TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	1
	ILLINOIS	CONTRACT NO. 93840		

08-01-2025 LETTING ITEM 065

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
LOCAL BRIDGE FORMULA PROGRAM
PILOT GROVE ROAD DISTRICT
SECTION 24-14119-00-BR
T.R. 91 (2350N)
HANCOCK COUNTY
FEDERAL PROJ. NO.: 8SIR(346)
JOB NO.: C-96-012-26

INDEX OF SHEETS

ILLINOIS HIGHWAY STANDARDS

000001-08	701001-02	701901-10
280001-07	701006-05	725001-01
515001-04	701011-04	BLR 21-9

DESIGN DESIGNATION

TOWNSHIP ROAD 91 (2350N)
FUNCTIONAL CLASS: LOCAL ROAD
ADT = 75 (2023) 76 (2046)
DESIGN SPEED = 30 MPH

UTILITIES

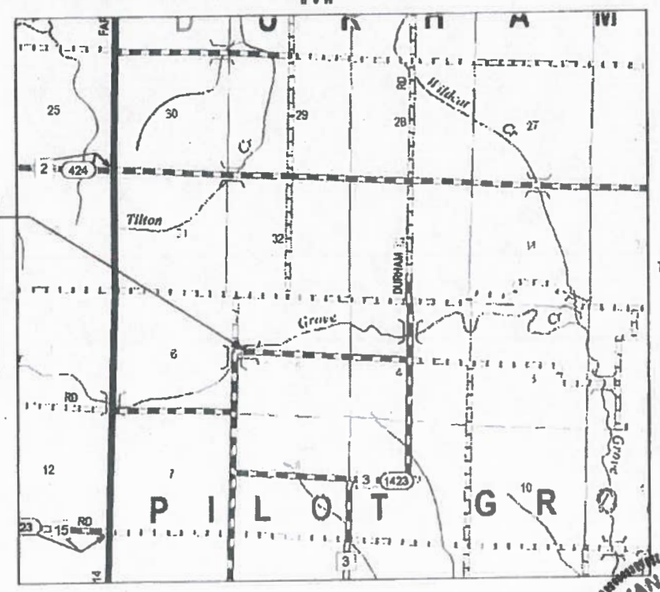
DALLAS RURAL WATER DISTRICT
RODNEY PENCE
(309) 337-0435

MCDONOUGH TELEPHONE COOP
CLINT WISSLEAD
(309) 776-3211

PROJECT DESRIPTION

Project consists of removing existing structure number 034-4816, a single-span 17" deep precast prestressed concrete deck beam bridge on concrete pile caps and closed timber abutments and timber piles carrying Township Road 91 (2350N) over Grove Creek. The back to back length is 49'-4" and the out to out width is 26'-0". New construction consists of 9-27" deep PPC Deck Beam bridge on integral abutments and steel H-piling. Additional work includes aggregate pavement, earth shoulders, seeding, disposing of the existing beams, riprap, and other miscellaneous items.

BEGIN STA. 3+85.00
PROPOSED S.N. 034-4817
STA. 5+55.00
ONE SPAN OVER GROVE CREEK
62'-0" BK TO BK ABUTMENTS
9-27" PPC DECK BEAMS
END STA 6+65.00



LOCATION MAP
SCALE: 1" = 2000'
GROSS /NET LENGTH OF SECTION = 280.00 FT. = 0.053 MILE

LOCATION OF SECTION INDICATED THUS:-

APPROVED 4/4 20 25
Eldon Berry
COUNTY ENGINEER

APPROVED 4/4 20 25
Jerry Green
PILOT GROVE ROAD DISTRICT HIGHWAY COMMISSIONER

APPROVED May 1, 20 25
DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review May 1, 20 25
REGION FOUR ENGINEER

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

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.

RYAN J. PHELPS
062.063007
REGISTERED PROFESSIONAL ENGINEER
OF ILLINOIS

4-4-2025
RYAN J. PHELPS DATE
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS NO. 062-063007
LICENSE EXPIRES NOVEMBER 30, 2025

Plans prepared by:
KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
Quincy, Illinois
816 North 34th Street
217 223.3570
www.klingner.com
Galesburg, IL Burlington, IA
Pella, IA Hannibal, MO Columbia, MO
IL DESIGN FIRM NO.: 1842738

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
	20200100	EARTH EXCAVATION	CU YD	150
	20300100	CHANNEL EXCAVATION	CU YD	136
	21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	455
	25000200	SEEDING, CLASS 2	ACRE	0.25
	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	23
	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	23
	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	23
	25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.5
	25100115	MULCH, METHOD 2	ACRE	0.25
	28000200	EARTH EXCAVATION FOR EROSION CONTROL	CU YD	25
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	50
	28000400	PERIMETER EROSION BARRIER	FOOT	525
	28100209	STONE RIPRAP, CLASS A5	TON	470
	28200200	FILTER FABRIC	SQ YD	358
	35101400	AGGREGATE BASE COURSE, TYPE B	TON	294
	40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	913
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	89
	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	68
	40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	56
	44000100	PAVEMENT REMOVAL	SQ YD	404
	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
	50200100	STRUCTURE EXCAVATION	CU YD	120
	50300225	CONCRETE STRUCTURES	CU YD	33.0
	50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1619
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4040
+	50900205	STEEL RAILING, TYPE S1	FOOT	124
	51201400	FURNISHING STEEL PILES HP10X42	FOOT	176
	51202305	DRIVING PILES	FOOT	176
	51203400	TEST PILE STEEL HP10X42	EACH	2
	51204650	PILE SHOES	EACH	10
	51500100	NAME PLATES	EACH	1
	58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	186
	58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	480
	58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	56
	67100100	MOBILIZATION	L SUM	1
+	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1
	X7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1

+ SPECIALTY ITEM

GENERAL NOTES

1. THE NOMINAL THICKNESS FOR BASE AND SURFACE COURSES ARE SHOWN ON THE TYPICAL SECTIONS, STANDARDS, SCHEDULES, OR SPECIAL DETAILS. THE CONSTRUCTED THICKNESS OF THE ABOVE ITEMS SHALL NOT BE LESS THAN 90 PERCENT OF THE NOMINAL THICKNESS AT ANY LOCATION.

   THE THICKNESS OF THE BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

2. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER AND AN AUTHORIZED SURVEYOR OR AGENT, HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

3. UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION, AND THEIR TRUE LOCATION IS NOT GUARANTEED TO BE AS SHOWN ON THE PLANS. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND CARRY OUT HIS OR HER OPERATIONS ACCORDINGLY.

4. ADJUSTMENTS OF UTILITY LOCATIONS SHALL BE MADE BY THE OWNER, UNLESS OTHERWISE NOTED.

5. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION, AS INDICATED BY THE SUB-NUMBER ON THE COVER SHEET.

6. ALL DETAILS IN THESE PLANS SHALL GOVERN THE CONSTRUCTION OF THIS PROJECT, AND IN CASE OF CONFLICT WITH ANY STANDARD DRAWINGS INCLUDED, THE SAID DETAILS SHALL GOVERN.

7. THE EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS PART OF THE CONTRACT AND NO COMPENSATION WILL BE ALLOWED.

8. IN ACCORDANCE WITH STATE OF ILLINOIS P.A. 86-0674, THE CONTRACTOR IS TO NOTIFY ALL UTILITY COMPANIES NOT MORE THAN 14 DAYS NOR LESS THAN 48 HOURS (EXCLUSIVE OF SATURDAYS, SUNDAYS, AND HOLIDAYS) IN ADVANCE OF THE START OF EXCAVATION OR DEMOLITION.

J.U.L.I.E TELEPHONE NUMBER
1-800-892-0123

9. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

LOCATION(S): / MIXTURE USE(S):	HMA BINDER	HMA SURF CSE
AC/PG:	PG 64-22	PG 64-22
DESIGN AIR VOIDS:	4.0% @ N DESIGN=50	4.0% @ N DESIGN=50
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL 19.0	IL 9.5
FRICTION AGGREGATE	N/A	MIX "C"
QUALITY	QA/QC	QA/QC
SUB-LOT SIZE	N/A	N/A

RATES OF APPLICATION TABLE

AGGREGATE (SURFACE, BASE, BASE, OR BACKFILL)	2.05 TON/CU YD
STONE RIPRAP	1.75 TON/CU YD
HOT-MIX ASPHALT:	
BITUMINOUS MATERIALS (TACK COAT)	0.025 POUND / SQ FT (SEE ARTICLE 406.05)
BITUMINOUS MATERIALS (PRIME COAT)	0.250 POUND / SQ FT (ON AGG BASE)
SURFACE / BINDER (112 lbs)	0.056 TON / SQ YD * IN
SEEDING AREAS:	
NITROGEN FERTILIZER NUTRIENT	90 LBS/ACRE
PHOSPHOROUS FERTILIZER NUTRIENT	90 LBS/ACRE
POTASSIUM FERTILIZER NUTRIENT	90 LBS/ACRE
AGRICULTURAL GROUND LIMESTONE	2 TON/ACRE
MULCH	2 TON/ACRE
TEMPORARY EROSION CONTROL SEEDING	100 LBS/ACRE

SEEDING SCHEDULE

ITEM	UNIT	TOTAL
SEEDING, CLASS 2	ACRE	0.25
NITROGEN FERTILIZER NUTRIENT	POUND	23
PHOSPHORUS FERTILIZER NUTRIENT	POUND	23
POTASSIUM FERTILIZER NUTRIENT	POUND	23
AGRICULTURAL GROUND LIMESTONE	TON	0.5
MULCH, METHOD 2	ACRE	0.25

EROSION CONTROL SCHEDULE

ITEM	UNIT	TOTAL
EARTH EXCAVATION FOR EROSION CONTROL	CU YD	25
TEMPORARY EROSION CONTROL SEEDING	POUND	50
PERIMETER EROSION BARRIER	FOOT	525

EARTH EXCAVATION SCHEDULE

LOCATION STATION TO STATION		SIDE	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED (25%)	EMBANKMENT	EARTHWORK BALANCE
			CU YD			
TR 91 (2350 N)						
3+85	7+00	LT & RT	150	110	110	0
TOTALS			150	110	110	0
USE			150	110	110	0

RIPRAP SCHEDULE

LOCATION STATION TO STATION		SIDE	STONE RIPRAP CLASS A5	FILTER FABRIC
			TON	SQ YD
TR 91 (2350 N)				
5+25.0	5+49.0	LT & RT	191.4	178.9
5+49.0	5+61.0	LT & RT	87.0	0.0
5+61.0	5+85.0	LT & RT	191.4	178.9
TOTALS			469.7	357.8
USE			470	358

PAVEMENT SCHEDULE

LOCATION STATION TO STATION		SIDE	SURFACE WIDTH	GEOTECH FABRIC	AGGREGATE BASE COURSE TYPE B	BITUMINOUS MATERIALS (PRIME COAT)	BITUMINOUS MATERIALS (TACK COAT)	HMA BINDER COURSE IL-19.0, N50	HMA SURFACE COURSE MIX "C", N50
				SQ YD	TON	POUND		TON	
TR 91 (2350 N)									
3+85.0	5+24.0	LT & RT	16.0	289.6	187.3	582.1	56.5	42.8	20.9
5+86.0	6+65.0	LT & RT	16.0	164.6	106.5	330.8	32.1	24.3	11.9
TOTALS				454.2	293.8	912.9	88.6	67.1	32.8
USE				455	294	913	89	68	33

PAVEMENT REMOVAL

STATION TO STATION		SIDE	SQ YD
TR 91 (2350 N)			
3+85.0	5+31.0	LT & RT	255.4
5+79.0	6+65.0	LT & RT	148.4
TOTAL			403.8
USE			404

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = rjp	DESIGNED - RJP	REVISED -	
	DRAWN - RJP	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED - EBB	REVISED -	
PLOT DATE = 4/3/2025	DATE -	REVISED -	

HANCOCK COUNTY HIGHWAY DEPARTMENT

TR 91 (2350N) OVER GROVE CREEK
SCHEDULE OF QUANTITIES

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	3
		CONTRACT NO. 93840		
	ILLINOIS FED. AID PROJECT			

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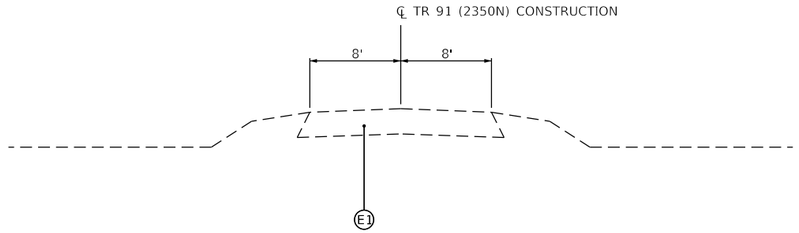
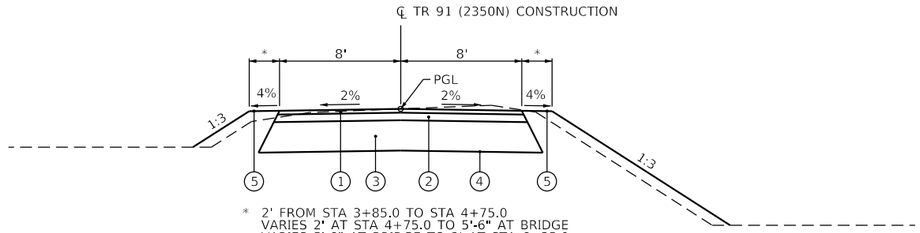


EXISTING TR 91 (2350N)
TYPICAL SECTION



* 2' FROM STA 3+85.0 TO STA 4+75.0
VARIES 2' AT STA 4+75.0 TO 5'-6" AT BRIDGE
VARIES 5'-6" AT BRIDGE TO 2' AT STA 6+35.0
2' FROM STA 6+35.0 TO STA 6+65.0

PROPOSED TR 91 (2350N)
TYPICAL SECTION

STA 3+85.0 TO STA 6+65.0 (BRIDGE: STA 5+24.0 TO 5+86.0)

LEGEND

E1 EXISTING O&C PAVEMENT

1 PROPOSED HMA SURFACE COURSE, IL-9.5, MIX "C", N50, 1 1/2"
2 PROPOSED HMA BINDER COURSE, IL-19.0, N50, 3"
3 PROPOSED AGGREGATE BASE COURSE, TYPE B, 12"
4 PROPOSED GEOTECHNICAL FABRIC
5 PROPOSED EARTH SHOULDER

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KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

