STATE OF ILLINOIS INDEX OF SHEETS DESCRIPTION SHEET NO. DEPARTMENT OF TRANSPORTATION COVER SHEET GENERAL NOTES DIVISION OF HIGHWAYS SUMMARY OF QUANTITIES 3-9 SCHEDULE OF QUANTITIES 10-11 TYPICAL SECTIONS 12-13 ALIGNMENTS, TIES, & BENCHMARKS 14

STAGE I TRAFFIC

STAGE II TRAFFIC

PLAN SHEET 1 PROFILE SHEET 1

PLAN SHEET 2 PROFILE SHEET 2

PLAN SHEET 3

PROFILE SHEET 3

BRIDGE: GENERAL DATA

BRIDGE: SUPERSTRUCTURE

BRIDGE: DIAPHRAGM DETAILS BRIDGE: FRAMING PLAN BRIDGE: PPC I-BEAM SPAN 1& 3

BRIDGE: PPC I-BEAM SPAN 2

BRIDGE: WEST ABUTMENT

BRIDGE: EAST ABUTMENT

BRIDGE: PIER NO. 1 & 2

BRIDGE: SOIL BORINGS

STREAM CROSS SECTIONS

CROSS SECTIONS

EROSION PROTECTION DETAILS

TEMP. BRIDGE TRAFFIC SIGNAL LOOP DETAIL SHEET

BRIDGE APPROACH SHOULDER PAVEMENT DRAIN DETAIL RURAL ENTRANCE & MAILBOX TURNOUT DETAIL

STORMWATER POLLUTION PREVENTION PLAN

BRIDGE: GENERAL PLAN AND ELEVATION

BRIDGE: STAGE CONSTRUCTION DETAILS

BRIDGE: TEMPORARY CONCRETE BARRIER

BRIDGE: PPC I-BEAM DETAILS SPAN 1 & 3

BRIDGE: BAR SPLICER ASSEMBLY DETAILS

701006-03

701011-02

701201-03

701301-03

701306-02

701311-03

701321-10

701326-03

701901-01

704001-06

780001-02

781001-03

886001-01

BRIDGE: METAL SHELL PILE DETAILS

ILLINOIS DEPTARTMENT OF TRANSPORTATION STANDARD DRAWINGS

630301-05

631031-02

635006-03

635011-02

666001-01

701001-02

BRIDGE: PPC I-BEAM DETAILS SPAN 2

BRIDGE: CONCRETE PARAPET SLIPFORMING OPTION

BRIDGE: TOP OF SLAB ELEVATIONS

BRIDGE: SUPERSTRUCTURE DETAILS BRIDGE: BRIDGE APPROACH SLAB

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61-62

63-71

72-73

482006-03

515001-03

542401-01

542521-02

609001-05

630001-08

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD

CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS

PROJECT ENGINEER: JOHN NEGANGARD (217) 782-6990

PROJECT MANAGER: VICTOR YOUNG (217) 557–7897

ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT

ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

CONTRACT NO. 72A88

001004-02

280001-05

420401-0B

482001-02

000001-05

001006

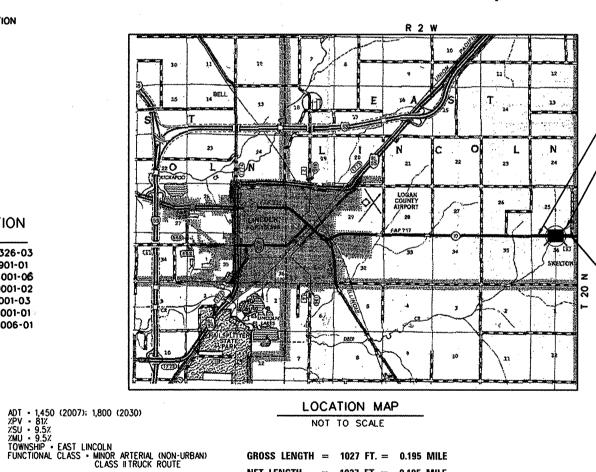
28-30

31-35

PLANS FOR PROPOSED BRIDGE REPLACEMENT

F.A.P. ROUTE 717 (IL 10) SECTION 109B-3 **LOGAN COUNTY** DEER CREEK, 4.5 MILES EAST OF IL 121 C-96-535-07

PROJECT: ACBRF-0717 (032)



PROPOSED PROJECT BEGINS STA. 301-87

PROPOSED INTEGRAL ABUTMENT P.P.C. I-BEAMS (COMPOSITE) 170'-0" BK-BK ABUTMENTS, 39'-2" O. TO O. DECK WIDTH F SHAPE PARAPETS 10° SKEW PROPOSED STR. NO. 054-0514 EXISTING STR. NO. 054-0012

PROPOSED PROJECT ENDS STA. 312-14

LOCATION OF SECTION INDICATED THUS: -

109B-3

D-96-516-07

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

COUNTY TOTAL SHEET NO.

LOGAN 73 1

CONTRACT NO. 72A88

Sodemann and Associates, Inc. 340 NORTH NEIL STREET POST OFFICE BOX 557 CHAMPAIGN, ILLINOIS 61824-0557 TEL 217 352-7688 FAX 217 352-7922 ENGINEERING / ANALYSIS / MANAGEMENT

062-059507 REGISTERED PROFESSIONAL ENGINEER

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION ILLINOIS REGISTERED PROFESSIONAL ENGINEER NO. 062-059507

J.U.L.I.E.

1-800-892-0123

OR 811

SODEMANN AND ASSOCIATES, INC.

NOT TO SCALE

GROSS LENGTH = 1027 FT. = 0.195 MILE

NET LENGTH = 1027 FT. = 0.195 MILE

PROPERTY OWNER ACCESS REQUIREMENT

ACCESS MUST BE MAINTAINED TO ALL EXISTING PROPERTIES DURING CONSTRUCTION PER ARTICLE 107.09 UNLESS ARRANGEMENTS ARE MADE IN WRITING BY THE CONTRACTOR WITH THE PROPERTY OWNERS WITH A COPY TO THE ENGINEER FOR SHORT-TERM CLOSURES.

GENERAL NOTES

- 1. THE THICKNESS OF BITUMINOUS MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS.

 DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.
- 2. EXCEPT AS NOTED IN THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- 3. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER OR AN AUTHORIZED SURVEYOR OR ACENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
- SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET OR IN AN UNTILLABLE
 CONDITION. AREAS TO BE SEEDED SHALL BE DETERMINED BY THE ENGINEER AND SEEDED AS SOON AS POSSIBLE.
- 5. FERTILIZER NUTRIENTS SHALL BE APPLIED TO BOTH THE SEEDED AREAS AND THE AREAS COVERED WITH EROSION CONTROL BLANKET.
- 6. ALL SAW CUTS, NECESSARY TO COMPLETE THE WORK DETAILED IN THESE PLANS, SHALL BE INCLUDED IN THE COST FOR THE VARIOUS PAY ITEMS INVOLVED. THE MINIMUM SAW CUT DEPTH IN THE PAVEMENT SHALL BE 1½ "UNLESS OTHERWISE SPECIFIED IN A DETAIL SHOWN IN THE PLANS.
- VINLESS DIRECTED BY THE ENGINEER, PAVEMENT MARKING LINES SHALL NOT BE LAID DIRECTLY OVER A LONGITUDINAL CRACK OR JOINT NOR OVER A TAR OR ASPHALT PAINTED LINE. THE EDGE OF A CENTERLINE OR LANE LINE SHALL BE OFFSET A MINIMUM DISTANCE OF 2" FROM A LONGITUDINAL CRACK OR JOINT. EDGE LINES SHALL BE APPROXIMATELY 2" FROM THE EDGE LINE OF PAVEMENT. SEE SECTION 780 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.
- B. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OUTSIDE
 THE LIMITS OF RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS
 DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN
 THE COST PER CUBIC YARD FOR EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 9. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUB-NUMBER LISTED IN THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
- IO. IN ADDITION TO THE FIELD SURVEYS, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID IN THE WORK.
- II. THE EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION WILL BE REMOVED OR RELOCATED AS DIRECTED BY THE ENGINEER. AFTER THE CONSTRUCTION IS COMPLETED, THE CONTRACTOR WILL REPLACE THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT, AND NO COMPENSATION WILL BE ALLOWED.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE J.U.L.I.E. NUMBER IS 800-892-0123. A MINIMUM OF FORTY-EIGHT HOURS ADVANCE NOTICE IS REQUIRED.
- 13. ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON U.S.G.S. MEAN SEA LEVEL DATUM. ALL STATION AND OFFSET REFERENCES ARE TO THE ROADWAY CENTERLINE UNLESS OTHERWISE NOTED. THE STATE PLANE COORDINATE SYSTEM HAS BEEN USED FOR THE HORIZONTAL CONTROL.
- 14. BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.
- 15. ALL TREES, BRUSH, AND SHRUBS WITHIN THE CONSTRUCTION LIMITS WILL BE REMOVED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. TREES ALONG THE EDGE OF RIGHT OF WAY, OUTSIDE THE CONSTRUCTION LIMITS SHALL BE SAVED IF, IN THE OPINION OF THE ENGINEER, THEY DO NOT INTERFERE WITH CONSTRUCTION OPERATIONS. THE CONTRACTOR WILL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

- 16. THE LOCATION OF BURIED AND ABOVE GROUND UTILITIES ARE APPROXIMATE, AND ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENCINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVE GROUND UTILITY LOCATIONS, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER, SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVE GROUND UTILITIES, REMAINS THE SOLE RESPONSIBILITY OF THE
- 17. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS.
- 18. EXISTING PAVEMENT DAMAGED DUE TO THE CONTRACTOR'S OPERATIONS, AND NOT OTHERWISE NECESSARY TO REPLACE, SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
- 19. ALL SAW CUTS NECESSARY TO COMPLETE THE WORK AS DETAILED IN THESE PLANS. SHALL BE INCLUDED IN THE COST FOR THE VARIOUS PAY ITEMS INVOLVED.
- 20. BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.
- 21. PROTECTIVE COAT SHALL BE APPLIED TO THE SURFACE OF NEW CONCRETE ACCORDING TO SECTION 503 OF THE STANDARD SPECIFICATIONS.

RATES OF APPLICATION

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

HOT MIX ASPHALT MATERIALS (PRIME COAT)
HOT MIX ASPHALT MATERIALS (PRIME COAT)
HOT MIX ASPHALT
AGGREGATE MATERIAL
RIPRAP
NITROGEN FERTILIZER NUTRIENT
PHOSPHOROUS FERTILIZER NUTRIENT
POTASSIUM FERTILIZER NUTRIENT
AGRICULTURAL LIMESTONE
AGGREGATE PRIME COAT

0.00038 TON/SQ. YD. (ON BITUMINOUS)
0.001425 TON/SQ. YD. (ON AGG.)
0.056 TON/SQ. YD. PER 1"
2.05 TONS/CU. YD.
1.5 TONS/CU. YD.
90 LBS./ACRE
90 LBS./ACRE
90 LBS./ACRE
2 TONS/ACRE
0.002 TONS/SQ. YD.

COMMITMENTS

- THE RESIDENT ENGINEER SHALL CONTACT STUDIES & PLANS CONCERNING ANY MAJOR PLAN CHANGES TO MAKE SURE NO PREVIOUS COMMITMENTS (NOT LISTED) WERE MADE AFFECTING THE DESIGN AND TO ALLOW IMPROVEMENT IN THE DESIGN FOR FUTURE PROJECTS.
- 404 PERMIT

MIXTURE REQUIREMENTS

MIXTURE USE(S):	HOT MIX ASPHALT SURFACE COURSE MIX "C", N5O AND TEMPORARY RAMP	LEVELING BINDER (MACHINE METHOD), N50	VAR. DEPTH BINDER	BASE COURSE WIDENING	HMA SHOULDERS
AC/PG:	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 58-22
DESIGN AIR VOIDS	4.0% N DESIGN = 50	4.0% N DESIGN = 50	4.0% N DESIGN = 50	4.0% N DESIGN = 50	2.0% N DESIGN = 30
MIXTURE COMPOSITION	IL 9.5 OR 12.5	IL 9.5 OR 12.5	IL 19.0	IL 19 . 0	BAM
FRICTION AGGREGATE	MIX C	N/A	N/A	N/A	N/A

DISTRICT SIX

EXAMINED Sept 20 09

OPERATIONS ENGINEER

PROGRAM IMPLEMENTATION ENGINEER

EXAMINED November 5 20 09

PROGRAM DEVELOPMENT ENGINEER

USER NAME:

DESIGNED
DRAWN
PLOT SCALE:

CHECKED
REVISED
REVISED
REVISED
REVISED
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

TO STA.

SHEET NO. OF SHEETS STA.

SUMMARY OF QUANTITIES

	LOCATION OF WORK			CONST	RUCTION TYPE CODE	
CODE NO.	TEM	UNIT	80%.FED. 20%.STATE TOTAL QUANTITY	ROADWAY F.A.P. 717 IOOO-2A	STRUCTURE S.N. 054-0514 X081-2A	
20200100	EARTH EXCAVATION	CU YD	4746.4	4746.4		
20200300	EARTH EXCAVATION FOR EROSION CONTROL	CU YD	40	40		
31100100	SUB-BASE GRANULAR MATERIAL, TYPE A	TON	404.6	404.6		
* 20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	173.0		173.0	
25000200	SEEDING, CLASS 2	ACRE	0.85	0.85		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	77	77		
25000500	PHOSPHOROUS FERTILIZER NUTRIENT	POUND	77	77		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	77	77		
25000700	AGRICULTURAL GROUND LIMESTONE	TON	1.7	1.7		
25100115	MULCH, METHOD 2	ACRE	0.85	0.85		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	600.0	600.0		

* SEE SPECIAL PROVISIONS

USER NAME:	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE:	CHECKED -	REVISED -
PLOT DATE:	DATE -	REVISED -

SUMMARY OF QUANTITIES SHEET 1 OF 7											
E:	SHEET	NO.	OF	SHEETS	STA.	TO STA.					

	F.A.P. RTE.	SECT	ION		COUNTY	TOTAL SHEETS	SHEET ND.
I	717	109B	-3		LOGAN	73	3
I					CONTRACT	NO. 72A8	8
I	FED. ROAD DIS	ST. NO.	ILLINOIS	FI	ED, AID PROJEC	T	

SUMMARY OF QUANTITIES

	LOCATION OF WORK			CONST	RUCTION TYPE CODE	
CODE NO.	ITEM	UNIT	80%. FEO. 20%. STATE TOTAL QUANTITY	ROADWAY F.A.P.717 IOOO-2A	STRUCTURE S.N. 054-0514 X081-2A	
* 28000400 28001000	PERIMETER EROSION BARRIER AGGREGATE (EROSION CONTROL)	FOOT TON	600 40	600 40		
28100107	STONE RIPRAP, CLASS A4	SQ YD	3,478.0		3,478.0	
28200200	FILTER FABRIC	SQ YD	3,478.0		3,478.0	
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	927.8	927.8		
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	45.0	45.0		·
* 40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	50.0	50.0		
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	1.5	1.5		
40600300	AGGREGATE (PRIME COAT)	TON	8.0	8.0		
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	89.4	89.4		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	160	160		
40600990	TEMPORARY RAMP	SQ YD	56.0	56.0		
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	1439.0	1439.0		

* SEE SPECIAL PROVISIONS

USER NAME:	DESIGNED -	REVISED -
	DRAWN -	REVISED ~
PLOT SCALE:	CHECKED ~	REVISED -
PLOT DATE:	DATE -	REVISED -

	SUMMAI SI		OF QU T 2 OF		TIES .
SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.

-	F.A.P.	SECT	ION		COUNTY	TOTAL SHEETS	SHEET
-	RTE.	1098	7		LOGAN	73	NO.
	- '!'	1036	-3		CONTRACT	L	8 8
	FED ROAD DIS	CIA NO	ILL INDIS	F	ED AID PROJEC	т	

SUMMARY OF QUANTITIES

	LOCATION OF WORK			CONST	RUCTION TYPE CODE	
CODE NO.	ITEM	UNIT	801.FED. 201.STATE TOTAL QUANTITY	ROADWAY F.A.P. 717 IOOO-2A	STRUCTURE S.N. 054-0514 X081-2A	
40603310 42001430 42001500	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT	TON 3Q YD SQ YD	178.7 48 42.8	178.7 42.8	48	
44000100	PAVEMENT REMOVAL	SQ YD	1009.8	1009.8		
48101200	AGGREGATE SHOULDERS, TYPE B	TON	340.7	340.7		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	139	139		
* 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1.0		1.0	
* 50105220	PIPE CULVERT REMOVAL .	FOOT	24.0	24.0		
50200100	STRUCTURE EXCAVATION	CU YD	500.0		500.0	
50300100	FLOOR DRAINS	EACH	22.0		22.0	
50300225	CONCRETE STRUCTURES	CU YD	178.8		178.8	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	380.2		380.2	
50300260	BRIDGE DECK GROOVING	SQ YD	642.0		642.0	
50300280	CONCRETE ENCASEMENT	CU YD	10.9		10.9	
50300300	PROTECTIVE COAT	SQ YD	823		823	

* SEE SPECIAL PROVISIONS

USER NAME:	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE:	CHECKED -	REVISED -	
PLOT DATE:	DATE ~	REVISED -	

 ,	SUMMAI SI		OF QU		TIES	
SCALE:	SHEET NO.	QF	SHEETS	STA.	TO STA.	

					Rev	<i>.</i>
F.A.P. RTE.	SECT	ION		COUNTY	TOTAL SHEETS	SHEET NO.
717	109B	-3		LOGAN	73	5
				CONTRACT	NO. 72A8	8
FED. ROAD DIS	T. NO.	ILLINDIS	F	ED. AID PROJEC	T	

SUMMARY OF QUANTITIES

	LOCATION OF WORK			CONST	RUCTION TYPE CODE	
CODE NO.	ITEM	UNIT	BOY.FED. 201.STATE TOTAL QUANTITY	ROADWAY F.A.P. 717 IOOO-2A	STRUCTURE S.N. 054-0514 X081-2A	
50400905	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 42 IN.	FOOT	999.0		999.0	
* 50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	106,630		106,630	
50800515	BAR SPLICERS	EACH	897		897	
* 51200958	FURNISHING METAL SHELL PILES 14" x 0.250"	FOOT	1,052.0		1,052.0	
* 51202305	DRIVING PILES	FOOT	1,052.0		1,052.0	
51203200	TEST PILE METAL SHELLS	EACH	4		4	
* 51205200	TEMPORARY SHEET PILING	SQ FT	1,984.0	·	1,984.0	
51500100	NAME PLATES	EACH	1		1	
* 54200643	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 18"	FOOT	62.0	62.0		
* 54215547	METAL END SECTIONS 12"	EACH	4	4		
* 54215553	METAL END SECTIONS 18"	EACH	2	2		
* 59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	93.4		93.4	
* 60105000	PIPE DRAINS, CORRUGATED STEEL OR ALUMINUM ALLOY 12"	FOOT	40	40		

* SEE SPECIAL PROVISIONS

USER NAME:	DESIGNED -	REVISED -
	DRAWN -	REVISED ~
PLOT SCALE:	CHECKED -	REVISED -
PLOT DATE:	DATE -	REVISED ~

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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SHEET	NO.	OF	SHEETS	STA.	TO STA.	

						Rev.			
	F.A.P. RTE.	SEC.	TION		COUNTY	TOTAL SHEETS	SHEET NO.		
	717	1091	3-3		LOGAN	73	6		
	CONTRACT NO. 72A88								
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT									

SUMMARY OF QUANTITIES

		LOCATION OF WORK		CONST	RUCTION TYPE CODE		
	CODE NO.	ITEM	UNIT	904.FED. 204. STATE TOTAL QUANTITY	ROADWAY F.A.P. 717 IOOO-2A	STRUCTURE S.N. 054-0514 X081-2A	
	* 60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	128.0	4	128.0	
4	60900215	TYPE C INLET BOX, STANDARD 609001	EACH FOOT	4 750	4 750		
##	* 63000001 63100085	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	150		
#	* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4		
	* 63200310	GUARDRAIL REMOVAL	FOOT	395.0	395.0		
	* 66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	9	9		
	* 67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	8		
	67100100	MOBILIZATION CAND PROTECTION,	L SUM	1	1		
	* 70100450	TRAFFIC CONTROL STANDARD 701201	L SUM	1	1		
	* 70100460	TRAFFIC CONTROL STANDARD 701306	L SUM	1	1		
	* 70100500	TRAFFIC CONTROL STANDARD 701326	L SUM	1	1		

* SEE SPECIAL PROVISIONS

SPECIALTY ITEMS

USER NAME:	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE:	CHECKED -	REVISED -
PLOT DATE:	DATE -	REVISED ~

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SCALE:	SHEET NO	. OF	SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
717	109B-3		LOGAN	73	7
			CONTRACT	NO. 72A8	8
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SUMMARY OF QUANTITIES

		LOCATION OF WORK		CONST	RUCTION TYPE CODE		
	CODE NO.	ITEM	UNIT	801.FED. 201.STATE TOTAL QUANTITY	ROADWAY F.A.P. 717 IOOO-2A	STRUCTURE S.N. 054-0514 X081-2A	
# # # # #	* 70101205 70103815 * 70106500 70300100 70301000 * 70400100 70400200 78001120 * 78100100 * 78200410 * 78200520 * 78201000 * 78300100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 TRAFFIC CONTROL SURVEILLANCE TEMPORARY BRIDGE TRAFFIC SIGNALS SHORT-TERM PAVEMENT MARKING WORK ZONE PAVEMENT MARKING REMOVAL TEMPORARY CONCRETE BARRIER RELOCATE TEMPORARY CONCRETE BARRIER PAINT PAVEMENT MARKING - LINE 5" RAISED REFLECTIVE PAVEMENT MARKER GUARDRAIL MARKERS, TYPE A BARRIER WALL MARKERS, TYPE B TERMINAL MARKER - DIRECT APPLIED PAVEMENT MARKING REMOVAL	EACH CAL DA EACH FOOT SQ FT FOOT FOOT EACH EACH EACH SQ FT	1 10 1 309 35 737.5 737.5 2,311.0 13 16 6 4 2,061.0	1 10 1 309 35 737.5 737.5 2,311.0 13 16 6 4 2,061.0		
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	13	13		

^{*} SEE SPECIAL PROVISIONS

SPECIALTY MEMS

USER NAME:	DESIGNED ~	REVISED -			SUMMARY OF QUANTITIES		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED ~	STATE OF ILLINOIS		SHEET 6 OF 7		717	I088-3	LOGAN	73	8
PLOT SCALE:	CHECKED -	REVISED ~	DEPARTMENT OF TRANSPORTATION	OTILLE O OT 7			l	1030 3	CONTRACT	NO 7248	-
PLOT DATE:	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS ST	TA. TO STA.	FED. ROAD DIST	. NO. ILLINOIS	FED. AID PROJEC		

SUMMARY OF QUANTITIES

	LOCATION OF WORK		CONSTRUCTION TYPE CODE			
CODE NO.	ITEM	UNIT	BOY. FED. 201. STATE TOTAL QUANTITY	ROADWAY F.A.P. 717 IOOO-2A	STRUCTURE S.N. 054-0514 X081-2A	
* X5080600	MECHANICAL SPLICE RS	EACH	48		48	
* X0324744	REMOVAL OF EXISTING PRECAST CONCRETE UNITS	SQ FT	300.0	300.0		
* X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1	
* X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1		1 .	
X7050167	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGENT	EACH	2	2		
* X7200201	WIDTH RESTRICTION SIGNING	L. SUM	1	1		
* Z0030260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW) TEST LEVEL 3	EACH	2	2		
* Z0030330	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
* Z0073100	TEMPORARY SHORING	EACH	1		1	
* Z0013798	CONSTRUCTION LAYOUT	L SUM	1	0.5	0.5	

* SEE SPECIAL PROVISIONS

USER NAME:	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE:	CHECKED -	REVISED -
PLOT DATE:	DATE ~	REVISED -

	SUMMAI SI		OF QUA		TIES	
SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	

						Re	V .
	F.A.P. RTE.	SEC.	TION		COUNTY	TOTAL SHEETS	SHEET NO.
	717	1091	3-3		LOGAN	73	9
_	CONTRACT NO. 72A88						
	FED. ROAD DIST, NO. ILLINOIS FE				ED. AID PROJE	CT.	

TOTAL SHEET NO.

