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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
COUNTY R-15 (ELMORE RD.)
PROPOSED STRUCTURE NO. 072-3147
SECTION 08-00092-00-BR
PROJECT BROS-0143(049)
PEORIA COUNTY
C-94-024-09**

Full size plans have been prepared using the standard engineering scales, reduced sized plans will not conform to standard scales, in making measurements on reduced plans, the graphic scales may be used.

STATE STANDARDS

No.	Title
280001-05	Temporary Erosion Control Systems
285001-02	Fabric Formed Concrete Revetment Mats
515001-03	Name Plate for Bridges
60101-01	Concrete Headwall for Pipe Drain
630001-08	Steel Plate Beam Guardrail
630301-05	Shoulder Widening for Type 1 (Special) Guardrail Terminal
631031-08	Traffic Barrier Terminal, Type 6
635006-03	Reflector and Terminal Marker Placement
635011-02	Reflector Marker & Mounting Details
701301-03	Lane Closure 2L, 2W Short Time Operations
701901-01	Traffic Control Devices
BLR 21-8	Typical Application of Traffic Control Devices for Construction on Rural Local Highways
BLR 22-6	Typical Application of Traffic Control Devices for Construction on Rural Local Highways Traffic Barrier

DISTRICT STANDARDS

No.	Title
280001-D4	Typical Application of Silt Filter Fence

J.U.L.I.E. : 811 OR 1-800-892-0123

DESIGNED	P.J.L.
CHECKED	LLV
DRAWN	MGM
CHECKED	P.J.L.

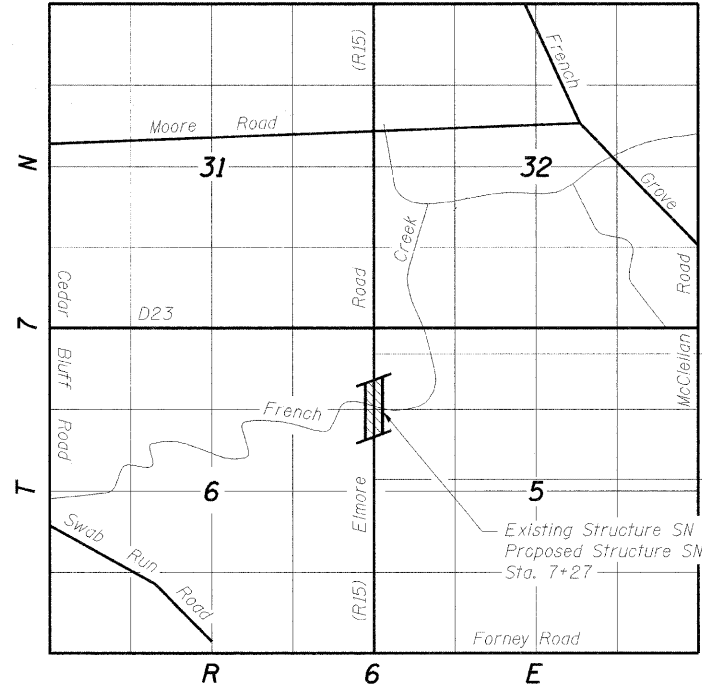
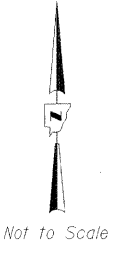
CONTRACT NO. 89510
CATALOG NO. 034168-00D

Phillip J. Lane
Illinois Licensed Professional Engineer No. 34581
Lic. Expires: 11/30/11



QA/QC CONCRETE PROJECT
QA/QC BITUMINOUS PROJECT

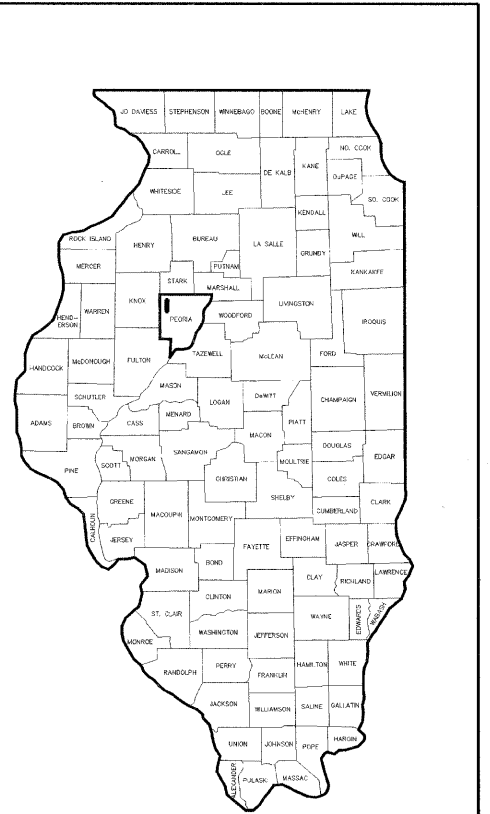
Date



LOCATION MAP
Gross Length of Project = 500 ft. = 0.095 miles
Net Length of Project = 500 ft. = 0.095 miles

DESIGN CLASS: (ELMORE RD.)
Bridge: County Highway w/ ADT = 200
Roadway: County Highway w/ ADT = 200
Design Speed: 55 mph
Functional Classification: Minor Collector
Design Guidelines: Rural

END PROJECT STA. 9+50
BEGIN PROJECT STA. 4+50
Existing Structure SN 072-3016
Proposed Structure SN 072-3147
Sta. 7+27



LOCATION OF SECTION INDICATED THUS: —

Approved: December 7 2009
Thomas J. McFarland
County Engineer

Passed: 02/25 2010
[Signature]
District Engineer of Local Roads & Streets

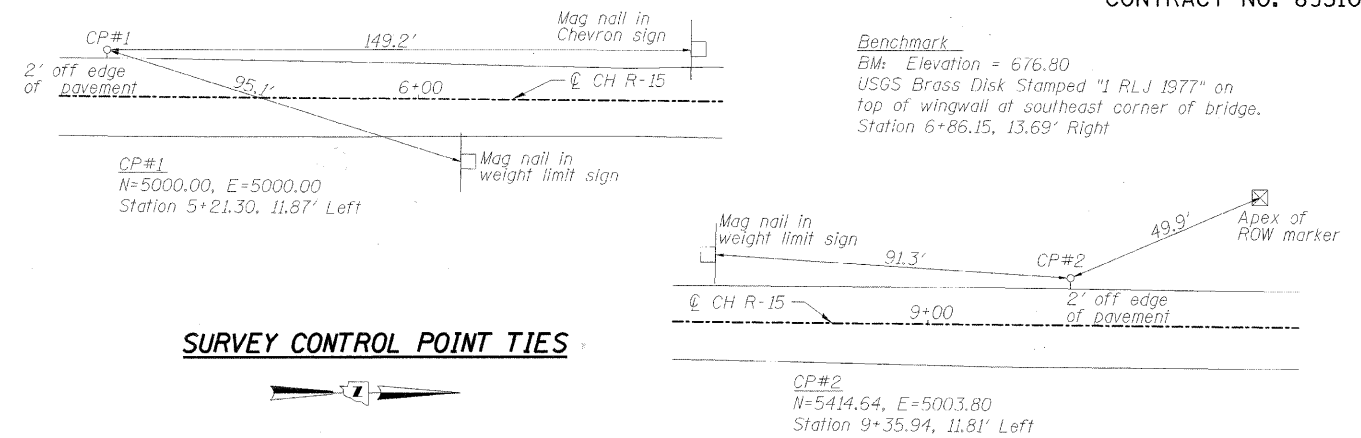
Releasing for Bid Based on Limited Review: 2/26 2010
Joseph E. Cronwell
Deputy Director of Highways,
Region Three Engineer
State of Illinois
Department of Transportation

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IL Design Firm Reg.
No. 184-001518
www.aecom.com

HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	1
STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	BROS-0143(049)	

SUMMARY OF QUANTITIES

PAY CODE	DESCRIPTION	UNIT	Tot. Project	Roadway	Bridge
20200100	EARTH EXCAVATION	CU YD	485	485	
20400800	FURNISHED EXCAVATION	CU YD	546	546	
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	200		200
21101505	TOPSOIL EXCAVATION & PLACEMENT	CU YD	189	189	
25000300	SEEDING, CLASS 3	ACRE	0.44	0.44	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	40	40	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	40	40	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	40	40	
25100630	EROSION CONTROL BLANKET	SQ YD	2130	2130	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	200	200	
28000400	PERIMETER EROSION BARRIER	FOOT	1125	1125	
28500100	FABRIC FORMED CONCRETE REVETMENT MAT	SQ YD	860		860
35101100	AGGREGATE BASE COURSE, TYPE A 12"	SQ YD	981	981	
40600115	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	GALLON	415	415	
40603100	HOT-MIX ASPHALT BINDER COURSE, IL-19.0L, N30	TON	105	105	
40603305	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N30	TON	93	93	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	50.4		50.4
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	513	513	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50104650	SLOPE WALL REMOVAL	SQ YD	280		280
50200100	STRUCTURE EXCAVATION	CU YD	388		388
50300100	FLOOR DRAINS	EACH	12		12
50300225	CONCRETE STRUCTURES	CU YD	65.0		65.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	282.6		282.6
50300260	BRIDGE DECK GROOVING	SQ YD	601		601
50300280	CONCRETE ENCASEMENT	CU YD	5.6		5.6
50300300	PROTECTIVE COAT	SQ YD	771		771
50401105	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 54 IN.	FOOT	681		681
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	64,030		64,030
50800515	BAR SPLICERS	EACH	76		76
51201600	FURNISHING STEEL PILES HP12X53	FOOT	735		735
51202305	DRIVING PILES	FOOT	735		735
51203600	TEST PILE STEEL HP12X53	EACH	2		2
51500100	NAME PLATES	EACH	1		1
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	98		98
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	4		4
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	164		164
* 63000003	STEEL PLATE BEAM GUARD RAIL, TYPE A, 9 FOOT POSTS	FOOT	50	50	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100167	TRAFFIC BARRIER TERMINAL TYPE I, SPECIAL (TANGENT)	EACH	4	4	
66411900	TEMPORARY FENCE	FOOT	395	395	
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	4	4	
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	7		7
67100100	MOBILIZATION	L. SUM	1		1
70101700	TRAFFIC CONTROL AND PROTECTION	L. SUM	1		1
* 78200100	MONODIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	22	10	12
* 78201500	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
XX000714	FENCE TO BE REMOVED AND RE-ERECTED	FOOT	397	397	
Z0013798	CONSTRUCTION-LAYOUT	L. SUM	1		1
△ Z0014600	TRAINNEES	Hour	500		



UTILITY COMPANIES

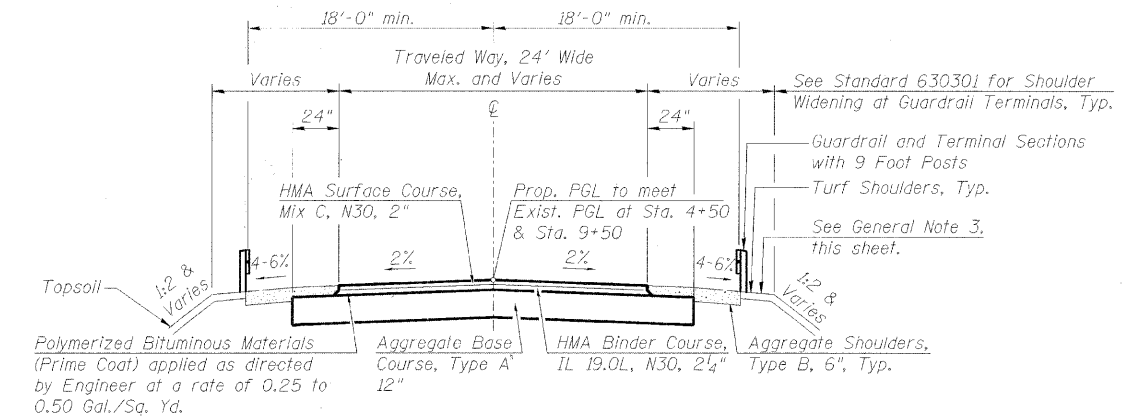
Telephone
Verizon Communications
Terry Spurgeon
111 S. Main St.
Kewanee, IL 61443
Ph.: 309-853-6293

Electric
Ameren/CILCO
Sue Salrin
Electric Engineering Specialist
Ph.: 309-693-4726

Cable
Comcast Communications
Kirk Boyd
3517 N. Dries Lane
Peoria, IL 61604
Ph.: 309-686-2633

GENERAL NOTES

- All work shall be in conformance with applicable sections of the Illinois Department of Transportation's "Standard Specifications for Road and Bridge Construction" adopted January 1, 2007 and Supplemental Specifications adopted January 1, 2010.
- The Contractor shall be responsible for locating and protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. The JULIE number is 811 or 800-892-0123.
- The final top four inches of soil in any area disturbed by the contractor must be a cohesive topsoil capable of supporting vegetation.
- A nationwide 404 permit has been obtained for this project and the conditions of that permit must be adhered to.



HMA MIX DESIGN

AC/PG:	HMA Surface	HMA Binder
RAP % (Max):	PG64-22	PG64-22
Design Air Voids:	30%	30%
Mixture Composition:	4.0% @ N=30	4.0% @ N=30
Friction Aggregate	IL 9.5 or 12.5	IL 19.0 L
Quantity	Mixture C	N/A
	93 Tons	105 Tons

**If the RAP option is selected, the asphalt cement grade may need to be adjusted; this will be determined by the Engineer.

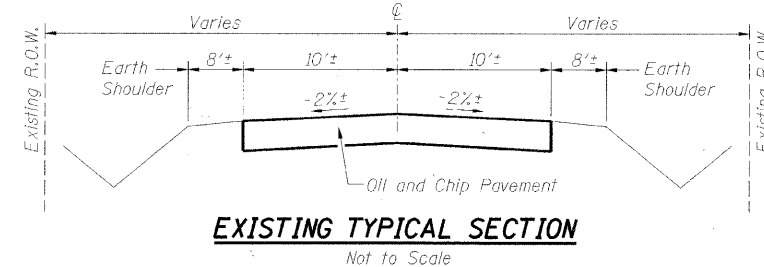
PROPOSED TYPICAL SECTION

Sta. 4+50 to South end of South Bridge Approach Slab Sta. 6+47.5;
North end of North Bridge Approach Slab Sta. 8+06.5 to Sta. 9+50

**SUMMARY OF QUANTITIES, GENERAL NOTES & DETAILS
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

* SPECIALTY ITEMS
△ Y080

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

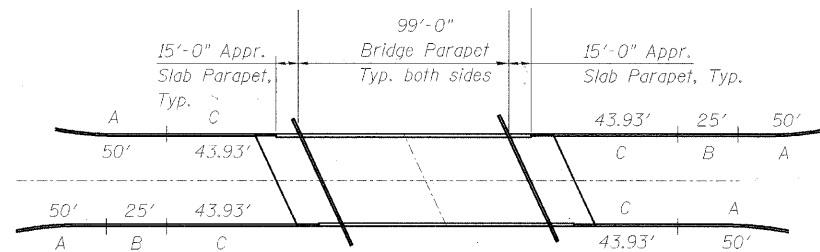


AECOM 111 NE Jefferson Ave. Peoria, Illinois 61602 Ph: 309.676.8464 Fax: 309.676.5445 IL Design Firm Reg. No. 184-001518 www.aecom.com	HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	R-15	08-00092-00-BR	PEORIA	32	2
	STRUCTURE NO. 072-3147		STATION 7+27		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BROS-0143(049)

GUARDRAIL & RELATED ITEMS

Location	Offset	Traffic Barrier Terminal, Type 1, Special (Ea.) Std. 630301	Monodirectional Prismatic Barrier Reflector (Ea.)	Steel Plate Beam Guardrail, Type A, 9 Foot Posts (Foot) Std. 630001	Traffic Barrier Terminal, Type 6 (Ea.) Std. 631031	Terminal Marker Direct Applied (Ea.) Std. 635006
		A		B	C	
A South of Bridge	Right	1				1
B South of Bridge	Right		3	25	1	
C South of Bridge	Right					
A South of Bridge	Left	1				1
C South of Bridge	Left		2		1	
C North of Bridge	Right		2		1	
A North of Bridge	Right	1				1
C North of Bridge	Left		3		1	
B North of Bridge	Left			25		
A North of Bridge	Left	1				1
Total		4	10	50	4	4

- 1.) See Sht. 14 of 32 for Bridge & Approach Slab Parapets
- 2.) Monodirectional Reflectors spaced at 25 ft. O.C. except none on the Traffic Barrier Terminal, Type 1 Special (Tangent).
- 3.) All Guardrail, including Terminal Sections, shall have 9 ft. Posts. See Special Provisions.



GUARDRAIL LAYOUT



SEEDING & RELATED ITEMS SUMMARY

Location (Offset)	Seeding Class 3 (Acres)	Erosion Control Blanket (Sq. Yd.)	Nitrogen Fertilizer Nutrient (Pound) ***	Phosphorus Fertilizer Nutrient (Pound) ***	Potassium Fertilizer Nutrient (Pound) ***	Temporary Erosion Control Seeding (Pound)
SW: Lt. Sta. 4+50 to Back South Abutment	0.17	823	15.3	15.3	15.3	80
SE: Rt. Sta. 4+50 to Back South Abutment	0.10	484	9.0	9.0	9.0	40
NW: Lt. Back North Abutment to Sta. 9+50	0.08	387	7.2	7.2	7.2	40
NE: Rt. Back North Abutment to Sta. 9+50	0.09	436	8.1	8.1	8.1	40
Total	0.44	2130	39.6	39.6	39.6	200

1. Nutrient Application Rate: 1:1:1 at 270 lbs./acre (90 #/acre Each Nutrient) ***
2. Erosion Control Blanket shall be knitted straw only
3. The Contractor shall restore all vegetated areas disturbed by his activities. As an allowance for payment, the seeding areas shown are measured from the outside edge of aggregate shoulders or proposed revegetation mats to proposed temporary easement limits from Sta. 4+50 to Sta. 9+50 exclusive of stream channel. Restoration of surfaces beyond these limits will not be measured for payment, but shall be at the Contractor's expense.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

RIGHT-OF-WAY MARKERS

Type	Location	Quantity (Foot)
Furnishing and Erecting Right-of-Way Markers	Lt. Sta. 4+50 to Sta. 6+50	4 Each

EARTHWORK SUMMARY

Location	Earth Excavation (Cu. Yd.)	Earth Excavation Adjusted for Shrinkage (Cu. Yd.)	Embankment (Cu. Yd.)	Balance: Furnished Excavation (Cu. Yd.)	Topsoil Excavation & Placement (Cu. Yd.)
4+50 to 5+00	63.8	47.9	41.8	+6.1	12.9
5+00 to 5+50	70.1	52.5	164.6	-112.0	34.2
5+50 to 6+00	71.8	53.8	183.1	-129.3	34.7
6+00 to 6+50	68.2	51.2	126.7	-75.5	23.0
6+50 to 7+00	32.8	24.6	66.4	-41.8	9.6
7+00 to 7+50	0.00	0.00	0.00	0.00	0.00
7+50 to 8+00	21.6	16.2	70.6	-51.1	13.0
8+00 to 8+50	43.1	32.3	107.5	-75.2	23.8
8+50 to 9+00	51.1	38.3	92.8	-54.4	24.1
9+00 to 9+50	62.3	46.7	55.8	-9.1	13.3
Total	484.8	363.6	909.3	-545.6	188.6

Shrinkage Factor = 0.25

- 1.) Contractor shall properly dispose of excess excavated material and all construction debris.
- 2.) Channel excavation and excavation and/or fill required for the Fabric Formed Concrete Revegetation Mats will not be measured or paid for separately but will be included in the contract unit price per square yard for the Revegetation Mats.
- 3.) See "Slope Steps Detail" for sidehill treatment. Excavation and filling for slope steps are not measured for payment.

AGGREGATE BASE COURSE, TYPE A 12"

Location	Quantity (Sq. Yd.)
Sta. 4+50 to South end Appr. Slab	586
North end Appr. Slab to Sta. 9+50	395
Total	981

AGGREGATE SHOULDERS, TYPE B 6"

Location	Quantity (Sq. Yd.)
SW: Lt. Sta. 4+50 to S. End Appr. Slab	133
SE: Rt. Sta. 4+50 to S. End Appr. Slab	149
NW: Lt. N. End Appr. Slab to Sta. 9+50	129
NE: Rt. N. End Appr. Slab to Sta. 9+50	102
Total	513

Aggregate Shoulders are placed from edge of pavement to face of guardrail or its extended lines.

FENCE

Type	Location	Quantity (Foot)
Fence to be Removed and Re-Erected	Remove Existing Fence Lt. Sta. 4+50 to 8+25 and Reset Along Limits of Existing and Additional ROW	397
Temporary Fence	Set Along Limits of Temporary Easement Lt. Sta. 4+50 to 8+25	395

**QUANTITIES NOT OTHERWISE SHOWN
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

AECOM 111 NE Jefferson Ave. Peoria, Illinois 61602 Ph: 309.676.8464 Fax: 309.676.5445 IL Design Firm Reg. No. 184-001518 www.aecom.com	HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	R-15	08-00092-00-BR	PEORIA	32	3
	STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BROS-0143(049)					

LEGEND

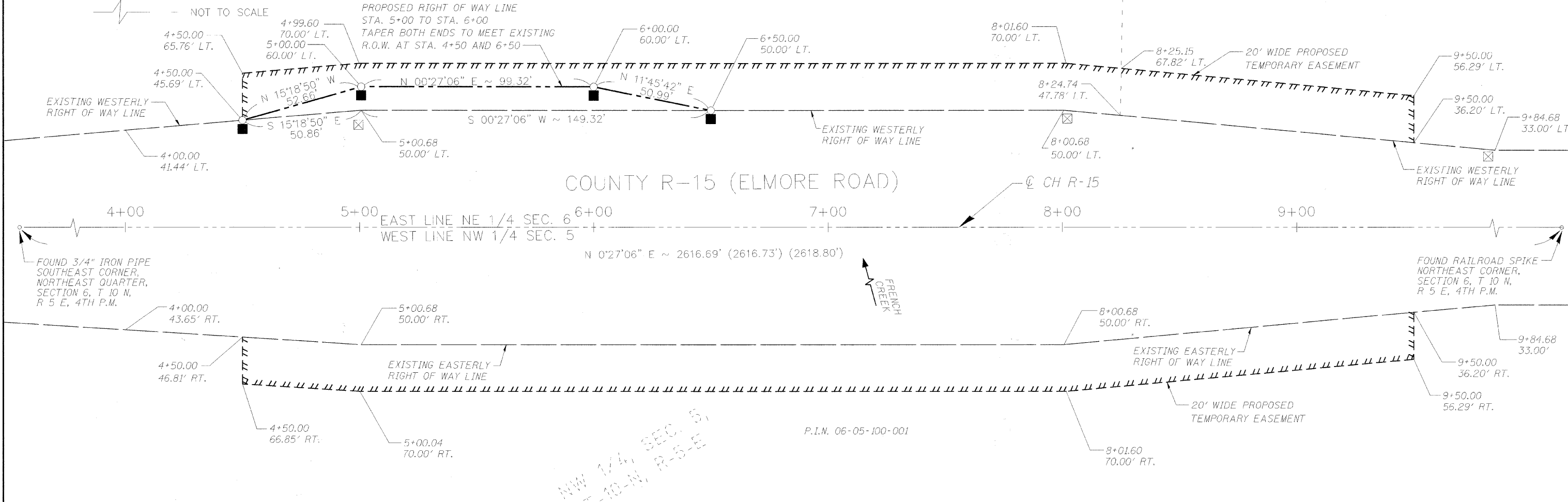
- — SET 1/2" IRON ROD
- — SET RIGHT OF WAY MARKER
- — FOUND IRON PIPE/RR SPIKE
- ⊠ — FOUND RIGHT OF WAY MARKER
- (N 89°13'05" E) — RECORD BEARING
- (2647.30') — RECORD DISTANCE
- N 89°13'05" E — MEASURED BEARING
- 2647.41' — MEASURED DISTANCE
- P.O.C. — POINT OF COMMENCING
- P.O.B. — POINT OF BEGINNING
- PROPOSED RIGHT OF WAY LINE
- ||||| PROPOSED TEMPORARY EASEMENT LINE
- EXISTING RIGHT OF WAY LINE
- - - - - ADJACENT PROPERTY LINE
- SECTION LINE
- NOT TO SCALE

NOTE: NEW RIGHT OF WAY MARKERS SHALL BE SET IN FRONT OF THE 1/2" IRON ROD. WITHOUT DISTURBING THE IRON RODS.

