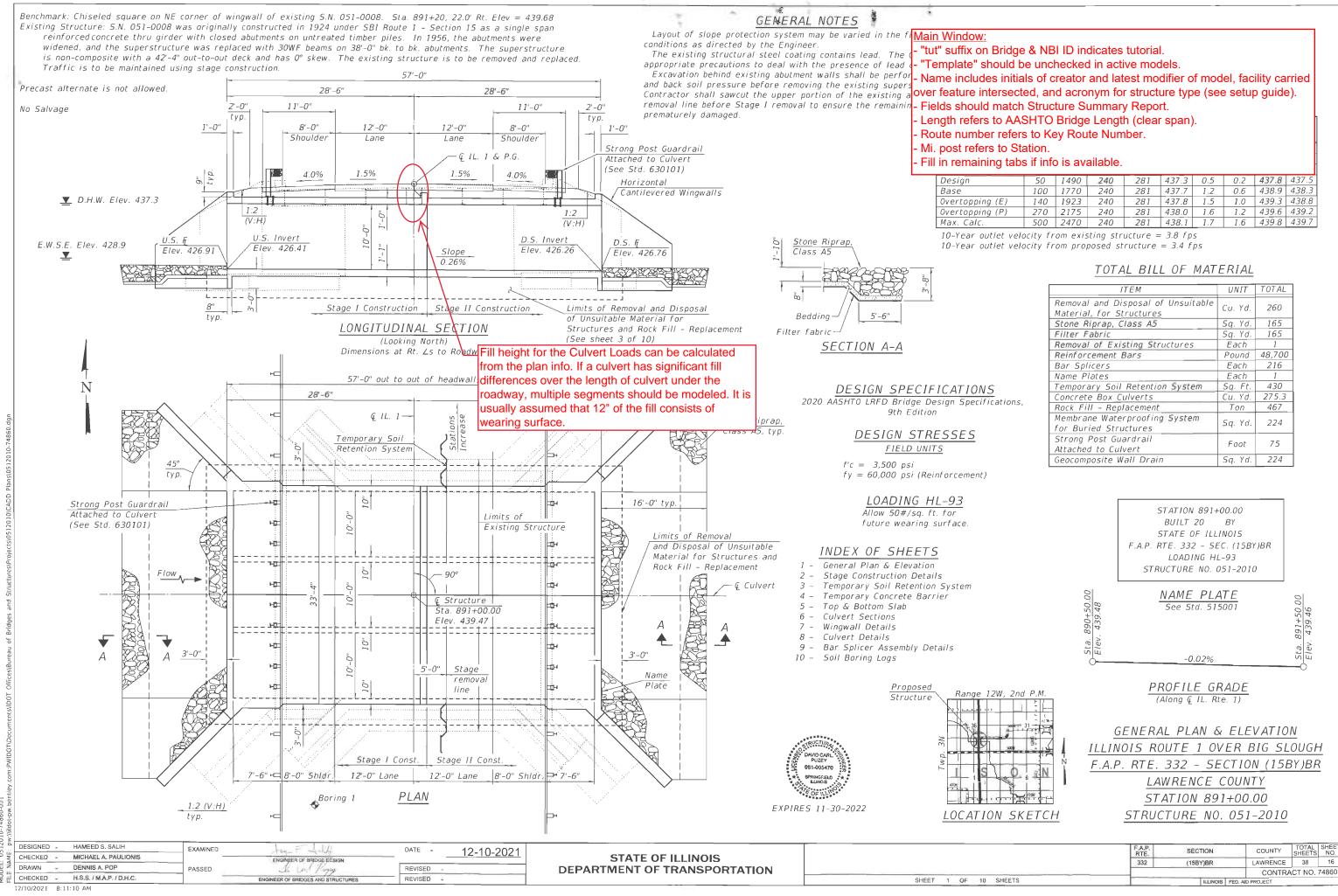


STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION SUBMITTED DETORER 26 20 21 Jeffrer P Myr ENGINEER Decen DIRECTOR IGHWAYS PROJECT INFLEMENTATIO PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS REV. - MS

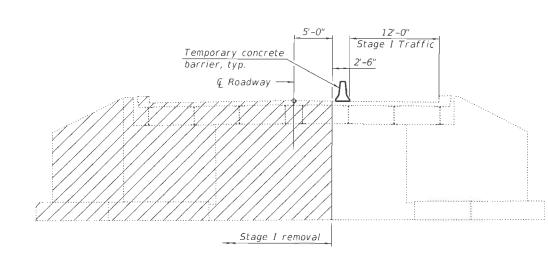


	50	1490	240	281	437.3	0.5	0.2	437.8	437.5
	100	1770	240	281	437.7	1.2	0.б	438.9	438.3
oing (E)	140	1923	240	281	437.8	1.5	1.0	439.3	438.8
oing (P)	270	2175	240	281	438.0	1.6	1.2	439.6	439.2
lc.	500	2470	240	281	438.1	1.7	1.6	439.8	439.7