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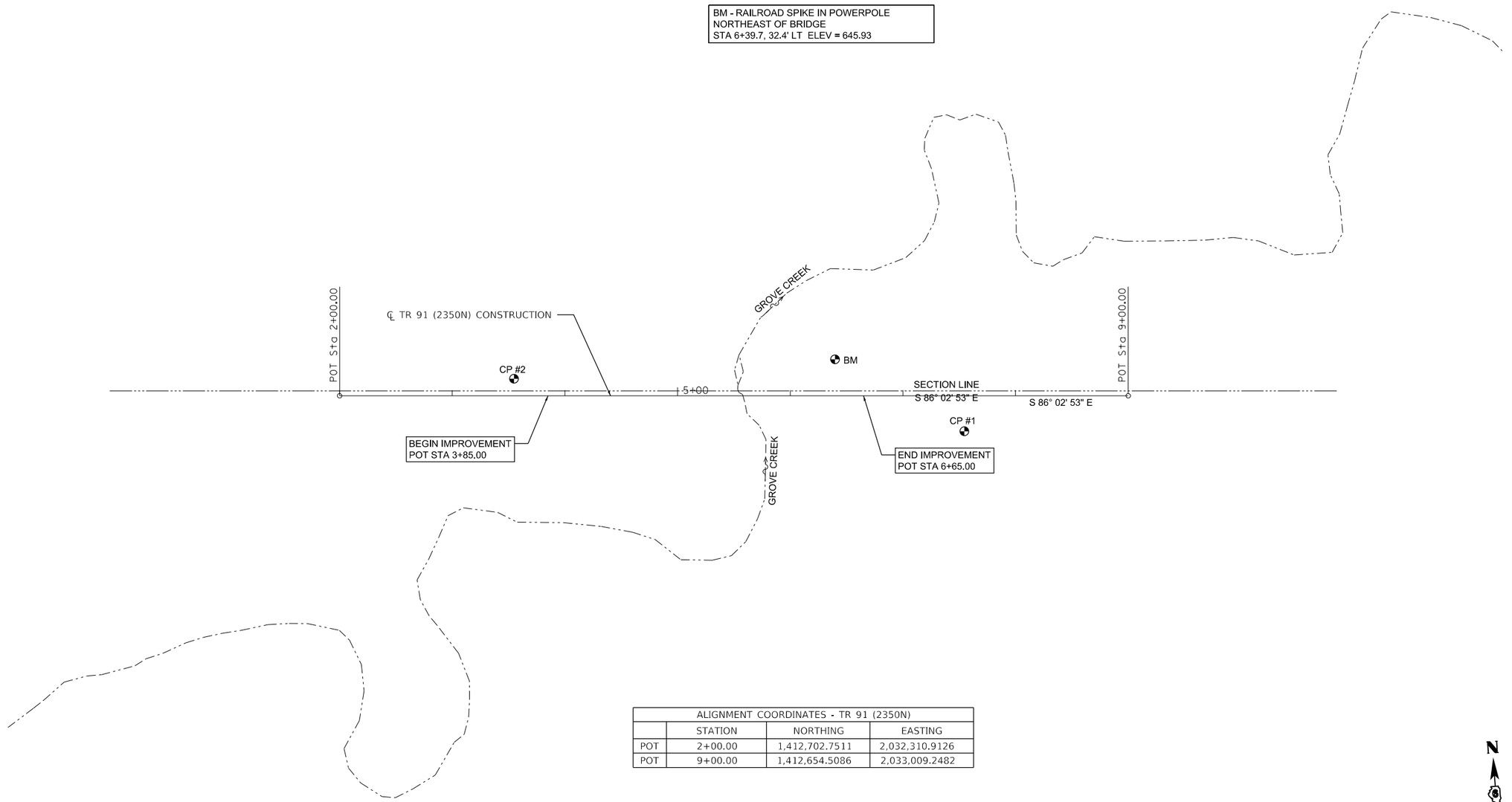
	DRAWN - RJP	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - EBB	REVISED -
PLOT DATE = 4/3/2025	DATE -	REVISED -

HANCOCK COUNTY
HIGHWAY DEPARTMENT

TR 91 (2350N) OVER GROVE CREEK
TYPICAL SECTIONS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	4
		CONTRACT NO. 93840		
	ILLINOIS FED. AID PROJECT			



ALIGNMENT COORDINATES - TR 91 (2350N)			
	STATION	NORTHING	EASTING
POT	2+00.00	1,412,702.7511	2,032,310.9126
POT	9+00.00	1,412,654.5086	2,033,009.2482

CONTROL POINT COORDINATES - TR 91 (2350N)		
CONTROL POINT #	NORTHING	EASTING
1	1,412,633.1320	2,032,861.9570
2	1,412,707.1890	2,032,466.3970

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Engineers • Architects • Surveyors
616 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = rjp	DESIGNED - RJP	REVISED -
	DRAWN - RJP	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - EBB	REVISED -
PLOT DATE = 4/3/2025	DATE -	REVISED -

HANCOCK COUNTY
HIGHWAY DEPARTMENT

TR 91 (2350N) OVER GROVE CREEK
HORIZONTAL CONTROL

SCALE: 1"=50' | SHEET 1 OF 1 SHEETS | STA. 2+00.00 TO STA. 9+00.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	5
		CONTRACT NO. 93840		
	ILLINOIS FED. AID PROJECT			

NW 1/4, SEC 5, T 6 N, R 6 W, 4th PM

BUTLER, MICHAEL G & CAROLE J
09-05-000-063

STA 5+55.00 10° SKEW (S.N. 034-4817)
PR SINGLE SPAN PPC IL BEAM BRIDGE
EX SN 034-4816
REMOVE AND REPLACE STRUCTURE
(SEE BRIDGE PLANS)

GROVE CREEK

BUTLER, MICHAEL G & CAROLE J
09-05-000-063

PERIMETER EROSION BARRIER

PR STONE RIPRAP
CLASS A5

CONSTRUCTION LIMITS

EX ROW — WIRE FENCE — POST — POST — WIRE FENCE — EX ROW

BM

CP2

A

35.00'

2'

8'

TR 91 (2350N)

Q&C

2 | 3 | 4 | 5+00 | 6 | 7

BRIDGE

BEGIN IMPROVEMENT
POT STA 3+85.00

END IMPROVEMENT
POT STA 6+65.00

CP1

EX ROW — WIRE FENCE — WELDED TUBE STEEL FENCE — PERIMETER EROSION BARRIER — WIRE FENCE — EX ROW

CONSTRUCTION LIMITS

PR STONE RIPRAP
CLASS A5

JONES, DORCH ET AL
09-05-000-064

A — EX PAVEMENT REMOVAL
PR HMA SURFACE COURSE, IL-9.5, MIX "C", N50, 1 1/2"
PR HMA BINDER COURSE, IL-19.0, N50, 3"
PR AGGREGATE BASE COURSE, TYPE B, 12"
PR GEOTECH FABRIC

GROVE CREEK

JONES, DORCH ET AL
09-05-000-064

N

0 20 40 60
SCALE IN FEET

SW 1/4, SEC 5, T 6 N, R 6 W, 4th PM

BM - RAILROAD SPIKE IN POWERPOLE
NORTHEAST OF BRIDGE
STA 6+39.7, 32.4' LT ELEV = 645.93

662 660 658 656 654 652 650 648 646 644 642 640 638 636 634 632 630 628

BEGIN IMPROVEMENT
VPC STA 3+85.00
ELEV = 648.77

EXISTING PROFILE GRADE

-2.41% +0.00%

VPI STA 4+30.00
ELEV = 647.68
90' V.C.
E = 0.27'
K = 37.3 (30 MPH)

VPT STA 4+75.00
ELEV = 647.68

PROPOSED PROFILE GRADE

END IMPROVEMENT
VPI STA 6+65.00
ELEV = 647.68

10 YR HWE = 643.9

ESWE = 636.8

1:2.5

1:2.5

635.0

2+00	2+50	3+00	3+50	4+00	4+50	5+00	5+50	6+00	6+50	7+00	7+50	8+00
	652.24	651.70	651.14	650.55	649.96	649.43	648.90	648.46 **648.43**	648.15 **648.09**	647.83 **647.84**	647.61 **647.71**	647.43 **647.68**
647.35 **647.68**	647.34 **647.68**	637.12 **647.68**	634.06 **647.68**	647.56 **647.68**	647.50 **647.68**	647.48 **647.68**	647.56 **647.68**	647.65 **647.68**	647.72	647.80	647.88	647.98
648.09	648.20	648.40										

PLAN: SURVEYED — PLOTTED — ALIGNMENT CHECKED — RT. OF WAY CHECKED — CADD FILE NAME — NOTE BOOK — NO. — BY — DATE

PROFILE: SURVEYED — PLOTTED — PROFILE CHECKED — BM& NOTED — STRUCTURE NOTATNS CHKD — NOTE BOOK — NO. — BY — DATE

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KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

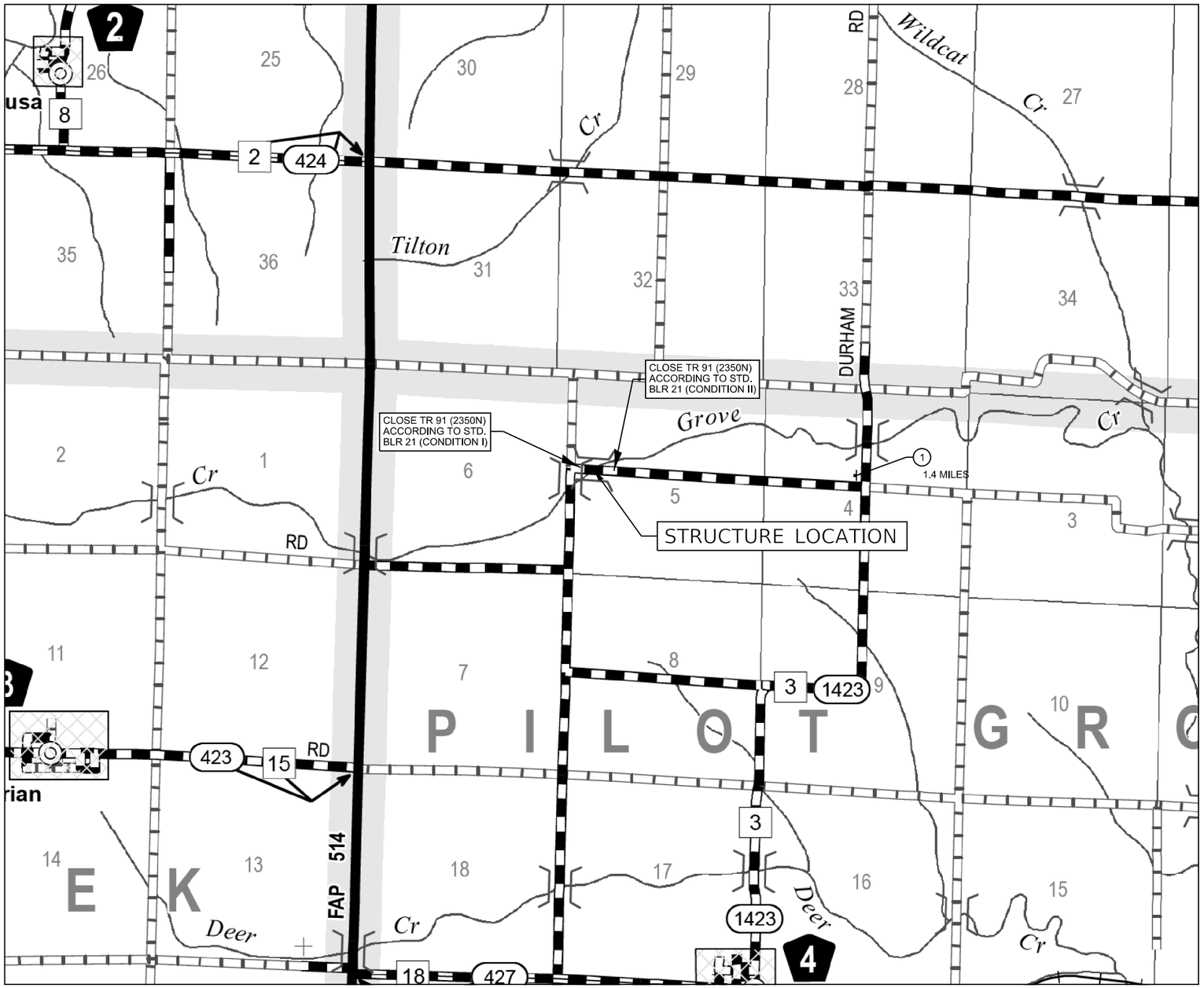
USER NAME = rjp | DESIGNED - RJP | REVISED -
PLOT SCALE = 40.0000 ' / in. | DRAWN - RJP | REVISED -
PLOT DATE = 4/3/2025 | CHECKED - EBB | REVISED -
DATE - | REVISED -

HANCOCK COUNTY HIGHWAY DEPARTMENT

TR 91 (2350N) OVER GROVE CREEK
PLAN & PROFILE SHEET

SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. 2+00 TO STA. 8+00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	6
		CONTRACT NO. 93840		
		ILLINOIS FED. AID PROJECT		



TRAFFIC CONTROL PLAN

GENERAL NOTES

1) ROAD CLOSURE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARD BLR-21 ALONG WITH THE DETAILS AND SPECIAL PROVISIONS.
2) ALL SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED BY THE CONTRACTOR.
3) THE LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
4) ALL SIGNS SHALL BE REMOVED WHEN NOT REQUIRED FOR FUTURE USE.
5) THIS TRAFFIC CONTROL AND PROTECTION SHALL BE PAID FOR ACCORDING TO THE CONTRACT UNIT COST PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21.
6) THE EXACT LOCATIONS OF ALL TRAFFIC CONTROL ITEMS SHALL BE APPROVED BY THE ENGINEER.
7) PRIOR TO THE CLOSURE OF T.R. 91 (FAS 2350N), THE CONTRACTOR SHALL NOTIFY LOCAL EMERGENCY SERVICES, HANCOCK COUNTY ENGINEER, TOWNSHIP ROAD DISTRICT, US POSTAL SERVICE, AND LOCAL SCHOOL DISTRICTS.

HANCOCK COUNTY ENGINEER:

MR. ELGIN BERRY, P.E.
P.O. BOX 379
101 SOUTH FIRST STREET
CARTHAGE, IL 62621

PHONE: 217-357-3155

PILOT GROVE TOWNSHIP ROAD DISTRICT:

MR. JERRY GREEN
2130 NORTH COUNTY ROAD 2300E
BURNSIDE, IL 62330

PHONE: 217-357-4640

ILLINI WEST HIGH SCHOOL DISTRICT 307:

SUPERINTENDENT
JAY HARNACK
600 MILLER STREET
CARTHAGE, IL 62321

PHONE: 217-357-2136

CARTHAGE ELEMENTARY SCHOOL DISTRICT 317:

SUPERINTENDENT
DUSTIN DAY
210 SOUTH ADAMS STREET
CARTHAGE, IL 62321

PHONE: 217-357-3922

ROAD CLOSED
XX MILES AHEAD
LOCAL TRAFFIC ONLY

(1) R11-3a (6030) (O)

N

3000 1500 0 3000
GRAPHIC SCALE (IN FEET)
SCALE: 1"=1,500'

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KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = rjp	DESIGNED - RJP	REVISED -
	DRAWN - RJP	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - EBB	REVISED -
PLOT DATE = 4/3/2025	DATE -	REVISED -

HANCOCK COUNTY HIGHWAY DEPARTMENT

TR 91 (2350N) OVER GROVE CREEK
TRAFFIC CONTROL PLAN

SCALE: 1"=1500' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	7
		CONTRACT NO. 93840		
	ILLINOIS FED. AID PROJECT			

Bench Mark: Railroad spike in power pole northeast of bridge, Sta. 6+39.7, 32.4' Lt., NAVD 88 Elev. 645.93

Existing Structure: Structure Number 034-4816 was originally built in 1966 under Section Pilot Grove 104-TR in Hancock County. The structure consists of 7-17" deep precast prestressed concrete deck beams on concrete pile caps and closed timber abutments and timber piles. The back-to-back abutment length is 49'-4" and the out to out bridge width is 26'-0", 24'-0" between curbs.

