T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	1
	ILLINOIS	CONTRACT NO. ___		

INDEX OF SHEETS

STANDARDS (IN PROPOSAL)

STANDARD 000001-08
STANDARD 280001-07
STANDARD 515001-04
STANDARD 701901-09
STANDARD BLR 21-9
STANDARD BLR 23-4
STANDARD BLR 27-1

LIST OF UTILITIES

FRONTIER COMMUNICATIONS
225 NORTH BROAD STREET
CARLINVILLE, ILLINOIS 62626
217-318-0456

MENARD ELECTRIC COOPERATIVE
P.O. BOX 200
PETERSBURG, ILLINOIS 62675
CONTACT: BRADY SMITH
217-632-7746

AMEREN ILLINOIS
370 SOUTH MAIN STREET
DECATUR, ILLINOIS 62523
CONTACT: ZACH SUTTER
217-221-0813

SCALE IN FEET

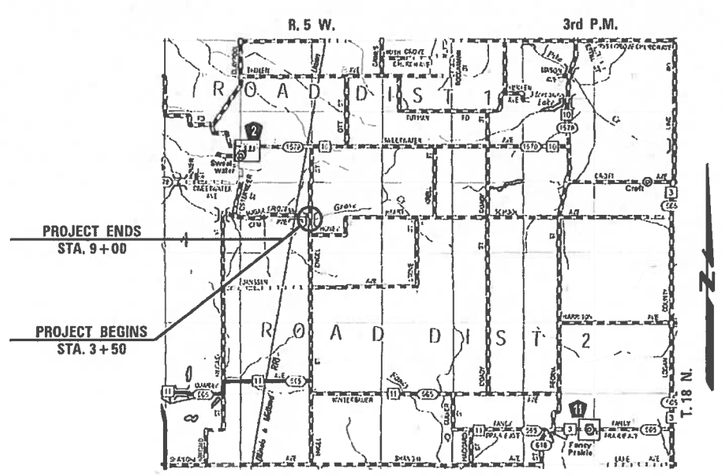
0 50 100 = PROFILE - PLAN
0 50 100 = PROFILE - HORIZONTAL
0 5 10 = PROFILE - VERTICAL
0 5 10 = CROSS SECTIONS - HORIZONTAL
0 5 10 = CROSS SECTIONS - VERTICAL

LAND SECTIONS - 4 & 5
LAND QUARTER SECTION - S.W. & S.E.
FUNCTIONAL CLASSIFICATION: LOCAL ROAD (NON-URBAN)
A.D.T. - 75 (2020)
A.D.T. - 81 (2032)
30 M.P.H. DESIGN SPEED

TOLL FREE
"JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS"
(J.U.L.I.E.) TELEPHONE NUMBER
1-800-892-0123 (811)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED TOWNSHIP BRIDGE PROGRAM

T.R. 164 OVER GROVE CREEK
ROAD DISTRICT NO. 2
SECTION 22-02114-00-BR
MENARD COUNTY



LOCATION PLAN

LENGTH OF SECTION = 550.00 FT. = 0.104 MILE

LOCATION OF SECTION INDICATED THUS: ▬

EXISTING STRUCTURE: POURED CONCRETE DECK ON STEEL STRINGER STRUCTURE ON TIMBER ABUTMENTS WITH TIMBER PILING AND TIMBER WINGWALLS. ±28'-0" BK.-BK. ABUTS., ±20'-0" CLEAR DECK WIDTH, 0°SKEW. SN 065-3064

PROPOSED STRUCTURE: SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM STRUCTURE (21") ON OPEN CONCRETE ABUTMENTS BEARING ON STEEL PILING. 48'-0" BK.-BK. ABUTMENTS, 28'-0" CLEAR DECK WIDTH WITH TYPE S1 RAILING, 0° SKEW. SN 065-3130

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED February 26, 2024
COUNTY ENGINEER

APPROVED February 26, 2024
County T Bell
ROAD COMMISSIONER

PASSED 3/6/2024
DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review 3/6/2024
REGION FOUR ENGINEER

CHRISTOPHER P. KOHLRUS
062-046038
LICENSED PROFESSIONAL ENGINEER OF
STATE OF ILLINOIS

Christopher P. Kohlrus 2/26/24
EXPIRATION: 11/30/2025

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

USER NAME = $USER$	DESIGNED - ___	REVISED - ___	
	DRAWN - ___	REVISED - ___	
PLOT SCALE = $SCALE$	CHECKED - ___	REVISED - ___	
PLOT DATE = $DATE$	DATE - ___	REVISED - ___	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TITLE SHEET

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

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	1
STR. NO.		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

				CONSTRUCTION CODE	
				ROADWAY	BRIDGE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0004 S.N. 065-3064	0010 S.N. 065-3064
20200100	EARTH EXCAVATION	CU YD	138	138	
20300100	CHANNEL EXCAVATION	CU YD	118	118	
20400800	FURNISHED EXCAVATION	CU YD	387	387	
28000305	TEMPORARY DITCH CHECKS	FOOT	56	56	
28100107	STONE RIPRAP, CLASS A4	SQ YD	260	260	
28200200	FILTER FABRIC	SQ YD	367	367	
28300400	AGGREGATE DITCH	TON	107	107	
40200100	AGGREGATE SURFACE COURSE, TYPE A	TON	919	919	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU YD	63		63
50300225	CONCRETE STRUCTURES	CU YD	25.3		25.3
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	1307		1307
50800105	REINFORCEMENT BARS	POUND	3050		3050
50900205	STEEL RAILING, TYPE S1	FOOT	96		96

FILE NAME = $FILE$

USER NAME = $USER$ | DESIGNED - · | REVISED - ·
PLOT SCALE = $SCALE$ | DRAWN - · | REVISED - ·
PLOT DATE = $DATE$ | CHECKED - · | REVISED - ·
DATE - · | REVISED - ·

Veenstra & Kimm, Inc.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

SUMMARY OF QUANTITIES

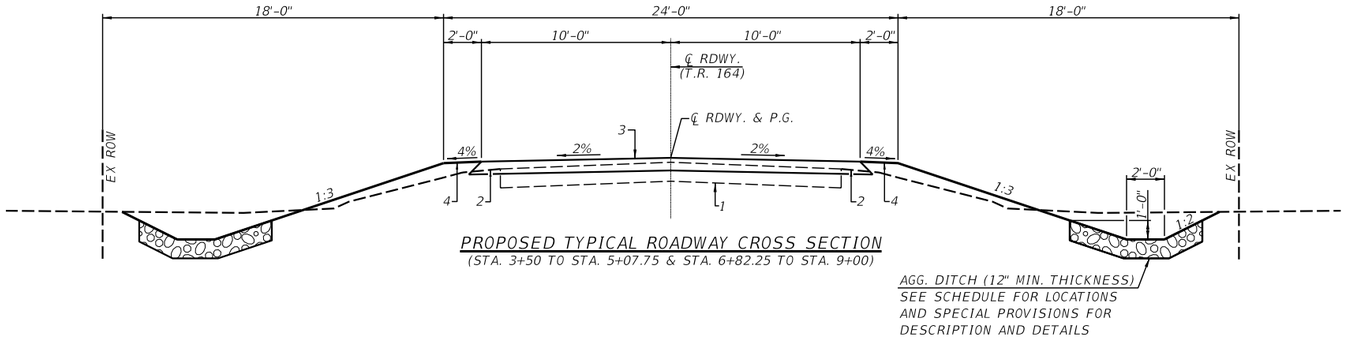
SCALE: NONE | SHEET NO. 1 OF 2 SHEETS | STA. _____ TO STA. _____

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	2
		CONTRACT NO. _____		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

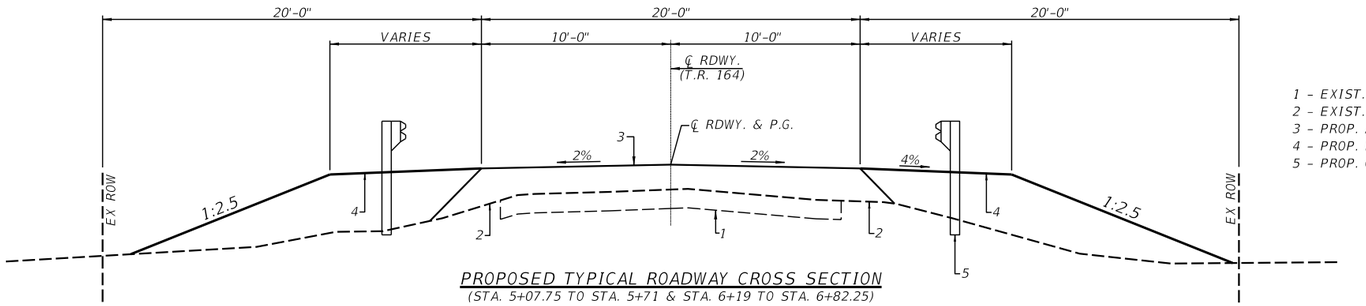
					CONSTRUCTION CODE	
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0004 S.N. 065-3064	BRIDGE 0010 S.N. 065-3064
	51200957	FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT	280		280
	51202305	DRIVING PILES	FOOT	280		280
	51203200	TEST PILE METAL SHELLS	EACH	2		2
	51500100	NAME PLATES	EACH	1		1
	59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	45	45	
	63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	2	2	
	67100100	MOBILIZATION	L SUM	1	1	
	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2	
	LR631020	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	2	2	
*	X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.5	0.5	

* - SEE SPECIAL PROVISIONS

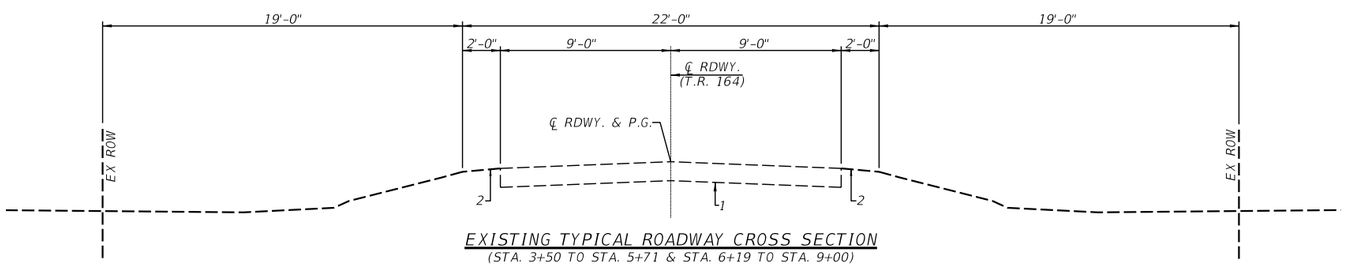
FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED - ·	REVISED - ·	V&K	Veenstra & Kimm, Inc. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939	SUMMARY OF QUANTITIES			T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - ·	REVISED - ·						164	22-02114-00-BR	MENARD	24	3
	PLOT SCALE = $SCALE$	CHECKED - ·	REVISED - ·								CONTRACT NO. ____		
	PLOT DATE = $DATE$	DATE - ·	REVISED - ·			SCALE: NONE	SHEET NO. 2 OF 2 SHEETS	STA. ____ TO STA. ____	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



PROPOSED TYPICAL ROADWAY CROSS SECTION
(STA. 3+50 TO STA. 5+07.75 & STA. 6+82.25 TO STA. 9+00)



PROPOSED TYPICAL ROADWAY CROSS SECTION
(STA. 5+07.75 TO STA. 5+71 & STA. 6+19 TO STA. 6+82.25)



EXISTING TYPICAL ROADWAY CROSS SECTION
(STA. 3+50 TO STA. 5+71 & STA. 6+19 TO STA. 9+00)

LEGEND

1 – EXIST. AGGREGATE BASE
2 – EXIST. EARTH SHOULDER
3 – PROP. AGGREGATE SURFACE COURSE 8" MIN.
4 – PROP. EARTH SHOULDERS
5 – PROP. GUARDRAIL

GENERAL NOTES

WHERE SECTION OR SUBSECTION STONES ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH STONES ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AUTHORIZED SURVEYOUR, OR AGENET HAS WITNESSED OR REFERENCED THEIR LOCATION.

SEEDING: FERTILIZER NUTRIENTS SHALL BE APPLIED AT A RATIO OF 1:1:1 AND AT A RATE OF 90 POUNDS PER ACRE FOR EACH NUTRIENT.

MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE.

AREAS TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY AS DIRECTED BY THE ENGINEER. ALL DISTURBED EARTH SURFACES BEYOND ROW IS THE RESPONSIBILITY OF AND COST TO THE CONTRACTOR.

PER NATURAL RESOURCES REVIEW DATED MAY 3, 2022, THERE IS A POTENTIAL FOR IMPACTS TO THE IBAT AND NLEB, AND THEREFORE THE FOLLOWING ACTIONS SHALL BE INCORPORATED:
1. TO ENSURE NO EFFECT TO EITHER SPECIES OF BAT, THE PROJECT PROPONENT SHALL CONDUCT A FINAL INSPECTION OF THE BRIDGE NO MORE THAN 7 DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITY FOR WORK THAT IS SCHEDULED DURING THE SPECIES ACTIVE SEASON, FROM APRIL 1 THROUGH SEPTEMBER 30.
2. TREES THREE (3) INCHES IN DIAMETER AND AT BREAST HEIGHT WILL NOT BE CLEARED FROM APRIL 1 THROUGH SEPTEMBER 30.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED TO CALCULATE THE PLAN QUANTITIES.

