

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

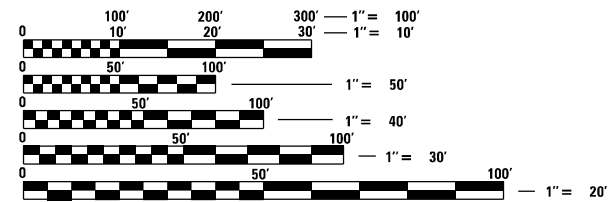
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
614,574	(144, 9) BC	CASS, MENARD	13	1
		ILLINOIS	CONTRACT NO. 72M41	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED HIGHWAY PLANS

FAP 614 & FAS 574 (IL 78, ATHENS BLKTP)
SECTION (144, 9) BC
PROJECT STP-S2EP(370)
BRIDGE CLEANING
CASS & MENARD COUNTIES

C-96-141-20



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

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

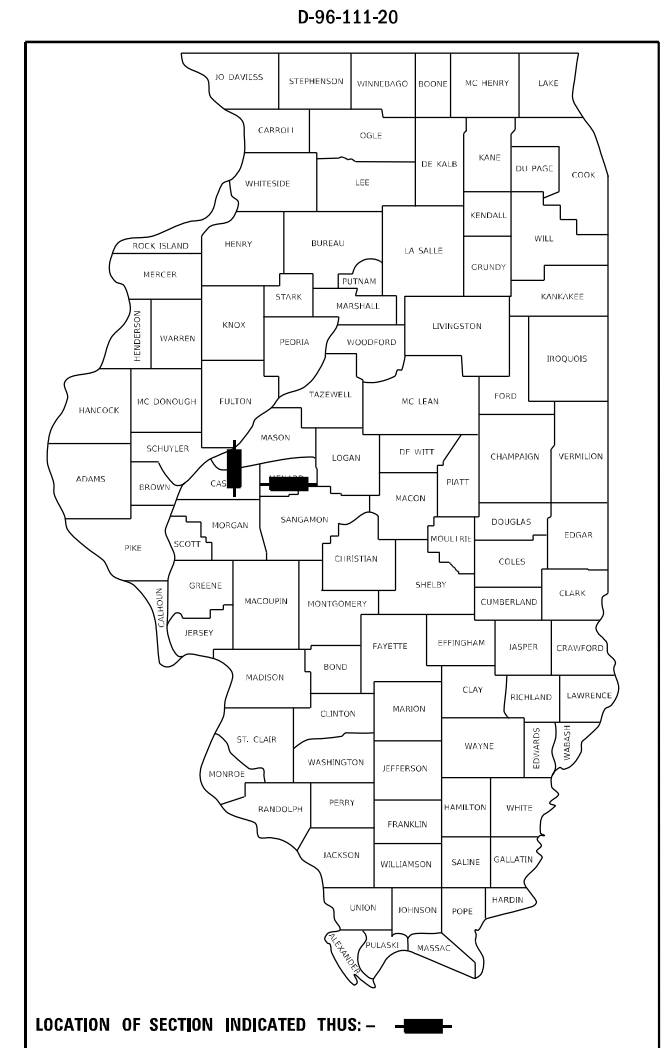
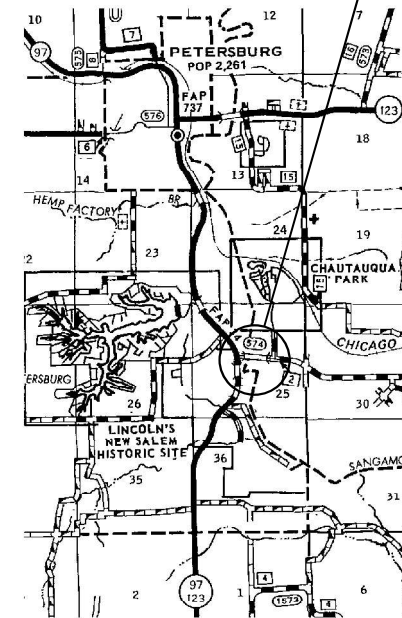
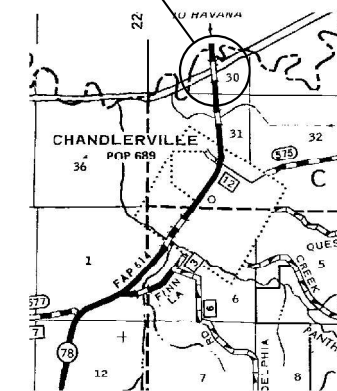
BRIDGE MAINTENANCE ENGINEER: BRANDON DUDLEY - (217) 785-9290

CONTRACT NO. 72M41

GROSS LENGTH = x.xx FT. = x.xxx MILE
NET LENGTH = x.xx FT. = x.xxx MILE

SN 065-0019
ATHENS BLACKTOP
OVER SANGAMON R.
JCT. IL 97 & ATHENS BLKTP.
NEAR PETERSBURG
MENARD COUNTY

SN 009-0510
IL 78 OVER SANGAMON R.
0.5 MI N CHANDLERVILLE
CASS COUNTY



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

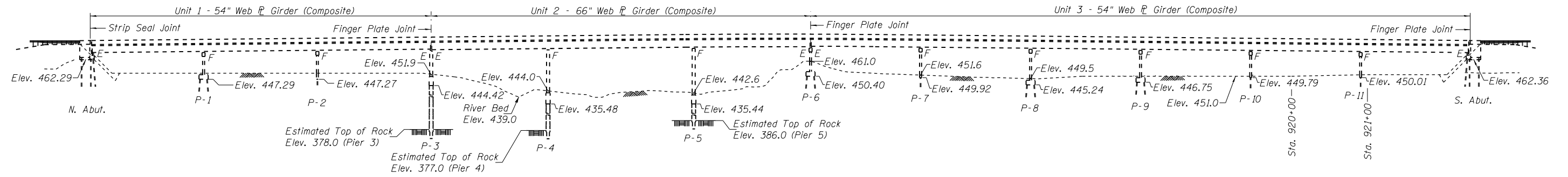
SUBMITTED October 6 2020

John P. Meyer
REGIONAL ENGINEER

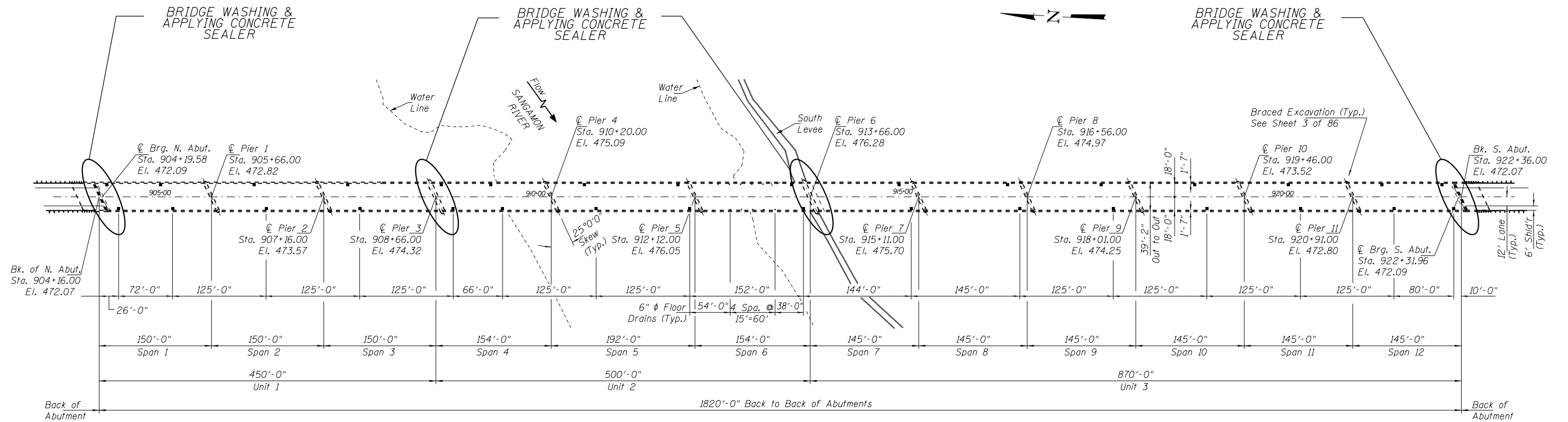
December 4, 2020
Scott A. Elk
ENGINEER OF DESIGN AND ENVIRONMENT