SCHEDULE OF QUANTITIES

GUARDF	200310			
LOCATION	STATION	TO STATION	FOOT	
RT	305+29	306+52	123	
LT	305+80	306+52	72	
RT	307+78	308+78	100	
LT	307+78	308+78	100	
TOTAL 395				

TEMPORARY CONCRETE BARRIER 70400100					
STAGE	STATION	TO STATION	FOOT		
I	303+27.5	310+65	737.5		
TOTAL 737.5					

RELOCATE TEMPORARY CONCRETE BARRIER 70400200					
STAGE	STATION	TO STATION	FOOT		
II	303+27.5	310+65	737.5		
TOTAL 737.5					

BARRIER WALL MARKERS, TYPE B 78200520						
LOCATION	STATION	TO STATION	EACH			
LT	305+92	307+92	3			
RT	305+87	307+85	3			
TOTAL 6						

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS 63000001						
LOCATION	STATION	TO STATION	FOOT			
LT	303+98.49	305+48.49	150			
RT	303+20.21	305+45.21	225			
LT	308+35.32	310+60.32	225			
RT	308+28.98	309+78.98	150			
TOTAL 750						

REMOVAL OF EXISTING PRECAST CONCRETE UNITS X0324744						
LOCATION	STATION	TO STATION	SQ FT			
LT	306+52	306+72	75			
RT	306+52	306+72	75			
LT	307+58	307+78	75			
RT	307+58	307+78	75			
·	TOTAL 300					

GUARDRAIL MARKERS, TYPE A 78200410						
LOCATION STATION TO STATION EACH						
LT 303+48 305+92 4						
RT	4					
LT	LT 307+92 311+10					
RT 307+85 310+28 4						
TOTAL 16						

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT 63100167							
LOCATION	STATION	TO STATION	EACH				
LT	303+48.49	1					
RT	302+70.21	303+20.21	1				
LT	310+60.32	311+10.32	1				
RT 309+78.98 310+28.98 1							
TOTAL 4							

	BUTT / JOINT RAMP SCHEDULE						
STATION	TO STATION	PAVEMENT WIDTH	DISTANCE	40600982 HOT-MIX ASPHALT SURFACE REMOVAL- BUTT JOINT	40600990 TEMPORARY RAMP		
		(FEET)		(SQ YD)	(SQ YD)		
301+87	301+92	24	5		14		
301+87	302+17	24	30	80			
305+69	305+74	24	5		14		
308+04	308+09	24	5		14		
311+69	312+14	24	30	80			
312+09	312+14	24	5		14		
	TOTALS 160 56						

TRAFFIC BARRIER TERMINAL, TYPE 6 63100085										
LOCATION	STATION	TO STATION	STAGE	EACH						
LT	305+48	305+92	II	1						
RT	305+43	305+87	I	1						
LT	307+92	308+35	II	1						
RT	307+85	308+29	I	1						
		1	TOTAL	4						

TERMINAL MARKERS, DIRECT APPLIED 78201000										
LOCATION	EACH									
LT	303+48	1								
RT	302+70	1								
LT	311+10	1								
RT	310+29	1								
<u>-</u>	TOTAL	4								

			(STRIPING	SCHED	ULE						
STATION TO STATION		LT/RT	70300100 SHORT TERM PAVEMENT MARKING	70301000 WORK ZONE PAVEMENT MARKING REMOVAL			78100100 RAISED REFLECTIVE PAVEMENT MARKER	78300100 PAVEMENT MARKING REMOVAL	78300200 RAISED REFLECTIVE PAVEMENT MARKER REMOVAL			
					WHITE	YELLÓW						
			(FOOT)	(SQ FT)	(FOOT)	(FOOT)	(EACH)	(SQ FT)	(EACH)			
301+87	312+14	-	309	35			13		13			
301+87	312+14	-			1027	257		822				
301+87 312+14 -				1027			1239					
	SUB-TOTALS 2054 257											
	TOTALS			35	2	311	13	2061	13			

PAVEMENT REMOVAL 44000100											
LOCATION	STATION	TO STATION	LENGTH FOOT	WIDTH FOOT	SQ YD						
	305+74	306+72	98	24	261.3						
	307+58	308+04	46	24	122.7						
RT	302+36	306+52	416	4	184.9						
RT	307+78	310+64	286	4	127.1						
RT	303+12	306+52	340	4	151.1						
RT	307+78	311+44	366	4	162.7						
TOTAL 1009.8											

FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS 66600105									
LOCATION STATION EACH									
RT 40′	303+35	1							
RT 69.92′	305+33.21	1							
RT 80′	306+00	1							
RT 80′	307+95	1							
RT 70′	307+95	1							
RT 70′	308+78.75	1							
LT 66.5′	310+32.00	1							
LT 40'	310+87.00	1							
RT 40′	311+15	1							
	TOTAL	9							

TEMPORARY TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT X7050167								
LOCATION	STATION	TO STATION	EACH					
LT	304+98	305+48	1					
LT	309+22.82	309+72.82	1					
TOTAL 2								

USER NAME:	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE:	CHECKED -	REVISED -
PLOT DATE:	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

COURDING OF CHANTITIES 4 OF C	F.A.P. RTE.	SECT	ION		COUNTY	TOTAL SHEETS	SHE
SCHEDULE OF QUANTITIES 1 OF 2	717	109B	-3		LOGAN	73	IC
					CONTRACT	NO. 72A8	8
SHEET NO. OF SHEETS STA. TO STA.	FED, ROAD DIS	ST. NO.	ILLIN0IS	F	ED. AID PROJEC	Т	

SCHEDULE OF QUANTITIES

	SEEDING SCHEDULE												
STATION	TO STATION	LT/RT	AREA	25000200 SEEDING CLASS 2	25000400 NITROGEN FERTILIZER NUTRIENT	25000500 PHOSPHORUS FERTILIZER NUTRIENT	25000600 POTASSIUM FERTILIZER NUTRIENT	25000700 AGRICULTURAL GROUND LIMESTONE	25100115 MULCH METHOD 2				
			(SQ FT)	(ACRE)	(POUND)	(POUND)	(POUND)	(TON)	(ACRE)				
303+35	303+92	LT	1,611	0.04	3.3	3.3	3.3	0.1	0.04				
304+08	302+20	LT	7,411	0.17	15.3	15.3	15.3	0.3	0.17				
303+35	305+95	RT	8,028	0.18	16.6	16.6	16.6	0.4	0.18				
307+82	311+15	LT	9,381	0.22	19.4	19.4	19.4	0.4	0.22				
307+60	311+15	RT	10,478	0.24	21.6	21.6	21.6	0.5	0.24				
		TO	TAL	0.85	76.2	76.2	76.2	1.7	0.85				
		U	ISE	0.85	77	77	77	1.7	0.85				

						DRAINAGE	SCHEDUL	E		
STATION	TO STATION	LT/ RT	OFFSET	50105220 PIPE CULVERT REMOVAL	42001500 PCC BRIDGE APPROACH SHOULDER PAVEMENT	54200643 PIPE CULVERTS, TYPE 1 CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 18"	54215547 METAL END SECTIONS 12"	54215553 METAL END SECTIONS 18"	60105000 PIPE DRAINS CORRUGATED STEEL OR ALUMINUM ALLOY, 12"	60900215 TYPE C INLET BOX, STANDARD 609001
			(FOOT)	(FOOT)	(SQ YD)	(FOOT)	(EACH)	(EACH)	(FOOT)	(EACH)
305+66		LT					1		10	1
305+59		RT					1		10	1
308+19		LT					1		10	1
308+12		RT					1		10	1
303+73	304+27	LT	53			62		2		
305+54	305+78	LT		24						
305+55	305+71	RT			10.7					
305+61	305+77	LT			10.7					
308+01	308+17	RT			10.7					
308+07	308+23	LT			10.7					
				24	42.8	62	4	2	40	4

							PAVIN	G SCHED	ULE						
STATION	TO STATION	LT/ PAVEMENT RT WIDTH	DISTANCE	AREA	40201000 AGGREGATE FOR TEMPORARY ACCESS	40200800 AGGREGATE SURFACE COURSE, TYPE B	48101500 AGGREGATE SHOULDERS, TYPE B, VAR, DEPTH	20201400 SUB-BASE GRANULAR MATERIAL, TYPE A	40600200 BITUMINOUS MATERIALS (PRIME COAT)	40600300 AGGREGATE (PRIME COAT)	35600716 HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	40603080 HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	40600625 LEVELING BINDER (MACHINE METHOD), N50	40603310 HOT- MIX ASPHALT SURFACE COURSE MIX "C", N50	48203100 HOT-MIX ASPHALT SHOULDERS
		(FEET)	(FEET)	(SQ YD)	(TON)	(TON)	(TON)	(TON)	(TON)	(TON)	(SQ YD)	(TON)	(TON)	(TON)	(TON)
PRE-S	STAGE I														
302+36	302+60	RT 5	24	13.3							13.3				1,7
302+60	306+52	RT 6	392	261.3							261.3				32,9
307+78	310+40	RT 6	262	174.7							174.7				22.0
310+40	310+64	RT 5	24	13.3							13.3				1.7
CTACE	T T 0 TTT														
301+87	,II, & III 302+36	RT 4	49	21.8			-				+				2.7
310+64	312+14	RT 4	150	66.7							+				8.4
301+87	303+12	1 T 4	125	55.6							+				7.0
303+12	303+38	LT 5	26	14.4							14.4				1,8
303+38	306+52	LT 6	314	209.3							209.3				26.4
307+78	311+20	LT 6	342	228.0							228.0				28.7
311+20	311+44	LT 5	24	13.3							13.3				1.7
311+44	312+14	LT 4	70	31.1											3.9
301+87	306+52	LT 4	465	206.7			48.6								
307+78	312+14	LT 4	436	193.8			120								
301+87	306+52	RT 4	465	206.7			46.7								
307+78	312+14	RT 4	436	193.8			125.4								
301+87	303+80	24	193	514.7					0,20	1.03			21,72	43.43	
303+80	305+74	36	194	776.0					0.29	1.55		451.62	21.12	73.73	
303+80	305+74	24	194	517.3					0.20	1.03		751,02	21,73	43,46	
308+04	310+70	36	266	1064.0					0.40	2.13		987.35	21:13	15.10	
308+04	310+70	24	266	709.3					0.10	1.42	1	301.00	29.79	59.58	
310+70	312+14	24	144	384.0					0.15	0.77			16.13	32.26	
305+74	306+04	40	30	133.3				201.36							
307+74	308+04	40	30	133.3				203.18							
ENTR	ANCES		1												
305+65	AITOLO	LT			50										
303+00		LT				45									
	_														
				TOTAL	50	45	340.7	404.54	1.51	7.93	927.78	1438.97	89.4	178.7	138.96
				USE	50	45	340.7	404.6	1.5	8.0	927.8	1439	89.4	178.7	139

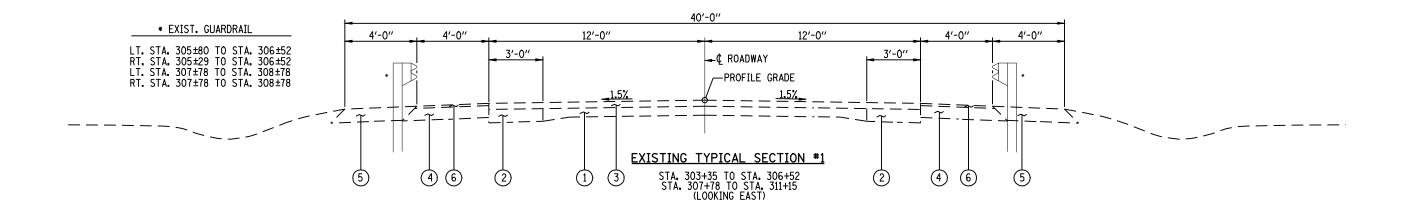
		EAR	TH EXCAV	ATION SCH	HEDULE							
STATION	TO STATION		20200100 EARTH EXCAVATION [CUT]	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	EMBANKMENT [FILL]	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)						
			(CU YD)	(CU YD)	(CU YD)	(CU YD)						
PRI	E-STAGE	. I										
302+36		310+64	38.3	28.7	0	+28.7						
BRIDO	GE OMIS	SION										
305+74		308+04	1843.3	1382.5	297.1	+1085.4						
	STAGE I											
301+87		312+50	323.7	242.8	1017.6	-774.8						
BRIDO	GE OMIS	SION										
305+74		308+04	2312.9	1734.7	195.1	+1539.6						
S	STAGE II	Ī										
301+87		312+50	228.2	171.2	884.0	-712.8						
ENTRANCE	STA. 30	04+00, LT										
303+96	303+96 304+08		0	0	418.9	-418.9						
	TOTALC		4746.4	7550.0	0040.7	.747.0						
	TOTALS 4746.4 3559.9 2812.7 +747.2											
	20400800 FURNISHED EXCAVATION (CU YD) = 0											

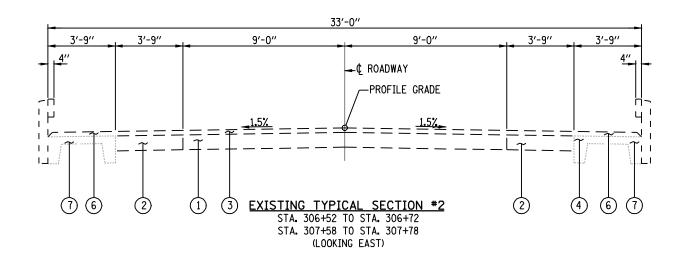
USER NAME:	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE:	CHECKED -	REVISED -
PLOT DATE:	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

COLLE		·- ·	MIARIT	TIEC	0.05.0	F.A.P. RTE.	SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
SCHE	SCHEDULE OF QUANTITIES 2 OF 2					717	109B-3		LOGAN	73	II	
										CONTRACT	NO. 72A8	8
	SHEET NO. OF SHEETS		STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT					



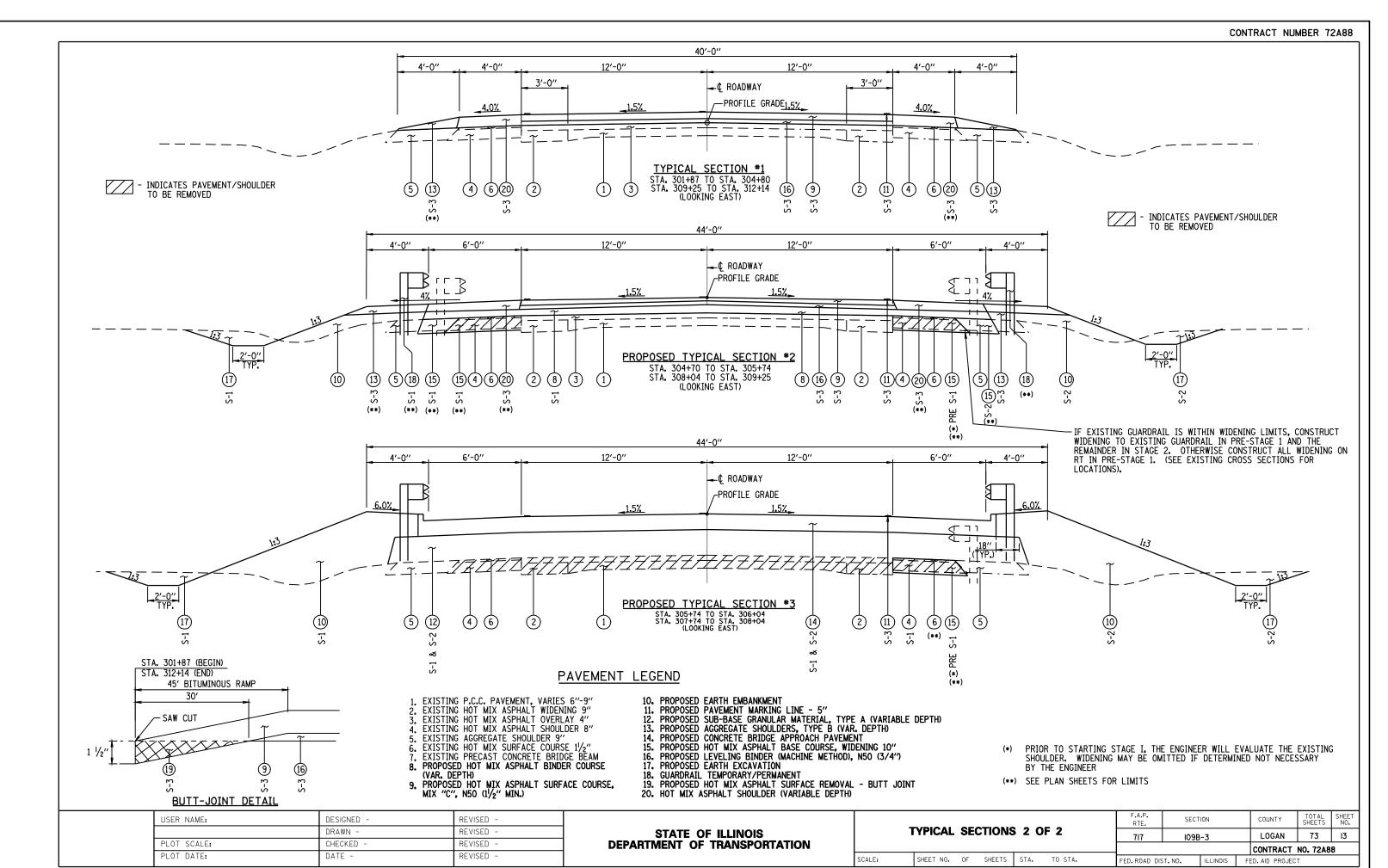


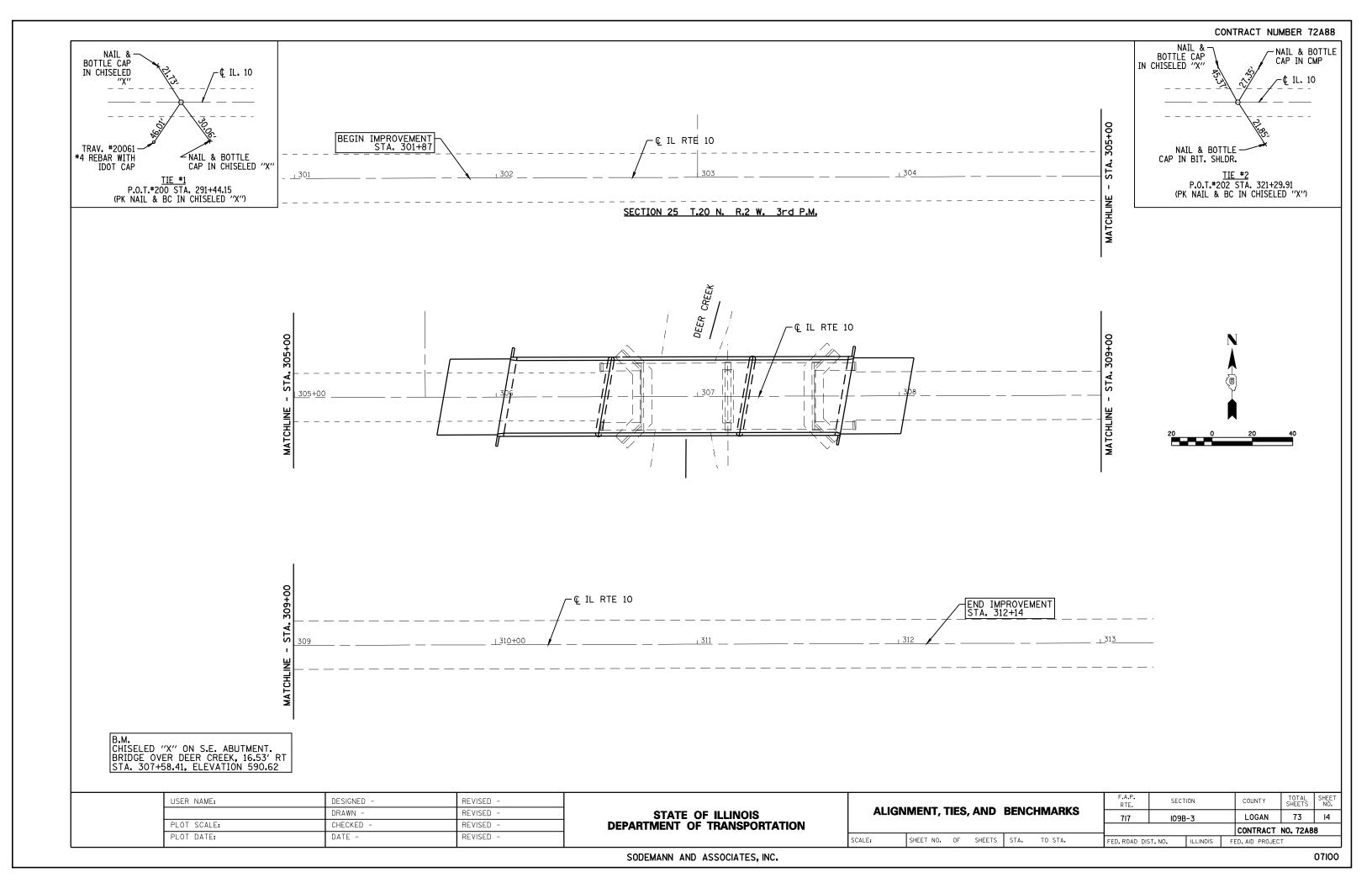


USER NAME:	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE:	CHECKED -	REVISED -
PLOT DATE:	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL OFFICIALS 4 OF S	F.A.P. RTE.	SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL SECTIONS 1 OF 2	717	109B-3			LOGAN	73	12
					CONTRACT	NO. 72A8	8
SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIS	ST. NO.	ILL INOIS	FF	ED. AID PROJECT	Т	





USER NAME:

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PLOT DATE:

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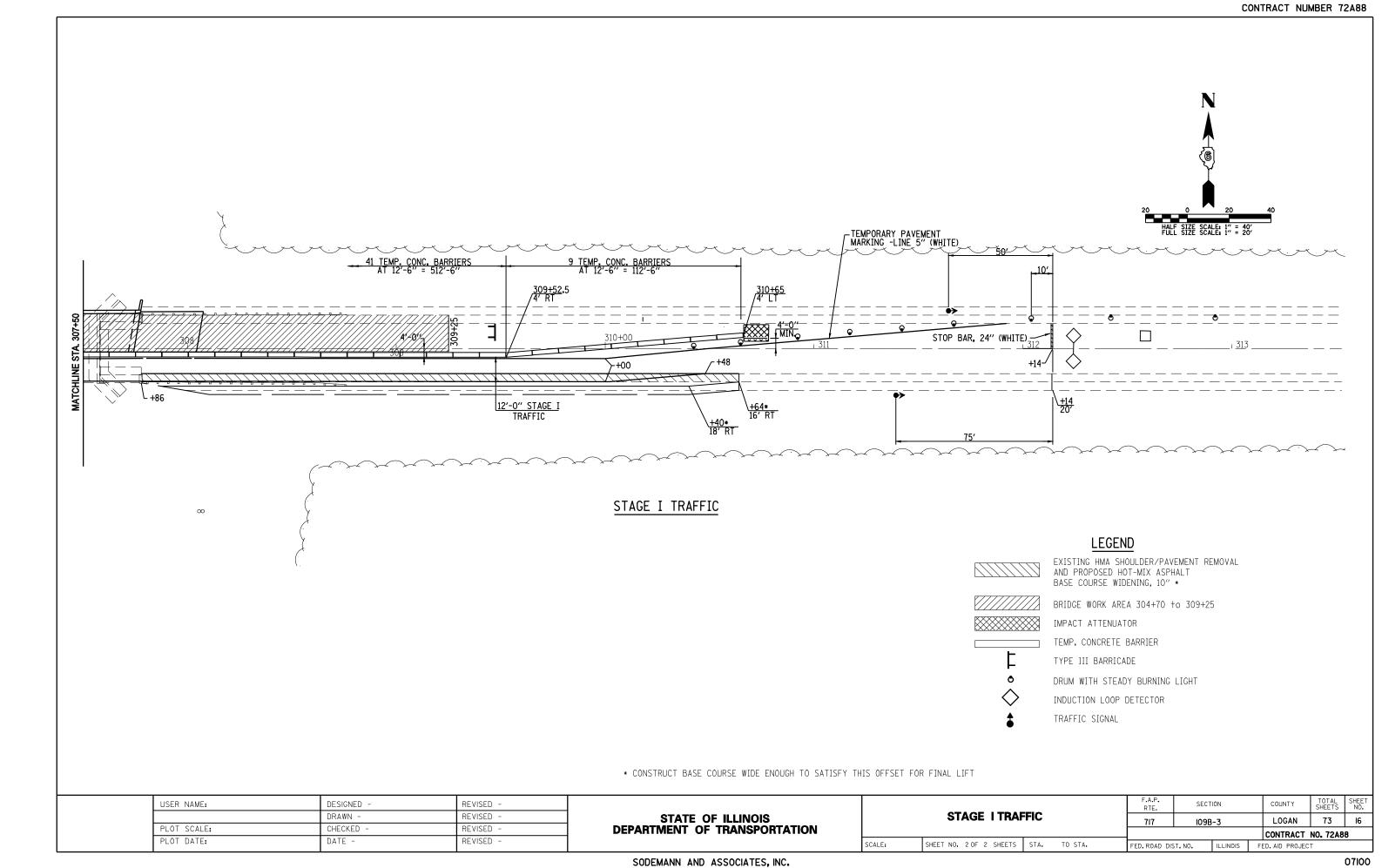
* CONSTRUCT BASE COURSE WIDE ENOUGH TO SATISFY THIS OFFSET FOR FINAL LIFT

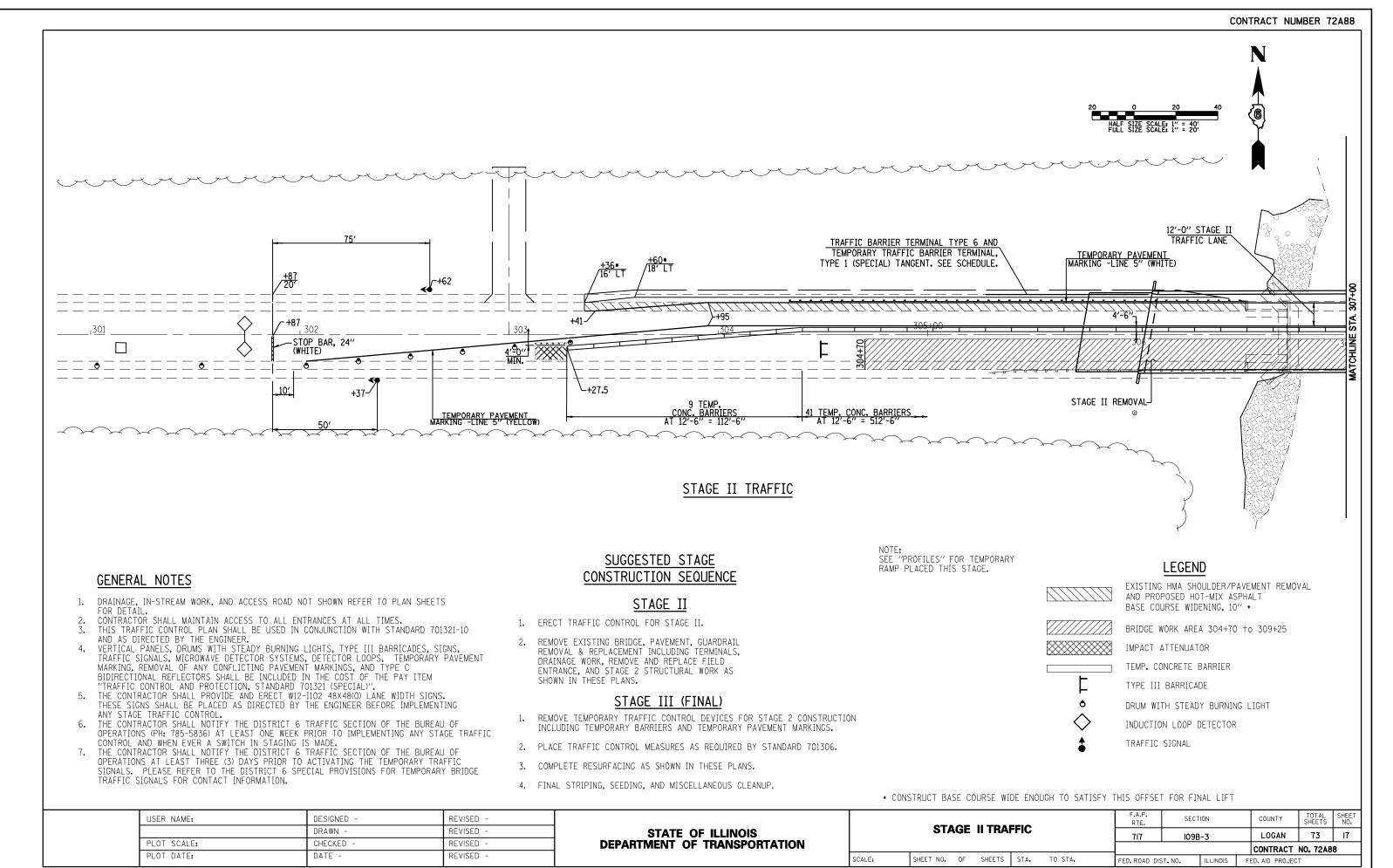
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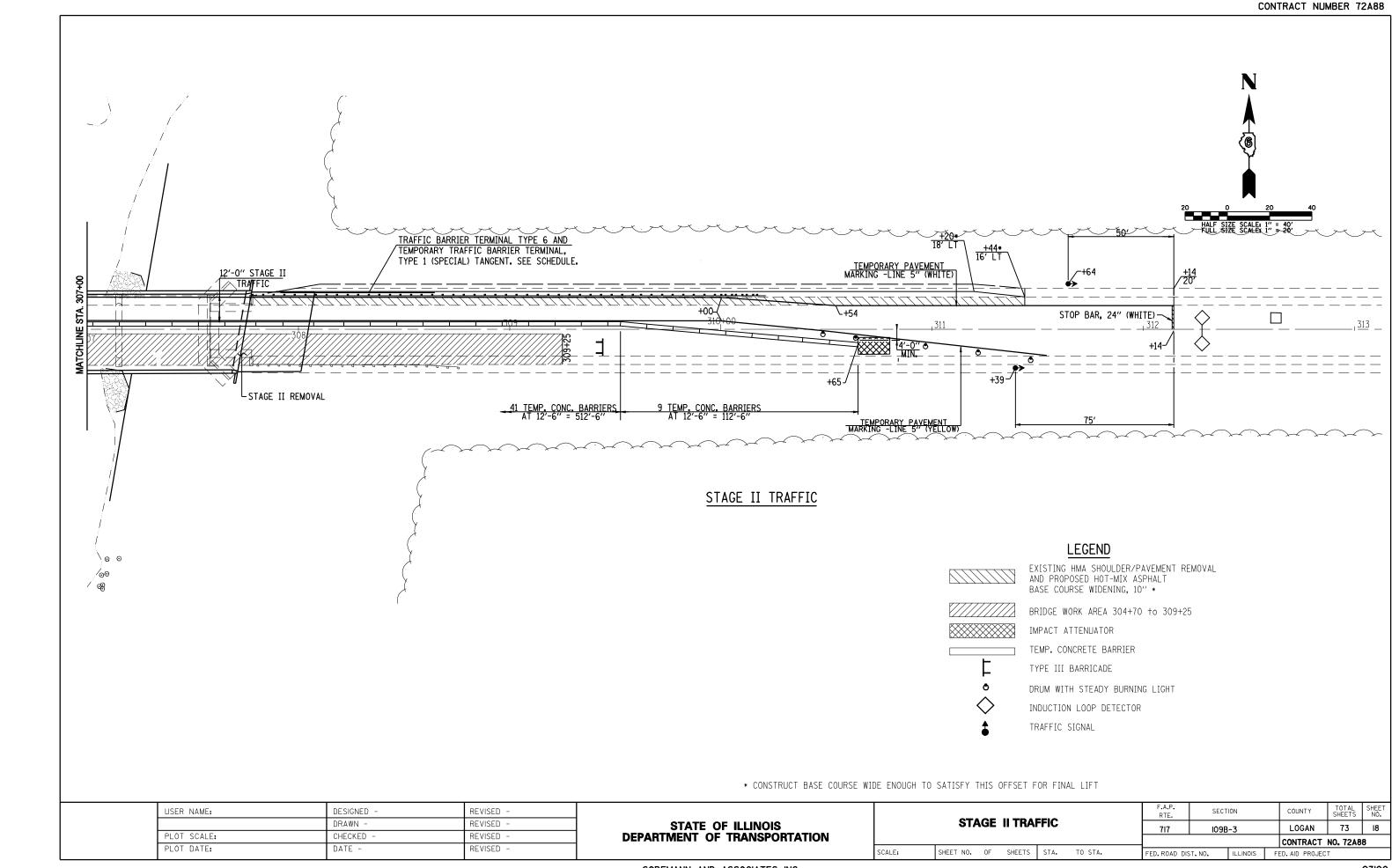
SODEMANN AND ASSOCIATES, INC.