NE 1/4 SEC. 6,
T-10-N, R-5-E

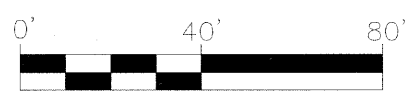
P.I.N. 06-06-200-004

P.I.N. 06-06-200-005



NW 1/4 SEC. 5,
T-10-N, R-5-E

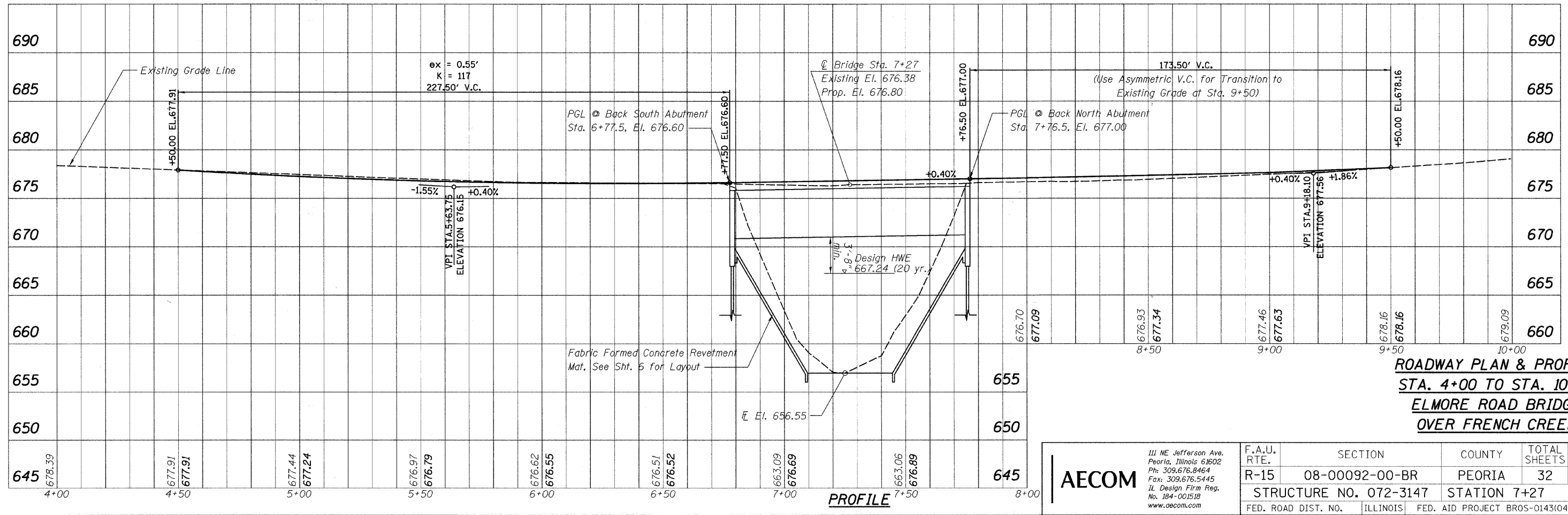
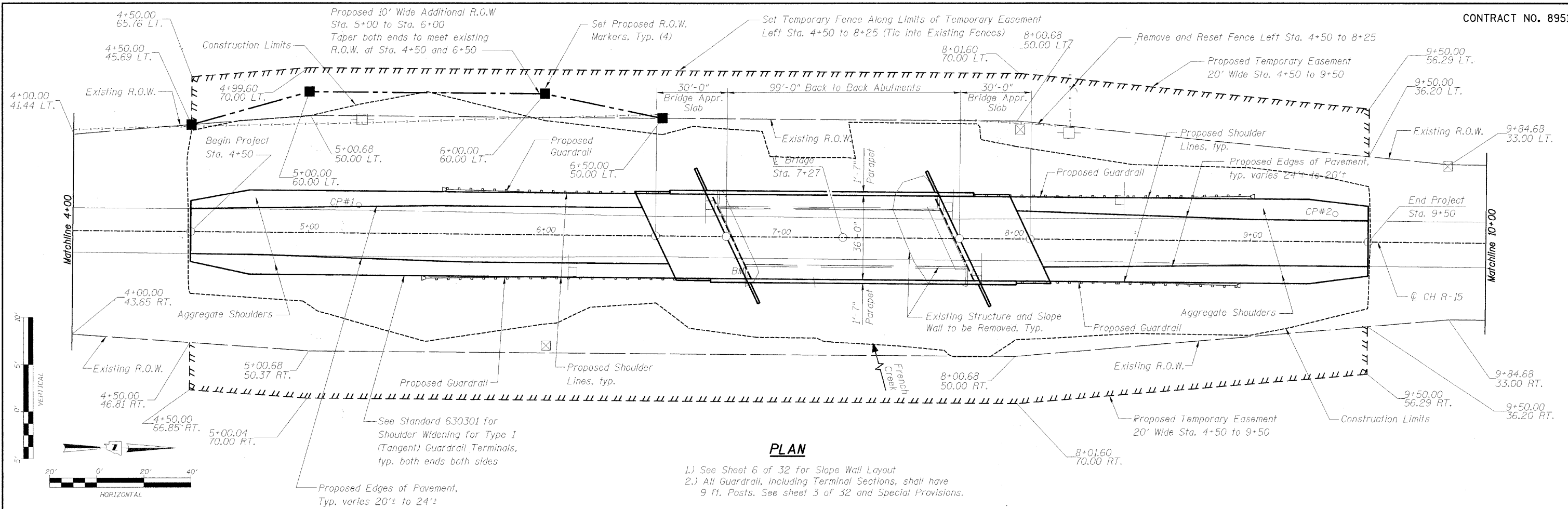
P.I.N. 06-05-100-001



**RIGHT OF WAY AND
TEMPORARY EASEMENT PLAN**

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	R-15	08-00092-00-BR	PEORIA	32	4		
	STRUCTURE NO. 072-3147		FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT BR05-0143(049)				

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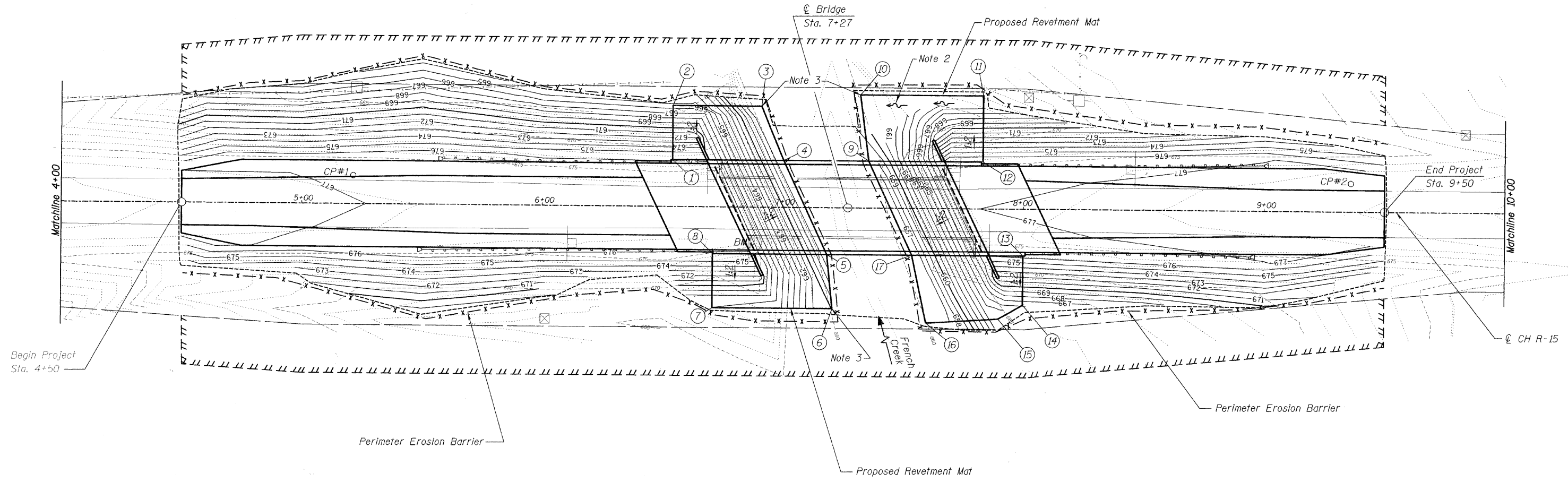
**ROADWAY PLAN & PROFILE
 STA. 4+00 TO STA. 10+00
 ELMORE ROAD BRIDGE
 OVER FRENCH CREEK**



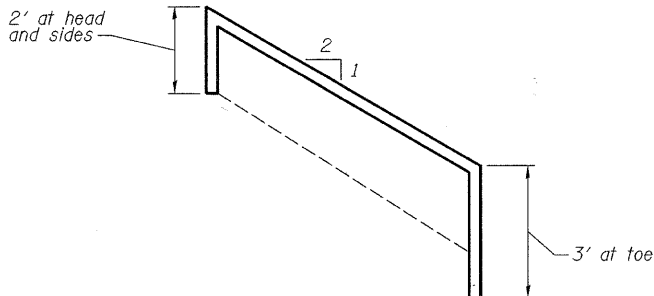
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 Ph: 309.676.8464
 Fax: 309.676.5445
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 No. 184-001518
 www.aecom.com

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	5
STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT BROS-0143(049)		

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PLAN
Showing Revetment Mat, with Existing and Proposed Contours and Erosion Control Plan



REVETMENT MAT TYPICAL TOE WALLS

- Notes:
- 1.) Slopes indicated thus vertical : horizontal
 - 2.) Grade ditch outlet to drain (IV:3H backslope).
 - 3.) Transition ends to meet existing stream.
 - 4.) Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

South Slope Wall

Point	Station	Offset
1	6+54.1	19.58' Lt.
2	6+54.1	42.00' Lt.
3	6+91.0	42.00' Lt.
4	7+00.3	19.58' Lt.
5	7+18.4	19.58' Rt.
6	7+20.7	42.00' Rt.
7	6+70.9	42.00' Rt.
8	6+70.9	19.58' Rt.

North Slope Wall

Point	Station	Offset
9	7+35.6	19.58' Lt.
10	7+32.0	47.00' Lt.
11	7+83.1	47.00' Lt.
12	7+83.1	19.58' Lt.
13	7+99.9	19.58' Rt.
14	7+99.9	40.00' Rt.
15	7+89.6	45.76' Rt.
16	7+59.7	47.64' Rt.
17	7+53.7	19.58' Rt.

BILL OF MATERIAL

Fabric Formed Concrete Revetment Mat	Sq. Yd.	860
Perimeter Erosion Barrier	Foot	1125

See Sht. 3 of 32 for Seeding and Related Items

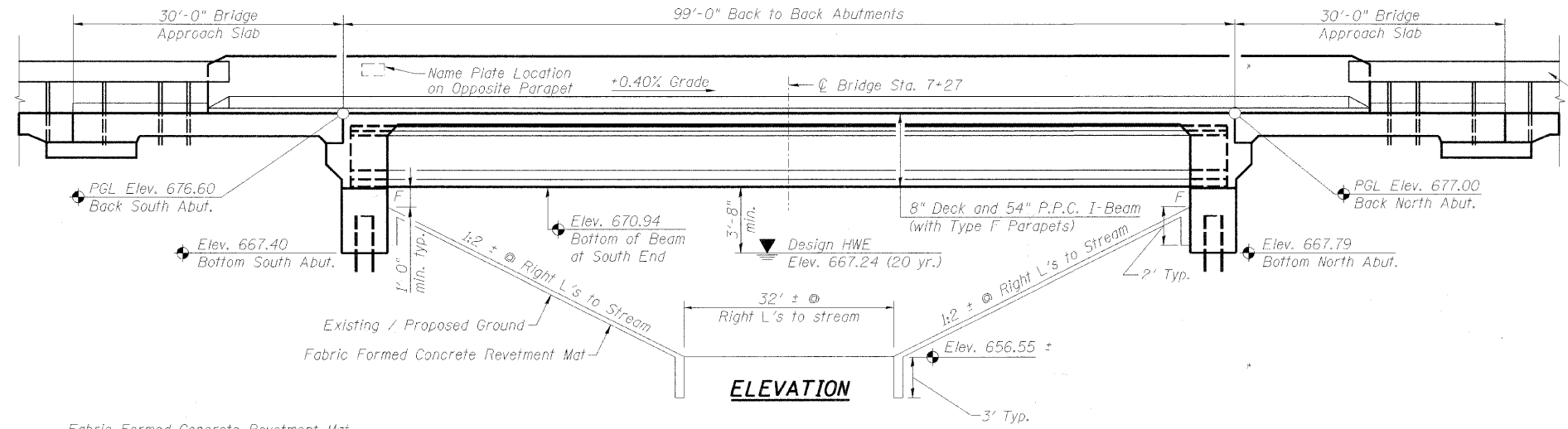
**REVETMENT MAT LAYOUT AND EROSION CONTROL PLAN
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

AECOM 111 NE Jefferson Ave. Peoria, Illinois 61602 Ph: 309.676.8464 Fax: 309.676.5445 IL Design Firm Reg. No. 184-001518 www.aecom.com	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	R-15	08-00092-00-BR	PEORIA	32	6
	STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT BROS-0143(049)		

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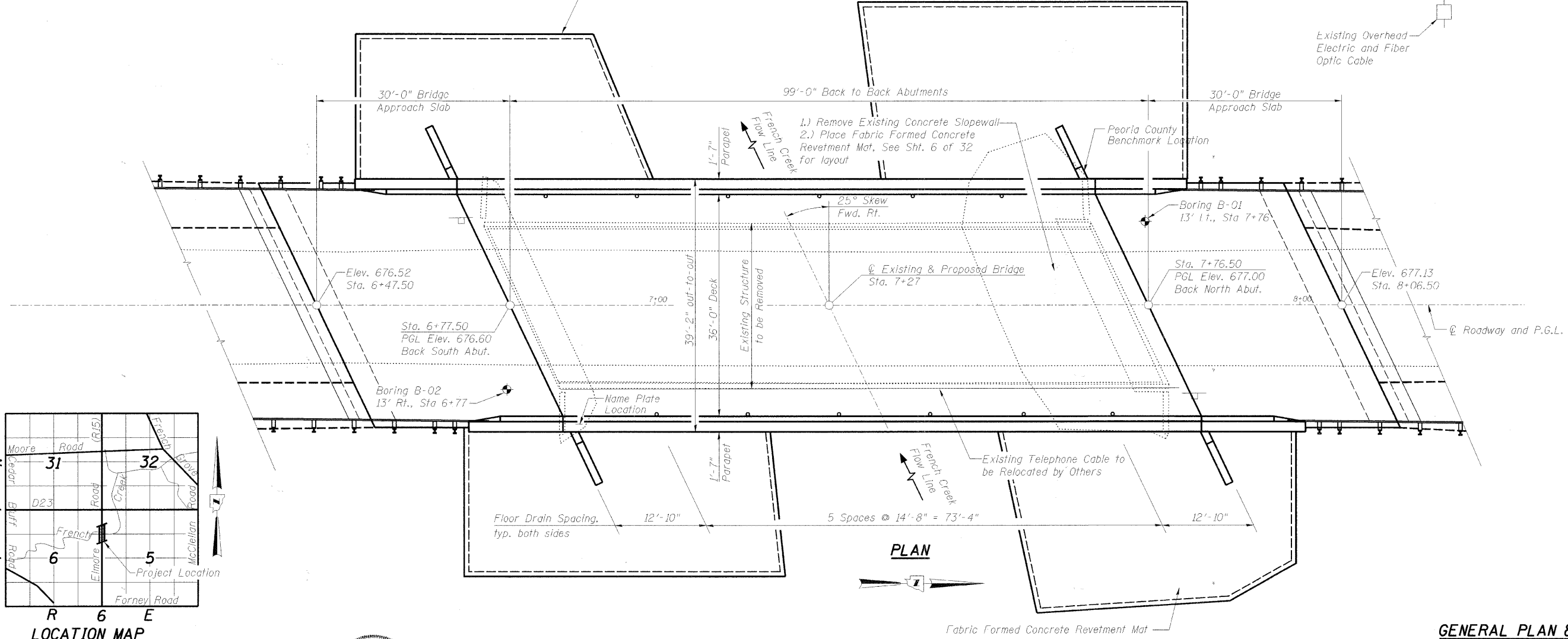
Benchmarks: USGS brass disk stamped "IRLJ 1977" top wingwall at SE corner of bridge. Elevation 676.80

Existing Bridge: SN 072-3016 was built in 1948 as Section 92-B 15 D. The bridge is a 26' wide by 95' long construct in place concrete deck on five 3 span continuous W21 steel beams. The spill-through abutments are pile supported cast in place concrete caps. The piers are cast in place concrete caps supported on exposed, braced steel H-piles. The roadway will be closed to traffic during construction. No Salvage.

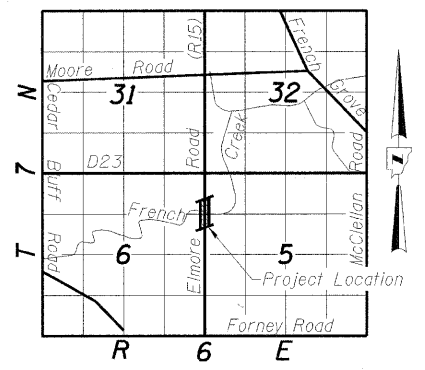


Traffic Barrier Terminal Type 6, Typical 4 Corners

Fabric Formed Concrete Revetment Mat



- 1.) Remove Existing Concrete Slopewall
- 2.) Place Fabric Formed Concrete Revetment Mat, See Sht. 6 of 32 for layout



LOCATION MAP

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

Phillip J. Lane
 Phillip J. Lane
 Illinois Licensed Structural Engineer No. 4084
 Lic. Expires: 11/30/10



12/7/09
Date

Certifications

I do hereby certify that the waterway opening has been determined under my direct supervision in accordance with the policies and procedures in the Drainage Manual of the Illinois Department of Transportation.

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".

AECOM
 111 NE Jefferson Ave.
 Peoria, Illinois 61602
 Ph: 309.676.8464
 Fax: 309.676.5445
 IL Design Firm Reg. No. 184-001518
 www.aecom.com

GENERAL PLAN & ELEVATION
ELMORE ROAD BRIDGE
OVER FRENCH CREEK

HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	7
STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT BROS-0143(049)		

BRIDGE BILL OF MATERIAL

CONTRACT NO. 89510

ITEM	UNIT	Super	Sub	Total Bridge
POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD		200	200
FABRIC FORMED CONCRETE REVETMENT MAT	SQ YD		860	860
BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	50.4		50.4
REMOVAL OF EXISTING STRUCTURES	EACH	1		1
SLOPE WALL REMOVAL	SQ YD		280	280
STRUCTURE EXCAVATION	CU YD		388	388
FLOOR DRAINS	EACH	12		12
CONCRETE STRUCTURES	CU YD		65.0	65.0
CONCRETE SUPERSTRUCTURE	CU YD	282.6		282.6
BRIDGE DECK GROOVING	SQ YD	601		601
CONCRETE ENCASEMENT	CU YD		5.6	5.6
PROTECTIVE COAT	SQ YD	771		771
FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 54 IN.	FOOT	681		681
REINFORCEMENT BARS, EPOXY COATED	POUND	58,730	5,300	64,030
BAR SPLICERS	EACH	76		76
FURNISHING STEEL PILES HPI2X53	FOOT		735	735
DRIVING PILES	FOOT		735	735
TEST PILE STEEL HPI2X53	EACH		2	2
NAME PLATES	EACH	1		1
GEOCOMPOSITE WALL DRAIN	SQ YD		98	98
PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT		164	164
MONODIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	12		12
ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	7		7
MOBILIZATION	L. SUM	1		1
TRAFFIC CONTROL AND PROTECTION	L. SUM	1		1
CONSTRUCTION LAYOUT	L. SUM	1		1
TRAINEES	HOURL	500		500
CONCRETE HEADWALL FOR PIPE DRAINS	EACH		4	4

GENERAL NOTES

- 1.) Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions
- 2.) Reinforcement bars designated (E) shall be epoxy coated.
- 3.) 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.
- 4.) The existing structural steel coating may contain lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- 5.) Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- 6.) 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.
- 7.) All embedded and separate bearing plates, slide retainers, anchor bolts, nuts, washers and pinfiles shall be galvanized according to AASHTO M111 or M232 (as applicable).

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications - 4th ed. with 2008 Interim Revisions

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ): 1
Design Spectral Acceleration at 1.0 sec. (SD1): 0.07
Design Spectral Acceleration at 0.2 sec. (SDS): 0.1
Soil Site Class: C

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi (I-Beams)
f'ci = 5,000 psi (I-Beams)
f's = 270,000 psi (1/2" φ strands)
fsi = 201,960 (1/2" φ strands)

FRENCH CREEK
BUILT 20__ BY
PEORIA COUNTY
SEC. 08-00092-00-BR
STATION 7+27
STR. NO. 072-3147 LOADING HL-93

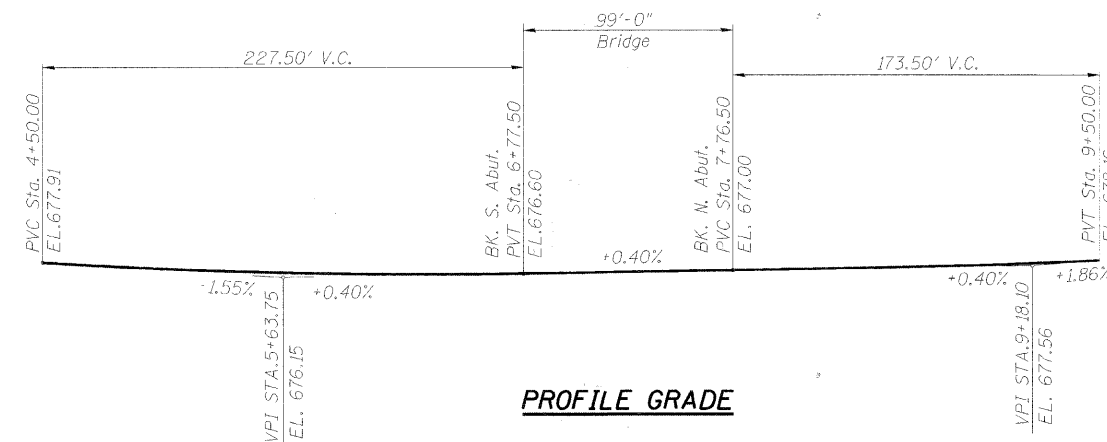
NAME PLATE

See Std. 515001-03

WATERWAY INFORMATION

Drainage Area = 14.9 sq. mi. Low Grade Elev. = 676.40 @ Sta. 6+47.5

Flood	Freq. Yr.	Q	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	20	2657	423	571	667.24	0.54	0.05	667.78	667.29
Base	100	4059	491	651	668.29	0.99	0.10	669.28	668.39
Max. Calc. Overtopping	500	5499	543	712	669.04	1.68	0.19	670.72	669.23



PROFILE GRADE

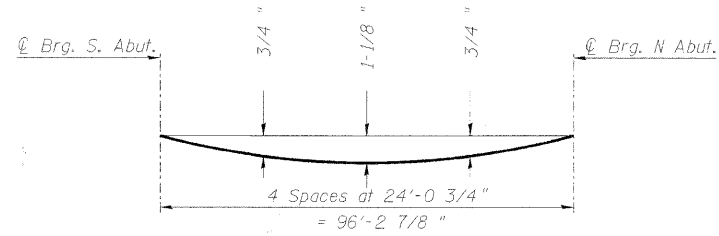
**BRIDGE GENERAL NOTES & TOTAL BILL OF MATERIAL
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

DESIGNED	P.J.L.
CHECKED	LLV
DRAWN	MGM
CHECKED	P.J.L.