December 4, 2020
James J. Guerin
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION 13

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OF THE STATE OF ILLINOIS



ELEVATION



PLAN

BILL OF MATERIAL - SN 009-0510

ITEM	UNIT	QUANTITY
BRIDGE WASHING NO. 1	EACH	1
CONCRETE SEALER	SQ. FT.	2450

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USER NAME = dudleybm	DESIGNED - BRANDON DUDLEY	REVISED -
	DRAWN - BRANDON DUDLEY	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - JASON JONES	REVISED -
PLOT DATE = 10/6/2020	DATE - 7/31/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN & ELEVATION
SN 009-0510

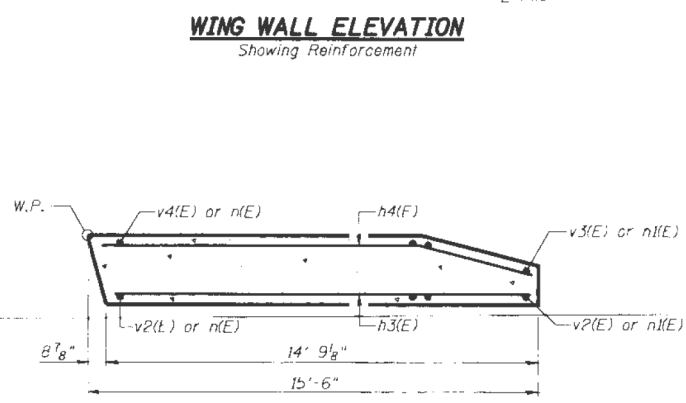
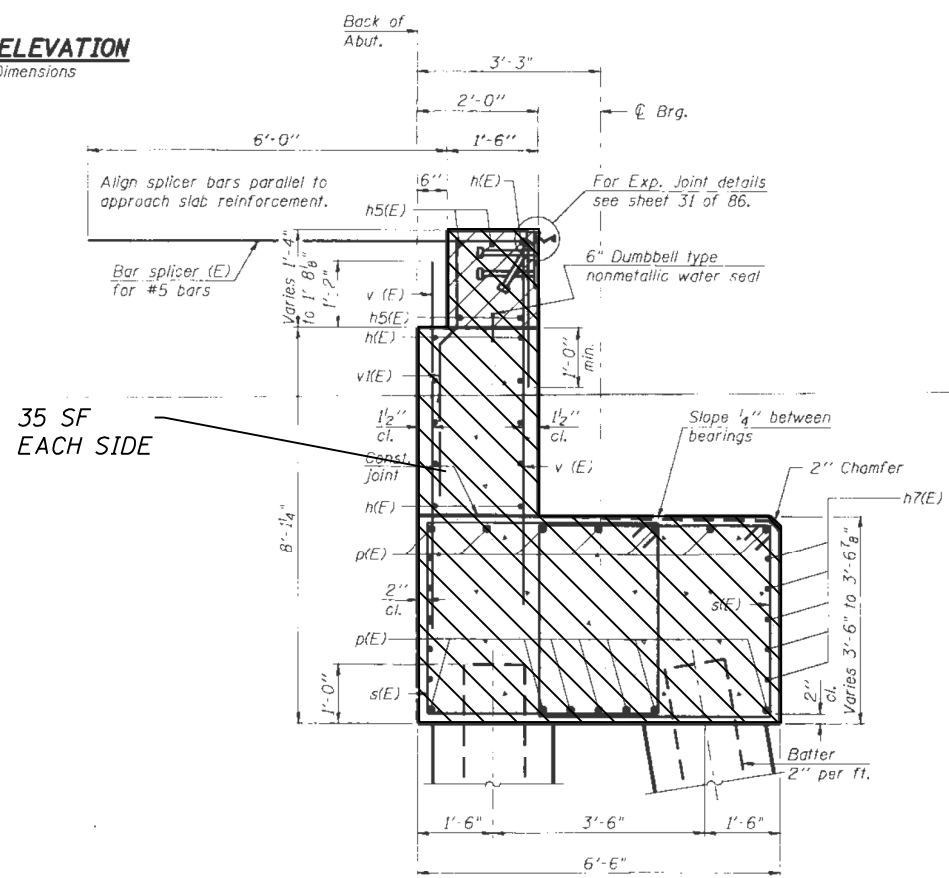
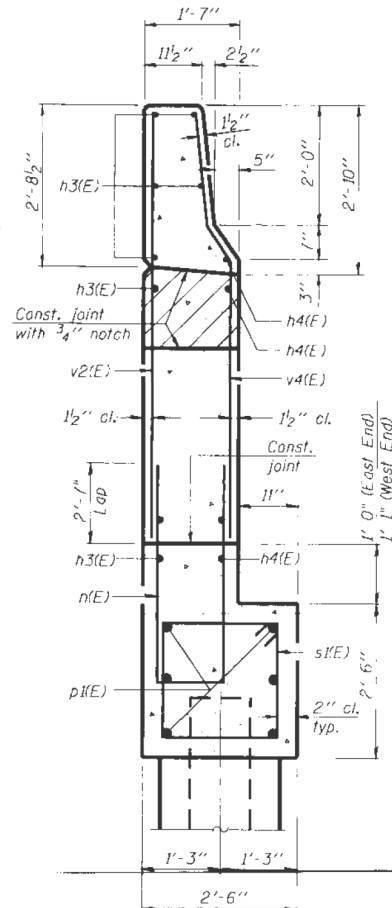
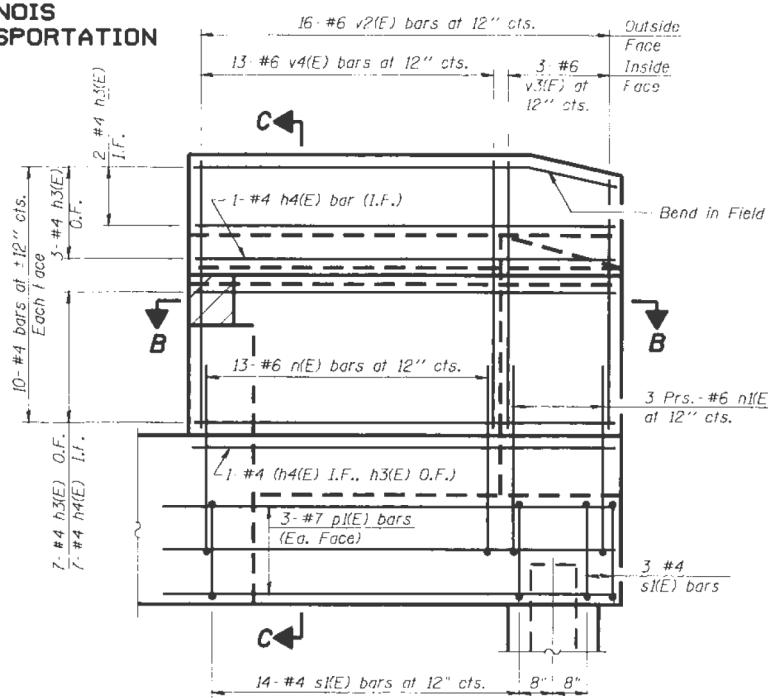
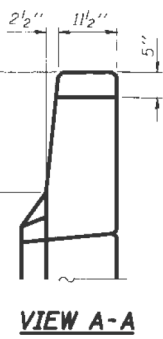
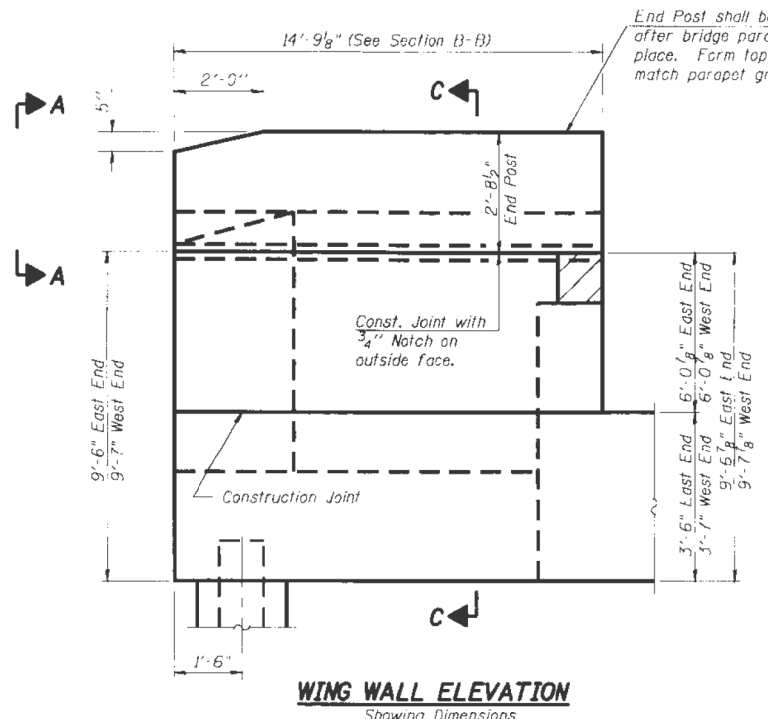
SCALE: SHEET 1 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
614.574	(144, 9) BC	CASS, MENARD	13	3
CONTRACT NO. 72M41				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.
FAP Rte. 614	144(B-D)	Cass & Mason	3/5/21	86
SHEET NO. 53				
86 SHEETS				