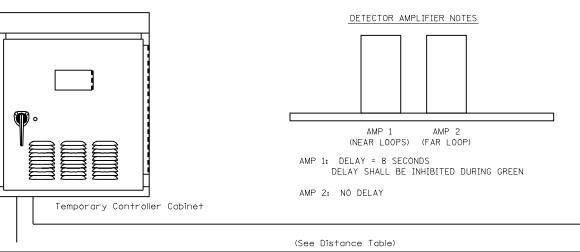
STATE OF ILLINOIS

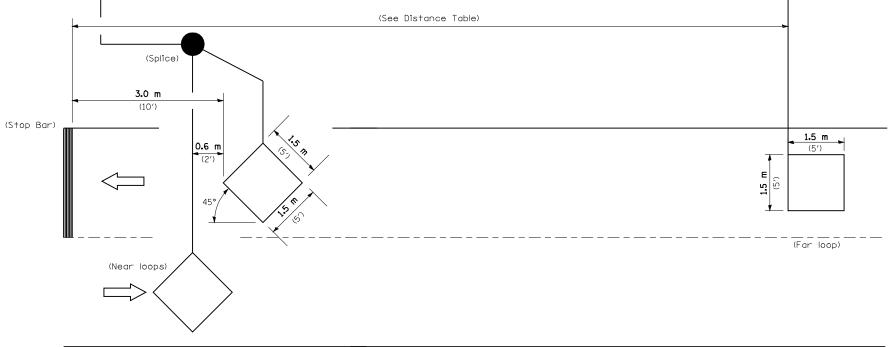
DEPARTMENT OF TRANSPORTATION











NOTE: All loops centered in lane.

INDUCTION LOOP DETECTOR

	USER NAME:	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE:	CHECKED -	REVISED -
8006DET05.DGN	PLOT DATE:	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	 PORARY OP PLAC				SIGNAL SHEET	
SCALE:	SHEET NO.	0F	SHEETS	STA.	TO STA.	

FAR LOOP DISTANCE TABLE

ADVISORY SPEED DISTANCE FROM STOP BAR (FT.)

30 OR LESS

F.A.P. RTE.	SECT	COUNTY	TOTAL SHEETS	SHEET NO.		
717	109B-3			LOGAN	73	19
		CONTRACT	NO. 72A8	8		
FED. ROAD DIS	ST. NO.	ILLIN0IS	ED. AID PROJEC	Т		

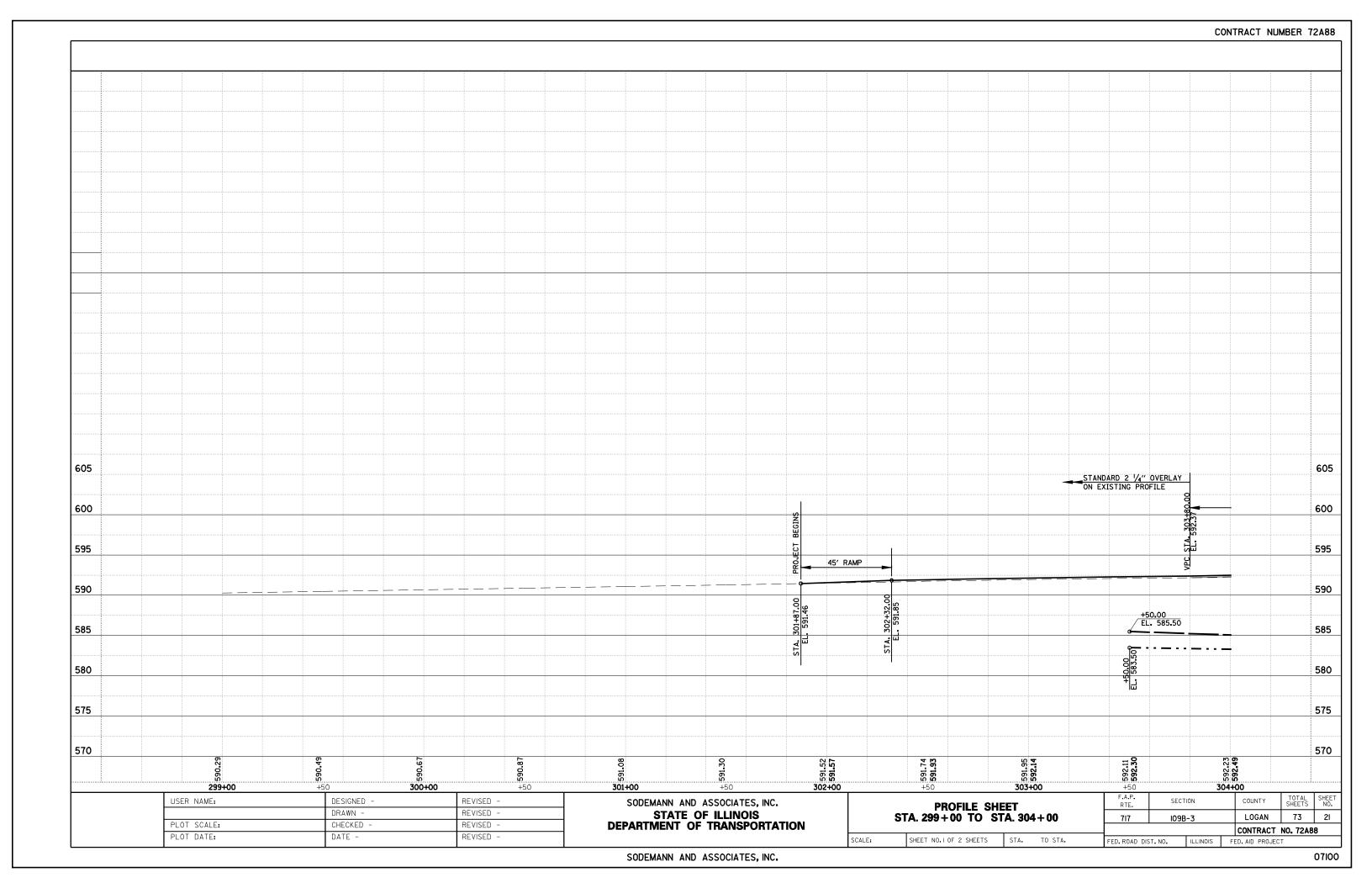
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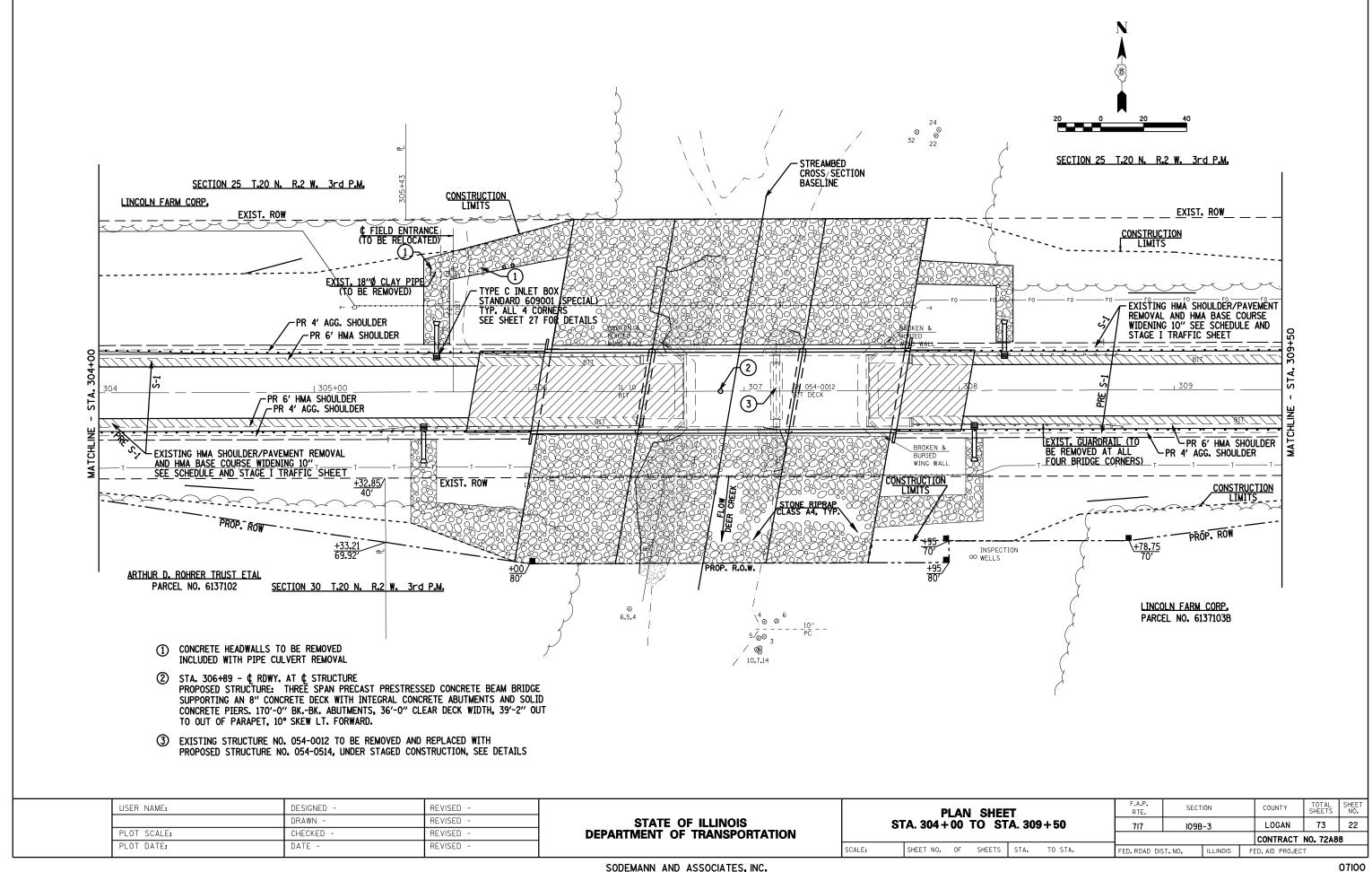
SHEET NO. OF SHEETS STA.

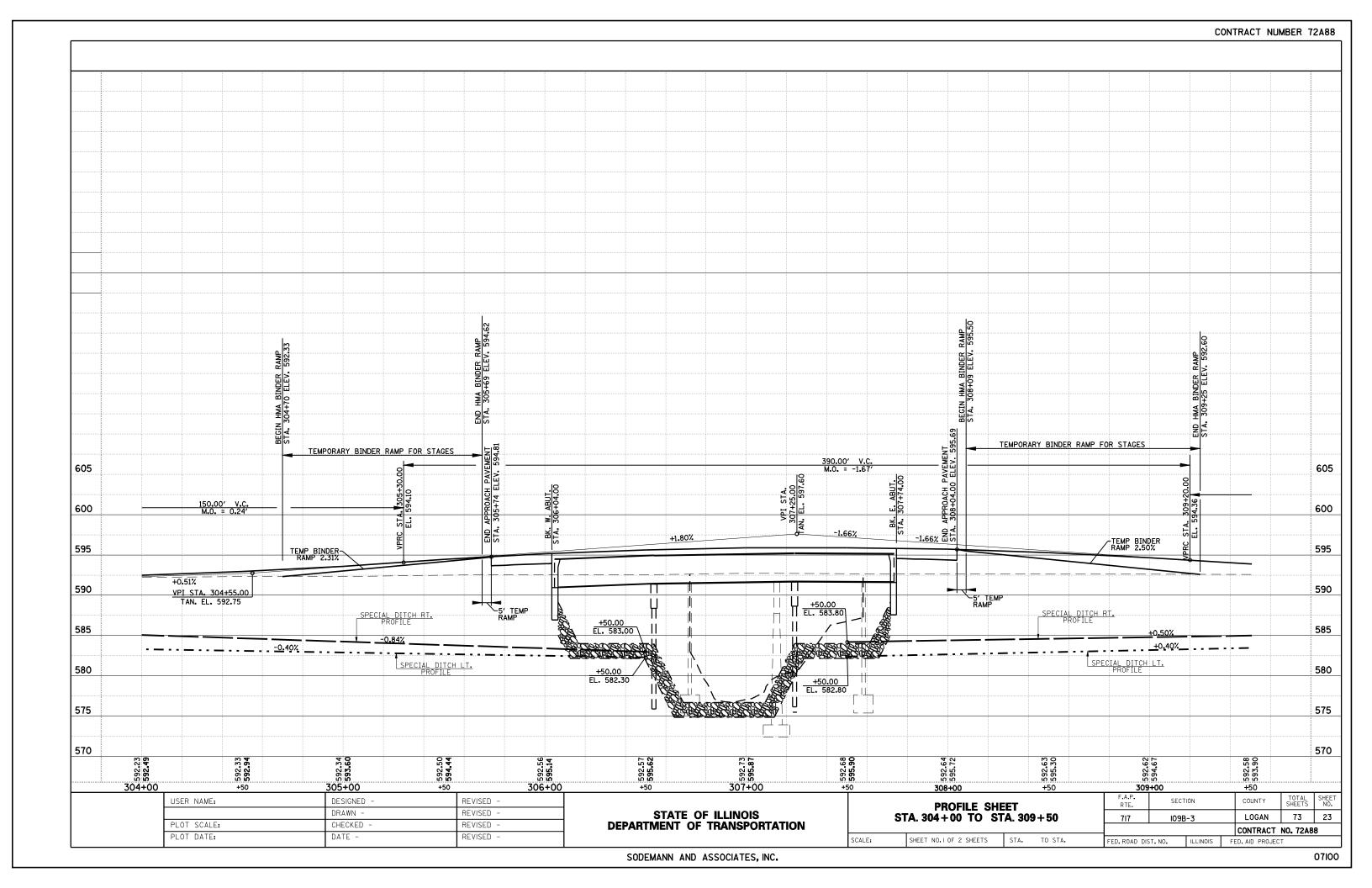
FED. ROAD DIST. NO.

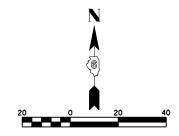
FED. AID PROJECT

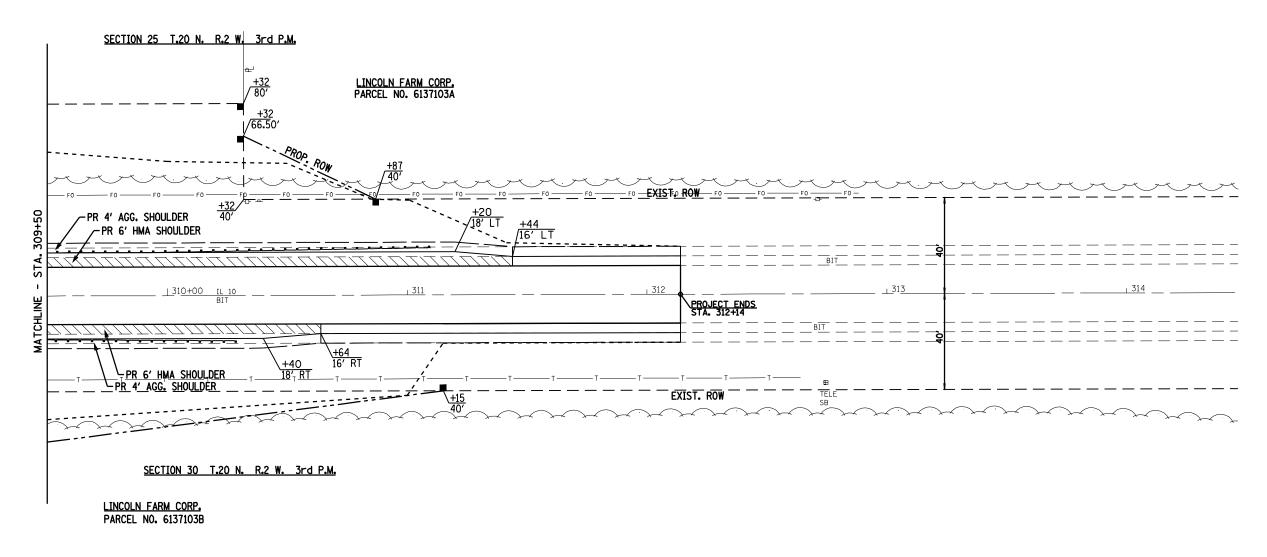
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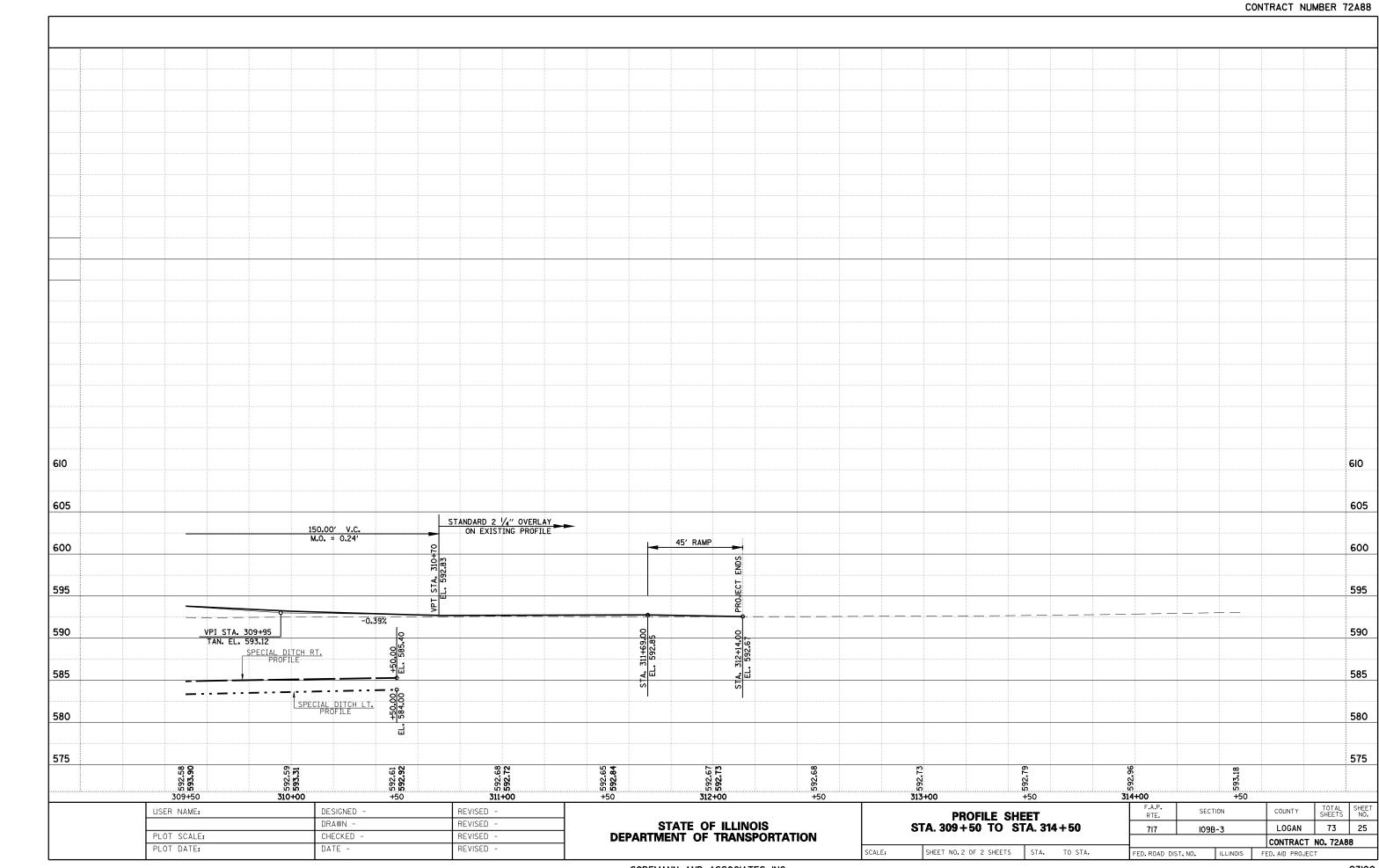
USER NAME:	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE:	CHECKED -	REVISED -
PLOT DATE:	DATE -	REVISED -

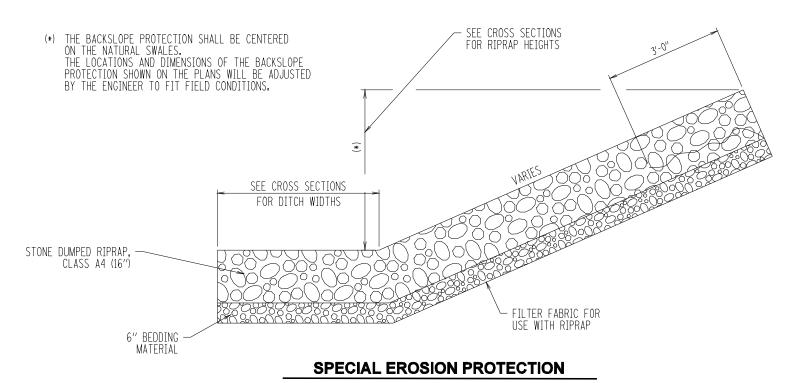
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	SHEET
SIA. 309+50 I	O STA. 314+50

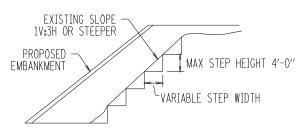
SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
717	109B-3			LOGAN	73	24
				CONTRACT	NO. 72A8	8
FED. ROAD DIS	ED. ROAD DIST. NO. ILLINOIS				Т	





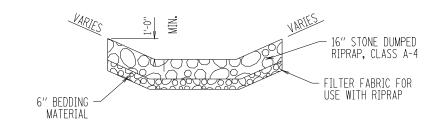
LIMITS OF THE RIPRAP ARE DETERMINED IN THE FIELD BY THE ENGINEER.



EXISTING 1V:3H OR STEEPER SLOPES SHALL BE STEPPED PRIOR TO PLACING NEW EMBANKMENT.

TYPICAL FILLSLOPE STEPPING DETAIL

NOTE: THIS EXCAVATION REQUIRED FOR BENCHING THE PROPOSED EMBANKMENT INTO THE EXISTING SLOPE WILL NOT BE MEASURED FOR PAYMENT BUT SHALL BE CONSIDERED AS A REQUIREMENT AND THE COST INCLUDED IN THE CONTRACT UNIT BID PRICE PER CUBIC YARD FOR "EARTH EXCAVATION" OF THE MATERIAL MEASURED FOR PAYMENT IN ACCORDANCE WITH SECTION 202 OF THE STANDARD SPECIFICATIONS.



TYPICAL STONE DUMPED RIPRAP - DITCH LINING

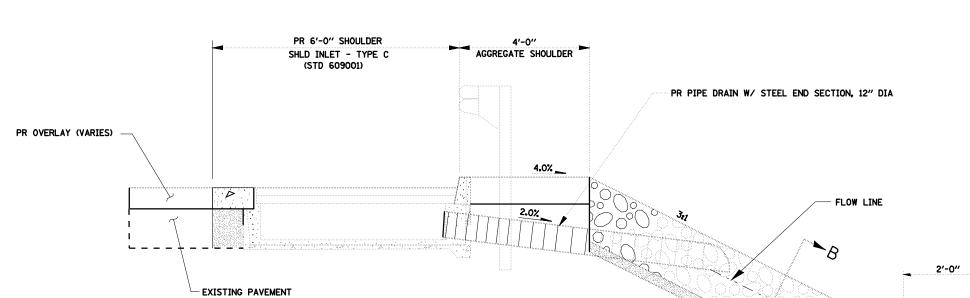
(SEE CROSS SECTIONS FOR LIMITS)

USER NAME:	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE:	CHECKED -	REVISED -
PLOT DATE:	DATE -	REVISED -

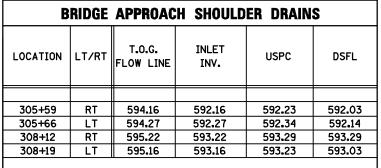
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

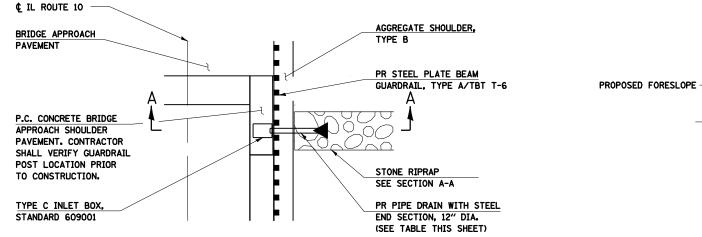
	EROSION PROTECTION DETAILS							F.A.P. SECTION			COUNTY	TOTAL SHEETS
	EROSION PROTECTION DETAILS					717	109B-3		LOGAN	73		
					1						CONTRACT	NO. 72A8
SCALE:	S	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED, ROAD DI	ST. NO.	ILLIN0IS	FI	ED. AID PROJEC	Т

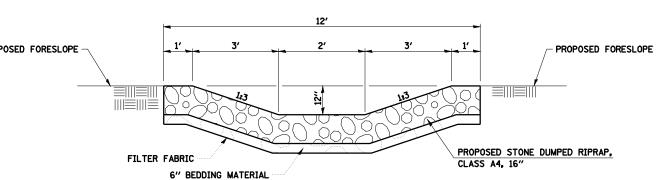
SHEET NO.



SECTION A-A







SECTION B-B

SCALE:

NOTE:

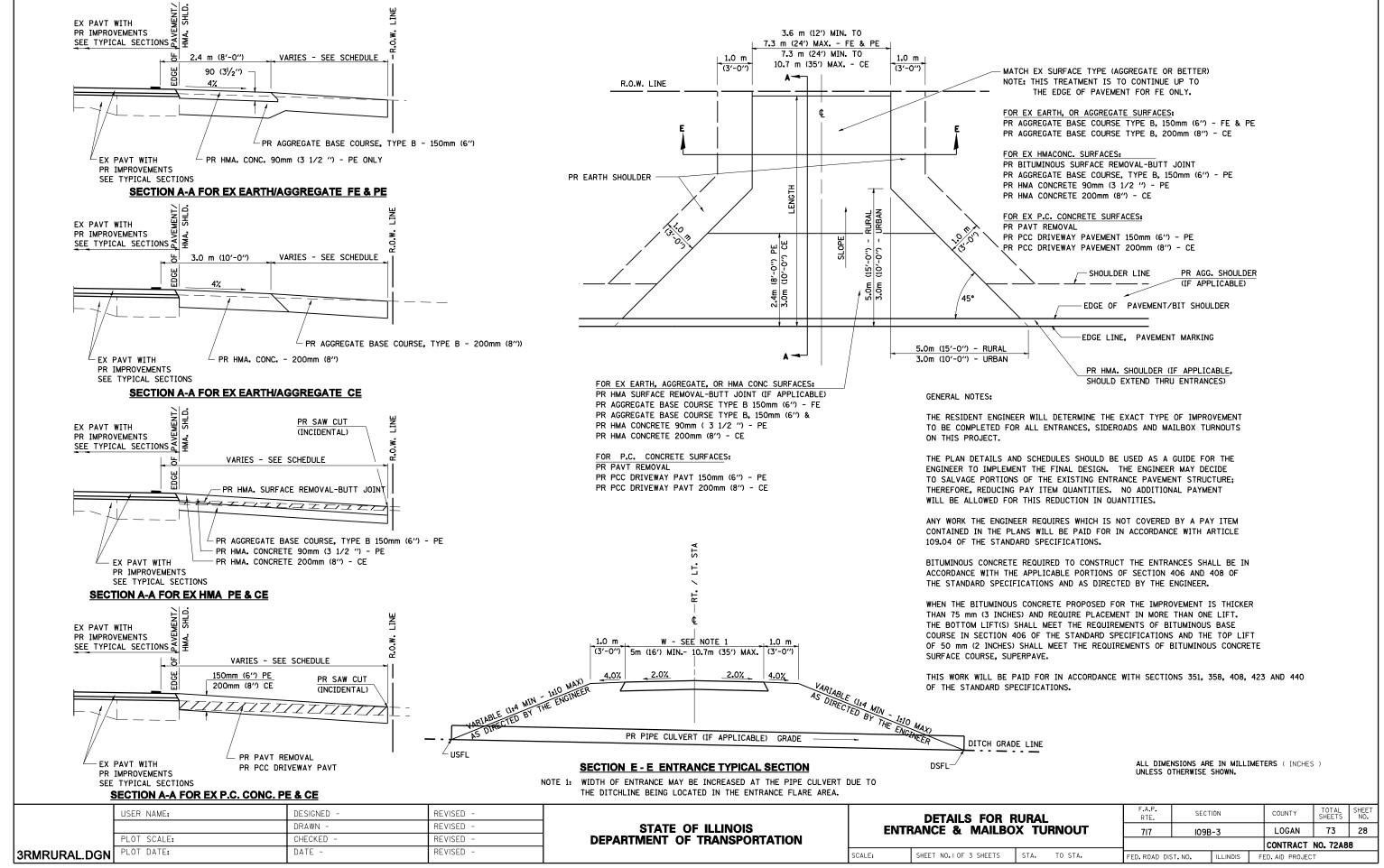
SEE STD 609001 FOR BRIDGE APPROACH SHOULDER DRAIN DETAILS IN ADDITION TO DETAILS ON THIS SHEET.