AGGREGATE MATERIAL	1.9 TON/CU. YD.
RIPRAP	1.5 TON/CU. YD.
NITROGEN FERTILIZER NUTRIENT	90 LBS./ACRE
PHOSPHORUS FERTILIZER NUTRIENT	90 LBS./ACRE
POTASSIUM FERTILIZER NUTRIENT	90 LBS./ACRE

USER NAME = ___	DESIGNED - ___	REVISED - ___
	CHECKED - ___	REVISED - ___
PLOT SCALE = ___	DRAWN - ___	REVISED - ___
PLOT DATE = ___	CHECKED - ___	REVISED - ___

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

TYPICAL SECTIONS

SCALE:_____ | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	23	4
		CONTRACT NO._____		
		ILLINOIS	FED. AID PROJECT	

SCHEDULE
EARTHWORK

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE (-) SHORTAGE (+) WASTE
	CU. YD.	CU. YD.	CU. YD.	CU. YD.
STA. 3+50 TO STA. 5+71	55	41	197	156
STA. 6+19 TO STA. 9+00	83	62	293	231
TOTAL	138	103	490	387

SCHEDULE
GUARDRAIL

LOCATION	TRAFFIC BARRIER TERMINAL, TYPE 5A	TRAFFIC BARRIER TERMINAL, TYPE 1	TERMINAL MARKER-DIRECT APPLIED
	EACH	EACH	EACH
STA. 5+35.75 TO STA. 5+57.75 RT.		1	1
STA. 5+57.75 TO STA. 5+71 RT.	1		
STA. 6+19 TO STA. 6+32.25 LT.	1		
STA. 6+32.25 TO STA. 6+57.25 LT.		1	1
TOTAL	2	2	2

SCHEDULE
SEEDING CLASS 2 (SPECIAL)

LOCATION	QUANTITY ACRE
STA. 3+50 TO STA. 5+71 RT.	0.12
STA. 3+50 TO STA. 5+71 LT.	0.12
STA. 6+19 TO STA. 9+00 RT.	0.13
STA. 6+19 TO STA. 9+00 LT.	0.13
TOTAL	0.50

USE 0.50 ACRE

SCHEDULE
AGGREGATE SURFACE COURSE, TYPE B

LOCATION	QUANTITY TON
STA. 3+50 TO STA. 5+71	322
STA. 6+19 TO STA. 9+00	597
TOTAL	919

SCHEDULE
TEMPORARY DITCH CHECKS

LOCATION	QUANTITY UNIT
STA. 4+25 21' LT. & 18' RT.	14
STA. 4+75 22' LT. & 22' RT.	14
STA. 8+00 22' LT. & 21' RT.	14
STA. 8+50 19' LT. & 19' RT.	14
TOTAL	56

SCHEDULE
AGGREGATE DITCH

LOCATION	QUANTITY TON
STA. 3+75 TO STA. 4+50 RT.	30
STA. 3+75 TO STA. 4+50 LT.	30
STA. 8+00 TO STA. 8+75 RT.	28
STA. 8+25 TO STA. 8+75 LT.	19
TOTAL	107

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

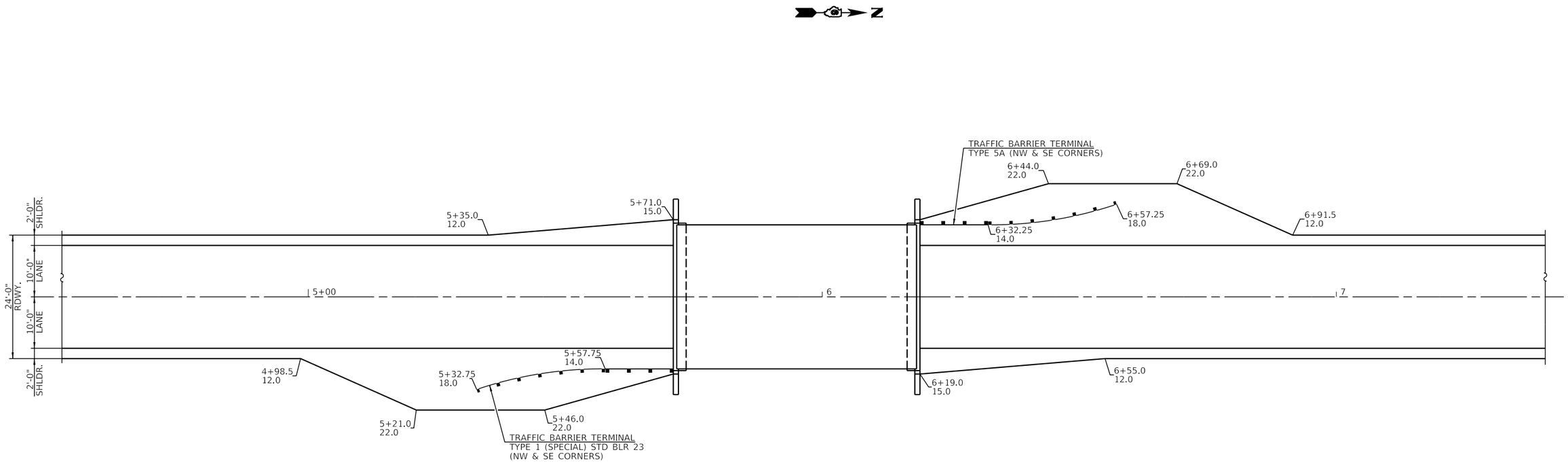
Veenstra & Kimm, Inc.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

SCHEDULES

SCALE: _____ | SHEET NO. 1 OF 1 SHEETS | STA. _____ TO STA. _____

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	5
		CONTRACT NO. _____		

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT



GUARDRAIL PLAN

USER NAME = ___	DESIGNED - ___	REVISED - ___	
	CHECKED - ___	REVISED - ___	
PLOT SCALE = ___	DRAWN - ___	REVISED - ___	
PLOT DATE = ___	CHECKED - ___	REVISED - ___	

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

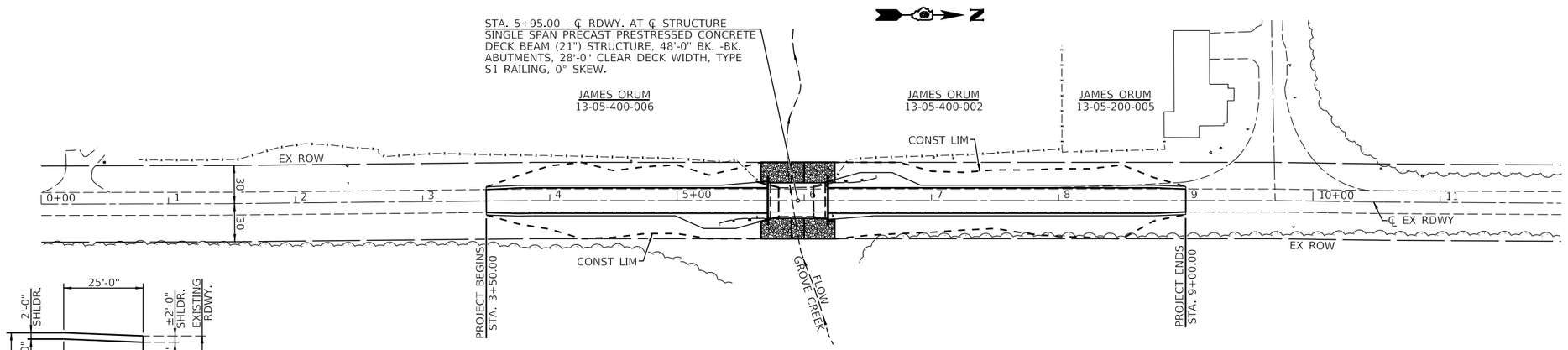
GUARDRAIL PLAN

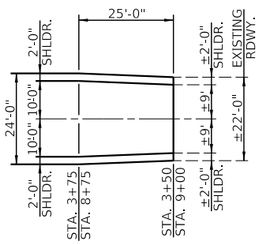
SCALE:_____ | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	6
		CONTRACT NO._____		
	ILLINOIS FED. AID PROJECT			

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

STA. 5+95.00 - ℄ RDWY. AT ℄ STRUCTURE
SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM (21") STRUCTURE, 48'-0" BK. -BK. ABUTMENTS, 28'-0" CLEAR DECK WIDTH, TYPE S1 RAILING, 0° SKEW.





ROADWAY TRANSITION DETAIL

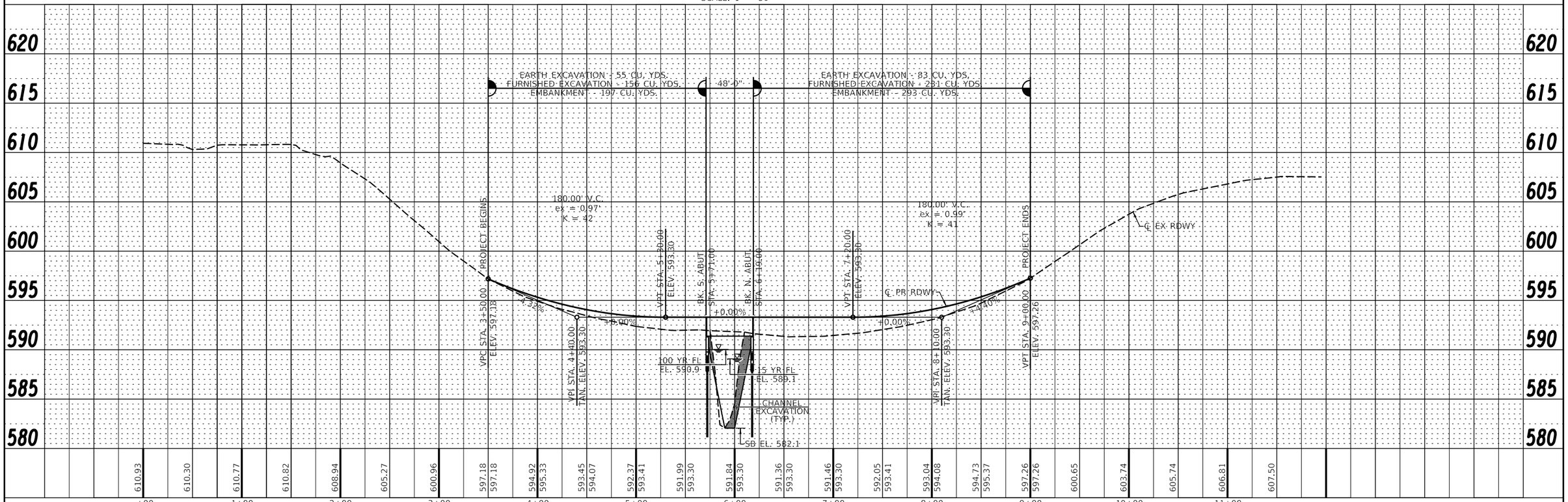
PLAN

0 50 100

SCALE: 1" = 50'

BM #1 - RAILROAD SPIKE IN POWER POLE
STA. 4+64, 30.7' LT. EL. 593.24

PROFILE
SURVEYED
PLOTTED
DRAWN
CHECKED
NOTE BOOK
NO.
BY
DATE
BM. NOTED
STRUCTURE NO(ATN'S CHKD



USER NAME = $USER$	DESIGNED -	REVISED -	
	CHECKED -	REVISED -	
PLOT SCALE = $SCALE$	DRAWN -	REVISED -	
PLOT DATE = $DATE$	CHECKED -	REVISED -	