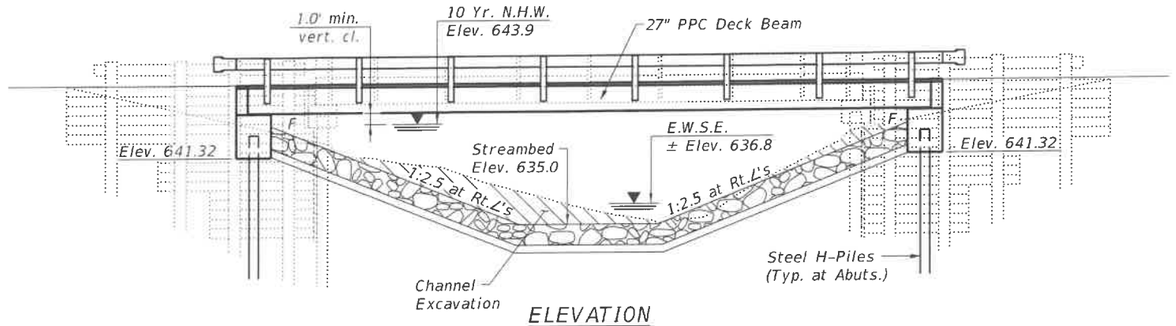
The existing structure shall be removed and replaced. The roadway will be closed and traffic detoured during construction.

No Salvage.

INDEX OF SHEETS

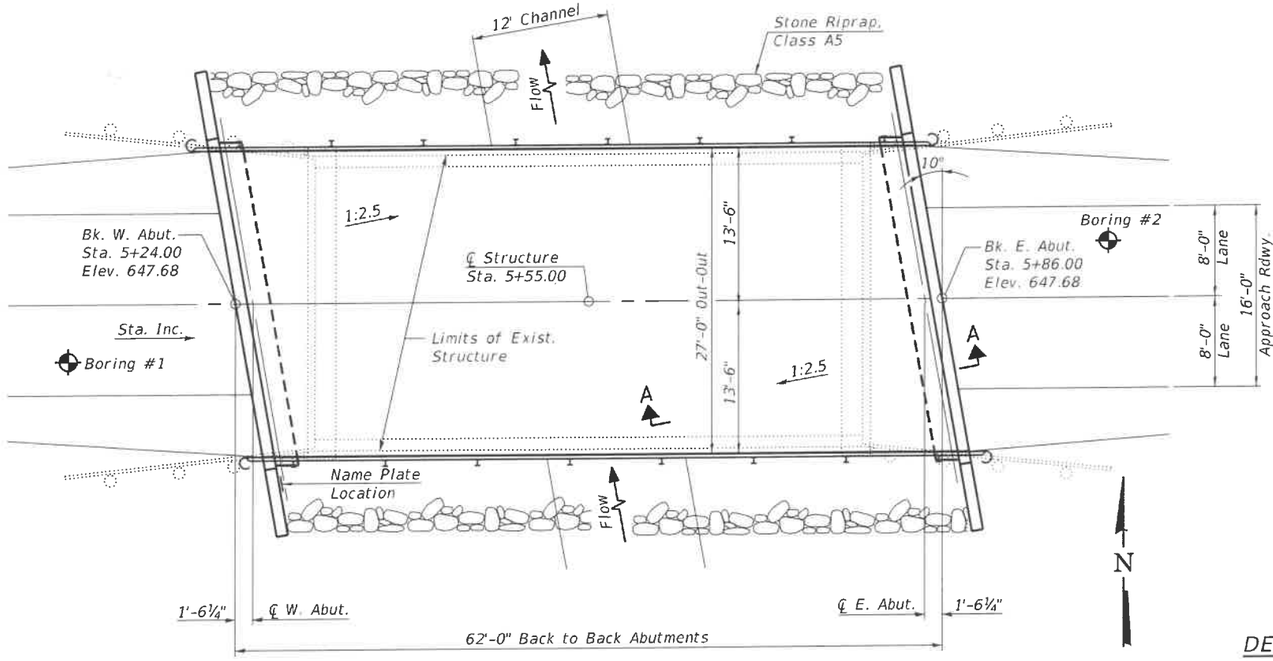
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		136	136
Hot-Mix Asphalt Surface Course, IL-9.5, Mix "C", N50	Ton	23		23
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		120	120
Concrete Structures	Cu. Yd.		33.0	33.0
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1,619		1,619
Reinforcement Bars, Epoxy Coated	Pound		4,040	4,040
Steel Railing, Type S1	Foot	124		124
Furnishing Steel Piles HP10x42	Foot		176	176
Driving Piles	Foot		176	176
Test Pile Steel HP10x42	Each		2	2
Pile Shoes	Each		10	10
Name Plates	Each	1		1
Waterproofing Membrane System	Sq. Yd.	186		186
Portland Cement Mortar Fairing Course	Foot	480		480
Granular Backfill for Structures	Cu. Yd.		56	56
Terminal Marker - Direct Applied	Each	4		4

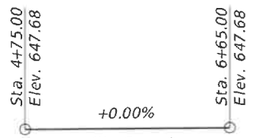


ELEVATION

Note:
See Sheet 2 of 9 for Section A-A.



PLAN



PROFILE GRADE
(Along ℄ Roadway T.R. 91)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.08g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.12g
Soil Site Class = C

LOADING HL-93

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

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

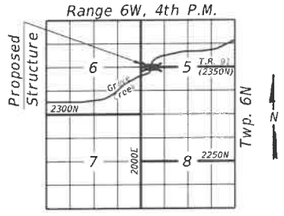
DESIGN STRESSES

FIELD UNITS

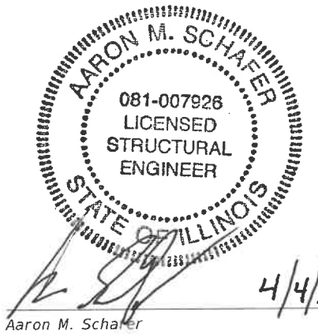
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (½" dia. low lax. strands)
fpbt = 201,690 psi (½" dia. low lax. strands)



LOCATION SKETCH



4/4/2025

Aaron M. Schafer — Date
Licensed Structural Engineer
State of Illinois No. 081-007926
License Expires 11/30/2026

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 requirements of the current "AASHTO LRFD Specifications for Highway Bridges".

GENERAL PLAN & ELEVATION
T.R. 91 (2350N) OVER GROVE CREEK
SECTION 24-14119-00-BR
HANCOCK COUNTY
STATION 5+55.00
STRUCTURE NO. 034-4817

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KLINGNER & ASSOCIATES, P.C.
Engineers · Architects · Surveyors
616 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = rjp	DESIGNED - RJP	REVISED -	
	CHECKED - AMS	REVISED -	
PLOT SCALE = 1.333333 ' / in.	DRAWN - RJP	REVISED -	
PLOT DATE = 4/3/2025	CHECKED - AMS	REVISED -	

HANCOCK COUNTY
HIGHWAY DEPARTMENT

GENERAL PLAN & ELEVATION
STRUCTURE NO. 034-4817
SHEET NO. 1 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	8
		CONTRACT NO. 93840		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

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

See Roadway Plans for full riprap layout and quantity.

GROVE CREEK
BUILT 202_ BY
PILOT GROVE ROAD DISTRICT
HANCOCK COUNTY
SEC. 24-14119-00-BR
STATION 5+55.00
STR. NO. 034-4817 LOADING HL-93

NAME PLATE

See Std. 515001

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.)		
	W. Abut.	E. Abut.	Item 113
Q100	641.32	641.32	8
Q200	641.32	641.32	
Design	641.32	641.32	
Check	641.32	641.32	

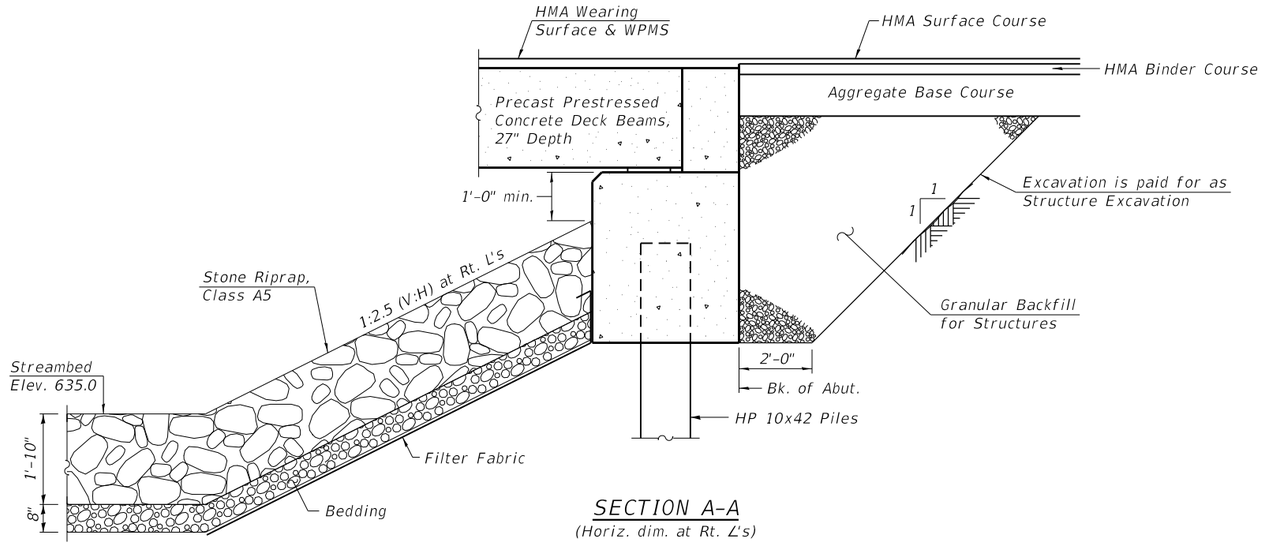
WATERWAY INFORMATION

Drainage Area = 8.0 Sq. Mi.

Exist. Overtopping Elev. 647.3 @ Sta. 5+20
Prop. Overtopping Elev. 647.7 @ Sta. 5+55

Flood Event	Freq. Yr.	Discharge C.F.S.	Opening Sq. Ft.		Natural H.W.E. Ft.	Head - Ft.		Headwater El. Ft.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	928	243	306	643.9	0.1	0.1	644.0	644.0
Base	100	1,900	319	365	645.6	0.8	0.6	646.4	646.2
Scour Design	200	2,220	320	365	645.9	1.1	0.8	647.0	646.7
Overtop Exist.	500	2,670	320	365	646.4	1.3	0.9	647.7	647.3
Overtop Prop.	500	2,670	320	365	646.4	1.3	0.9	647.7	647.3
Max. Calc.	500	2,670	320	365	646.4	1.3	0.9	647.7	647.3

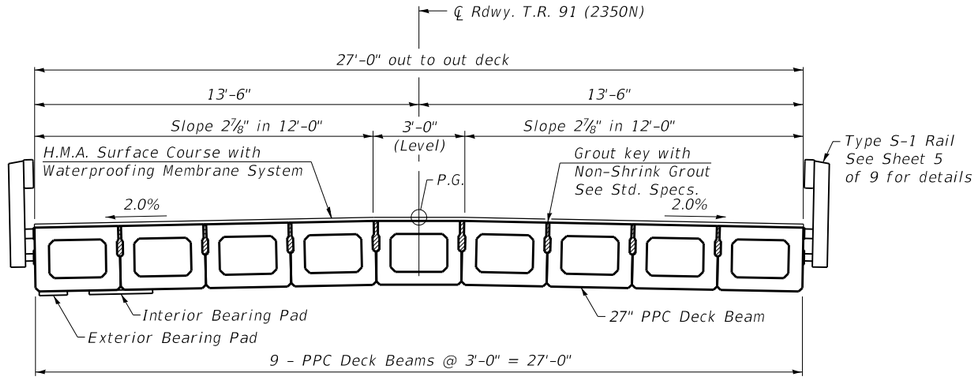
10 year velocity through proposed bridge = 3.0 ft./sec.



SECTION A-A

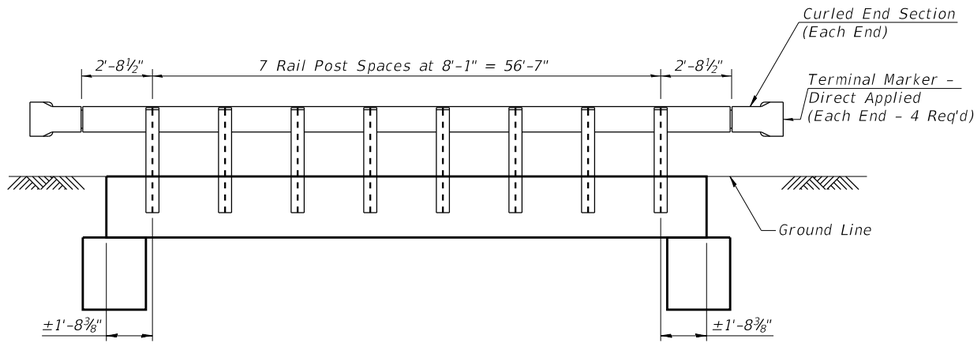
(Horiz. dim. at Rt. L's)

Note:
57 Tons Granular Backfill estimated per abutment for a plan quantity of 28 cubic yards per abutment.



