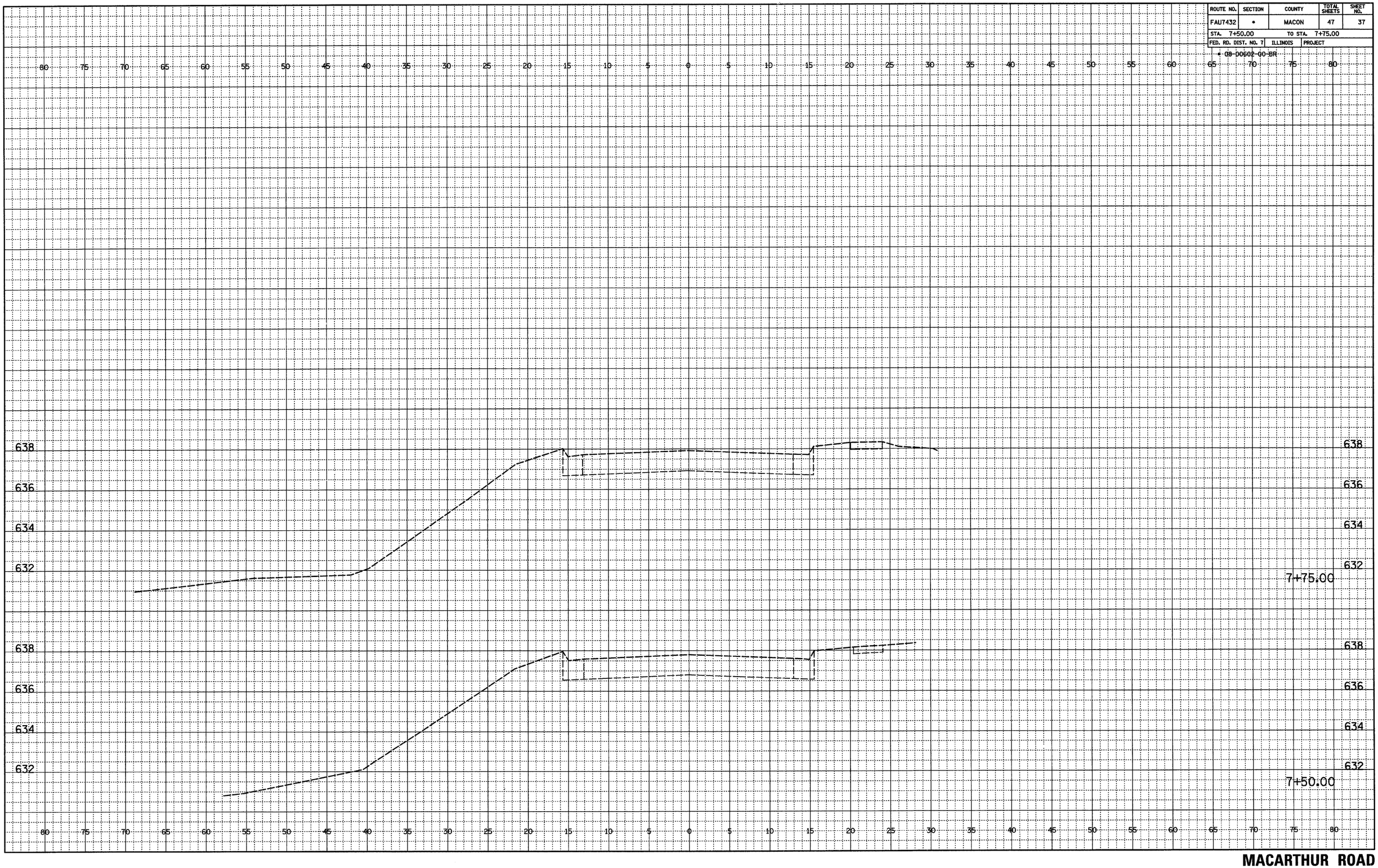
DRAWN BY	DATE
R KING	07/09
CHECKED BY	DATE
JMB	07/09
BOOK NUMBER	486
PROJECT No.	5307
SHEET No.	

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU7432	•	MACON	47	37
STA. 7+50.00		TO STA. 7+75.00		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		
• 08-00602-00-BR				