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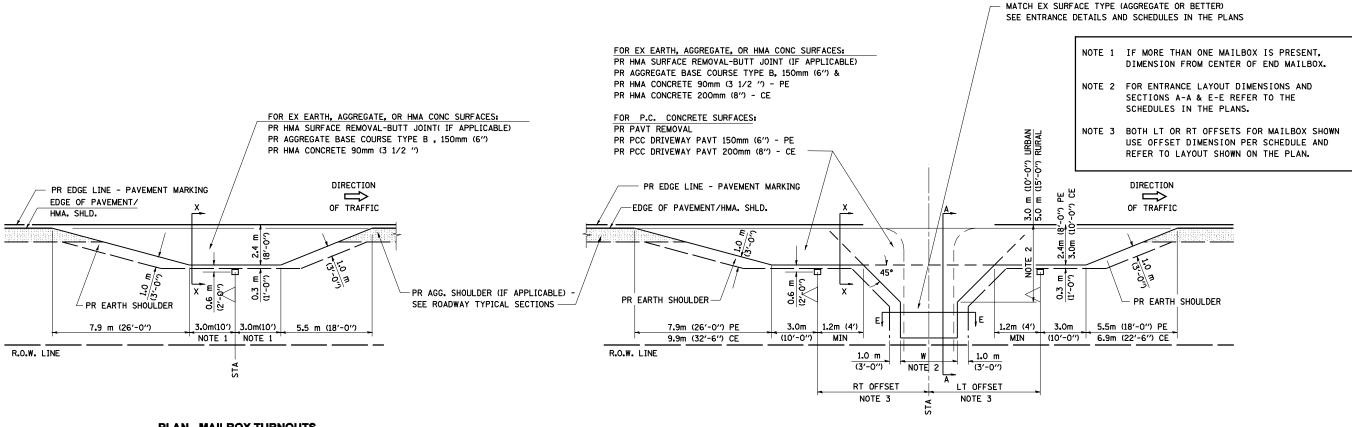
PLAN

BR	IDGE AI	F.A.P. RTE.	SE					
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RTE.	SECT	ION		COUNTY	TOTAL SHEETS	SHEE.
717	109B-3		LOGAN	73	27	
				CONTRACT	NO. 72A8	8
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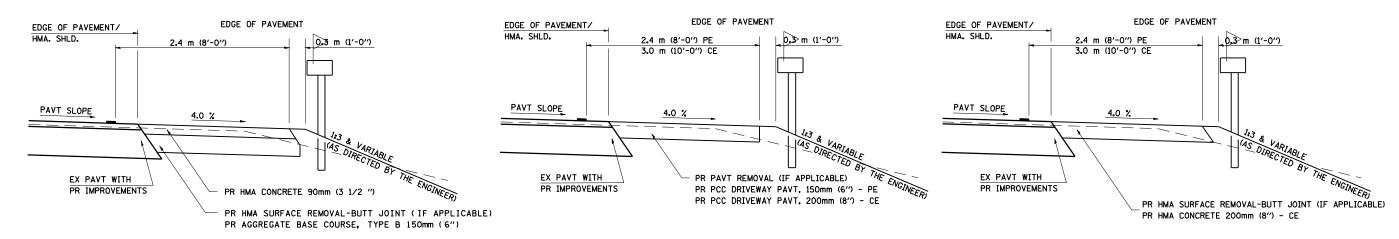
DETAILS OF MAILBOX TURNOUTS



PLAN - MAILBOX TURNOUTS

PLAN - COMBINED MAILBOX TURNOUT WITH TRAILING OR LEADING ENTRANCE

SCALE:



SECTION X-X THRU MAILBOX TURNOUT ALSO APPLIES TO MAILBOX TURNOUTS COMBINED WITH EX EARTH, AGGREGATE, OR HMA PE & FE

SECTION X-X THRU MAILBOX TURNOUT **COMBINED WITH EX CONC PE OR CE**

SECTION X-X THRU MAILBOX TURNOUT COMBINED WITH EX EARTH, AGGREGATE, OR HMA CE

	USER NAME:	DESIGNED -	REVISED -
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	DETAILS FOR R	URAL	F.A.P. RTE.	SECTION I			COUNTY	Ş
ENTF	RANCE & MAILBO	717	109B	-3		LOGAN		
							CONTRACT	NC
	SHEET NO.2 OF 3 SHEETS	STA. TO STA.	FED. ROAD DIS	T. NO.	ILLIN0IS	F	ED. AID PROJEC	T

		CONTRACT NO. 72A88				
717	109B-3	LOGAN	73	29		
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		

	ENTRANCE IMPROVEMENT SCHEDULE FOR RURAL/URBAN "3R" PROJECTS												
LOCATION	TYPE OF ENTRANCE	EX MATERIAL TYPE	ψIDTH	RT OFFSET	LT OFFSET	LENGTH (FROM EDGE LINE TO LIMITS OF	PR BIT. CONC. THICKNESS	BIT. SURF. REM. (V.D.)	PAVEMENT REMOVAL	AGGREGATE BASE COURSE, TYPE B	INCIDENTAL BIT. SURF.	P.C.C. DRIVEWAY PAVEMENT	P.C.C. DRIVEWAY PAVEMENT
(LT/(STA)(+)	(FE/PE/	(EARTH/AGG./				IMPROVEMENT)							
RT)	CE/MB)	BIT./P.C.C)	FT	FT	FT	FT	IN	SO YD	SO YD	TON	TON	SQ YD	SQ YD
LT STA. 304+00	FE	AGGREGATE	16		18	59				45			
													·
TOTAL =													

	USER NAME:	DESIGNED -	REVISED -
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	PLOT SCALE:	CHECKED -	REVISED -
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ENT	SCHEDULES FOR RANCE & MAILBO		
SCALE:	SHEET NO. 3 OF 3 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECT	ION		COUNTY	TOTAL SHEETS	SHEET NO.
717	109B	-3		LOGAN	73	30
CONTRACT NO. 72A88						
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STORM WATER POLLUTION PREVENTION PLAN

Route: F. A. P. Route 717

Marked: IL 10

Section: 109B-3

Project No.:

County: Logan

Contract No.: 72A88

This plan has been prepared to comply with the provision of the NPDES Permit Number __issued by the Illinois Environmental Protection Agency for storm water discharges from construction site activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gathered and evaluated the information submitted. Based on my inquire of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Rejoi 4 Eyren

(Htle)

(1/5/09

(Date)

Note: The above boxed in area will be filled out by IDOT - Construction after the award of the contract to obtain the required NPDES permit.

The following plan was established and included in these plans to direct the Contractor in the placement of temporary erosion control systems and to provide a storm water pollution prevention plan for compliance under NPDES. The Contractor shall abide to all requirements within this plan as part of the contract.

The purpose of this plan is to prevent / minimize siltation within the construction zone and to eliminate sediments from entering and leaving the construction zone by utilizing proper temporary erosion control systems and providing ground cover within a reasonable time.

Certain items, as shown in this plan and referenced by the legend, shall be placed by the Contractor at the beginning of construction. Other items shall be placed by the Contractor as directed by the Engineer on a case by case situation resulting from the Contractor's sequence of activities, time of the year, and expected weather conditions.

The Contractor shall place permanent erosion control systems and seeding within a reasonable amount of time: therefore, reducing the amount of area being open to the possibility of erosion and reducing the amount of temporary erosion control systems and temporary seeding. The Resident Engineer will determine if temporary erosion control systems shown in the plan can be deleted, the size of the proposed ditch checks, the proper method of installation, and if any additional temporary erosion control systems shall be added which are not included in this plan. The Contractor shall perform all work as directed by the Engineer and as shown in special details and in Standard 280001 of the plans.

The special provisions Temporary Seeding, Temporary Erosion Control Seeding, and Temporary Erosion Control additionally supplement this plan.

All disturbed areas having high potential for erosion, as determined by the Engineer. shall be temporarily seeded or permanently seeded by October 1st of each construction year and shall not be reopened until after the winter shutdown period.

SITE DESCRIPTION

Description of Construction Activity:

- 1. The proposed project consists of removal and replacement of the existing bridge spanning Deer Creek on IL 10 approximately 5 miles east of Lincoln in Logan County, and will include reconstruction / resurfacing of approx. 0.2 mi. if IL 10.
- 2. Construction consists of grading, constructing bridges, HMA pavement, widening. HMA resurfacing, placing aggregate shoulders and other miscellaneous work to complete improvements to the proposed roadways.

Description of Intended Sequence of Major Construction Activities Which Will Disturb Earth and Lead to Possible Erosion for Major Portions of the Construction Site:

- Tree removal will be completed to clear approximately 0.3 acres of wooded land.
- 2. Excavation will be completed along the entire length to grade out for proposed roadway ditches and waterways.
- 3. Excavation will also be completed in proposed cut sections to lower the existing ground elevation to meet the proposed roadway grade/vertical alignment.
- 4. Embankment will be completed in fill areas to raise the existing ground elevation to meet the proposed roadway foreslope and backslope.
- 5. Drainage structures will be installed before and/or during the construction of the excavation and embankment to allow proper drainage across the proposed two lane facility.
- 6. Placement, maintenance, removal and proper clean-up of temporary erosion control, such as erosion control fence, hay or straw bale ditch checks, riprap ditch checks, sediment basins, temporary seeding, etc.
- 7. Placement of permanent erosion control, such as riprap ditch lining, riprap stilling basins, riprop dry dams, excelsior blanket, seeding, etc.
- 8. Final grading, paving and other miscellaneous items.

The total drainage area entering and including the construction site is estimated to be approx. 0.005 sq miles in which 0.85 acres will be disturbed by excavation, grading or other activities.

Other Reports, Studies and Plans which Aid in the Development of this Storm Water Pollution

- 1. Estimated run-off coefficients are contained in the project drainage study which were utilized for proposed placement of the temporary erosion control systems.
- 2. Information on the soils within the site was obtained from field reviews which were utilized for proposed placement of the temporary erosion control systems.
- 3. Site maps indicating drainage patterns and approximate slopes were contained in the project design report, USGS drainage maps, project drainage study, and project plan documents were all utilized for proposed placement of the temporary erosion control systems.

Drainage Tributaries Receiving Water from this Construction Site:

SCALE:

1. Deer Creek

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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

STORM WATER POLLUTION	F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHE
PREVENTION PLAN	717	109B-3		LOGAN	73	3
· · · · · · · · · · · · · · · · · · ·				CONTRACT	NO. 72A	88
SHEET NO. 1 OF 4 SHEETS STA. TO STA,	FED. ROAD DI	ST. NO.	ILLINOIS	FED. AID PROJEC	T	

31

TOTAL SHEET NO.

CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROLS

Description of Stabilization Practices at the Beginning of Construction:

- 1. The area between the existing and proposed right-of-way/temporary easement boundaries and limits of the project will be improved and managed for the purposes of controlling erosion within the area, reducing water flow by temporary diversion and minimizing siltation into the construction zone, and establishing vegetative cover which will become permanent vegetation and act as an erosion barrier. Work at the beginning of construction will consist of the following:
 - (a) Areas of existing vegetation (woods and grasslands) outside the proposed construction slope limits shall be identified for preserving and shall be protected from mowing, brush cutting, tree removal and other activities which would be detrimental to their maintenance and development.
 - (b) Dead, diseased, or unsuitable vegetation within the site shall be removed as directed by the Engineer, along with required tree removal.
 - (c) As soon as reasonable access is available (such as trees cleared) to all locations where water drains away from the project, sediment basins, riprap ditch checks, temporary ditch checks, and/or erosion control fence shall be installed as called out in this plan and directed by the Engineer.
 - (d) Bare and sparsely vegetated ground in highly erodable areas as determined by the Engineer shall be temporarily seeded at the beginning of construction where no construction activities are immediately expected as stated in the special provision "Temporary Erosion Control Seeding".
 - (e) Immediately after tree removal is completed in certain areas which are highly erodable areas as determined by the Engineer, the areas shall be temporarily seeded where no construction activities are immediately expected as stated in the special provision *Temporary Erosion Control Seeding*.
 - (f) At locations where a significant amount of water drains into the construction zone from outside areas (adjacent landowners), erosion control fence, temporary ditch checks, or riprap ditch checks will be utilized to locally divert water, reduce flow rates, and collect outside siltation inside the right-of-way line. Erosion control items will not be allowed to be installed to cause flooding to upstream private property which could cause crop damages or other undesireable conditions.
- 2. Establishment of these temporary erosion control measures will have additional benefits to the project. Desirable grass seed will become established in these areas and will spread seeds onto the construction site until permanent seeding/mowing and overseeding can be complete.
- 3. A third benefit of these filter areas is that they will begin to provide a screen and buffer. They will help protect the construction site from winds and excess sun and mitigate construction noise and dust.

Description of Stabilization Practices During Construction:

- During roadway construction, areas outside the construction slope limits as outlined
 previous herein shall be protected from damaging effects of construction. The Contractor
 shall not use this area for staging (except as designated on the plans or directed by the
 Engineer), parking of vehicles or construction equipment, storage of materials, or other
 construction related activities.
 - (a) Within the construction zone, critical areas which have high flows of water as determined by the Engineer shall remain undisturbed until full scale construction is underway to prevent unnecessary soil erosion.
 - (b) Top soil and earth stockpiles shall be temporarily seeded if they are to remain unused for more than fourteen days.
 - (c) As the Contractor constructs a portion of roadway in a fill section, he/she shall follow the following steps as directed by the Engineer:
 - i. Place temporary erosion control systems at locations where water leaves and enters the construction zone ${\color{black}}$
 - ii. Temporary seed highly erodable areas outside the construction slope limits
 - iii. Construct roadside ditches and provide temporary erosion control systems iv. Temporary divert water around proposed culvert locations
 - v. Build necessary embankment at culvert locations and then excavate and place culvert
 - vi. Continue building up the embankment to the proposed grade while at the same time place permanent erosion control such as riprap ditch lining and conduct final shaping to the slopes
 - (d) The Contractor shall immediately follow major earth moving operations with final grading equipment. After the major earth spread operation has moved to a new location, final grading shall be completed within fourteen days. If grading is not completed within fourteen days, all major earth moving operations will be stopped, as directed by the Engineer, until disturbed areas are final graded and seeded.
 - (e) Excavated areas and embankments shall be permanently seeded when final graded. If not, they shall be temporarily seeded as stated in the special provision "Temporary Erosion Control Seeding".

- (f) Construction equipment shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel or pollution run-off in compliance with EPA water quality regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site.
- (g) The Resident Engineer shall inspect the project daily during activities and weekly or after large rains during the winter shutdown period. The project shall additionally be inspected by the Construction Field Engineer on a bi-weekly basis to determine that erosion control efforts are in place and effective and if other control work is necessary.
- (h) Sediment collected during construction by the various temporary erosion control systems shall be disposed of on the site on a regular basis as directed by the Engineer. The cost of this maintenance will be paid for in accordance with Article 109.04 of the Standard Specifications.
- (1) The temporary erosion control systems shall be removed as directed by the Engineer after use is no longer needed or no longer functioning. The costs of this removal shall be included in the unit bid price for the temporary erosion control system. No additional compensation will be allowed.

Description of Structural Practices After Final Grading:

- Temporary erosion control systems shall be left in place with proper maintenance until
 permanent erosion control is in place and working properly and all proposed turf areas
 seeded and established with a proper stand.
- Once permanent erosion control systems as proposed in the plans are functional and established, temporary items shall be removed, cleaned up, and disturbed turf reseeded. Temporary riprap ditch checks will be allowed to remain in place where approved by the Engineer.

Maintenance after Construction:

- 1. Construction is complete after acceptance is received at the final inspection.
- 2. Areas will be inspected on a regular basis by IDOT District 6 Bureau of Operations.
- Maintenance crews will perform regular mowings to aid in keeping weeds down and establishing a good roadside seed stand.
- Maintenance crews will also aid in any ditch lining maintenance or in any drainage problems.
- All maintenance will be conducted at times when weather conditions will not cause site damage.

DOCUMENTATION

- 1. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken in accordance with Section 4.b. shall be made and retained as part of the plan for at least three years after the date of inspection. The report shall be signed in accordance with part VI.G of the general permit.
- 2. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incident of Noncompliance (ION)" report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI.G. of the general permit. The report of noncompliance shall be mailed to the following address:

Illinois Environmental Protection Agency Division of Water Pollution Control 2200 Churchill Road, P.O. Box 19276 Springfield, IL 62794-9276 Attn: Compilance Assurance Section

SCALE:

| USER NAME: | DESIGNED - | REVISED - | | DRAWN - | REVISED - | | PLOT SCALE: | CHECKED - | REVISED - | | PLOT DATE: | DATE - | REVISED - |

STORM WATER POLLUTION PREVENTION PLAN		F.A.P. RTE.	SECT	ION		COUNTY	TOTAL SHEETS	SHEET NO.	
		717	109B	I-3		LOGAN	73	32	
		T					CONTRACT	NO. 72A8	8
:	SHEET NO. 2 OF 4 SHEETS	STA. TO STA.	FED. ROAD DI	ST. NO.	ILL INOIS	F	ED. AID PROJEC	T	

This certification statement is part of the Storm Water Pollution Plan for the project described below in accordance with NPDES Permit No. ILR10 ______, issued by the Illinois Environmental Protection Agency on Protection Agency on ___

 Route:
 F. A. P. Route 717
 Marked:
 IL 10

 Section:
 109B-3
 Project No.:
 County: Logan Contract No.: 72A88

CONTRACTOR CERTIFICATION STATEMENT

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature_____ Date____ Title____ Name of Firm_____ Street Address_____ City, State, Zip____ Phone Number____

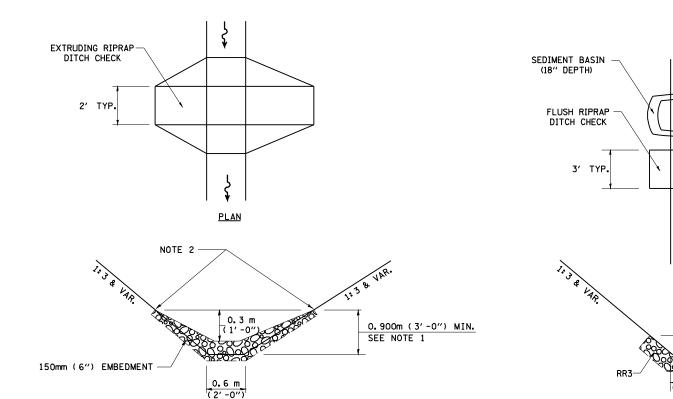
Note: The above boxed in area shall be filled out by the Contractor after the award of the contract to obtain the required NPDES Permit from IEPA. This is a requirement for this contract.

DESIGNED USER NAME: REVISED DRAWN -REVISED PLOT SCALE: CHECKED REVISED -DATE -REVISED SWPPLAN.DGN PLOT DATE:

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** STORM WATER POLLUTION PREVENTION PLAN SHEET NO. 3 OF 4 SHEETS STA. TO STA.

SCALE:

TOTAL SHEETS SHEET NO. SECTION COUNTY 717 LOGAN 73 33 109B-3 CONTRACT NO. 72A88 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



STONE DUMPED RIPRAP DITCH CHECK

(TYPICAL & OPTIONS 1 & 2
AS DIRECTED BY THE ENGINEER)

NOTE 1: RIPRAP SHALL EXTEND FAR ENOUGH UP THE SLOPES TO ALLOW O.3m (1') OVERTOPPING TO AVOID ERODING AROUND THE EDGES OF THE RIPRAP.

NOTE 2: ENDS SHALL BE TIED INTO SLOPES.

LEGEND FOR STORM WATER POLLUTION PREVENTION PLAN

SYMBOL AGGREGATE (EROSION CONTROL) [STONE DUMPED RIPRAP DITCH CHECKS: Height = 0.6m (2')] TEMPORARY DITCH CHECKS INLET PIPE PROTECTION (I&PP) PERIMETER EROSION BARRIER EARTH EXCAVATION FOR EROSION CONTROL (SEDIMENT BASINS) PRESERVE EXISTING TREES, WOODLANDS, AND UNDERSTORY (OUTSIDE CONSTRUCTION LIMITS) ITEM PLACED AT BEGINNING OF * ITEM * CONSTRUCTION (Requirement) ITEM PLACED AS DIRECTED BY ENGINEER (When required by situation) DIRECTION OF OVERLAND FLOW

GENERAL NOTES:

SEEDING, CLASS 2

STONE RIPRAP, CLASS A4

All items shall be constructed as shown on this sheet, on Standard 280001, and as directed by the Engineer.

The symbology on the STORM WATER POLLUTION PREVENTION PLAN sheets does not represent the size or quantity of bales, for number of bales refer to details and notes shown on this sheet and/or as directed by the Engineer.

THE CONTRACTOR SHALL INSTALL DITCH CHECKS AS DIRECTED BY THE ENGINEER. IF THE ENGINEER ELECTS TO UTILIZE FLUSH RIPRAP DITCH CHECKS IN LIEU OF TEMPORARY DITCH CHECKS AS SHOWN ON THE FOLLOWING PLAN SHEETS, THE SPACING SHOULD BE DOUBLED.

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& VAR.

ELEVATION

OPTION 1

(EXTRUDING DITCH CHECK)

RECOMMENDED FOR AREAS
W/ RIPRAP DITCH LINING

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

0

<u>PLAN</u>

ELEVATION

OPTION 2

(FLUSH DITCH CHECK)

RECOMMENDED FOR AREAS W/O RIPRAP DITCH LINING 8' TYP.

(1'-6'') TYP.

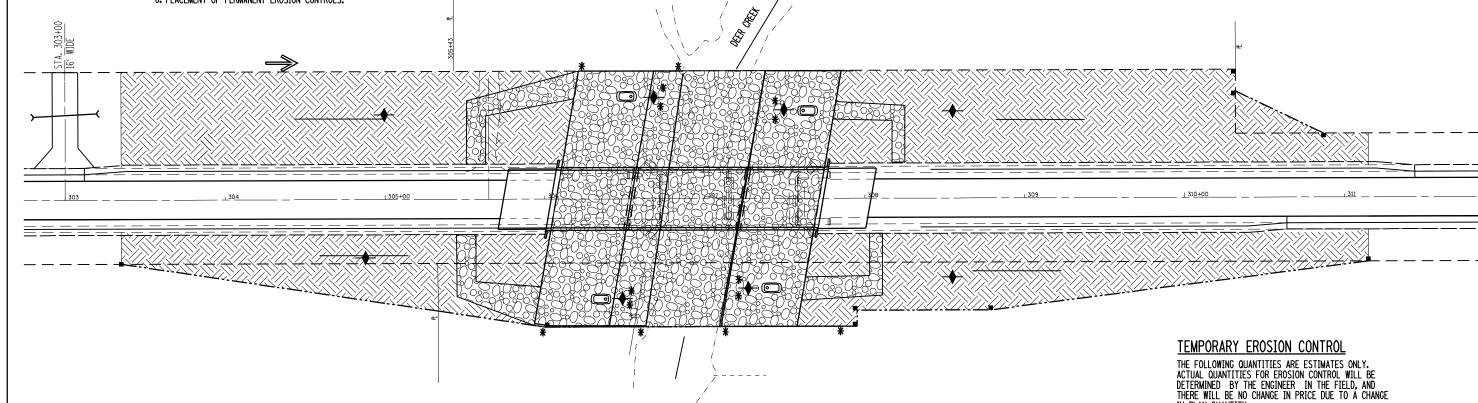
STORM WATER POLLUTION							F.A.P. RTE.
•	PREVENTION PLAN						717
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	SHEET NO.	4 OF 4	SHEETS	STA.	TO STA.	l	FED. ROAD DI

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717	109В	-3	LOGAN	73	34
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INTENDED SEQUENCE

- PLACEMENT OF PERIMETER EROSION CONTROL BARRIER, AND AGGREGATE (EROSION CONTROL) ITEMS PRIOR TO COMMENCEMENT OF ANY WORK. SEE STANDARD 28001.
- 2. STAGED REMOVAL OF THE EXISTING STRUCTURE.
- 3. STAGED CONSTRUCTION OF THE NEW SUB STRUCTURE.
- 4. STAGED CONSTRUCTION OF THE NEW SUPERSTRUCTURE.
- 5. THE PLACEMENT AND MAINTENANCE OF TEMPORARY EROSION CONTROLS.
- 6. FINAL GRADING AND SHAPING INCLUDING PLACEMENT OF AGGREGATE BASE COURSE & BITUMINOUS SURFACE.
- 7. REMOVAL & PROPER CLEAN UP OF TEMPORARY EROSION CONTROLS.





TEMPORARY EROSION CONTROL BILL OF MATERIALS							
ITEM	UNIT	TOTALS					
TEMPORARY EROSION CONTROL SEEDING	POUND	600					
PERIMETER EROSION BARRIER	F00T	600					
AGGREGATE (EROSION CONTROL)	TON	40					
EARTH EXCAVATION (EROSION CONTROL)	CY	40					

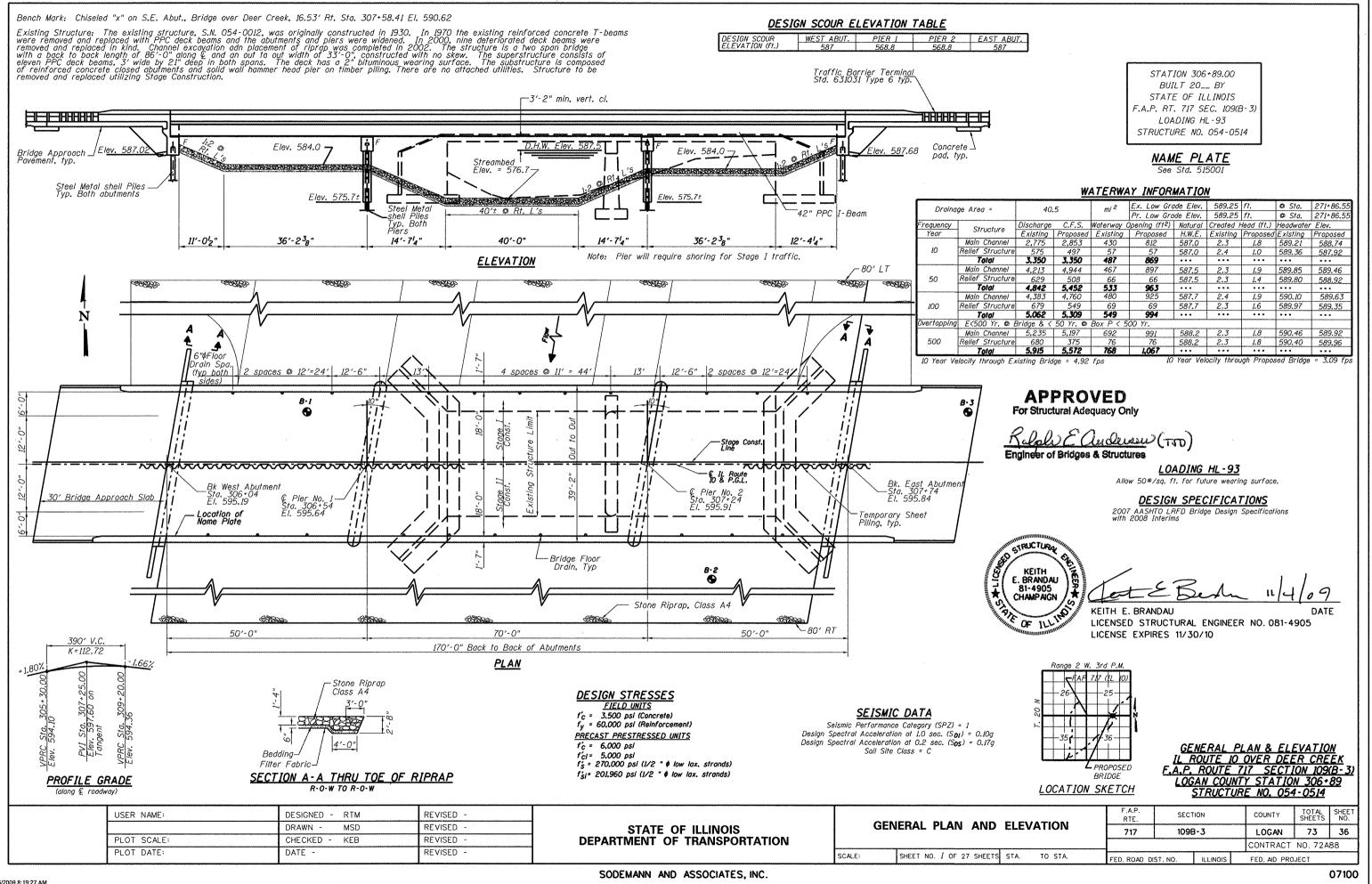
IN PLAN QUANTITY.