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

PLAN & PROFILE

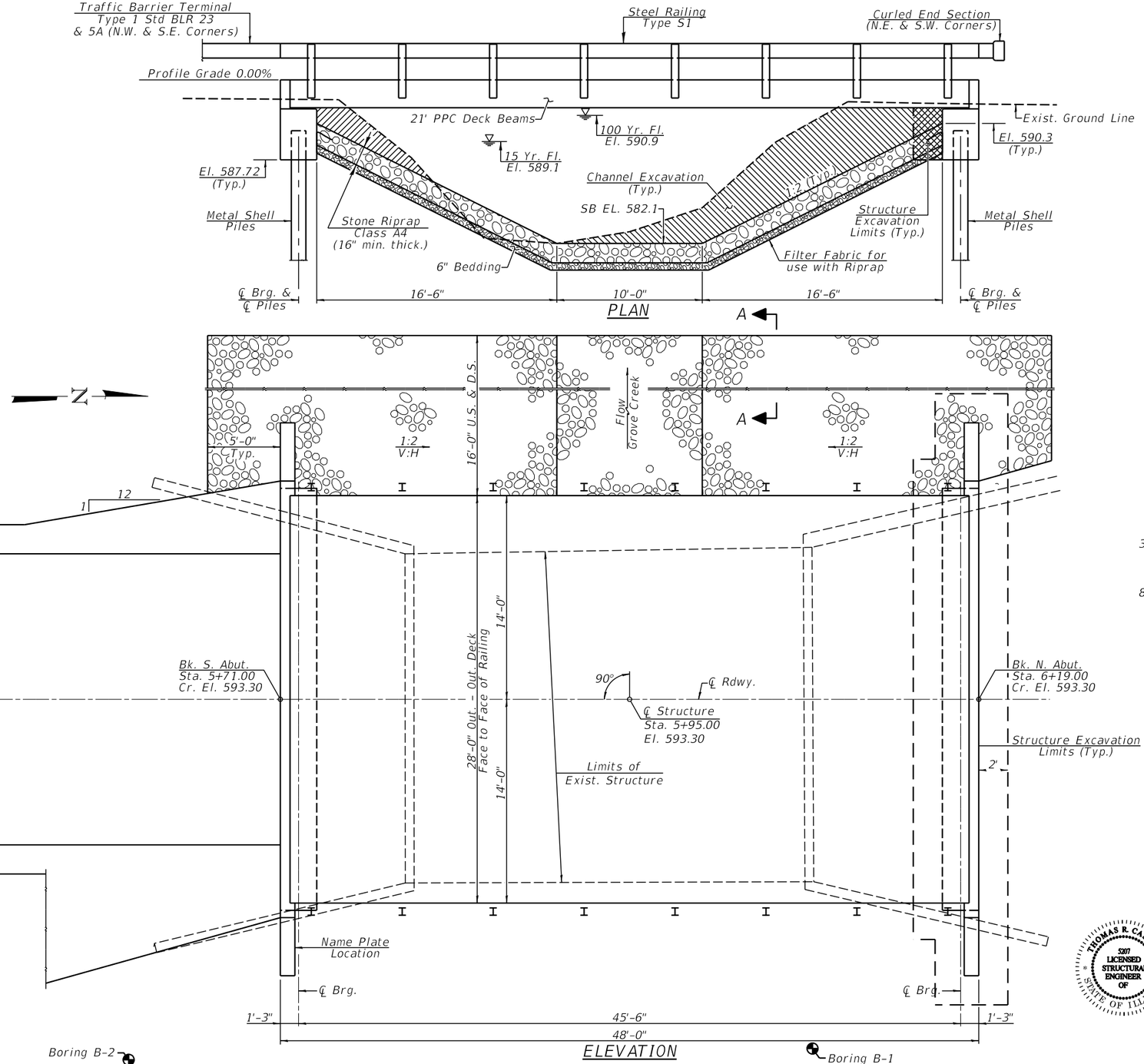
SCALE: 1" = 50' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	7
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Benchmark: BM A – Railroad Spike in power pole – Sta. 4+64, 30.7' Lt. – El. 593.24

Existing Structure: SN 065–3064, Single span poured concrete deck bridge on steel stringers supported by timber abutments on timber piling with steel channel railing, 28'–0" back to back abutments, 21'–0" out to out deck, 0° Skew. Exist. Structure No. 065–3064

Salvage: Steel stringers, bridge rail and pile repair members to become property of the County. See Special Provisions.



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		118	118
Stone Riprap, Class A4	Ton		260	260
Filter Fabric	Sq. Yd.		367	367
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu. Yd.		63	63
Concrete Structures	Cu. Yd.		25.3	25.3
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1307		1307
Reinforcement Bars	Pound		3050	3050
Steel Railing, Type S1	Foot	96		96
Furnishing Metal Shell Piles 12" x 0.250"	Foot		280	280
Driving Piles	Foot		280	280
Test Pile Metal Shells	Each		2	2
Name Plates	Each		1	1
Controlled Low–Strength Material	Cu. Yd.		45	45

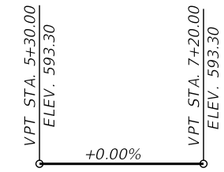
GENERAL NOTES

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

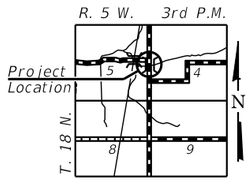
The Contractor shall drive one test pile in a permanent location at each abutment as directed by the Engineer in the field prior to ordering the remainder of piles.

Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60.

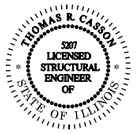
INDEX OF SHEETS



PROFILE GRADE



LOCATION SKETCH



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 "A.A.S.H.T.O. LRFD. Bridge Design Specifications".

Expiration Date 11/30/2022

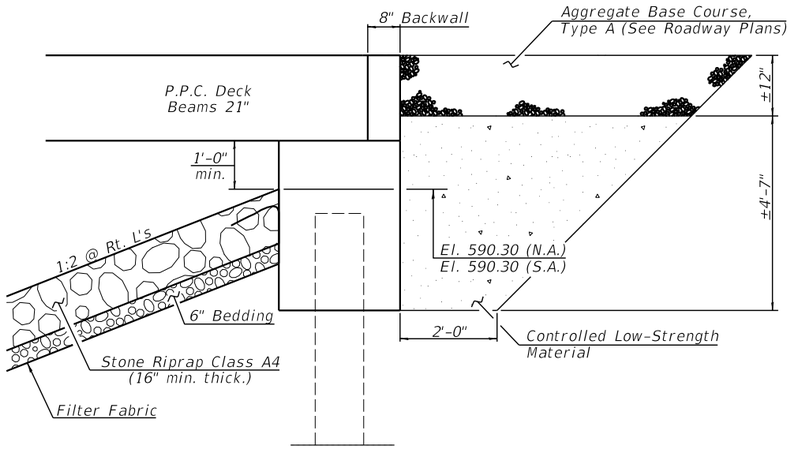
GENERAL PLAN
TR–164 OVER GROVE CREEK
SECTION 22-02114-00-BR
ROAD DISTRICT 2
MENARD COUNTY
STRUCTURE NO. 065–3130

USER NAME = ___	DESIGNED - KS	REVISED - ___	
	CHECKED - TRC	REVISED - ___	
PLOT SCALE = ___	DRAWN - JRP	REVISED - ___	
PLOT DATE = ___	CHECKED - TRC	REVISED - ___	

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

GENERAL PLAN & ELEVATION
STRUCTURE NO. 065–3130
SHEET NO. 1 OF 9 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	8
		CONTRACT NO. ___		
	ILLINOIS FED. AID PROJECT			



SECTION THRU ABUTMENT

WATERWAY INFORMATION

Drainage Area = 3.6 Sq. Mi. Pr. Low Grade Elev. 593.3 @ Sta. 5+95

Flood	Freq. Yr.	Q C.F.S.	Opening Ft²		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Ten-Year	10	1600	116	168	589.1	0.3	0.0	589.4	589.1
Design	15	2050	116	169	589.1	0.4	0.0	589.5	589.1
Base	100	3080	116	239	590.9	1.0	0.2	591.9	591.1
Scour Check	200	3560	116	261	591.4	1.2	0.2	592.6	591.6
Max. Calc.	500	4200	116	281	592.1	0.0	0.4	592.1	592.5

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevations (ft.)	S. Abut.	N. Abut.
	587.72	587.72

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

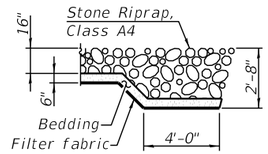
f'c = 3,500 psi (Substructure)
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (½"Ø low lax strands)
fpbt = 201,960 psi (½"Ø low lax strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.098 g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.174 g
Soil Site Class = C



SECTION A-A

GROVE CREEK
BUILT 20 BY
ROAD DISTRICT 2
MENARD COUNTY
SEC. 22-02114-00-BR
STATION 5+95.00
STR. NO. 065-3130 LOADING HL-93

NAME PLATE

See Std. 515001

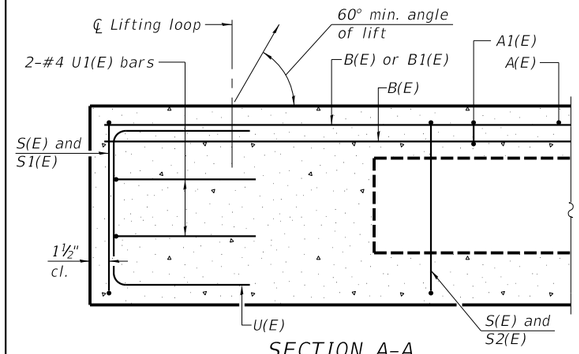
ELEVATION

USER NAME = ___	DESIGNED - KS	REVISED - ___
	CHECKED - TRC	REVISED - ___
PLOT SCALE = ___	DRAWN - JRP	REVISED - ___
PLOT DATE = ___	CHECKED - TRC	REVISED - ___

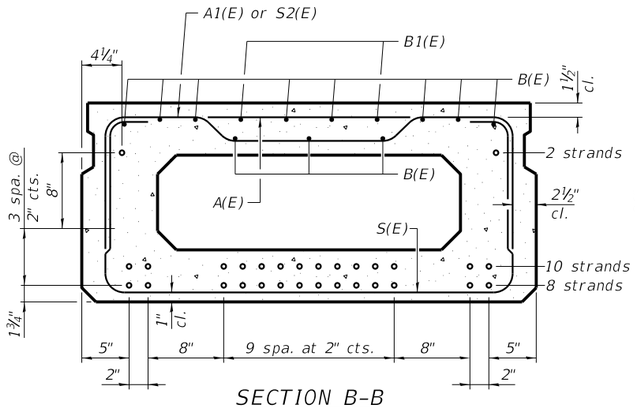
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

GENERAL DATA
STRUCTURE NO. 065-3130
SHEET NO. 2 OF 9 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	9
		CONTRACT NO. ___		
	ILLINOIS	FED. AID PROJECT		



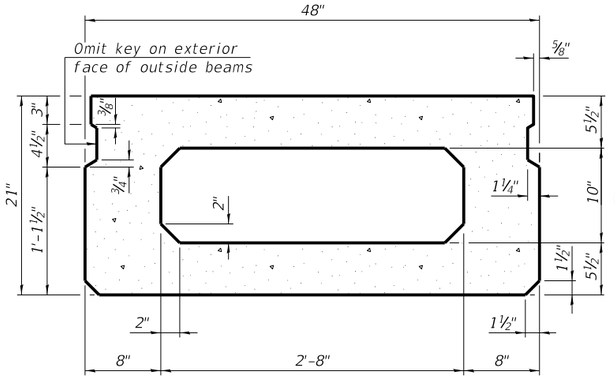
SECTION A-A



SECTION B-B

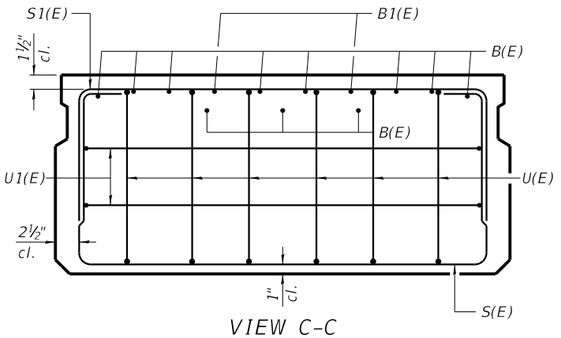
(Showing reinforcement and permissible strand locations)

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

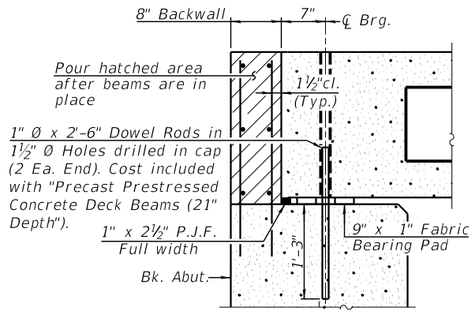


SECTION B-B

(Showing dimensions)