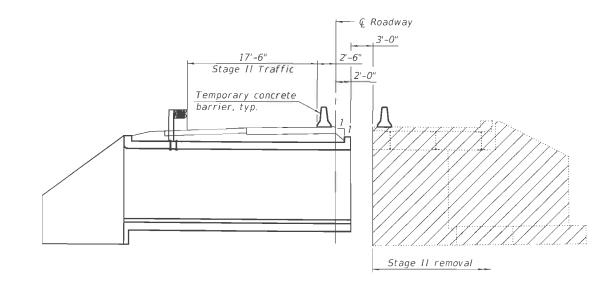
TOTAL BILL	0F	MATERIAL
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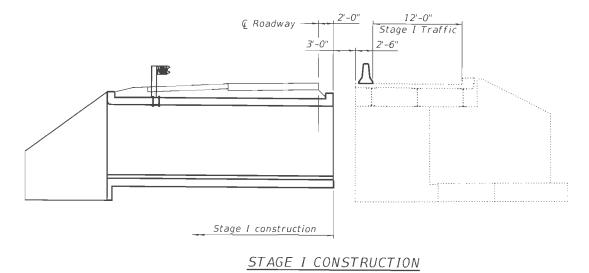
ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material, for Structures	Cu. Yd.	260
Stone Riprap, Class A5	Sq. Yd.	165
Filter Fabric	Sq. Yd.	165
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	48,700
Bar Splicers	Each	216
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	430
Concrete Box Culverts	Cu. Yd.	275.3
Rock Fill - Replacement	Ton	467
Membrane Waterproofing System for Buried Structures	5q.Yd.	224
Strong Post Guardrail Attached to Culvert	Foot	75
Geocomposite Wall Drain	Sq. Yd.	224

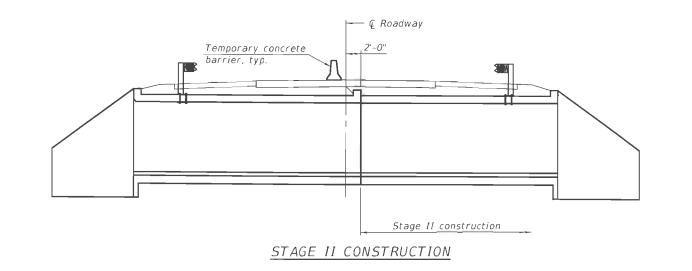
	RTE.	SECTION			COUNTY	SHEETS	NO.
	332	(15BY)BR			LAWRENCE	38	16
					CONTRA	CT NO.	74860
10 SHEETS		ILLIN	OIS	FED. AU	D PROJECT		
						-	



# STAGE I REMOVAL







Notes: Hatched areas indicate removal of existing structures.

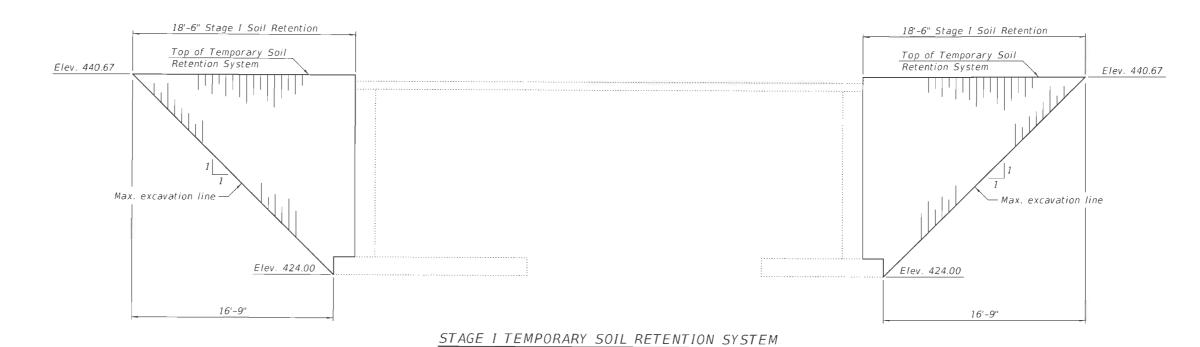
For quantity of temporary concrete barrier, see Roadway Plans. All cross sections are taken looking North.

For details of Temporary Concrete Barrier see sheet 4 of 10.

Removal of the substructure shall be according to Article 501.04 of the Standard Specifications.

DESIGNED - HAMEED S. SALIH CHECKED - MICHAEL A. PAULIONIS DRAWN - DENNIS A. POP	PASSED	DATE - DECEMBER 10, 2021	STATE OF ILLINOIS	STAGE CONSTRUCTION DETAILS STRUCTURE NO. 051-2010	F.A.P. RTE. SECTION 332 (158Y)BR	COUNTY TOTAL SH SHEETS N LAWRENCE 38 1
E CHECKED - H.S.S. / M.A.P. / D.H.C.	ENGINEER OF BRIDGES AND STRUCTURES	REVISED - REVISED -	DEPARTMENT OF TRANSPORTATION	SHEET 2 OF 10 SHEETS	ILLINO	CONTRACT NO. 748



