02-28-14 LETTING ITEM 030

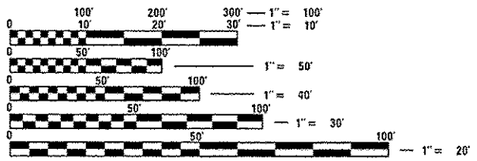
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	1
FED. ROAD DIST. NO. 6	ILLINOIS	CONTRACT NO. 72B82		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP ROUTE 717 (IL 10)
SECTION (102B–1, 102CR, 102BR–2) RS–5
PROJECT ACF-0717 (034)
CULVERT & BRIDGE REPLACEMENT
LOGAN COUNTY
SUGAR CREEK OVERFLOW BRIDGE
3.1 MI. E. OF NEW HOLLAND
C–96–044–08

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4



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

FAP 717 (IL 10) – WEST OF T.R. 44
MINOR ARTERIAL (NON–URBAN)
ADT = 2150 (2009); 2600 (2029)
SU = 4.6%, MU = 6.9%
PV = 88.5%

FAP 717 (IL 10) – EAST OF T.R. 44
MINOR ARTERIAL (NON–URBAN)
ADT = 2200 (2009); 2650 (2029)
SU = 3.4%, MU = 5.6%
PV = 91.0%

T.R. 44 – NORTH OF IL 10
ADT = 125 (2006); 150 (2026)
SU = 3.0%, MU = 1.0%
PV = 96.0%

T.R. 44 – SOUTH OF IL 10
ADT = 75 (2006); 100 (2026)
SU = 3.0%, MU = 1.0%
PV = 96.0%

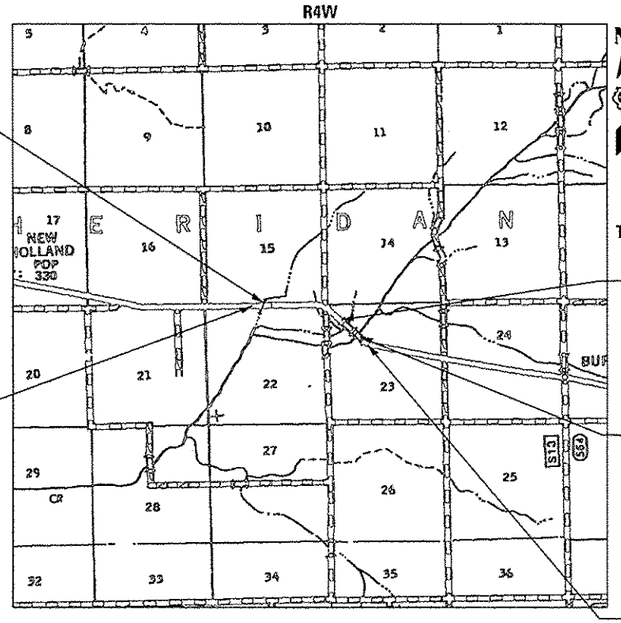
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123 SHERIDAN TWP. – LOGAN CO.
OR 811

PROJECT ENGINEER: JEFF MYERS 217–782–4761
SQUAD LEADER: ED KERN 217–524–7547

CONTRACT NO. 72B82

PROPOSED CULVERT REPLACEMENT
EXISTING SN 054–7010
PROPOSED SN 054–7069
STA. 488 + 73.19 (IL RTE 10)
CONCRETE BOX CULVERT, 12'x9' (CAST IN PLACE)

PROPOSED IMPROVEMENT BEGINS
STA. 484 + 00.00



LOCATION MAP

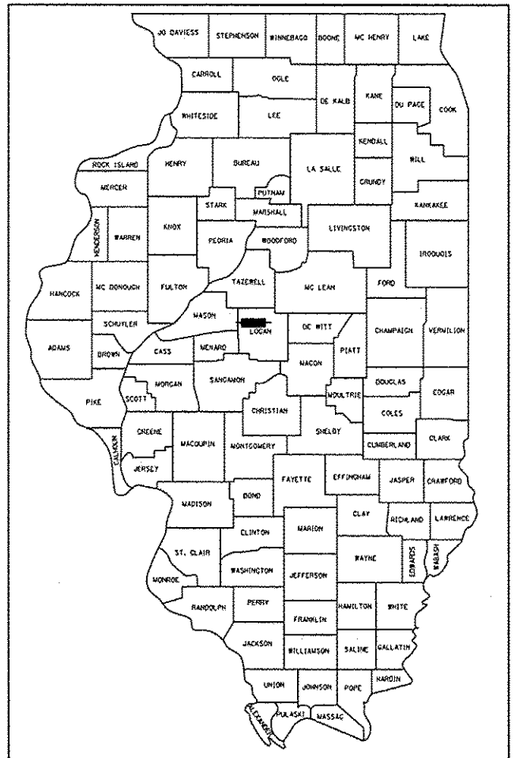
PROPOSED BRIDGE REPLACEMENT
EXISTING SN 054–0008
PROPOSED SN 054–0515
STATION 511 + 50.00 (IL RTE 10)
2–SPANS 132'–0" B–B ABUTS.
32'–0" REINF. CONC. DECK
NO SKEW