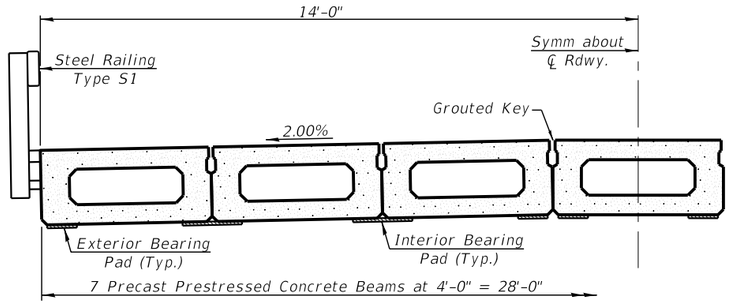
VIEW C-C



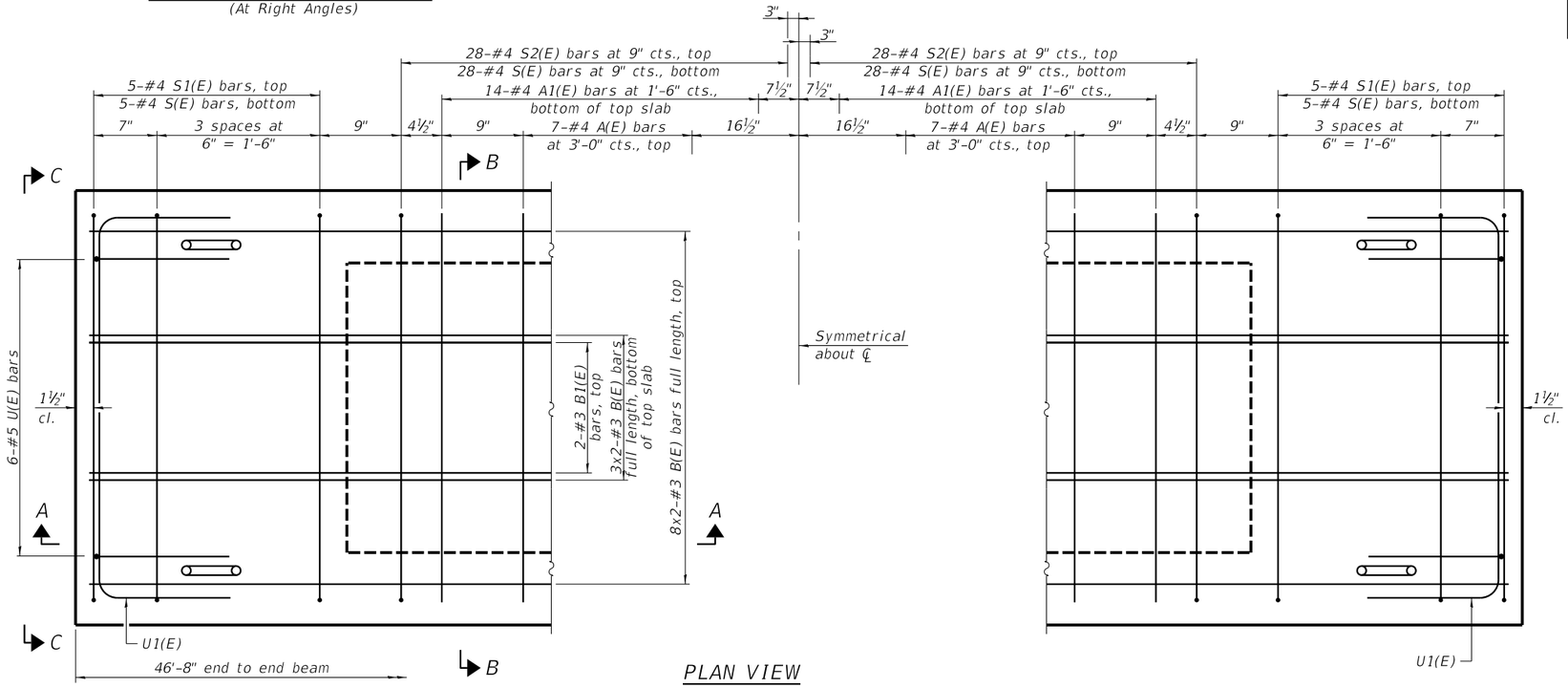
SECTION THRU ABUTMENT

(At Right Angles)

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.



HALF CROSS SECTION



PLAN VIEW

MINIMUM BAR LAP

#3 bar = 1'-6"

BAR LIST

ONE BEAM ONLY

(For information only)

Bar	No.	Size	Length	Shape
A(E)	14	#4	3'-7"	—
A1(E)	28	#4	3'-10"	~
B(E)	22	#3	24'-0"	—
B1(E)	4	#3	10'-0"	—
S(E)	66	#4	7'-5"	⊐
S1(E)	10	#4	5'-11"	⊐
S2(E)	56	#4	6'-2"	⊐
U(E)	12	#5	4'-0"	⊏ ⊐
U1(E)	4	#4	6'-0"	⊏ ⊐

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

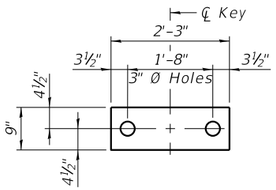
PD-2148-0 1-1-2020

USER NAME = ___	DESIGNED - KS	REVISED - ___	
	CHECKED - TRC	REVISED - ___	
PLOT SCALE = ___	DRAWN - JRP	REVISED - ___	
PLOT DATE = ___	CHECKED - TRC	REVISED - ___	

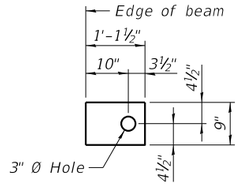
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

21" x 48" PPC DECK BEAM
SN 065-3130
SHEET NO. 3 OF 9 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	10
		CONTRACT NO. ___		
	ILLINOIS FED. AID PROJECT			



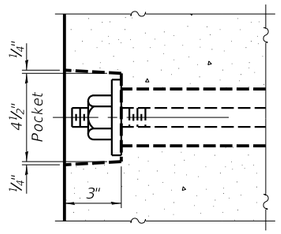
FABRIC BEARING PAD
(Interior)



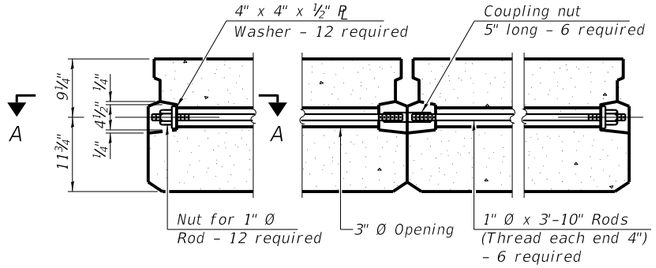
FABRIC BEARING PAD
(Exterior)

FIXED

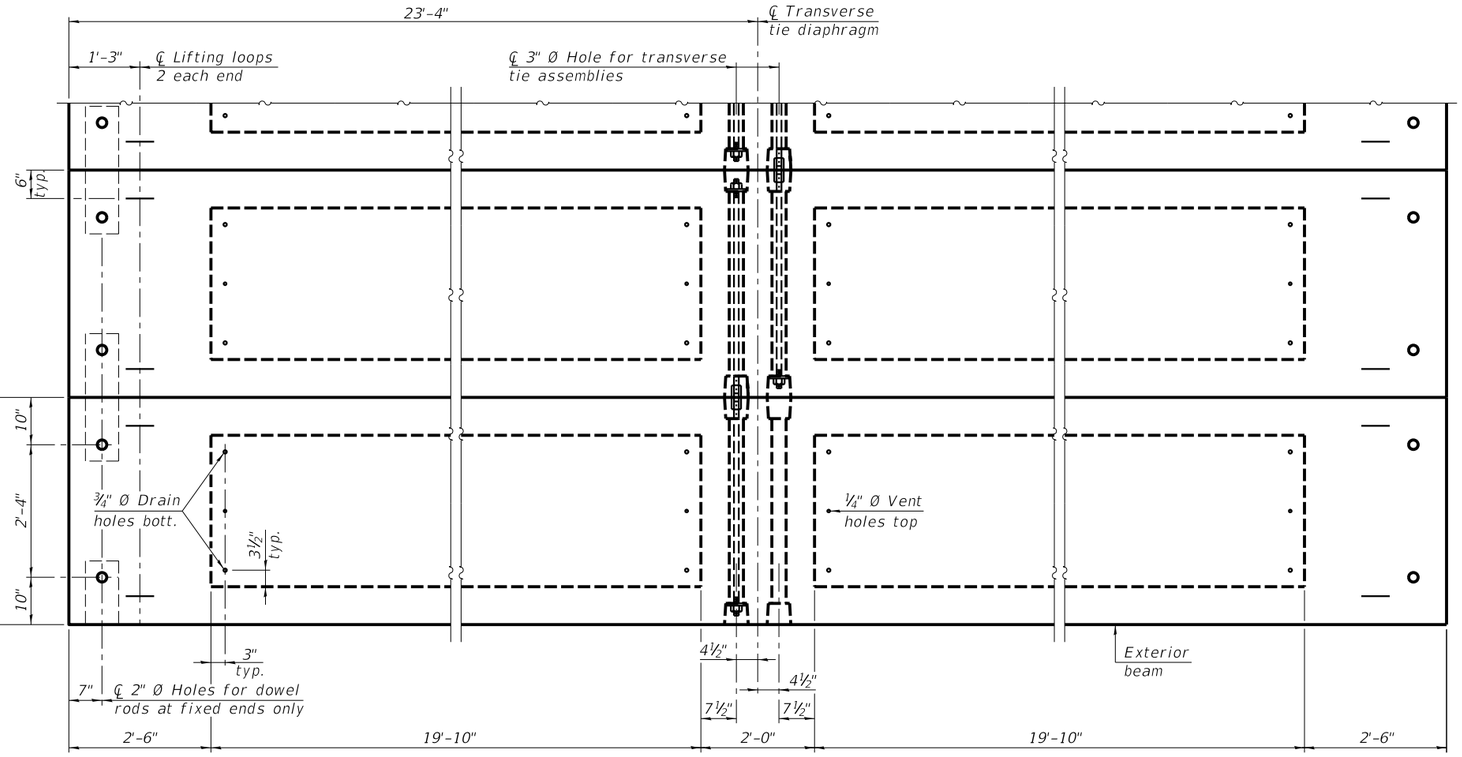
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pads shall be bonded to the substructure.



SECTION A-A

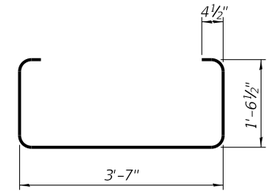


TYPICAL TRANSVERSE TIE ASSEMBLY

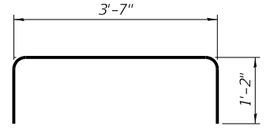


PLAN VIEW

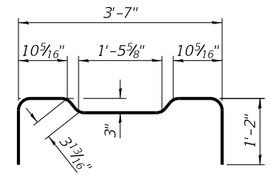
Note:
Connect beams in pairs with the transverse tie configuration shown.



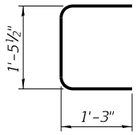
BAR S(E)



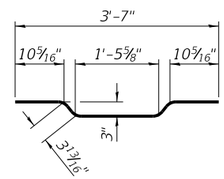
BAR S1(E)



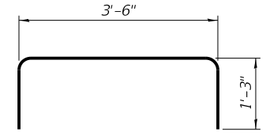
BAR S2(E)



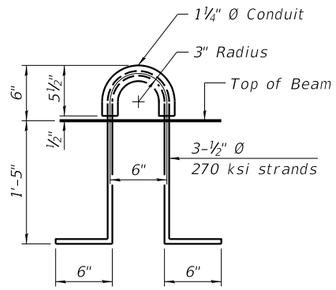
BAR U(E)



BAR A1(E)



BAR U1(E)



LIFTING LOOP DETAIL

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.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	1307

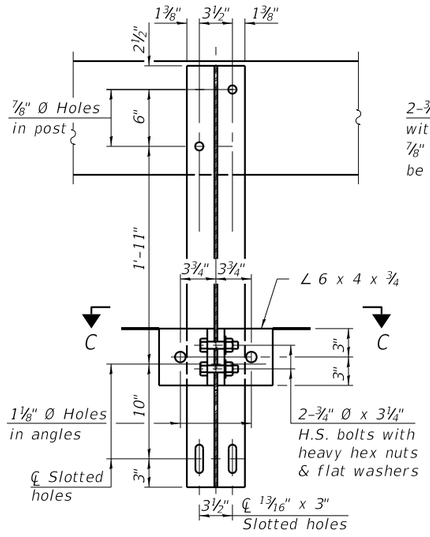
PDD-2148-0 1-1-2020

USER NAME = ___	DESIGNED - KS	REVISED - ___
	CHECKED - TRC	REVISED - ___
PLOT SCALE = ___	DRAWN - JRP	REVISED - ___
PLOT DATE = ___	CHECKED - TRC	REVISED - ___

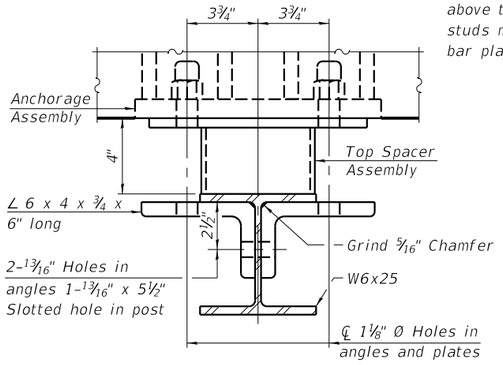
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

21" x 48" PPC DECK BEAM DETAILS
STRUCTURE NO. 065-3130
SHEET NO. 4 OF 9 SHEETS

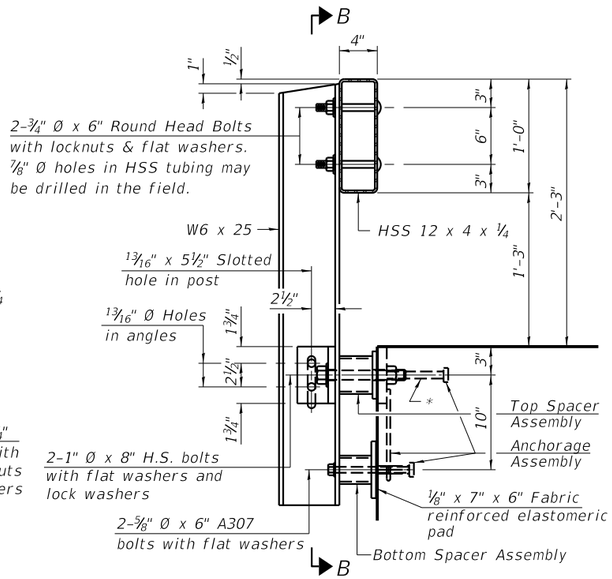
T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	11
		CONTRACT NO. ___		
	ILLINOIS FED. AID PROJECT			



SECTION B-B



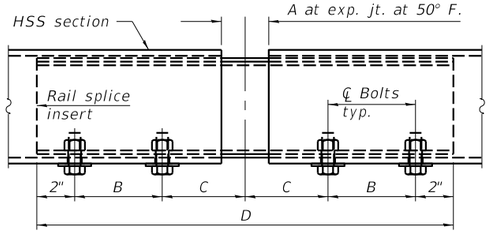
SECTION C-C



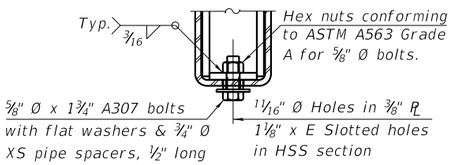
SECTION AT RAILING POST

* *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 ELEVATION



RAIL SPLICE CONNECTION AT EXPANSION JT.