SECTION THRU DECK

(Looking East)



RAIL POST SPACING

(Looking North)

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KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

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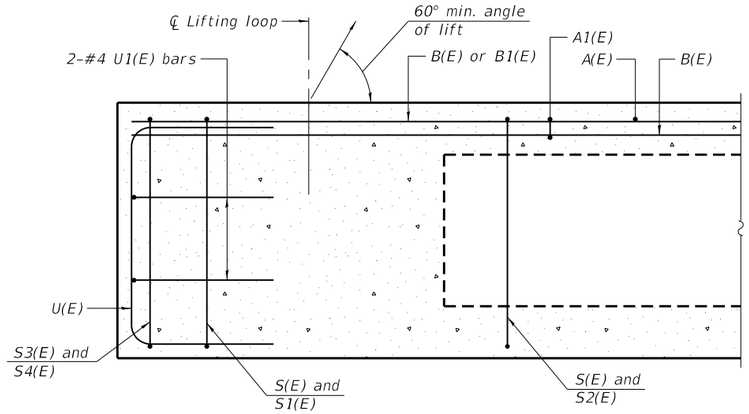
	CHECKED - AMS	REVISED -	
PLOT SCALE = 1.333333 ' / in.	DRAWN - RJP	REVISED -	
PLOT DATE = 4/3/2025	CHECKED - AMS	REVISED -	

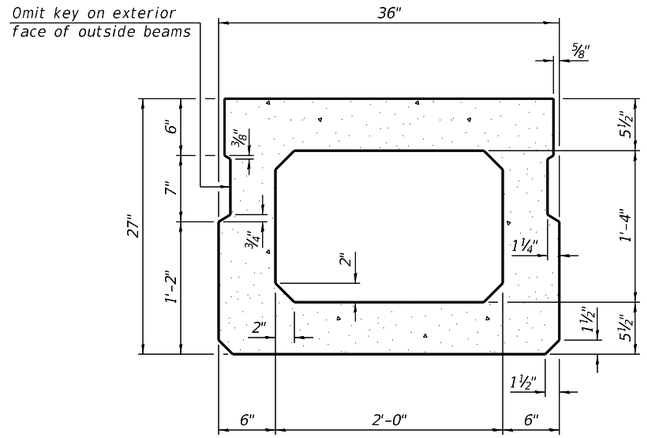
HANCOCK COUNTY
HIGHWAY DEPARTMENT

GENERAL NOTES & DETAILS
STRUCTURE NO. 034-4817
SHEET NO. 2 OF 9 SHEETS

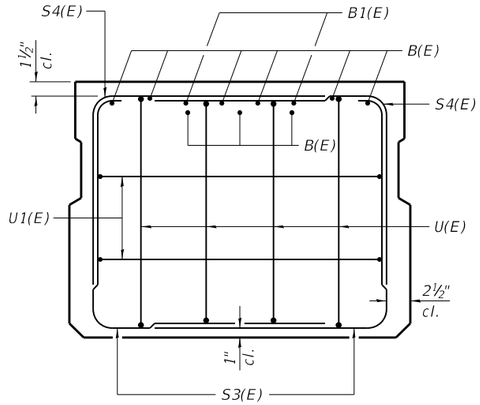
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	9
		CONTRACT NO. 93840		
	ILLINOIS FED. AID PROJECT			



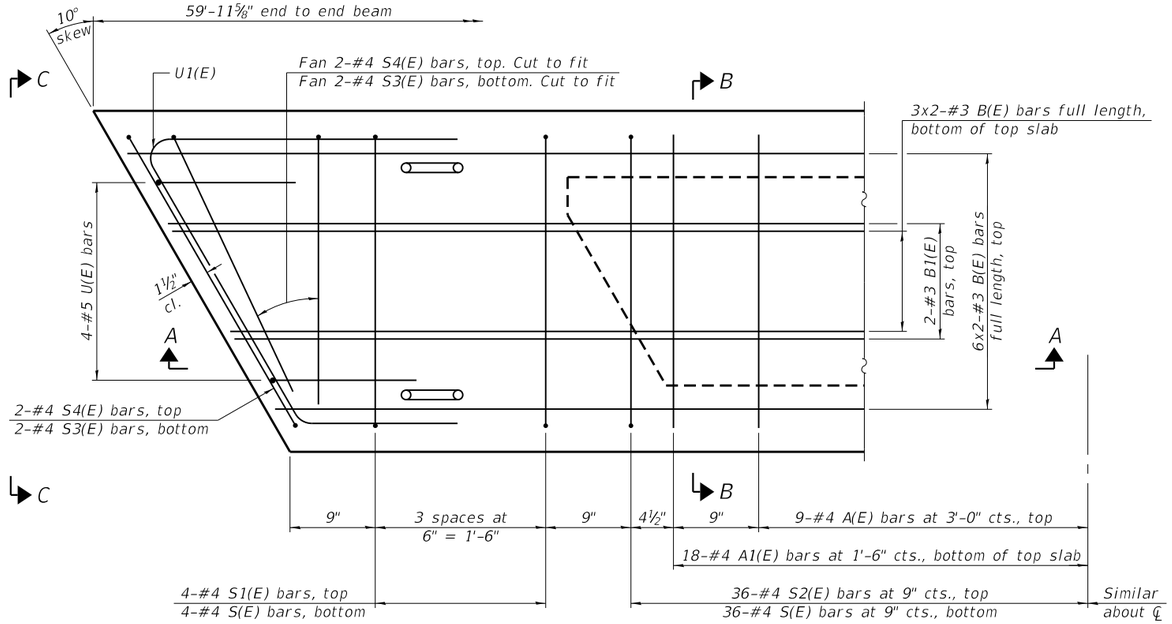
SECTION A-A



SECTION B-B
(Showing dimensions)

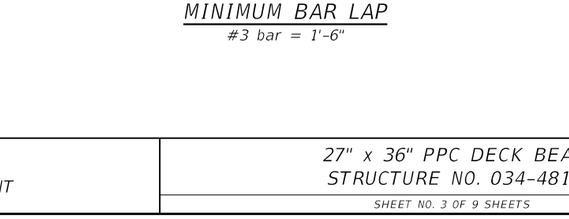


VIEW C-C



PLAN VIEW

Note:
Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION B-B
(Showing reinforcement and permissible strand locations)

Note:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MINIMUM BAR LAP
#3 bar = 1'-6"

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	18	#4	2'-7"	—
A1(E)	36	#4	2'-10"	~
B(E)	18	#3	30'-8"	—
B1(E)	4	#3	10'-0"	—
S(E)	80	#4	7'-5"	⊏
S1(E)	8	#4	5'-11"	⊐
S2(E)	72	#4	6'-2"	⊐
S3(E)	8	#4	4'-11"	⊔
S4(E)	8	#4	4'-2"	⊔
U(E)	8	#5	4'-6"	⊏
U1(E)	4	#4	5'-6"	⊏

Note:
See sheet 4 of 9 for additional details and Bill of Material.

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USER NAME = rjp	DESIGNED – RJP	REVISED –
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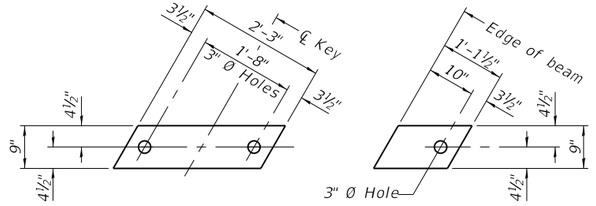
PLOT SCALE = 1.333333 ' / in.	DRAWN – RJP	REVISED –
PLOT DATE = 4/3/2025	CHECKED – AMS	REVISED –

HANCOCK COUNTY
HIGHWAY DEPARTMENT

27" x 36" PPC DECK BEAM
STRUCTURE NO. 034-4817
SHEET NO. 3 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	10
		CONTRACT NO. 93840		
	ILLINOIS	FED. AID PROJECT		

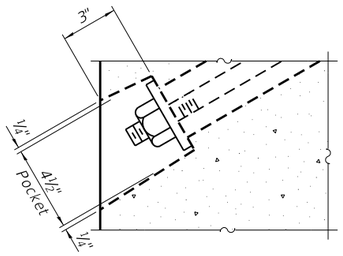


FABRIC BEARING PAD
(Interior)

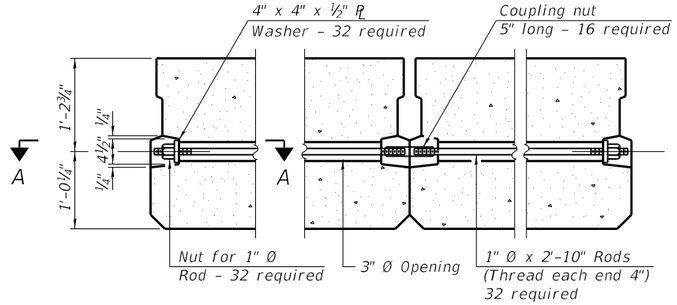
FABRIC BEARING PAD
(Exterior)

FIXED

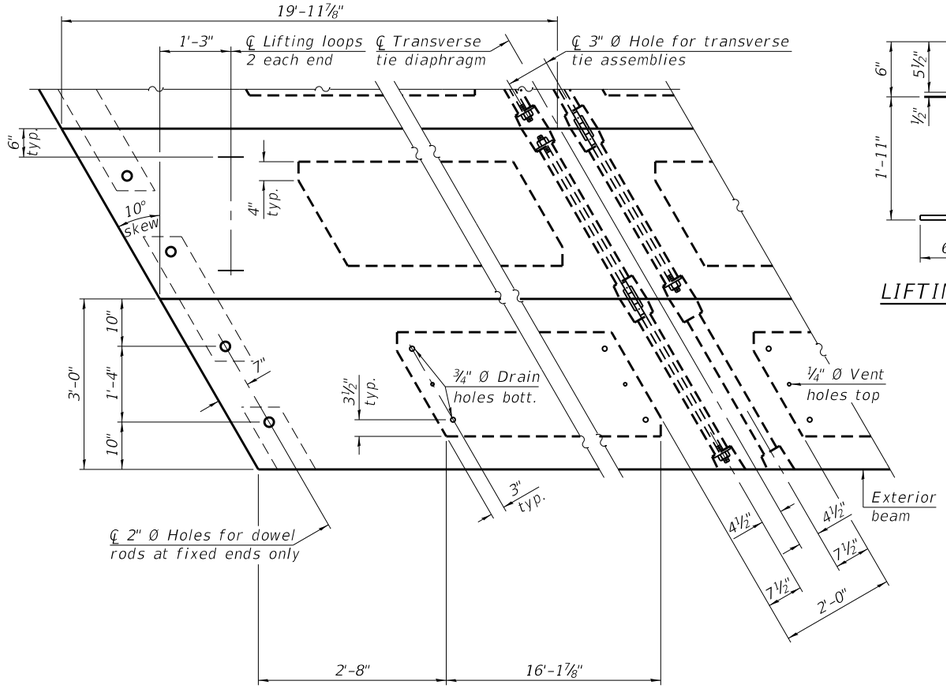
Note:
All bearing pads shall be 1" thick.



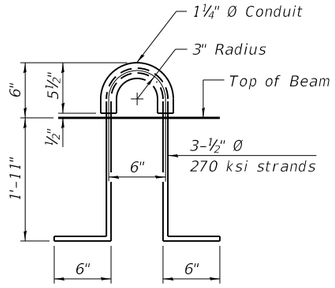
SECTION A-A



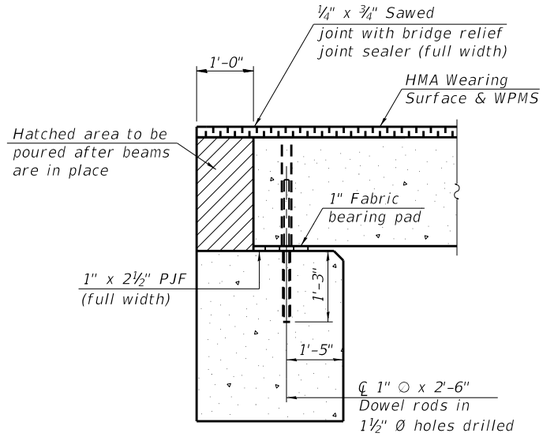
TYPICAL TRANSVERSE TIE ASSEMBLY



PLAN VIEW



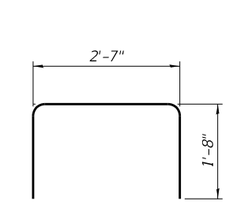
LIFTING LOOP DETAIL



SECTION THRU ABUTMENTS

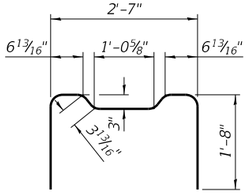
(Dimensions are at Rt. L's)

Note:
Cost of Premoulded Joint Filler included in the cost of Precast Prestressed Concrete Deck Beams (27" Depth).

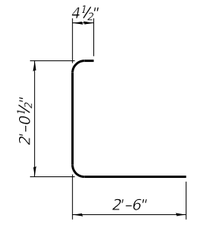


BAR S(E)

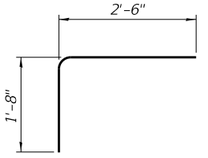
BAR S1(E)



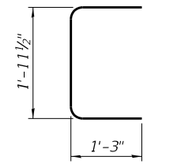
BAR S2(E)



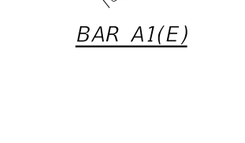
BAR S3(E)



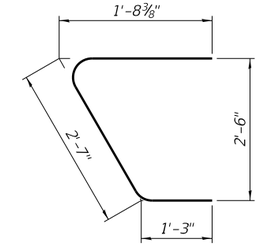
BAR S4(E)



BAR U(E)



BAR A1(E)



BAR U1(E)

Note:
Connect beams in pairs with the transverse tie configuration shown.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" Ø rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

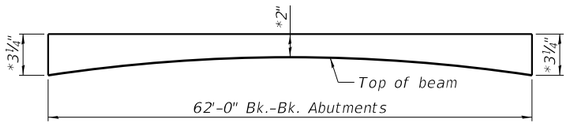
Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2½" Ø lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



ANTICIPATED HMA WEARING SURFACE PROFILE

*Anticipated wearing surface thickness includes ±½" for Waterproofing Membrane System. Minimum thickness of HMA Surface Course shall be 1½".