AECOM

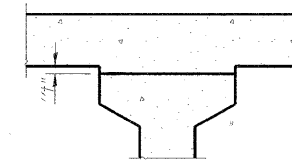
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HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	8
STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO. _		ILLINOIS FED. AID PROJECT BROS-0143(049)		



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 on Sht. 9 & 10 of 32.

DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete, excluding beams).



To determine "f": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on Sht. 9 & 10 of 32, minus slab thickness, equals the fillet heights "f" above top flanges of beams.

FILLET HEIGHTS

GIRDER 1

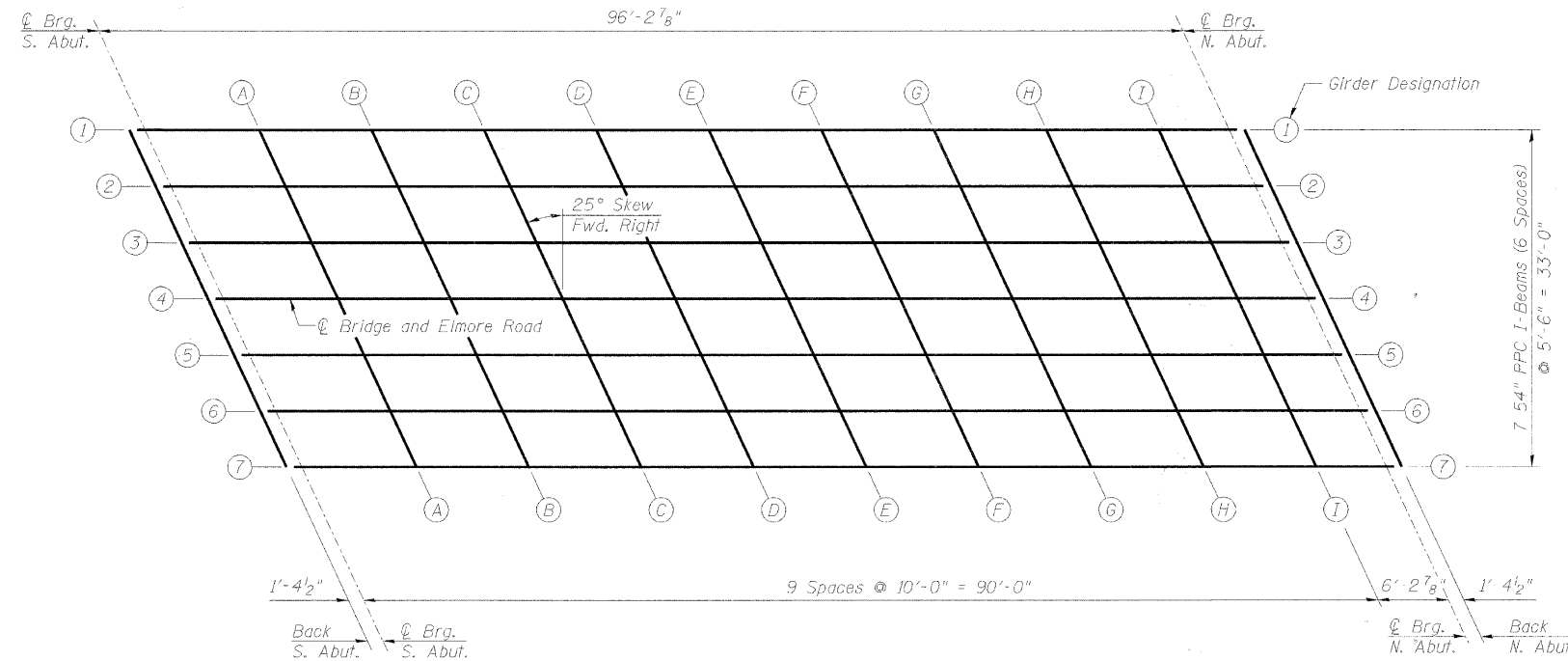
Location	Station	Offset (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back S. Abut.	6+69.81	16.50	676.24	676.24
CL. Brg. S. Abut.	6+71.19	16.50	676.24	676.24
A	6+81.19	16.50	676.28	676.32
B	6+91.19	16.50	676.33	676.38
C	7+01.19	16.50	676.37	676.44
D	7+11.19	16.50	676.41	676.50
E	7+21.19	16.50	676.45	676.54
F	7+31.19	16.50	676.49	676.57
G	7+41.19	16.50	676.53	676.60
H	7+51.19	16.50	676.57	676.62
I	7+61.19	16.50	676.61	676.63
CL. Brg. N. Abut.	7+67.43	16.50	676.63	676.63
Back N. Abut.	7+68.81	16.50	676.64	676.64

GIRDER 2

Location	Station	Offset (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back S. Abut.	6+72.37	11.00	676.36	676.36
CL. Brg. S. Abut.	6+73.75	11.00	676.36	676.36
A	6+83.75	11.00	676.41	676.44
B	6+93.75	11.00	676.45	676.50
C	7+03.75	11.00	676.49	676.56
D	7+13.75	11.00	676.53	676.62
E	7+23.75	11.00	676.57	676.66
F	7+33.75	11.00	676.61	676.69
G	7+43.75	11.00	676.65	676.72
H	7+53.75	11.00	676.69	676.74
I	7+63.75	11.00	676.73	676.75
CL. Brg. N. Abut.	7+69.99	11.00	676.75	676.75
Back N. Abut.	7+71.37	11.00	676.76	676.76

GIRDER 3

Location	Station	Offset (Left)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back S. Abut.	6+74.94	5.50	676.48	676.48
CL. Brg. S. Abut.	6+76.31	5.50	676.49	676.49
A	6+86.31	5.50	676.53	676.56
B	6+96.31	5.50	676.57	676.62
C	7+06.31	5.50	676.61	676.68
D	7+16.31	5.50	676.65	676.74
E	7+26.31	5.50	676.69	676.78
F	7+36.31	5.50	676.73	676.81
G	7+46.31	5.50	676.77	676.84
H	7+56.31	5.50	676.81	676.86
I	7+66.31	5.50	676.85	676.87
CL. Brg. N. Abut.	7+72.56	5.50	676.87	676.87
Back N. Abut.	7+73.94	5.50	676.88	676.88



PLAN



**DECK SLAB ELEVATIONS
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

DESIGNED	P.H.
CHECKED	LLV
DRAWN	MGM
CHECKED	P.J.L.

Notes:
1. See Sht. 12 of 32 for Deck Cross Section.

<p>111 NE Jefferson Ave. Peoria, Illinois 61602 Ph: 309.676.8464 Fax: 309.676.5445 IL Design Firm Reg. No. 184-001518 www.aecom.com</p>	HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	R-15	08-00092-00-BR	PEORIA	32	9
	STRUCTURE NO. 072-3147		STATION 7+27		FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT BROS-01431049

GIRDER 4 & CENTERLINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back S. Abut.	6+77.50	0.00	676.60	676.60
CL. Brg. S. Abut.	6+78.88	0.00	676.61	676.61
A	6+88.88	0.00	676.65	676.68
B	6+98.88	0.00	676.69	676.74
C	7+08.88	0.00	676.73	676.80
D	7+18.88	0.00	676.77	676.86
E	7+28.88	0.00	676.81	676.90
F	7+38.88	0.00	676.85	676.93
G	7+48.88	0.00	676.89	676.96
H	7+58.88	0.00	676.93	676.98
I	7+68.88	0.00	676.97	676.99
CL. Brg. N. Abut.	7+75.12	0.00	676.99	676.99
Back N. Abut.	7+76.50	0.00	677.00	677.00

GIRDER 5

Location	Station	Offset (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back S. Abut.	6+80.06	5.50	676.50	676.50
CL. Brg. S. Abut.	6+81.44	5.50	676.51	676.51
A	6+91.44	5.50	676.55	676.58
B	7+01.44	5.50	676.59	676.64
C	7+11.44	5.50	676.63	676.70
D	7+21.44	5.50	676.67	676.76
E	7+31.44	5.50	676.71	676.80
F	7+41.44	5.50	676.75	676.83
G	7+51.44	5.50	676.79	676.86
H	7+61.44	5.50	676.83	676.88
I	7+71.44	5.50	676.87	676.89
CL. Brg. N. Abut.	7+77.69	5.50	676.89	676.89
Back N. Abut.	7+79.06	5.50	676.90	676.90

GIRDER 6

Location	Station	Offset (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back S. Abut.	6+82.63	11.00	676.40	676.40
CL. Brg. S. Abut.	6+84.01	11.00	676.41	676.41
A	6+94.01	11.00	676.45	676.48
B	7+04.01	11.00	676.49	676.54
C	7+14.01	11.00	676.53	676.61
D	7+24.01	11.00	676.57	676.66
E	7+34.01	11.00	676.61	676.70
F	7+44.01	11.00	676.65	676.73
G	7+54.01	11.00	676.69	676.76
H	7+64.01	11.00	676.73	676.78
I	7+74.01	11.00	676.77	676.79
CL. Brg. N. Abut.	7+80.25	11.00	676.80	676.80
Back N. Abut.	7+81.63	11.00	676.80	676.80

GIRDER 7

Location	Station	Offset (Right)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back S. Abut.	6+85.19	16.50	676.30	676.30
CL. Brg. S. Abut.	6+86.57	16.50	676.31	676.31
A	6+96.57	16.50	676.35	676.38
B	7+06.57	16.50	676.39	676.44
C	7+16.57	16.50	676.43	676.51
D	7+26.57	16.50	676.47	676.56
E	7+36.57	16.50	676.51	676.60
F	7+46.57	16.50	676.55	676.64
G	7+56.57	16.50	676.59	676.66
H	7+66.57	16.50	676.63	676.68
I	7+76.57	16.50	676.67	676.69
CL. Brg. N. Abut.	7+82.81	16.50	676.70	676.70
Back N. Abut.	7+84.19	16.50	676.70	676.70

**DECK SLAB ELEVATIONS
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

DESIGNED P.J.L.
CHECKED LLV
DRAWN MGM
CHECKED P.J.L.

AECOM 111 NE Jefferson Ave. Peoria, Illinois 61602 Ph: 309.676.8464 Fax: 309.676.5445 IL Design Firm Reg. No. 184-001518 www.aecom.com	HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	R-15	08-00092-00-BR	PEORIA	32	10
	STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT BROS-01431049					

WEST EDGE SHOULDER

Approach Slab	Location	Station	Offset (Left)	Theoretical Grade Elevations
South	S. End, S. Appr. Slab	6+39.11	18.00	676.15
South	S1	6+49.11	18.00	676.16
South	S2	6+59.11	18.00	676.18
South	Back S. Abut.	6+69.11	18.00	676.21
North	Back N. Abut.	7+68.11	18.00	676.61
North	N1	7+78.11	18.00	676.65
North	N2	7+88.11	18.00	676.69
North	N. End, N. Appr. Slab	7+98.11	18.00	676.73

WEST EDGE PAVEMENT

Approach Slab	Location	Station	Offset (Left)	Theoretical Grade Elevations
South	S. End, S. Appr. Slab	6+41.90	12.00	676.27
South	S1	6+51.90	12.00	676.28
South	S2	6+61.90	12.00	676.31
South	Back S. Abut.	6+71.90	12.00	676.34
North	Back N. Abut.	7+70.90	12.00	676.74
North	N1	7+80.90	12.00	676.78
North	N2	7+90.90	12.00	676.82
North	N. End, N. Appr. Slab	8+00.90	12.00	676.86

CENTERLINE

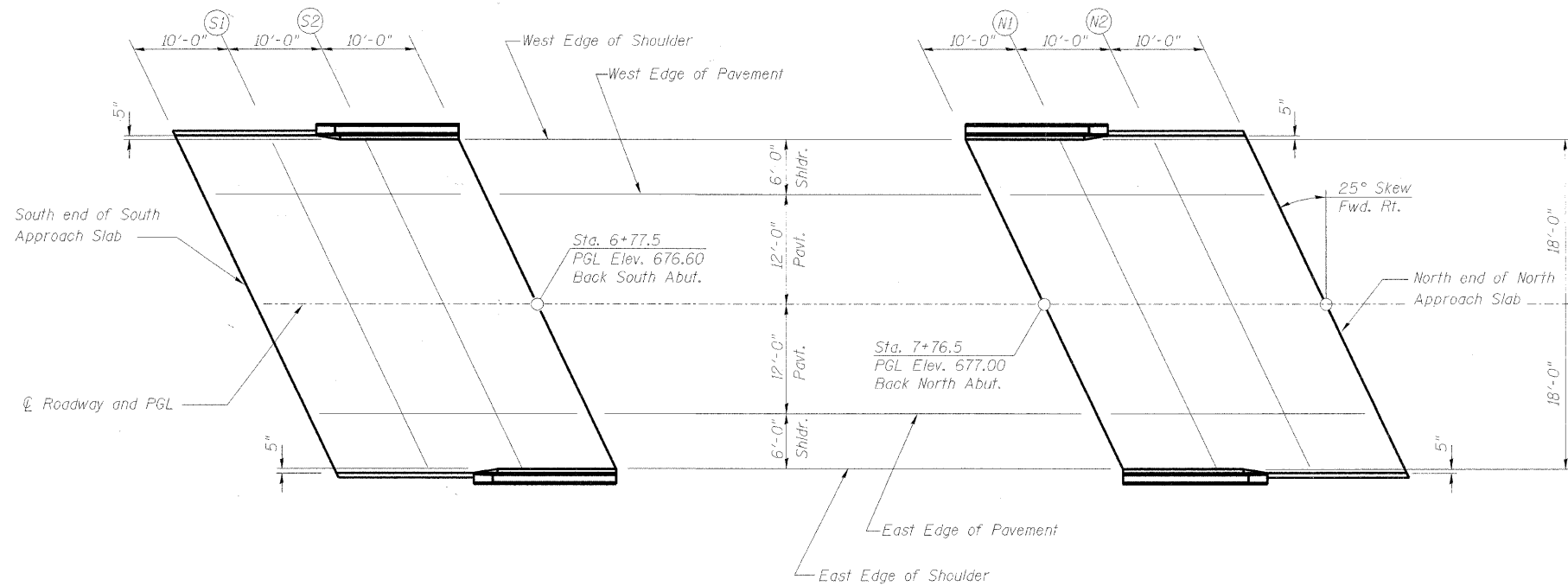
Approach Slab	Location	Station	Offset	Theoretical Grade Elevations
South	S. End, S. Appr. Slab	6+47.50	0.00	676.52
South	S1	6+57.50	0.00	676.54
South	S2	6+67.50	0.00	676.56
South	Back S. Abut.	6+77.50	0.00	676.60
North	Back N. Abut.	7+76.50	0.00	677.00
North	N1	7+86.50	0.00	677.04
North	N2	7+96.50	0.00	677.08
North	N. End, N. Appr. Slab	8+06.50	0.00	677.13

EAST EDGE PAVEMENT

Approach Slab	Location	Station	Offset (Right)	Theoretical Grade Elevations
South	S. End, S. Appr. Slab	6+53.10	12.00	676.29
South	S1	6+63.10	12.00	676.31
South	S2	6+73.10	12.00	676.34
South	Back S. Abut.	6+83.10	12.00	676.38
North	Back N. Abut.	7+82.10	12.00	676.78
North	N1	7+92.10	12.00	676.83
North	N2	8+02.10	12.00	676.87
North	N. End, N. Appr. Slab	8+12.10	12.00	676.92

EAST EDGE SHOULDER

Approach Slab	Location	Station	Offset (Right)	Theoretical Grade Elevations
South	S. End, S. Appr. Slab	6+55.89	18.00	676.17
South	S1	6+65.89	18.00	676.20
South	S2	6+75.89	18.00	676.23
South	Back S. Abut.	6+85.89	18.00	676.27
North	Back N. Abut.	7+84.89	18.00	676.67
North	N1	7+94.89	18.00	676.72
North	N2	8+04.89	18.00	676.76
North	N. End, N. Appr. Slab	8+14.89	18.00	676.81



SOUTH APPROACH SLAB PLAN

NORTH APPROACH SLAB PLAN

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

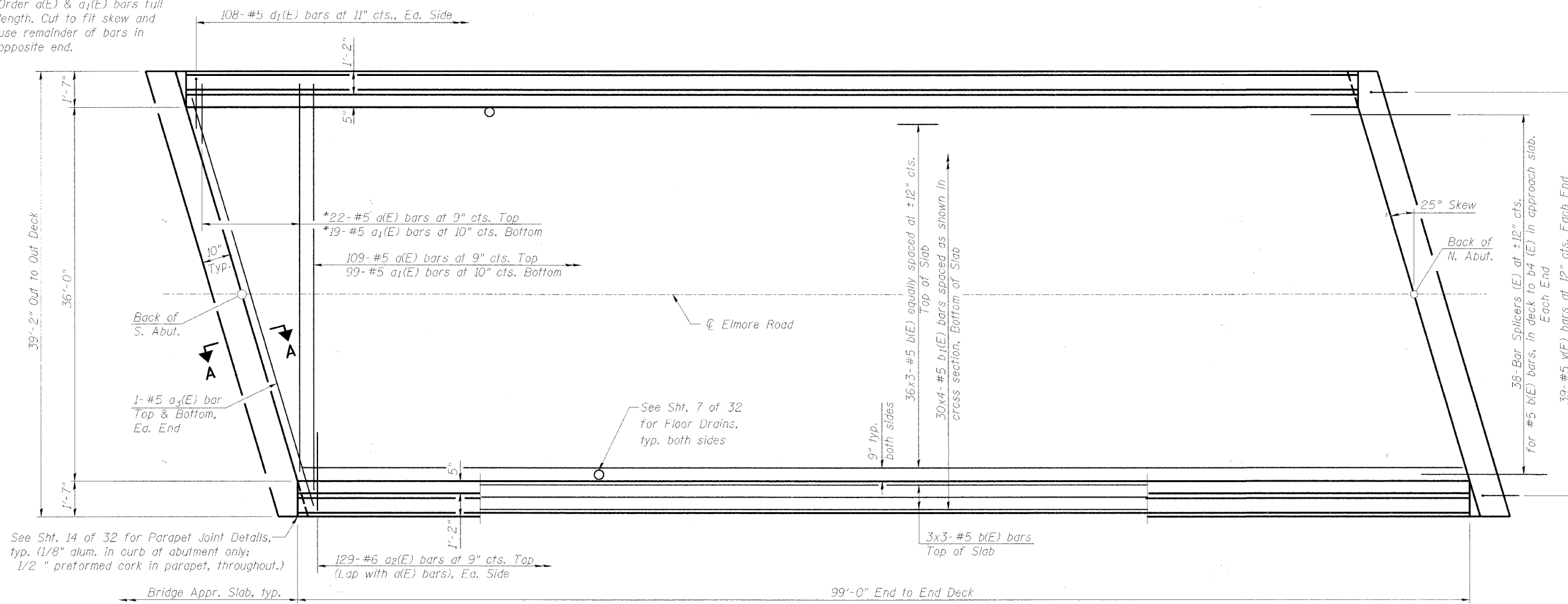
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	R-15	08-00092-00-BR	PEORIA	32	11
	STRUCTURE NO. 072-3147			STATION 7+27	
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT BROS-0143(049)					

**TOP OF APPROACH
SLAB ELEVATIONS
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

* Order a(E) & a₁(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

NOTES

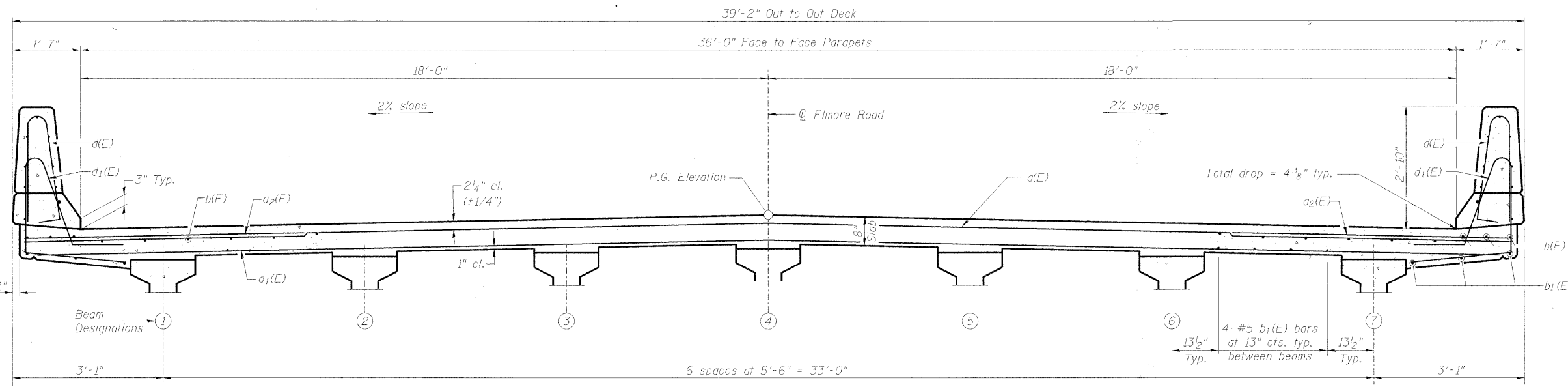
1. See Sht. 14 of 32 for Superstructure Details and Bill of Material.
2. For Section A-A and Diaphragm Details see Sht. 13 of 32.
3. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
4. See Sht. 14 of 32 for Parapet Reinforcement.



MINIMUM BAR LAPS

#5 bar = 2'-2"

PLAN



CROSS SECTION
(Looking North)

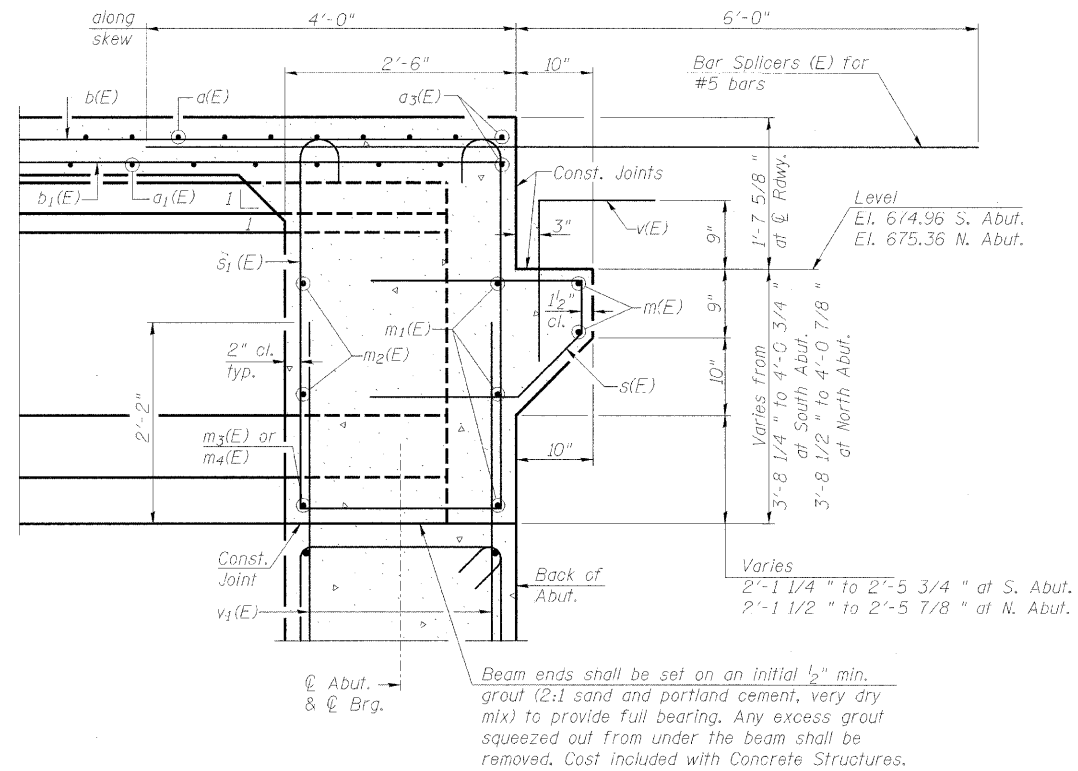
SUPERSTRUCTURE DETAILS
ELMORE ROAD BRIDGE
OVER FRENCH CREEK

DESIGNED	P.J.L.
CHECKED	LLV
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HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	12
STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT BROS-01431049	

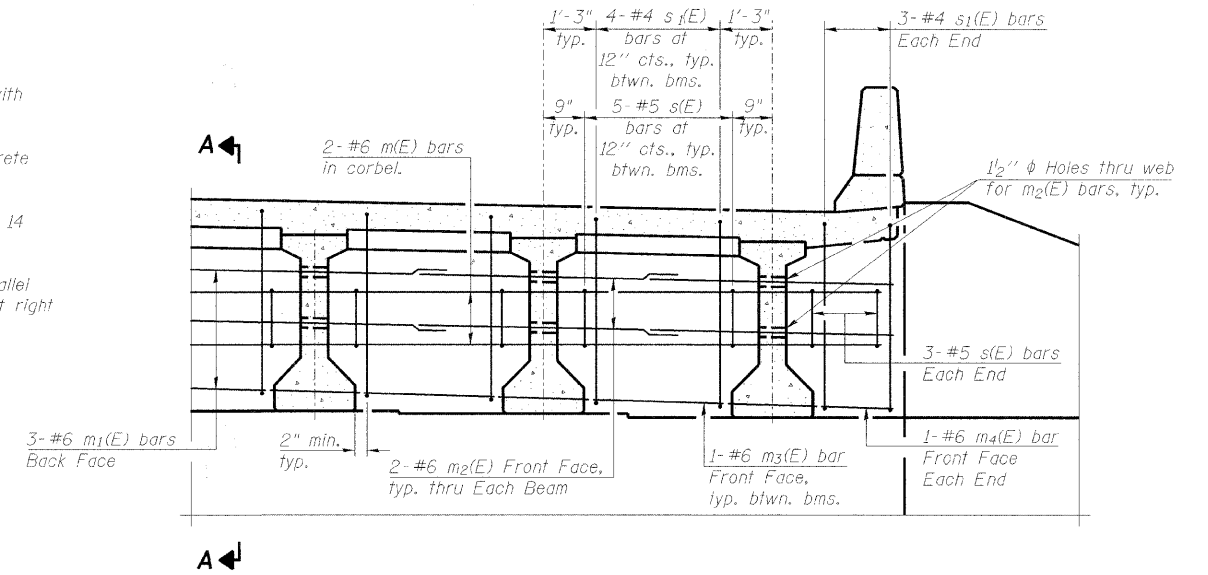


SECTION A-A

Dimensions at right angles to abutment, except as shown.