Contract #72A76



Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Quantity of concrete in end post included with Concrete Superstructure on sheet 19 of 86.
For Concrete Encasement details, see sheet 71 of 86.

NORTH ABUTMENT - DETAILS
F.A.P. 614 (CL. 78) OVER SANGAMON RIVER
PUBLIC WATERS
CASS & MASON COUNTIES
SECTION 144 (B-D)
STA. 913+26.00
STRUCTURE NUMBER 009-0510
PROFESSIONAL DESIGN FIRM LICENSE #184-001684
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HANSON
Hanson Professional Services Inc.

G7S2026
DATE 03/27/09

CONCRETE SEALER AREAS

USER NAME = dudleybm	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 10/6/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT SEALING PLAN			
SN 009-0510			
SCALE:	SHEET 3	OF 7 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
614.574	(144, 9) BC	CASS, MENARD	13	5
CONTRACT NO. 72M41				
ILLINOIS FED. AID PROJECT				

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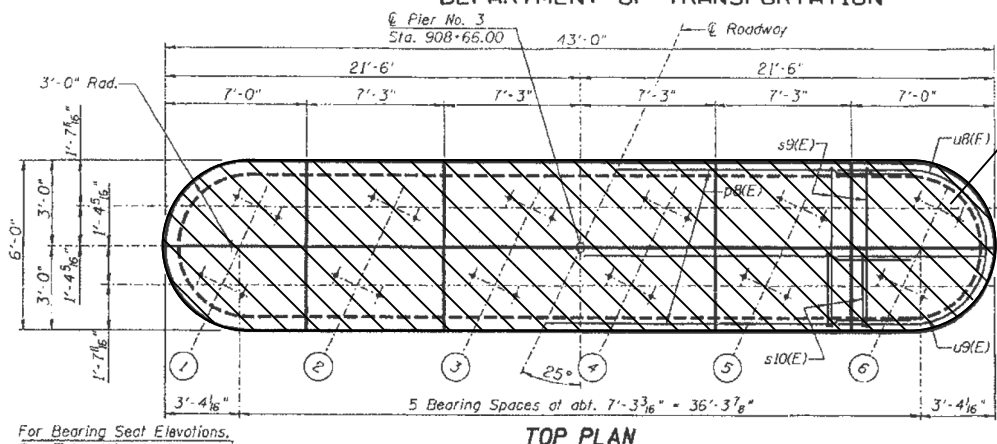
Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of drilled shafts see sheet 58 of 86.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SHEET NO. 59
 86 SHEETS

BEARING SEAT ELEVATIONS

Girder	Unit 1	Unit 2
1	467.80	466.92
2	467.94	467.05
3	468.05	467.17
4	468.05	467.17
5	467.99	467.11
6	467.88	467.00



ANCHOR BOLT LAYOUT
 (Typical all Girder Locations)



BARS u7(E) & u8(E)

BILL OF MATERIAL - PIER 3

Bar	No.	Size	Length	Shape
n1(E)	10	#6	42'-6"	—
n2(E)	32	#5	37'-0"	—
n4(E)	108	#8	10'-8"	—
p6(E)	6	#10	46'-2"	—
p7(E)	6	#10	42'-6"	—
p8(E)	12	#7	37'-0"	—
s7(E)	52	#5	21'-7"	—
s8(E)	160	#4	5'-9"	—
s9(E)	31	#5	16'-7"	—
s10(E)	31	#5	12'-3"	—
sp3	3	#5	72'-6"	—
u6(E)	14	#6	10'-9"	—
u7(E)	32	#5	11'-8"	—
u8(E)	6	#6	13'-11"	—
u9(E)	4	#6	12'-3"	—
v18(E)	54	#9	36'-0"	—
v19(E)	54	#9	51'-0"	—
v20(E)	108	#8	17'-0"	—

Concrete Structures Cu. Yd. 190.1
 Reinforcement Bars Pound 5950
 Epoxy Coated Reinforcement Bars Pound 32550
 Drilled Shaft in Soil Cu. Yd. 117
 Drilled Shaft in Rock Cu. Yd. 8
 Underwater Structure Excavation Protection Each 1
 Concrete Sealer Sq. Ft. 578

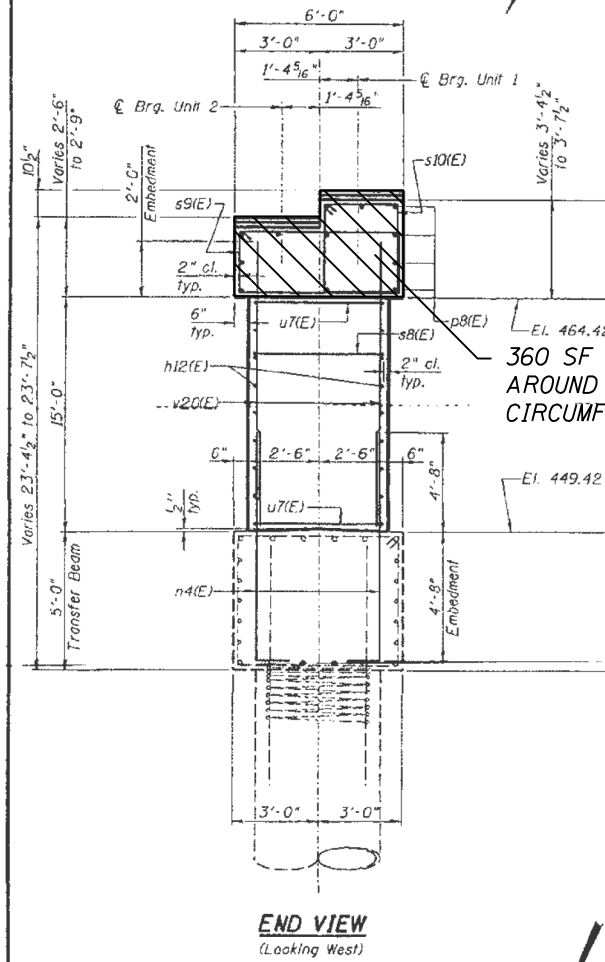
**Length is height of spiral.