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	1,619

KLINGNER & ASSOCIATES, P.C.
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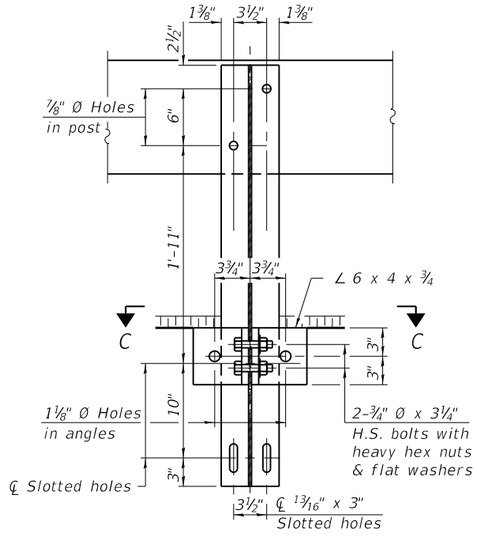
616 N.24TH ST., QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = r.jp	DESIGNED - RJP	REVISED -
	CHECKED - AMS	REVISED -
PLOT SCALE = 1.333333 ' / in.	DRAWN - RJP	REVISED -
PLOT DATE = 4/3/2025	CHECKED - AMS	REVISED -

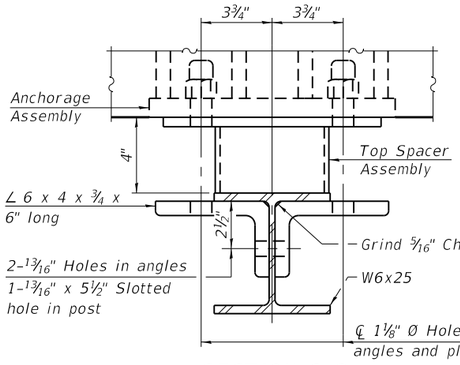
HANCOCK COUNTY
HIGHWAY DEPARTMENT

27" x 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 034-4817
SHEET NO. 4 OF 9 SHEETS

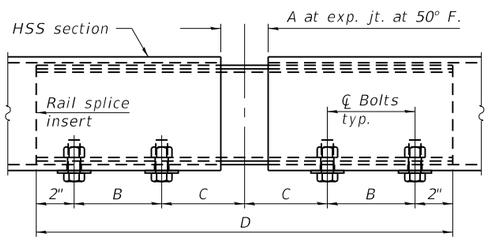
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	11
		CONTRACT NO. 93840		
	ILLINOIS	FED. AID PROJECT		



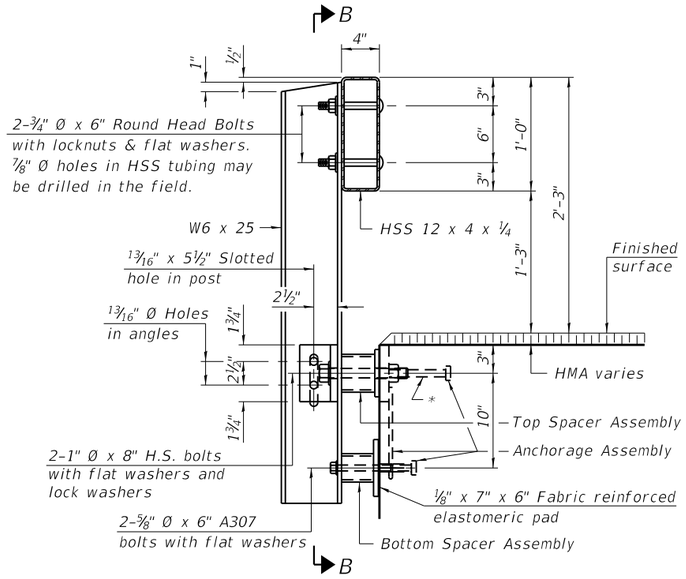
SECTION B-B



SECTION C-C

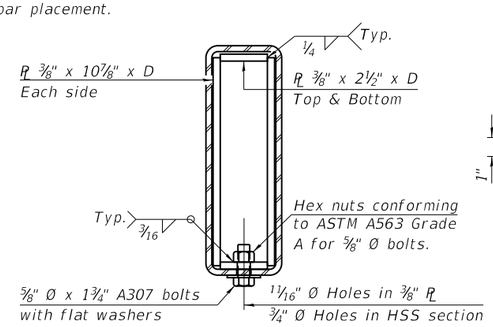


RAIL SPLICE ELEVATION

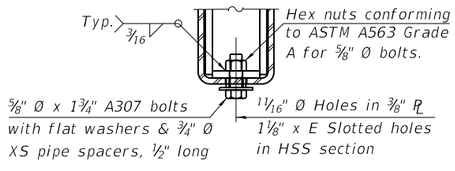


SECTION AT RAILING POST

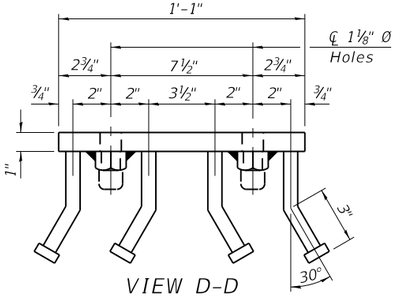
* *The outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchorage assembly. The anchorage studs may be bent down ½" to accommodate the top reinforcement bar placement.*



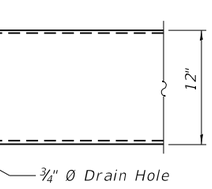
SECTION AT RAIL SPLICE

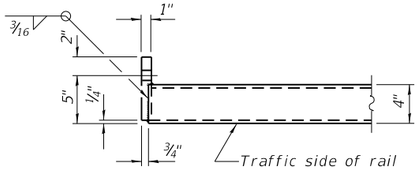


RAIL SPLICE CONNECTION AT EXPANSION JT.

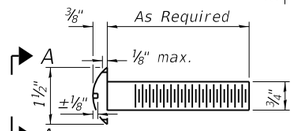


VIEW D-D

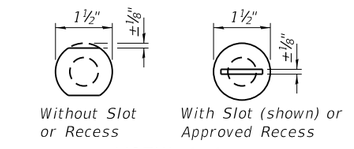




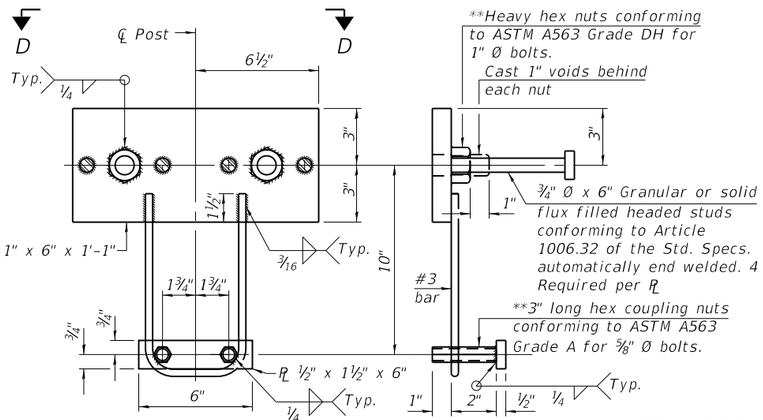
END OF RAIL DETAILS



ROUND HEAD BOLT DETAIL



VIEW A-A



ANCHORAGE ASSEMBLY

** *Threaded areas shall be plugged or blocked off during casting of concrete.*

Notes:

A sufficient number of shims of various thicknesses, sized to fit behind the top spacer assembly, 5" x 11½", and bottom spacer assembly, 6" x 7", shall be provided to adjust posts for proper alignment. If the summation of shims is greater than ¼" (top) or ½" (bottom), longer bolts are required. Cost included with Steel Railing, Type S-1.

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

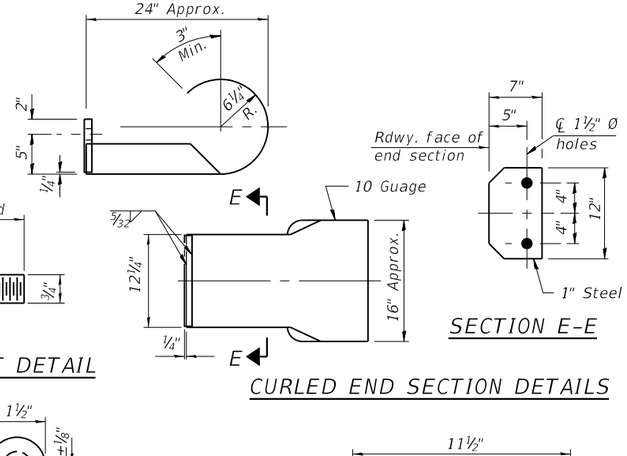
All HSS tubing serving as railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.

Rail splice inserts may be built out of 2 -⅜" bent plates in lieu of the 4 plate rail splice inserts shown, provided the outside dimensions are matched.

All round head bolts shall be ASTM A307 with locknuts according to ASTM A563 grade A.

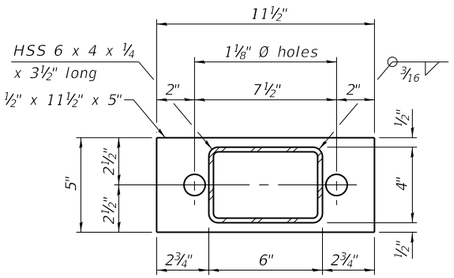
Cost of curled end sections shall be included with Steel Railing, Type S-1 (4 Req'd)

The curled end sections shall be galvanized steel meeting the requirements of Article 1006.34 (c) of the Standard Specifications.

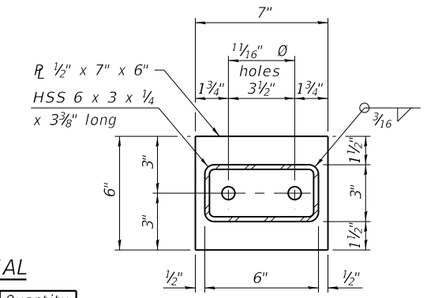


CURLED END SECTION DETAILS

SECTION E-E



TOP SPACER ASSEMBLY



BOTTOM SPACER ASSEMBLY

RAILING CRITERIA

NCHRP 350 Test Level	2
Railing Weight (plf)	50
Max Post Spacing	10'-9"
HMA thickness range (in)	1¼ - 3½

SPLICE DIMENSIONS

Location	T	A	B	C	D	E
All locs. not over exp. jts.	0	¼"	4"	4"	1'-8"	-
Over Strip Seal Jt.	≤4"	2½"	4⅜"	4⅜"	1'-10"	3 3/16"
Over Finger or Modular Jt.	≤9½"	5½"	7⅜"	7¼"	2'-9¼"	5 13/16"
Over Finger or Modular Jt.	≤15"	8¼"	10⅛"	10"	3'-8¼"	8 9/16"

T = ; total movement along centerline of roadway at expansion joint.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	124

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616 N.24TH ST, QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

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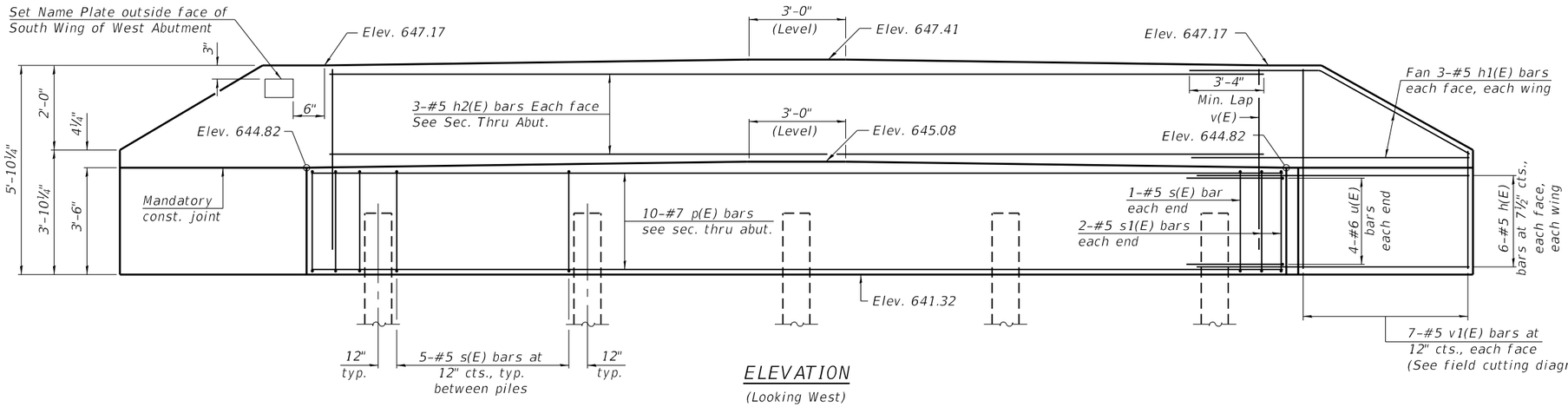
USER NAME = r.jp	DESIGNED - RJP	REVISED -
	CHECKED - AMS	REVISED -
PLOT SCALE = 1.333333 ' / in.	DRAWN - RJP	REVISED -
PLOT DATE = 4/3/2025	CHECKED - AMS	REVISED -

HANCOCK COUNTY
HIGHWAY DEPARTMENT

STEEL RAILING, TYPE S-1
STRUCTURE NO. 034-4817

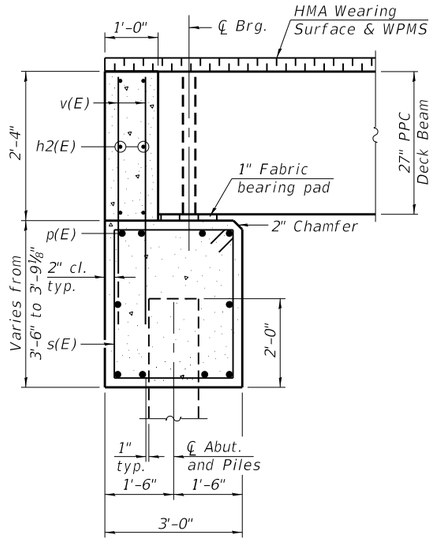
SHEET NO. 5 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	12
		CONTRACT NO. 93840		
	ILLINOIS FED. AID PROJECT			

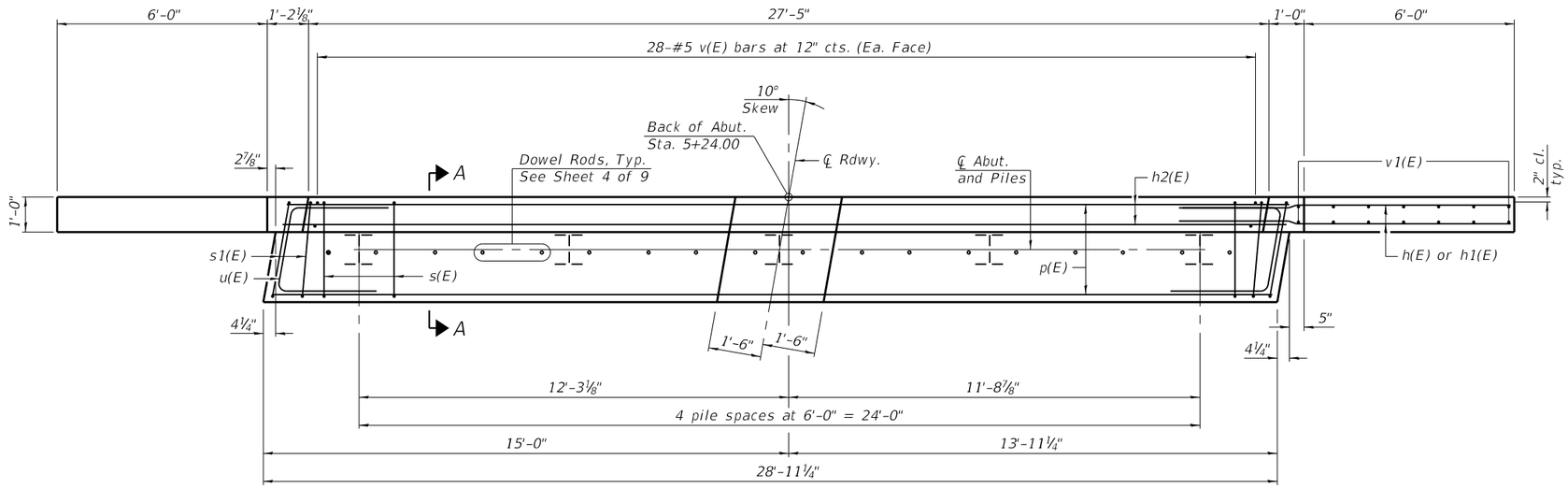


ELEVATION

(Looking West)



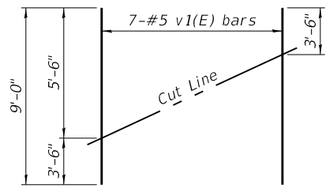
SECTION A-A



PLAN

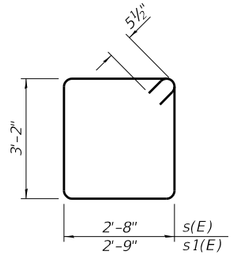
PILE DATA

Type: Steel HP10x42 with Pile Shoes
Nominal Required Bearing: 335 Kips/Pile
Factored Resistance Available: 184 Kips/Pile
Est. Length: 22 Ft./Pile
No. Production Piles: 4
No. Test Piles: 1

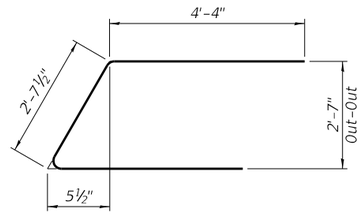


FIELD CUTTING DIAGRAM

Order v1(E) bars full length. Cut as shown and use remainder of bars in opposite wing.