NOTES

1. Reinforcement bars in diaphragm are billed with Superstructure on Sht. 14 of 32.
2. Concrete in diaphragm is included with Concrete Superstructure on Sht. 14 of 32.
3. For details of bars s(E), and s1(E) see Sht. 14 of 32.
4. The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

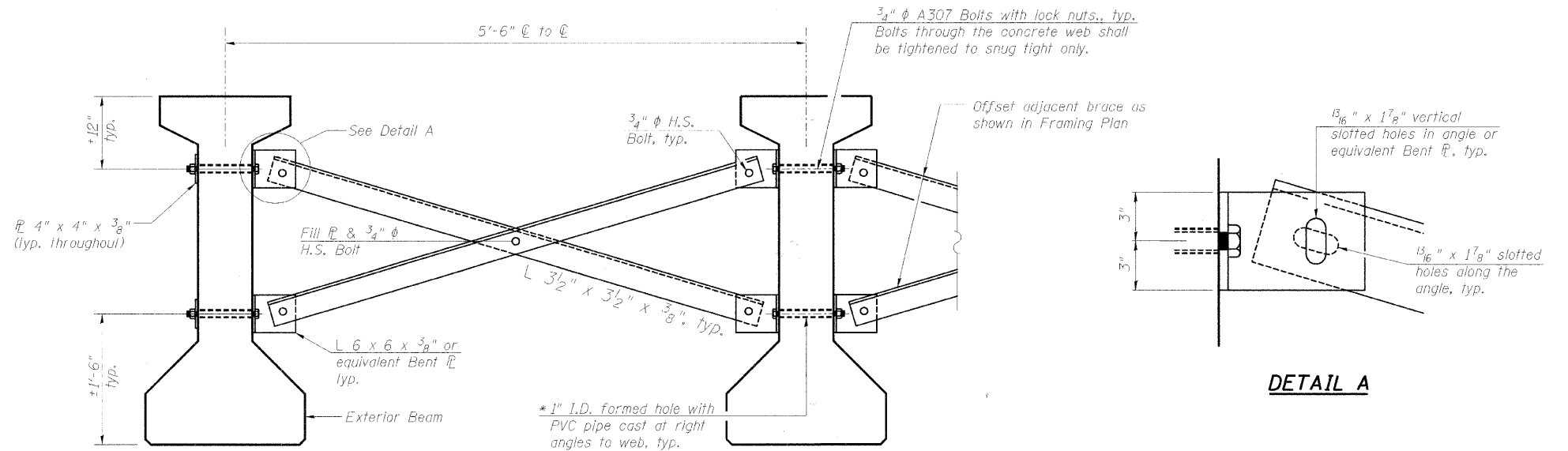


DIAPHRAGM ELEVATION AT ABUTMENT

MIN. BAR LAP
#6 bar = 2'-9"

BRACING NOTES

1. All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
2. Two hardened washers are required for each set of oversized holes.
3. All holes shall be 1/16" φ unless otherwise noted.
4. 5/16" x 3" x 3" plate washers are required over all slotted holes.
5. All bolts shall be galvanized according to AASHTO M232.
6. Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
7. Place Bracing at right angles to beams.
8. See Framing Plan on Sht. 18 of 32 for locations, designated "B".
9. Permanent bracing shall not be paid for separately but shall be included in the cost of furnishing and erecting the prestressed beams.



PERMANENT BRACING DETAILS

(For 54" PPC I-Beams)
18 braces required

* Fabricator shall locate to miss strands within permissible tolerances.

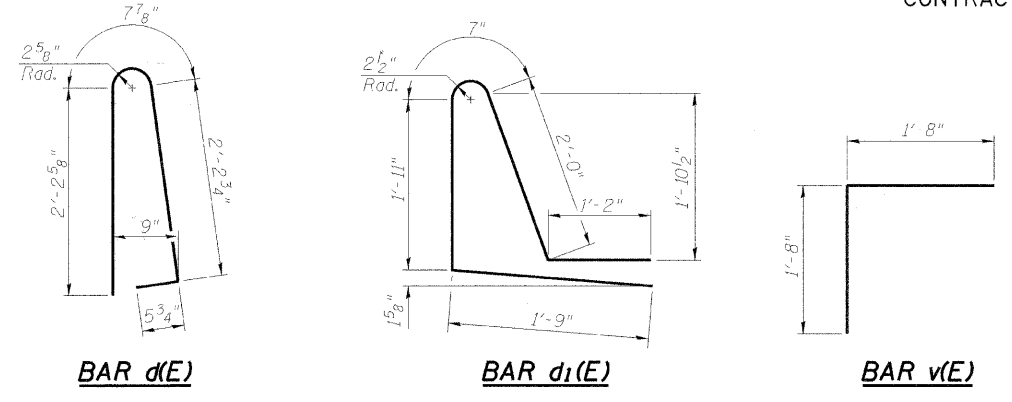
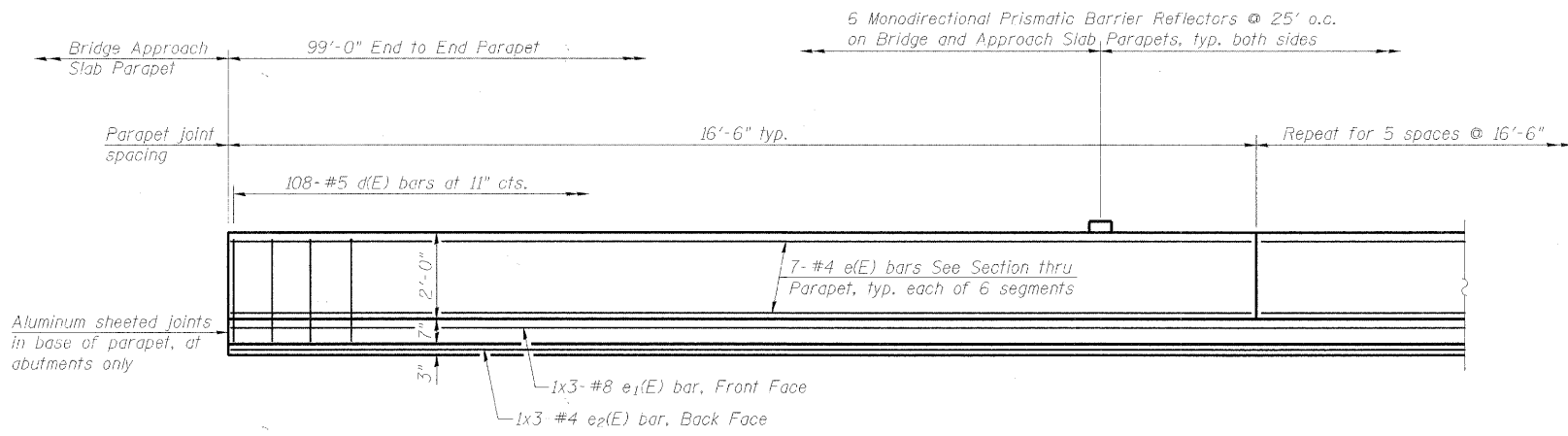
DETAIL A

**DIAPHRAGM & BRACING
DETAILS
FRENCH CREEK BRIDGE
OVER ELMORE ROAD**

DESIGNED	P.J.L.
CHECKED	LLV
DRAWN	MGM
CHECKED	P.J.L.

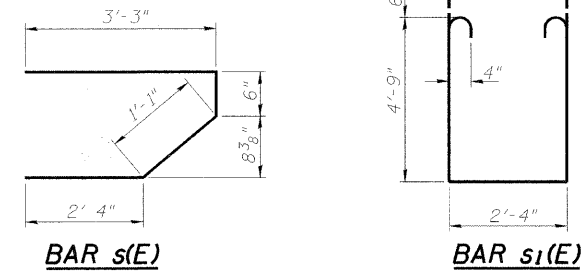
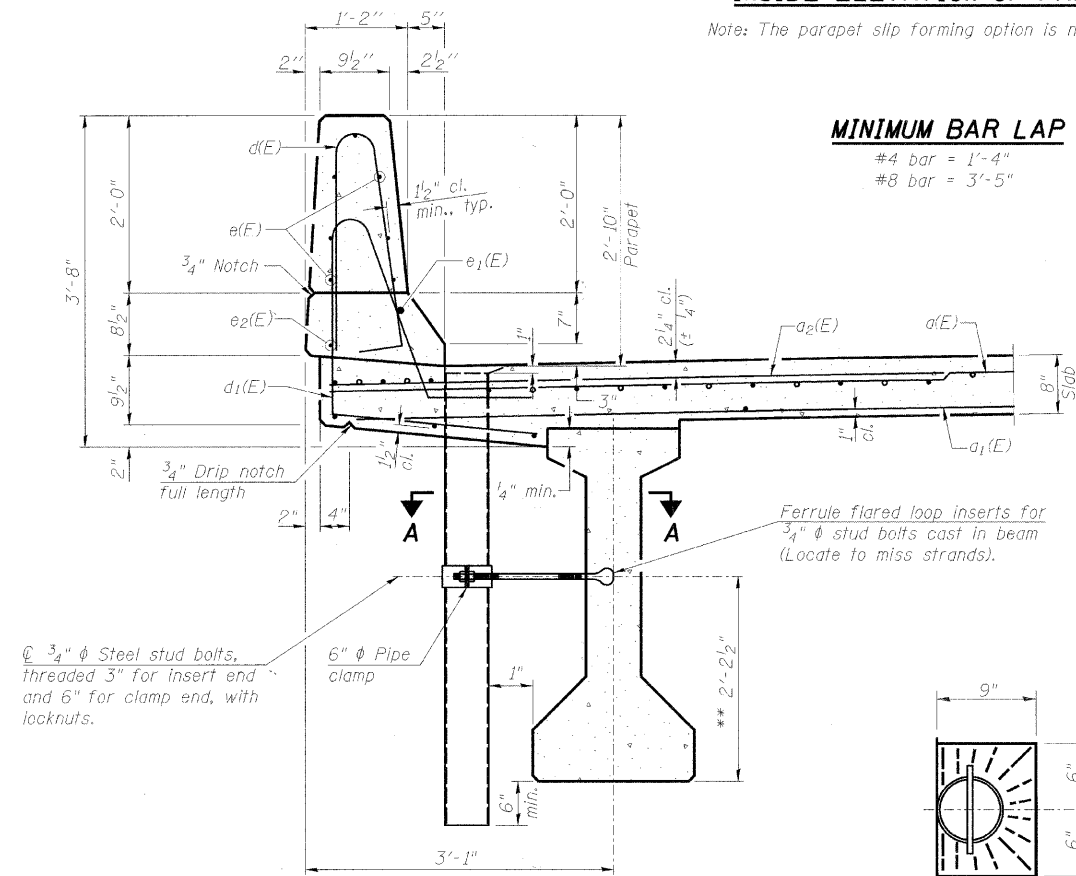
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No. 184-001518
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HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	13
STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO. _ ILLINOIS		FED. AID PROJECT BROS-01431(049)		



INSIDE ELEVATION OF PARAPET

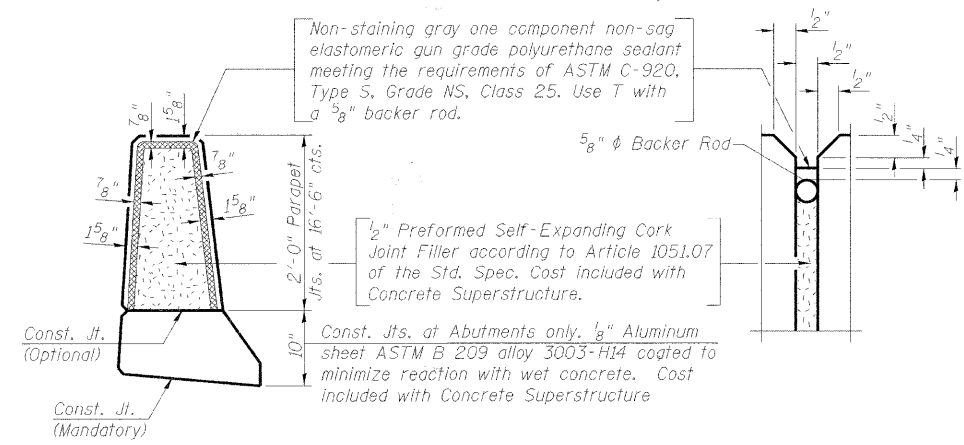
Note: The parapet slip forming option is not permitted.



SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	131	#5	38'-6"	U
d ₁ (E)	118	#5	37'-10"	U
a ₂ (E)	258	#6	6'-0"	—
a ₃ (E)	4	#5	42'-10"	—
b(E)	126	#5	34'-4"	—
b ₁ (E)	120	#5	26'-4"	—
d(E)	216	#5	5'-7"	U
d ₁ (E)	216	#5	7'-5"	U
e(E)	84	#4	16'-2"	—
e ₁ (E)	6	#8	35'-2"	—
e ₂ (E)	6	#4	33'-9"	—
m(E)	4	#6	42'-10"	—
m ₁ (E)	6	#6	42'-10"	—
m ₂ (E)	28	#6	8'-10"	—
m ₃ (E)	12	#6	3'-8"	—
m ₄ (E)	4	#6	2'-0"	—
s(F)	72	#5	7'-2"	—
s ₁ (E)	60	#4	12'-10"	—
v(E)	78	#5	3'-4"	—
Reinforcement Bars, Epoxy Coated		Lbs.	27,180	
Concrete Superstructure		Cu. Yds.	165.6	
Bridge Deck Grooving		Sq. Yd.	374	
Protective Coat		Sq. Yd.	493	
Floor Drains		Each	12	
Monodirectional Prismatic Barrier Reflector		Each	12	
Name Plates		Each	1	

Bars indicated thus 1x3-#5 etc. indicates 1 line of bars with 3 lengths per line.



PARAPET JOINT DETAILS

- Notes:
- Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
 - The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.
 - The clamping device and inserts shall be galvanized according to AASHTO M 232.

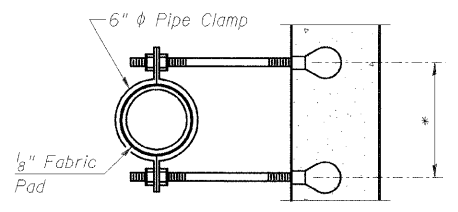
SECTION THRU PARAPET

**For insert locations See Sht. 17 of 32.

TOP PLAN

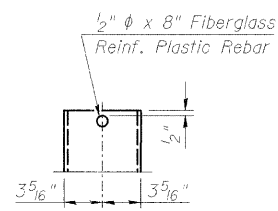
TOP PLAN

(Showing Aluminum Tube)

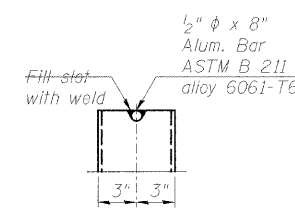


SECTION A-A

*Dimension as required by Pipe Clamp



FIBERGLASS PIPE



ALUMINUM TUBE

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

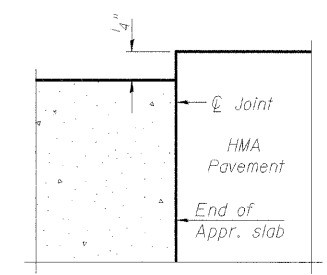
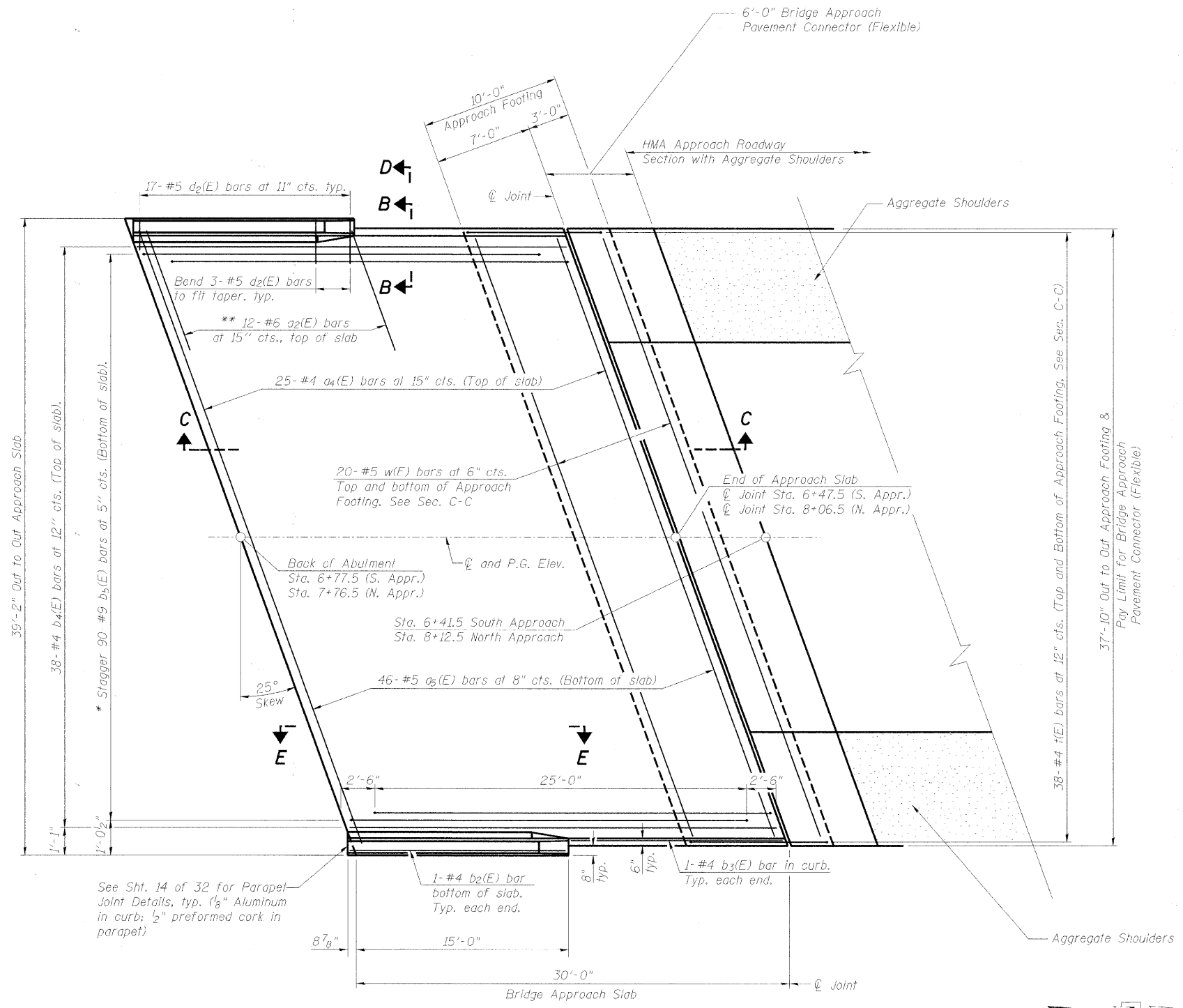
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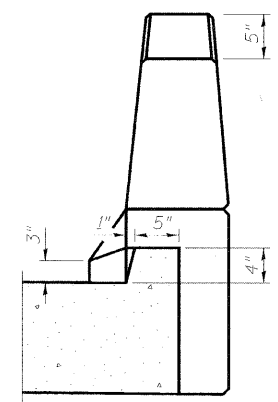
HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	14
STRUCTURE NO. 072-3147			STATION 7+27	
FED. ROAD DIST. NO. - ILLINOIS		FED. AID PROJECT BROS-0143(049)		

**SUPERSTRUCTURE DETAILS
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

Notes: 1. See Sht. 16 of 32 for Sections C-C & D-D and View E-E.
 $a_4(E)$, $a_5(E)$, and $w(E)$ bar spacings measured perpendicular to ϕ Rdwy.
 2. The parapet slip forming option is not permitted.



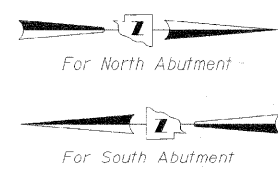
FLEXIBLE PAVEMENT
 DETAIL A



VIEW B-B
 Typ. 4 corners

PLAN

* Tilt #9 $b_5(E)$ bars as required to maintain clearance.
 ** Alternate with $a_4(E)$ bars, typ. each parapet.



DESIGNED	P.J.L.
CHECKED	LLV
DRAWN	MGM
CHECKED	P.J.L.