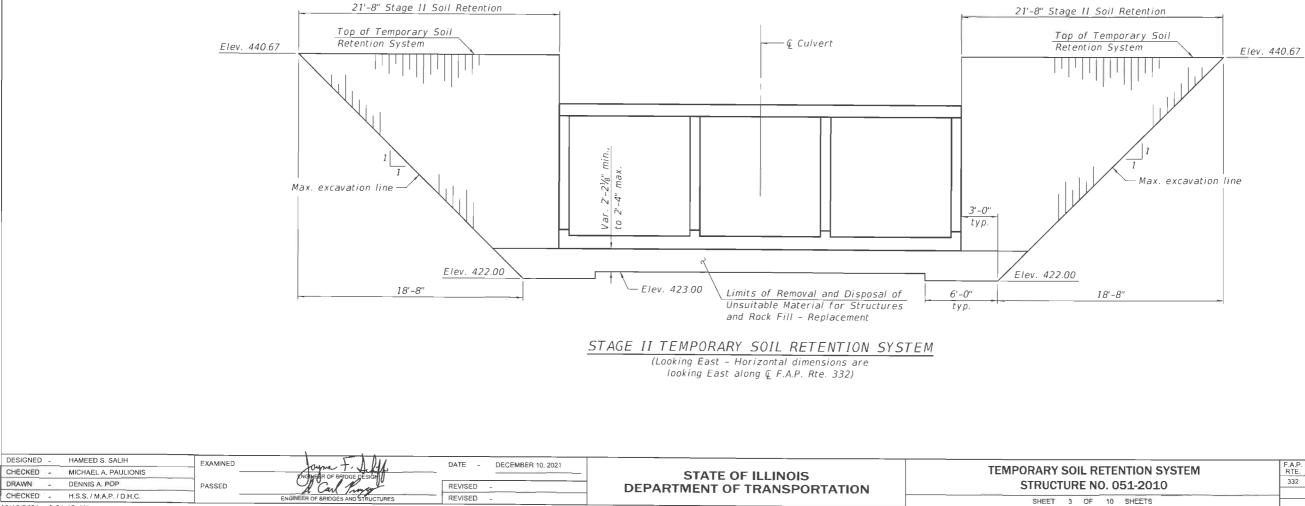


(Looking East - Horizontal dimensions are

looking East along ( F.A.P. Rte. 332)

A canitlevered sheet piling design does not appear to be feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.



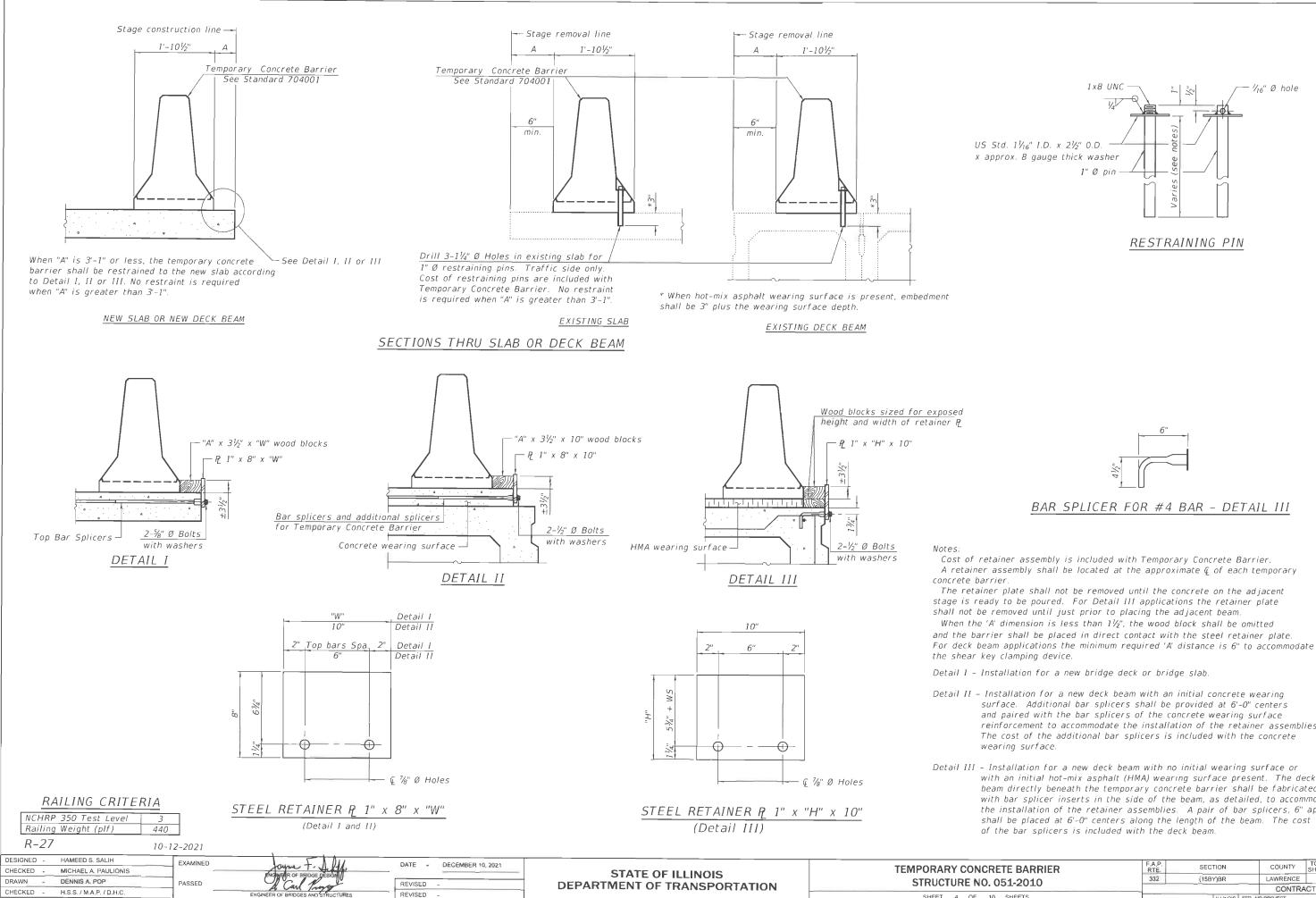
# Note:

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DRAWN



TENTION SYSTEM	F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
). 051-2010	332	(158Y)BR		LAWRENCE	38	18
				CONTRA	CT NO.	74860
10 SHEETS		ILLINOIS	FED. Al	D PROJECT		



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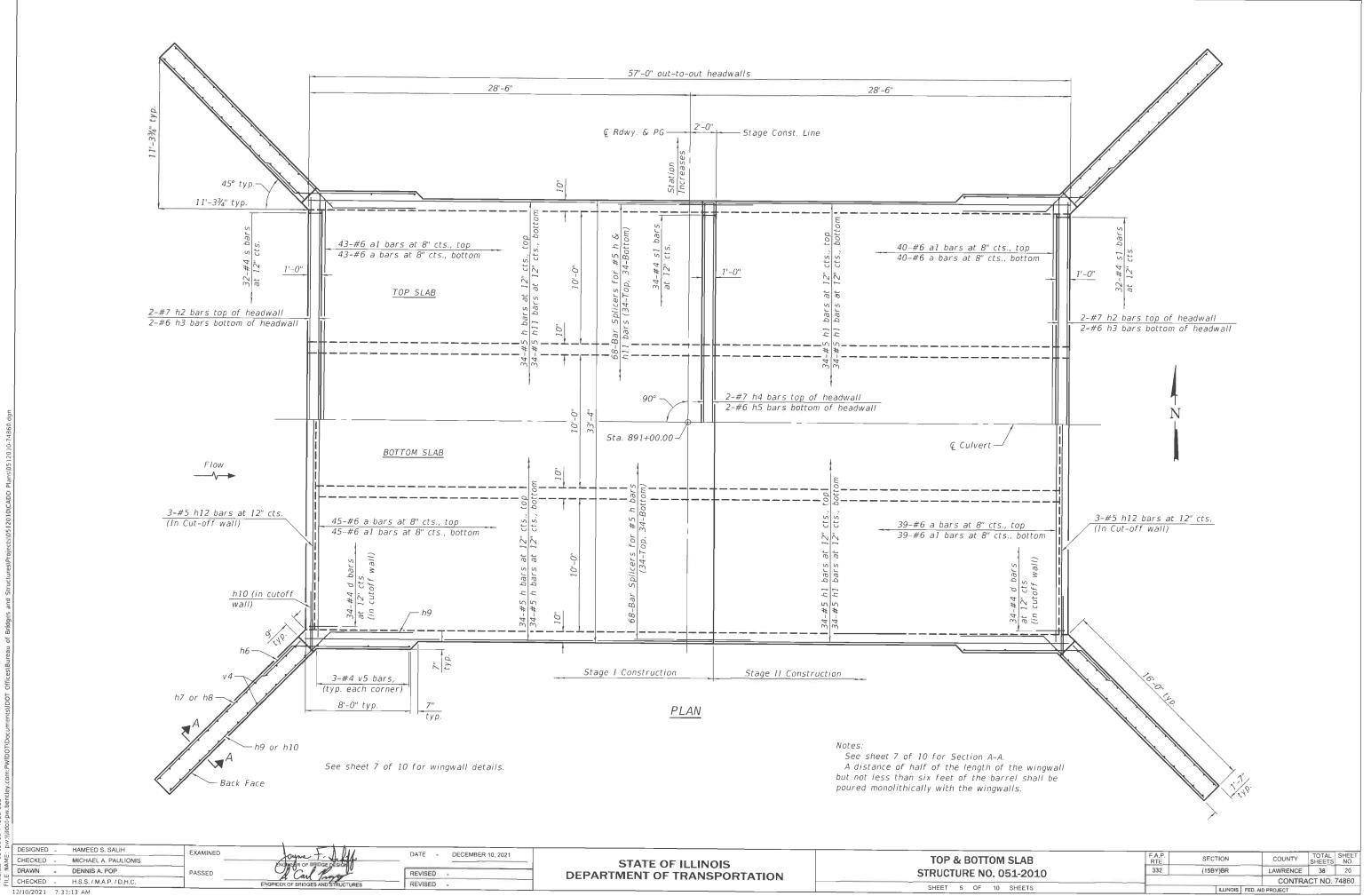
SHEET 4 OF

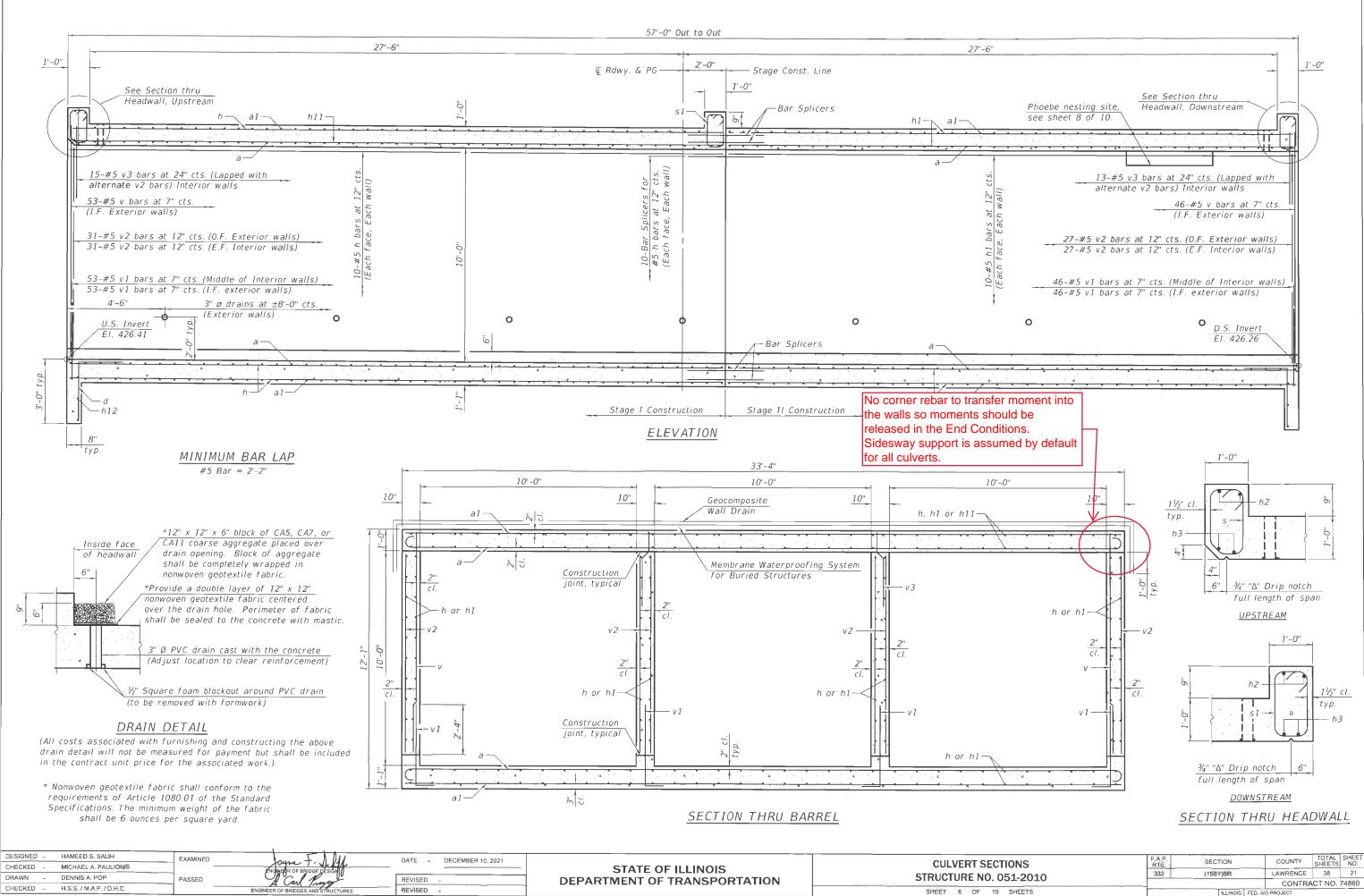


reinforcement to accommodate the installation of the retainer assemblies.

with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart,

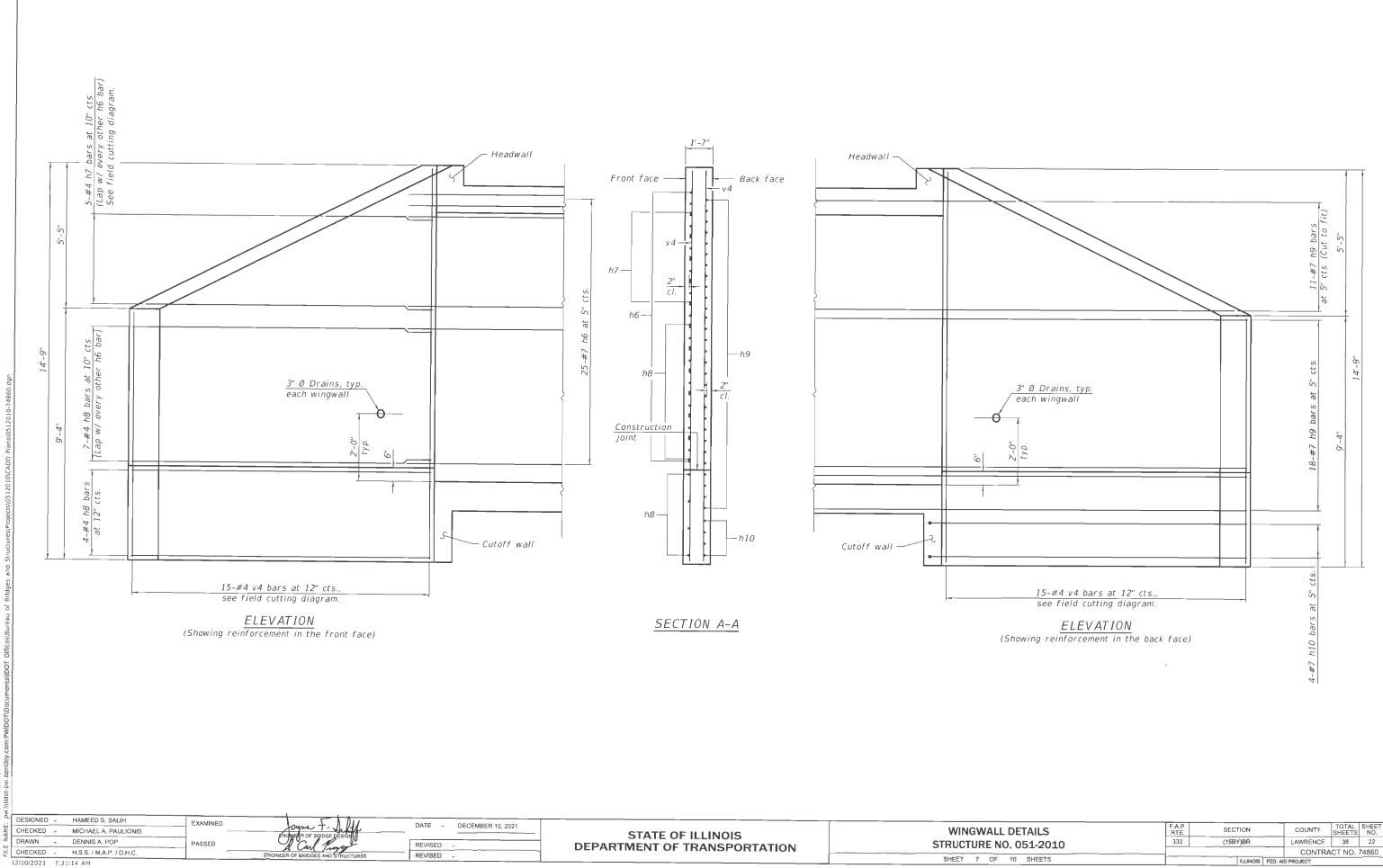
RETE BARRIER	F.A.P. RTE.	SECT	ION		COUNTY	TOTAL SHEETS	SHEET NO.
0.051-2010	332	(158)	)BR		LAWRENCE	38	19
. 051-2010					CONTRA	CT NO.	74860
10 SHEETS			ILLINOIS	FED. AIC	PROJECT		

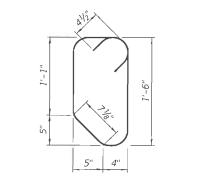




L: 0512010-74860-006 AME: pw:\lidot-pw.bentley.com:PWIDOTDocuments\IDOT Offices\Bureau of Bridges and Structures\Projects\0512010\CADD Plans

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BAR s

BAR s1

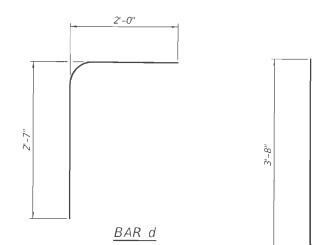
10"

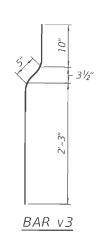
BAR v1

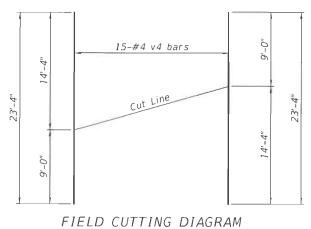
9"

33'-0" typ. 20

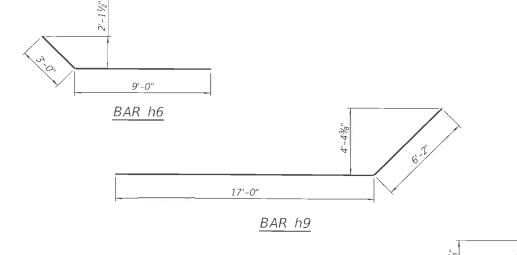






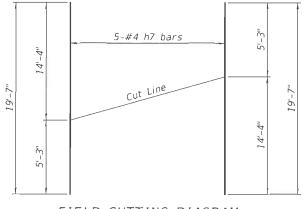


(Order v4 bars full length. Cut as shown and use remainder of bars in opposite face of wingwall. Number of bars called out in the diagram is for one wingwall).





BAR h10

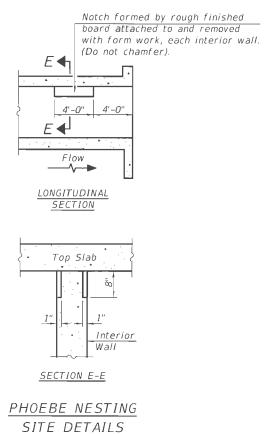


FIELD CUTTING DIAGRAM (Order h7 bars full length. Cut as shown and use

remainder of bars in opposite wingwall. Number of bars called out in the diagram is for two wingwalls).

20 DESIGNED - HAMEED S. SALIH EXAMINED DATE -DECEMBER 10, 2021 CULVERT DE CHECKED -MICHAEL A. PAULIONIS STATE OF ILLINOIS DRAWN DENNIS A. POP STRUCTURE NO. PASSED REVISED **DEPARTMENT OF TRANSPORTATION** CHECKED - H.S.S. / M.A.P. / D.H.C. REVISED SHEET 8 OF 12/10/2021 7:31:14 AM

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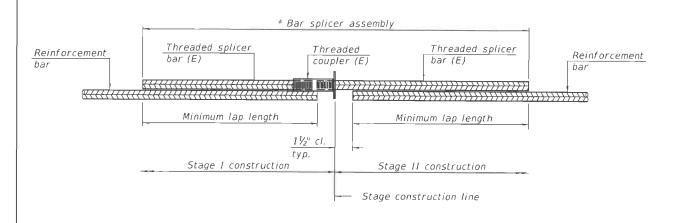


(Downstream End Only)

	BILL	OF MA	ALERI.	AL
Bar	No.	Size	Length	_Shape
а	167	#6	34'-4"	
a1	167	#6	33'-0"	
đ	68	#4	4'-7"	
h	182	#5	30'-2"	
h1	216	#5	26'-2"	
h2	4	#7	33'-9"	
h3	4	#6	33'-9"	
h4	2	#7	33'-0"	
h5		#6	33'-0"	
h6	100	#7	12'-0"	
h7	10	#4	19'-7"	
h8	44	#4	14'-11"	
h9	116	#7	23'-2"	
h10	16	#7	19'-7"	
h11	34	#5	29'-11"	
h12	6	#5	33'-0"	
5	32	#4	5'-0"	0
s1	66	#4	5'-3"	Ū
V	198	#5	10'-2"	
v 1	396	#5	4'-6"	
v2	348	#5	9'-2"	
v3	56	#5	3'-6"	
v4	60	#4	23'-4"	
v5	12	#4	10'-8"	
Concre	te Box	Culverts	Cu. Yd.	275.3
Reinfo	rcement	Bars	Pound	48,700

### BILL OF MATERIAL

DETAILS	F.A.P. RTE.	SECT	TION		COUNTY	TOTAL SHEETS	SHEET NO.	
0.051-2010	332	(158)	/)BR		LAWRENCE	38	23	
0.0312010			_		CONTRA	CT NO.	74860	
10 SHEETS			ILLINOIS	FED. AIL	PROJECT			



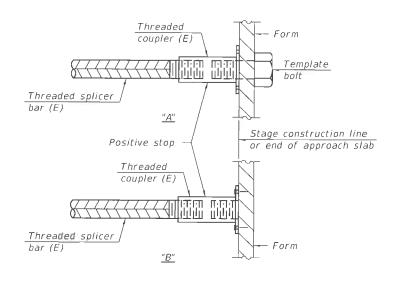
## STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length +  $1\frac{1}{2}$ " + thread length

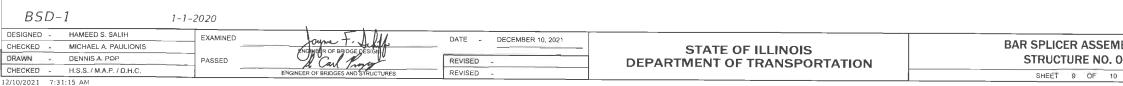
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

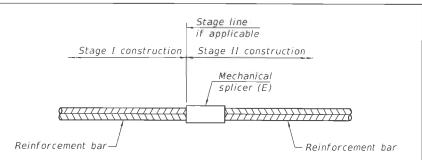
Top slab     #5     68     2       Walls     #5     80     2	lap length 2'-2"	require	5170	
Walls #5 80 2	7'-7"		212-5-	
	2 2	68	#5	Top slab
	2'-9"	80	#5	Walls
Bottom slab #5 68	2'-2"	68	#5	Bottom slab



### INSTALLATION AND SETTING METHODS

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





# STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:

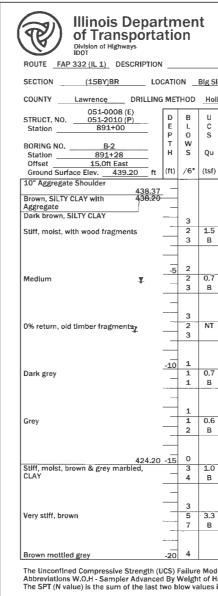
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