BARS s(E) & s1(E)



BAR u(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	24	#5	9'-9"	
h1(E)	12	#5	10'-6"	
h2(E)	6	#5	28'-8"	
p(E)	10	#7	28'-7"	
s(E)	22	#5	12'-7"	
s1(E)	4	#5	12'-9"	
u(E)	8	#6	11'-4"	
v(E)	56	#5	4'-8"	
v1(E)	14	#5	9'-0"	
Concrete Structures			Cu. Yd.	16.5
Reinforcement Bars, Epoxy Coated			Pound	2,020
Furnishing Steel Piles HP10x42			Foot	88
Driving Piles			Foot	88
Test Pile Steel HP10x42			Each	1
Pile Shoes			Each	5
Name Plates			Each	1

Notes:
For details of piles, see sheet 8 of 9.
Cast tops of backwall and wingwalls after beams have been erected.
Space reinforcement in cap to miss dowel rods.

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616 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
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USER NAME = rjp	DESIGNED - RJP	REVISED -	
	CHECKED - AMS	REVISED -	
PLOT SCALE = 1.333333 ' / in.	DRAWN - RJP	REVISED -	
PLOT DATE = 4/3/2025	CHECKED - AMS	REVISED -	

HANCOCK COUNTY
HIGHWAY DEPARTMENT

WEST ABUTMENT
STRUCTURE NO. 034-4817
SHEET NO. 6 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	13
		CONTRACT NO. 93840		
		ILLINOIS	FED. AID PROJECT	

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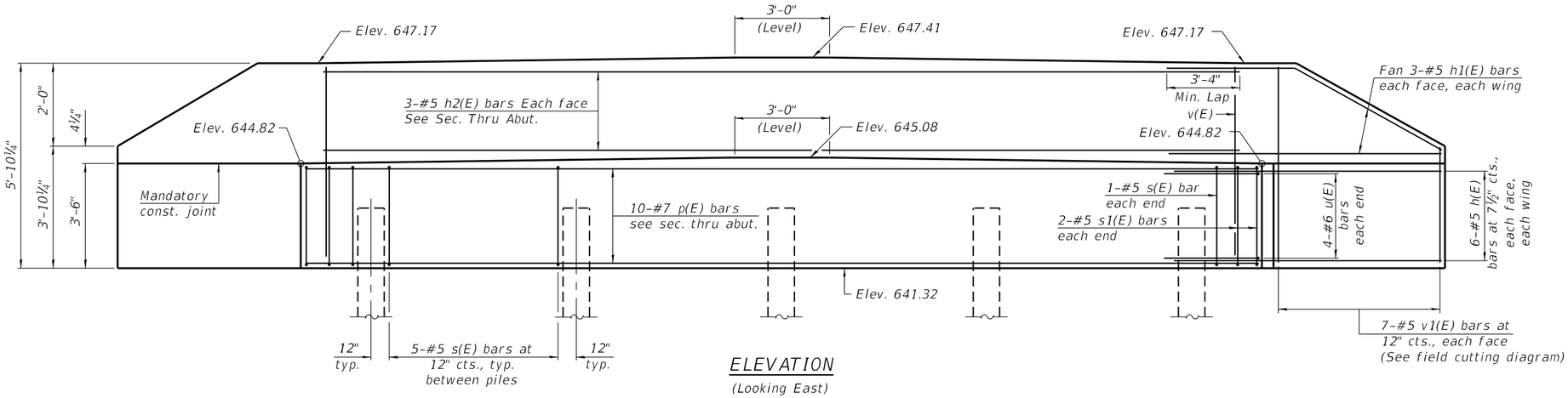
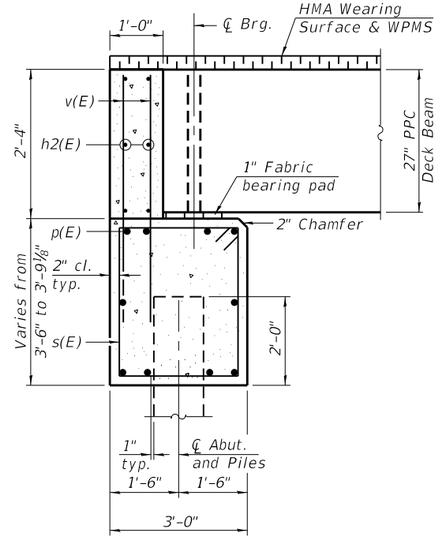
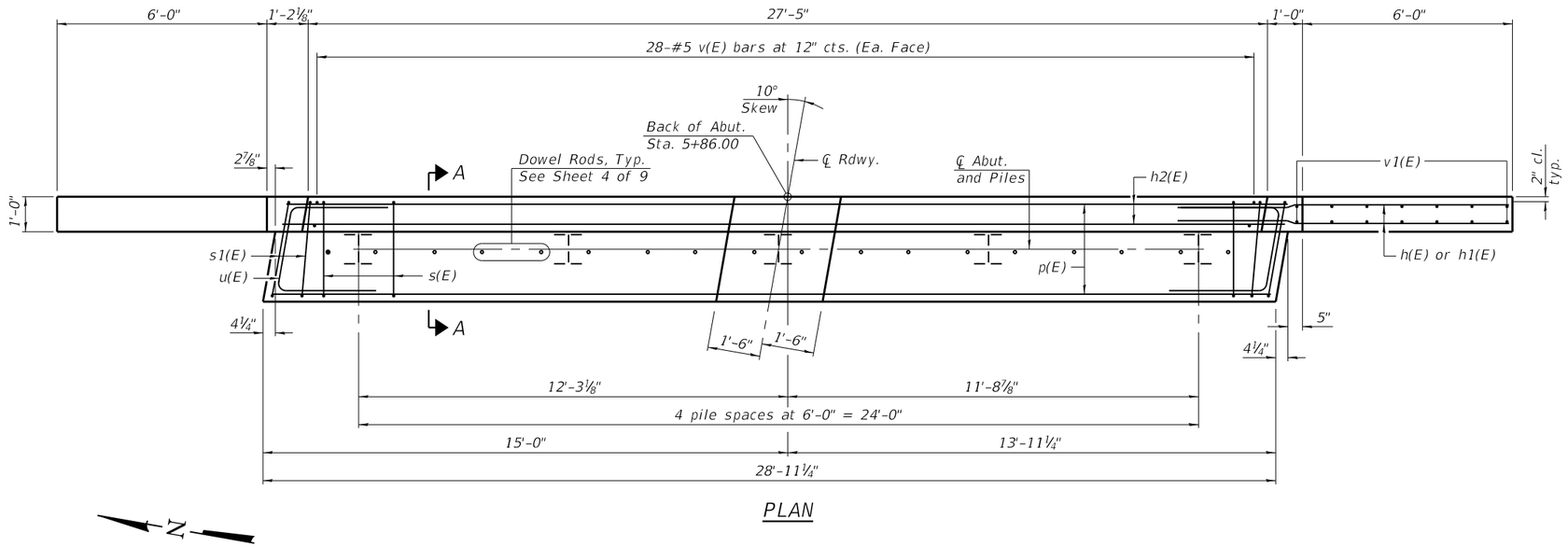


ELEVATION

(Looking East)



SECTION A-A



PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	24	#5	9'-9"	
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p(E)	10	#7	28'-7"	
s(E)	22	#5	12'-7"	
s1(E)	4	#5	12'-9"	
u(E)	8	#6	11'-4"	
v(E)	56	#5	4'-8"	
v1(E)	14	#5	9'-0"	
Concrete Structures		Cu. Yd.	16.5	
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Furnishing Steel Piles HP10x42		Foot	88	
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Test Pile Steel HP10x42		Each	1	
Pile Shoes		Each	5	

Notes:
For details of piles, see sheet 8 of 9.
Cast tops of backwall and wingwalls after beams have been erected.
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PILE DATA

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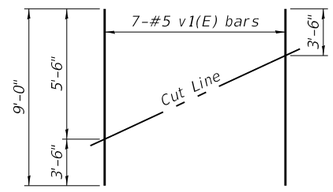
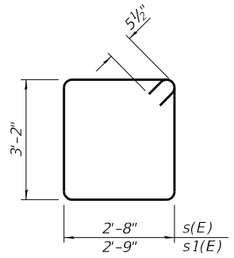
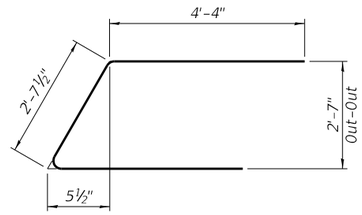


FIELD CUTTING DIAGRAM

Order v1(E) bars full length. Cut as shown and use remainder of bars in opposite wing.



BARS s(E) & s1(E)



BAR u(E)

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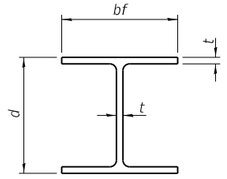
PLOT DATE = 4/3/2025	CHECKED - AMS	REVISED -

HANCOCK COUNTY
HIGHWAY DEPARTMENT

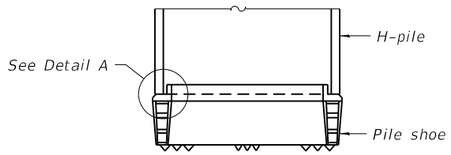
EAST ABUTMENT
STRUCTURE NO. 034-4817
SHEET NO. 7 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	14
		CONTRACT NO. 93840		
	ILLINOIS	FED. AID PROJECT		

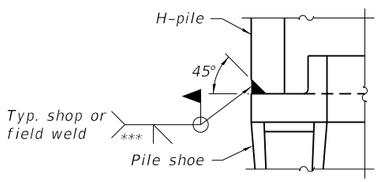


STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14¼"	14⅞"	13/16"	30"
x102	14"	14¾"	1 1/16"	30"
x89	13⅞"	14¾"	⅝"	30"
x73	13⅝"	14⅝"	½"	30"
HP 12x84	12¼"	12¼"	1 1/16"	24"
x74	12⅛"	12¼"	⅝"	24"
x63	12"	12⅛"	½"	24"
x53	11¾"	12"	7/16"	24"
HP 10x57	10"	10¼"	9/16"	24"
x42	9¾"	10⅛"	7/16"	24"
HP 8x36	8"	8⅛"	7/16"	18"



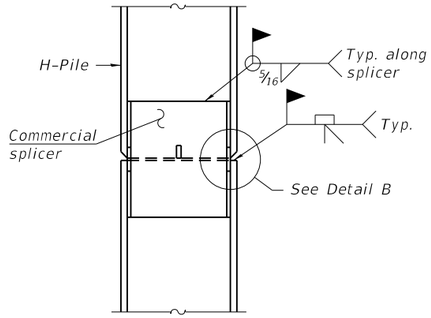
ELEVATION



DETAIL A

SHOE ATTACHMENT

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



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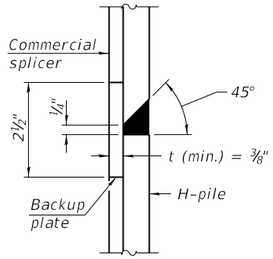
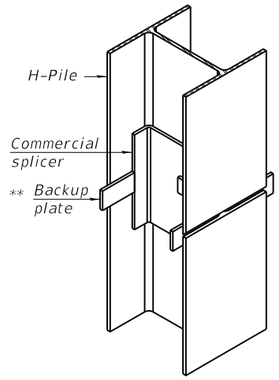
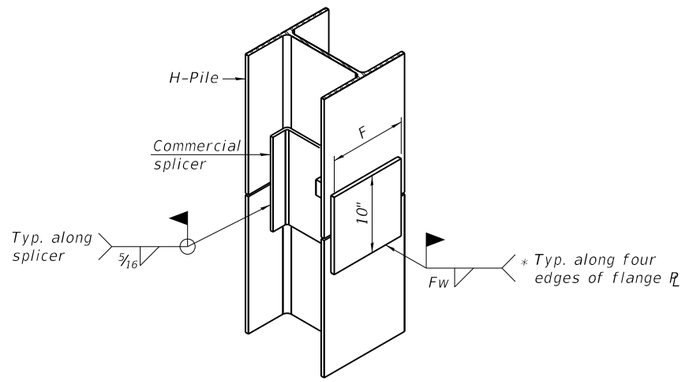


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



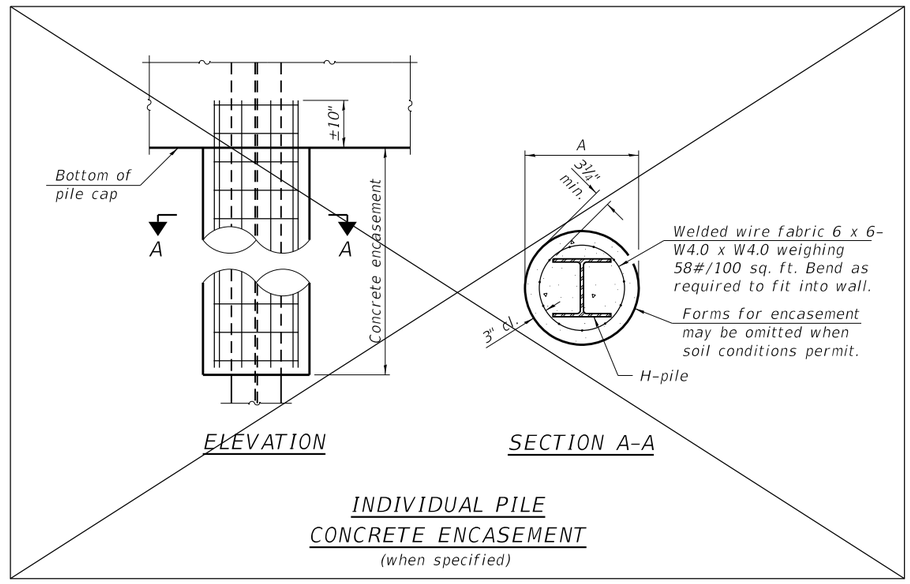
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

* Interrupt welds ¼" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

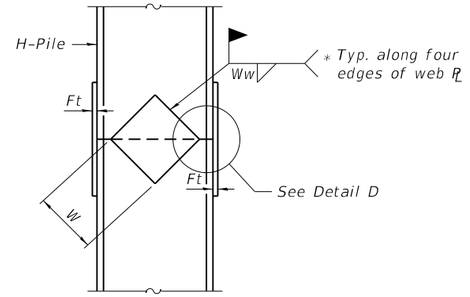
*** Weld size per pile shoe manufacturer (5/16" min.).