USER NAME:	DESIGNED -	REVISED -
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PLOT DATE:	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

STORMWATER POLLUTION PREVENTION PLAN						
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717	109B	-3		LOGAN	73	35
				CONTRACT	NO. 72A8	8
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GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

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

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of the piles.

The Contractor is advised that the existing PPC deck beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

If the Contractor's procedure for existing beam removal or placement of new beams involves placement of heavy equipment on the existing beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Structures.

The steel beam shown in the optional parapet slipforming details on sheet 13 of 27 is conceptual only. All appropriate details for the overhang and concrete parapet on sheet 13 of 27 shall be applied to the details for the concrete beams on the subject contract if the Contractor elects to utilize the slipforming option.

Underwater structure excavation protection - Location 1 shall be at Pier No. 1.
Underwater structure excavation protection - Location 2 shall be at Pier No. 2.

Temporary shoring of the existing pier shall occur prior to beginning Removal of Existing Structures and shall be in accordance with the Special Provisions.

Backfill with uncompacted Porous Granular Embankment (Special) by Bridge Contractor after Superstructure is in place Const. joint Approach Pavement 42" P.P.C. I Excavation for placing Porous Granular <u>seocompos</u>ite Embankment (Special) Wall Drain is paid for as ''-0'' min.-Structure Excavation Const. joint-Geotechnical Fabric for French Drains Drainage Aggregate *Included in the cost of Pipe *4" \phi Perforated Underdrains for Structures Steel Metal -- Shell Piles pipe drain Stone Riprap, Class A4 Bk. of Abut. SECTION THRU INTEGRAL ABUTMENT (Horiz, dim, @ Rt. | 's)

Note:

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

USER NAME:	DESIGNED - RTM	REVISED -
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PLOT SCALE:	CHECKED - KEB	REVISED -
PLOT DATE:	DATE -	REVISED -

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each	-	-	1
Porous Granular Embankment, Special	Cu. yd.	-	173	173
Structure Excavation	Cu. yd.	-	500	500
Pipe Underdrains for Structures 4"	Foot	-	128	128
Geocomposite Wall Drain	Sq. Yd.	-	93.4	93.4
Stone Riprap, Class A4	Sq. Yd.	-	3478	3478
Filter Fabric	Sq. Yd.	-	3478	3478
Concrete Superstructure	Cu. yd.	380.2	-	380.2
Concrete Structures	Cu. yd.	-	178.8	178.8
Protective Coat	Sq. Yd.	823	-	823
Concrete Encasement	Cu. yd.	-	10.9	10.9
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42in.	Foot	999	-	999
Reinforcement Bars, Epoxy Coated	Pound	91,250	15,380	106,630
Temporary Sheet Piling	Sq. Ft.	-	1,984	1,984
Name Plates	Each	1	-	1
Bridge Deck Grooving	Sq. Yd.	642	-	642
Bar Splicers	Each	745	152	897
Furnishing Metal Shell Piles, 14" x 0.25"	Foot	-	1052	1052
Driving Piles	Foot	-	1052	1052
Test Pile Metal Shells	Each	-	4	4
Floor Drains	Each	22	-	22
Underwater Structure Excavation Protection - Location 1	Each	-	1	1
Underwater Structure Excavation Protection - Location 2	Each	-	1	1
Mechanical Splicers	Each	-	48	48
Temporary Shoring	Each	-	1	1

| Stage II | Sheeting | Stage I | Sheeting | Sh

TEMPORARY SHEET PILING DETAILS FOR STAGE CONSTRUCTION

Hard driving may be encountered during the sheet piling installation. The contractor shall provide the appropriate driving equipment for the soil conditions indicated on the boring logs.

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of the 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.

TEMPORARY SHEET PILING

West Abutment = 1,369 Sq.Ft. (615 Sq.Ft. Min. Sx = $63.2 \text{in}^3/\text{ft}$, 754 Sq.Ft. Min. Sx = $20 \text{in}^3/\text{ft}$)

East Abutment = 615 Sq.Ft. (Min. Sx = $20 \text{in}^3/\text{ft}$)

Total = 1,984 Sq. Ft.

SCALE:

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	CENEDAL DATA	OULE	****		F.A.P. RTE.	SECT	ION
GENERAL DATA SHEET					717	109B	-3
	T			_			
	SHEET NO. 2 OF 27 SHEETS	STA.	TO STA.	Γ	FED. ROAD DIS	ST. NO.	ILLIN0IS

INDEX OF SHEETS

General Plan and Elevation General Data Stage Construction Details Temporary Concrete Barrier Top of Slab Elevations Top of West Approach Pavement Elevations Top of East Approach Pavement Elevations Superstructure Superstructure Details 11-12. Bridge Approach Slab Details Concrete Parapet Slipforming Option 13. 14 - 15. Diaphragm Details 16. Framing Plan 42" PPC I-Beam Span 1 & 3 42" PPC I-Beam Span 2 42" PPC I-Beam Details Span 1 & 3 42" PPC I-Beam Details Span 2 21. West Abutment 22. 23. Fast Abutment Piers 1 & 2 24. 25. Bar Splicer Assembly Details Metal Shell Pile Details 26-27. Soil Boring Logs

ELEVATION - EAST ABUTMENT
(Alona Roadway ©)

<u>GENERAL DATA</u> STRUCTURE NO. 054-0514

SODEMANN AND ASSOCIATES, INC.

07100

37

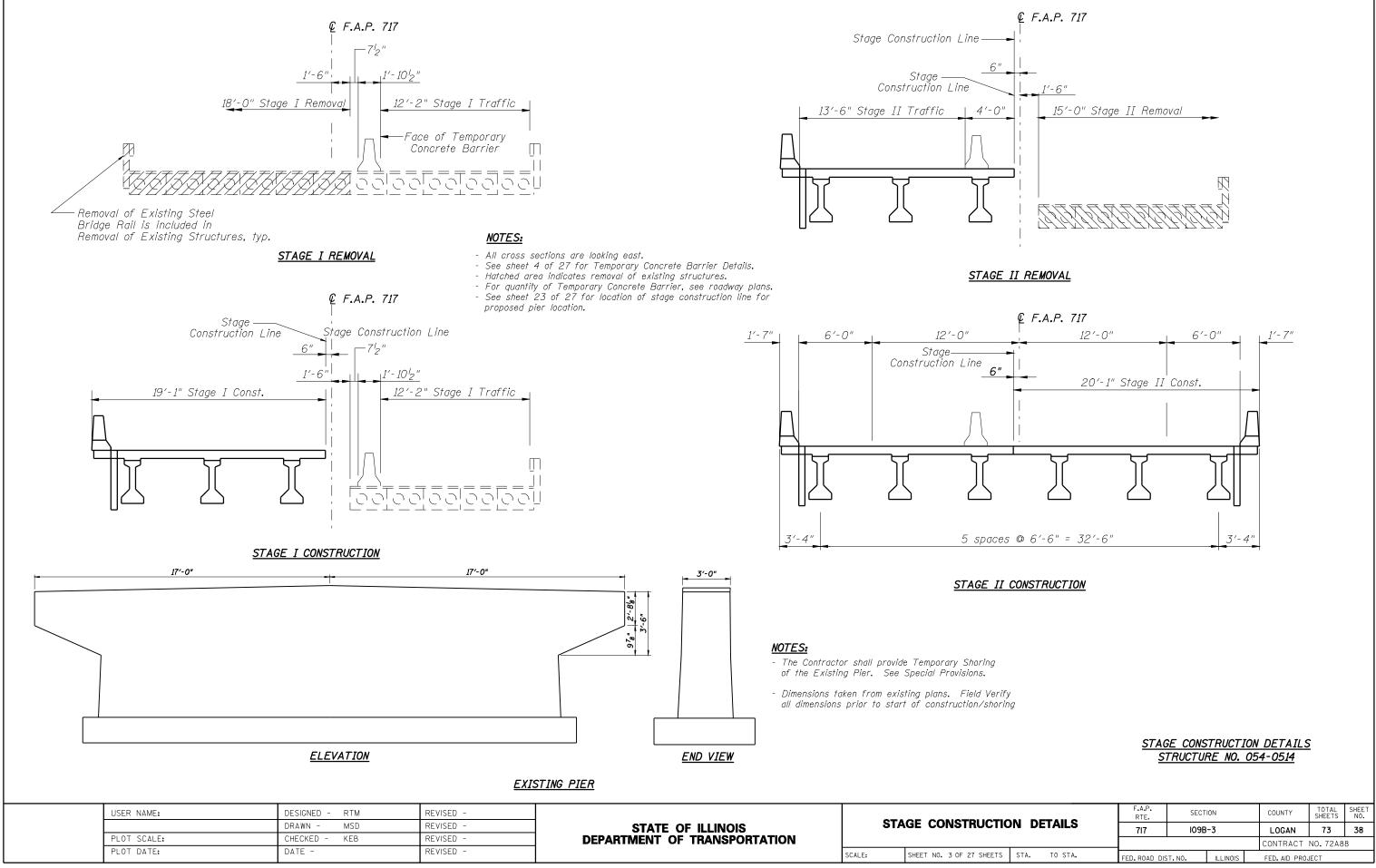
TOTAL SHEETS

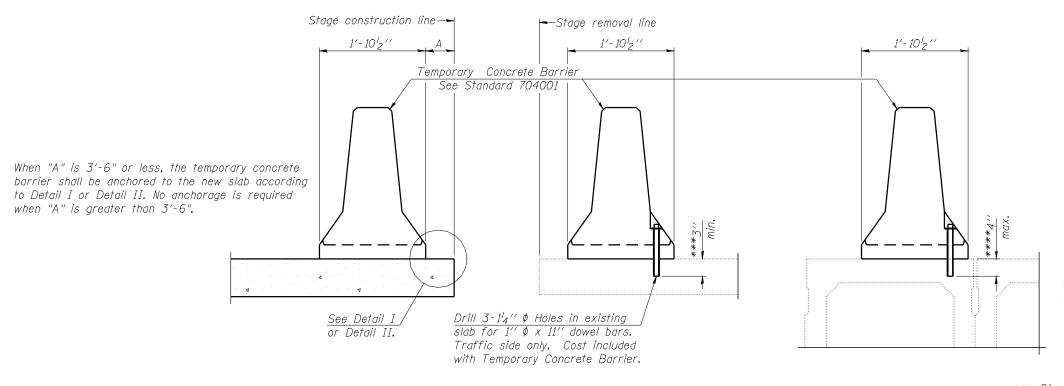
73

CONTRACT NO. 72A88

LOGAN

FED. AID PROJECT





NOTES

Detail I - With Bar Splicer or Couplers:

Connect one (1) 1''x7''x10'' steel 12 to the

top layer of couplers with 2-5₈'' \$\phi\$ bolts

screwed to coupler at approximate \$\mathcal{L}\$ of

each barrier panel.

Detail II - With Extended Reinforcement Bars:

Connect one (1) 1"x7"x 10" steel £ to the concrete slab or concrete wearing surface with 2-58" \$\phi\$ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate £ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The $1^{\prime\prime}$ x $7^{\prime\prime}$ x $10^{\prime\prime}$ plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

<u>NEW SLAB</u> <u>EXISTING SLAB</u> <u>EXISTING DECK BEAM</u>

SECTIONS THRU SLAB OR DECK BEAM

##Wood blocks

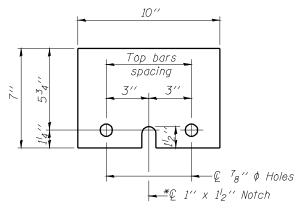
Wood blocks

Extended #5 bars

Expansion Anchors or cast in place inserts with a certified min. proof load of 5,000 Lbs.

- *** Dimension shown is minimum required embedment into concrete.

 If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.
- **** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



STEEL RETAINER P 1" x 7" x 10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
STRUCTURE NO. 054-0514

USER NAME:	DESIGNED - RTM	REVISED -
	DRAWN - MSD	REVISED -
PLOT SCALE:	CHECKED - KEB	REVISED -
PLOT DATE:	DATE -	REVISED -

**Wood blocks

Top Layer Splicer

DETAIL I

P 1" x 7" x 10"

2-5₈" \$ Bolts

**Wood blocks may be omitted when required to provide

minimum stage traffic lane width. When the wood blocks

are omitted, the concrete barrier shall be in direct contact

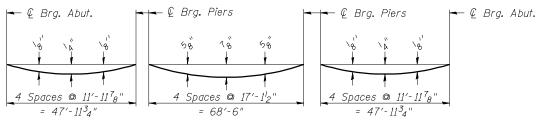
with washers

with the steel retainer plate.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	MPORARY CONCRE			
ALE:	SHEET NO. 4 OF 27 SHEETS	STA.	TO STA.	

F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
717	109B	109B-3		LOGAN	73	39
				CONTRACT	NO.72A8	8
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJ	JECT	



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and on sheet 6 of 27 BEAM 1

BEAM 2

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below and on sheet 6 of 27, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

BEAM 3

					THEORETICAL
					GRADE
					ELEVATIONS
				THEORETICAL	ADJUSTED
				GRADE	FOR DEAD LOAD
LOCATION	STATION	OFFSET		ELEVATIONS	DEFLECTION
Bk. Of W. Abut	306+06.87	16.25	Lt.	594.95	594.95
Cl. W. Abut	306+08.13	16.25	Lt.	594.96	594.96
Α	306+18.13	16.25	Lt.	595.07	595.08
В	306+28.13	16.25	Lt.	595.16	595.18
С	306+38.13	16.25	Lt.	595.25	595.27
D	306+48.13	16.25	Lt.	595.33	595.34
W. Cl. Brg. Pier 1	306+56.12	16.25	Lt.	595.39	595.39
Cl. Pier 1	306+56.87	16.25	Lt.	595.39	595.39
E. Cl. Brg. Pier 1	306+57.62	16.25	Lt.	595.40	595.40
E	306+67.62	16.25	Lt.	595.46	595.49
F	306+77.62	16.25	Lt.	595.51	595.57
G	306+87.62	16.25	Lt.	595.56	595.63
Н	306+97.62	16.25	Lt.	595.59	595.66
I	307+07.62	16.25	Lt.	595.62	595.68
J	307+17.62	16.25	Lt.	595.64	595.67
W. Cl. Brg. Pier 2	307+26.12	16.25	Lt.	595.63	595.63
Cl. Pier 2	307+26.87	16.25	Lt.	595.64	595.64
E. Cl. Brg. Pier 2	307+27.62	16.25	Lt.	595.64	595.64
K	307+37.62	16.25	Lt.	595.64	595.65
L	307+47.62	16.25	Lt.	595.63	595.64
M	307+57.62	16.25	Lt.	595.61	595.62
N	307+67.62	16.25	Lt.	595.58	595.59
Cl. E. Abut	307+75.60	16.25	Lt.	595.56	595.56
Bk. Of E. Abut	307+76.87	16.25	Lt.	595.55	595.55

					THEORETICAL
					GRADE
					ELEVATIONS
				THEORETICAL	ADJUSTED
				GRADE	FOR DEAD LOAD
LOCATION	STATION	OFFSET		ELEVATIONS	DEFLECTION
Bk. Of W. Abut	306+05.72	9.75	Lt.	595.06	595.06
Cl. W. Abut	306+06.99	9.75	Lt.	595.07	595.07
Α	306+16.99	9.75	Lt.	595.18	595.19
В	306+26.99	9.75	Lt.	595.28	595.29
С	306+36.99	9.75	Lt.	595.37	595.38
D	306+46.99	9.75	Lt.	595.45	595.46
W. Cl. Brg. Pier 1	306+54.97	9.75	Lt.	595.50	595.50
Cl. Pier 1	306+55.72	9.75	Lt.	595.51	595.51
E. Cl. Brg. Pier 1	306+56.47	9.75	Lt.	595.51	595.51
Ē	306+66.47	9.75	Lt.	595.58	595.61
F	306+76.47	9.75	Lt.	595.63	595.69
G	306+86.47	9.75	Lt.	595.68	595.74
Н	306+96.47	9.75	Lt.	595.71	595.78
I	307+06.47	9.75	Lt.	595.74	595.80
J	307+16.47	9.75	Lt.	595.76	595.79
W. Cl. Brg. Pier 2	307+24.97	9.75	Lt.	595.77	595.77
Cl. Pier 2	307+25.72	9.75	Lt.	595.76	595.76
E. Cl. Brg. Pier 2	307+26.47	9.75	Lt.	595.76	595.76
K	307+36.47	9.75	Lt.	595.76	595.77
L	307+46.47	9.75	Lt.	595.75	595.77
М	307+56.47	9.75	Lt.	595.74	595.75
N	307+66.47	9.75	Lt.	595.71	595.72
Cl. E. Abut	307+74.45	9.75	Lt.	595.68	595.68
Bk. Of E. Abut	307+75.72	9.75	Lt.	595.68	595.68
100		•			

					THEORETICAL
					GRADE
					ELEVATIONS
				THEORETICAL	ADJUSTED
				GRADE	FOR DEAD LOAD
LOCATION	STATION	OFFSET		ELEVATIONS	DEFLECTION
Bk. Of W. Abut	306+04.57	3.25	Lt.	595.14	595.14
Cl. W. Abut	306+05.84	3.25	Lt.	595.16	595.16
Α	306+15.84	3.25	Lt.	595.27	595.28
В	306+25.84	3.25	Lt.	595.37	595.38
С	306+35.84	3.25	Lt.	595.46	595.47
D	306+45.84	3.25	Lt.	595.54	595.55
W. Cl. Brg. Pier 1	306+53.82	3.25	Lt.	595.60	595.60
Cl. Pier 1	306+54.57	3.25	Lt.	595.60	595.60
E. Cl. Brg. Pier 1	306+55.32	3.25	Lt.	595.61	595.61
E	306+65.32	3.25	Lt.	595.67	595.70
F	306+75.32	3.25	Lt.	595.73	595.78
G	306+85.32	3.25	Lt.	595.77	595.84
Н	306+95.32	3.25	Lt.	595.81	595.88
	307+05.32	3.25	Lt.	595.84	595.90
J	307+15.32	3.25	Lt.	595.86	595.89
W. Cl. Brg. Pier 2	307+23.82	3.25	Lt.	595.87	595.87
Cl. Pier 2	307+24.57	3.25	Lt.	595.87	595.87
E. Cl. Brg. Pier 2	307+25.32	3.25	Lt.	595.86	595.86
K	307+35.32	3.25	Lt.	595.86	595.87
L	307+45.32	3.25	Lt.	595.86	595.87
М	307+55.32	3.25	Lt.	595.84	595.86
N	307+65.32	3.25	Lt.	595.82	595.82
Cl. E. Abut	307+73.30	3.25	Lt.	595.79	595.79
Bk. Of E. Abut	307+74.57	3.25	Lt.	595.79	595.79

TOP OF SLAB ELEVATIONS STRUCTURE NO. 054-0514

TOTAL SHEETS

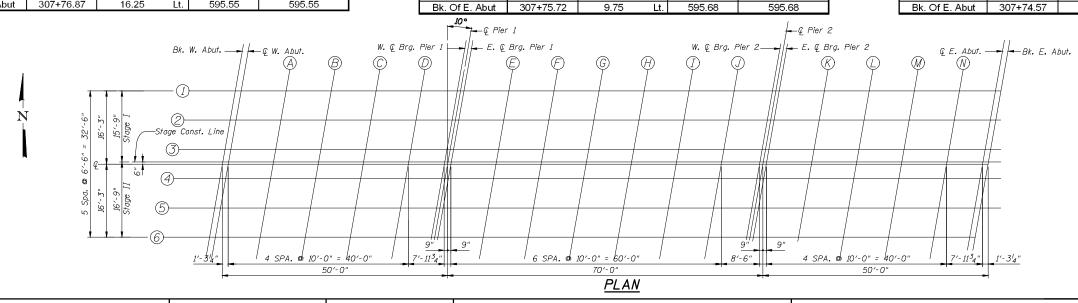
73

CONTRACT NO.72A88

LOGAN

FED. AID PROJECT

40



USER NAME: REVISED DRAWN -MSD REVISED PLOT SCALE: CHECKED -KEB REVISED -PLOT DATE: DATE -REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

F.A.P. TOP OF SLAB ELEVATIONS SHEET 1 OF 4 717 109B-3 SHEET NO. 5 OF 27 SHEETS STA. TO STA. FED. ROAD DIST. NO.

SODEMANN AND ASSOCIATES, INC. 07100

STAGE CONSTRUCTION LINE

					THEORETICAL
					GRADE
					ELEVATIONS
				THEORETICAL	ADJUSTED
				GRADE	FOR DEAD LOAD
LOCATION	STATION	OFFSET		ELEVATIONS	DEFLECTION
Bk. Of W. Abut	306+04.09	0.50	Lt.	595.18	595.18
Cl. W. Abut	306+05.36	0.50	Lt.	595.20	595.20
Α	306+15.36	0.50	Lt.	595.31	595.32
В	306+25.36	0.50	Lt.	595.41	595.42
С	306+35.36	0.50	Lt.	595.50	595.51
D	306+45.36	0.50	Lt.	595.58	595.59
W. Cl. Brg. Pier 1	306+53.34	0.50	Lt.	595.64	595.64
CI. Pier 1	306+54.09	0.50	Lt.	595.64	595.64
E. Cl. Brg. Pier 1	306+54.84	0.50	Lt.	595.65	595.65
E	306+64.84	0.50	Lt.	595.71	595.74
F	306+74.84	0.50	Lt.	595.77	595.82
G	306+84.84	0.50	Lt.	595.82	595.88
Н	306+94.84	0.50	Lt.	595.85	595.92
	307+04.84	0.50	Lt.	595.88	595.94
J	307+14.84	0.50	Lt.	595.90	595.93
W. Cl. Brg. Pier 2	307+23.34	0.50	Lt.	595.91	595.91
CI. Pier 2	307+24.09	0.50	Lt.	595.91	595.91
E. Cl. Brg. Pier 2	307+24.84	0.50	Lt.	595.92	595.92
K	307+34.84	0.50	Lt.	595.90	595.91
L	307+44.84	0.50	Lt.	595.90	595.91
M	307+54.84	0.50	Lt.	595.88	595.90
N	307+64.84	0.50	Lt.	595.86	595.87
Cl. E. Abut	307+72.82	0.50	Lt.	595.83	595.83
Bk. Of E. Abut	307+74.09	0.50	Lt.	595.83	595.83

CL ROADWAY AND PGL

				THEORETICAL
				GRADE
				ELEVATIONS
			THEORETICAL	ADJUSTED
			GRADE	FOR DEAD LOAD
LOCATION	STATION	OFFSET	ELEVATIONS	DEFLECTION
Bk. Of W. Abut	306+04.00	0	595.19	595.19
Cl. W. Abut	306+05.27	0	595.20	595.20
Α	306+15.27	0	595.31	595.32
В	306+25.27	0	595.41	595.43
С	306+35.27	0	595.50	595.52
D	306+45.27	0	595.59	595.59
W. Cl. Brg. Pier 1	306+53.25	0	595.64	595.64
Cl. Pier 1	306+54.00	0	595.65	595.65
E. Cl. Brg. Pier 1	306+54.75	0	595.66	595.66
E	306+64.75	0	595.72	595.75
F	306+74.75	0	595.78	595.83
G	306+84.75	0	595.82	595.89
Н	306+94.75	0	595.86	595.93
I	307+04.75	0	595.89	595.94
J	307+14.75	0	595.91	595.94
W. Cl. Brg. Pier 2	307+23.25	0	595.92	595.92
Cl. Pier 2	307+24.00	0	595.92	595.92
E. Cl. Brg. Pier 2	307+24.75	0	595.92	595.92
K	307+34.75	0	595.91	595.92
L	307+44.75	0	595.91	595.92
М	307+54.75	0	595.89	595.91
N	307+64.75	0	595.87	595.88
Cl. E. Abut	307+72.73	0	595.84	595.84
Bk. Of E. Abut	307+74.00	0	595.84	595.84

<u>BEAM 4</u>

				THEORETICAL
				GRADE
				ELEVATIONS
			THEORETICAL	ADJUSTED
			GRADE	FOR DEAD LOAD
STATION	OFFSET		ELEVATIONS	DEFLECTION
306+03.43	3.25	Rt.	595.13	595.13
306+04.70	3.25	Rt.	595.15	595.15
306+14.70	3.25	Rt.	595.26	595.27
306+24.70	3.25	Rt.	595.36	595.37
306+34.70	3.25	Rt.	595.45	595.46
306+44.70	3.25	Rt.	595.53	595.54
306+52.68	3.25	Rt.	595.59	595.59
306+53.43	3.25	Rt.	595.60	595.60
306+54.18	3.25	Rt.	595.60	595.60
306+64.18	3.25	Rt.	595.67	595.70
306+74.18	3.25	Rt.	595.72	595.78
306+84.18	3.25	Rt.	595.77	595.84
306+94.18	3.25	Rt.	595.81	595.88
307+04.18	3.25	Rt.	595.84	595.89
307+14.18	3.25	Rt.	595.86	595.89
307+22.68	3.25	Rt.	595.87	595.87
307+23.43	3.25	Rt.	595.87	595.87
307+24.18	3.25	Rt.	595.87	595.87
307+34.18	3.25	Rt.	595.86	595.87
307+44.18	3.25	Rt.	595.86	595.87
307+54.18	3.25	Rt.	595.84	595.86
307+64.18	3.25	Rt.	595.82	595.83
307+72.16	3.25	Rt.	595.79	595.79
307+73.43	3.25	Rt.	595.79	595.79
	306+03.43 306+04.70 306+14.70 306+24.70 306+24.70 306+34.70 306+52.68 306+53.43 306+54.18 306+64.18 306+74.18 306+84.18 307+04.18 307+04.18 307+22.68 307+23.43 307+24.18 307+34.18 307+34.18 307+44.18 307+44.18	306+03.43 3.25 306+04.70 3.25 306+14.70 3.25 306+24.70 3.25 306+24.70 3.25 306+34.70 3.25 306+52.68 3.25 306+52.68 3.25 306+54.18 3.25 306+64.18 3.25 306+74.18 3.25 306+94.18 3.25 307+04.18 3.25 307+04.18 3.25 307+04.18 3.25 307+04.18 3.25 307+23.43 3.25 307+24.18 3.25 307+24.18 3.25 307+24.18 3.25 307+34.18 3.25 307+64.18 3.25	306+03.43 3.25 Rt. 306+04.70 3.25 Rt. 306+14.70 3.25 Rt. 306+24.70 3.25 Rt. 306+24.70 3.25 Rt. 306+34.70 3.25 Rt. 306+34.70 3.25 Rt. 306+52.68 3.25 Rt. 306+52.68 3.25 Rt. 306+54.18 3.25 Rt. 306+64.18 3.25 Rt. 306+64.18 3.25 Rt. 306+94.18 3.25 Rt. 307+14.18 3.25 Rt. 307+04.18 3.25 Rt. 307+04.18 3.25 Rt. 307+22.68 3.25 Rt. 307+23.43 3.25 Rt. 307+24.18 3.25 Rt. 307+24.18 3.25 Rt. 307+24.18 3.25 Rt. 307+24.18 3.25 Rt. 307+34.18 3.25 Rt. 307+54.18 3.25 Rt.	STATION OFFSET ELEVATIONS 306+03.43 3.25 Rt. 595.13 306+04.70 3.25 Rt. 595.15 306+14.70 3.25 Rt. 595.26 306+24.70 3.25 Rt. 595.36 306+34.70 3.25 Rt. 595.45 306+34.70 3.25 Rt. 595.59 306+52.68 3.25 Rt. 595.59 306+53.43 3.25 Rt. 595.60 306+54.18 3.25 Rt. 595.60 306+64.18 3.25 Rt. 595.67 306+74.18 3.25 Rt. 595.72 306+94.18 3.25 Rt. 595.77 306+94.18 3.25 Rt. 595.81 307+04.18 3.25 Rt. 595.86 307+22.68 3.25 Rt. 595.87 307+23.43 3.25 Rt. 595.87 307+24.18 3.25 Rt. 595.86 307+44