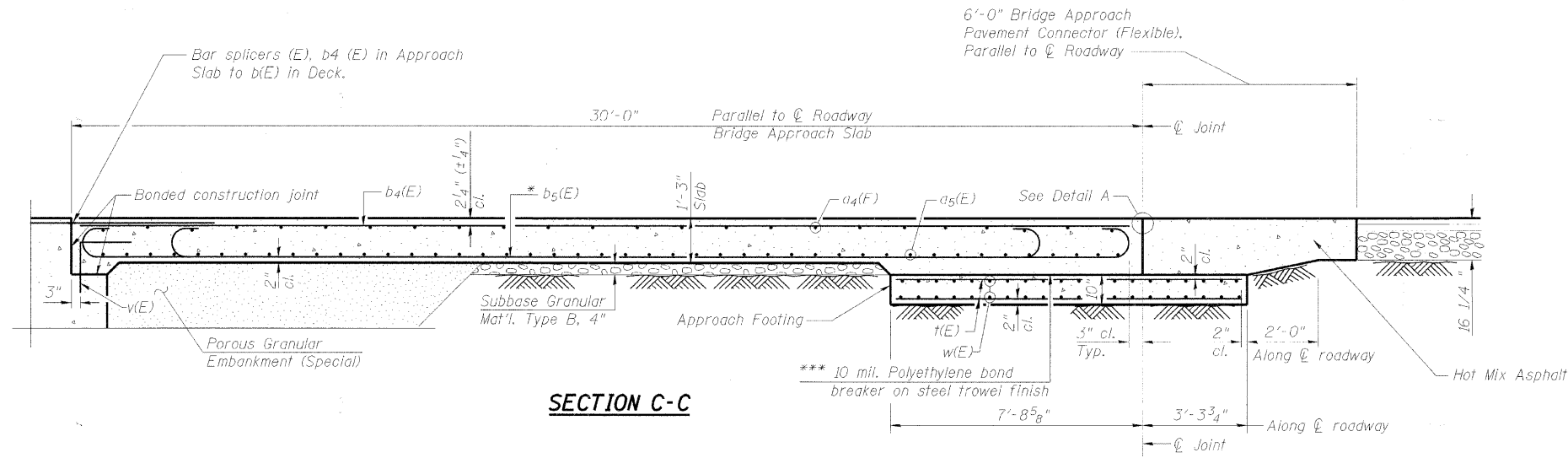
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HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	15
STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT BROS-0143(049)	

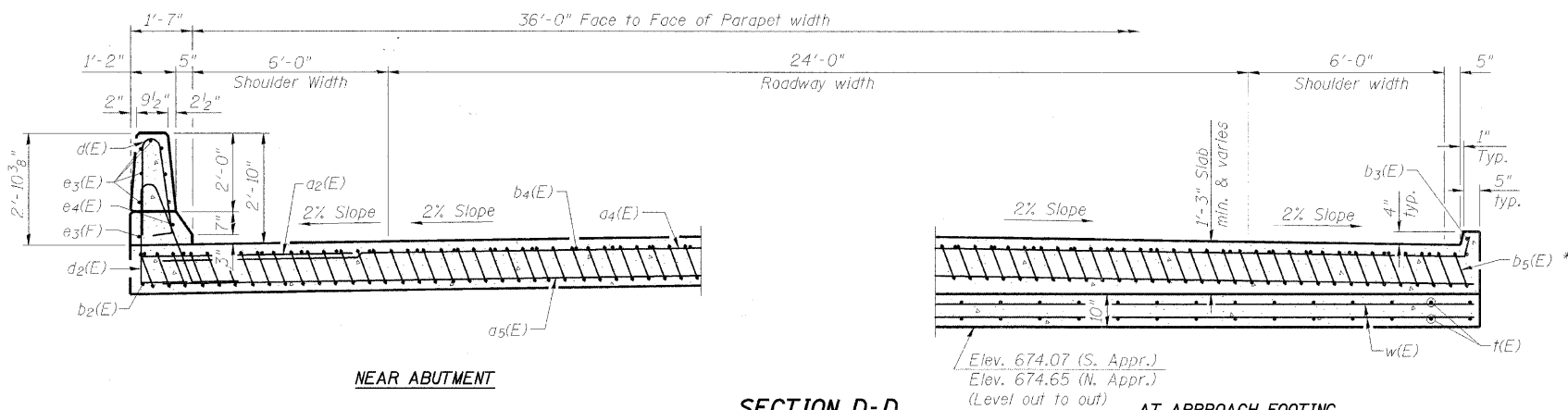
**BRIDGE APPROACH
 SLAB DETAILS
 ELMORE ROAD BRIDGE
 OVER FRENCH CREEK**

NOTES

1. See Sht. 15 of 32 for Detail A and View B-B.
2. Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
3. Approach footing concrete shall be paid for as Concrete Structures.
4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
5. For v(E) bar details, see Sht. 14 of 32.
6. The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
7. For bar splicer details, see Sht. 22 of 32.
8. Cost of excavation for approach footing included with Concrete Structures.
9. For Porous Granular Embankment (Special) and drainage treatment details, see Sht. 19 of 32.



SECTION C-C

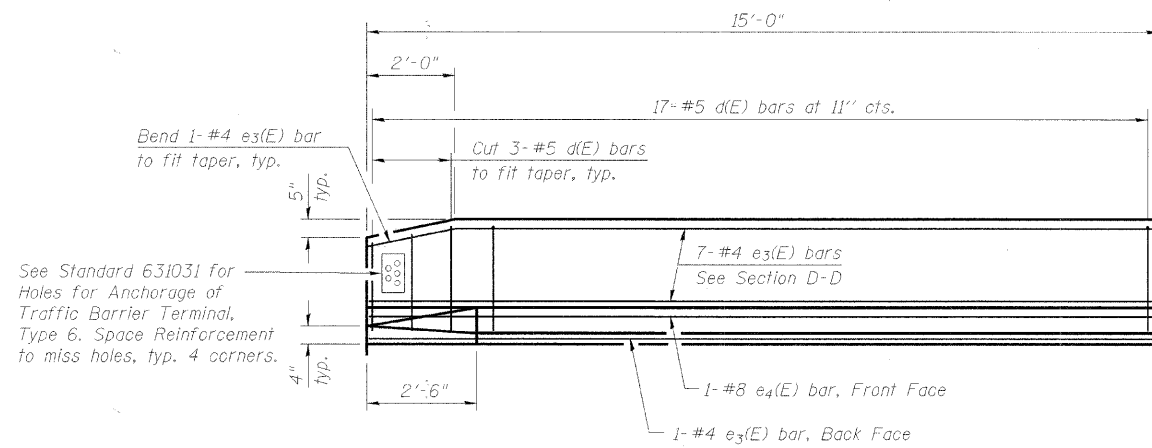


NEAR ABUTMENT

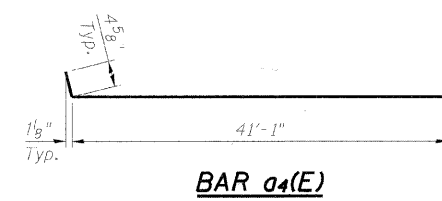
SECTION D-D

(See Plan for dimensions not shown)

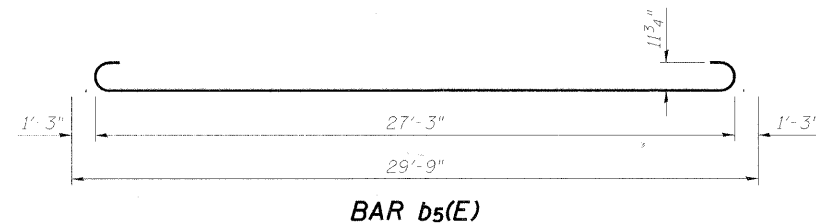
AT APPROACH FOOTING



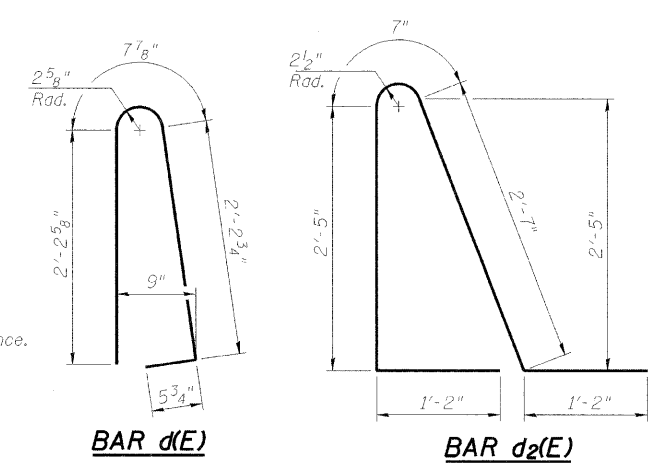
VIEW E-E



BAR a4(E)



BAR b5(E)



BAR d(E)

BAR d2(E)

**TWO APPROACHES
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a2(E)	48	#6	6'-0"	—
a4(E)	50	#4	41'-11"	—
a5(E)	92	#5	41'-4"	—
b2(E)	4	#4	14'-8"	—
b3(E)	4	#4	14'-10"	—
b4(E)	76	#4	29'-8"	—
b5(E)	180	#9	29'-9"	—
d(F)	68	#5	5'-7"	—
d2(E)	68	#5	7'-11"	—
e3(E)	32	#4	14'-8"	—
e4(E)	4	#8	14'-8"	—
t(E)	152	#4	10'-8"	—
w(E)	80	#5	41'-4"	—
Concrete Superstructure		Cu. Yd.	117.0	
Concrete Structures		Cu. Yd.	25.8	
Reinforcement Bars, Epoxy Coated		Pound	31,550	
Bridge Deck Grooving		Sq. Yd.	227	
Protective Coat		Sq. Yd.	278	
Bridge Approach Pvmnt. Connector (Flexible)		Sq. Yd.	50.4	

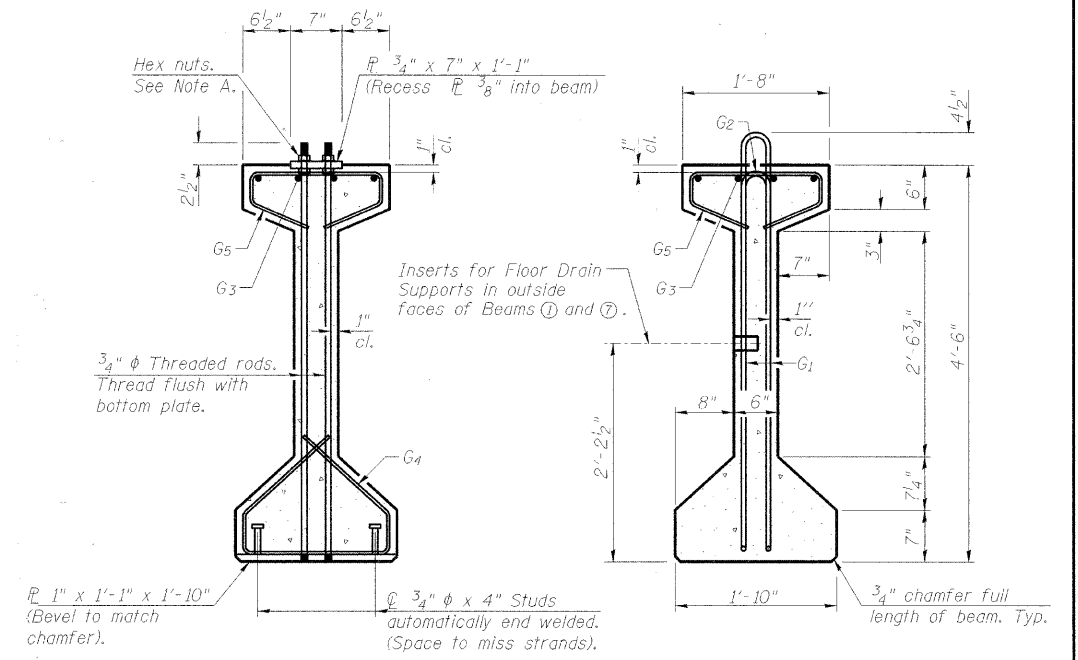
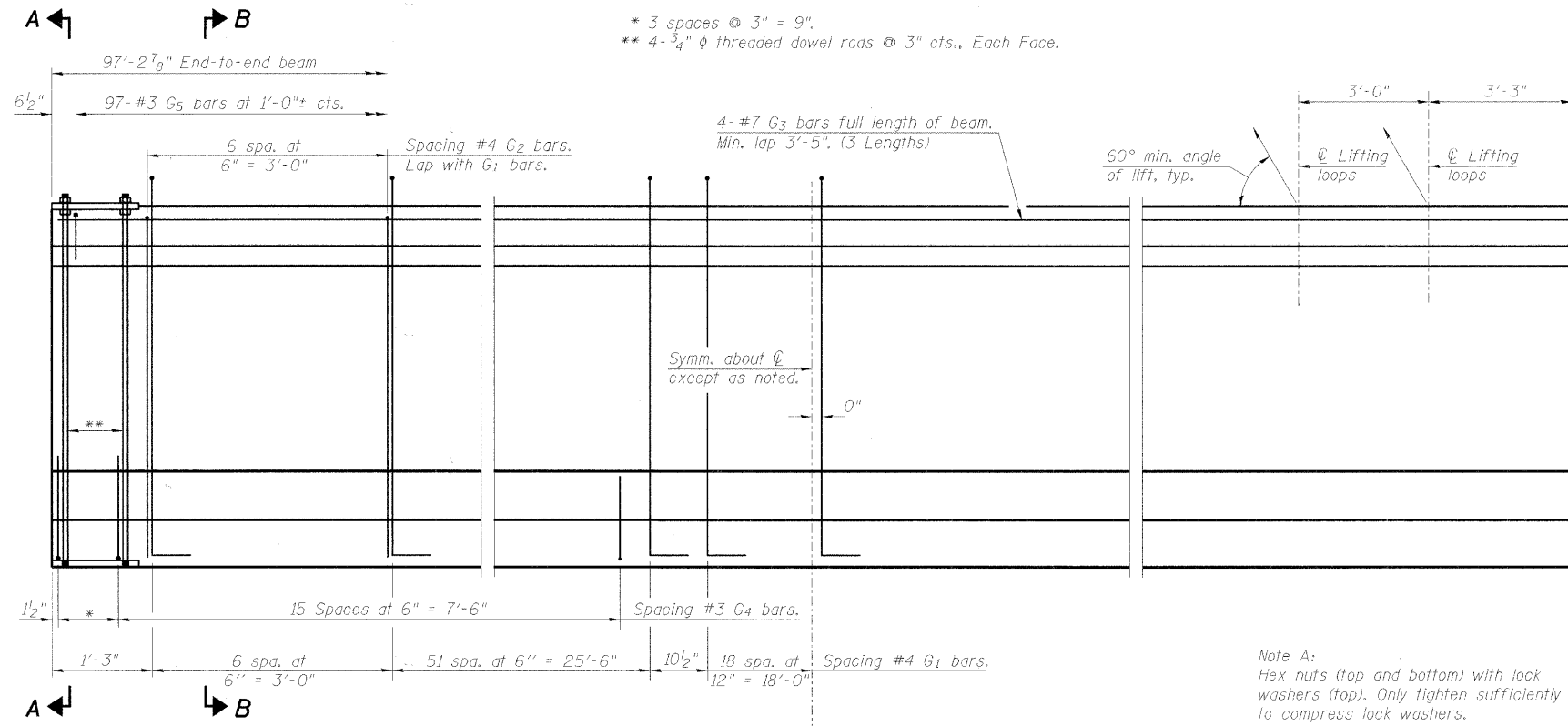
**BRIDGE APPROACH
SLAB DETAILS
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

DESIGNED	P.J.L.
CHECKED	LLV
DRAWN	MGM
CHECKED	P.J.L.

AECOM

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HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	16
STRUCTURE NO. 072-3147			STATION 7+27	
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT BROS-0143(O49)				



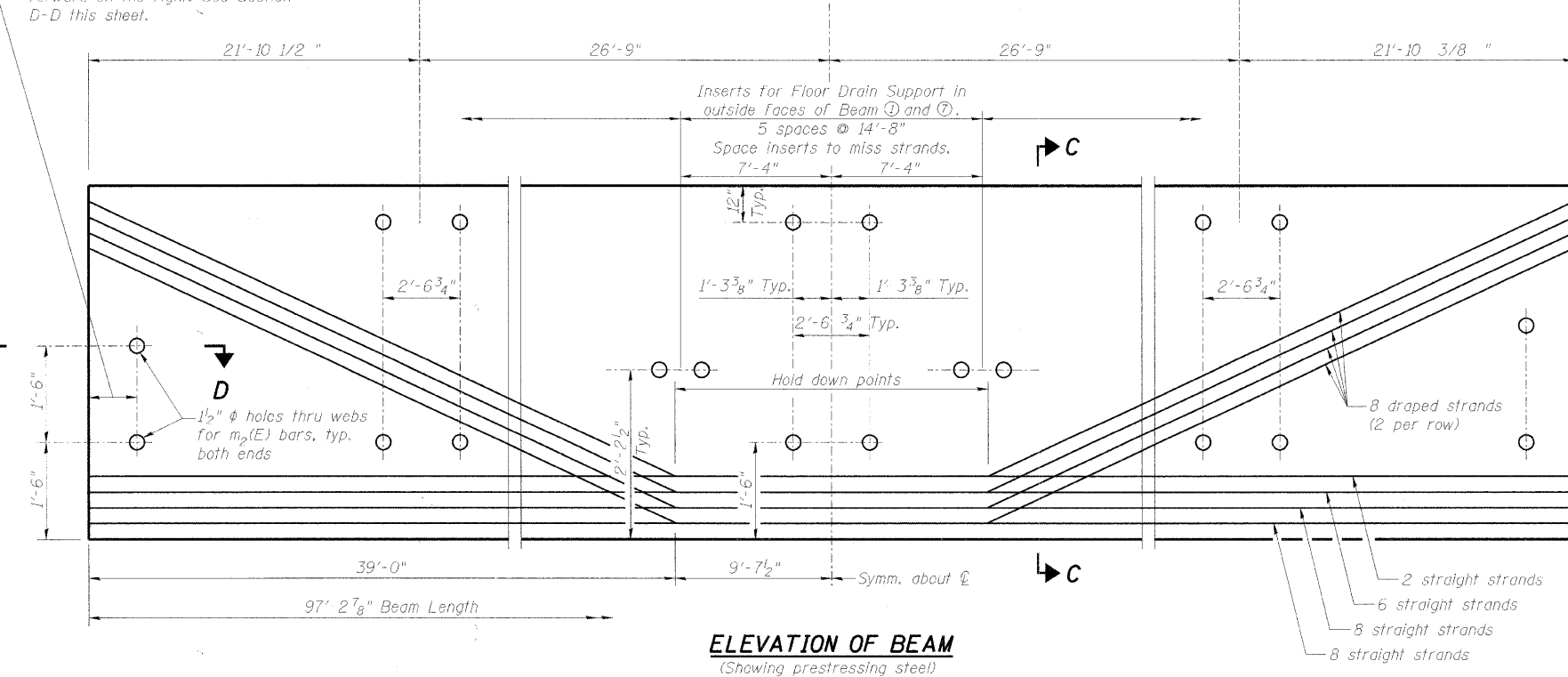
SECTION A-A

SECTION B-B

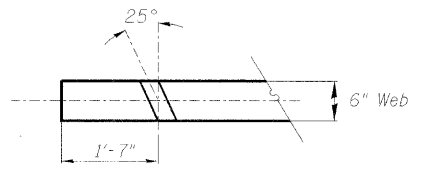
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.

See also Elevation View for formed holes thru web for Permanent Bracing "B" and for m2(E) bars at abutment.

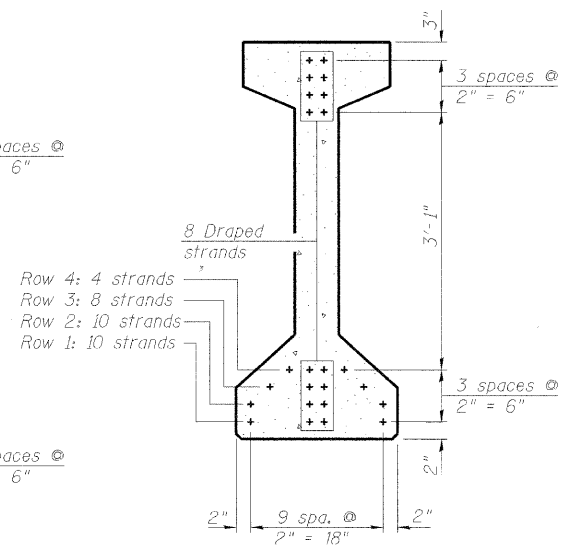
ELEVATION OF BEAM (Showing reinforcement & dimensions)



ELEVATION OF BEAM (Showing prestressing steel)



SECTION D-D



SECTION C-C

Standard strand Pattern
32 DSH for LRFD 54" I-beams

***BAR LIST ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G1	153	#4	10'-5"	∩L
G2	14	#4	8'-8"	∩
G3	12	#7	34'-8"	∩
G4	38	#3	4'-11"	∩
G5	97	#3	3'-5"	∩

***For information only
Notes:
See Sht. 18 of 32 for additional details and Bill of Material. Required release strength, f'ci, shall be 5,000 psi.

54" PPC I-BEAM
ELMORE ROAD BRIDGE
OVER FRENCH CREEK

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

NOTES

- See Sht. 13 and 18 of 32 for Permanent Bracing Location and Details.
- See Sht. 7 and 14 of 32 for Dock Drain Locations.
- See Sht. 13 of 32 for m2(E) bar locations.
- It shall be the responsibility of the precast fabricator to adjust location of holes and inserts to miss strands within permissible tolerances.

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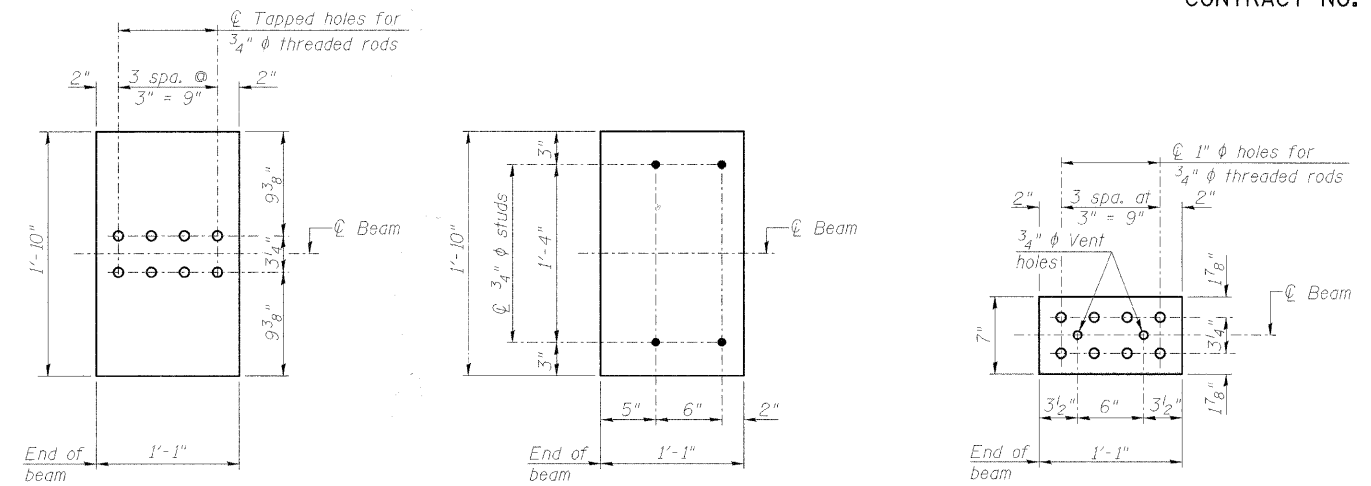
HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	17
STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT BROS-0143(049)		

INTERIOR BEAM MOMENT TABLE		
		Span
I	(in ⁴)	213,715
I'	(in ⁴)	478,025
S_b	(in ³)	8,559
S_b'	(in ³)	12,507
S_t	(in ³)	7,362
S_t'	(in ³)	30,293
$DC1$	(k/ft)	1.205
M_{DC1}	(k)	1,395
$DC2$	(k/ft)	0.129
M_{DC2}	(k)	149
DW	(k/ft)	0.275
M_{DW}	(k)	318
$M_L + IM$	(k)	1,398

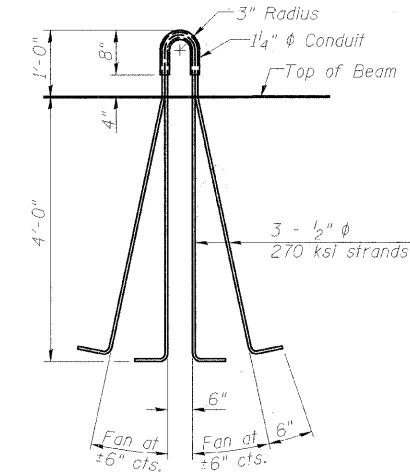
INTERIOR BEAM REACTION TABLE		
		Abut.
R_{DC1}	(k)	58.0
R_{DC2}	(k)	6.2
R_{DW}	(k)	13.2
$R_L + IM$	(k)	81.3
R_{Total}	(k)	158.7

I : Non-composite moment of inertia of beam section (in⁴).
 I' : Composite moment of inertia of beam section (in⁴).
 S_b : Non-composite section modulus for the bottom fiber of the prestressed beam (in³).
 S_b' : Composite section modulus for the bottom fiber of the prestressed beam (in³).
 S_t : Non-composite section modulus for the top fiber of the prestressed beam (in³).
 S_t' : Composite section modulus for the top fiber of the prestressed beam (in³).
 $DC1$: 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.).
 $M_L + IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

Estimated Weight of 54" P.P.C. I-Beams = 60,700 lbs., Each.