PROPOSED BRIDGE REHABILITATION
EXISTING SN 054–0009
STATION 524 + 30.00 (IL RTE 10)
5–SPANS 297'–6" B–B ABUTS.
32'–0" OUT TO OUT DECK
NO SKEW

PROPOSED IMPROVEMENT ENDS
STA. 526 + 26.33

TOTAL LENGTH OF PROJECT = 4226.33 FT. = 0.800 MILE
NET LENGTH OF PROJECT = 4226.33 FT. = 0.800 MILE

D–96–044–08



LOCATION OF SECTION INDICATED THUS: –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED December 5 20 13
Roger L Driskell
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Jan 24 20 14
John D. Baranzelli, P.E. /bk
ENGINEER OF DESIGN AND ENVIRONMENT
Jan 24 20 14
Omer Osman, P.E. /bk
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

BLANK, WESSELINK, COOK & ASSOCIATES
ENGINEERS – CONSULTANTS
DECATUR, ILLINOIS

STATE OF ILLINOIS — CHARLES W. GUTHRIE, JR. 062-050644 — LICENSED PROFESSIONAL ENGINEER

Charles W. Guthrie Jr.
CHARLES W. GUTHRIE, JR., P.E.
DATE November 15 20 13
EXPIRES NOVEMBER 30, 2013

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

INDEX OF SHEETS

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-10	BRIDGE APPROACH PAVEMENT CONNECTOR
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
542001-04	CONCRETE END SECTIONS FOR PIPE CULVERTS 15" (375mm) THRU 84" (2100mm) DIA.
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
542401-01	METAL END SECTION FOR PIPE CULVERTS
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
609006-05	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
630001-10	STEEL PLATE BEAM GUARDRAIL
630101-09	GUARDRAIL MOUNTED ON EXISTING CULVERTS
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-12	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
666001-01	ROW MARKERS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5M) AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5M) TO 24" (600MM) FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH
701311-03	LANE CLOSURE, 2L, 2W MOVING OPERATIONS - DAY ONLY
701321-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2S, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701331-04	LANE CLOSURE, 2L, 2W WITH RUNAROUND, FOR SPEEDS ≥ 45 MPH
701901-03	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
780001-04	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
BLR21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

DISTRICT SIX

EXAMINED 10/9 20 13

Bill McBryar

OPERATIONS ENGINEER

EXAMINED Oct. 15 20 13

2RMLI

PROJECT IMPLEMENTATION ENGINEER

EXAMINED OCT 15. 20 13

PROGRAM DEVELOPMENT ENGINEER

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - CWG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS AND HIGHWAY STANDARDS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - BWC	REVISED -					717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	2
	PLOT SCALE = $SCALE$	CHECKED - RMD	REVISED -							CONTRACT NO. 72882		
	PLOT DATE = $DATE$	DATE - 02/09/09	REVISED -		SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

1. WHERE SECTION OR SUB-SECTION MARKERS 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, AN AUTHORIZED AGENT OR LAND SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

2. 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.

   THE LOCATION OF ALL UTILITIES ARE BASED ON INFORMATION PROVIDED BY OTHERS AND ARE INTENDED TO BE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS CONSTRUCTION ACTIVITIES WITH THE VARIOUS UTILITY OWNERS. ALL POTENTIAL CONFLICTS SHALL BE INVESTIGATED AND REMEDIAL ACTION TAKEN PRIOR TO INTERRUPTION OF THE CONTRACTOR'S PROGRESS. ALL UTILITIES AND PRIVATELY OWNED STREET LIGHTS AND SIGNS THAT REQUIRE RELOCATION SHALL BE MOVED BY OTHERS.

3. WHERE PROPOSED CONSTRUCTION ABUTS EXISTING APPURTENANCES, A SAW CUT SHALL BE MADE TO ACHIEVE A NEAT BUTT JOINT. SAW CUTS WILL NOT BE PAID FOR SEPARATELY. COST OF SAW CUTS SHALL BE INCLUDED IN THE TYPE OF WORK ENCOUNTERED.

4. IN ADDITION TO FIELD SURVEYS, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

5. EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION SHALL BE REMOVED OR RELOCATED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL REPLACE THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

6. THE THICKNESS OF HMA 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 HMA MIXTURE IS PLACED.

7. ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON NAVD 88 DATUM.