BEAM 5

				THEORETICAL
				GRADE
				ELEVATIONS
			THEORETICAL	ADJUSTED
			GRADE	FOR DEAD LOAD
STATION	OFFSET		ELEVATIONS	DEFLECTION
306+02.28	9.75	Rt.	595.02	595.02
306+03.55		Rt.	595.03	595.03
306+13.55	9.75	Rt.	595.14	595.15
306+23.55	9.75	Rt.	595.24	595.26
306+33.55	9.75	Rt.	595.34	595.35
306+43.55	9.75	Rt.	595.42	595. 4 3
306+51.53	9.75	Rt.	595.48	595. 4 8
306+52.28	9.75	Rt.	595.49	595. 4 9
306+53.03	9.75	Rt.	595.49	595. 4 9
306+63.03	9.75	Rt.	595.56	595.59
306+73.03	9.75	Rt.	595.61	595.67
306+83.03	9.75	Rt.	595.66	595.73
306+93.03	9.75	Rt.	595.70	595.77
307+03.03	9.75	Rt.	595.73	595.79
307+13.03	9.75	Rt.	595.76	595.79
307+21.53	9.75	Rt.	595.77	595.77
307+22.28	9.75	Rt.	595.77	595.77
307+23.03	9.75	Rt.	595.77	595.77
307+33.03	9.75	Rt.	595.76	595.77
307+43.03	9.75	Rt.	595.76	595.77
307+53.03	9.75	Rt.	595.74	595.76
307+63.03	9.75	Rt.	595.72	595.73
307+71.01	9.75	Rt.	595.70	595.70
307+72.28	9.75	Rt.	595.69	595.69
	306+02.28 306+03.55 306+13.55 306+23.55 306+33.55 306+43.55 306+51.53 306+53.03 306+53.03 306+73.03 306+83.03 306+93.03 307+03.03 307+22.28 307+22.28 307+23.03 307+33.03 307+43.03 307+43.03 307+53.03 307+53.03 307+63.03	306+02.28 9.75 306+03.55 9.75 306+13.55 9.75 306+23.55 9.75 306+33.55 9.75 306+33.55 9.75 306+43.55 9.75 306+51.53 9.75 306+52.28 9.75 306+53.03 9.75 306+63.03 9.75 306+73.03 9.75 306+93.03 9.75 307+13.03 9.75 307+22.28 9.75 307+22.28 9.75 307+22.28 9.75 307+23.03 9.75 307+23.03 9.75 307+23.03 9.75 307+23.03 9.75 307+33.03 9.75 307+33.03 9.75 307+33.03 9.75 307+33.03 9.75 307+33.03 9.75 307+33.03 9.75 307+43.03 9.75 307+53.03 9.75 307+63.03 9.75 307+63.03 9.75	306+02.28 9.75 Rt. 306+03.55 9.75 Rt. 306+13.55 9.75 Rt. 306+23.55 9.75 Rt. 306+33.55 9.75 Rt. 306+33.55 9.75 Rt. 306+33.55 9.75 Rt. 306+51.53 9.75 Rt. 306+52.28 9.75 Rt. 306+53.03 9.75 Rt. 306+63.03 9.75 Rt. 306+63.03 9.75 Rt. 306+93.03 9.75 Rt. 307+3.03 9.75 Rt. 307+22.28 9.75 Rt. 307+22.28 9.75 Rt. 307+22.28 9.75 Rt. 307+23.03 9.75 Rt. 307+33.03 9.75 Rt. 307+53.03 9.75 Rt. 307+63.03 9.75 Rt.	STATION OFFSET ELEVATIONS 306+02.28 9.75 Rt. 595.02 306+03.55 9.75 Rt. 595.03 306+23.55 9.75 Rt. 595.14 306+33.55 9.75 Rt. 595.34 306+33.55 9.75 Rt. 595.34 306+33.55 9.75 Rt. 595.42 306+43.55 9.75 Rt. 595.42 306+51.53 9.75 Rt. 595.49 306+52.28 9.75 Rt. 595.49 306+53.03 9.75 Rt. 595.49 306+63.03 9.75 Rt. 595.66 306+73.03 9.75 Rt. 595.66 306+83.03 9.75 Rt. 595.66 307+03.03 9.75 Rt. 595.70 307+03.03 9.75 Rt. 595.70 307+03.03 9.75 Rt. 595.70 307+21.53 9.75 Rt. 595.76 307+22

BEAM 6

			_		
					THEORETICAL
					GRADE
					ELEVATIONS
				THEORETICAL	ADJUSTED
				GRADE	FOR DEAD LOAD
LOCATION	STATION	OFFSET		ELEVATIONS	DEFLECTION
Bk. Of W. Abut	306+01.13	16.25	Rt.	594.88	594.88
Cl. W. Abut	306+02.40	16.25	Rt.	594.89	594.89
Α	306+12.40	16.25	Rt.	595.01	595.02
В	306+22.40	16.25	Rt.	595.11	595.12
С	306+32.40	16.25	Rt.	595.20	595.22
D	306+42.40	16.25	Rt.	595.29	595.30
W. Cl. Brg. Pier 1	306+50.38	16.25	Rt.	595.35	595.35
Cl. Pier 1	306+51.13	16.25	Rt.	595.35	595.35
E. Cl. Brg. Pier 1	306+51.88	16.25	Rt.	595.36	595.36
E	306+61.88	16.25	Rt.	595.43	595.46
F	306+71.88	16.25	Rt.	595.48	595.54
G	306+81.88	16.25	Rt.	595.53	595.60
Н	306+91.88	16.25	Rt.	595.58	595.64
	307+01.88	16.25	Rt.	595.61	595.66
J	307+11.88	16.25	Rt.	595.63	595.66
W. Cl. Brg. Pier 2	307+20.38	16.25	Rt.	595.64	595.64
Cl. Pier 2	307+21.13	16.25	Rt.	595.64	595.64
E. Cl. Brg. Pier 2	307+21.88	16.25	Rt.	595.64	595.64
K	307+31.88	16.25	Rt.	595.64	595.65
L	307+41.88	16.25	Rt.	595.63	595.65
M	307+51.88	16.25	Rt.	595.62	595.64
N	307+61.88	16.25	Rt.	595.60	595.61
Cl. E. Abut	307+69.87	16.25	Rt.	595.58	595.58
Bk. Of E. Abut	307+71.13	16.25	Rt.	595.57	595.57

SCALE:

TOP OF SLAB ELEVATIONS STRUCTURE NO. 054-0514

USER NAME:	DESIGNED - RTM	REVISED -
	DRAWN - MSD	REVISED -
PLOT SCALE:	CHECKED - KEB	REVISED -
PLOT DATE:	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS SHEET 2 OF 4		F.A.P. RTE.	SECT	ION	COUNTY	TOTAL SHEETS	SHEET NO.		
		717	109B-3		LOGAN	73	41		
					CONTRACT	NO.72A8	8		
	SHEET NO. 6 OF 27 SHEETS	STA. TO STA.		EED DOAD DIG	a			EOT	

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pav't.	305+77.17	18′ LT	594.54
Α	<i>305+87.17</i>	18′ LT	594.67
В	305+97.17	18' LT	594.80
Bk. of W. Abut.	306+07.17	18′ LT	594.91

End W. Appr. Pav't.

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pav't.	305+76.12	12' LT	594 . 65
Α	305+86.12	12' LT	594.78
В	305+96.12	12' LT	594.91
Bk. of W. Abut.	306+06.12	12' LT	595.03

STAGE CONSTRUCTION LINE

Location		Station	Offset	Theoretical Grade Elevations
End W. Appr.	Pav1.	305+74.09	0.5′ LT	594.80
Α		<i>305+84.09</i>	0.5′ LT	594.94
В		305+94.09	0.5′ LT	595.06
Bk. of W. Abut		306+04.09	0.5′ LT	595 . 18

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Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pav't.	305+74.00	0	594.81
Α	305+84.00	0	594.94
В	305+94.00	0	595.07
Bk. of W. Abut.	306+04.00	0	595.19

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pavít.	305+71.88	12′ RT	594.59
Α	<i>305+81.88</i>	12′ RT	594.73
В	305+91.88	12′ RT	594.86
Bk. of W. Abut.	306+01.88	12′ RT	594.98

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pavít.	305+70.83	18′ RT	594.45
Α	305+80.83	18′ RT	594.59
В	<i>305+90.83</i>	18′ RT	594.72
Bk. of W. Abut.	306+00.83	18′ RT	594.84

North Edge of Pavement - Stage Construction Line

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pav't.	305+70.83	18′ RT	594.45
A	305+80.83	18′ RT	594.59
В	<i>305+90.83</i>	18′ RT	594.72
Bk. of W. Abut.	306+00.83	18′ RT	594.84

<u>PLAN</u>

3 SPA. @ 10'-0" = 30'-0"

Bk. W. Abut. ---

— North Edge of Shoulder

Q ROADWAY & P.G.

- South Edge of Pavement -South Edge of Shoulder

USER NAME:	DESIGNED - RTM	REVISED -
	DRAWN - MSD	REVISED -
PLOT SCALE:	CHECKED - KEB	REVISED -
PLOT DATE:	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE:

TOP OF SLAB ELEVATIONS	F.A.P. RTE.	SECT	ION		COUNTY	TOTAL SHEETS	SHEET NO.
SHEET 3 OF 4	717	109B-3			LOGAN	73	42
				(CONTRACT	NO.72A8	8
SHEET NO. 7 OF 27 SHEETS STA. TO STA.	EED BOAD DIS	T NO	II I INIOIS		EED AID DOO!	ECT	

TOP OF WEST APPROACH SLAB ELEVATIONS

STRUCTURE NO. 054-0514

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abut.	307+77.17	18′ LT	595 . 51
Α	307+87.17	18′ LT	595 . 47
В	307+97.17	18′ LT	595 . 42
End E. Appr. Pav't.	308+07.17	18′ LT	595 . 36

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abut.	307+76.12	12' LT	595 . 64
Α	307+86.12	12' LT	595.60
В	307+96.12	12' LT	<i>595.55</i>
End E. Appr. Pav't.	308+06.12	12' LT	595 . 49

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abut.	307+74.09	0.5′ LT	595.83
Α	307+84.09	0.5′ LT	595.79
В	307+94.09	0.5′ LT	595.74
End E. Appr. Pav't.	308+04.09	0.5′ LT	595 . 68

<u>© ROADWAY & P.G.L.</u>

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abut.	307+74.00	0	595.84
А	307+84.00	0	595.80
В	307+94.00	0	595 . 75
End E. Appr. Pav't.	308+04,00	0	595.69

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abut.	307+71.88	12′ RT	595.66
Α	307+81.88	12′ RT	595.62
В	307+91.88	12′ RT	595.57
End E. Appr. Pav't.	308+01.88	12′ RT	595 . 51

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abut.	307+70.83	18′ RT	595 . 54
Α	307+80.83	18′ RT	595.50
В	307+90.83	18′ RT	595 . 45
End E. Appr. Pav't.	308+00.83	18′ RT	595.40

3 SPA. © 10'-0" = 30'-0"

<u>PLAN</u>

End E. Appr. Pav't. ——

Bk. E. Abut.

— North Edge of Shoulder

North Edge of Pavement

- Stage Construction Line

Q ROADWAY & P.G.

— South Edge of Pavement

— South Edge of Shoulder

TOP OF EAST APPROACH SLAB ELEVATIONS STRUCTURE NO. 054-0514

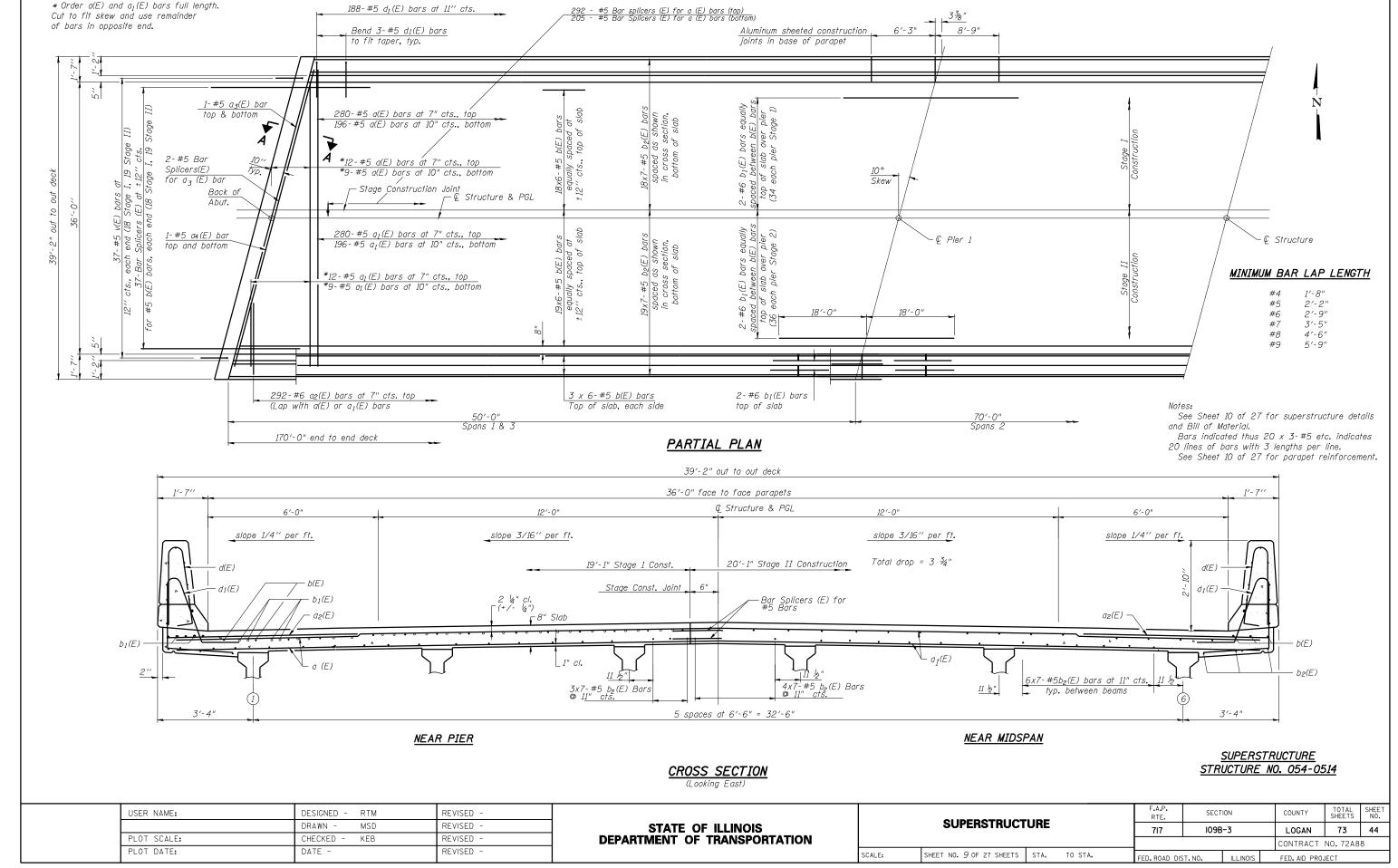
USER NAME:	DESIGNED - RTM	REVISED -
	DRAWN - MSD	REVISED -
PLOT SCALE:	CHECKED - KEB	REVISED -
PLOT DATE:	DATE -	REVISED -

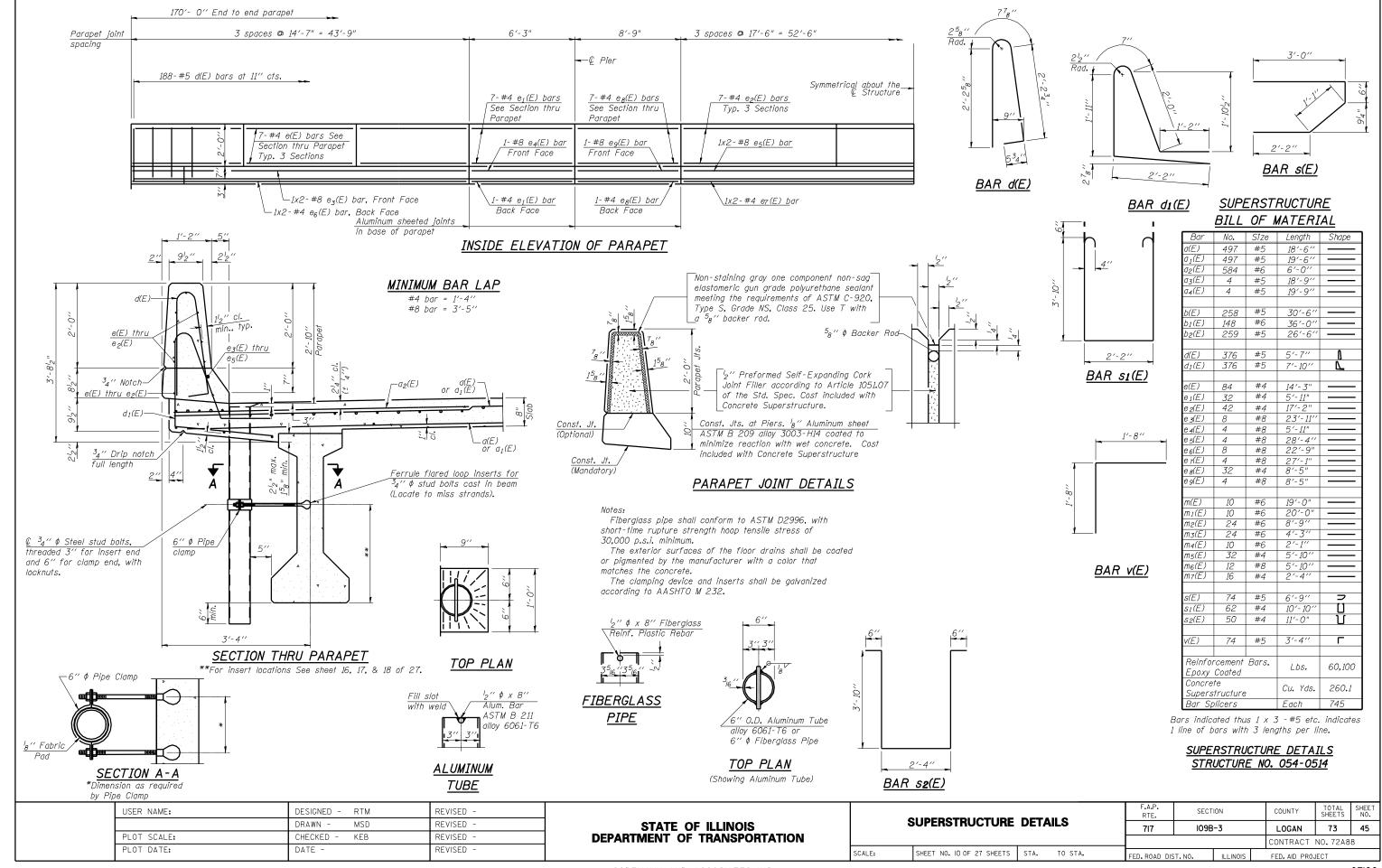
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

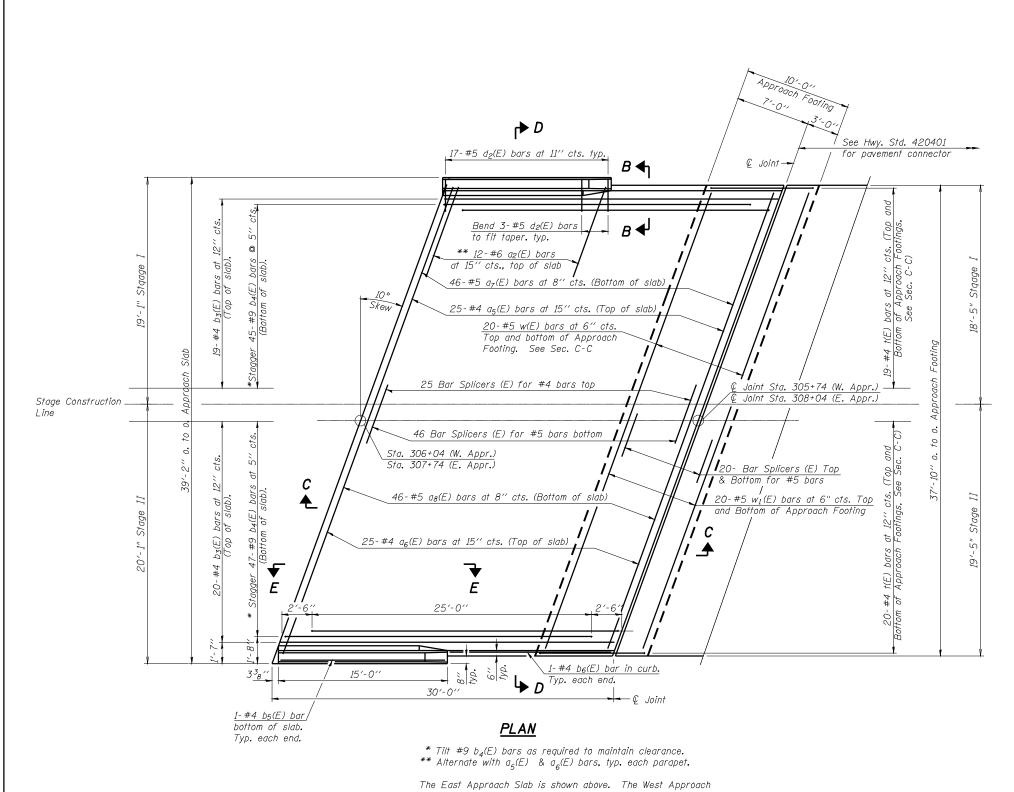
	S	HEET	B ELE 4 OF	4	
SHEET	NO.	8 OF 27	SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
717	109B-3		LOGAN	73	43
			CONTRACT	NO. 72A8	8
FED.747AD DIST. NO. ILLINOIS			FED. AID PROJ	JECT	



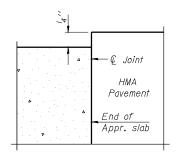






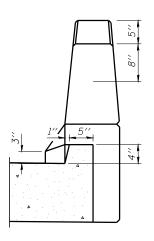
The East Approach Slab is shown above. The West Approach Slab is identical by 180° rotation about the centerline of the bridge.

Notes:



FLEXIBLE PAVEMENT

DETAIL A



VIEW B-B

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 054-0514

USER NAME:	DESIGNED - RTM	REVISED -
	DRAWN - MSD	REVISED -
PLOT SCALE:	CHECKED - KEB	REVISED -
PLOT DATE:	DATE -	REVISED -

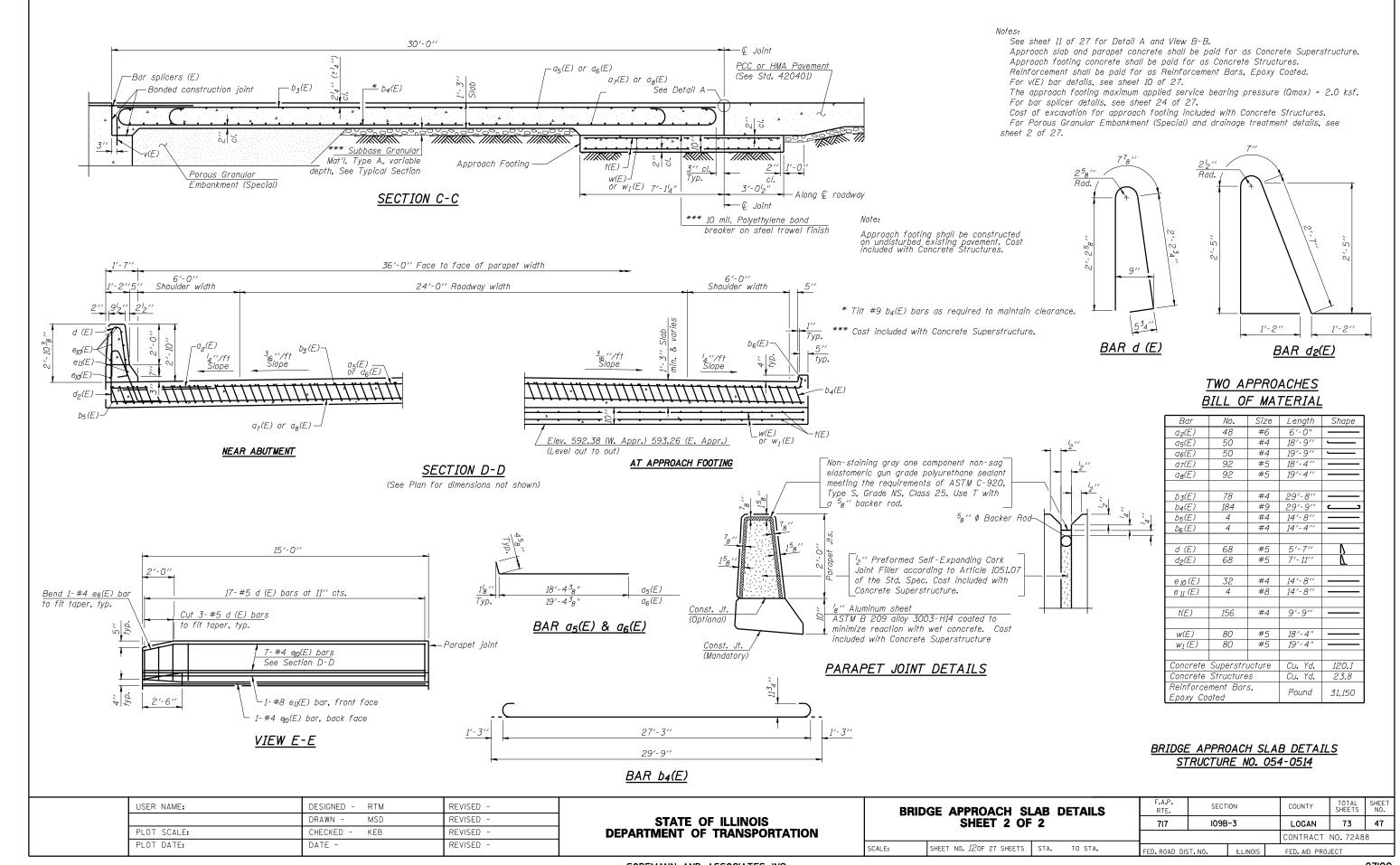
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

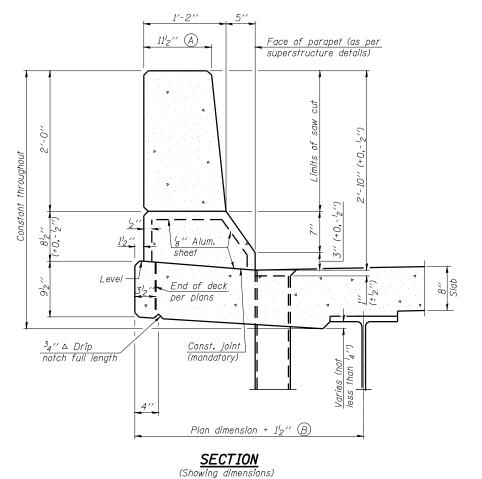
BRIDGE APPROACH SLAB DETAILS SHEET 1 OF 2	
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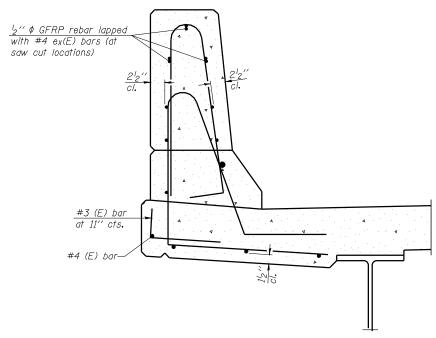
SHEET NO. 11 OF 27 SHEETS STA. TO STA.