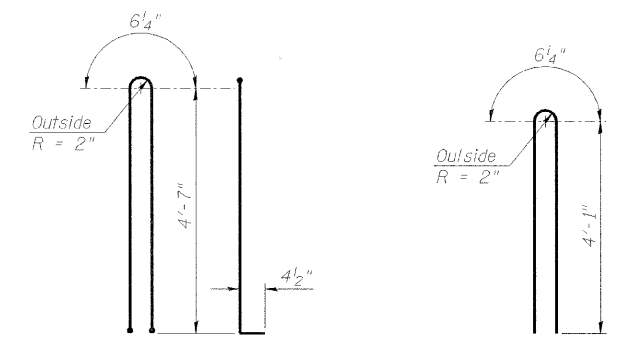
BOTTOM PLATE (Showing threaded rods) **BOTTOM PLATE** (Showing studs) **TOP PLATE**



LIFTING LOOP DETAIL
(2 Required each end of beam)

NOTES

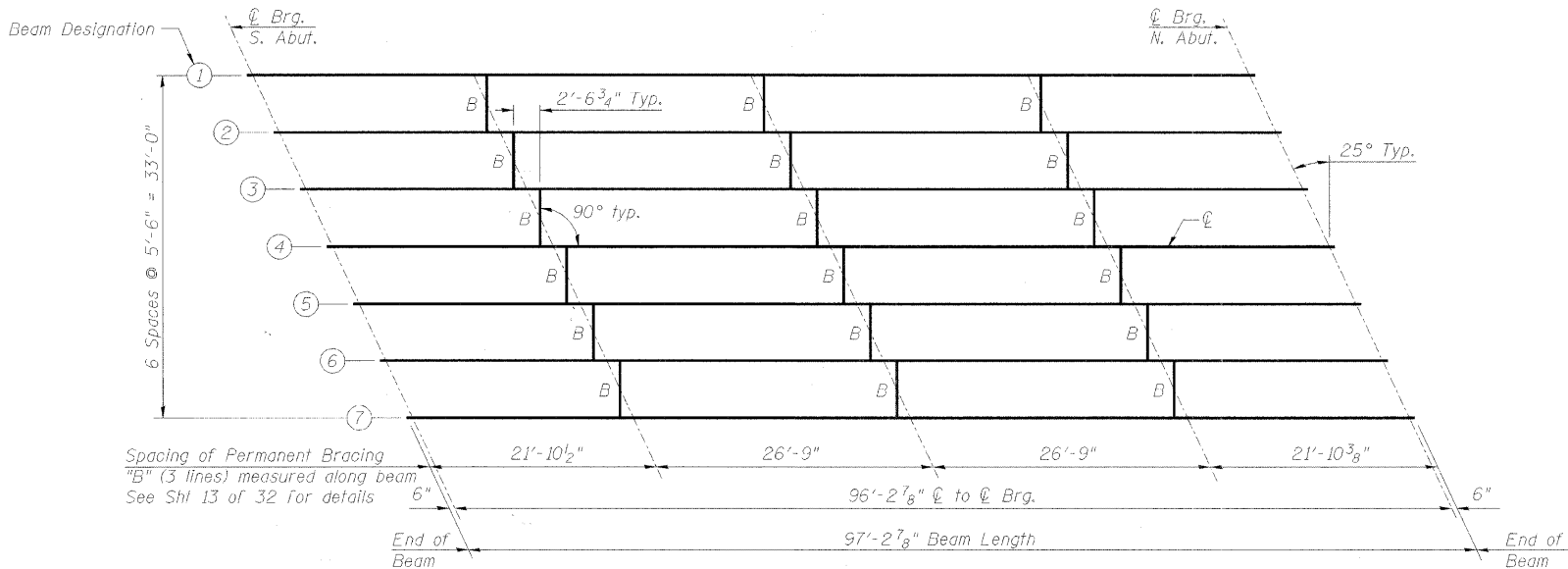
- Inserts for 3/4" diameter threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
- A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.
- The top and bottom plates shall be AASHTO M270 Grade 50.
- The bottom plates and studs shall be galvanized according to AASHTO M111.
- Threaded rods shall be ASTM F 1554 Grade 55.



BAR G1 **BAR G2** **BAR G4** **BAR G5**

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54"	Ft.	681



FRAMING PLAN

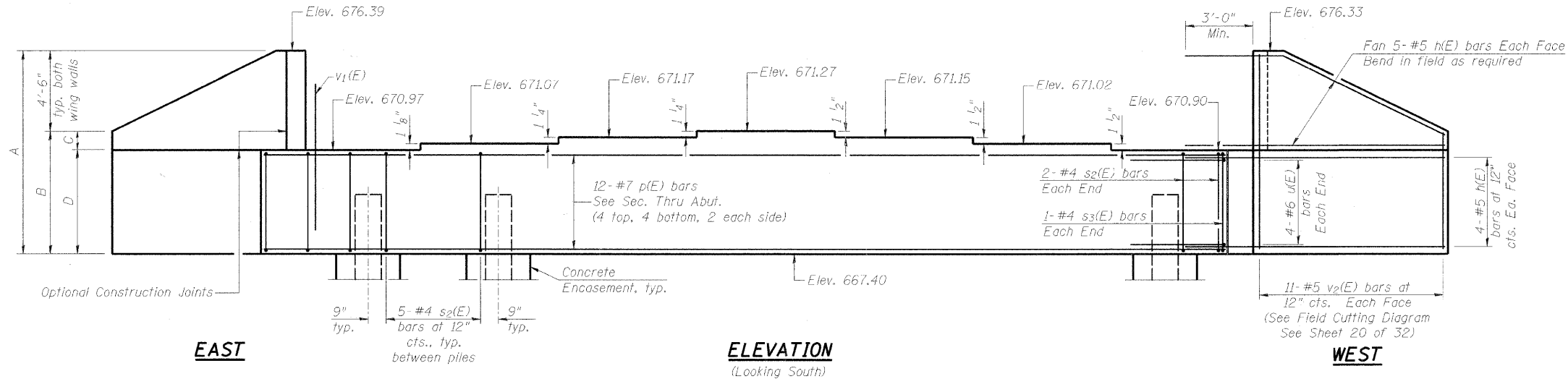


DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

**54" PPC I-BEAM DETAILS
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

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	R-15	08-00092-00-BR	PEORIA	32	18
	STRUCTURE NO. 072-3147		STATION 7+27		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BROS-0143(049)

Notes: Four steps monolithically with cap.



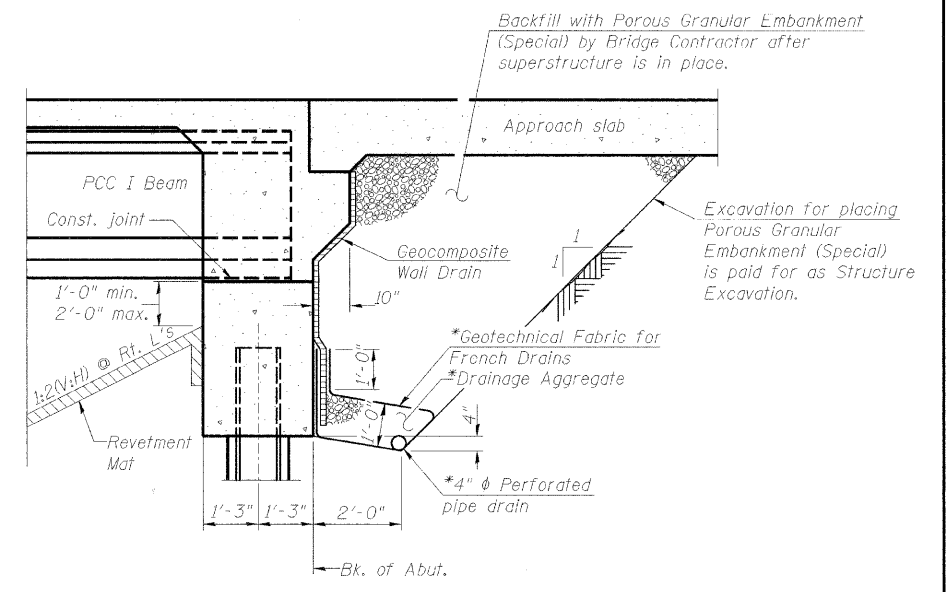
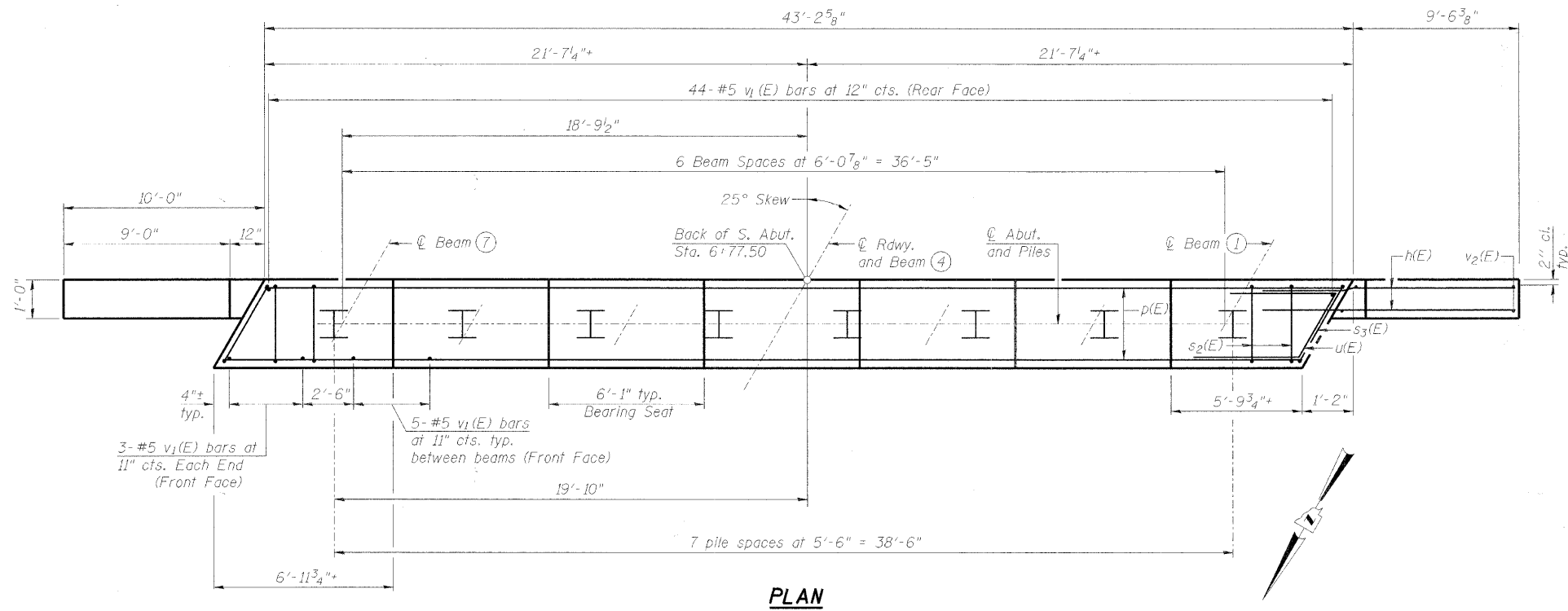
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n(E)	36	#5	14'-0"	
p(E)	12	#7	42'-10"	
s2(E)	39	#4	11'-5"	
s3(E)	2	#4	11'-9"	
u(E)	8	#6	9'-5"	
v1(E)	80	#5	4'-4"	
v2(E)	22	#5	12'-8"	
Structure Excavation		Cu. Yd.	194	
Concrete Structures		Cu. Yd.	19.6	
Reinforcement Bars, Epoxy Coated		Pound	2,650	
Furnishing Steel Piles, HP 12x53		Foot	350	
Driving Piles		Foot	350	
Pipe Underdrains for Structures, 4"		Foot	82	
Geocomposite Wall Drain		Sq. Yd.	49	
Porous Granular Embankment (Special)		Cu. Yd.	100	
Test Pile, HP 12x53		Each	1	
Concrete Encasement		Cu. Yd.	2.8	
Concrete Headwall for Pipe Drains		Each	2	

WING WALL DIMENSIONS

	East	West
A	8'-11 1/8"	8'-11 1/8"
B	4'-5 7/8"	4'-5 7/8"
C	11"	11 1/8"
D	3'-6 7/8"	3'-6"

1. For Pile Details and Concrete Encasement, see Sht. 21 of 32.
2. For Section Thru Abutment, Bar Bends and Bar Cutting Diagram see Sht. 20 of 32.



SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)
Typ. Both Abutments

Note: *Included in the cost of Pipe Underdrains for Structures.
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

**SOUTH ABUTMENT DETAILS
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

PILE DATA

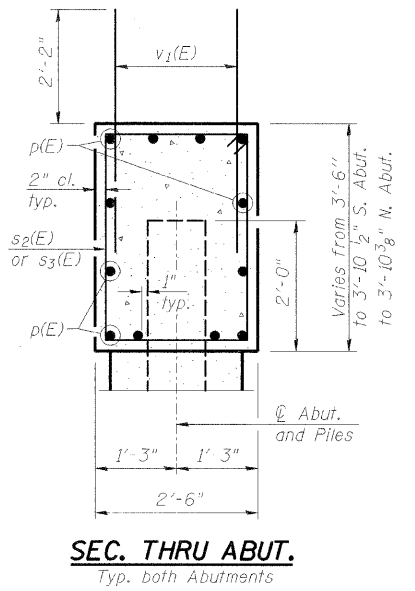
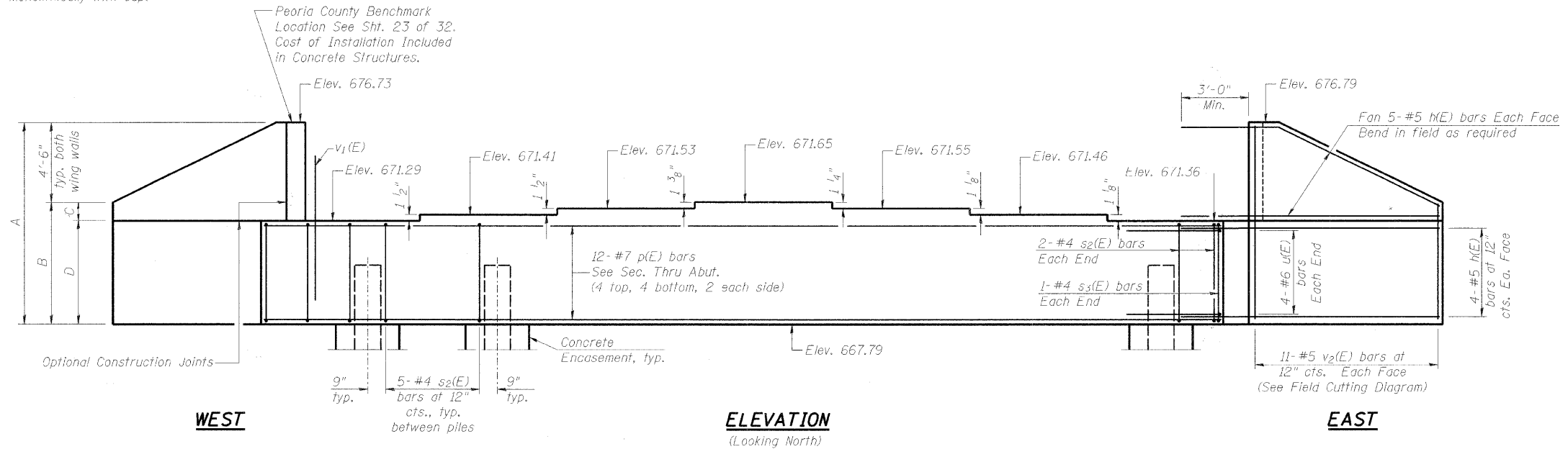
Type: HP 12x53
Nominal Required Bearing: 419 kips
Factored Resistance Available: 209.5 kips
Est. Length: 50 ft.
No. Production Piles: 7
No. Test Piles: 1

DESIGNED	P.J.L.
CHECKED	LLV
DRAWN	MGM
CHECKED	P.J.L.

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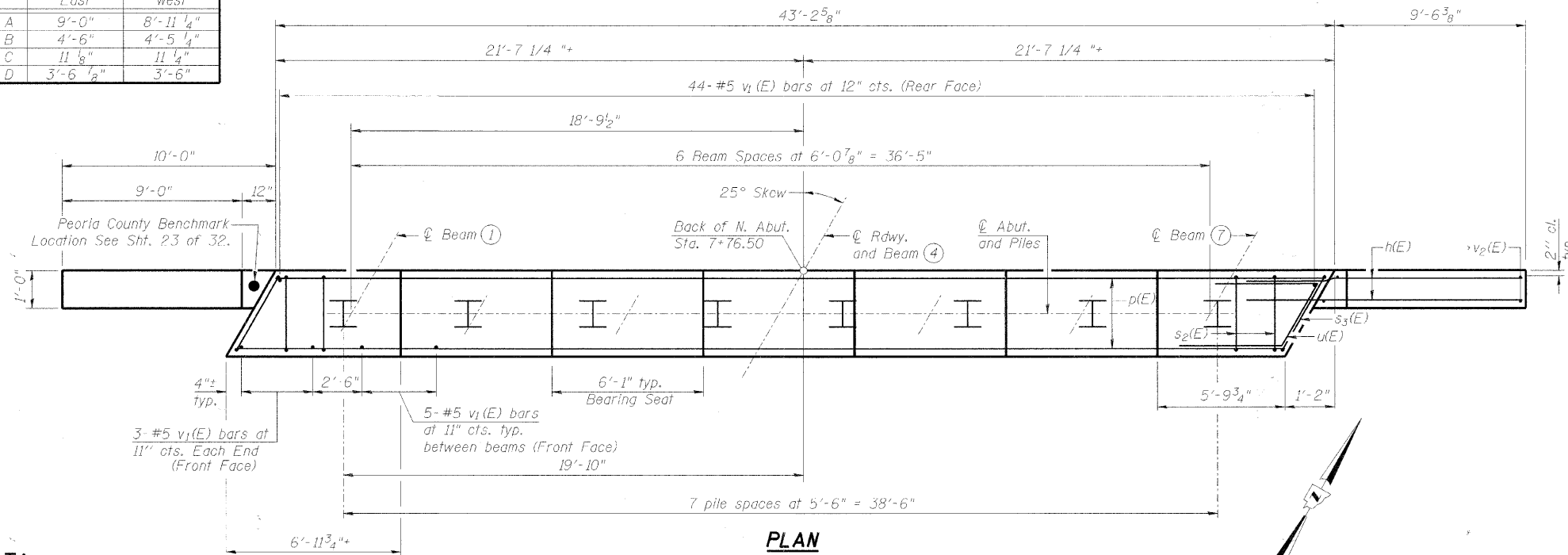
HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	19
STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT BROS-0143(049)		

Notes: Four steps monolithically with cap.



WING WALL DIMENSIONS

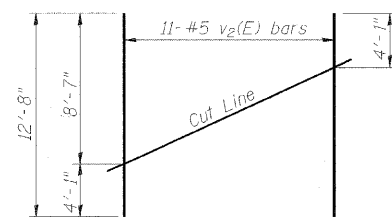
	East	West
A	9'-0"	8'-11 1/4"
B	4'-6"	4'-5 1/4"
C	11 1/8"	11 1/4"
D	3'-6 1/2"	3'-6"



PILE DATA

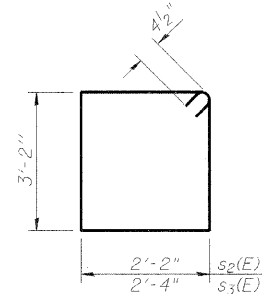
Type: HP 12x53
 Nominal Required Bearing: 419 kips
 Factored Resistance Available: 209.5 kips
 Est. Length: 55 ft.
 No. Production Piles: 7
 No. Test Piles: 1

DESIGNED	P.J.L.
CHECKED	LLV
DRAWN	MGM
CHECKED	P.J.L.



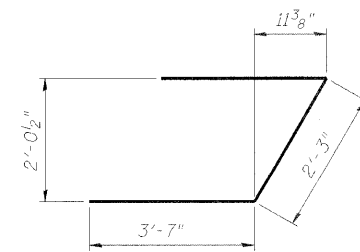
FIELD CUTTING DIAGRAM

Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.
 Typ. both Abutments



BARS s2(E) & s3(E)

Typ. both Abutments



BAR u(E)

Typ. both Abutments

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#5	14'-0"	
p(E)	12	#7	42'-10"	
s2(E)	39	#4	11'-5"	□
s3(E)	2	#4	11'-9"	□
u(E)	8	#6	9'-5"	┌
v1(E)	80	#5	4'-4"	
v2(E)	22	#5	12'-8"	
Structure Excavation		Cu. Yd.	194	
Concrete Structures		Cu. Yd.	19.6	
Reinforcement Bars, Epoxy Coated		Pound	2,650	
Furnishing Steel Piles, HP 12x53		Foot	385	
Driving Piles		Foot	385	
Pipe Underdrains for Structures, 4"		Foot	82	
Geocomposite Wall Drain		Sq. Yd.	49	
Porous Granular Embankment (Special)		Cu. Yd.	100	
Test Pile, HP 12x53		Each	1	
Concrete Encasement		Cu. Yd.	2.8	
Concrete Headwall for Pipe Drains		Each	2	

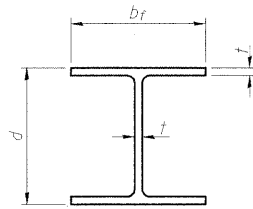
1. For Pile Details and Concrete Encasement, see Sht. 21 of 32.
 2. For Drain and Backfill Details, see Sht. 19 of 32.