FINAL
SURVEYED
PLOTTED
NOTEBOOK ALIGNMENT CHECKED
NO.____ PLT. OF MAT CHECKED
BY
DATE

ORIGINAL
SURVEYED
PLOTTED
NOTEBOOK GRADES CHECKED
NO.____ SHTS NUMBERED
STRUCTURE NOTATIONS CHK'D
BY
DATE



MACARTHUR ROAD

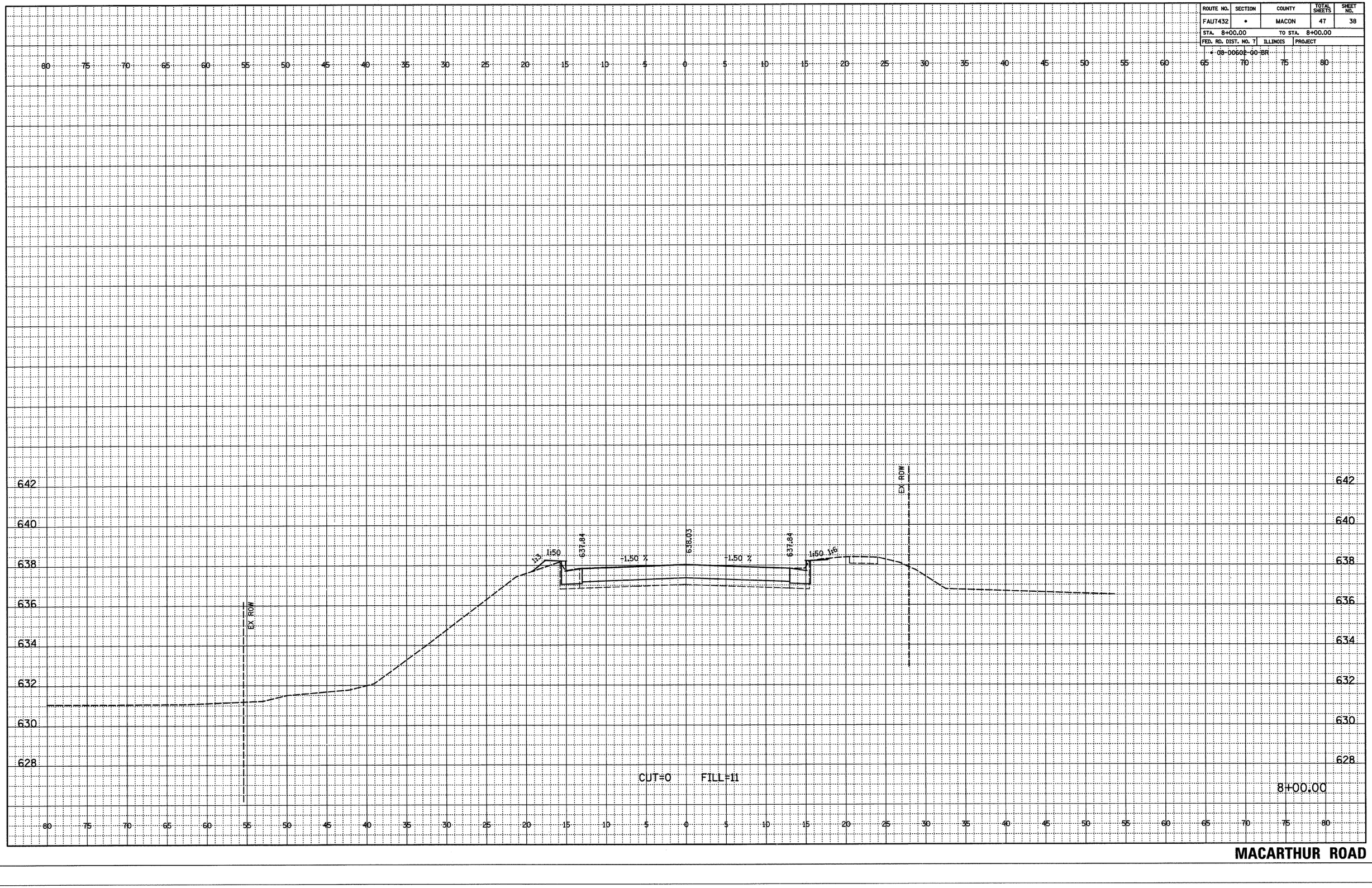
CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAUT432	•	MACON	47	38
STA. 8+00.00		TO STA. 8+00.00		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		