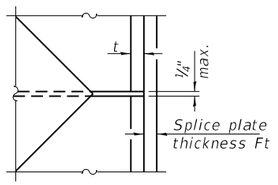
ELEVATION SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

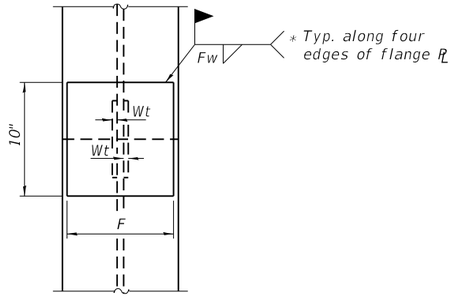
(when specified)



ELEVATION



DETAIL D



END VIEW

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12½"	1"	⅞"	7¾"	⅝"	½"
x102	12½"	⅞"	¾"	7¾"	⅝"	½"
x89	12½"	¾"	1 1/16"	7¾"	⅝"	½"
x73	12½"	⅝"	9/16"	7¾"	⅝"	½"
HP 12x84	10"	⅞"	1 1/16"	6½"	⅝"	½"
x74	10"	⅞"	1 1/16"	6½"	⅝"	½"
x63	10"	⅝"	½"	6½"	½"	⅜"
x53	10"	⅝"	½"	6½"	½"	⅜"
HP 10x57	8"	¾"	9/16"	5¼"	½"	⅜"
x42	8"	⅝"	9/16"	5¼"	½"	⅜"
HP 8x36	7"	⅝"	7/16"	4¼"	½"	⅜"

WELDED PLATE FIELD SPLICE

F-HP 2-1-2023

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PLOT SCALE = 1.333333 ' / in.	DRAWN – RJP	REVISED –	
PLOT DATE = 4/3/2025	CHECKED – AMS	REVISED –	

HP PILE DETAILS
STRUCTURE NO. 034-4817
SHEET NO. 8 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	15
		CONTRACT NO. 93840		
	ILLINOIS	FED. AID PROJECT		

Project No.: 23-0358
Project: Hancock County Pilot Grove Twp Bridge SN 034-4817
Client: Hancock County Highway Dept.
Boring No.: 1

Boring Log

Rig: CME 75
Location: TR-91
Driller: MAS

Depth (ft.)	Symbol	Description	Qp, t.s.f.	Dry Density, P.C.F.	Depth/Elev.	Sample Number	Sample Type	Sample Blows/ft.	Qu, T.S.F.	Standard Penetration Test blows/ft. (10 20 30 40)	Water Content % (Wp — WI; 10 20 30 40)
0		Ground Surface			647.0						
		Asphalt (4")			646.7						
		Crushed Stone (8")			646.0						
		Fill: Lean Clay, Silty, Brown Mottled Light Brown, (CL)			1.0						
5		Soft, (CL)	0.75 0.5			1	SS	3		3	29.6
					637.0						
10		Lean Clay w/Sand, Silty, Dark Gray, Medium, (CL)	0.25 1.0		10.0	2	SS	4		4	26.8
					632.0						
15		Sandy Lean Clay, Little Fine Gravel, Light Brown to Gray Mottled Brown, Stiff, (CL)	1.5 3.0		15.0	3	SS	9		9	18.2
		Weathered Siltstone, Light Gray to Yellow Brown			629.0						
20		Hard			18.0	4	SS	52		52	10.1
					622.0						
25		Siltstone, Light Gray, Hard			25.0	5	SS	97-7"		97-7"	3.8
					616.5						
30		Hard			30.5	6	SS	67-6"		67-5"	5.8
		Rig Refusal @ 30.5 ft. End of Boring @ 30.5 ft.									

Drill Method: 3 1/4" HSA
Boring Started: 3/11/2024
Boring Completed: 3/11/2024
Tested By: DAW
Logging By: BRH

GEOTECHNICS
Soil & Material Testing

Groundwater Elev. During Drilling: ▽ 622.0
Groundwater Elev. @ Comp.: ▽ 633.0
Groundwater Elev. @ Hrs.: ▽
Boring Location: 21'W, 5' S of W Abut
Sheet 1 of 1

BORING #1

Project No.: 23-0358
Project: Hancock County Pilot Grove Twp Bridge SN 034-4817
Client: Hancock County Highway Dept.
Boring No.: 2

Boring Log

Rig: CME 75
Location: TR-91
Driller: MAS

Depth (ft.)	Symbol	Description	Qp, t.s.f.	Dry Density, P.C.F.	Depth/Elev.	Sample Number	Sample Type	Sample Blows/ft.	Qu, T.S.F.	Standard Penetration Test blows/ft. (10 20 30 40)	Water Content % (Wp — WI; 10 20 30 40)
0		Ground Surface			647.5						
		Asphalt (3")			647.2						
		Crushed Stone (10")			646.4						
		Fill: Lean Clay, Silty, Dark Brown, (CL)			1.1						
5		Lean Clay, Silty, Dark Brown, Stiff, (CL)			642.5	1	SS	9		9	16.3
					5.0						
10		Lean Clay w/Sand, Silty, Light Gray, Stiff, (CL)	1.5 1.0		637.5	2	SS	6		6	17.4
					10.0						
15		Sandy Lean Clay w/Silty Sand Layers, Little Fine Gravel, Brown Mottled Light Gray, Stiff, (CL)	0.75 1.0		632.5	3	SS	15		15	27.1
		Weathered Siltstone, Light Gray to Yellow Brown			15.0						
20		Hard			630.0	4	SS	71		71	9.0
					17.5						
25		Siltstone, Light Gray, Hard			622.5	5	SS	50-2"		50-2"	4.5
					25.0						
30		Hard			617.0	6	SS	50-2"		50-2"	5.6
		Rig Refusal @ 30.5 ft. End of Boring @ 30.5 ft.			30.5						

Drill Method: 3 1/4" HSA
Boring Started: 3/11/2024
Boring Completed: 3/11/2024
Tested By: DAW
Logging By: BRH

GEOTECHNICS
Soil & Material Testing

Groundwater Elev. During Drilling: ▽ 627.5
Groundwater Elev. @ Comp.: ▽ 623.5
Groundwater Elev. @ Hrs.: ▽
Boring Location: 21'E, 5' N of E Abut
Sheet 1 of 1

BORING #2

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KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N.24TH ST., QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = rjp	DESIGNED – RJP	REVISED –
	CHECKED – AMS	REVISED –
PLOT SCALE = 1.333333 ' / in.	DRAWN – RJP	REVISED –
PLOT DATE = 4/3/2025	CHECKED – AMS	REVISED –

HANCOCK COUNTY
HIGHWAY DEPARTMENT

BORING LOGS
STRUCTURE NO. 034-4817
SHEET NO. 9 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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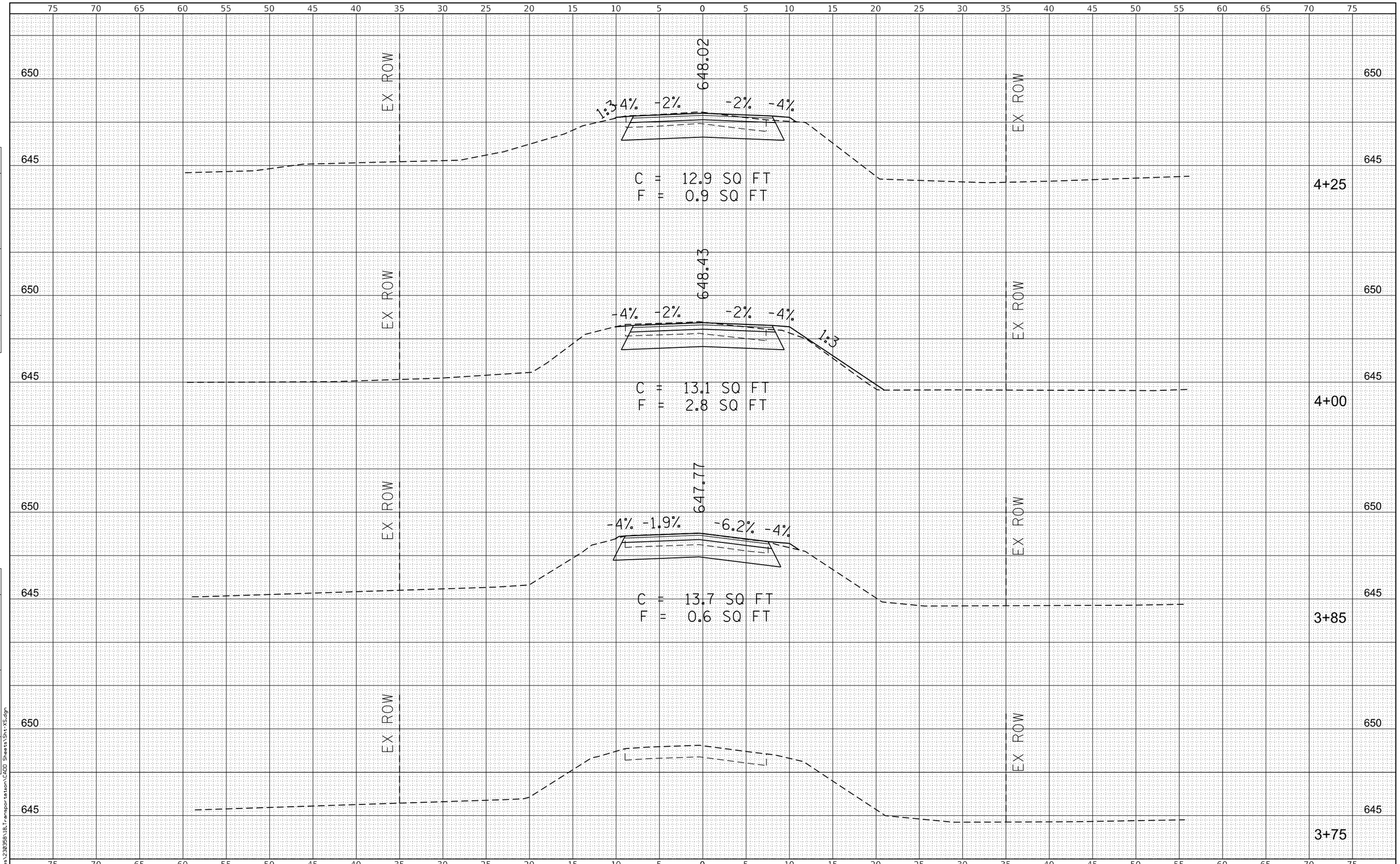
		CONTRACT NO. 93840		
	ILLINOIS FED. AID PROJECT			



FINAL SURVEY	NOTE BOOK	NO.	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY	NOTE BOOK	NO.	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

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STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = rjp	DESIGNED - RJP	REVISED -
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PLOT DATE = 4/3/2025	DATE -	REVISED -

HANCOCK COUNTY
HIGHWAY DEPARTMENT

TR 91 (2350N) OVER GROVE CREEK
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 1 OF 5 SHEETS | STA. 3+75 TO STA. 4+25

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	17
		CONTRACT NO. 93840		
		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	NOTE BOOK	NO.
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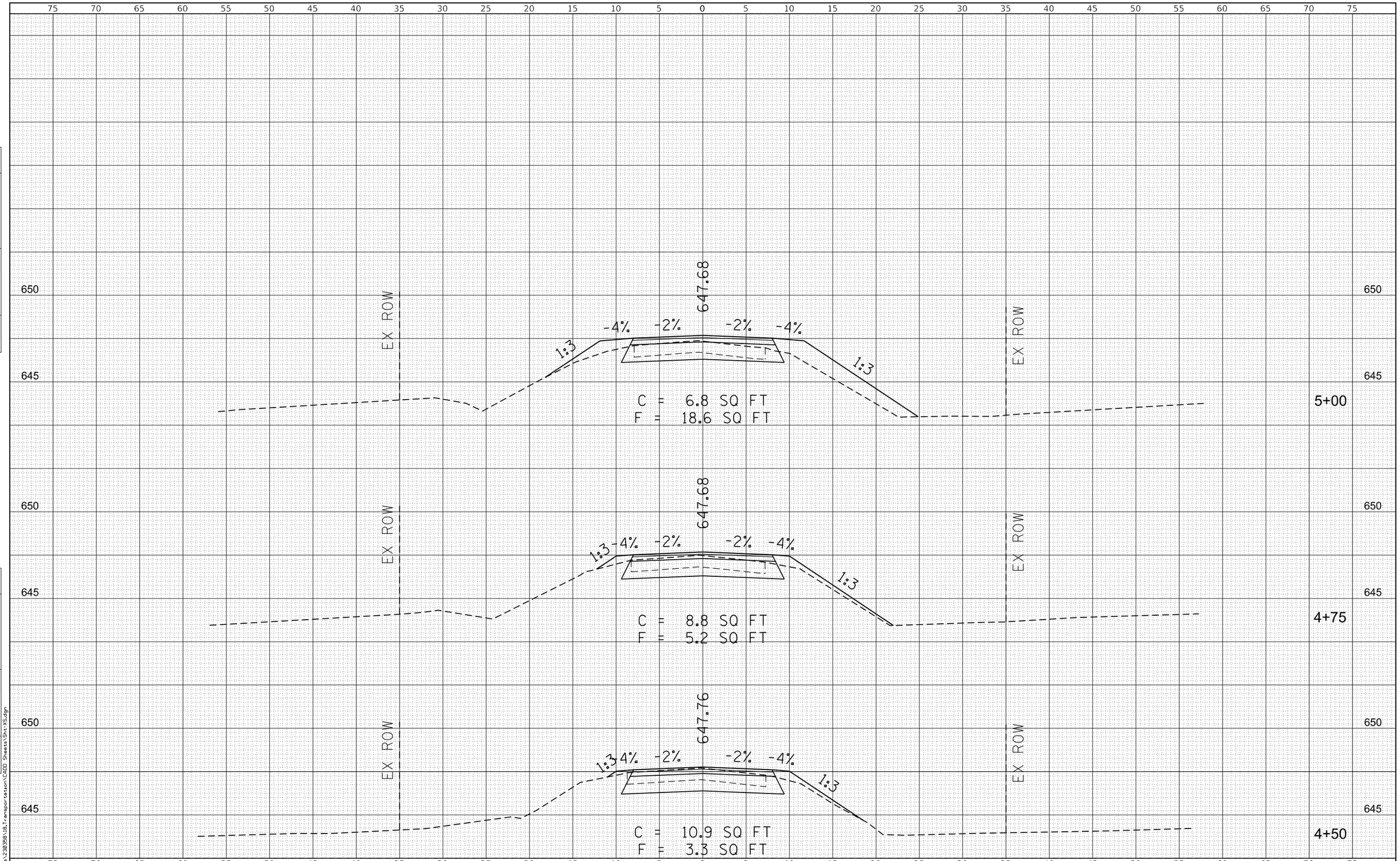
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