RAILING CRITERIA

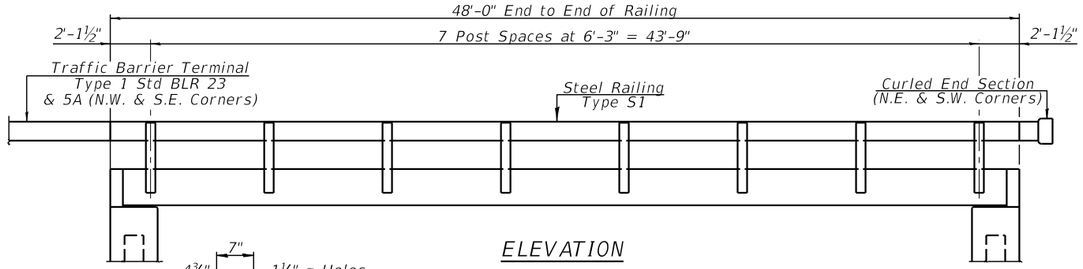
NCHRP 350 Test Level	2
Railing Weight (plf)	50
Max Post Spacing	10'-9"
HMA thickness range (in)	1¼ - 3⅛

R-23A 10-12-2021

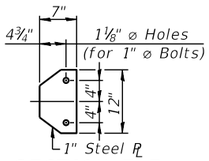
SPLICE DIMENSIONS

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"	3¹⁄₁₆"
Over Finger or Modular Jt.	≤9½"	5½"	7⅜"	7¼"	2'-9¼"	5¹³⁄₁₆"
Over Finger or Modular Jt.	≤15"	8¼"	10⅛"	10"	3'-8¼"	8⁹⁄₁₆"

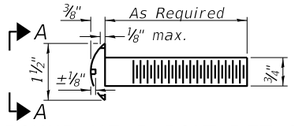
T = total movement along centerline of roadway at expansion joint.



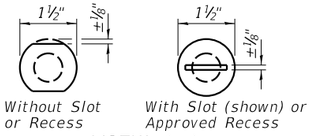
ELEVATION



SECTION E-E

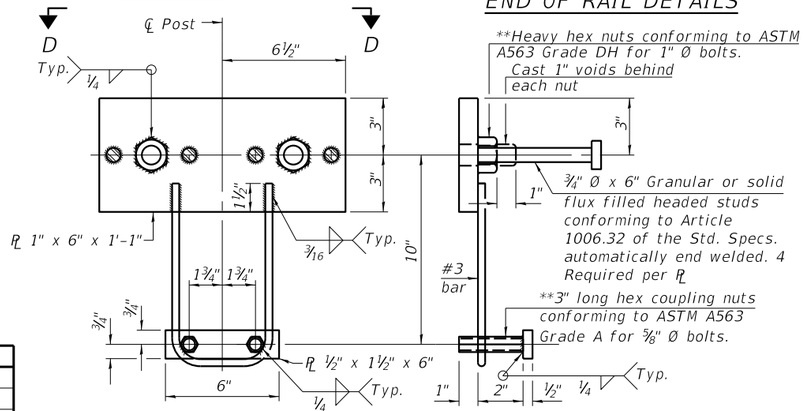


ROUND HEAD BOLT DETAIL



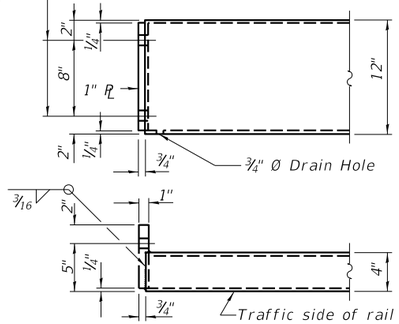
VIEW A-A

VIEW D-D

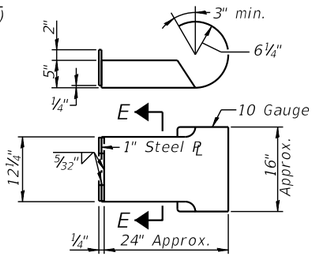


ANCHORAGE ASSEMBLY

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



END OF RAIL DETAILS



CURLED END SECTION DETAILS (4 Required)

(Cost of Curled End Sections to be included in the cost of Steel Railing, Type S-1.)

1⅛" Ø Holes for 1" Ø x 4" Round head bolts. Provide 2 flat washers & locknuts for guard rail connection shown on Hwy Std. 631026 or BLR 27-1.

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.

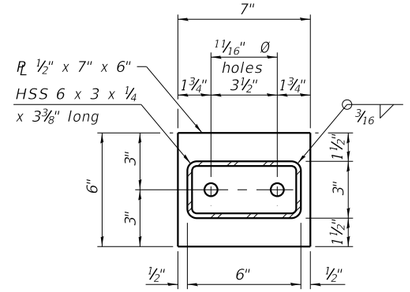
All steel rail elements including shims shall be galvanized according to Article 509.05 of the Standard Specifications.

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.

TOP SPACER ASSEMBLY



BOTTOM SPACER ASSEMBLY

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S1	Foot	96

USER NAME = ___	DESIGNED - KS	REVISED - ___	
	CHECKED - TRC	REVISED - ___	
PLOT SCALE = ___	DRAWN - JRP	REVISED - ___	
PLOT DATE = ___	CHECKED - TRC	REVISED - ___	

VEENSTRA & KIMM INC.
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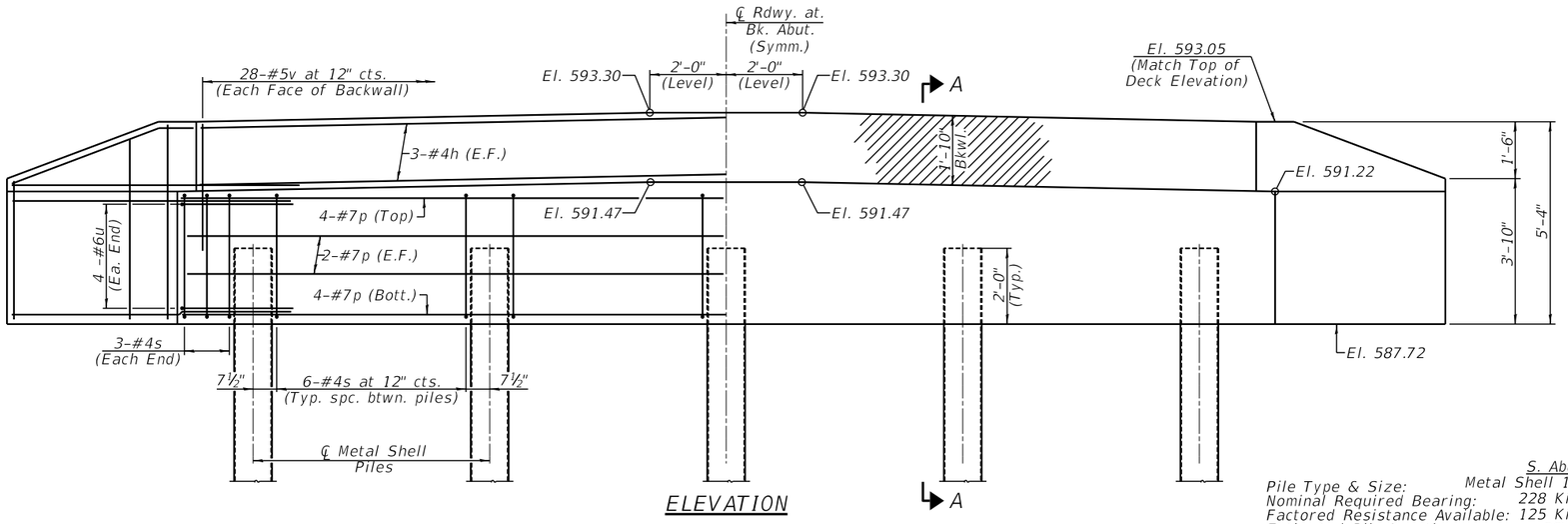
IL. Design Firm No. 184-001939

STEEL RAILING, TYPE S1
STRUCTURE NO. 065-3130
SHEET NO. 5 OF 9 SHEETS

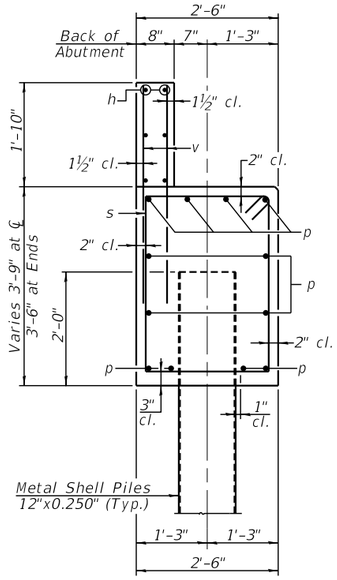
T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	12
		CONTRACT NO. ___		
	ILLINOIS FED. AID PROJECT			



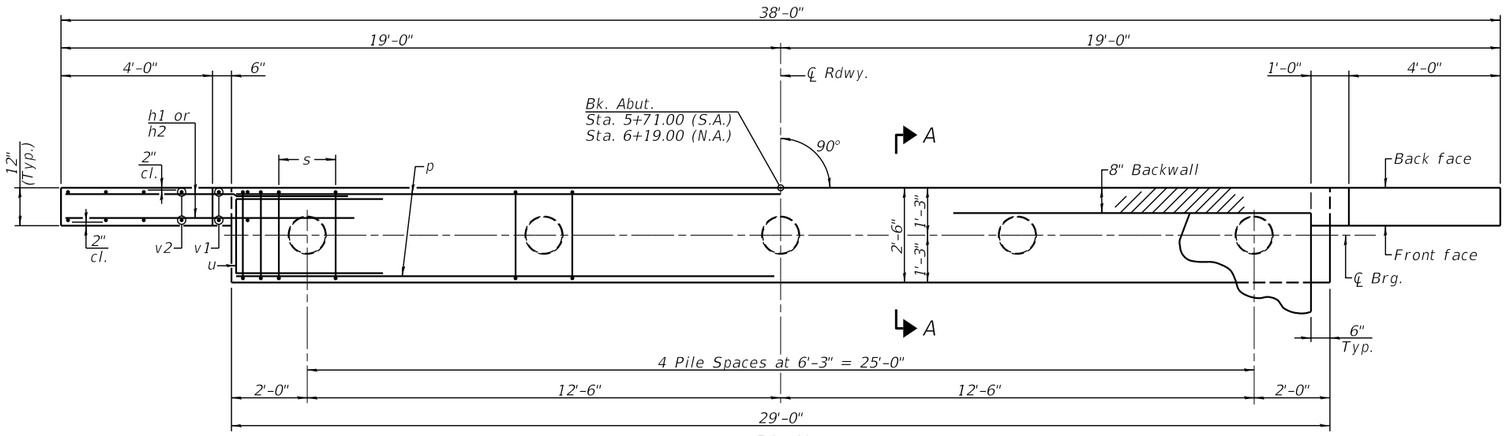
ELEVATION

PILE DATA

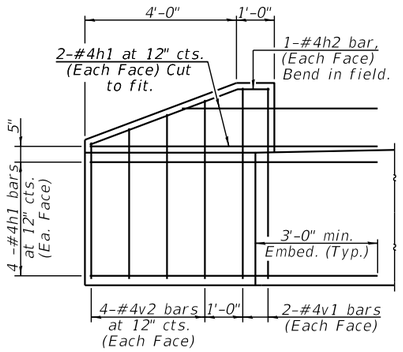
	S. Abut.	N. Abut.
Pile Type & Size:	Metal Shell 12"x0.250"	Metal Shell 12"x0.250"
Nominal Required Bearing:	228 Kips	228 Kips
Factored Resistance Available:	125 Kips	125 Kips
Estimated Pile Length:	38'	32'
Number of Production:	4	4
Number of Test Piles:	1	1



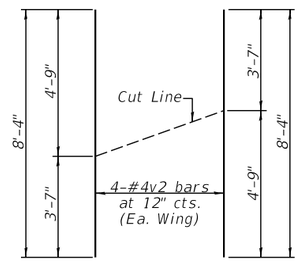
SECTION A–A



PLAN

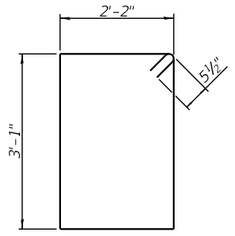


WINGWALL ELEVATION

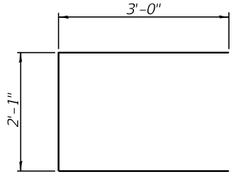


v2 BAR CUTTING DIAGRAM

Order bars full length: Layout in field according to diagram. Cut bars along cut line. Use remainder of each bar in opposite face.



BAR s



BAR u

NOTES

All exposed edges shall have standard ¾" chamfer.

Wingwalls and Backwalls may, at the contractor's option, be cast monolithically.

Hatched area and wingwalls shall be poured after deck beams are anchored in place.