SCALE:

F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
717	717 IO9B-3			LOGAN	73	46
·				CONTRACT	NO.72A8	8
FED. ROAD DIST. NO. ILLINO				FED. AID PRO	IECT	

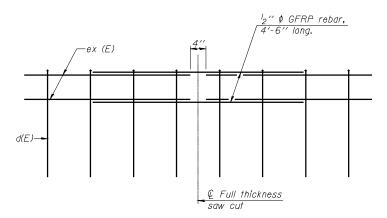






SECTION

(Showing reinforcement clearances for slip forming and additional reinforcement bars)



GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)

1'-0''

GENERAL NOTES

which are to be revised as shown to provide additional clearance. Additional concrete

Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint

needed to revise dimension A and B= 0.0165 cu. yds./ft. of parapet.

locations in lieu of cork joint filler.

All dimensions shall remain the same as shown on contract plans, except dimensions A and B

#3 (E) BAR

CONCRETE PARAPET SLIPFORMING OPTION STRUCTURE NO. 054-0514

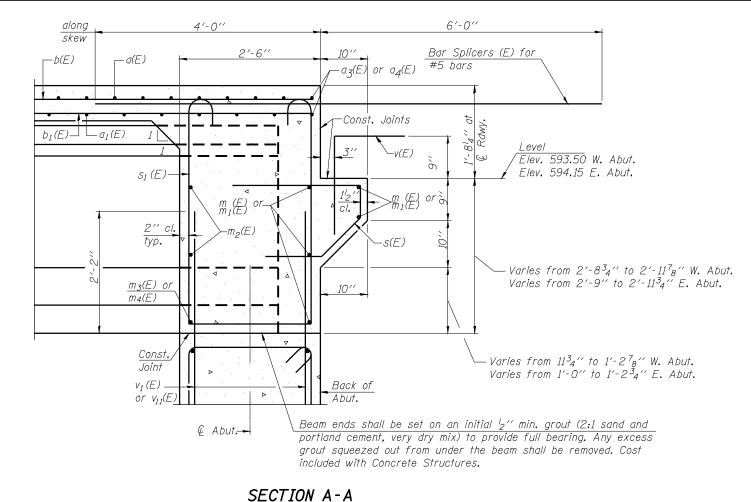
USER NAME:	DESIGNED - RTM	REVISED -
	DRAWN - MSD	REVISED -
PLOT SCALE:	CHECKED - KEB	REVISED -
PLOT DATE:	DATE -	REVISED -

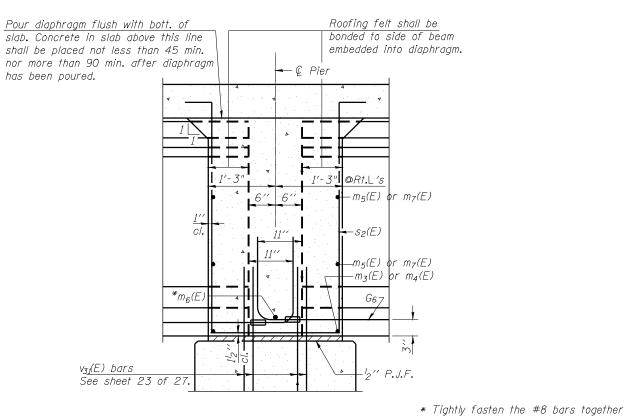
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

CONCRETE PARAPET SLIPFORMING OPTION			F.A.P. SECTION		COUNTY	TOTAL SHEETS	Sł	
			717	109B	I - 3	LOGAN	73	,
						CONTRACT	NO. 72A8	8
SCALE:	SHEET NO. 13 OF 27 SHEETS	STA. TO STA.	FED. ROAD DIS	ST. NO.	ILLINOIS	FED. AID PRO	JECT	

SODEMANN AND ASSOCIATES, INC.

48





SECTION B-B

Dimensions along & of beam, except as shown.

Dimensions at right angles to abutment, except as shown.

DESIGNED - RTM

MSD

KEB

DRAWN

DATE -

CHECKED -

REVISED

REVISED

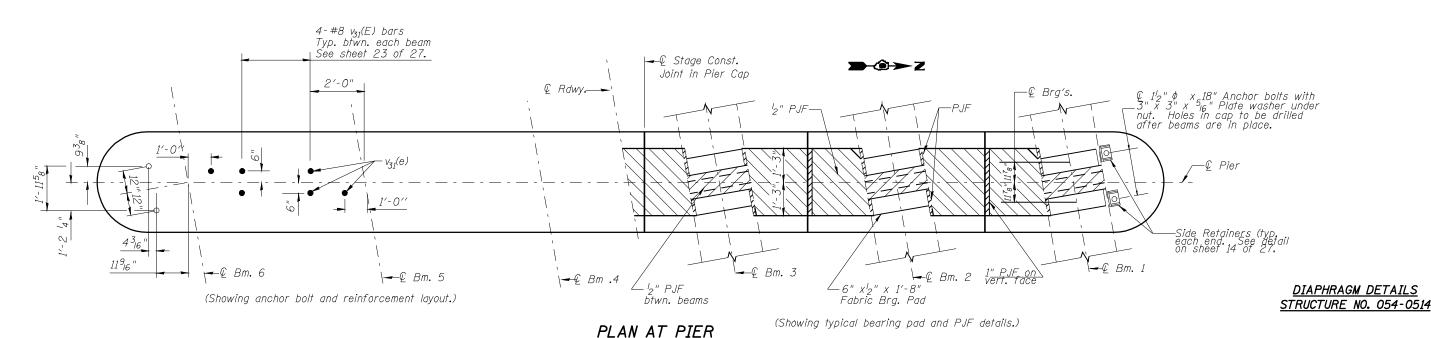
REVISED

REVISED

USER NAME:

PLOT SCALE:

PLOT DATE:



(Showing bearing pad and PJF details)

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

F.A.P. **DIAPHRAGM DETAILS** SHEET 2 OF 2 717 109B-3

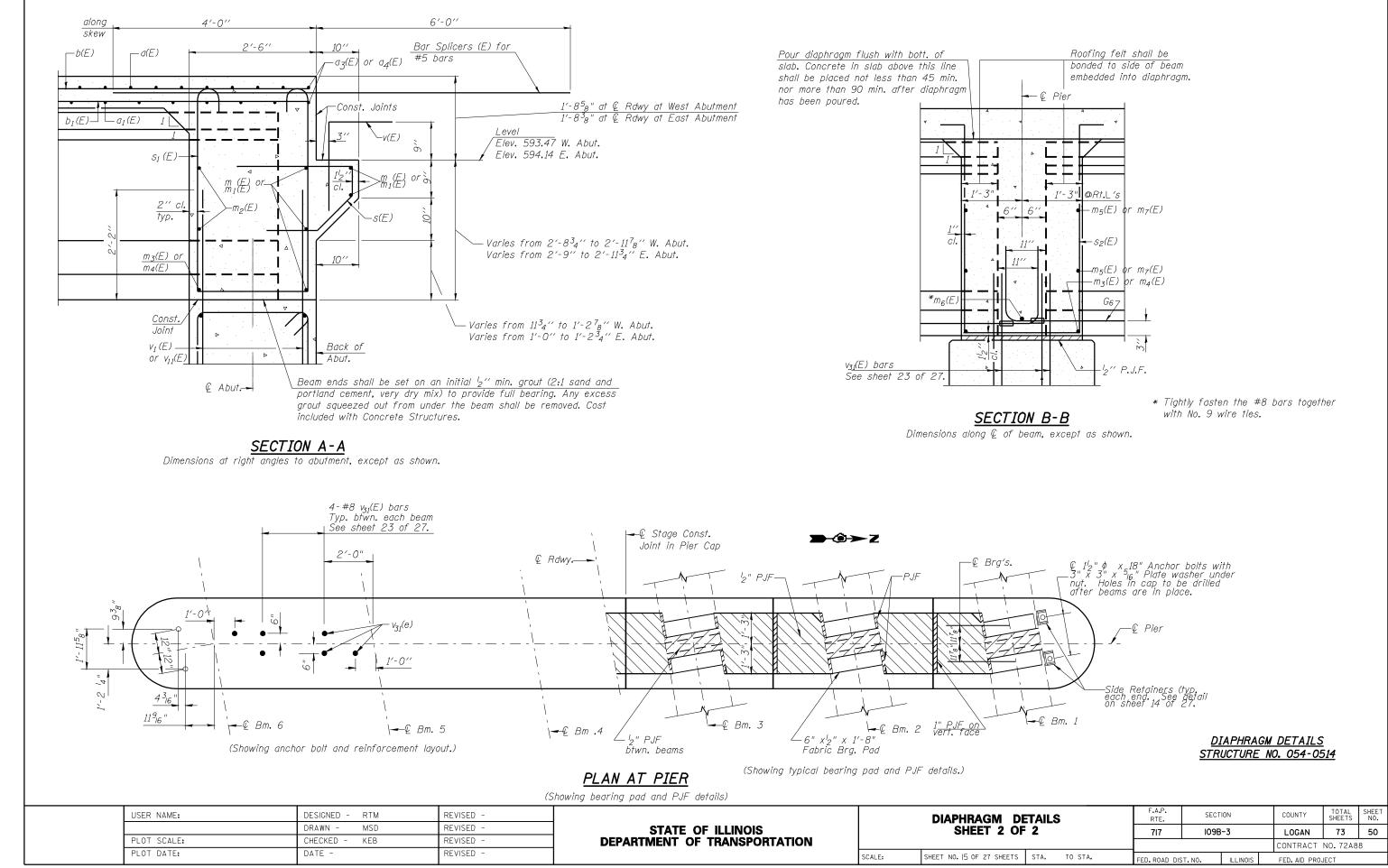
with No. 9 wire ties.

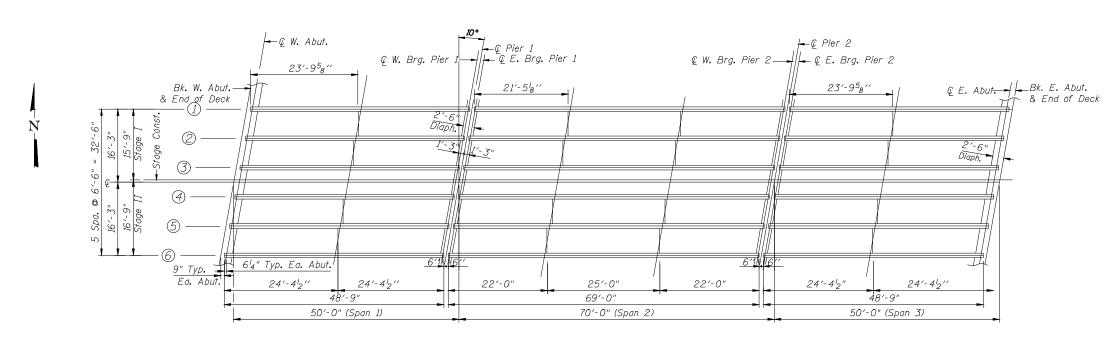
50

TOTAL SHEETS

73

LOGAN





FRAMING PLAN

I: Non-composite moment of inertia of beam section (in.4).

I': Composite moment of inertia of beam section (in.4).
 S_b: Non-composite section modulus for the bottom fiber of the prestressed beam (in.3).

 S_b ': Composite section modulus for the bottom fiber of the prestressed beam (in. 3).

S_f: Non-composite section modulus for the top fiber of the prestressed beam (in.³).

S₁': Composite section modulus for the top fiber of the prestressed beam (in.³).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DCI}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2. Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

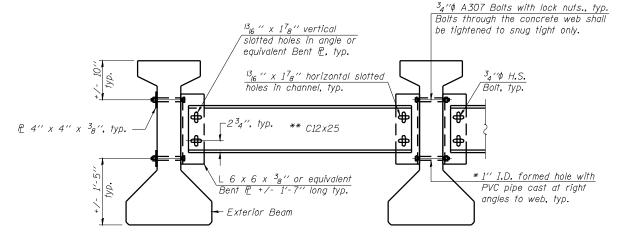
M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft).

M½ + IM: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

INTERIOR BEAM MOMENT TABLE							
		0.4 Sp. 1 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2			
I	(in ⁴)	90,956	-	90,956			
I'	(in ⁴)	282,060	-	282,060			
Sb	(in ³)	<i>5153</i>	-	5153			
Sb'	(in ³)	8822	-	8822			
St St'	(in ³)	<i>3736</i>	-	3736			
S_t'	(in ³)	<i>28,130</i>	-	28,130			
DC1	(k/')	1 . 16	-	1,16			
MDC1	('k)	<i>330.8</i>	-	670.5			
DC2	(k/')	0.15	0.15	0.15			
M DC2	('k)	20.4	56.0	35.9			
DW	(k/')	0.325	0.325	0.325			
Mow	('k)	44.2	121.3	77.8			
M4 + IM	('k)	<i>538.3</i>	551 . 4	617.3			

	INTERIOR BEAM REACTION TABLE							
	HL93 Loading	Abut.	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2				
	R DC1 (k)	28.3	28.3	40.6				
*	R DC2 (k)	2.5	5.3	5.3				
*	Row (k)	5 . 4	11.4	11.4				
*	R + IM (k)	64.6	50.2	50 . 2				
	R Total (k)	100.8	95.2	<i>1</i> 07 . 5				

*The total R_{DC2}, R_{DW} and RŁ + _{IM} are assumed to be distributed evenly to each bearing line at a pier regardless of the span ratios. The bearing design at a pier is based on the maximum reactions of either span.



Notes:

All material for bracing shall be not dip galvanized according to AASHTO MIII unless otherwise noted.
Two hardened washers are required for each set of oversized holes.

All holes shall be $^{15}\!_{16}$ '' ϕ unless otherwise noted. $^{5}\!_{16}$ '' x 3'' x 3'' plate washers are required over all slotted holes.

All bolts shall be galvanized according to AASHTO M232. Bracing shall be installed as beams are erected and tightened as soon as possible during erection.

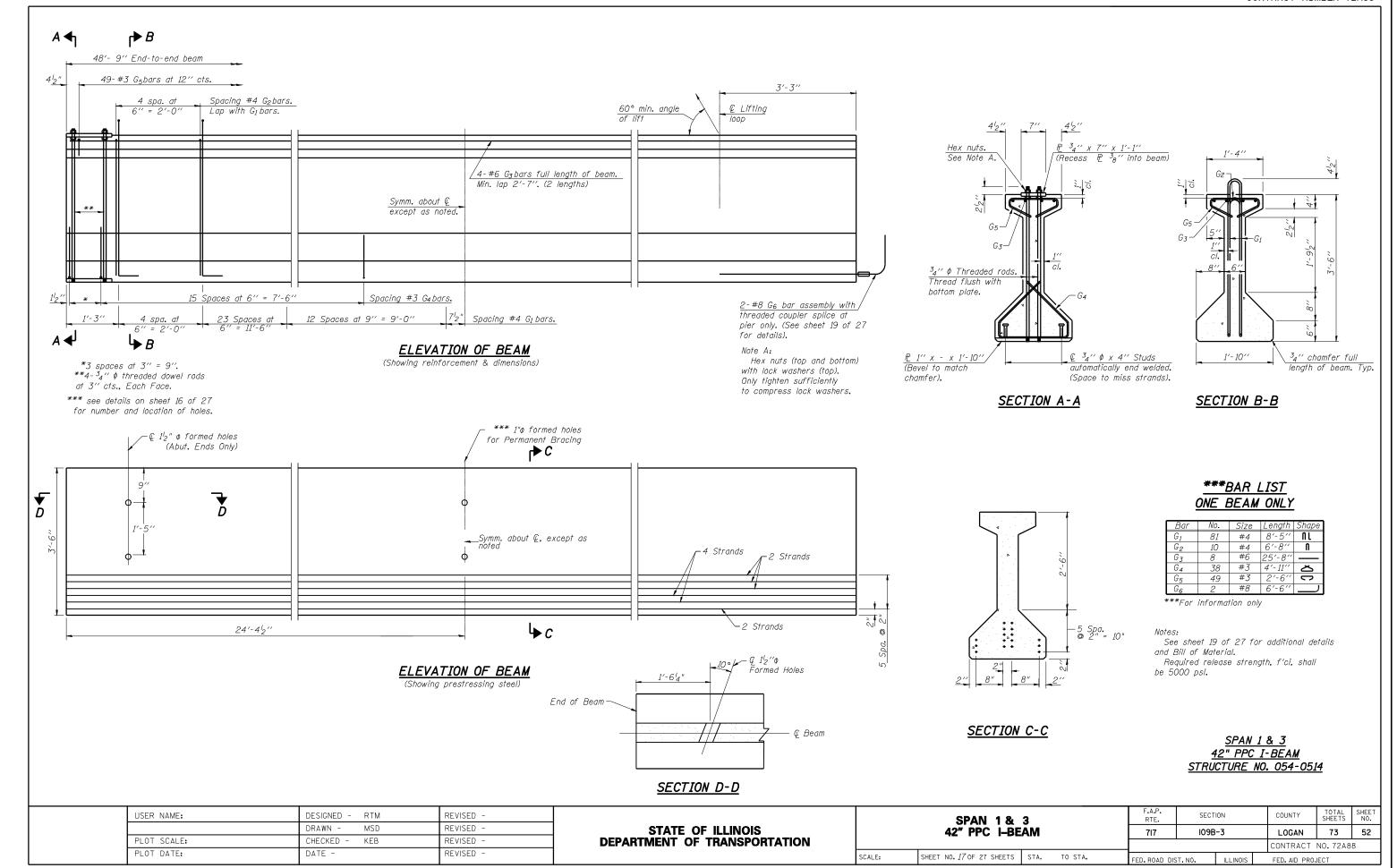
- * Fabricator shall locate to miss strands within permissible tolerances.
- ** Alternate C12x30 channels are permitted to facilitate material acquisition. The alternate, if utilized, shall be provided at no extra cost to the Department. Cost of permanent bracing is included with Furnishing and Erecting PPC I-Beams, 42"

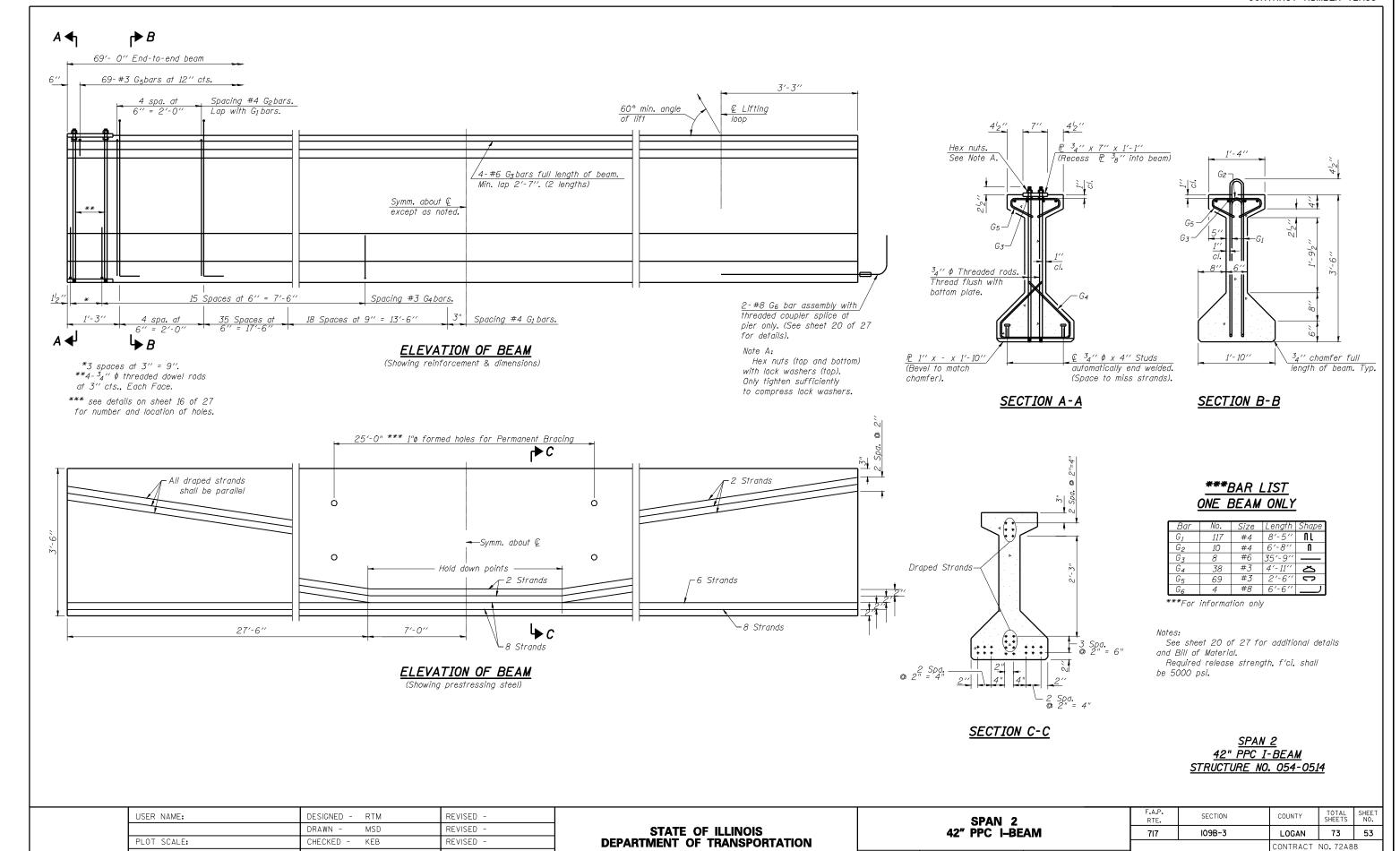
PERMANENT BRACING DETAILS

FRAMING PLAN STRUCTURE NO. 054-0514

USER NAME:	DESIGNED - RTM	REVISED -				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - MSD	REVISED -	STATE OF ILLINOIS		FRAMING PLAN	717	I09B-3	LOGAN	73	51
PLOT SCALE:	CHECKED - KEB	REVISED -	DEPARTMENT OF TRANSPORTATION			ļ ,,,		CONTRACT	NO 7248	1 - ·
PLOT DATE:	DATE -	REVISED -		SCALE;	SHEET NO. 16 OF 27 SHEETS STA. TO STA.	EED BOAD DIS	T NO II I INOIS	EED AID DD	OJECT	-

SODEMANN AND ASSOCIATES, INC. O7100





SHEET NO. 18 OF 27 SHEETS STA. TO STA.

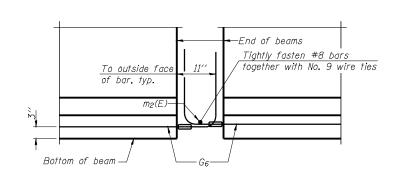
FED. ROAD DIST. NO.

PLOT DATE:

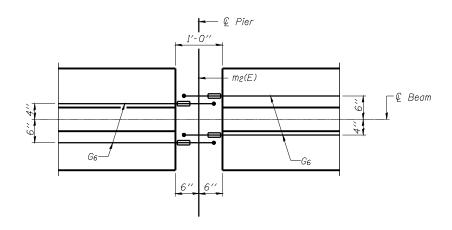
DATE -

REVISED

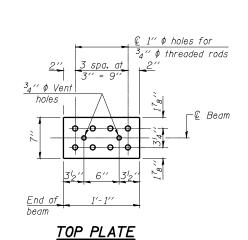
FED. AID PROJECT

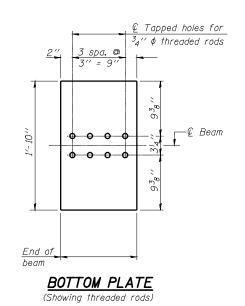


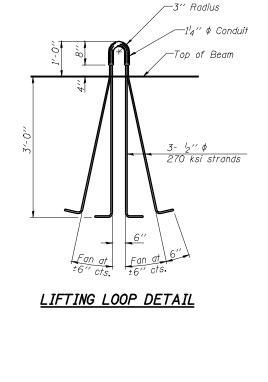
ELEVATION OF BEAM AT PIER



PLAN OF BEAM AT PIER







<u>NOTES</u>

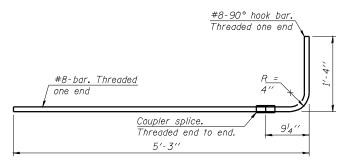
Inserts for ${}^3_4{}^{\prime\prime}$ ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $^1\!\!_2$ '' and the nominal cross-sectional area shall be 0.153 sq. in.

Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). A minimum $2\frac{1}{2}$ " ϕ lifting pin shall be used to engage the lifting loops during handling. Tilt G_6 bars when necessary to maintain $1_2^{\prime\prime}$ clearance. The top and bottom plates shall be AASHTO M270 Grade 50.

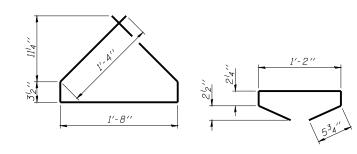
The bottom plates and studs shall be galvanized according to AASHTO M111.

Threaded rods shall be ASTM F 1554 Grade 55.

The G₆ bar assembly shall have the threaded ends oversized to ensure no reduction in cross sectional area after threading. The coupler splice shall be capable of developing 125 percent of the yield strength of the reinforcement bar.

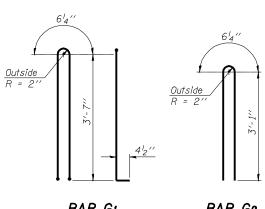


G6 BAR ASSEMBLY



BAR G4

BAR G5



AR	G1	BAR	G

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42''	Ft.	585

<u>SPANS 1 & 3</u> 42" PPC I-BEAM DETAILS STRUCTURE NO. 054-0514

USER NAME:	DESIGNED - RTM	REVISED -
	DRAWN - MSD	REVISED -
PLOT SCALE:	CHECKED - KEB	REVISED -
PLOT DATE:	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BOTTOM PLATE

(Showing studs)

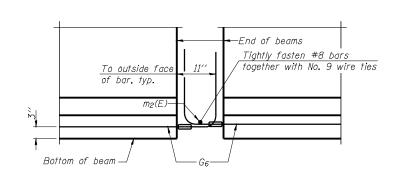
_—⊈ Beam

SPANS 1 & 3 42" PPC I-BEAM DETAILS

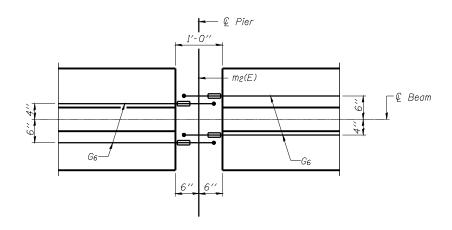
SHEET NO. 19 OF 27 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.			
717	7 109B-3			LOGAN	73	54		
·				CONTRACT NO. 72A88				
FED. ROAD DIS	ILLINOIS		FED. AID PRO	JECT				

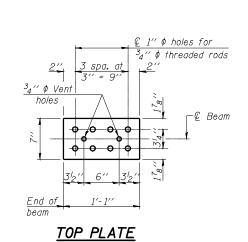
SODEMANN AND ASSOCIATES, INC.