**NORTH ABUTMENT DETAILS
 ELMORE ROAD BRIDGE
 OVER FRENCH CREEK**

AECOM

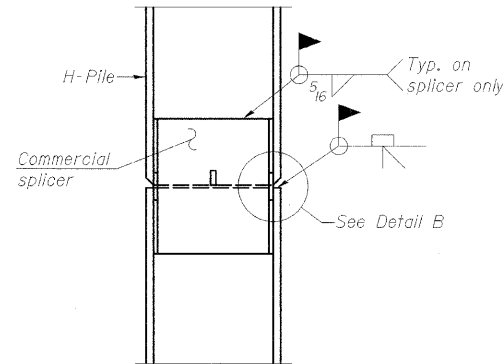
111 NE Jefferson Ave.
 Peoria, Illinois 61602
 Ph: 309.676.8464
 Fax: 309.676.5445
 IL Design Firm Reg.
 No. 184-001518
 www.aecom.com

HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	20
STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO. _ ILLINOIS		FED. AID PROJECT BROS-01431049		

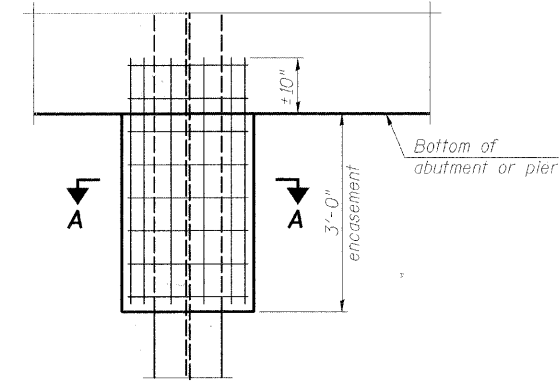


STEEL PILE TABLE

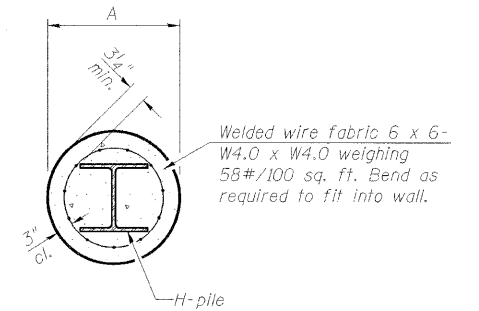
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 1/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53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



ELEVATION



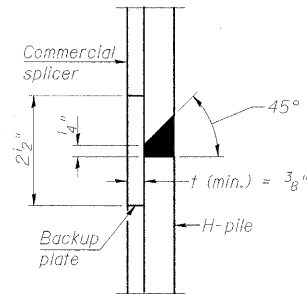
ELEVATION



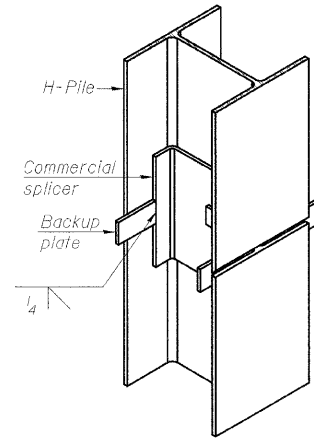
SECTION A-A

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

PILE ENCASUREMENT

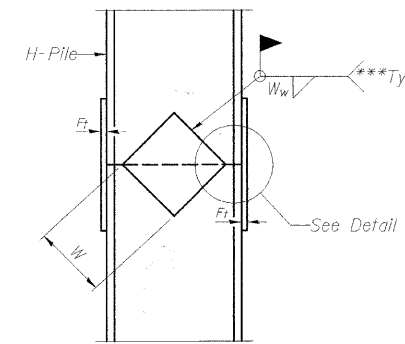


DETAIL "B"

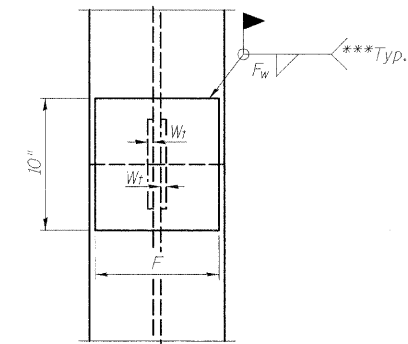


ISOMETRIC VIEW

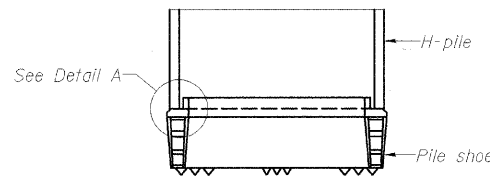
WELDED COMMERCIAL SPLICE



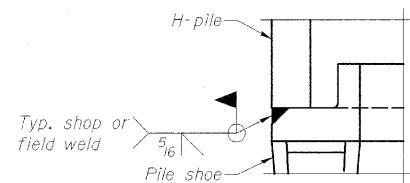
ELEVATION



END VIEW

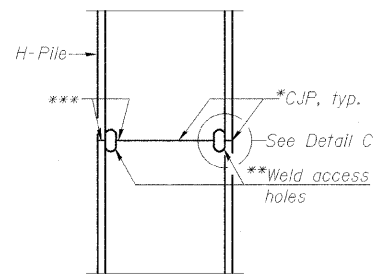


ELEVATION

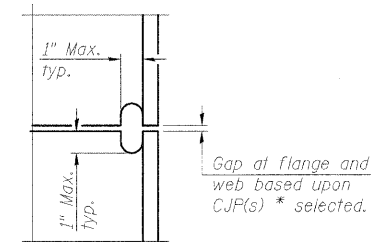


DETAIL A

H-PILE SHOE ATTACHMENT

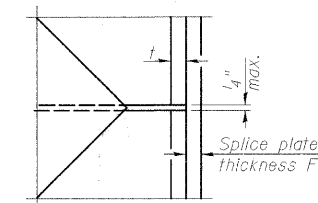


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
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"	1/2"	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"	1/2"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/2"	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"

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

- * 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.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

AECOM

111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph: 309.676.8464
Fax: 309.676.5445
IL Design Firm Reg.
No. 184-001518
www.aecom.com

HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	21
STRUCTURE NO. 072-3147			STATION 7+27	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BROS-0143(049)				

**H PILE DETAILS
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

The diameter of this part is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR



**** ONE PIECE**

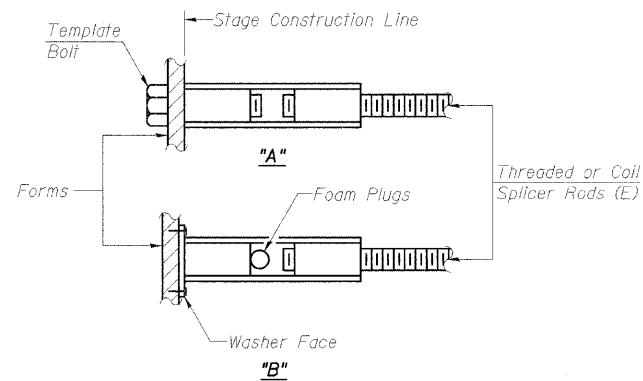
Wire Connector



WELDED SECTIONS

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

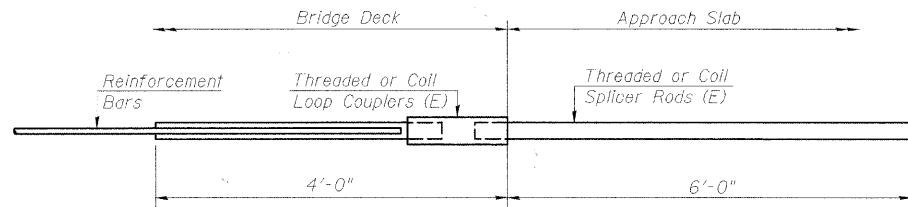
1. Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
2. Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
3. All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
4. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
5. 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) = $1.25 \times f_y \times A_L$

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

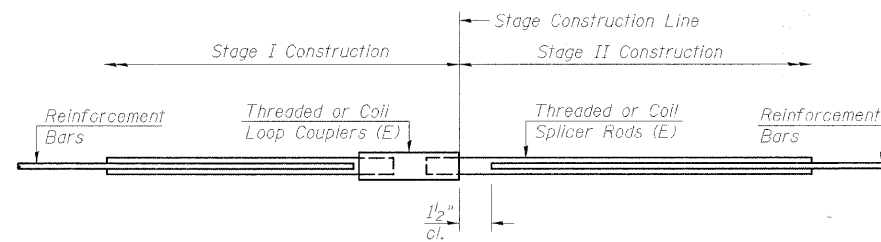
Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_L = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

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'-2"	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 = 76



STANDARD

Bar Size	No. Assemblies Required	Location

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

**BAR SPLICER ASSEMBLY DETAILS
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

	111 NE Jefferson Ave. Peoria, Illinois 61602 Ph: 309.676.8464 Fax: 309.676.5445 IL Design Firm Reg. No. 184-001518 www.aecom.com	HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		R-15	08-00092-00-BR	PEORIA	32	22
		STRUCTURE NO. 072-3147		STATION 7+27		
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	BROS-0143(049)	

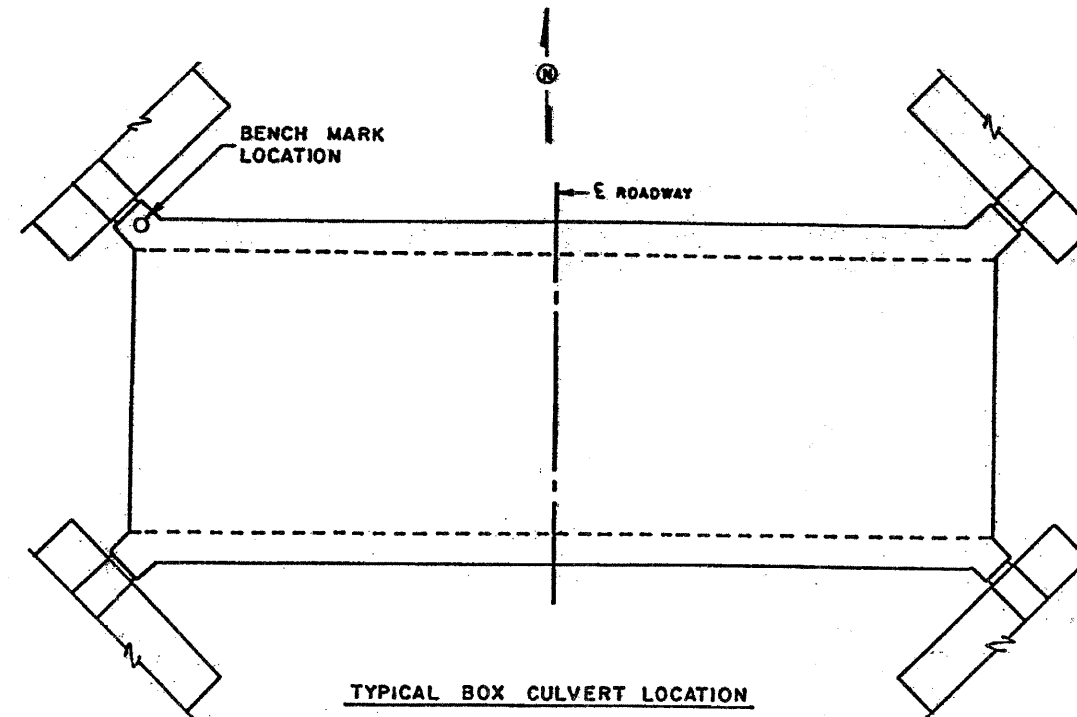
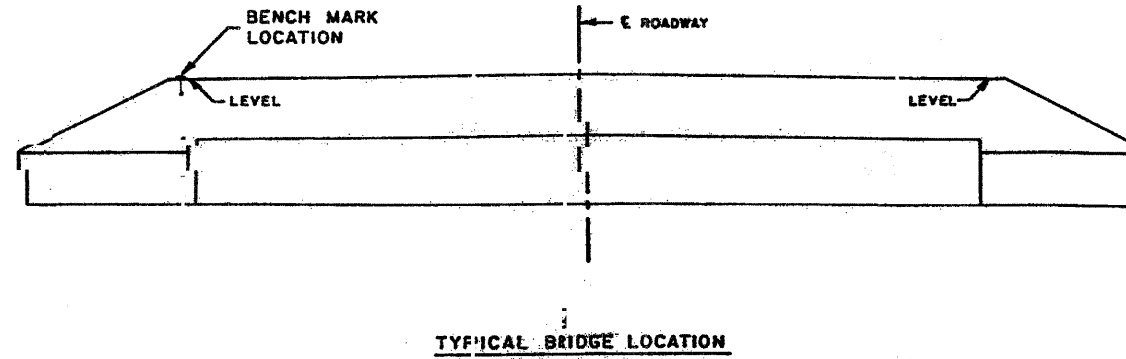
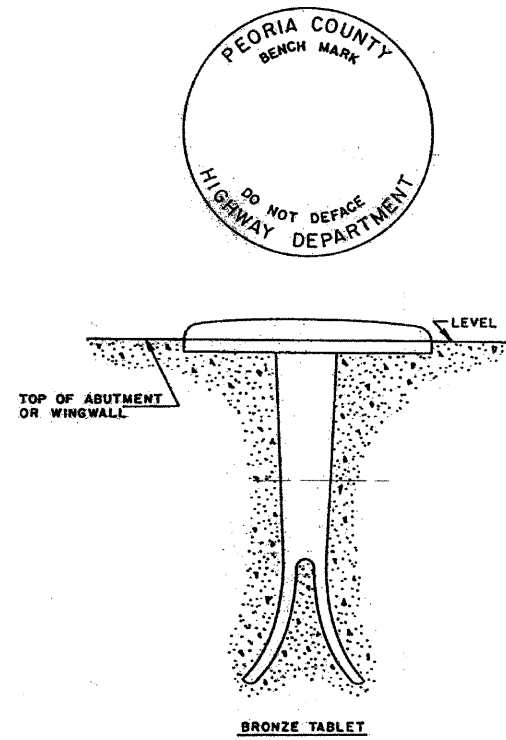
PEORIA COUNTY HIGHWAY DEPARTMENT BENCH MARK

The Bench Mark shall be installed at the Northwest corner of the proposed bridge or box culvert in accordance with the details shown below. In general, the bench mark will be placed in a level area in the abutment of the bridge or wingwall of the box culvert so as to be readily accessible.

The bench mark shall be placed under the direction of the Engineer and shall be installed in a workmanlike manner.

The elevation shall be permanently marked by the use of metal dies after the bench mark has been installed. The elevation will be based on U.S.G.S. datum.

The bronze tablet to be installed as the bench mark, shall be furnished by the Peoria County Highway Department.



**PEORIA COUNTY BENCHMARK
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

AECOM
 111 NE Jefferson Ave.
 Peoria, Illinois 61602
 Ph: 309.676.8464
 Fax: 309.676.5445
 IL Design Firm Reg.
 No. 184-001518
 www.aecom.com

HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	23
STRUCTURE NO. 072-3147		STATION 7+27		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT BROS-0143(049)				

BORING NO. B-01
 DATE 11-20-08
 W & A FILE NO. 4822

WHITNEY & ASSOCIATES
 3406 West Nebraska Avenue
 PEORIA, ILLINOIS 61604

BORING LOG

PROJECT ELMORE ROAD BRIDGE, SECTION #08-00092-00-BR LOCATION Peoria County, Illinois
 BORING LOCATION Station 113+24, 13' Left of Centerline DRILLED BY Feh
 BORING TYPE Hollow Stem Auger WEATHER CONDITIONS Partly Cloudy & Mild
 SOIL CLASSIFICATION SYSTEM U.S.B.S.C. SEEPAGE WATER ENCOUNTERED AT ELEVATION None
 GROUND SURFACE ELEVATION 676.0 GROUND WATER ELEVATION AT 3 HRS (-)27.1 FT
 BORING DISCONTINUED AT ELEVATION 600.0 GROUND WATER ELEVATION AT COMPLETION (-)50.0 FT

DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qc	Dc	Mc
0-4	SS	1	0.8	0.7	98	24
4-8	SS	2	1.2	1.0	95	25
8-12	SS	3	1.4	1.1	102	19
12-16	SS	2	1.5	1.4	101	21
16-20	SS	2	1.3	1.2	97	24
20-24	SS	2	1.1	0.9	99	23
24-28	SS	3	3.3	3.2	118	14
28-32	SS	4	3.6	3.3	118	14
32-36	SS	6	4.5+	5.2	122	12
36-40	SS	8	4.5+	5.4	123	11

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
 SS - SPLIT SPOON SAMPLE
 ST - Shelby Tube Sample
 Qc - CALIBRATED PENETROMETER READING - T.S.F. FALLING 30 INCHES
 Qp - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
 Dc - NATURAL DRY DENSITY - P.C.F.
 Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
 PEORIA, ILLINOIS

BORING NO. B-01
 DATE 11-20-08

BORING LOG
 (CONTINUATION)

PROJECT Elmore Road Bridge, Section #08-00092-00-BR SHEET 2 OF 6
 LOCATION Peoria County, Illinois W & A FILE NO. 4822

DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qc	Dc	Mc
40-44	SS	7	2.4	2.1	117	15
44-48	SS	9	1.9	1.7	116	16
48-52	SS	7	4.0	3.5	119	13
52-56	SS	4	2.5	2.1	117	15
56-60	SS	6	3.5	3.3	119	13
60-64	SS	7	4.3	4.0	121	12
64-68	SS	7	3.8	3.6	120	13

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
 SS - SPLIT SPOON SAMPLE
 ST - Shelby Tube Sample
 Qc - CALIBRATED PENETROMETER READING - T.S.F. FALLING 30 INCHES
 Qp - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
 Dc - NATURAL DRY DENSITY - P.C.F.
 Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
 PEORIA, ILLINOIS

BORING NO. B-01
 DATE 11-20-08

BORING LOG
 (CONTINUATION)

PROJECT Elmore Road Bridge, Section #08-00092-00-BR SHEET 3 OF 6
 LOCATION Peoria County, Illinois W & A FILE NO. 4822

DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qc	Dc	Mc
68-72	SS	8	4.5+	7.0	124	11
72-76	SS	8	4.5+	6.6	124	11
76-80	SS	10	4.5+	6.8	125	10
80-84	SS	9	4.5+	6.6	125	11

EXPLORATORY BORING DISCONTINUED

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
 SS - SPLIT SPOON SAMPLE
 ST - Shelby Tube Sample
 Qc - CALIBRATED PENETROMETER READING - T.S.F. FALLING 30 INCHES
 Qp - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
 Dc - NATURAL DRY DENSITY - P.C.F.
 Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
 PEORIA, ILLINOIS

DESIGNED	F.J.L.
CHECKED	LLV
DRAWN	MGM
CHECKED	F.J.L.

**BORING LOGS (B-01)
 ELMORE ROAD BRIDGE
 OVER FRENCH CREEK**

AECOM 111 NE Jefferson Ave. Peoria, Illinois 61602 Ph: 309.676.8464 Fax: 309.676.5445 IL Design Firm Reg. No. 184-001518 www.aecom.com	HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	R-15	08-00092-00-BR	PEORIA	32	24
	STRUCTURE NO. 072-3147		STATION 7+27		FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT BROS-0143(049)

Whitney & Associates used centerline bridge = Sta. 112+75 with stations increasing to the north. = Project Sta. 7+27
 Boring B-02 is 13' Right of Project Sta. 6+77

BORING NO. B-02
 DATE 11-20-08
 W & A FILE NO. 4822
 SHEET 4 OF 6

WHITNEY & ASSOCIATES
 2406 West Nebraska Avenue
 PEORIA, ILLINOIS 61604

BORING LOG

PROJECT **ELMORE ROAD BRIDGE, SECTION #08-00092-00-BR** LOCATION Peoria County, Illinois
 BORING LOCATION Station 112+25, 13' Right of Centerline DRILLED BY Fahl
 BORING TYPE Hollow Stem Auger WEATHER CONDITIONS Partly Cloudy & Mild
 SOIL CLASSIFICATION SYSTEM U.S.B.S.C. SEEPAGE WATER ENCOUNTERED AT ELEVATION (-)26.5 FL
 GROUND SURFACE ELEVATION 876.8 GROUND WATER ELEVATION AT COMPLETION HRS None
 BORING DISCONTINUED AT ELEVATION 804.8

DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Ds	Mc
04	SS	2	1.3	1.2	98	22
08	SS	2	1.8	1.5	101	19
08	SS	4	2.5	2.2	104	17
12	SS	5	2.5	2.3	107	16
16	SS	4	1.5	1.2	99	18
16	SS	5	2.0	1.8	98	24
20	SS	9	4.5+	5.9	124	11
24	SS	8	4.0	3.8	121	13
24	SS	8	3.8	3.6	121	13

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
 SS - SPLIT SPOON SAMPLE
 ST - SHELBY TUBE SAMPLE
 Qp - CALIBRATED PENETROMETER READING - T.S.F.
 Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
 Ds - NATURAL DRY DENSITY - P.C.F.
 Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
 PEORIA, ILLINOIS

BORING NO. B-02
 DATE 11-20-08
 PROJECT Elmore Road Bridge, Section #08-00092-00-BR SHEET 5 OF 6
 LOCATION Peoria County, Illinois W & A FILE NO. 4822

BORING LOG
 (CONTINUATION)

DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Ds	Mc
30	SS	8	4.5+	4.7	122	12
34	SS	9	4.5+	4.9	122	12
38	SS	11	4.5	4.3	120	13
42	SS	14	4.5+	5.0	123	12
46	SS	15	4.5+	5.4	122	13
50	SS	12	4.5+	6.0	123	12
54	SS	12	4.5+	5.8	124	11

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
 SS - SPLIT SPOON SAMPLE
 ST - SHELBY TUBE SAMPLE
 Qp - CALIBRATED PENETROMETER READING - T.S.F.
 Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
 Ds - NATURAL DRY DENSITY - P.C.F.
 Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
 PEORIA, ILLINOIS

BORING NO. B-02
 DATE 11-20-08
 PROJECT Elmore Road Bridge, Section #08-00092-00-BR SHEET 6 OF 6
 LOCATION Peoria County, Illinois W & A FILE NO. 4822

BORING LOG
 (CONTINUATION)

DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Ds	Mc
60	SS	8	4.5+	5.2	123	12
64	SS	10	4.5+	6.1	125	11
68	SS	11	4.5+	6.5	125	11
72	EXPLORATORY BORING DISCONTINUED					
76						
80						
84						

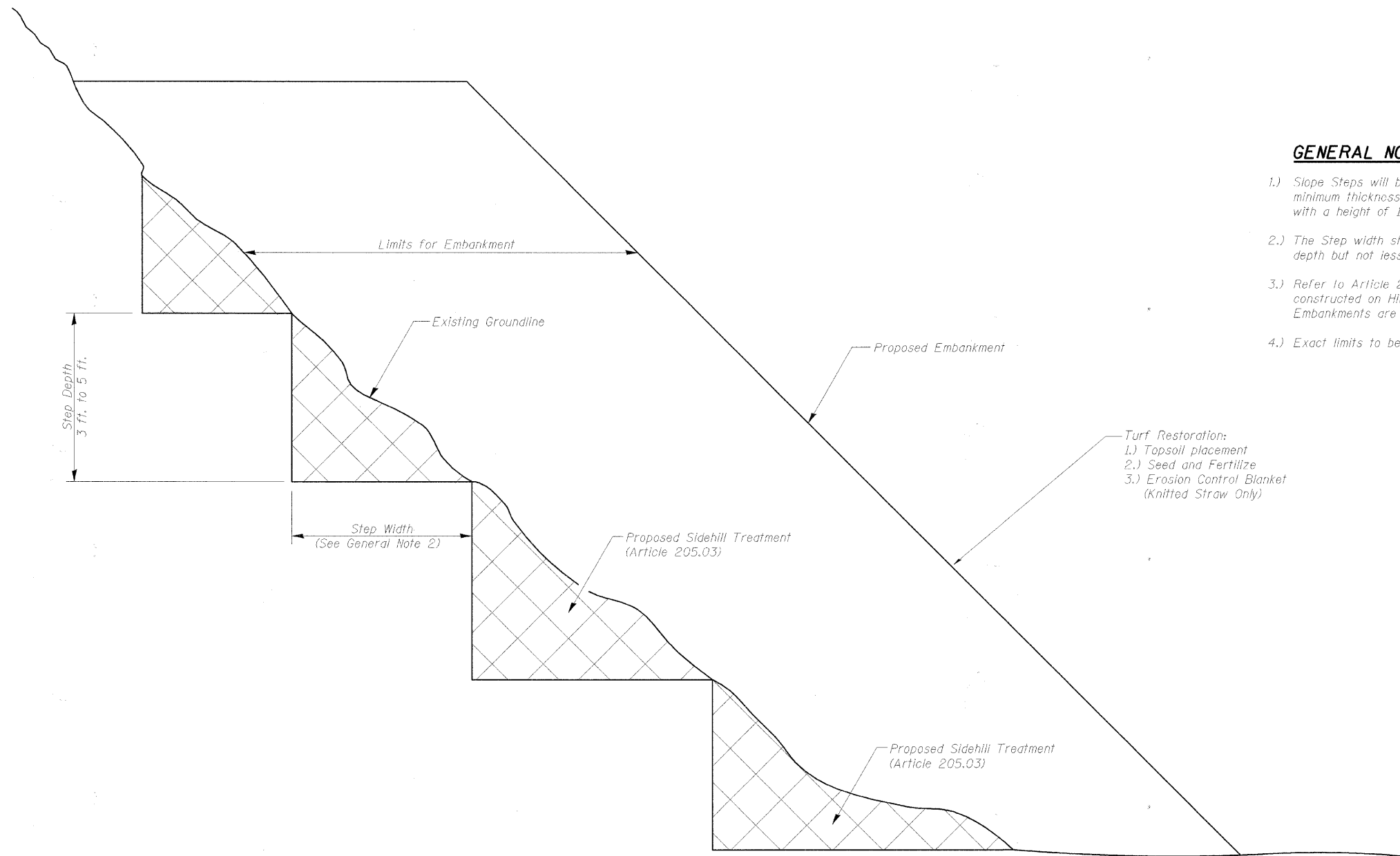
N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
 SS - SPLIT SPOON SAMPLE
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 Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
 PEORIA, ILLINOIS

DESIGNED	FJL
CHECKED	LLV
DRAWN	MGM
CHECKED	FJL

**BORING LOGS (B-02)
 ELMORE ROAD BRIDGE
 OVER FRENCH CREEK**

AECOM 111 NE Jefferson Ave. Peoria, Illinois 61602 Ph: 309.676.8464 Fax: 309.676.5445 IL Design Firm Reg. No. 184-001518 www.aecom.com	HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	R-15	08-00092-00-BR	PEORIA	32	25
	STRUCTURE NO. 072-3147		STATION 7+27		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BROS-0143(049)



GENERAL NOTES:

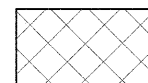
- 1.) Slope Steps will be required for all 12" minimum thickness "silver fills" and on fills with a height of 10 ft.
- 2.) The Step width shall be twice the Step depth but not less than 6 ft.
- 3.) Refer to Article 205.03 for Embankment to be constructed on Hillside or Slopes, or if existing Embankments are to be widened.
- 4.) Exact limits to be determined in the field.