BY	DATE



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	PLOTTED	
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	AREAS	
	AREAS CHECKED	

BY	DATE

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STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = rjp	DESIGNED - RJP	REVISED -
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PLOT SCALE = 10.0000 ' / in.	CHECKED - EBB	REVISED -
PLOT DATE = 4/3/2025	DATE -	REVISED -

HANCOCK COUNTY
HIGHWAY DEPARTMENT

TR 91 (2350N) OVER GROVE CREEK
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 2 OF 5 SHEETS | STA. 4+50 TO STA. 5+00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	18
		CONTRACT NO. 93840		
		ILLINOIS FED. AID PROJECT		

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

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

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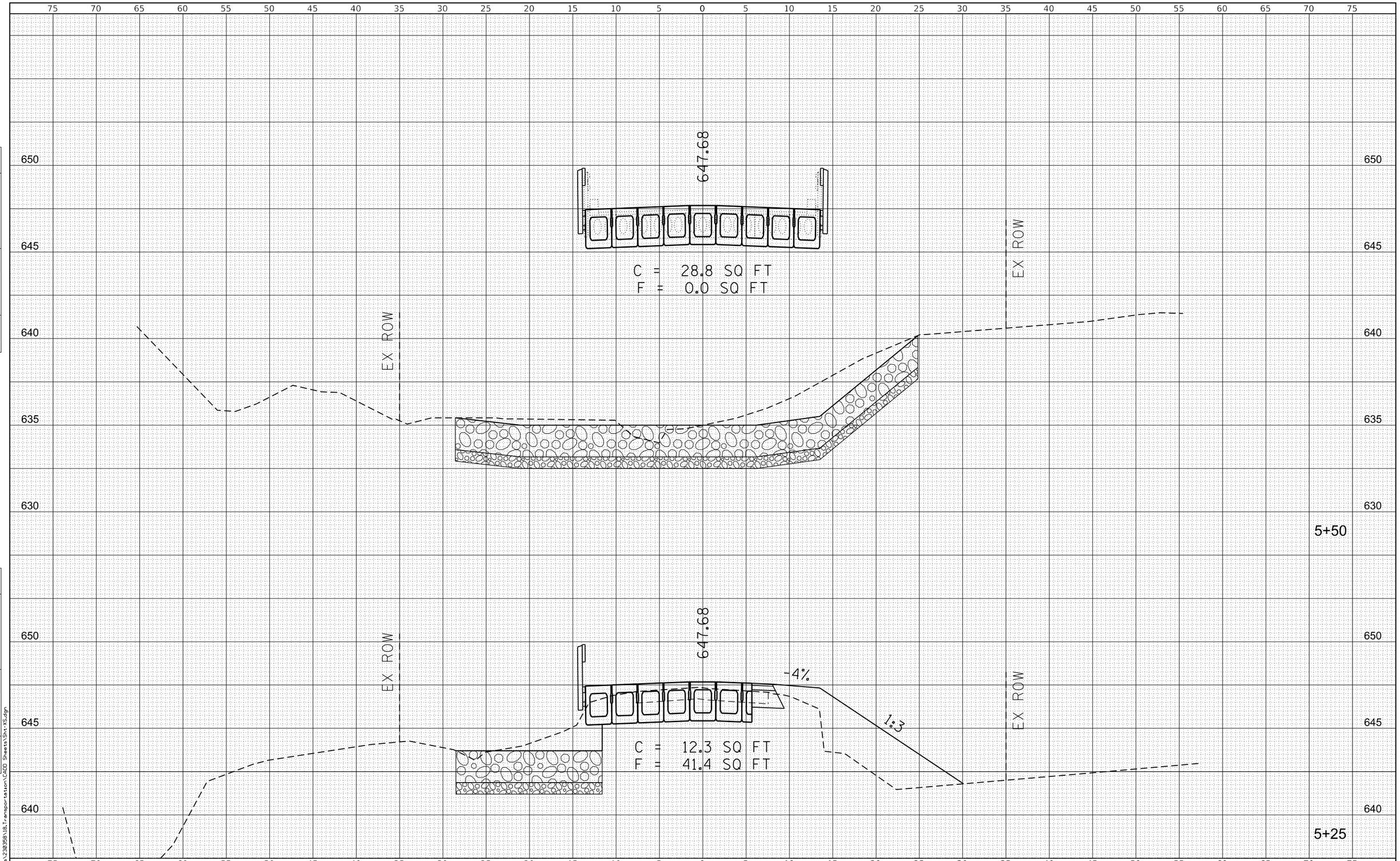

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STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

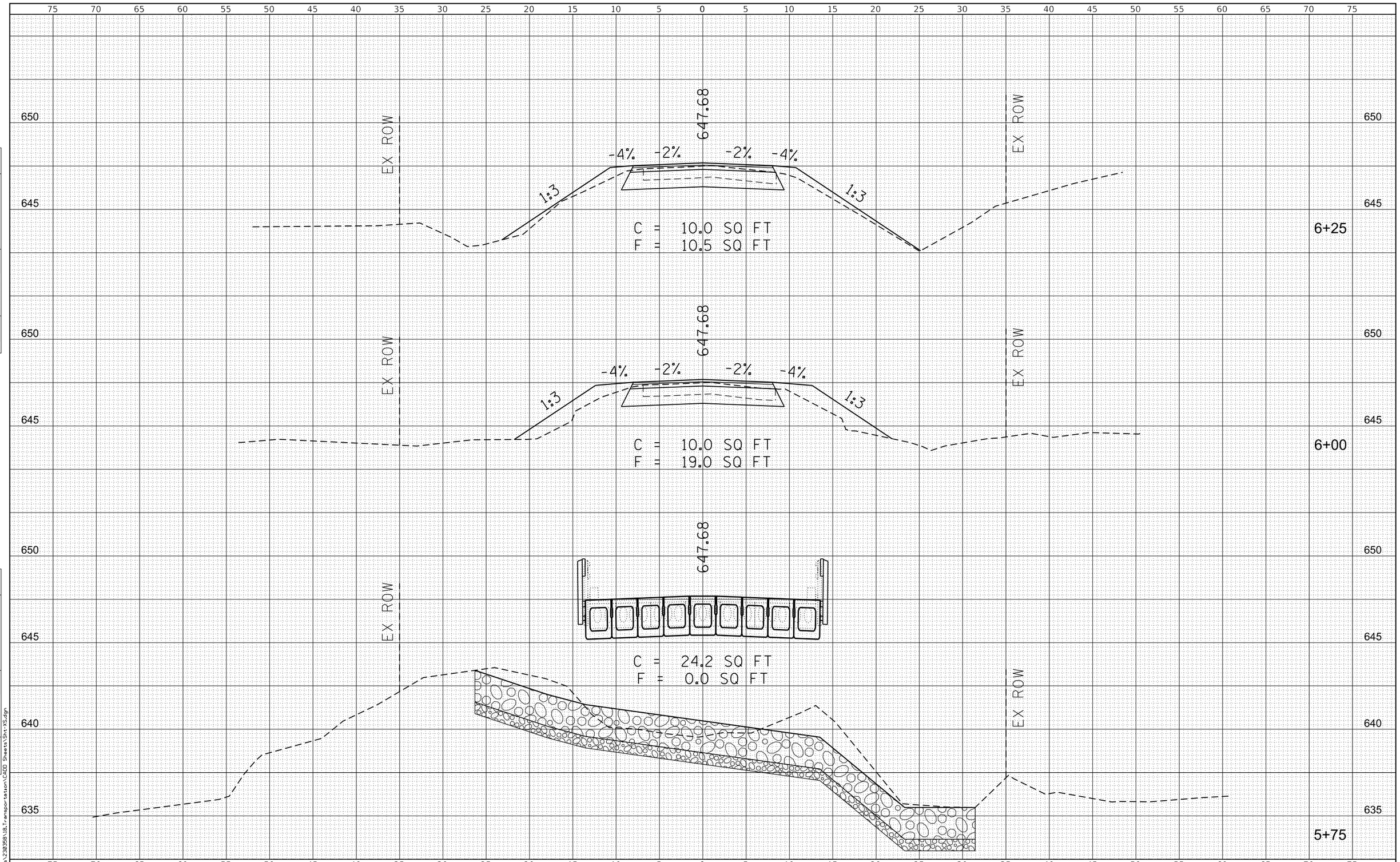
USER NAME = rjp	DESIGNED - RJP	REVISED -
	DRAWN - RJP	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - EBB	REVISED -
PLOT DATE = 4/3/2025	DATE -	REVISED -

HANCOCK COUNTY HIGHWAY DEPARTMENT

TR 91 (2350N) OVER GROVE CREEK
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 3 OF 5 SHEETS | STA. 5+25 | TO STA. 5+50

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	19
		CONTRACT NO. 93840		
	ILLINOIS FED. AID PROJECT			



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BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

ORIGINAL SURVEY — NOTE BOOK — NO.

BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

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STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = rjp	DESIGNED - RJP	REVISED -
	DRAWN - RJP	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - EBB	REVISED -
PLOT DATE = 4/3/2025	DATE -	REVISED -

HANCOCK COUNTY HIGHWAY DEPARTMENT

TR 91 (2350N) OVER GROVE CREEK
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 4 OF 5 SHEETS | STA. 5+75 TO STA. 6+25

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	20
		CONTRACT NO. 93840		
		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	
NOTE BOOK	
NO.	

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	
NOTE BOOK	
NO.	

	BY	DATE
SURVEYED		
PLOTED		
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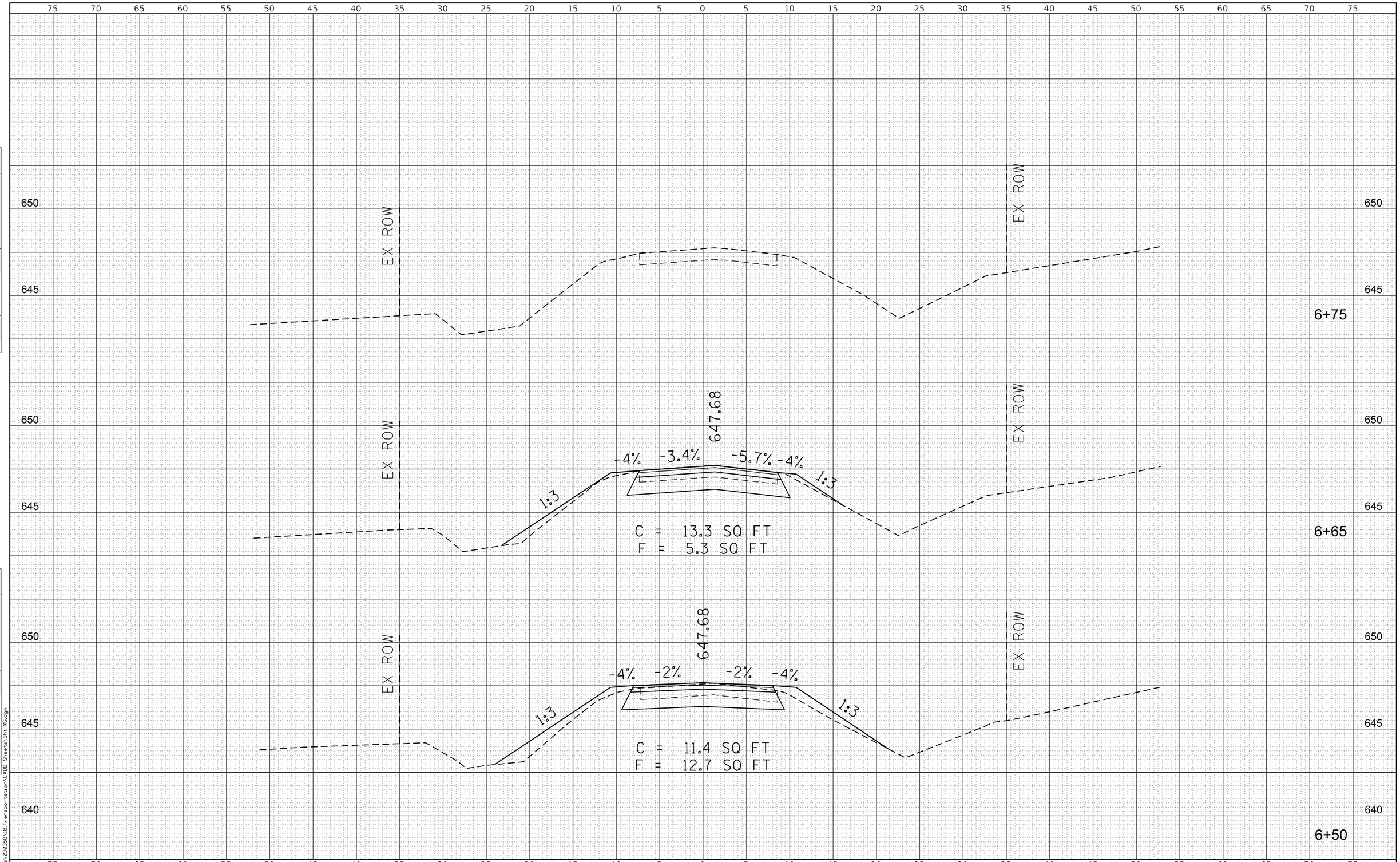

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PLOT SCALE = 10.0000 ' / in.	CHECKED - EBB	REVISED -	
PLOT DATE = 4/3/2025	DATE -	REVISED -	

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Engineers • Architects • Surveyors
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STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

HANCOCK COUNTY HIGHWAY DEPARTMENT

TR 91 (2350N) OVER GROVE CREEK
CROSS SECTIONS

SCALE: 1"=5'H 1"=2.5'V | SHEET 5 OF 5 SHEETS | STA. 6+50 TO STA. 6+75

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	24-14119-00-BR	HANCOCK	21	21
		CONTRACT NO. 93840		
		ILLINOIS FED. AID PROJECT		