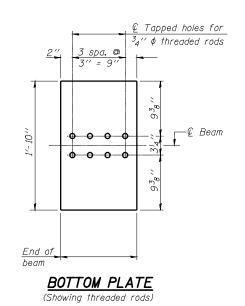


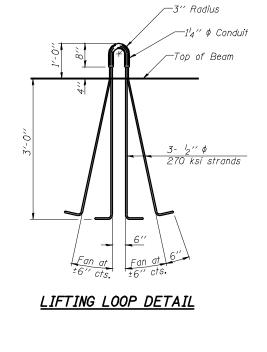
ELEVATION OF BEAM AT PIER



PLAN OF BEAM AT PIER







NOTES

Inserts for $^34^{\prime\prime}$ ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand,

Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.

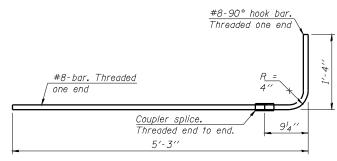
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). A minimum $2^{l}2^{\prime\prime}$ ϕ lifting pin shall be used to engage the lifting loops during handling. Tilt G_6 bars when necessary to maintain $1^{l}2^{\prime\prime}$ (local parameters).

The top and bottom plates shall be AASHTO M270 Grade 50. The bottom plates and studs shall be galvanized according to AASHTO M111.

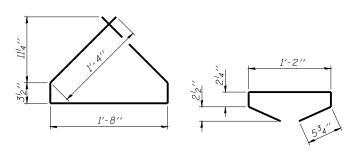
Threaded rods shall be ASTM F 1554 Grade 55.

The G_6 bar assembly shall have the threaded ends oversized to ensure no reduction in cross sectional area after threading. The coupler splice shall be capable of developing

125 percent of the yield strength of the reinforcement bar.

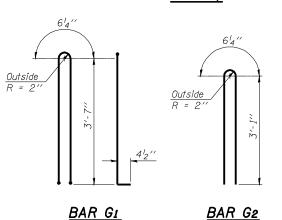


G6 BAR ASSEMBLY



BAR G4

BAR G5



SCALE:

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42''	Ft.	414

SPAN 2 42" PPC I-BEAM DETAILS STRUCTURE NO. 054-0514

USER NAME:	DESIGNED - RTM	REVISED -
	DRAWN - MSD	REVISED -
PLOT SCALE:	CHECKED - KEB	REVISED -
PLOT DATE:	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BOTTOM PLATE

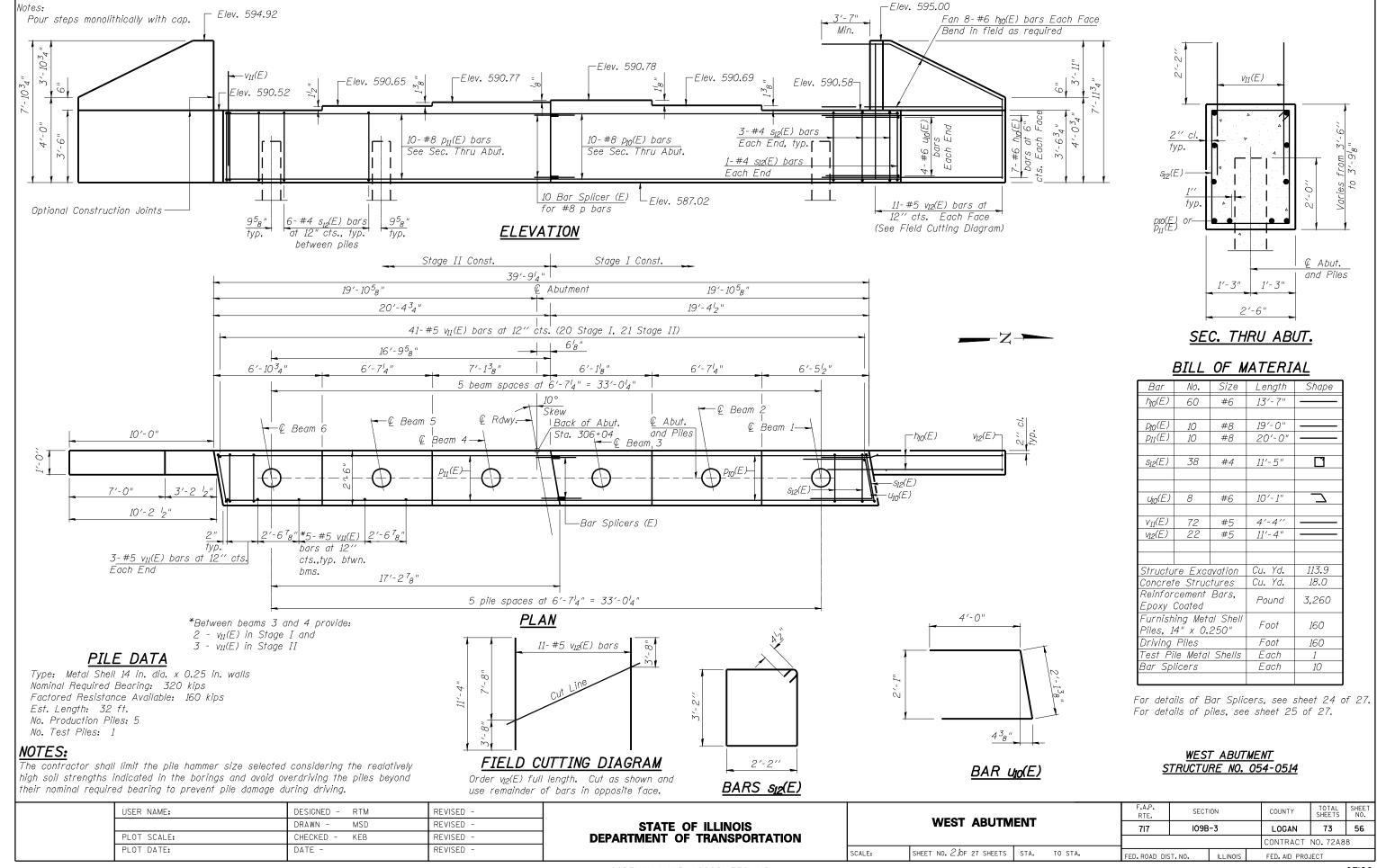
(Showing studs)

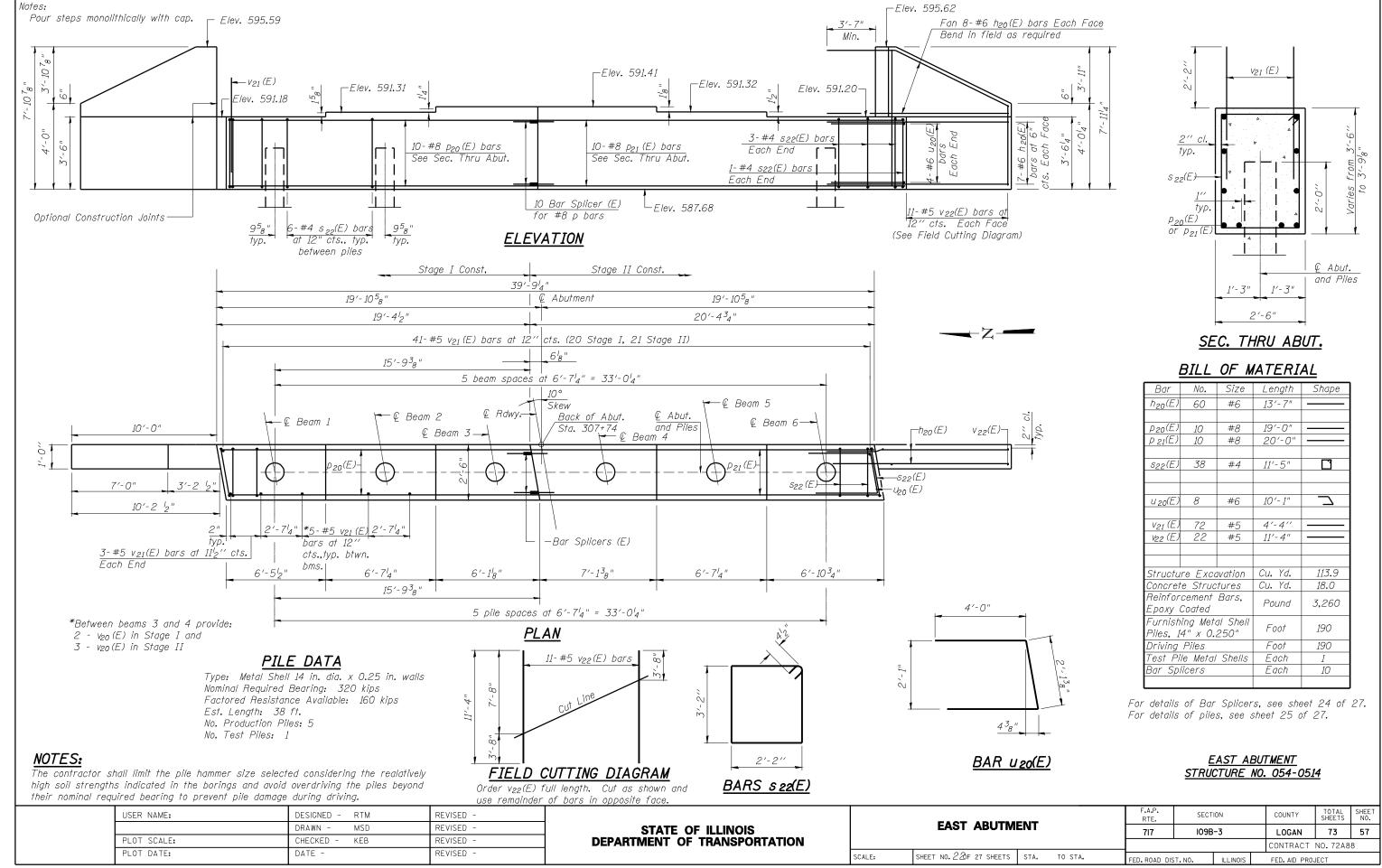
_—⊈ Beam

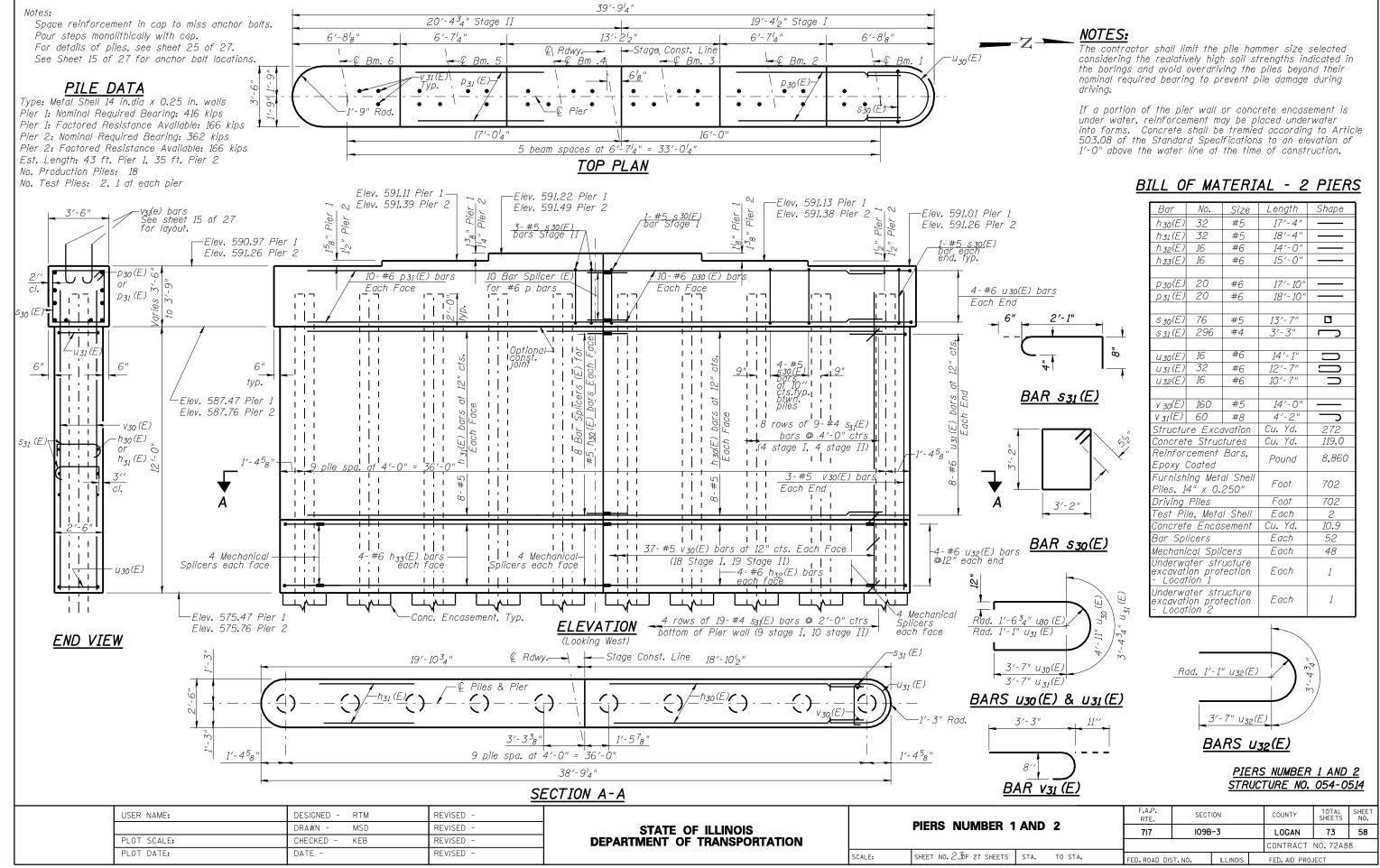
	SPAN 2 I-BEAM		
SHEET NO. 20	OOF 27 SHEETS	STA.	TO STA.

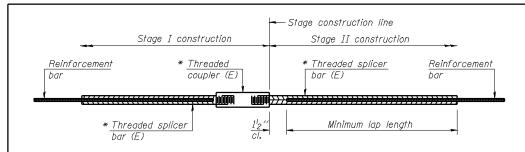
F.A.P. RTE.	SECT	ION	COUNTY	TOTAL SHEETS	SHEET NO.
717	109B	-3	LOGAN	73	55
			CONTRACT	NO.72A8	8
FED. ROAD DIS	T. NO.	ILLINOIS	FED. AID PRO	JECT	

SODEMANN AND ASSOCIATES, INC.









STANDARD BAR SPLICER ASSEMBLY

	Minim	um Lap Leng	ths	
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5''	1'-11''	2'-1''	2'-4''
5	1'-9''	2'-5"	2'-7''	2'-11''
6	2'-1''	2'-11''	3'-1''	3′-6′′
7	2'-9''	3′-10′′	4'-2"	4'-8''
8	3'-8''	5′-1′′	5′-5′′	6'-2''
9	4'-7''	6′-5″	6'-10''	7′-9′′

Table 1: Black bar, 0.8 Class C

Table 2: Black bar, Top bar lap, 0.8 Class C

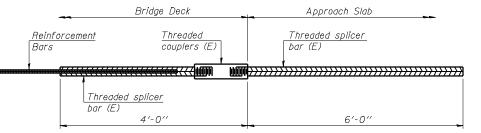
Table 3: Epoxy bar, 0.8 Class C

Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1^l_2 " + thread length

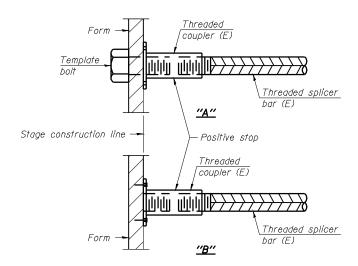
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Abutment Diaphragm	#6	16	Table 3
Slab	#5	296	Table 4
Slab	#5	205	Table 3
Approach Slab	#4	50	Table 4
Pier Diaphragm	#4	8	Table 3
Approach Slab	#5	92	Table 3
Approach Slab footing	#5	80	Table 4
Pier Diaphragm	#6	4	Table 3
Piers	#6	20	Table 4
Piers -	#5	32	Table 4
Abutments	#8	20	Table 4



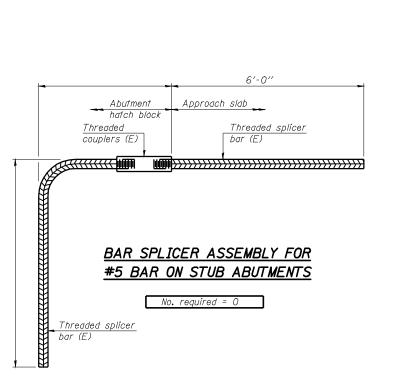
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

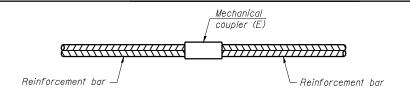
No. required = 74



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
Pier Walls	#6	48

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 special provision for Mechanical Splicers.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO.054-0514

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY DETAILS	ETAU O	F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.			
BAK	SPLICER ASSEME	SLY D	E I AILS	717	109B	-3		LOGAN	73	59
								CONTRACT	NO.72A8	8
	SHEET NO. 240F 27 SHEETS	STA.	TO STA.	FED. ROAD DIS	ST.NO.	ILLINOIS		FED. AID PRO	JECT	

SODEMANN AND ASSOCIATES, INC. 07100

SCALE:

SHEET NO. 25

27 SHEETS

TOTAL SHEET NO.

73 49



METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd.³/ft.)
PP12	0.179''	22.60	0.0274
PP12	0.250′′	31.37	0.0267
PP14	0.250′′	36.71	0.0368
PP14	0.312''	45.61	0.0361

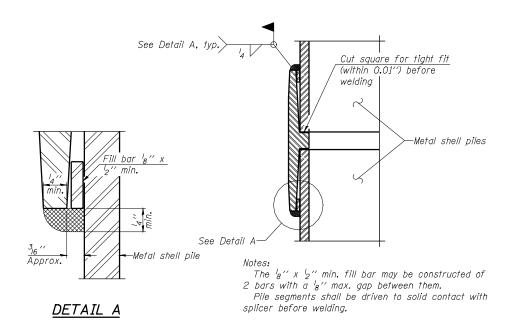
End plate

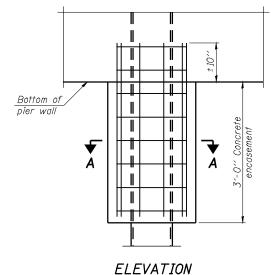
END PLATE ATTACHMENT

METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

Metal shell pile





Bottom of abutment

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. Bend as required to fit into the pier wall

Metal shell pile

COUNTY

LOGAN

PROJECT

SECTION A-A

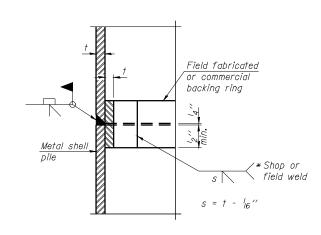
F.A.P. ROUTE NO.

SECTION

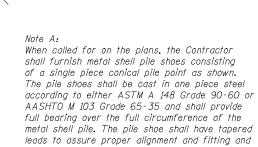
109B-3

FED, ROAD DIST, NO. ILLINOIS

Forms for encasement may be omitted when soil conditions permit.



WELDED COMMERCIAL SPLICE

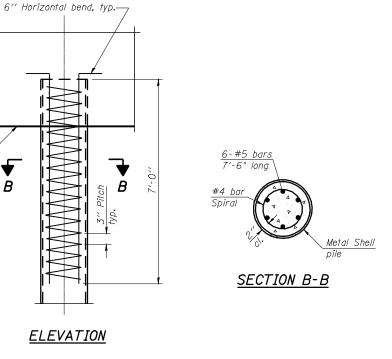


shall be secured to the pile with a circumferential

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.

CONCRETE ENCASEMENT AT PIERS



METAL SHELL REINFORCEMENT AT ABUTMENTS

ELEVATION

The metal shell piles shall be according to ASTM A 252 Grade 3.

SCALE:

METAL SHELL PILE DETAILS IL ROUTE 10 OVER DEER CREEK F.A.P. ROUTE 717 SECTION 109(B-3) LOGAN COUNTY STATION 306+89 STRUCTURE NO. 054-0514

USER NAME: REVISED DRAWN REVISED MSD PLOT SCALE: CHECKED KEB REVISED PLOT DATE: DATE -REVISED

Metal shell

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

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	IETAL OUELL BUE	DETAILO	F.A.P. RTE.	SECT	ION	COUNTY	TOTAL SHEETS	SHEET NO.
IV	IETAL SHELL PILE	DETAILS	717	109B	-3	LOGAN	73	60
						CONTRACT	NO.72A8	8
	SHEET NO. 250F 27 SHEETS	STA. TO STA.	FED. ROAD DIS	ST. NO.	ILLIN0IS	FED. AID PROJ	JECT	

SODEMANN AND ASSOCIATES, INC.

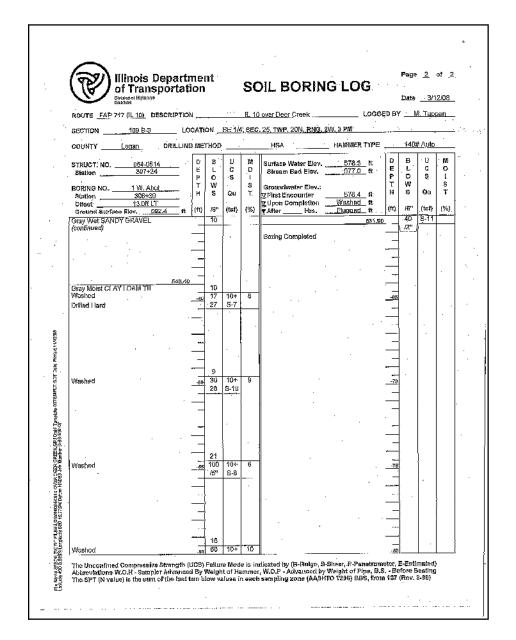
07100

CONTRACT NUMBER 72A88

F.A.P. ROUTE NO.	\$	ECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	10	09B-3	LOGAN	73	50
EED BOAD DIST N	n	II I INOIS	PRO IECT		

SHEET NO. 26 27 SHEETS

(Illinois Depa	rtme	nt		_	OIL BORING LOG		Page	: .1	0
Datayou e							Date		_
ROUTE : FAP 717 (IL 10) DESCRIP	MON _			IL 1	B over Deer Creek LOG	GED B	6. 4	и. Тар	þ
SECTION 109 B-3	J.OCAT	ION _	SE 1/4	4, SEC	2.25, TWP. 20N, RNG. 2W, 3,PM				
COUNTY Logan DRIL					HSA HAMMER TYP	ــــنــ	140	# Auto	
STRUCT, NO. 054-0514 Statkun 307+24	- E	FD	UCS	M. O	Surface Water Elev. 578.8 ft Stream Bed Elev. 577.0 ft	D E P	B	C S	Ī
BORING NO. 1 W. Abiii	- F	S S	Ø11	5 T	Groundwater Elev.: ☑ First Encounter 578.4 ft	T H	W .	Qu	ļ
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(V) Illinois Depa of Transport	rtme tation	nt		50	DIL BORING LOG		Page	<u>1</u>	of
filolobur of Hlyburogo: District 6					•		Date	3/	<u>18/0</u>
ROUTE FAP 797 (IL 10) DEBCRIF	אסוודי יי	1.1		111 14	Jover Deer Breek . LOGG	ED BY	r!	M. Tap	pan
SECTION 109 8-3	LOCATI	ON _	SE 1/	1, SEC	. 25, TWP, 20N, RNG, 2W, 3 PM				
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BORUKG NO.	- "	5	Qu	Ţ	©First Encounter <u>577.6</u> ft T Upon Completion <u>Washed</u> ft	H	3	Œu	1
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SOIL BORINGS 1

IL ROUTE 10 OVER DEER CREEK

F.A.P. ROUTE 717 SECTION 109(B-3)

LOGAN COUNTY STATION 306+89 STRUCTURE NO. 054-0514

USER NAME:	DESIGNED - RTM	REVISED -
	DRAWN - MSD	REVISED -
PLOT SCALE:	CHECKED - KEB	REVISED -
PLOT DATE:	DATE -	REVISED -

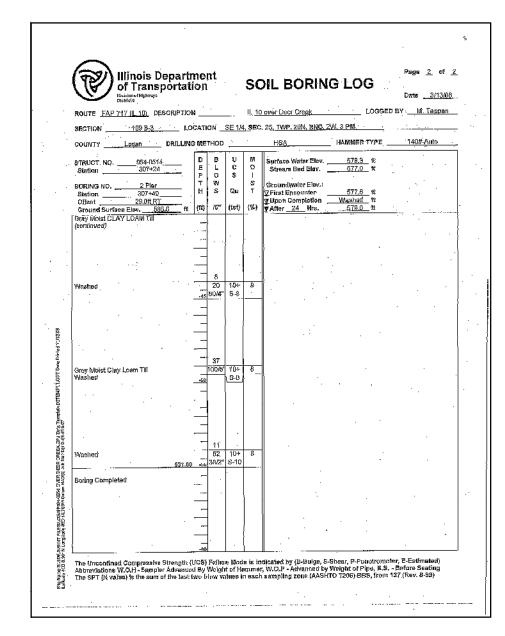
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

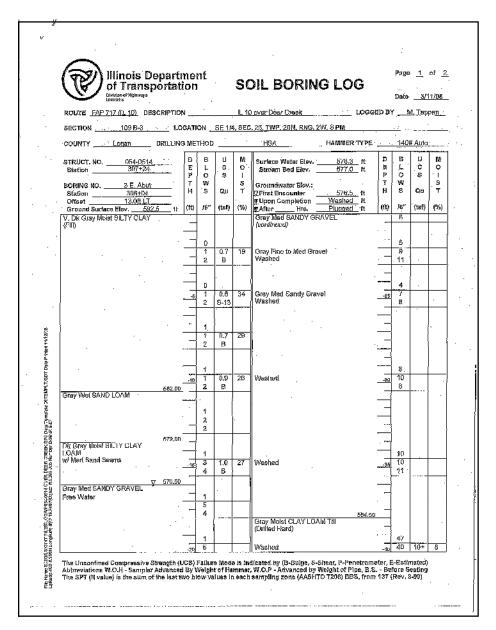
	COUL POPINIOS	F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SH N			
SOIL BORINGS 1 OF 2				717	109B	:−3		LOGAN	73	
						CONTRACT	NO.72A8	8		
	SHEET NO, 260F 27 SHEETS	STA.	TO STA.	FED. ROAD DI	ST. NO.	ILLIN0IS		FED. AID PRO	JECT	

SCALE:

F.A.P. ROUTE NO.	,	ECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
717	10	D9B-3	LOGAN	73	51	
EED DOLD DIET N		II I INOIC	DDO ICCT			

SHEET NO. 27 27 SHEETS





	Illinois Depart of Transportat District Milmore	tion			SC	DIL BORING LOG
	777 (IL 10) DESCHIPTIC	ON			<u>11, 10</u>	nvew Door Crock LOGGED BY M. Tappa
SECTION	109 B-3 L	ITA3C	ON _	SE 1/4	sec	25, TWP. 20N, RNG, 2W, 3 PM
COUNTY	<u>Logan</u> DRILLIN	ig Mei	rwod	·		HSA HAMMER TYPE 140# Auto
STRUCT, NO. Station BORING NO.	3 F. Abol	D E P T H	S A O T S	ខ្លួ	M D 1 S	Surface Water Elev. 578.9 R D B U
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		.] - [.				-
Washed		-55	44 100/4	10+ 5-10	.7	
		_	21 100/4	10+	8.8	<u> </u>

SOIL BORINGS 2

IL ROUTE 10 OVER DEER CREEK

F.A.P. ROUTE 717 SECTION 109(B-3)

LOGAN COUNTY STATION 306+89

STRUCTURE NO. 054-0514

USER NAME:	DESIGNED - RTM	REVISED -
	DRAWN - MSD	REVISED -
PLOT SCALE:	CHECKED - KEB	REVISED -
PLOT DATE:	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	SOIL BODINGS 2 OF 2			F.A.P. RTE.	SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
SOIL BORINGS 2 OF 2			717	I09B-3		LOGAN	73	62		
								CONTRACT	NO.72A8	8
	SHEET NO, 270F 27 SHEETS	EET NO. 270F 27 SHEETS STA. TO STA.		FED. ROAD DIS	ST.NO.	ILLIN0IS		FED. AID PROJ	JECT	

SCALE:

