03-06-2020 LETTING ITEM 126

# STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

#### T.R. 173 13-05123 WABASH 25 -01-BR ILLINOIS CONTRACT NO. 95869

#### INDEX OF SHEETS

SHEET NO. COVER SHEET

> SUMMARY OF QUANTITIES AND GENERAL NOTES

DESCRIPTION

TYPICAL CROSS SECTIONS

PLAN AND PROFILE

5-9. **CULVERT PLANS** 

10-11. **BORINGS** 

12-25. STATION CROSS SECTIONS

HIGHWAY STANDARDS:

000001-07

STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS

515001-04

NAME PLATE FOR BRIDGES TRAFFIC CONTROL DEVICES

LOCAL ROAD

**30 MPH** 

150 ADT

701901-08 725001-01

**OBJECT AND TERMINAL MARKERS** 

BLR 21-9

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

PROJECT R1YG(351)

SECTION 13-05123-01-BR

PLANS FOR PROPOSED

SURFACE TRANSPORTATION PROGRAM - BRIDGE

**ROAD DISTRICT NO. 5** 

WABASH COUNTY

T.R. 173

PROPOSED STRUCTURE NO. 093-5006

C-97-073-20

#### UTILITIES

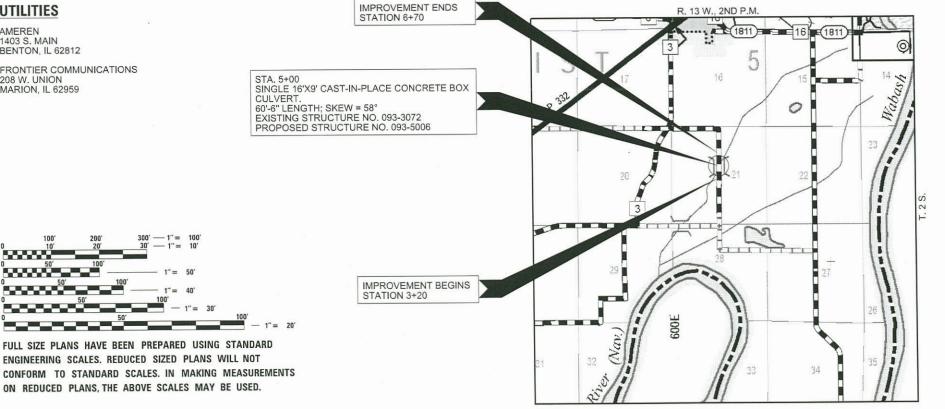
**AMEREN** 1403 S. MAIN BENTON, IL 62812

FRONTIER COMMUNICATIONS **MARION, IL 62959** 

FUNCTIONAL CLASSIFICATION:

DESIGN SPEED:

DESIGN TRAFFIC:

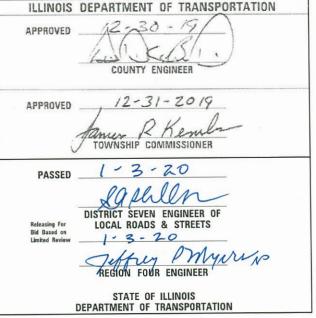


LOCATION MAP

APPROXIMATE SCALE: GROSS LENGTH OF SECTION = 350 FEET = 0.066 MILES NET LENGTH OF SECTION = 210 FEET = 0.039 MILES

WARNING **CALL 811** BEFORE YOU DIG DIG NO: X2400367







HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201

SPRINGFIELD, ILLINOIS 62703 217.546.3400 www.hlrengineering.com II I INOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORPORATION

CONTRACT NO. 95869 PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

		SUMMARY OF QUANTITIES		***************************************
	CODE NO.	ITEM	UNIT	TOTAL CONSTRUCTION TYPE CODE
	20200100	EARTH EXCAVATION	CU YD	0010 1,624
	28100807	STONE DUMPED RIPRAP, CLASS A4	TON	415
	35101400	AGGREGATE BASE COURSE, TYPE A	TON	200
*	50900205	STEEL RAILING, TYPE S1	FOOT	59
	51500100	NAME PLATES	EACH	1
	54003000	CONCRETE BOX CULVERTS	CU YD	160.9
	542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	70
	67100100	MOBILIZATION	L SUM	1
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
^	X0426200	DEWATERING	L SUM	1
^	X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	122
	X2070302	POROUS GRANULAR EMBANKMENT, SPECIAL	TON	80
^	X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.1
^	XX009350	REINFORCEMENT BARS, SPECIAL	POUND	43,030
ا ِ ا			1	

SEE SPECIAL PROVISIONS

\* SPECIALTY ITEMS

#### **GENERAL NOTES**

- 1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED APRIL 1, 2016," THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- 2. ALL CLEARING AND GRUBBING, FENCE REMOVAL, STUMP REMOVAL, AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. THE REMOVAL AND DISPOSAL OF EXISTING BITUMINOUS & AGGREGATE PAVEMENT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 3. THE LOCATION OF EXISTING GAS MAINS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATIONS AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.
- 4. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

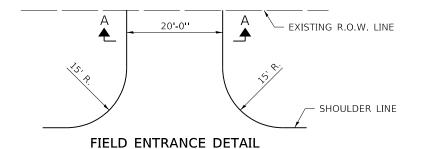
AGGREGATE SURFACE COURSE 2.05 TON/CU YD STONE DUMPED RIPRAP 1.75 TON/CU YD POROUS GRANULAR EMBANKMENT 1.50 TON/CU YD

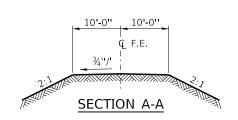
- 5. THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY AS DIRECTED BY THE ENGINEER. ESTIMATED QUANTITY: SEEDING, CLASS 2 (SPECIAL) = 0.1 ACRES
- 6. COMMITMENTS:
  - 1) ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH NATIONWIDE PERMIT NO. 14 INCLUDED IN SPECIAL PROVISIONS.
- 7. ALL WASTE MATERIAL FROM EXCAVATIONS SHALL BE DISPOSED OF BY THE CONTRACTOR. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

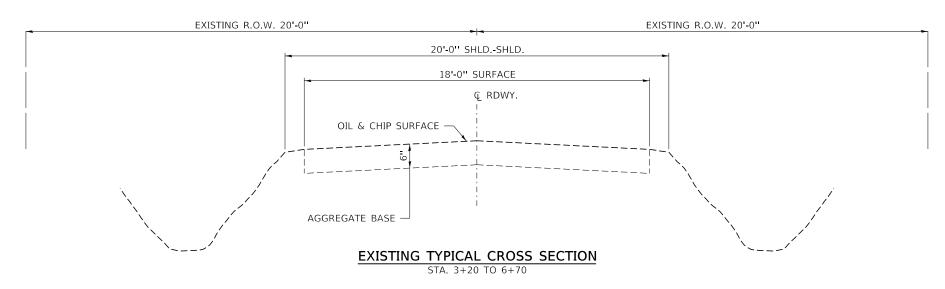
		<b>EARTHW</b>	ORK SC	HEDULE			
	EARTH	INCIDENTAL	SHRINKAGE	PERCENT	EARTH EXCAVATION	EMBANKMENT	EARTHWORK
	EXCAVATION	EXCAVATION	FACTOR	USED	ADJUSTED	REQUIRED	BALANCE
LOCATION					FOR SHRINKAGE		
	20200100						
	CU.YD.	CU.YD.			CU.YD.	CU.YD.	CU.YD.
TR 1 <b>7</b> 3		A					1
STA 3+20 to 3+30	3		25.00%	100.00%	2	1	1
STA 3+30 to 4+00	157		25.00%	100.00%	118	2	116
STA 4+00 to 4+90	451		25.00%	100.00%	338	303	35
STA 4+90 to STA 5+17	158		25.00%	100.00%	119	371	-252
STA 5+17 to STA 6+70	855		25.00%	100.00%	641	339	302
							1
TOTAL	1624	0			1218	1016	202
USE	1624						202

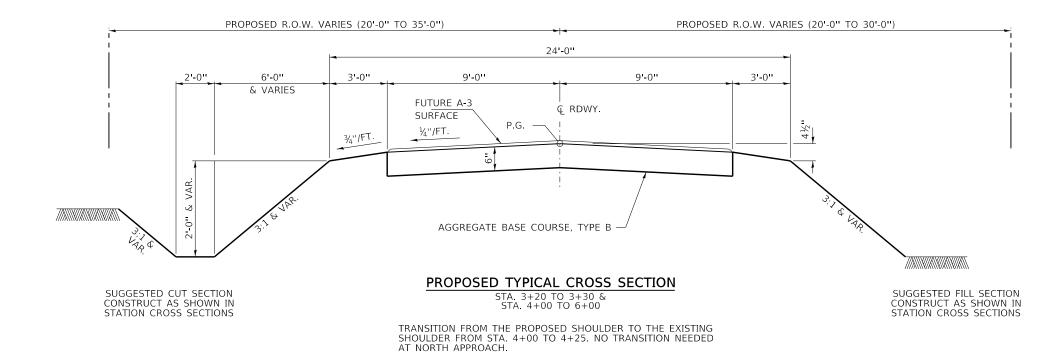
WASTE EXCAVATION 202 CU YDS

FILE NAME = 151126-sht-summary.dgn	USER NAME = rhosick			REVISED -							T.R.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
HAMPTON, LENZINI AND RENWICK, IN		1	- R,D.H,	REVISED -	STATE OF ILLINOIS		SUMMARY OF QUANTITIES A	AND GEN	ERAL N	NOTES	173	13-05123-01-BR	WABASH	25   2
SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = \$SCALE\$	CHECKED	- S.W.M.	REVISED -	WABASH COUNTY HIGHWAY DEPARTMENT						ROAD DIS	TRICT NO. 5	CONTRACT	NO. 95869
LS / PE / SE CORP. 184.000959	PLOT DATE = 12/31/2019	DATE	<b>- 12/30/19</b>	REVISED -		SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	то	STA.		ILLINOIS FED.	AID PROJECT R1YG	(351)

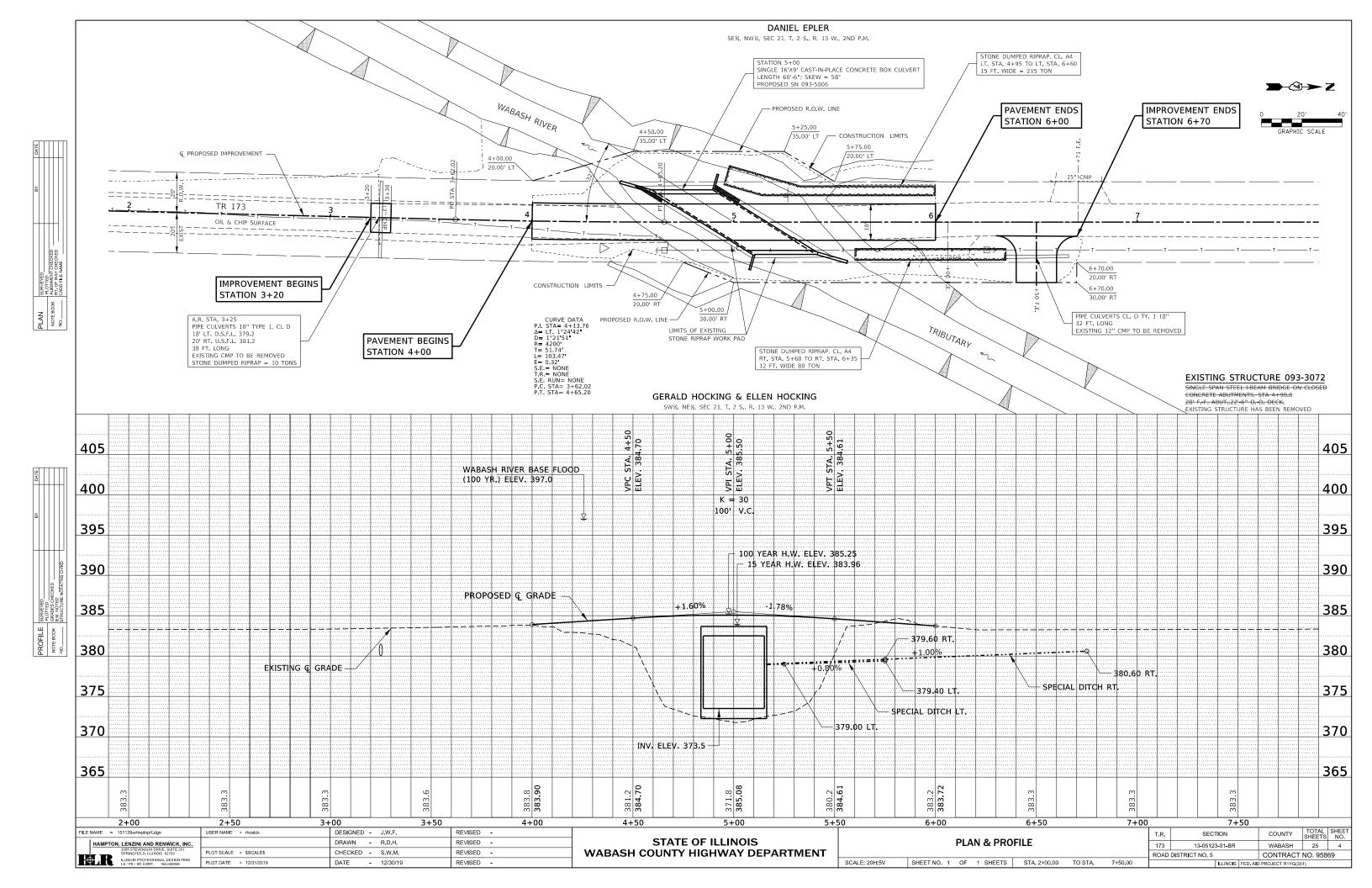


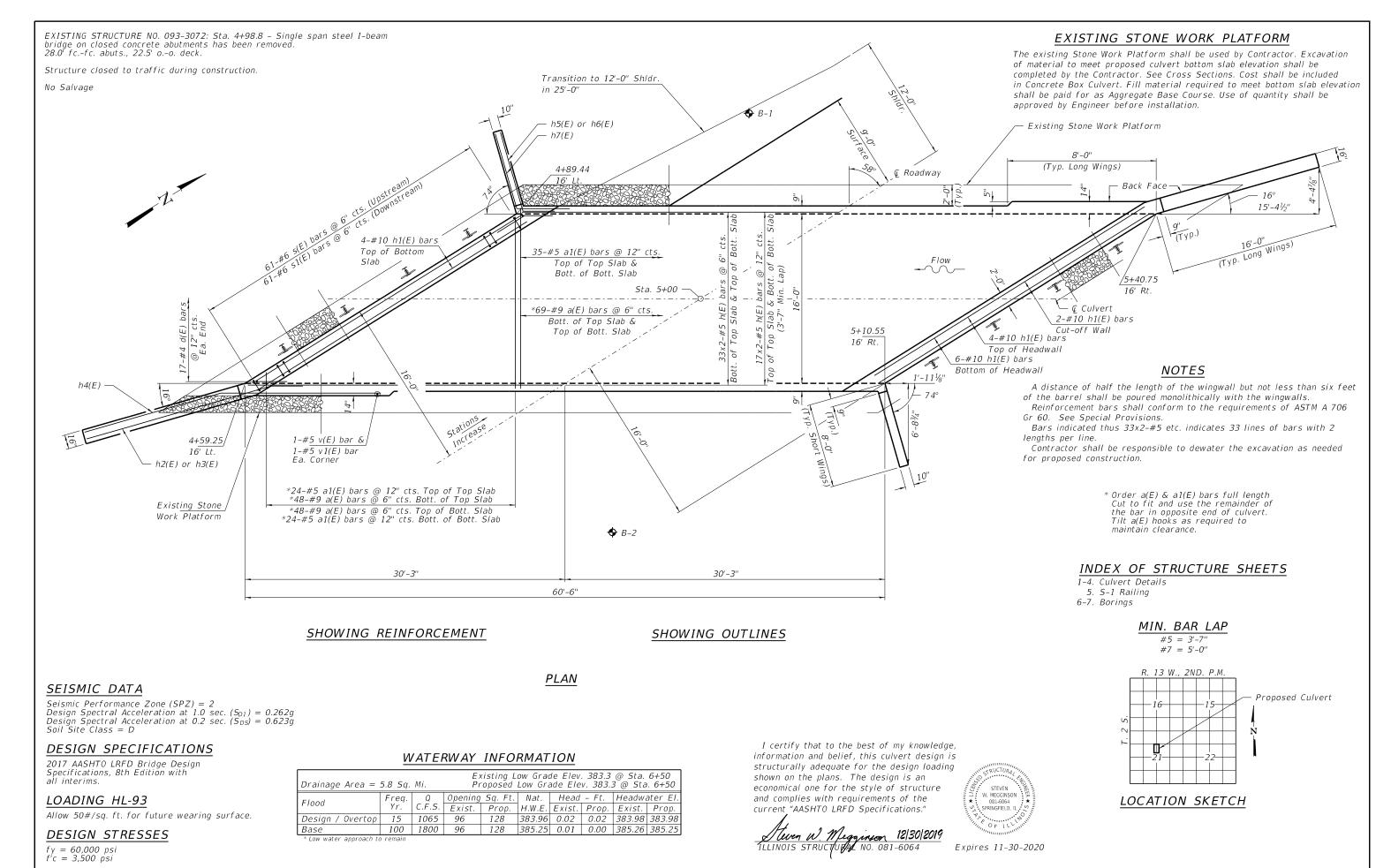




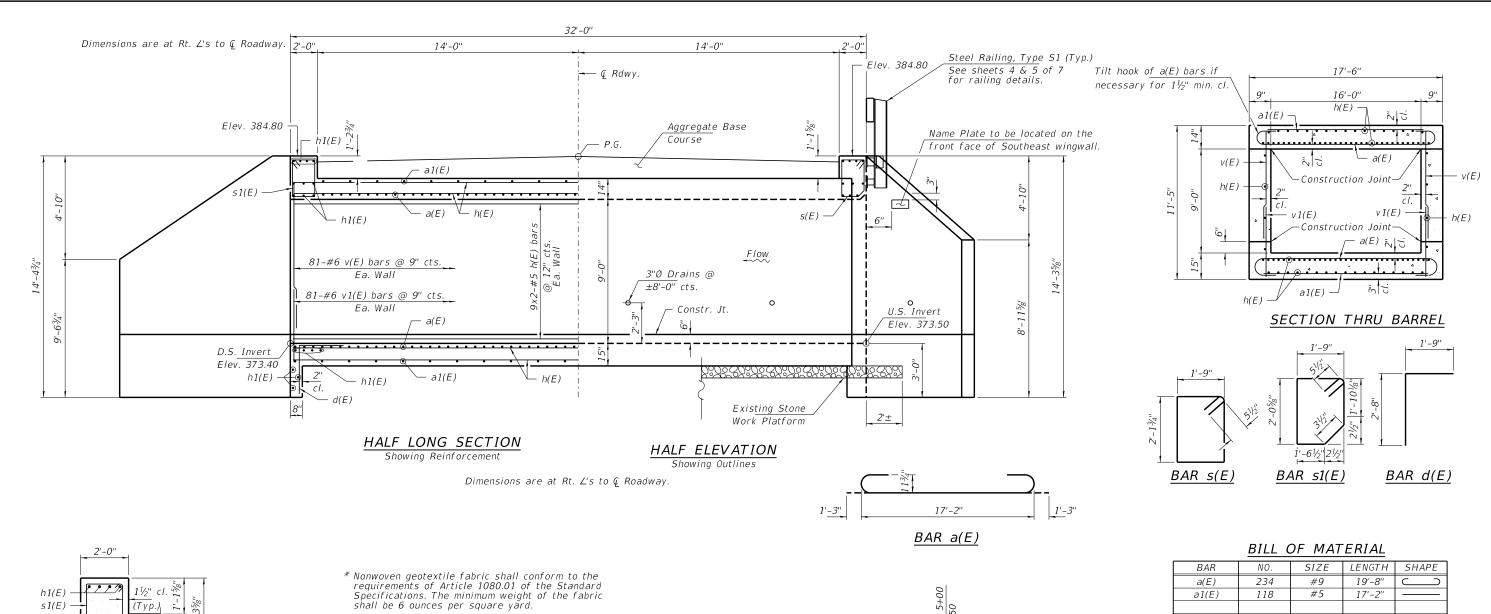


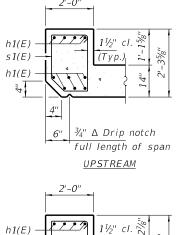
FILE NAME = 151126-sht-typsections.dgn L	USER NAME = rhosick	DESIGNED - S.W.M.	REVISED -	OTATE OF HANGIO		T/DIO41 0D000		_		T.R.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
HAMPTON, LENZINI AND RENWICK, INC.		DRAWN - R.D.H.	REVISED -	STATE OF ILLINOIS		TYPICAL CROSS S	SECTION	S		173	13-05123-01-BR	WABASH	25 3
	PLOT SCALE = \$SCALE\$	CHECKED - S.W.M.	REVISED -	WABASH COUNTY HIGHWAY DEPARTMENT						ROAD DIS	TRICT NO. 5	CONTRACT	T NO. 95869
ILLINOIS PROFESSIONAL DESIGN FIRM LS/PE/SE CORP. 184.000959	PLOT DATE = 12/31/2019	DATE - 12/30/19	REVISED -		SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO	STA.		ILLINOIS FED. AI	D PROJECT R1YG(	.(351)





FILE	NAME = 151126-sht-culvert.dgn	USER NAME = rhosick	DESIGNED - D.W.T.	REVISED -		CULVERT DETAILS	T.R.	SECTION	COUNTY	TOTAL	SHEET
	HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -	STATE OF ILLINOIS		173	13-05123-01-BF	R WABASH	25	5
-	3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = \$SCALE\$	DRAWN - D.A.B.	REVISED -	WABASH COUNTY HIGHWAY DEPARTMENT	STRUCTURE NO. 093-5006	ROAD D	DISTRICT NO. 5	CONTRACT	NO. 958	9
. I∎i	ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 12/31/2019	CHECKED - S.W.M.	REVISED -		SHEET NO. 1 OF 7 SHEETS		ILLINOI	S FED. AID PROJECT R1YG(	(351)	





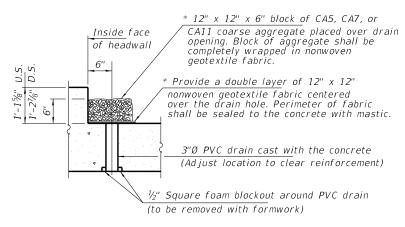
s(E)

h1(E)



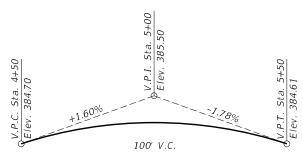
¾" ∆ Drip notch

full length of span



#### DRAIN DETAIL

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for Concrete Box Culverts.)



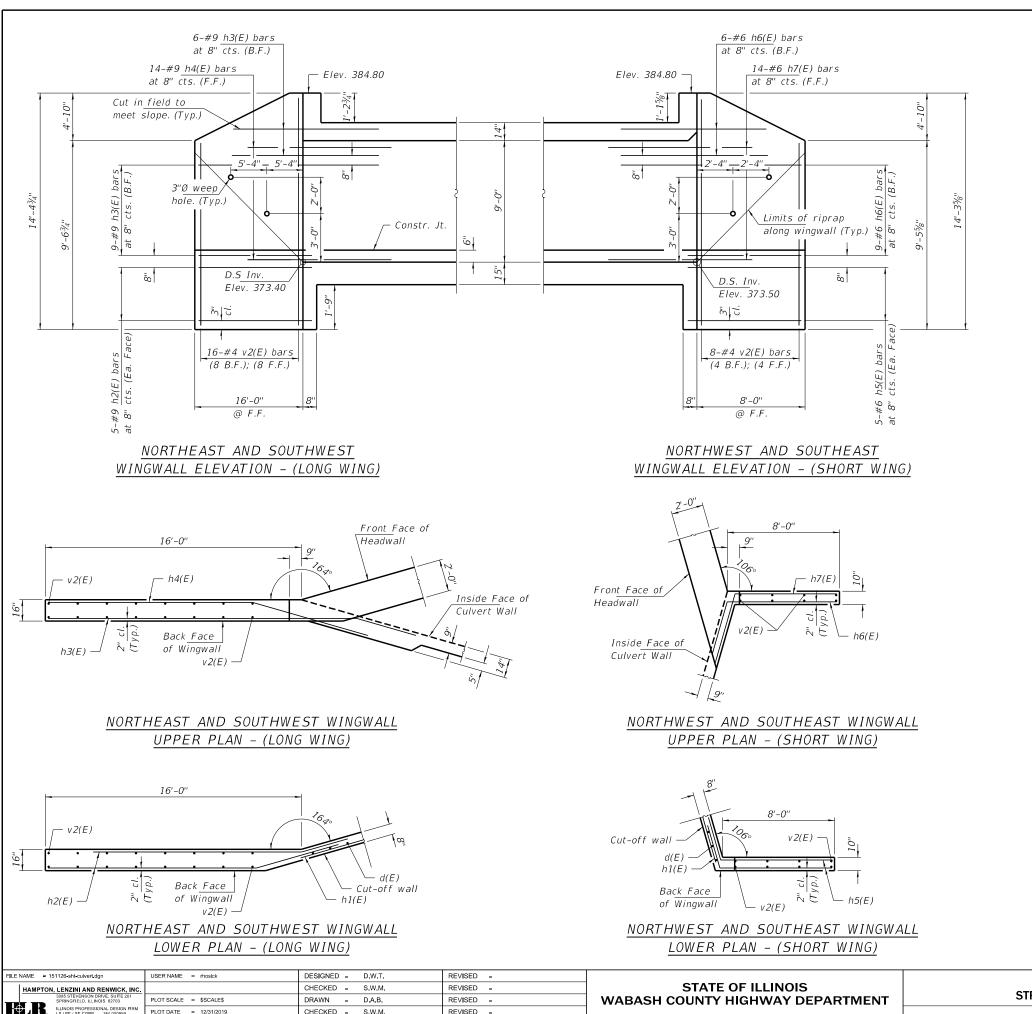
## PROFILE GRADE

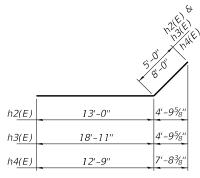
BUILT 202\_ BY WABASH COUNTY SEC. 13-05123-01-BR ROAD DISTRICT NO. 5 STR. NO. 093-5006 LOADING HL-93

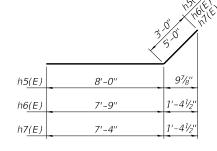
NAME PLATE
See Std. 515001

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	234	#9	19'-8''	
a1(E)	118	#5	17'-2"	
d(E)	34	#4	4'-5''	
				·
h(E)	236	#5	32'-0"	
h1(E)	32	#10	32'-0"	
h2(E)	20	#9	18'-0''	
h3(E)	30	#9	23'-11"	
h4(E)	28	#9	20'-9''	
h5(E)	20	#6	11'-0''	
h6(E)	30	#6	12'-9"	
h7(E)	28	#6	12'-4"	
s(E)	61	#6	8'-3"	ß
s1(E)	61	#6	8'-9"	g
v(E)	166	#6	9'-6"	
v 1(E)	166	#6	5'-7''	
v2(E)	48	#4	14'-0''	
Concrete Bo	x Culverts		Cu. Yd.	160.9
Reinforceme	nt Bars, S	pecial	Pound	43,030
Membrane W for Buried :	'aterproofi Structures	ng System	Sq. Yd.	122
Aggregate B	Base Cours	e. Type A	Ton	35
Porous Gran		, ,	Ton	80
Stone Dump			Ton	110
	, .,,,		l	

FILE NAME = 151126-Sht-culverLagh	USER NAME = MOSICK	DESIGNED - D.W.I.	REVISED -		
HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -	STATE OF ILLINOIS	•
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = \$SCALE\$	DRAWN - D.A.B.	REVISED -	WABASH COUNTY HIGHWAY DEPARTMENT	5
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 12/31/2019	CHECKED - S.W.M.	REVISED -		