The Contractor shall drive one test pile at each abutment in a production location as specified or approved by the Engineer.

Controlled low strength material shall be placed behind the abutments after the superstructure has been erected and the backwalls poured. See Section Thru Abutments on Sheet 2 of 9.

For details of piles see Sheet 7 of 9.

BILL OF MATERIAL TWO ABUTENTS

BAR	NO.	SIZE	LENGTH	SHAPE
h	12	#4	27'-8"	——
h1	48	#4	7'-6"	——
h2	8	#4	5'-0"	——
p	24	#7	28'-8"	——
s	60	#4	11'-5"	◻
u	16	#6	8'-1"	⊏
v	112	#5	3'-1"	——
v1	16	#4	5'-0"	——
v2	16	#4	8'-4"	——
Structure Excavation		Cu. Yd.	63	
Concrete Structures		Cu. Yd.	25.3	
Reinforcement Bars		Pound	3050	
Furnishing Metal Shell Piles 12"x0.250"		Foot	280	
Driving Piles		Foot	280	
Test Pile Metal Shells		Each	2	

USER NAME = ___	DESIGNED - KS	REVISED - ___
	CHECKED - TRC	REVISED - ___
PLOT SCALE = ___	DRAWN - JRP	REVISED - ___
PLOT DATE = ___	CHECKED - TRC	REVISED - ___

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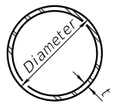
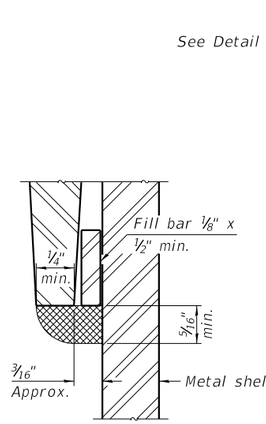
ABUTMENTS
STRUCTURE NO. 065–3130
SHEET NO. 6 OF 9 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	13
		CONTRACT NO. ___		
	ILLINOIS FED. AID PROJECT			

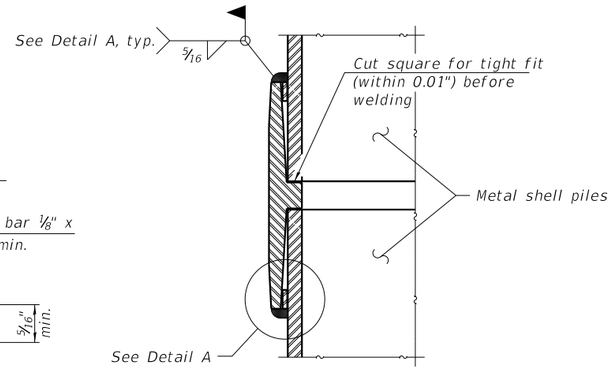


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd.³/ft.)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470

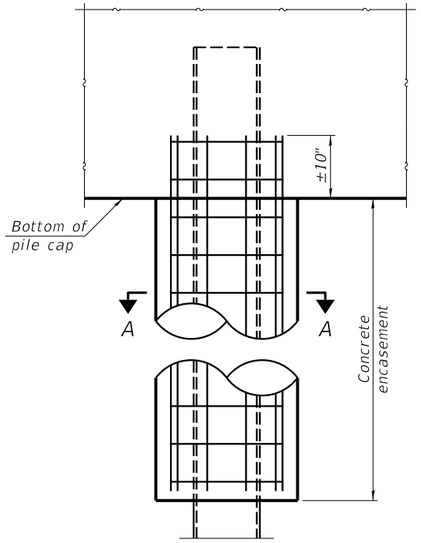


DETAIL A

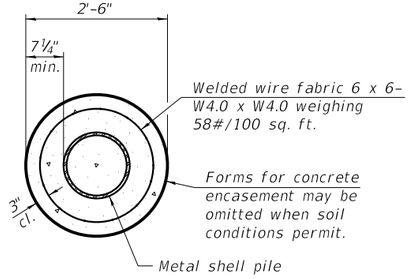


WELDED COMMERCIAL SPLICE

Notes:
The ⅛" x ½" min. fill bar may be constructed of 2 bars with a ⅛" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.



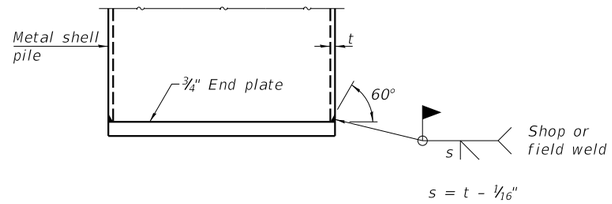
ELEVATION



SECTION A–A

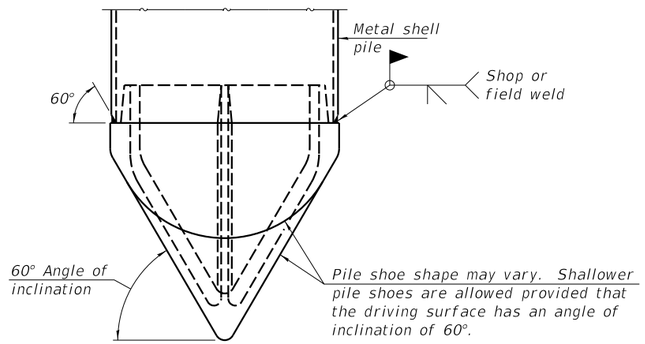
INDIVIDUAL PILE CONCRETE ENCASEMENT

(When specified)



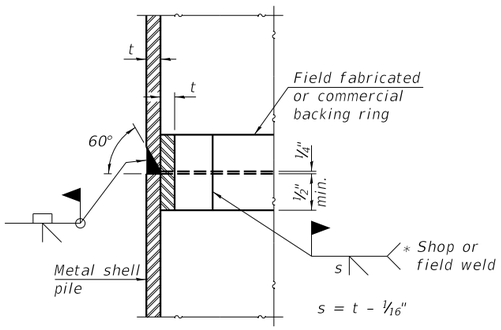
$s = t - \frac{1}{16}"$

END PLATE ATTACHMENT



PILE SHOE ATTACHMENT

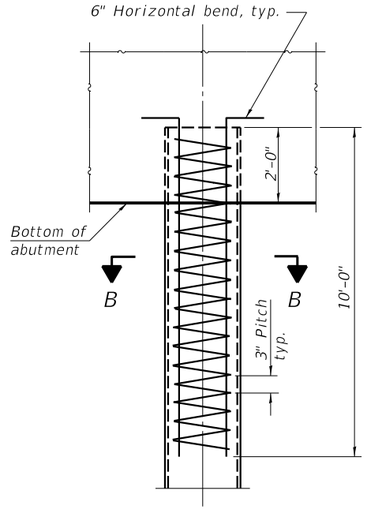
(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 80–50 or AASHTO M 103 Grade 65–35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld).



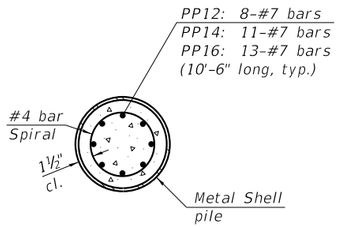
$s = t - \frac{1}{16}"$

COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B–B

REINFORCEMENT AT ABUTMENTS

(Omit when concrete encasement is specified)

Note:
The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

F–MS 1–1–2020

USER NAME = ___	DESIGNED - KS	REVISED - ___
	CHECKED - TRC	REVISED - ___
PLOT SCALE = ___	DRAWN - JRP	REVISED - ___
PLOT DATE = ___	CHECKED - TRC	REVISED - ___

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METAL SHELL PILE DETAILS
STRUCTURE NO. 065–3130
SHEET NO. 7 OF 9 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	14
		CONTRACT NO. ___		
	ILLINOIS FED. AID PROJECT			

SOIL BORING LOG

Project Name: Engel Street over Grove Creek
Location Menard County, Illinois

MET Midwest Engineering and Testing, Inc.

Boring: B-1 (Page 1 of 2)
Project No. : S23004
Date of Boring: April 15, 2021
Field Representative: Zach Wilcoxen

VISUAL SOIL CLASSIFICATION *GROUND SURFACE ELEVATION: 95.8 Feet	Feet	Sample No.	N	Q_p (tsf)	Q_u (tsf)	MC (%)	Dd (pcf)	Remarks
6" Topsoil		1	3	0.5		32		
		2	3	0.5		29		
Black and Brown Silty CLAY (OH) - Fill	5	3	2	0.3		33	81	
		4	3	1.0		30		
	10	5	3	1.0	0.4	26	100	
Black and Gray Silty Sandy CLAY (CL)								Caved: 14 ft.
		6	2	0.3		32	100	
	15	7	3	0.3		18		▼ Drilling: 15 ft.
Gray Silty CLAY (CL)		8	3	0.5		32	101	
	20	9	20	4.5+	5.8	12	134	
		10	6	0.5		32	101	
	25	11	22	4.5+	6.6	12	131	
Gray Silty CLAY (CL), Trace Fine Sand and Small Gravel - TILL		12	30	4.5+		12		
	30	13	90	2.3	3.7	17	121	
-Silt at 30' to 31.5'								
	35	14	45	4.5+	3.3	17	123	
	40	15	30	4.0	3.9	21	115	
Brown Silty CLAY (CL), Trace Fine Sand and Small Gravel - TILL	45							
		16	25	4.5	3.9	16	124	
Brown/Gray Silty CLAY (CL), Trace Fine Sand and Small Gravel - TILL								
continued on next page	50							

* Boring Ground Surface Elevation is relative to the top of the pavement at the center of the existing bridge (100.0')

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

Project Name: Engel Street over Grove Creek
Location Menard County, Illinois

MET Midwest Engineering and Testing, Inc.

Boring: B-1 (Page 2 of 2)
Project No. : S23004
Date of Boring: April 15, 2021
Field Representative: Zach Wilcoxen

VISUAL SOIL CLASSIFICATION	Feet	Sample No.	N	Q_p (tsf)	Q_u (tsf)	MC (%)	Dd (pcf)	Remarks
		17	26	3.8		15		
Gray Silty CLAY (CL), Trace Fine Sand and Small Gravel - TILL	55	18	23	2.3	2.3	18	125	
	60	19	26	2.8	2.1	19	127	
END OF BORING: 60.5 Ft.	65							
	70							
	75							
	80							
	85							
	90							
	95							
	100							

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

Project Name: Engel Street over Grove Creek
Location Menard County, Illinois

MET Midwest Engineering and Testing, Inc.

Boring: B-2 (Page 1 of 2)
Project No. : S23004
Date of Boring: April 14, 2021
Field Representative: Zach Wilcoxen

VISUAL SOIL CLASSIFICATION GROUND SURFACE ELEVATION: 95.2' Feet	Sample No.	N	Q_p (tsf)	Q_u (tsf)	MC (%)	Dd (pcf)	Remarks
6" Topsoil	1	4	1.5		26		
Gray and Brown Silty CLAY (OH) - FILL	2	3	0.8		31	96	
5							
	3	1			35		
Gray and Black Silty CLAY (OH) - FILL	4	3	0.8	0.3	25	98	
10							
	5	3	0.3		25		Caved: 12 ft.
Brown and Gray Silty CLAY (CL), Trace Fine Sand							
Gray Silty CLAY (CL), Trace Fine Sand	6	3	0.8	0.3	23	114	
15							
Gray SILT (ML)	7	12	1.8	1.6	23	119	Drilling: 15 ft.
	8	9	2.0	1.3	13	125	
20							
	9	8	3.3	1.6	13	126	
Gray Silty CLAY (CL), Trace Fine Sand and Small Gravel - TILL							
	10	11	3.8	2.3	14	127	
25							
	11	12	4.5+	5.0	11	128	
-cobbles at 27.5' to 29'	12	20	4.5+		12		
30							
	13	24	1.8	1.7	18	99	
35							
	14	40	3.3	2.9	21	116	
40							
Brown Silty CLAY (CL), Trace Fine Sand and Small Gravel - TILL	15	30	4.0	5.2	16	124	
45							
Brown/GraySilty CLAY (CL), Trace Fine Sand and Small Gravel - TILL	16	26	4.5+	4.1	16	133	
continued on next page 50							

* Boring Ground Surface Elevation is relative to the top of the pavement at the center of the existing bridge (100.0')

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

Project Name: Engel Street over Grove Creek
Location Menard County, Illinois

MET Midwest Engineering and Testing, Inc.

Boring: B-2 (Page 2 of 2)
Project No. : S23004
Date of Boring: April 14, 2021
Field Representative: Zach Wilcoxen

VISUAL SOIL CLASSIFICATION Feet	Sample No.	N	Q_p (tsf)	Q_u (tsf)	MC (%)	Dd (pcf)	Remarks
	17	25	3.3	3.7	16	139	
Gray Silty CLAY (CL), Trace Fine Sand and Small Gravel - TILL							
55							
	18	21	4.5+	2.9	21	112	
60							
	19	23	2.3	2.5	19	126	
END OF BORING: 60.5 Ft.							
65							
70							
75							
80							
85							
90							
95							
100							

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

USER NAME = ___	DESIGNED - KS	REVISED - ___
	CHECKED - TRC	REVISED - ___
PLOT SCALE = ___	DRAWN - JRP	REVISED - ___
PLOT DATE = ___	CHECKED - TRC	REVISED - ___

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BORING LOGS

SHEET NO. 9 OF 9 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	16
		CONTRACT NO. ___		
	ILLINOIS FED. AID PROJECT			

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

BY	DATE

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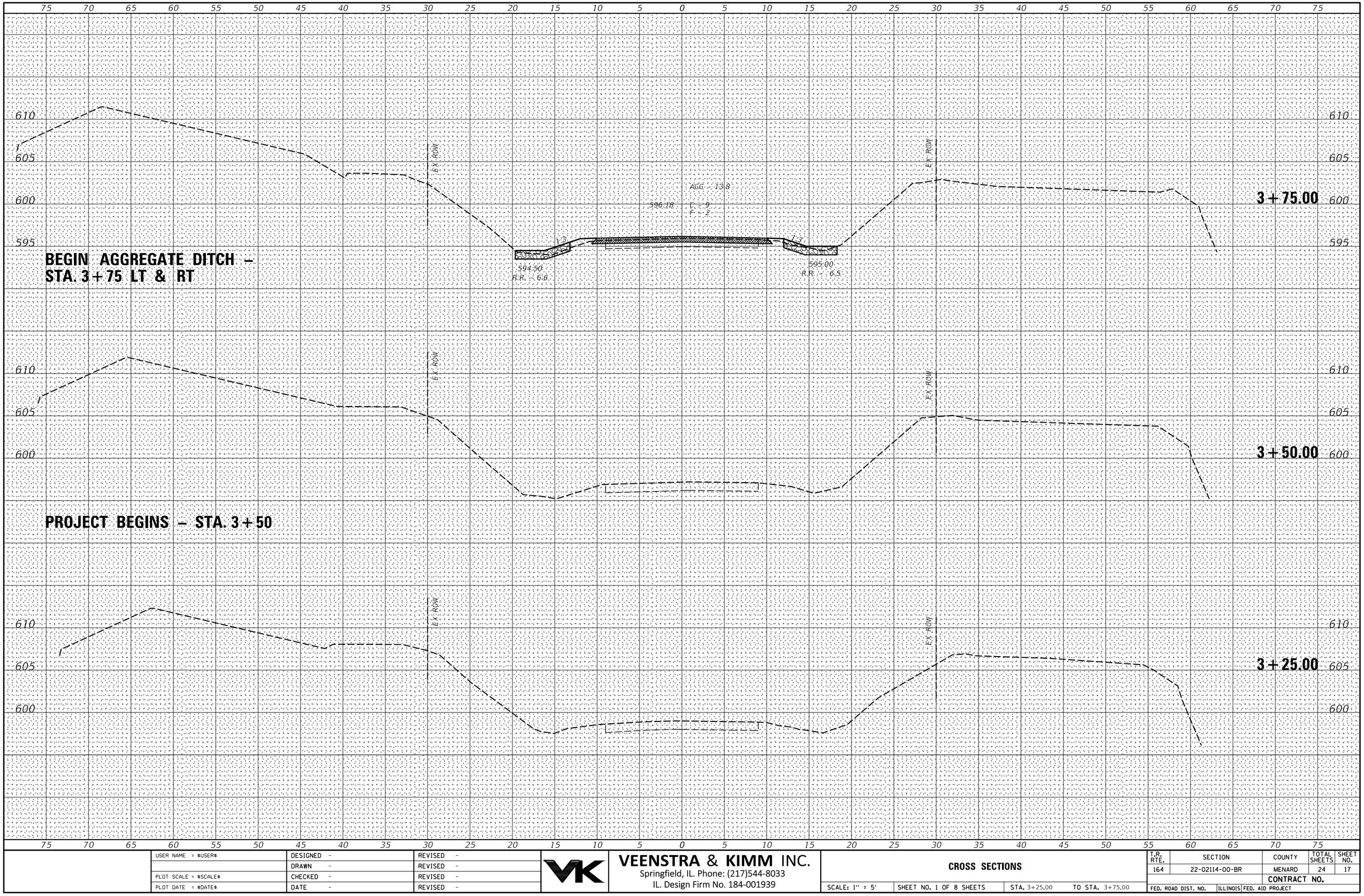
BY	DATE



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PLOT DATE = $DATE$	DATE -	REVISED -	

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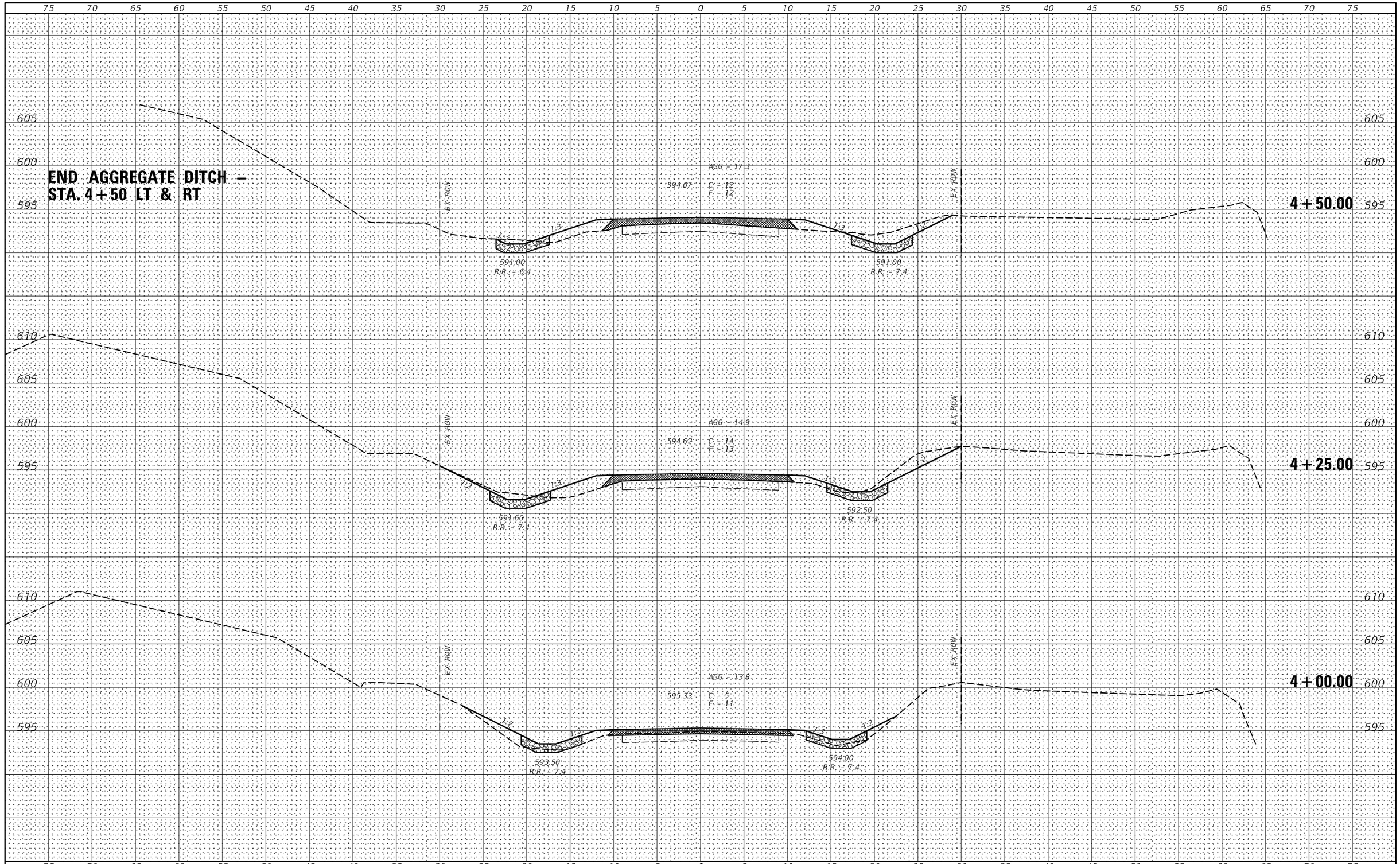
IL. Design Firm No. 184-001939

CROSS SECTIONS

SCALE: 1" = 5' | SHEET NO. 1 OF 8 SHEETS | STA. 3+25.00 | TO STA. 3+75.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	17
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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	SURVEYED	BY
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	DATE

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	SURVEYED	BY
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	DATE

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	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = $DATE$	DATE -	REVISED -

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CROSS SECTIONS

SCALE: 1" = 5' | SHEET NO. 2 OF 8 SHEETS | STA. 4+00.00 | TO STA. 4+50.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	18
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BEGIN TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT – STA. 5 + 32.75 RT.

5 + 25.00

AGG. - 27.9
593.30 C - 0
F - 50

EX. ROW

1:3

1:2

EX. ROW

TRANSITION FROM 1:3 FORESLOPE AT STA. 5 + 00 RT. TO 1:2 FORESLOPE AT STA. 5 + 25 RT.

5 + 00.00

AGG. - 24.3
593.41 C - 7
F - 18

EX. ROW

1:3

1:3

EX. ROW

590.00

589.70

4 + 75.00

AGG. - 18.7
593.66 C - 13
F - 13

EX. ROW

1:3

1:3

EX. ROW

590.50

590.30

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

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

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PLOT DATE = $DATE$	DATE -	REVISED -	

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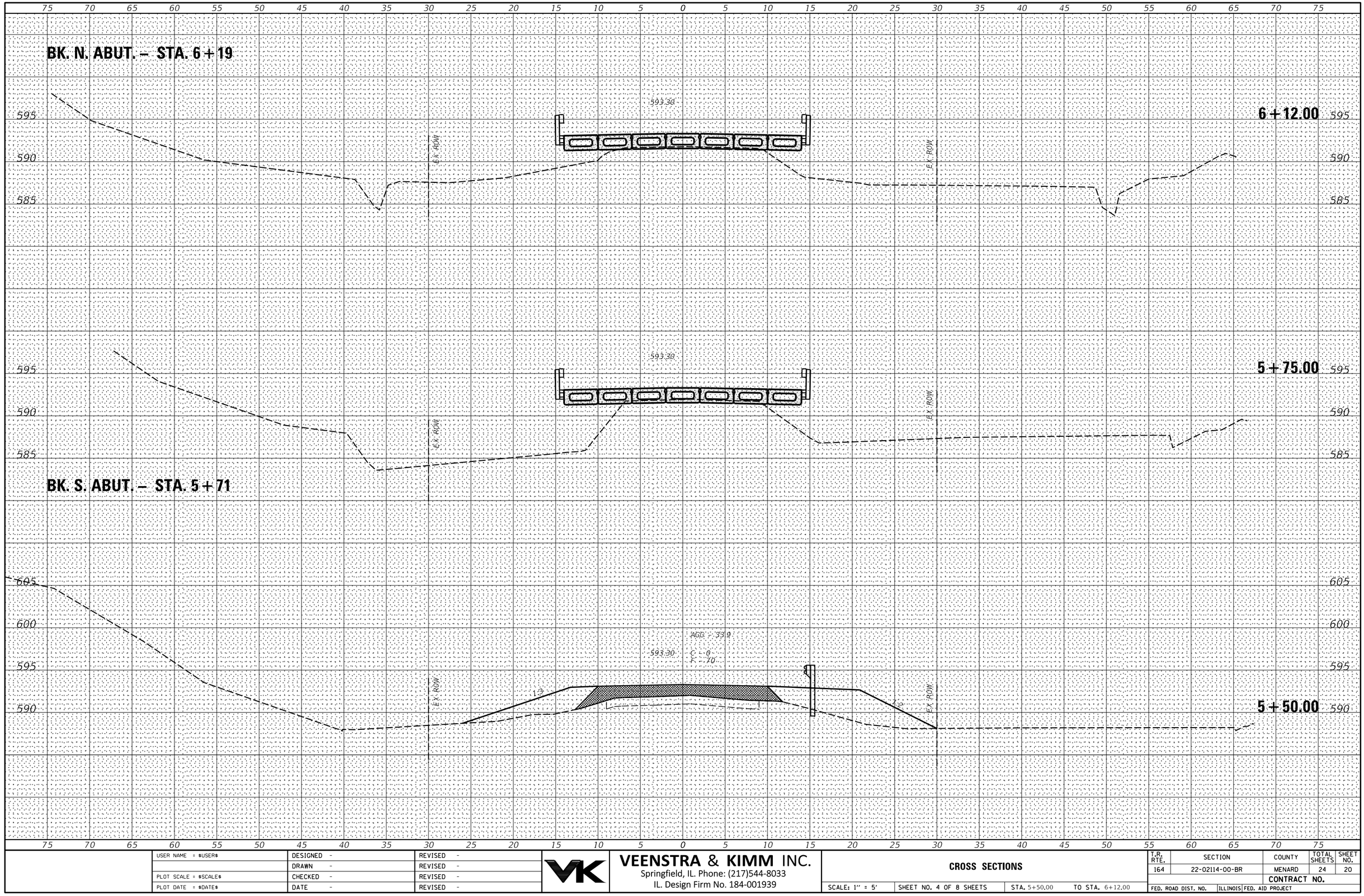
IL. Design Firm No. 184-001939

CROSS SECTIONS

SCALE: 1" = 5' | SHEET NO. 3 OF 8 SHEETS | STA. 4+75.00 | TO STA. 5+25.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	19
		CONTRACT NO.		
FED. ROAD DIST. NO.	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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	DRAWN -	REVISED -	
PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE -	REVISED -	