SLOPE STEPS DETAIL

Typical Cross-Section Embankment Construction on Sidehill

**SLOPE STEPS DETAIL
DISTRICT CADD STANDARD
205001-D4
ELMORE ROAD BRIDGE
OVER FRENCH CREEK**

REPLACEMENT MATERIAL:



Standard Embankment
(In Accordance with 205 of
the Standard Specification)

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

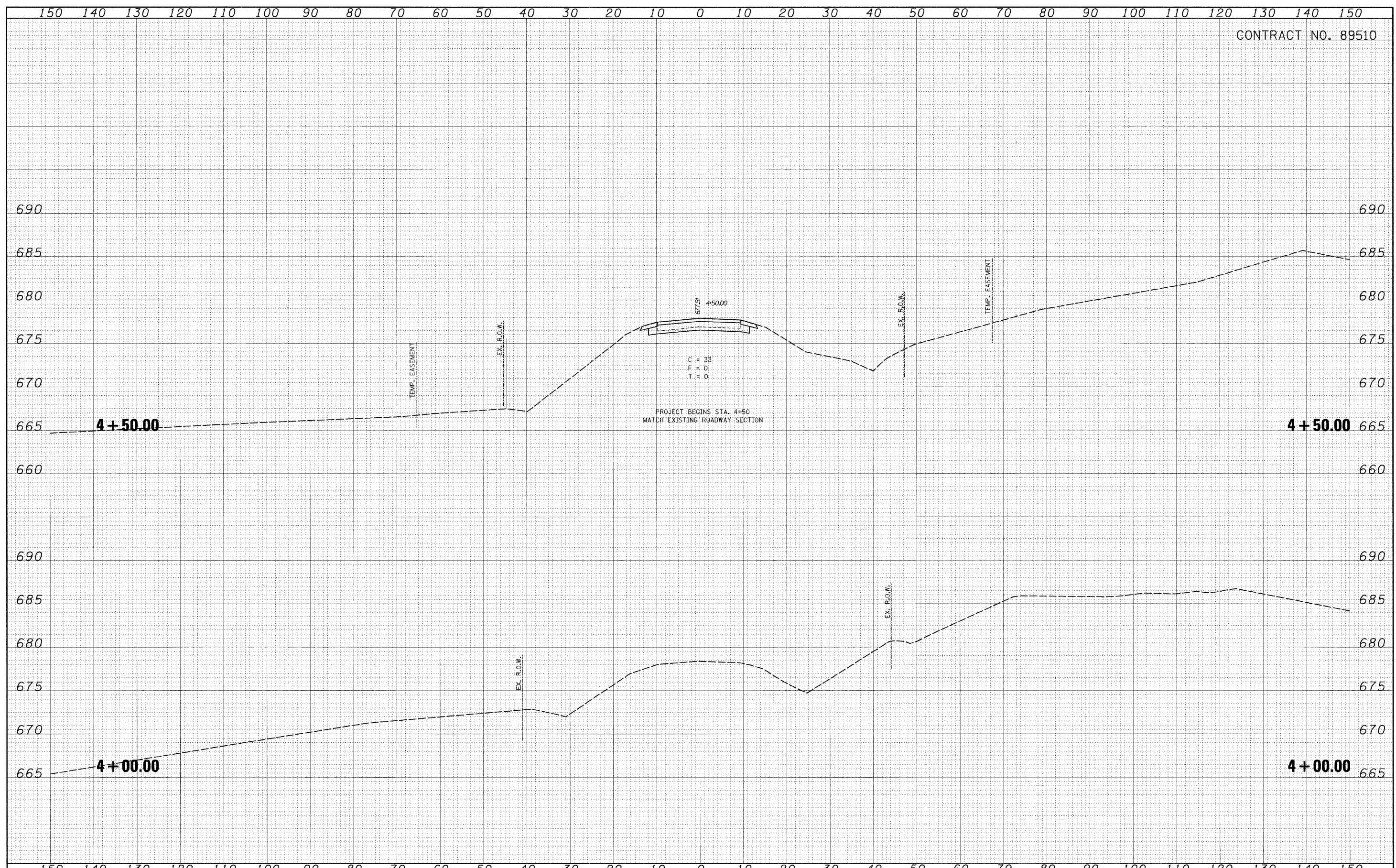
All dimensions are in inches unless otherwise noted.

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HWY	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R-15	08-00092-00-BR	PEORIA	32	26
STRUCTURE NO. 072-3147			STATION 7+27	
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT BROS-0143(049)	

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SIGNATURE	PLOTTED		
NOTE BOOK NO.	TEMPLATE		
	AREAS CHECKED		

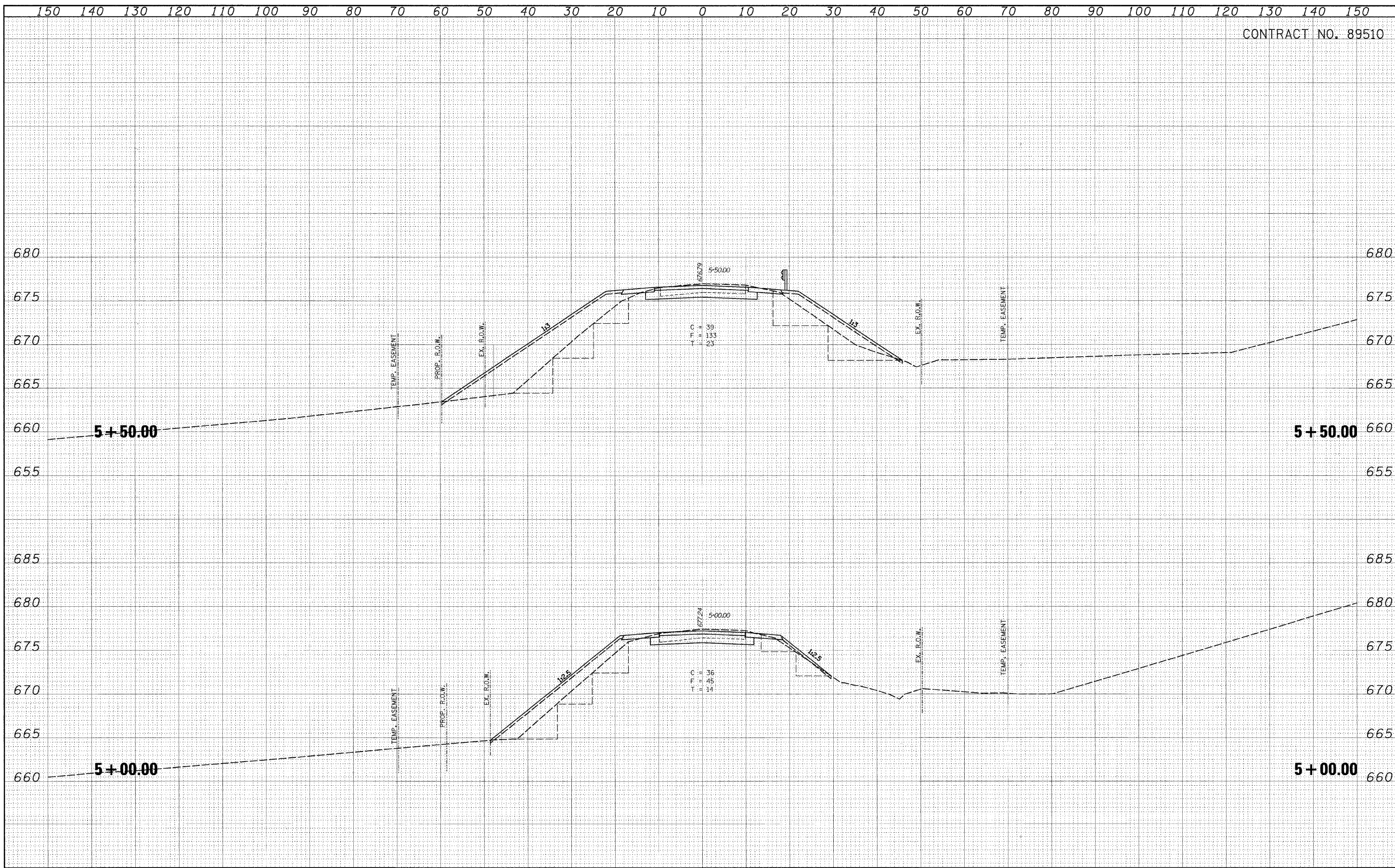
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		DATE -	REVISED -											

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NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

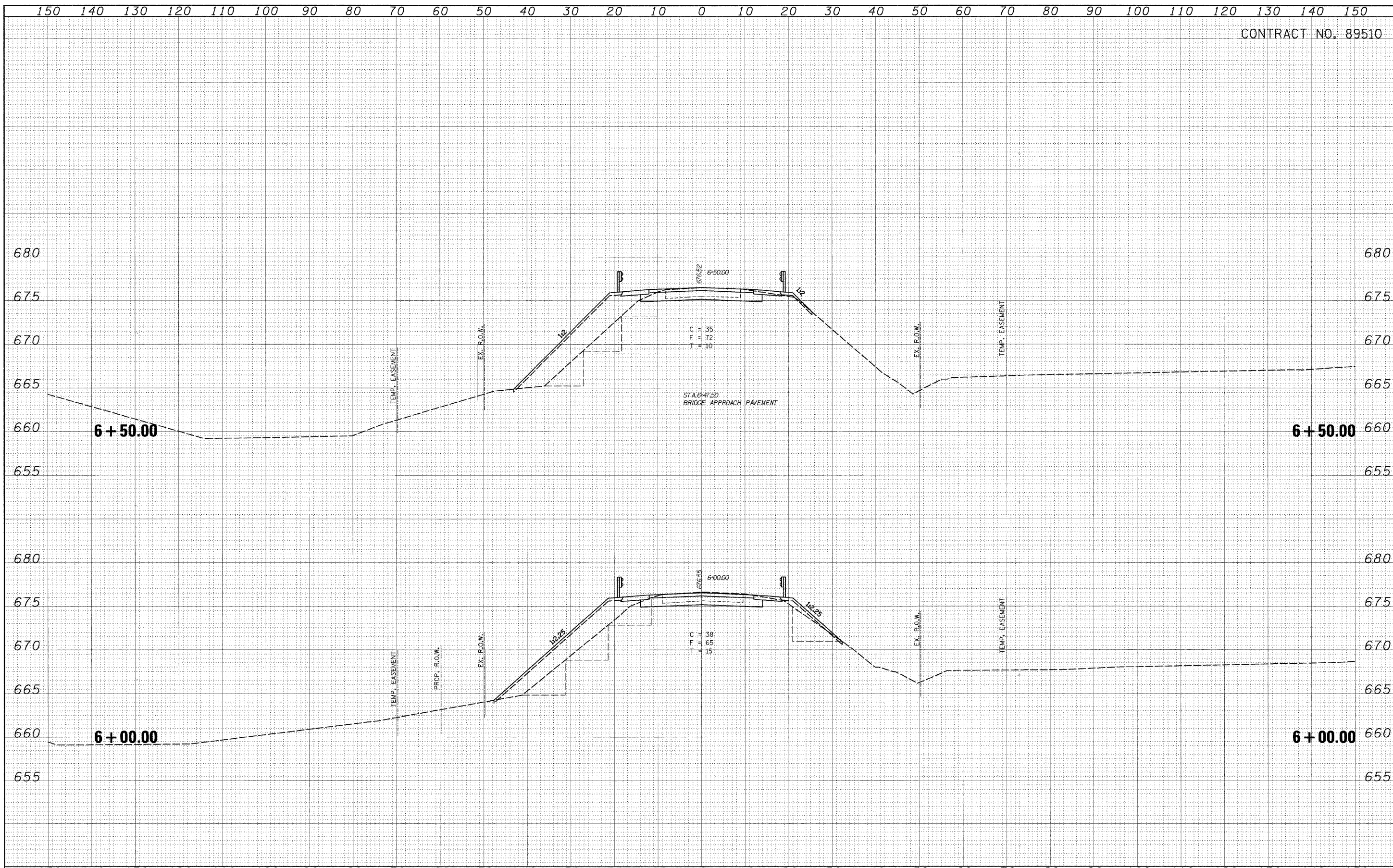
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NOTE BOOK	TEMPLATE		
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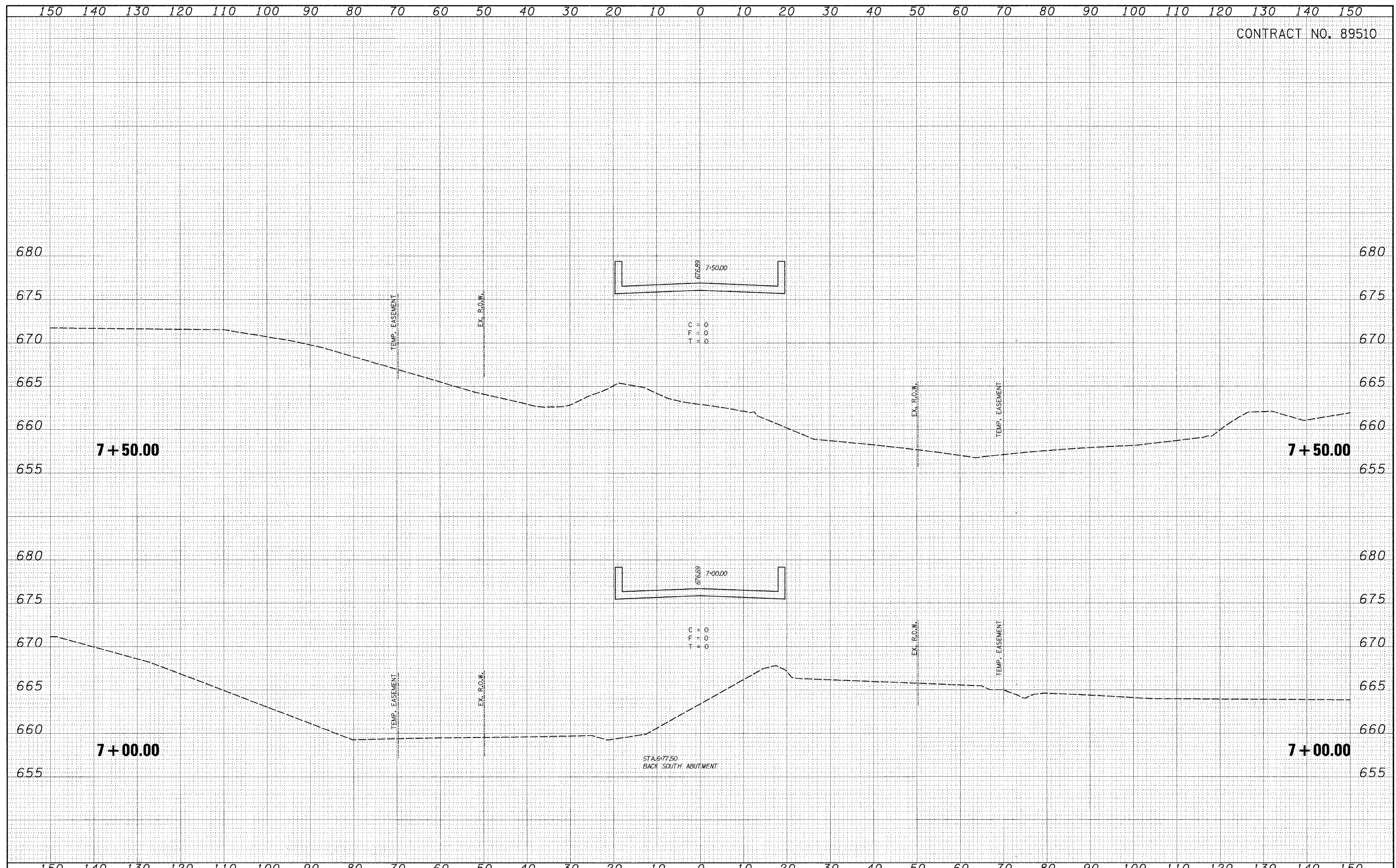
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FINAL SURVEY NO.	SURVEYED	BY	DATE
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AREAS CHECKED			

ORIGINAL SURVEY NO.	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
AREAS CHECKED			



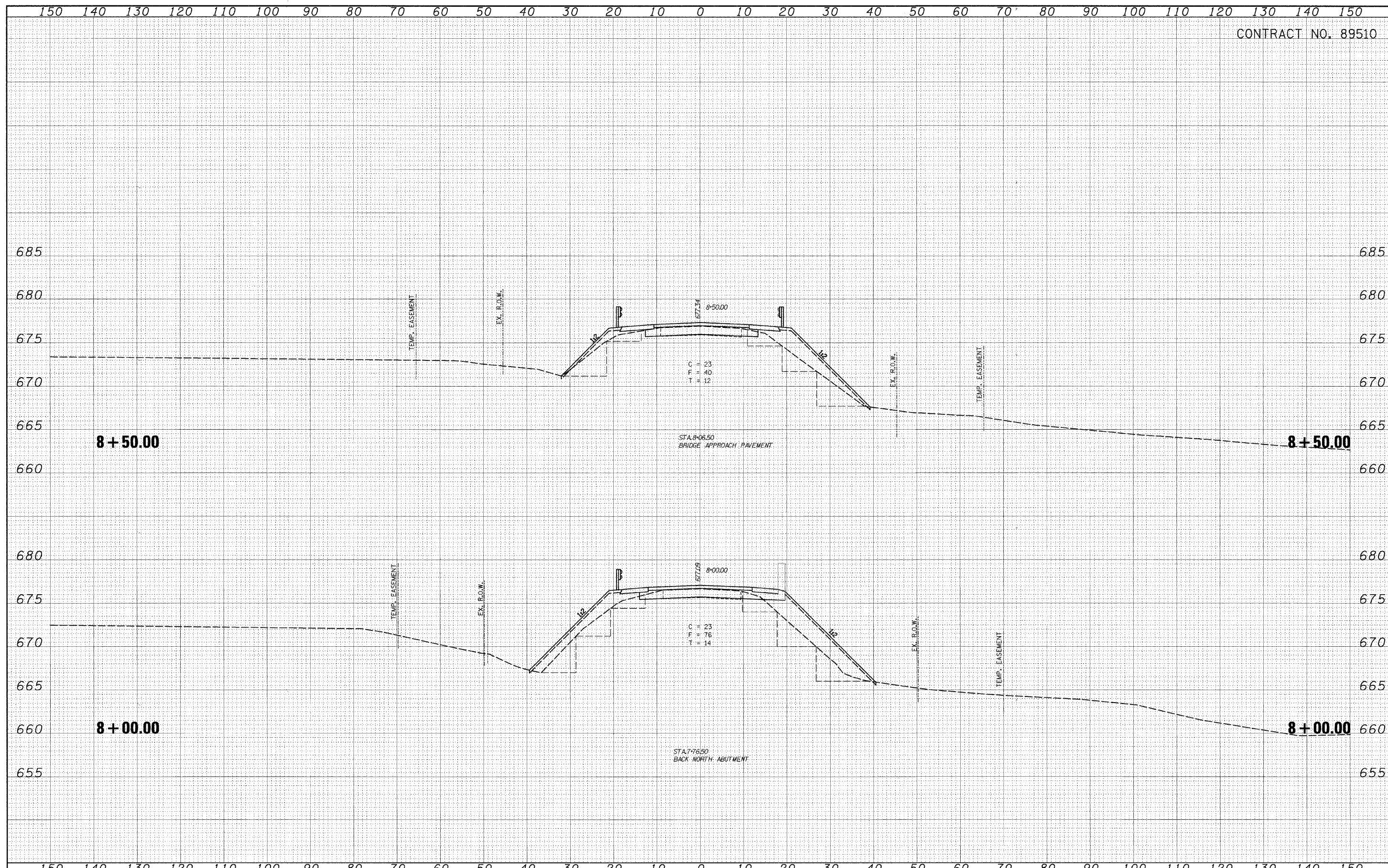
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FINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	BY
AREAS CHECKED	TEMPLATE	

ORIGINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	BY
AREAS CHECKED	TEMPLATE	

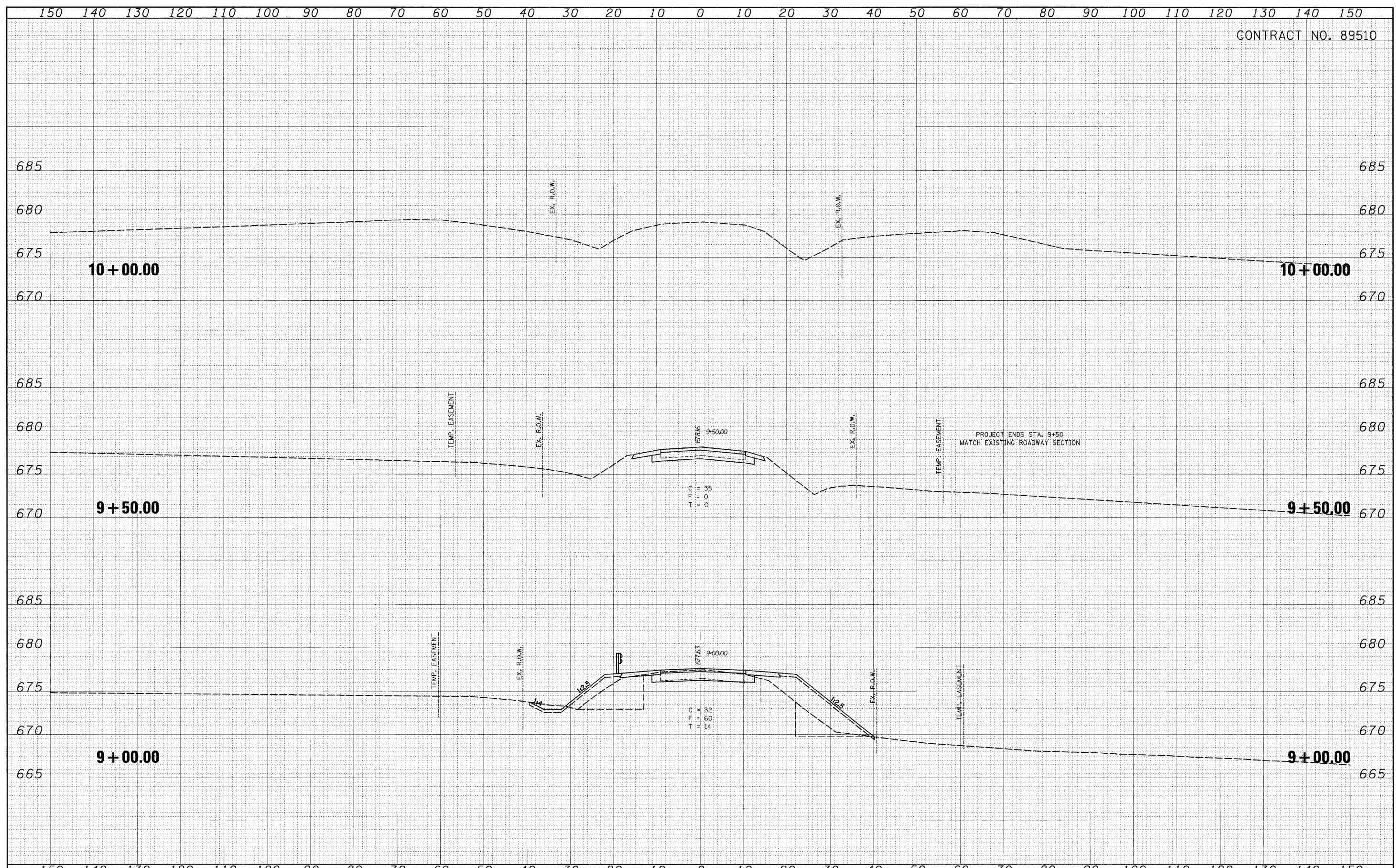
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NOTE BOOK NO.	PLOTTED BY	
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ORIGINAL SURVEY NO.	SURVEYED BY	DATE
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FINAL SURVEY	BY	DATE
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