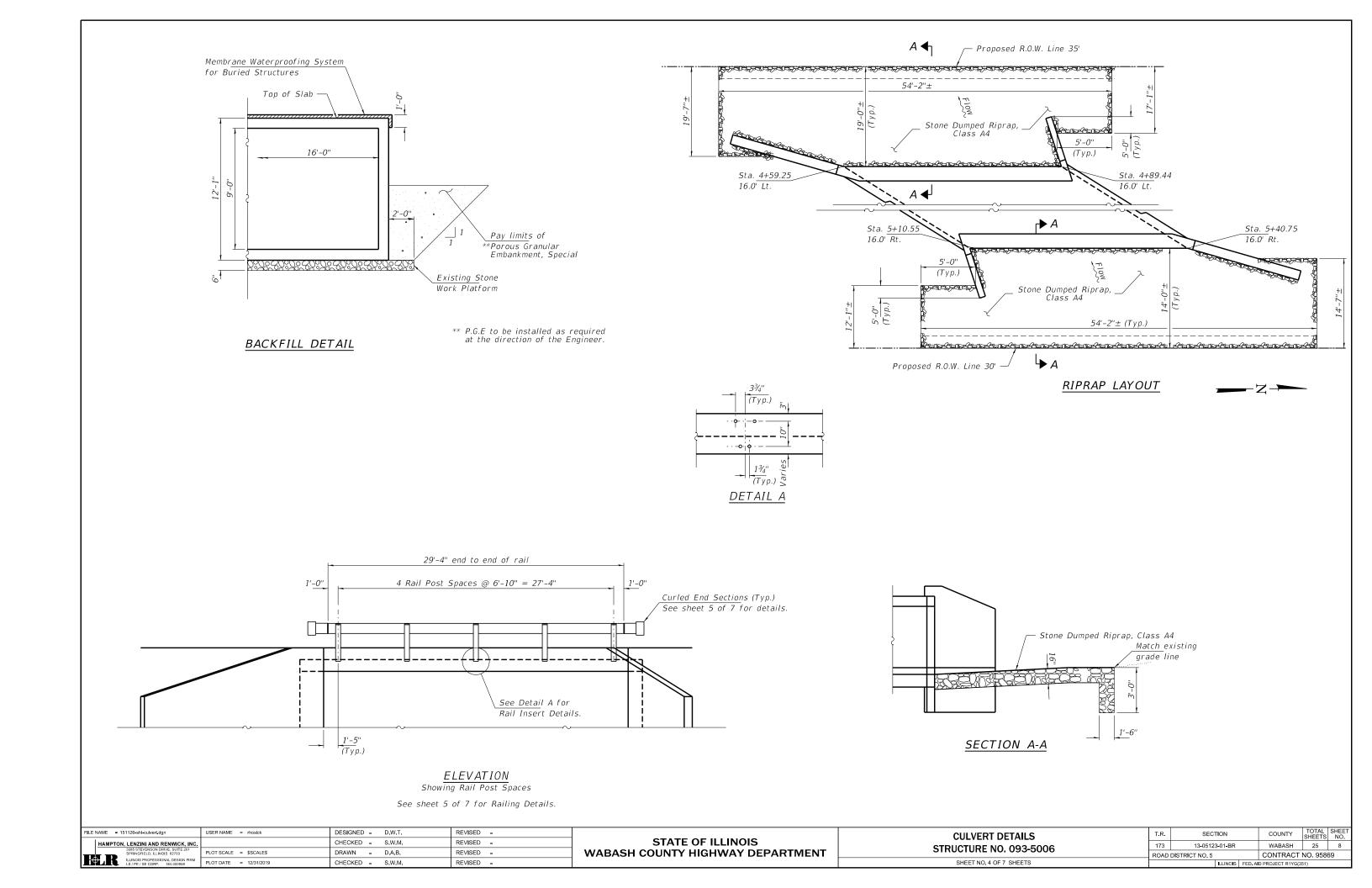


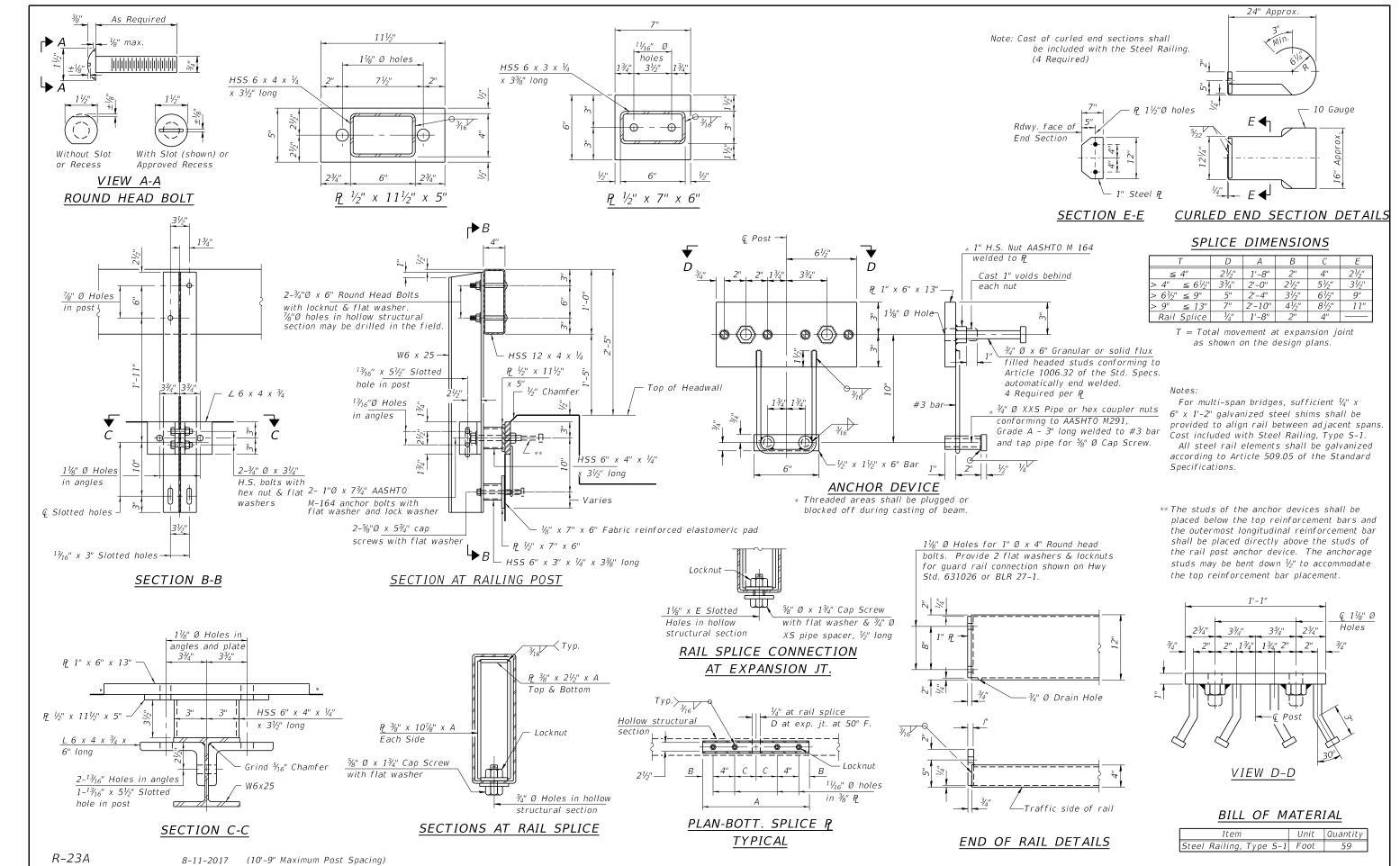
BARS h2(E), h3(E) & h4(E)

BARS h5(E), h6(E) & h7(E)

Notes: For Bill of Material and reinforcement bars summary see sheet 2 of 7. B.F. denotes Back Face and F.F. denotes Front Face.

CULVERT DETAILS	T.R.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
TRUCTURE NO. 093-5006	173	13-05123-01-BR	-05123-01-BR		25	7
11(00101)E 1(0: 033-3000	ROAD	DISTRICT NO. 5		CONTRACT	NO. 958	69
SHEET NO. 3 OF 7 SHEETS		ILLINOIS	FED. All	D PROJECT R1YG(35	51)	





USER NAME = rhosick DESIGNED - D.W.T. REVISED -SECTION COUNTY STEEL RAILING, TYPE S-1 **STATE OF ILLINOIS** HAMPTON, LENZINI AND RENWICK, INC CHECKED - S.W.M REVISED -173 13-05123-01-BF WARASH 25 9 **STRUCTURE NO. 093-5006** DRAWN - D.A.B. REVISED -WABASH COUNTY HIGHWAY DEPARTMENT ROAD DISTRICT NO. 5 CONTRACT NO. 95869 ILLINOIS PRI SHEET NO. 5 OF 7 SHEETS PLOT DATE = 12/31/2019 CHECKED - S.W.M

Bi	ridae	F	วน	nd	at	ion Boring	Loa			
Project: <u>H-13279</u>			-							
Section: <u>13-05123-00-BR</u>							Bored by			
Structure: County: Wabash							hecked By			
Boring No: 1		ç		_		Surface Water Ele	v	5	T .	
Station:		Elevation		tsf	%	Ground Water Elev During Drilling	372.7	Elevation	tsf	1%
Offset:		Ele	z	9	3	Upon Completion	382.7	Ele	z 3	×
Ground Surface	383.7	0				sand (continued)		_		T
F" of Topsoil Brown Silty CLAY (A-6) v	vith								1	
pebbles		_	8	2.2B	21			-2 <del>5</del>	14	17
					П					
				2.2B	20			_	10	19
		-5	6	2.28	20			_	]	10
¥		-						_	1	
		_	6	1.2B	24			-30	20	16
								_	1	
		- <u>10</u>	5	1.3B	20			_	1 1	
[3	372.7	<del>-10</del>		Ι.	П			-35		
Gray SAND (A-2-4) with			5		18				23	11
			5		10			-35	20	+-
									1	
		<u>–15</u>	3		21				1	
								_		
			12		18			-40	29	15
									-	
			16		14			_	1	
		<u>-20</u>	10	-	1.77			_		
		_						_		
N = Standard Penetra	tion Tes			u-U		nfined Compressive	B = Bul			
N = Standard Penetra Blows per foot to dri Split Spoon Sampler 1 a 140 lbs. hammer fa	ve 2" ( 2" with	D.D.		-Wa	ter	in tons/sq.ft. Content-percentag ven dry weight—%	S = She e E = Esti P = Per	mate	d Value	e

Brid	ge Foundation Boring	Log				
	ge <u>Co. Rd 650 E</u>					
Structure: County: Wabash		Bored by: <u>B. Schwartz</u> Checked By: <u>T. Holcomb</u>				
Boring No: 1 Station: Offset:	Surface Water Ele Ground Water Ele During Drilling > Upon Completion	372.7 og s				
sand (continued)	45 32 15 sand (continued)					
		- <del>70</del> 16 20				
		32 2				
	End of Boring @	303.7 <u>-80</u> 40 1:				
	<u>-60</u> 18 18					
		<u>-85</u>				
N = Standard Penetration Blows per foot to drive 2 Split Spoon Sampler 12" w a 140 lbs. hammer falling	?" O.D. Strength in tons/sq.ft.	S = Shear Failure				

### BORING 1

FILE NAME = 1	151126-sht-culvert.dgn	USER NAME = rhosick	DESIGNED - D.W.T.	REVISED -	CTATE OF ILLINOIS	BORINGS	T.R.	SECTION	COUNTY	TOTAL SHEET NO.
117.1111 101	N, LENZINI AND RENWICK, INC. 3086 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = \$SCALE\$	DRAWN - D.A.B.	REVISED -	STATE OF ILLINOIS WABASH COUNTY HIGHWAY DEPARTMENT	STRUCTURE NO. 093-5006	173	13-05123-01-BR DISTRICT NO. 5	WABASH CONTRACT	25 10
HR	ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 12/31/2019	CHECKED - S.W.M.	REVISED -		SHEET NO. 6 OF 7 SHEETS	ROADE	ILLINOIS FED. A	AID PROJECT R1YG	(351)

Bridge	F	ou	ind	at	ion Boring L	og			
Project: <u>H-13279</u> Bridge				-			ite: 3/	17/20	14
Section: <u>13-05123-00-B</u> R Station Structure:						Bored			
County: <u>Wabash</u>					CI	necked			
Boring No: 2	no		4		Surface Water Elev		. L	4	T
Station:	Elevation		tsf	24	Ground Water Elev. During Drilling	373.9	Elevation	1	8
Jilset.	Ele	z	00	3	Upon Completion	383.9	Ele	z	3
round Surface 384.9	0		-		sand (continued)	40000			+
of Topsoil rown Silty CLAY (A-6) with									
ebbles	_	5	1.7B	19			-25	4 -	- 8
									1
		6	1.7B	24			-	17	1
	-5	0	1.78	21			_		+
<b>₩</b>	_						_		
		9	2.3B	23			-30	23	1
							_		
	-10	8	1.4B	20					
373.9	-10			Н					
Gray SAND (A-2-4) with gravel	_	_	_						+
	_	2		22			-35	29	1
	_								1
	-15	1		14					
	_								
	_	15		13			-40	37	18
			$\vdash$				-40		+
		_	_						1
*	-20	16		11			_		
								1	- 1

314.9 _ 701 -	ntz_nb_
Section: 13-05123-00-BR Structure:         Station         Bored by: B. Schwa           County: Wabash         Checked By: T. Holcon           Boring No: 2 Station:         Surface Water Elev. Ground Water Elev. During Drilling         373.9 Upon Completion 383.9           Sand (continued)         45 40 19 sand (continued)         314.9 -70 29	rtz nb
County: Wabash         Checked By: I. Holcon           Boring No: 2         5           Station: Offset: O	18
Station:	18
sand (continued) 45 40 19 sand (continued)	18
sand (continued) 45 40 19 sand (continued)	}   ≥
314.3 _ 70	+
314.3 _ 70	
	-
End of Boring ◎ -70.0'	
30 19	
3	
-75 -75 -75 -75 -75 -75 -75 -75 -75 -75	
-60 20 - 12	
7 1 1 7 1	
-85	
-65 11	
	- 1

## BORING 2

FILE NAME = 151126-sht-culvert.dgn USE		USER NAME = rhosick	DESIGNED - D.W.T.	REVISED -	CTATE OF HAINOIC	BORINGS	T.R.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.	
HAMP	AMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -	STATE OF ILLINOIS	STRUCTURE NO. 093-5006	173	13-05123-01-BR	WABASH	25 11	
	3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = \$SCALE\$	DRAWN - D.A.B.	REVISED -	WABASH COUNTY HIGHWAY DEPARTMENT	31KUCTUKE NO. 093-3000		ROAD DISTRICT NO. 5		CONTRACT NO. 95869	
H	LILINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959 PLOT DATE = 12/31/2019		CHECKED - S.W.M.	REVISED -		SHEET NO.7 OF 7 SHEETS	ILLINOIS FE		AID PROJECT R1YG	G(351)	