• 08-00602-00-BR

FINAL
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
NOTEBOOK
NO.
BY
DATE

ORIGINAL
SURVEYED
PLOTTED
GRADES CHECKED
SHTS NOTED
STRUCTURE NOTATIONS CHKD
NOTEBOOK
NO.
BY
DATE

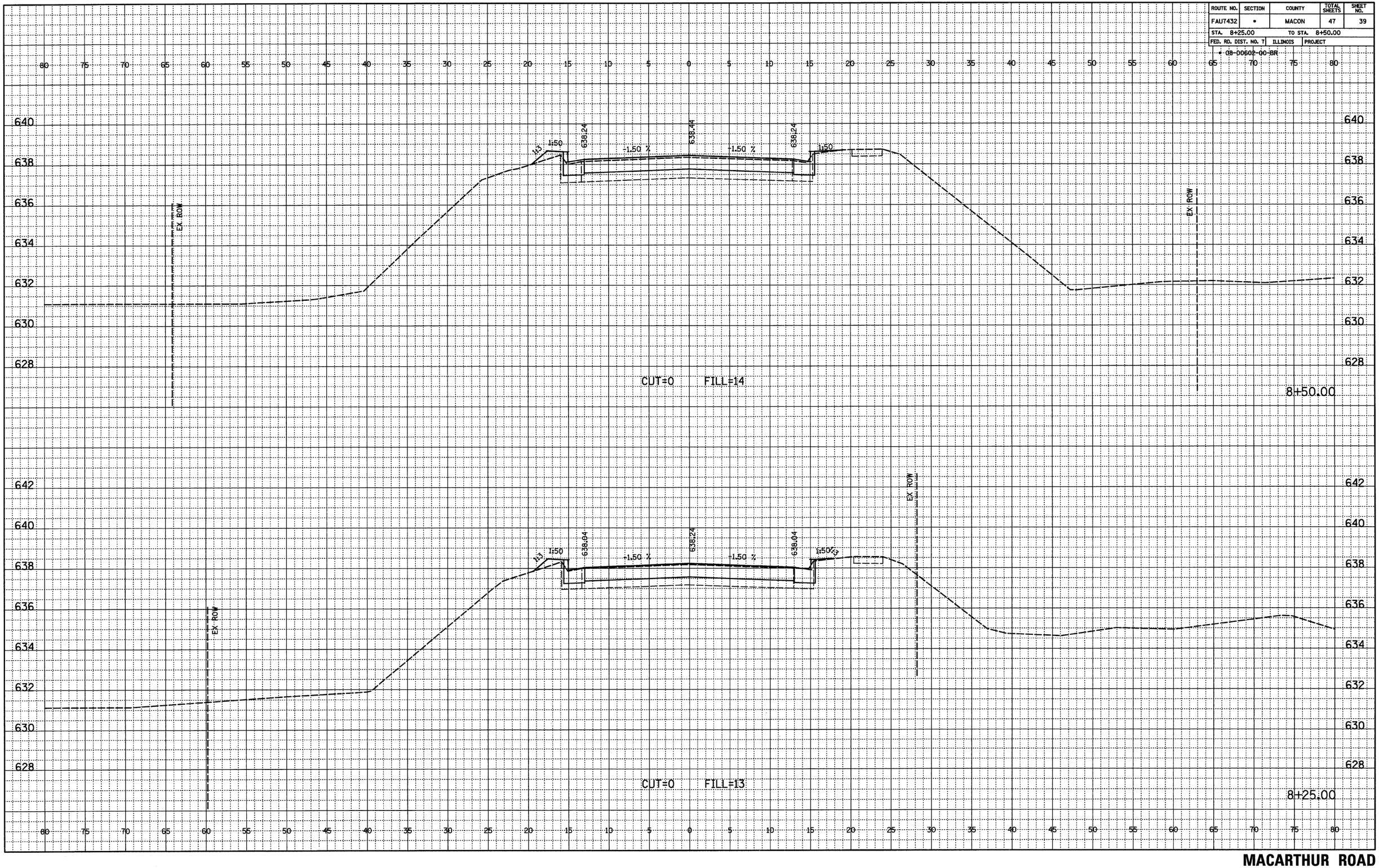


MACARTHUR ROAD

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU7432	*	MACON	47	39
STA. 8+25.00		TO STA. 8+50.00		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		
* 08-00602-00-BR				

FINAL	DATE	BY
SURVEYED		
PLOTTED		
ALIGNMENT CHECKED		
RT. OF WAY CHECKED		
NOTEBOOK NO.		

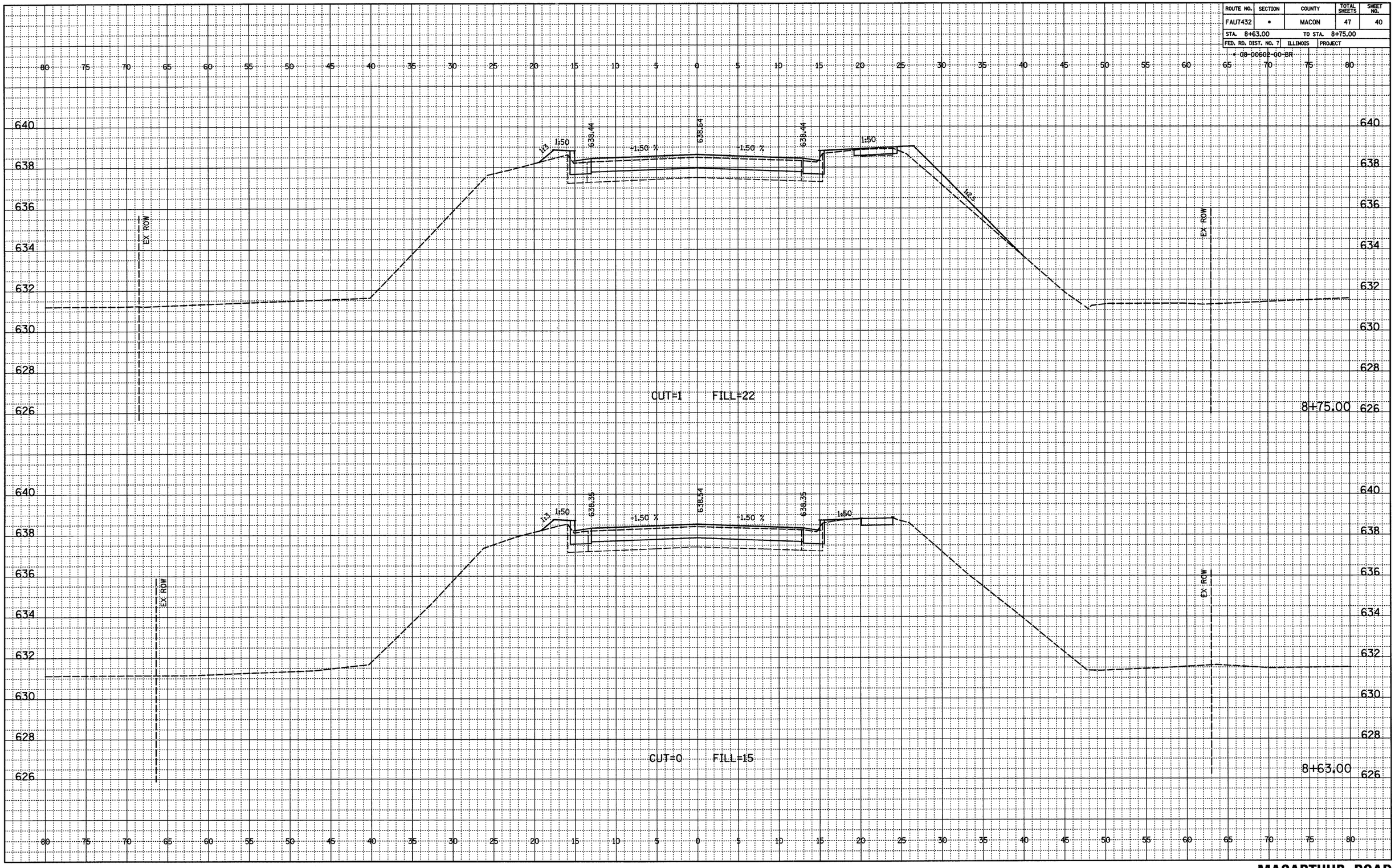


ORIGINAL	DATE	BY
SURVEYED		
PLOTTED		
GRADES CHECKED		
R/W, UTIL. & EASE.		
STRUCTURE NOTATIONS CHK'D		
NOTEBOOK NO.		