MINIMUM BAR LAP

- #4 bar = 1'-8"
- #5 bar = 2'-2"
- #6 bar = 2'-7"
- #7 bar = 3'-5"
- #8 bar = 4'-6"
- #9 bar = 5'-9"
- #5 Spiral = 2'-6"

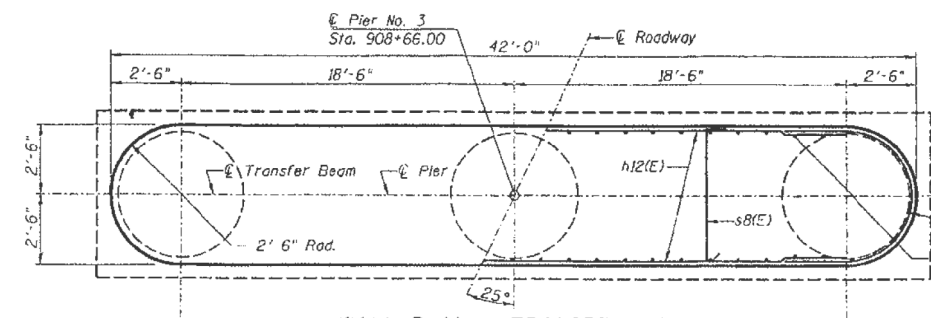
PIER 3 DETAILS (Sheet 2 of 2)

F.A.P. 614 (IL 78) OVER SANGAMON RIVER
 PUBLIC WATERS
 CASS & MASON COUNTIES
 SECTION 14 (B-1)
 STA. 913+26.00
 STRUCTURE NUMBER 009-0510
 PROFESSIONAL DESIGN FIRM LICENSE #184-001084
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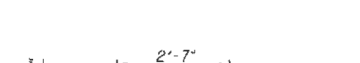


ELEVATION
 (Looking South)

WALL PLAN at TRANSFER BEAM



BAR s10(E) BAR s7(E)



BARS u9(E)



CONCRETE SEALER AREAS

BILL OF MATERIAL - PIER 3

ITEM	UNIT	QUANTITY
CONCRETE SEALER	SQ. FT.	610

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	DRAWN -	REVISED -
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PLOT DATE = 10/6/2020	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT SEALING PLAN
 SN 009-0510

SCALE: SHEET 4 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
614.574	(144, 9) BC	CASS, MENARD	13	6
CONTRACT NO. 72M41				
ILLINOIS FED. AID PROJECT				

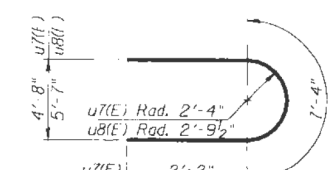
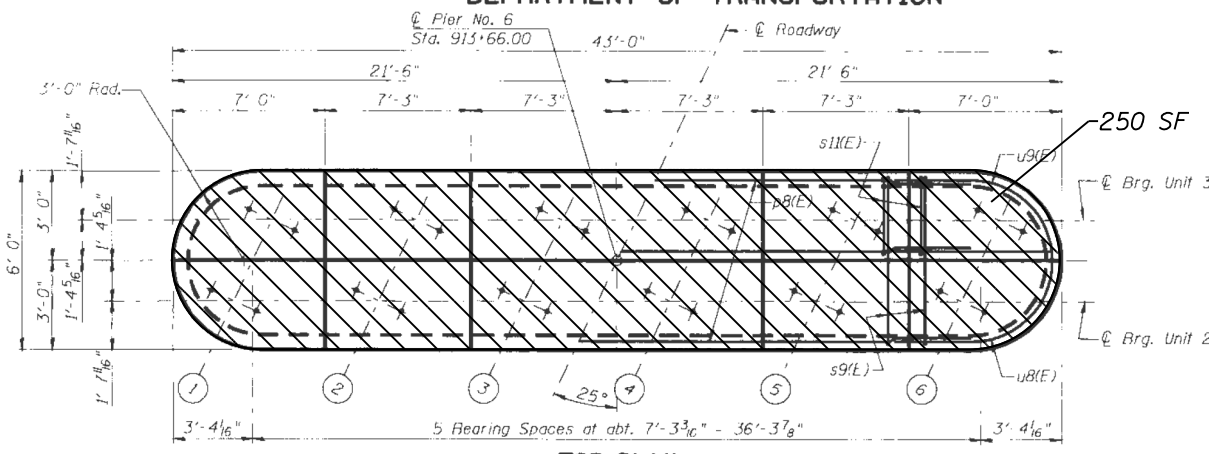
Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles See Sheet 71 of 86.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

NO. 76 NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 64
IAP	144(B-D)	CASS & MASON	351	200	86 SHEETS
CONTRACT #72A76					

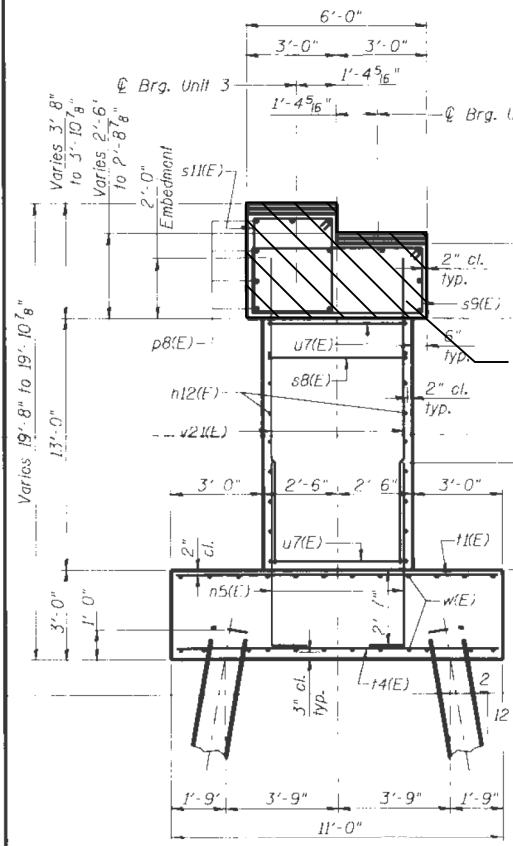
BEARING SEAT ELEVATIONS

Girder	Unit 2	Unit 3
1	468.93	470.09
2	469.04	470.20
3	469.13	470.29
4	469.13	470.29
5	469.03	470.19
6	468.90	470.06

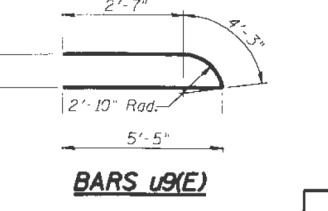
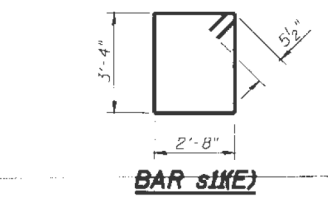
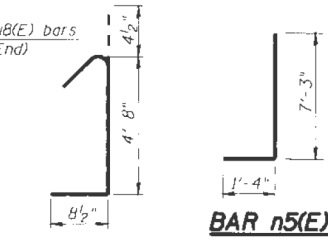
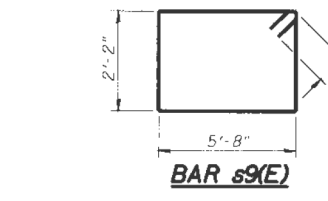
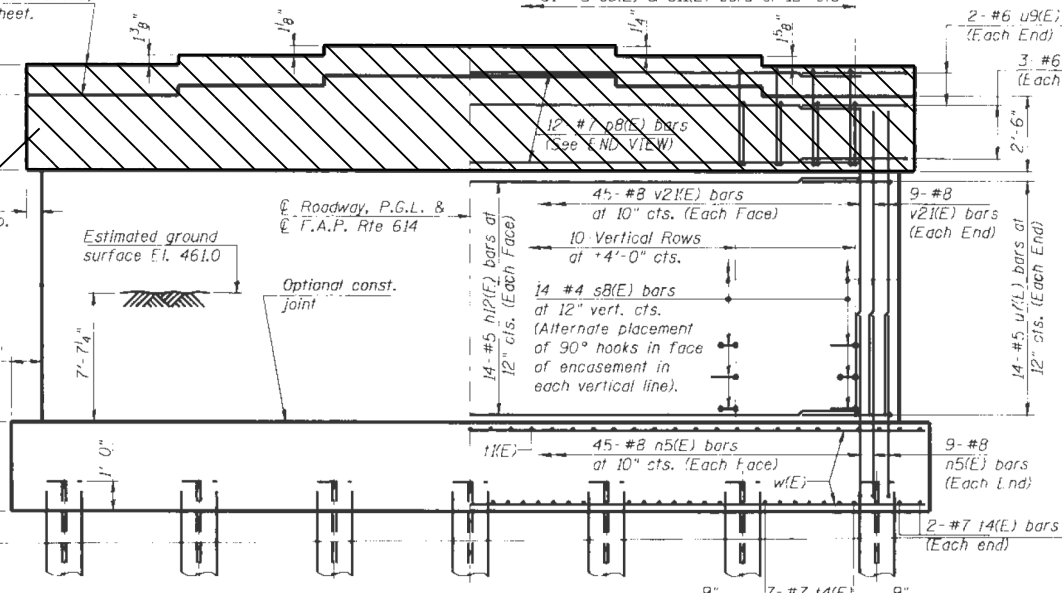


BILL OF MATERIAL - PIER 6

Bar	No.	Size	Length	Shape
n12(E)	28	#5	37'-0"	—
n5(E)	108	#8	8'-1"	J
p8(E)	12	#7	31'-0"	—
s8(E)	140	#4	5'-9"	J
s9(E)	31	#5	16'-7"	—
s11(E)	31	#5	12'-11"	—
t1(E)	45	#5	10'-6"	—
t4(E)	46	#7	10'-6"	—
u7(E)	28	#5	11'-8"	—
u8(E)	6	#6	13'-11"	—
u9(E)	4	#6	12'-5"	—
v2(E)	108	#8	15'-0"	—
w(E)	24	#5	43'-6"	—
Structure Excavation Cu. Yd.				283
Concrete Structures Cu. Yd.				182.3
Reinforcement Bars, Epoxy Coated Pound				13390
Furnishing Steel Piles, HP 14x89 Foot				1040
Driving Piles Foot				1040
Test Pile, HP 14x89 Each				1
Pile Shoes Each				14
Concrete Sealer Sq. Ft.				601



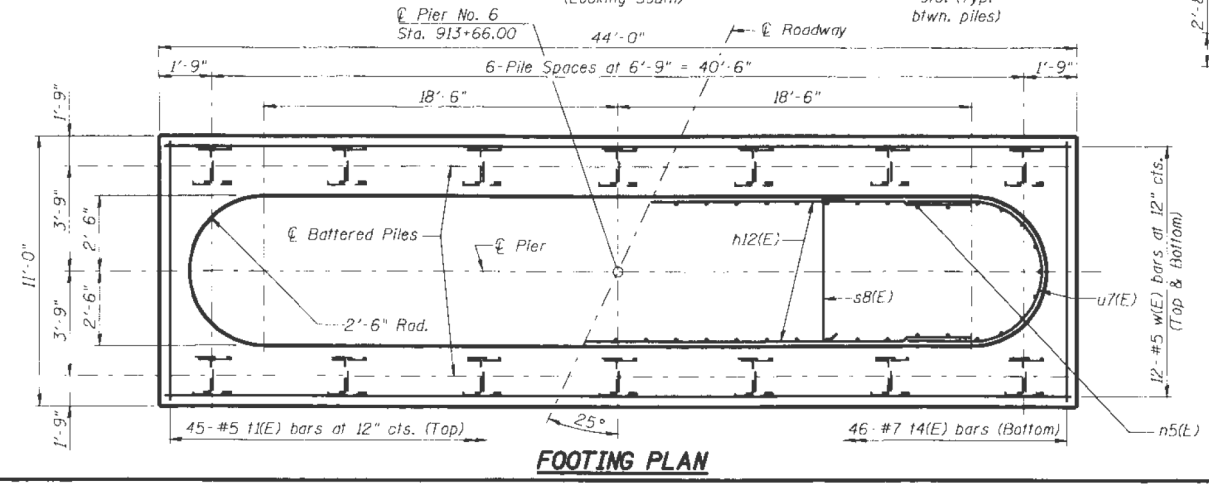
360 SF
 AROUND
 CIRCUMFERENCE



Note Well:
 Pier 6 backfill shall be placed and compacted according to Articles 205.04, 205.05, and 205.06 of the Standard Specifications.

PILE DATA

Type:	HP 14x89
Nominal Required Bearing:	705 kips
Factored Resistance Available:	350 kips
Est. Length:	80 Ft.
No. Production Piles:	13
No. Test Piles:	1



MINIMUM BAR LAP

- #4 bar = 1'-8"
- #5 bar = 2'-2"
- #6 bar = 2'-7"
- #7 bar = 3'-5"
- #8 bar = 4'-6"
- #9 bar = 5'-9"

PIER 6 - DETAILS
 F.A.P. 614 (L 78) OVER SANGAMON RIVER
 PUBLIC WATERS
 CASS & MASON COUNTIES
 SECTION 144 (B-D)
 STA. 913+26.00
 STRUCTURE NUMBER 009-0510
 PROFESSIONAL DESIGN FIRM LICENSE #184-001084
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 Hanson Professional Services Inc.
 SHEET NO. 07S2026
 DATE 03/27/09

BILL OF MATERIAL - PIER 6

ITEM	UNIT	QUANTITY
CONCRETE SEALER	SQ. FT.	610



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	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

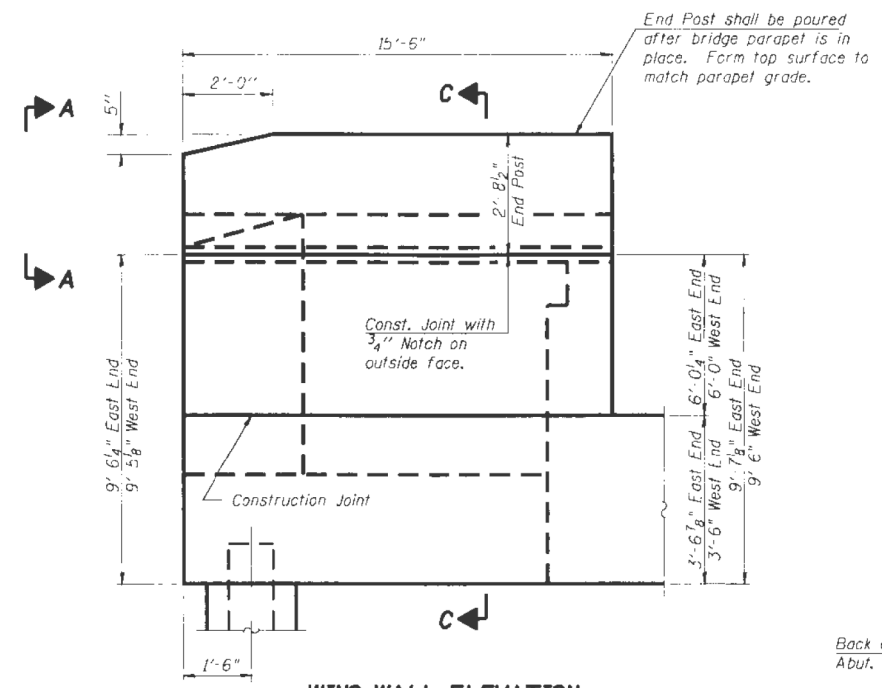
NORTH ABUTMENT SEALING PLAN
 SN 009-0510

SCALE: SHEET 5 OF 7 SHEETS STA. TO STA.

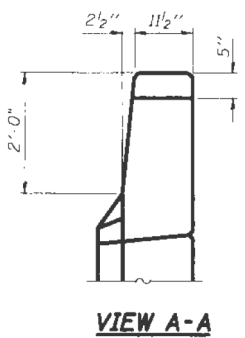
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
614.574	(144, 9) BC	CASS, MENARD	13	7
CONTRACT NO. 72M41				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

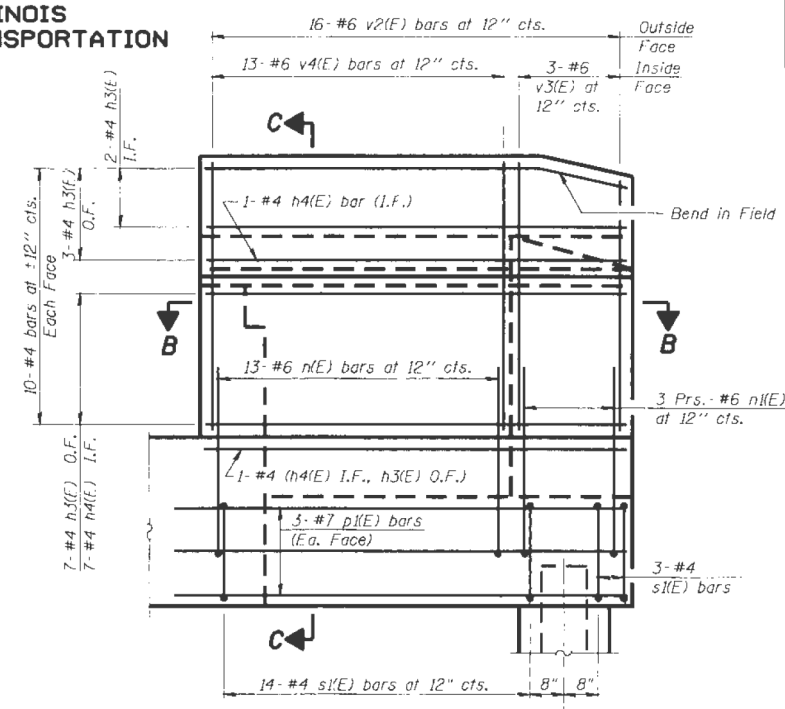
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IAP Rte 614	144(B-D)	Cass & Mason	3/51	191	
CONTRACT #72A75					



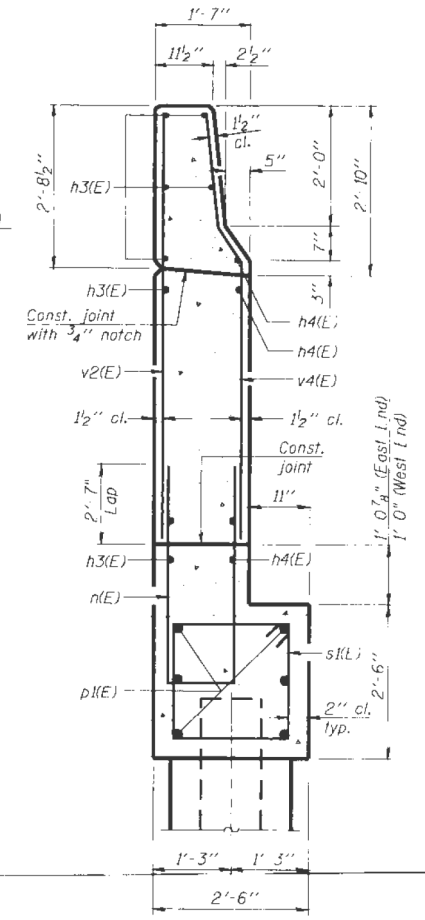
WING WALL ELEVATION
Showing Dimensions



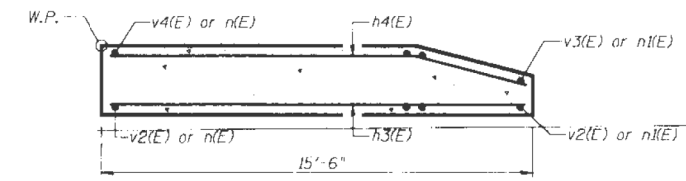
VIEW A-A



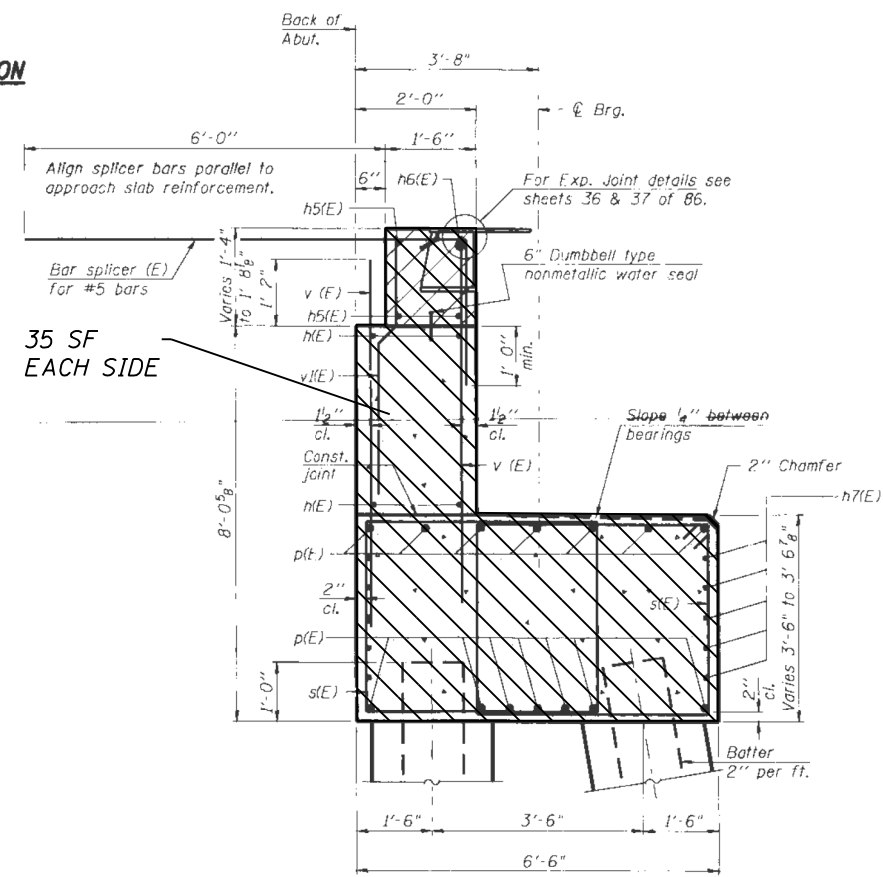
WING WALL ELEVATION
Showing Reinforcement



SECTION C-C



SECTION B-B



SEC. THRU ABUT.

Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Quantity of concrete in end post included with Concrete Superstructure on sheet 28 of 86.
For Concrete Encasement details, see sheet 71 of 86.

SOUTH ABUTMENT - DETAILS
F.A.P. 614 (CL 78) OVER SANGAMON RIVER
PUBLIC WATERS
CASS & MASON COUNTIES
SECTION 144 (B-D)
STA. 913+26.00
STRUCTURE NUMBER 009-0510
PROFESSIONAL DESIGN FIRM LICENSE #184-001084
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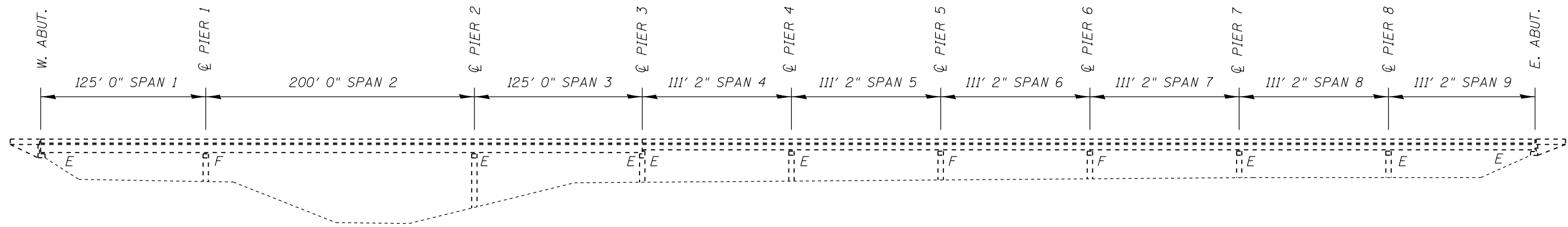
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Hanson Professional Services Inc.

DATE: 03/27/09

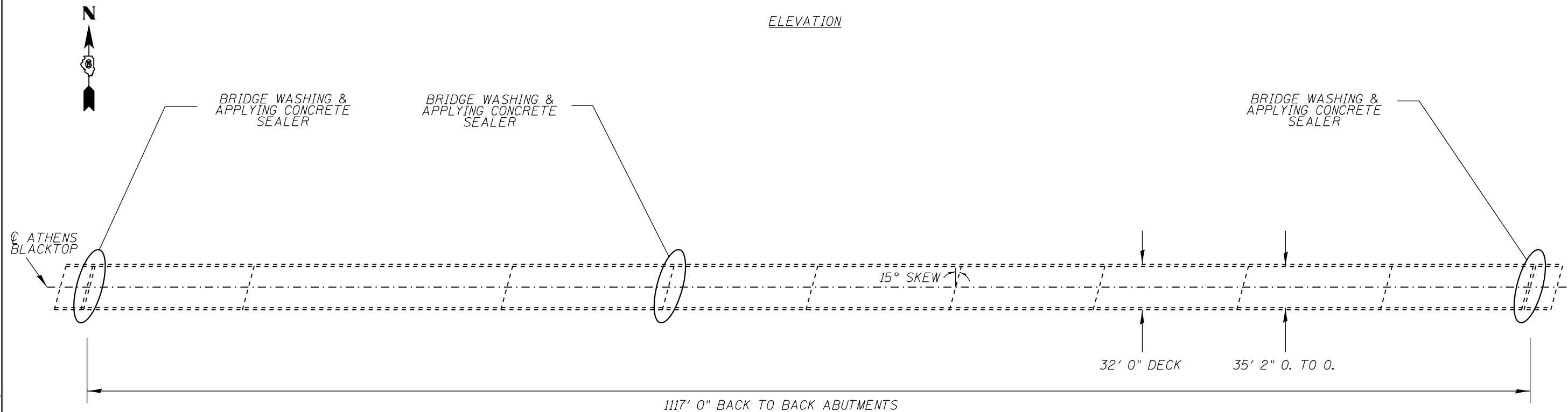
CONCRETE SEALER AREAS

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PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -			SCALE: SHEET 7 OF 7 SHEETS STA. TO STA.		CONTRACT NO. 72M41				
PLOT DATE = 10/6/2020	DATE -	REVISED -					ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN

BILL OF MATERIAL - SN 065-0019

ITEM	UNIT	QUANTITY
BRIDGE WASHING NO. 2	EACH	1
PROTECTIVE COAT	SQ. YD.	1385

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PLOT SCALE = 100.0000' / in.	DRAWN - BRANDON DUDLEY	REVISED -
PLOT DATE = 10/6/2020	CHECKED - JASON JONES	REVISED -
	DATE - 7/31/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE PLAN & ELEVATION
SN 065-0019

SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
614.574	(144, 9) BC	CASS, MENARD	13	10
CONTRACT NO. 72M41				
ILLINOIS FED. AID PROJECT				

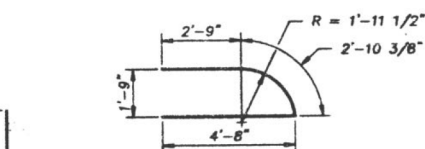
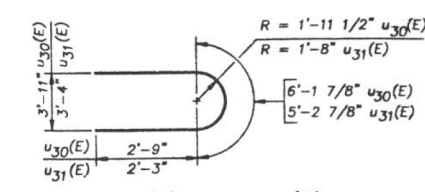
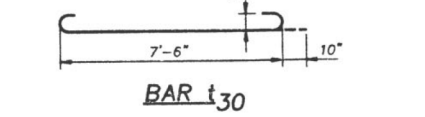
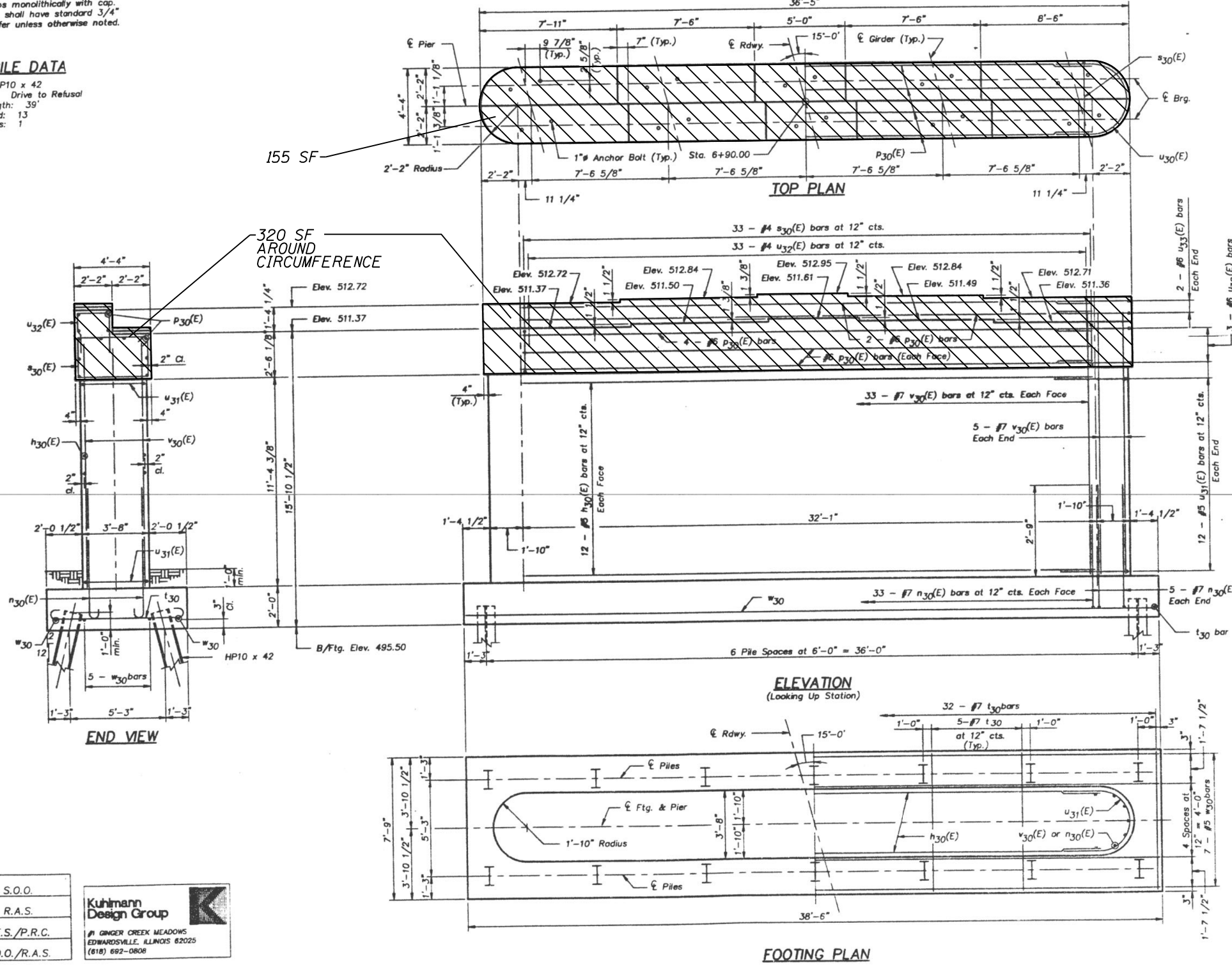
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE/SECTION	COUNTY	POST MILE	POST MILE	SHEET NO.
74-111-1	MENARD	74	42	38 SHEETS
PROJECT NO. 065-0019				

Note: Four steps monolithically with cap.
All edges shall have standard 3/4" chamfer unless otherwise noted.

PILE DATA

Type: HP10 x 42
Capacity: Drive to Refusal
Est. Length: 39'
No. Req'd: 13
Test Piles: 1



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h30(E)	24	#5	32'-1"	—
n30(E)	76	#7	5'-4"	—
p30(E)	12	#6	32'-3"	—
s30(E)	33	#4	13'-1"	□
t30	32	#7	9'-2"	—
u30(E)	6	#6	11'-8"	—
u31(E)	28	#5	9'-9"	—
u32(E)	33	#4	5'-10"	—
u33(E)	4	#6	10'-3"	—
v30(E)	76	#7	13'-6"	—
w30	8	#5	38'-3"	—
Structure Excavation			Cu. Yd.	55.5
Class X Concrete			Cu. Yd.	95.5
Reinforcement Bars			Lbs.	919
Reinforcement Bars, Epoxy Coated			Lbs.	5179
HP10 x 42 Piles			Lin. Ft.	507
Test Piles HP10 x 42			Each	1

Reinforcement Bars designated (E) shall be epoxy coated.