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

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

SEMBLY DETAILS	F,A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10.051-2010		(15BY)BR	LAWRENCE	38	24
			CONTRA	CT NO.	74860
10 SHEETS		ILLINOIS FED. AI	D PROJECT		

of Transportat	tion	nt	S	OIL BORING LOG		Page	1	of		
Division of Highways							4/2	_		
ROUTE FAP 332 (IL 1) DESCRIPTION			Sc	D BY	BY E. Sandscha					
SECTION (15BY)BR LOCA	ATION	Big Si	ough,	SEC. 36, TWP. 3N, RNG. 36W, 2 PM						
COUNTY Lawrence DRILLING	METHO	Hol	Hollow stem auger & split spoon HAMMER TYPE				Auto 140#			
Station 891+00	D B E L		M O	Surface Water Elev. <u>427.89</u> ft Stream Bed Elev. <u>427.54</u> ft	D E	BL	U C	1		
BORING NO. B-1	P 0 T W		I S	Groundwater Elev.:	P T	0 W	S	;		
Station     890+68       Offset     15.0ft West       Ground Surface Elev.     439.24	H S		T (%)	∠ First Encounter 414.7 ft ↓	H (ft)	S /6"	Qu (tsf)	(9		
10" Aggregate Shoulder	(10) 70	((31)	()0)	After <u>144</u> Hrs. <u>433.7</u> ft Stiff, moist, brown & grey marbled,		3	1.8	2		
438.41 Brown, CLAY with Aggregate 438.24 Brown, CLAY				CLAY	_	5	В			
-	1				$\neg$	1				
Stiff, moist, brown, CLAY	2	1.2 B	24	Medlum, grey mottled, brown 416.24 Soft, molst, grey, SANDY LOAM	-	1 2	0.8 B	2		
-	1				_	2				
- ¥	2	1.0 B	26	Very soft, wet, brown	-25	5	0,2 S	1		
-				413.24 Extent of Exploration.	_	0	5	-		
-	1 2			Benchmark: BM 917 Chiseled	$\exists$					
Brown & grey marbled 🛛 🖉 💷	4	1.1 B	25	square on the SW corner of Wingwall of Structure #051-0008, Sta. 890+80, 22' LT.	_					
429.74 Very soft, molst, brownish tan, SILT	10 1									
	10 1	0.2 B	24		-30					
-					-30					
427.24 Medium, molst, tan SILTY CLAY LOAM	2	0.8	19							
-	4	B	10		╡					
-	15 2									
Stiff, brown & grey marbled	<u>15 2</u> 3	1.2 B	20							
422.24	-	1			⊢					
Very soft, moist, grey, SILT	1	1.7	19							
421.04 – Stiff, molst, brown & grey marbled, CLAY	3	1.7 B	19		-					
419.24 -	20 3									



0  //:w						
9	DESIGNED - HAMEED S. SALIH	EXAMINED	FIM FIM	DATE - DECEMBER 10, 2021		
ξ[	CHECKED - MICHAEL A. PAULIONIS	]	ENGINEER OF BRIDGE DESIGNU		STATE OF ILLINOIS	SOIL BORIN
Z	DRAWN - DENNIS A. POP	PASSED	Call France	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO
2	CHECKED - H.S.S. / M.A.P. / D.H.C.	1 -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -		SHEET 10 OF
	12/10/2021 7:31:15 AM					

-

Carl Contractor

				Date	4/2	9/19
	N	orth Abutment LOGGE	D BY	<u>E, S</u>	andsc	hafe
c	ough,	SEC. 36, TWP. 3N, RNG. 12W, 2 PM				
k	ow ste	em auger & split spoon HAMMER TYPE		Auto	140#	
	м	Surface Water Elev. 427.89 ft	D	в	IJ	м
	0	Stream Bed Elev. 427.54 ft	E	L O	C S	0
	s	Groundwater Elev.:	τ	w		s
	т	⊈First Encounter416.7_ft	н	S	Qu	Т
	(%)	VUpon Completion <u>431,2</u> ft YAfter 144 Hrs. 433.8 ft	(ft)	/6"	(tsf)	(%)
	(,,,)	¥After <u>144</u> Hrs. <u>433.8</u> ft	(11)		2.3	23
			-	8	В	
			_			
		- 446.30		2		
1	21	Soft, molst, brown, SANDY LOAM		-2	0.3	26
		with 3/4" gravel		2	В	
			-25	1		
1	26		-25	3	0.2	18
4		Very soft, with 1/2" gravel 413.20		6	В	
		Extent of Exploration.	_			
		Barahara da Dil Odo oblasta d				
	NT	Benchmark: BM 916 Chiseled square on the NE corner of				
		Wingwall of Structure #051-0008, Sta. 891+20, 22' RT.	_			
		510.051+20, 22 NI.				
			-30			
	23		_			
-						
	19					
+			-			
			-35			
	23		_			
1			_			
4	19		_			
	19					
ł			_			
			_			
		1	-40			

RING LOGS NO. 051-2010		SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
		332 (15BY)BR		LAWRENCE	38	25	
				CONTRACT NO. 74860			
F 10 SHEETS	ILLINOIS FED. AID PROJECT						