MACARTHUR ROAD

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU7432	•	MACON	47	40
STA. 8+63.00		TO STA. 8+75.00		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		
• 08-00602-00-BR				



FINAL
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
NOTEBOOK
NO.
BY
DATE

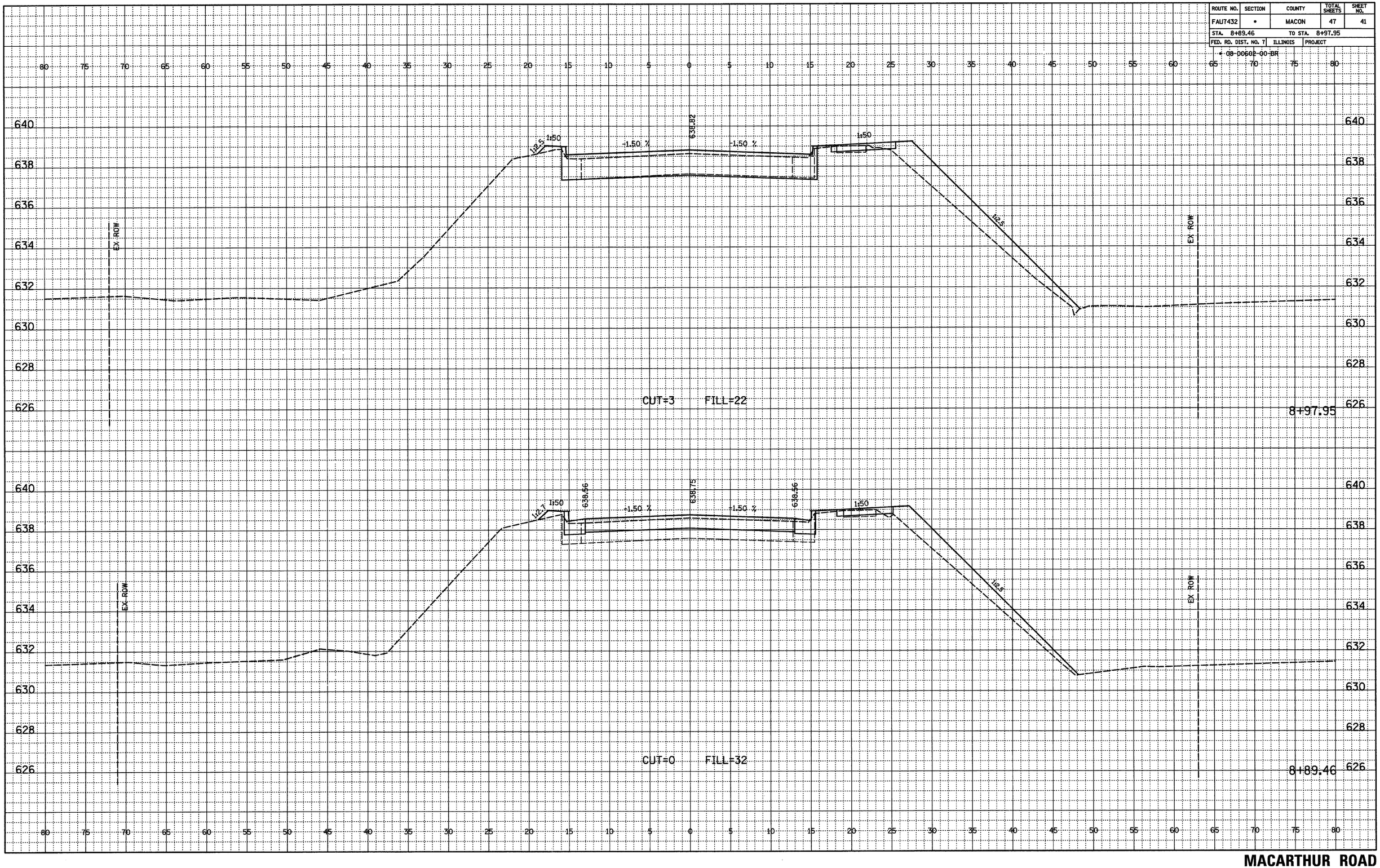
ORIGINAL
SURVEYED
PLOTTED
GRADES CHECKED
SPECIFICATIONS
STRUCTURE NOTATIONS CK'D
NOTEBOOK
NO.
BY
DATE

MACARTHUR ROAD

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU7432	*	MACON	47	41
STA. 8+89.46		TO STA. 8+97.95		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		
* 08-00602-00-BR				

FINAL
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RTL OF WAY CHECKED
NOTEBOOK
NO.
BY
DATE



ORIGINAL
SURVEYED
PLOTTED
GRADES CHECKED
BM'S NOTED
STRUCTURE NOTATIONS CHK'D
NOTEBOOK
NO.
BY
DATE

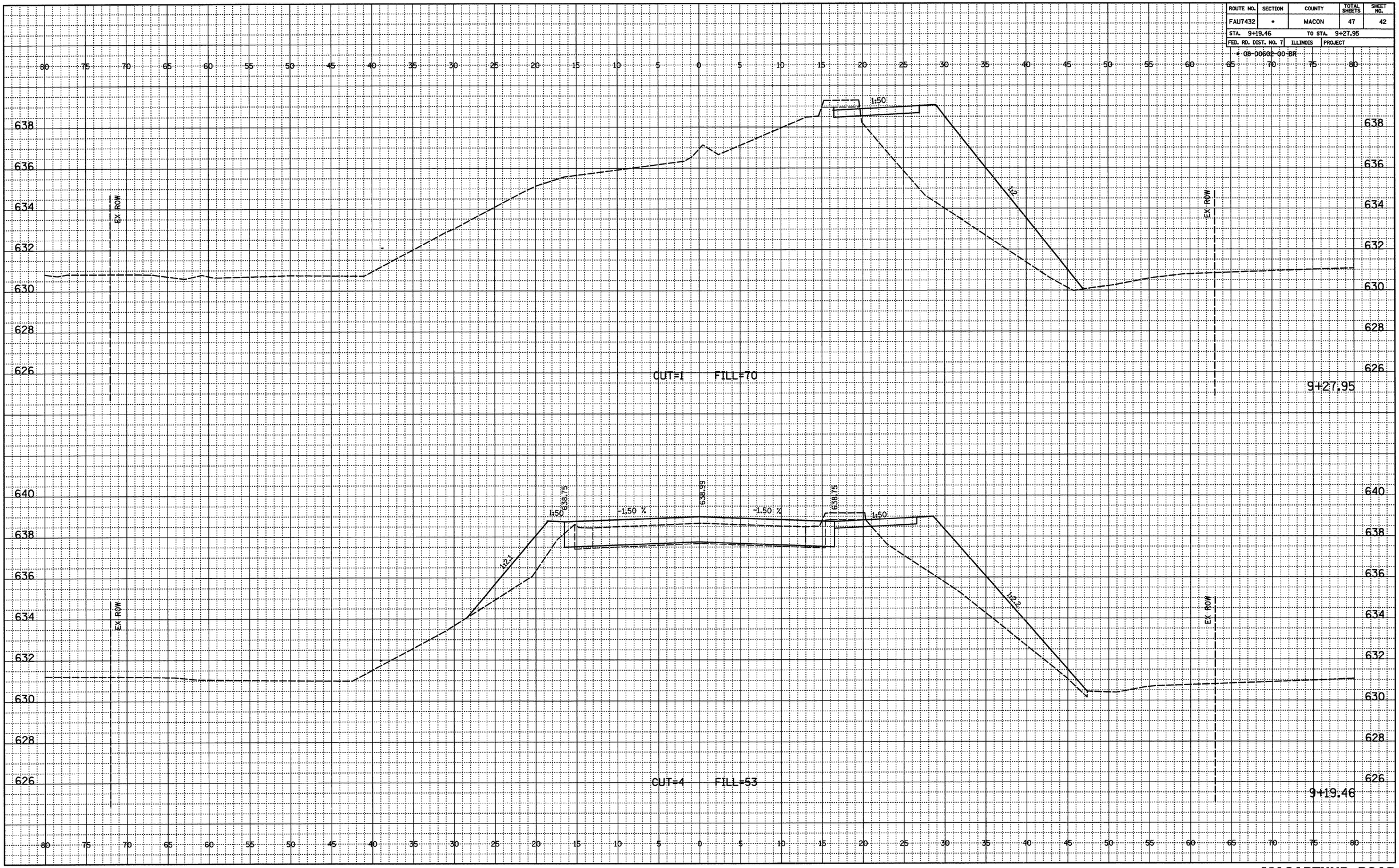
MACARTHUR ROAD

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU7432	*	MACON	47	42
STA. 9+19.46		TO STA. 9+27.95		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		
* 08-00602-00-BR				

FINAL
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
NOTEBOOK NO.____
BY
DATE

ORIGINAL
SURVEYED
PLOTTED
GRADES CHECKED
BM'S NOTED
STRUCTURE NOTATIONS CK'D
NOTEBOOK NO.____
BY
DATE



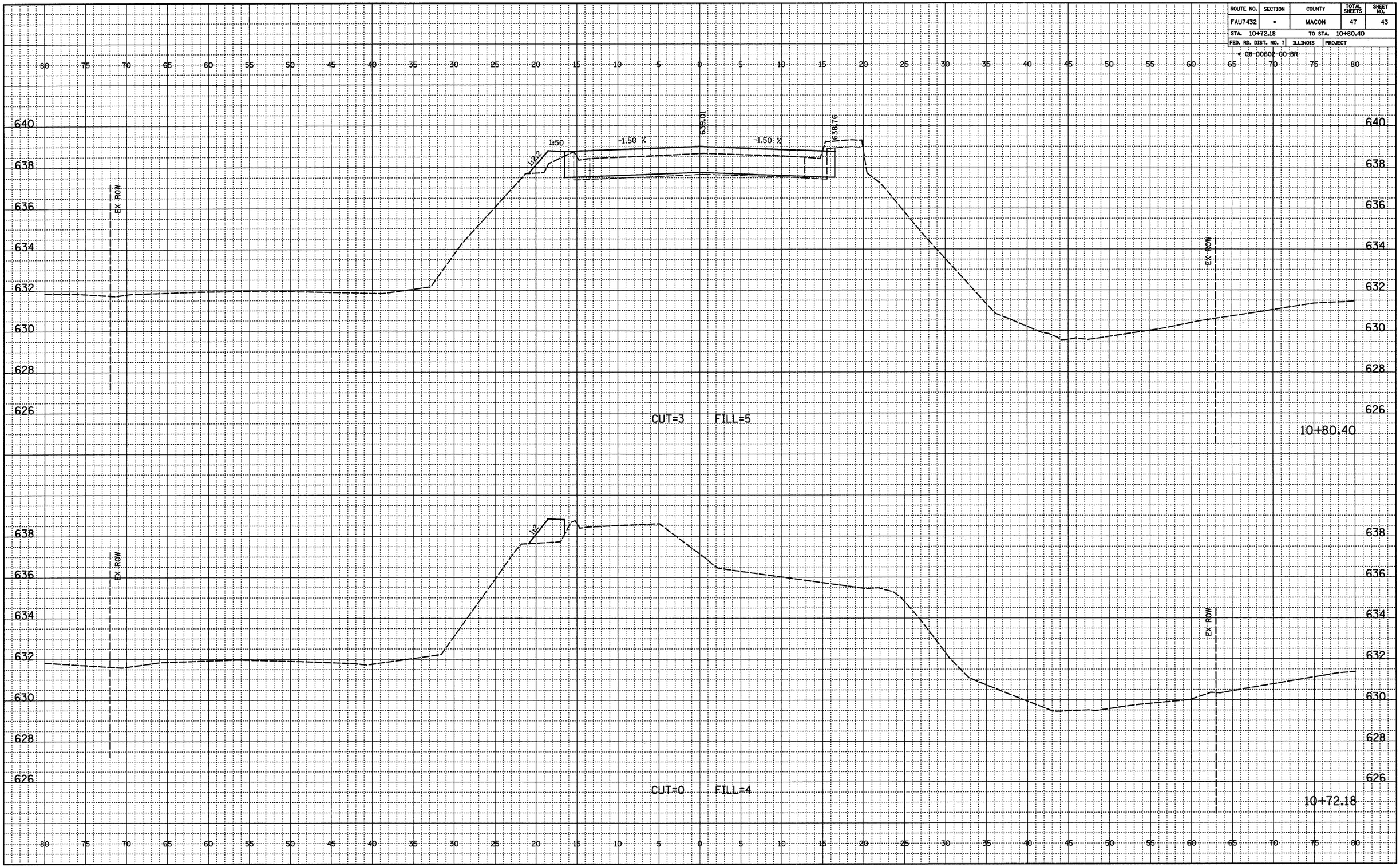
MACARTHUR ROAD

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU7432	*	MACON	47	43
STA. 10+72.18		TO STA. 10+80.40		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		
* 08-00602-00-BR				

FINAL — SURVEYED / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED — NOTEBOOK NO.____ — BY — DATE

ORIGINAL — SURVEYED / PLOTTED / GRADES CHECKED / BRIDGE NO.____ / STRUCTURE NOTATIONS CK'D — NOTEBOOK NO.____ — BY — DATE



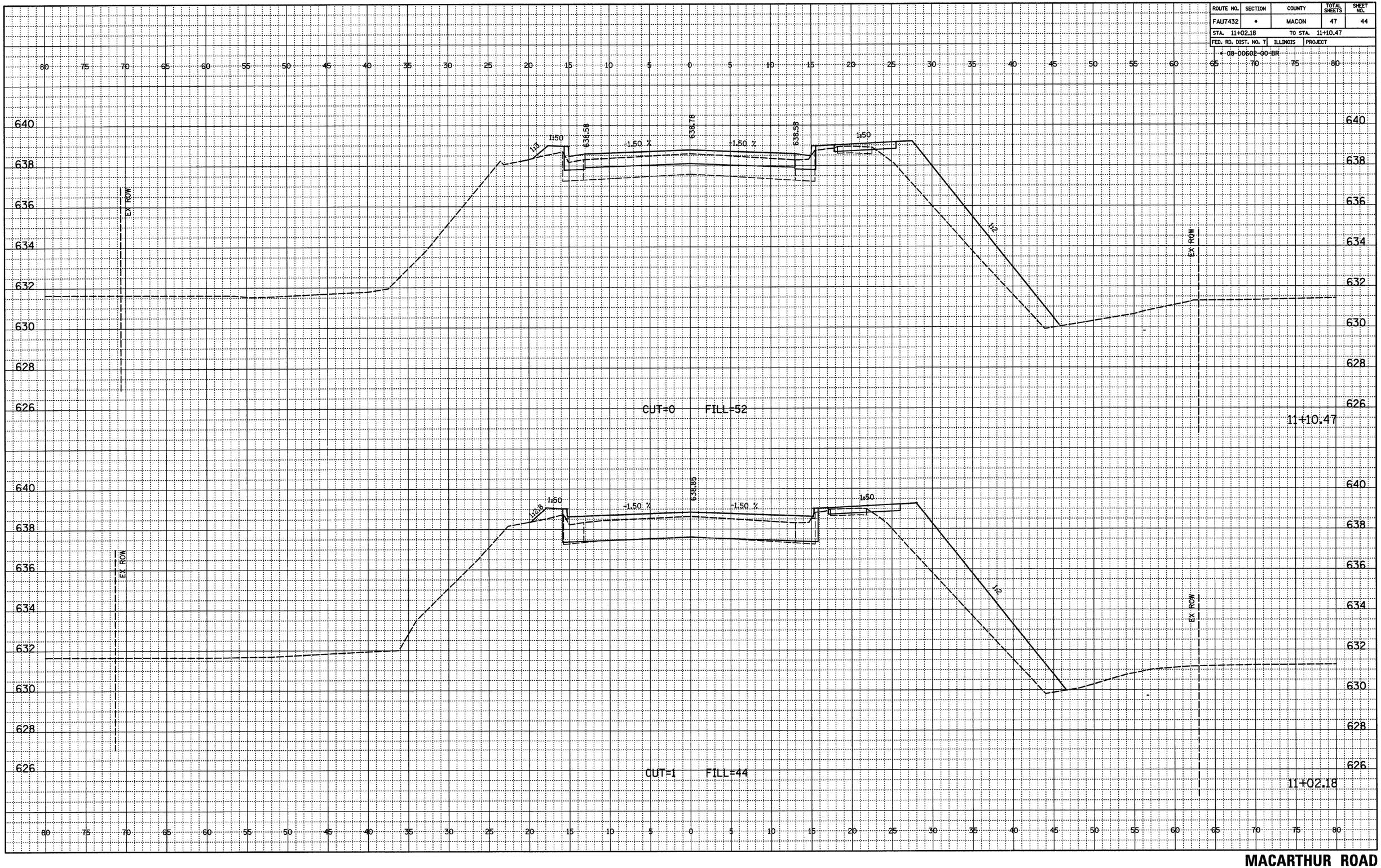
MACARTHUR ROAD

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU7432	*	MACON	47	44
STA. 11+02.18		TO STA. 11+10.47		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		
* 08-00602-00-BR				

FINAL — SURVEYED / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED — NOTEBOOK NO.____ — DATE / BY

ORIGINAL — SURVEYED / PLOTTED / GRADES CHECKED / XSPS INITED / STRUCTURE, NOTATIONS CK'D — NOTEBOOK NO.____ — DATE / BY



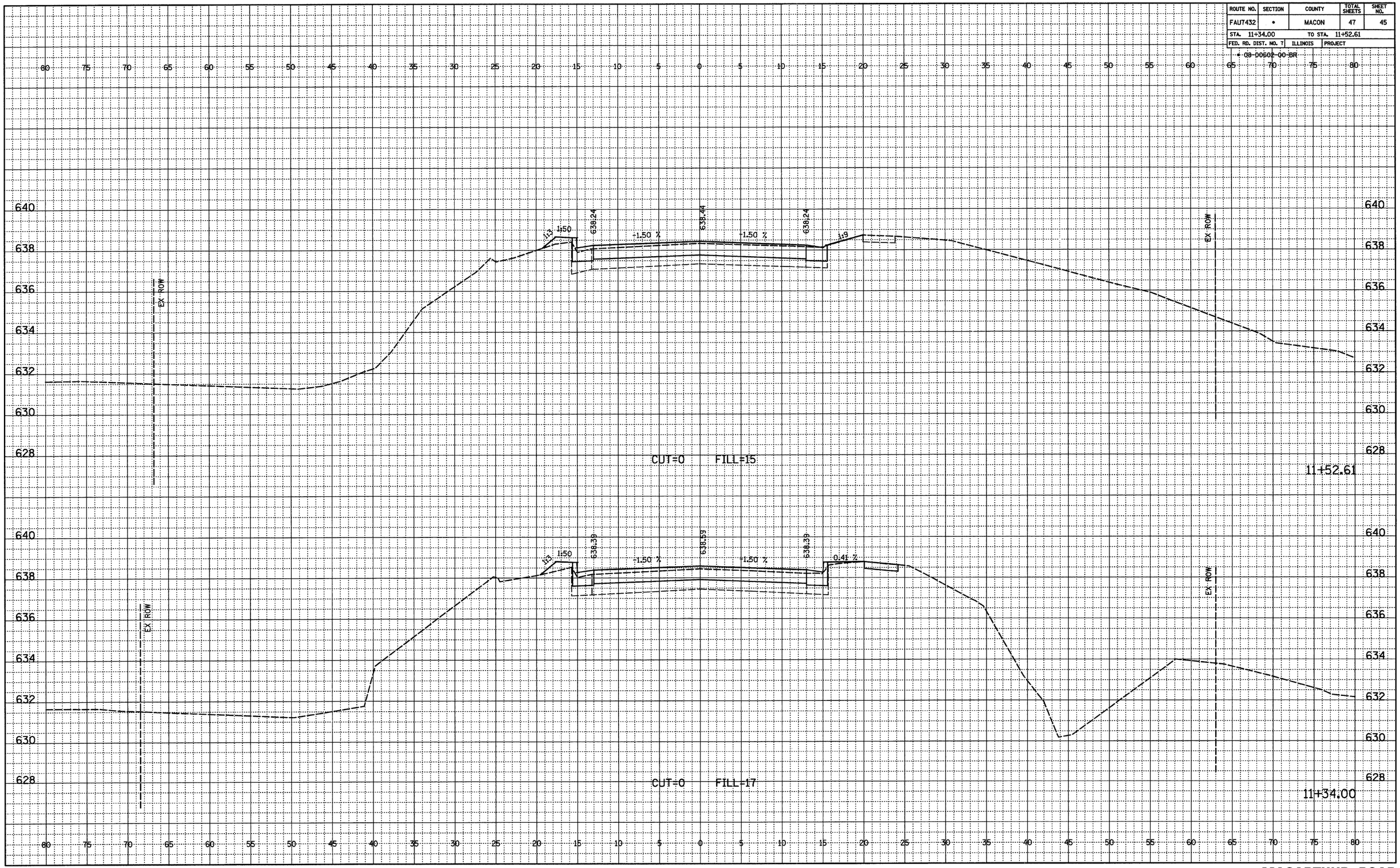
MACARTHUR ROAD

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU7432	*	MACON	47	45
STA. 11+34.00		TO STA. 11+52.61		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		
* 08-00602-00-BR				

FINAL — SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED — NOTEBOOK NO.____ — BY — DATE

ORIGINAL — SURVEYED, PLOTTED, GRADES CHECKED, RT. OF WAY CHECKED, STRUCTURE NOTATIONS CHK'D — NOTEBOOK NO.____ — BY — DATE