ATHENS ROAD OVER SANGAMON RIVER
F.A.S. RTE. 574 SECTION 9 B-1
MENARD COUNTY
STA. 7+98.50
STRUCTURE NO. 065-0019

PIER 3

DESIGNED	S.O.O.
CHECKED	R.A.S.
DRAWN	S.E.S./P.R.C.
CHECKED	S.O.O./R.A.S.

Kuhlmann Design Group
#1 GINGER CREEK MEADOWS
EDWARDSVILLE, ILLINOIS 62025
(618) 692-0808

4-11-91



BILL OF MATERIAL - PIER 3

ITEM	UNIT	QUANTITY
CONCRETE SEALER	SQ. FT.	475

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 3 SEALING PLAN
SN 065-0019

USER NAME = dudleybm	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 10/6/2020	DATE -	REVISED -

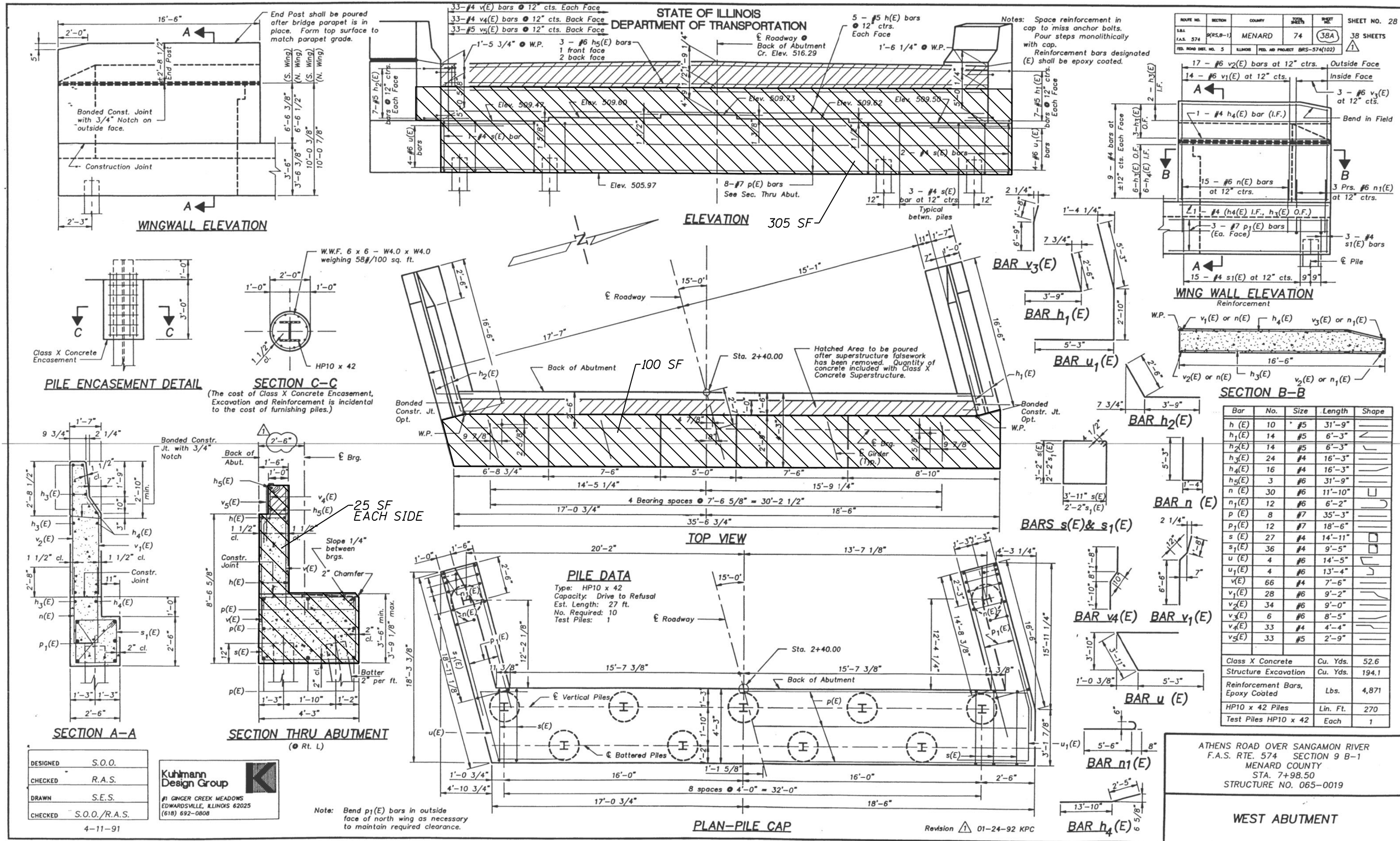
SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
614.574	(144, 9) BC	CASS, MENARD	13	12
CONTRACT NO. 72M41				
ILLINOIS FED. AID PROJECT				

MODEL: Default; FILE: \MAILS\CORPORATIONS\Bridges\Bridges\Athens_CAD\72M41 - 0650019_cleaning_2021.dwg; PLOT DATE: 10/6/2020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.S. 574	9(B)-1	MENARD	74	38A
FED. ROAD DIST. NO. 5	ILLINOIS	FED. AID PROJECT	BR5-574(102)	38 SHEETS



PILE ENCASEMENT DETAIL

SECTION C-C

SECTION A-A

SECTION THRU ABUTMENT

TOP VIEW

PLAN-PILE CAP

PILE DATA

Type: HP10 x 42
Capacity: Drive to Refusal
Est. Length: 27 ft.
No. Required: 10
Test Piles: 1

Bar	No.	Size	Length	Shape
h ₁ (E)	10	#5	31'-9"	
h ₂ (E)	14	#5	6'-3"	
h ₃ (E)	24	#4	16'-3"	
h ₄ (E)	16	#4	16'-3"	
h ₅ (E)	3	#6	31'-9"	
n(E)	30	#6	11'-10"	
n ₁ (E)	12	#6	6'-2"	
p(E)	8	#7	35'-3"	
p ₁ (E)	12	#7	18'-6"	
s(E)	27	#4	14'-11"	
s ₁ (E)	36	#4	9'-5"	
u(E)	4	#6	14'-5"	
u ₁ (E)	4	#6	13'-4"	
v(E)	66	#4	7'-6"	
v ₁ (E)	28	#6	9'-2"	
v ₂ (E)	34	#6	9'-0"	
v ₃ (E)	6	#6	8'-5"	
v ₄ (E)	33	#4	4'-4"	
v ₅ (E)	33	#5	2'-9"	
Class X Concrete				Cu. Yds. 52.6
Structure Excavation				Cu. Yds. 194.1
Reinforcement Bars, Epoxy Coated				Lbs. 4,871
HP10 x 42 Piles				Lin. Ft. 270
Test Piles HP10 x 42				Each 1

DESIGNED	S.O.O.
CHECKED	R.A.S.
DRAWN	S.E.S.
CHECKED	S.O.O./R.A.S.

4-11-91

Kuhlmann Design Group

#1 GINGER CREEK MEADOWS
EDWARDSVILLE, ILLINOIS 62025
(618) 692-0808

CONCRETE SEALER AREAS

BILL OF MATERIAL - EAST ABUT.

ITEM	UNIT	QUANTITY
CONCRETE SEALER	SQ. FT.	455

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT SEALING PLAN
SN 065-0019

USER NAME = dudleybm	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 10/6/2020	DATE -	REVISED -

SCALE:	SHEET 4	OF 4	SHEETS	STA.	TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
614.574	(144, 9) BC	CASS, MENARD	13	13
ILLINOIS FED. AID PROJECT			CONTRACT NO. 72M41	

MODEL: Default
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DATE: 10/6/2020 10:50:19 AM