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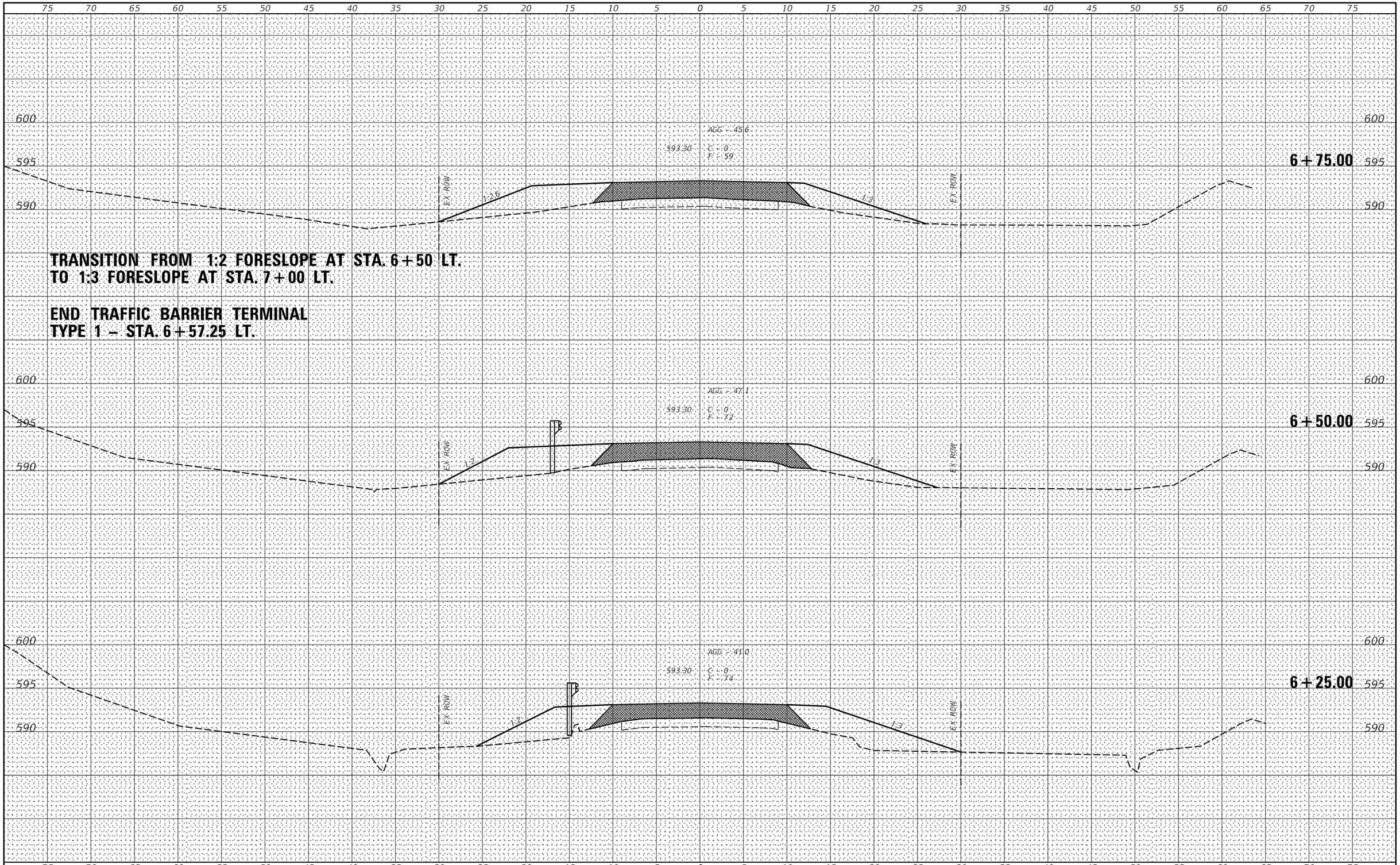
IL. Design Firm No. 184-001939

CROSS SECTIONS

SCALE: 1" = 5' | SHEET NO. 4 OF 8 SHEETS | STA. 5+50.00 | TO STA. 6+12.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	20
		CONTRACT NO.		
FED. ROAD DIST. NO.	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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	DRAWN -	REVISED -
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PLOT DATE = $DATE$	DATE -	REVISED -

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CROSS SECTIONS

SCALE: 1" = 5' | SHEET NO. 5 OF 8 SHEETS | STA. 6+25.00 | TO STA. 6+75.00

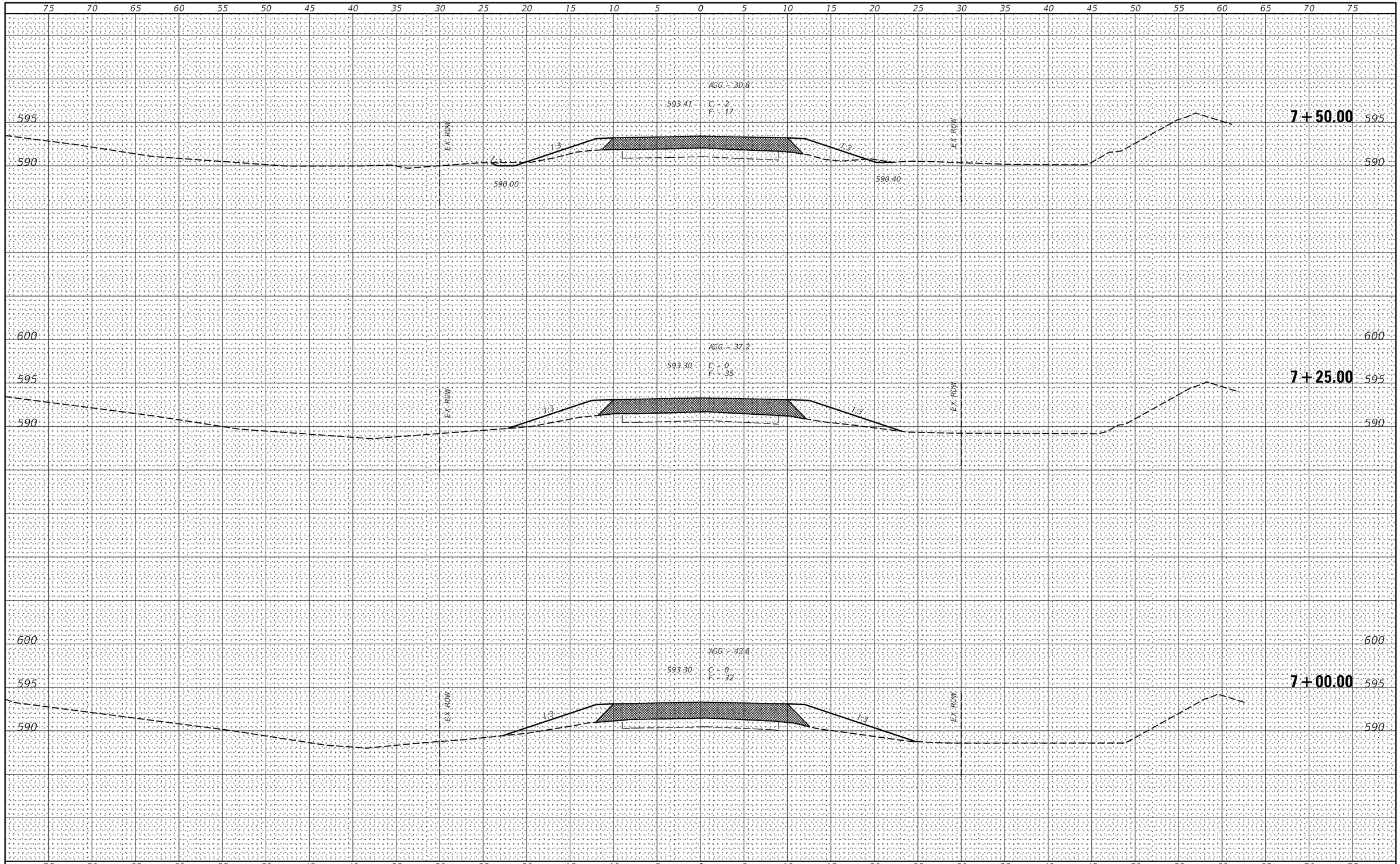
T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	21
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

BY	DATE

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

BY	DATE



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PLOT DATE = $DATE$	DATE -	REVISED -	

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CROSS SECTIONS

SCALE: 1" = 5' | SHEET NO. 6 OF 8 SHEETS | STA. 7+00.00 | TO STA. 7+50.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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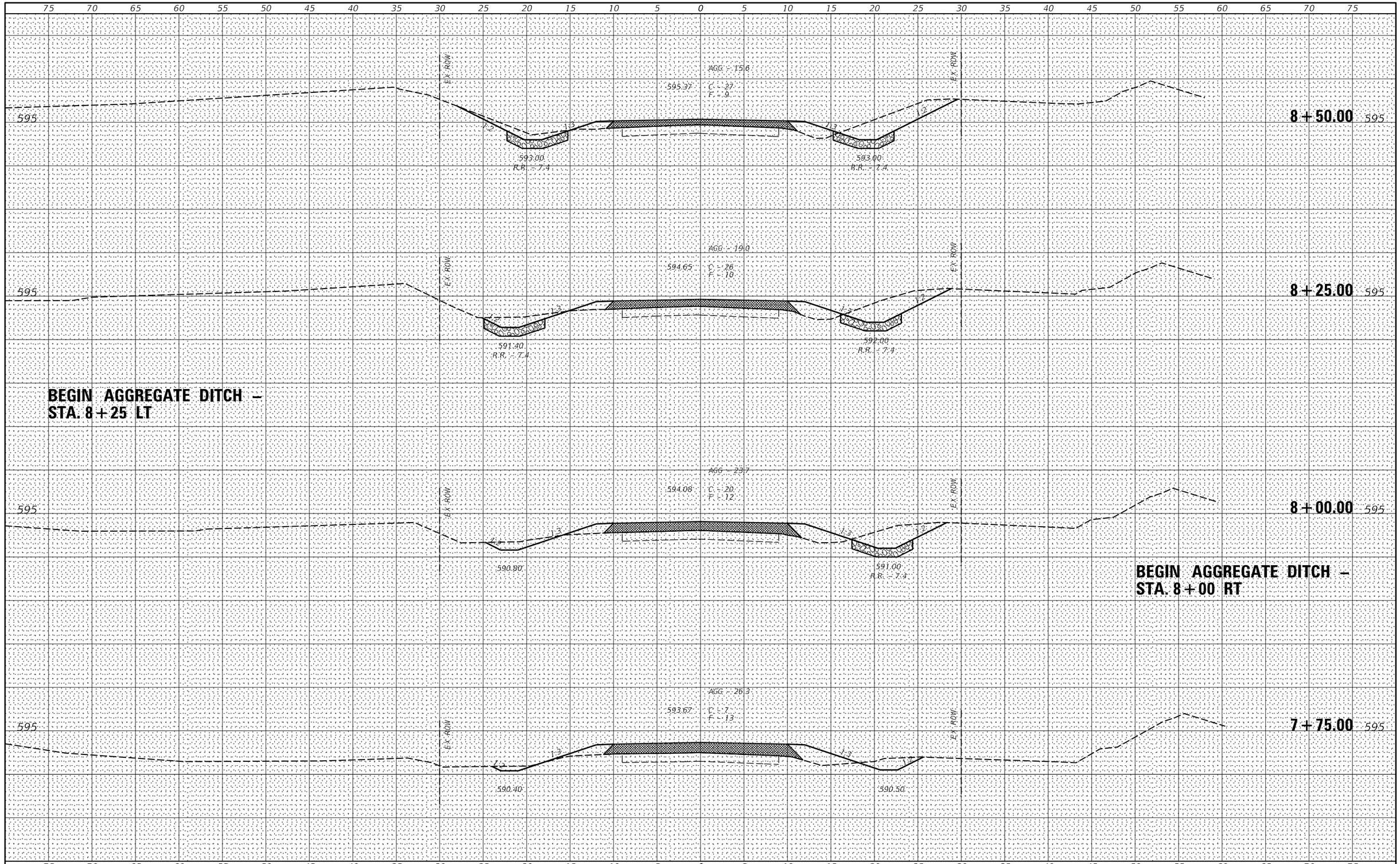
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY

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

ORIGINAL SURVEY

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

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	DRAWN -	REVISED -
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PLOT DATE = $DATE$	DATE -	REVISED -

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Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

CROSS SECTIONS

SCALE: 1" = 5' | SHEET NO. 7 OF 8 SHEETS | STA. 7+75.00 | TO STA. 8+50.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	23
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

600

EX ROW

EX ROW

9 + 25.00

600

PROJECT ENDS – STA. 9 + 00

600

EX ROW

EX ROW

9 + 00.00

600

600

EX ROW

AGG – 13.8

596.24

C – 7

F – 2

EX ROW

8 + 75.00

600

595

595

3

1:2

595.00

R.R. – 5.7

595.30

R.R. – 4.3

END AGGREGATE DITCH – STA. 8 + 75 LT & RT

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

USER NAME = $USER$	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = $DATE$	DATE -	REVISED -

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

CROSS SECTIONS

SCALE: 1" = 5' | SHEET NO. 8 OF 8 SHEETS | STA. 8+75.00 | TO STA. 9+25.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
164	22-02114-00-BR	MENARD	24	24
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		