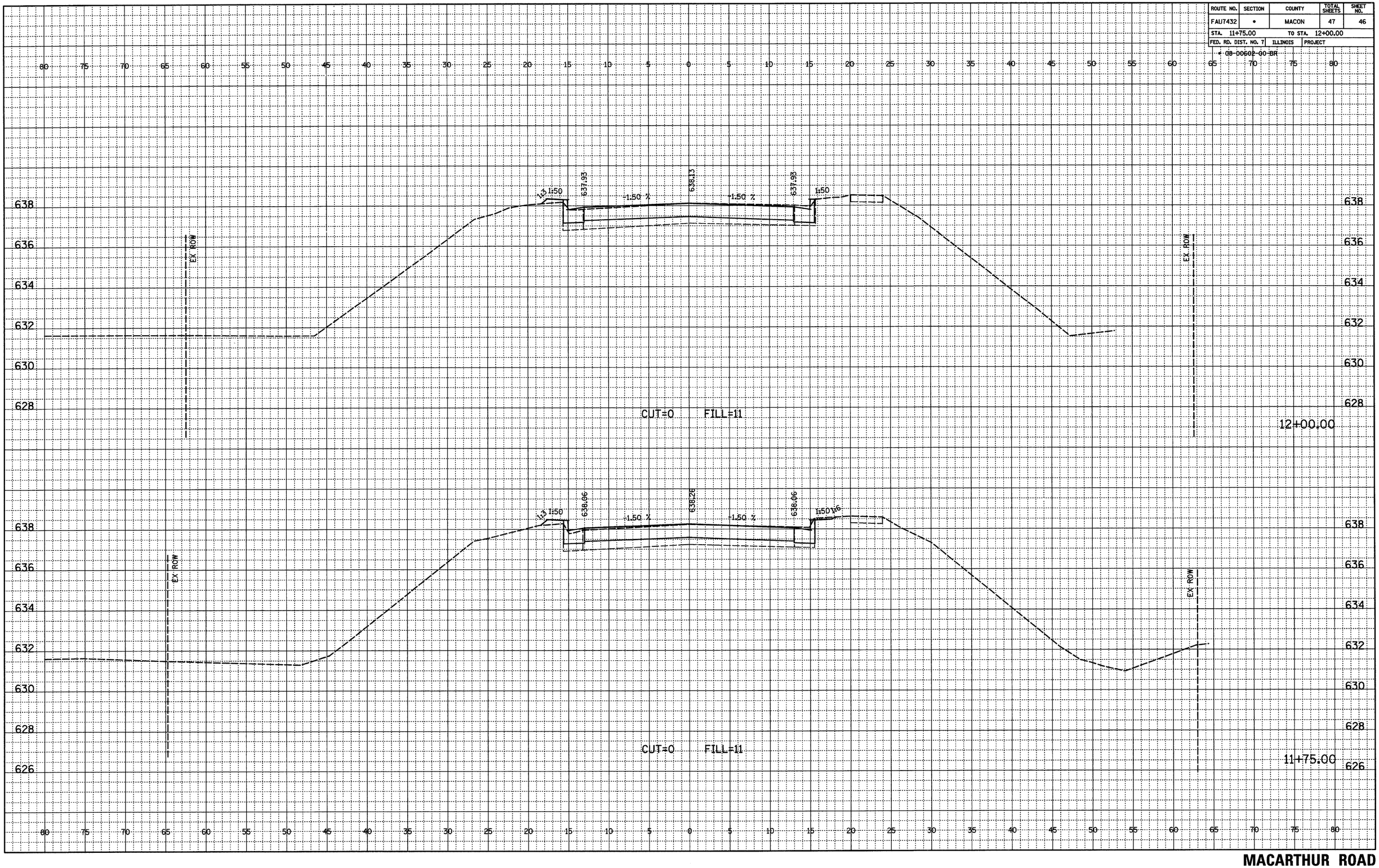


MACARTHUR ROAD

CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU7432	*	MACON	47	46
STA. 11+75.00		TO STA. 12+00.00		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		
* 08-00602-00-BR				

FINAL — SURVEYED / PLOTTED / NOTEBOOK / ALIGNMENT CHECKED / NO. ____ / BY / DATE / RT. OF WAY CHECKED



MACARTHUR ROAD

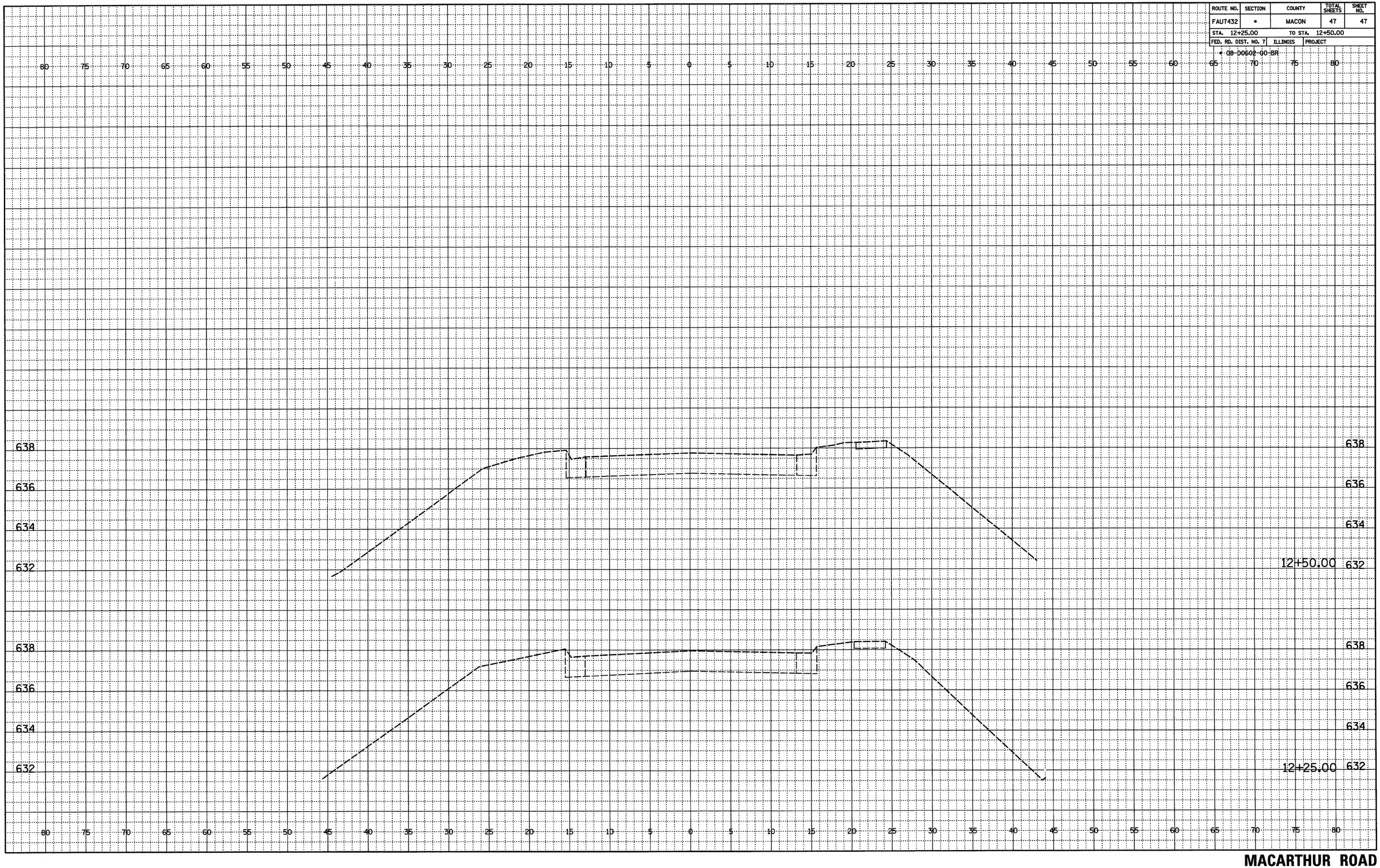
CONTRACT NO. 95608

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU7432	•	MACON	47	47
STA. 12+25.00		TO STA. 12+50.00		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		

• 08-00602-00-BR

FINAL — SURVEYED / PLOTTED / NOTEBOOK / NO.____ / ALIGNMENT CHECKED / PLANS WRITTEN / MT. OF MAT. CHECKED / BY / DATE

ORIGINAL — SURVEYED / PLOTTED / NOTEBOOK / NO.____ / GRADES CHECKED / PLANS WRITTEN / STRUCTURE NOTATIONS CHK'D / BY / DATE



MACARTHUR ROAD