9. BITUMINOUS SURFACE TREATMENTS: GRADATION CA-14 (MID SPEC.) IS ASSUMED FOR COVER COATS AND GRADATION CA-16 (MID SPEC.) IS ASSUMED FOR SEAL COATS. THE RESULTING TARGET APPLICATION RATES ARE AS FOLLOWS:

	TYPE OF CONSTRUCTION	BITUMINOUS MATERIAL	APPLICATION RATE	AGGREGATE	APPLICATION RATE
A.	PRIME COAT (CONCRETE AND BASE)	0.00038 tons/sq yd			
B.	PRIME COAT (AGGREGATE BASE)	0.001425 tons/sq yd			
C.	PRIME COAT (HARD SURFACE)		0.05 gal/sq yd	FA-1 or FA-2	3 lb/ sq yd
D.	PRIME COAT (AGGREGATE SURFACE)		0.25 gal/sq yd	FA-1 or FA-2	4 lb/sq yd
E.	A-3 (1ST COVER COAT)		0.32 gal/sq yd	CA-14	25 lb/sq yd
F.	A-3 (2ND COVER COAT)		0.45 gal/sq yd	CA-14	25 lb/sq yd
G.	A-3 (SEAL COAT)		0.35 gal/sq yd	CA-16	19 lb/sq yd
H.	FERTILIZER (SEEDING) NITROGEN 90 lb/acre PHOSPHORUS 90 lb/acre POTASSIUM 90 lb/acre				

NOTE: THE ENGINEER RESERVES THE RIGHT TO ADJUST THE TARGET APPLICATION RATES AND THE QUANTITIES

*NOTE: DO NOT PUDDLE PRIME

10. THE FOLLOWING DENSITIES HAVE BEEN USED IN CALCULATING THE PLAN QUANTITIES:

HMA PAVEMENT	112 lb/in/sq yd
GRANULAR MATERIALS	2.05 tons/cu yd
BITUMINOUS MATERIAL (PRIME COAT)	0.0038 tons/gal
RIPRAP	1.50 tons/yd^3

11. FOR INFORMATIONAL PURPOSES ONLY, AN EARTH SHRINKAGE FACTOR OF 0.25 WAS APPLIED TO EARTHWORK COMPUTATIONS.

12. 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.

13. ACCESS TO ALL PROPERTIES SHALL BE MAINTAINED DURING CONSTRUCTION ACTIVITIES.

14. BEFORE ORDERING PIPE CULVERTS, PIPE DRAINS, AND MANHOLES, THE CONTRACTOR SHALL CONTACT THE ENGINEER AS TO THE EXACT LENGTH AND QUANTITY REQUIRED.

15. TREES NOT MARKED FOR REMOVAL SHALL BE CONSIDERED AS DESIGNATED TO BE SAVED AND SHALL BE PROTECTED UNDER THE PROVISIONS OF ARTICLE 201.05.

16. UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OUTSIDE THE LIMITS OF THE 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 OF EARTH EXCAVATION.

17. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS BITUMINOUS LIFTS.

18. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

19. THE DISTRICT BUREAU OF OPERATIONS SHALL BE NOTIFIED AT LEAST 14 DAYS PRIOR TO PLACEMENT OF NO PASSING ZONES AND FINAL PAVEMENT MARKINGS, PHONE (217) 782-7314.

20. WHEN REQUIRED BY ARTICLE 420.18, A PROTECTIVE COAT SHALL BE APPLIED TO CONCRETE PAVEMENT, GUTTER FLAGS, CURB SURFACES AND OTHER CONCRETE APPURTENANCES ADJACENT TO THE PAVEMENT.

21. SEEDING SHALL BE DONE ON ALL AREAS THAT ARE DISTURBED BY CONSTRUCTION OPERATIONS AS DIRECTED BY THE ENGINEER. SEEDING SHALL BE PAID FOR ONLY WITHIN THE PROPOSED RIGHT-OF-WAY OR EASEMENT LIMITS. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE SEEDED, AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE. SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET OR IN AN UNTILLABLE CONDITION. SEEDING, CLASS 2A SHALL BE USED ON AREAS FLATTER THAN 3:1, SEEDING CLASS 3 SHALL BE USED ON AREAS 3:1 AND STEEPER.

22. GUARDRAIL MARKERS SHALL NOT BE ATTACHED TO PROPOSED "TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL" RAIL ELEMENTS. MARKERS IN THE AREA OF THE TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL SHALL BE MOUNTED ON THE NEAREST POST.

23. IF THE CONTRACTOR REQUESTS OLD PLANS THEY SHALL CONTACT THE PROJECT ENGINEER OR TEAM ENGINEER AS SHOWN ON THE COVER SHEET TO HAVE THEM AVAILABLE FOR REVIEW.

24. THE TOWNSHIP ROAD THAT IS INCLUDED IN THE IMPROVEMENTS SHOWN IN THESE PLANS HAS BEEN RENAMED TR44. THE PREVIOUS NAME WAS TR400. BOTH NAMES MAY APPEAR IN THESE PLANS.

COMMITMENTS

NONE

#8 MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT.

LOCATION(S):	ALL	ALL	ALL
MIXTURE USE(S):	HMA SURFACE & TOP 1.5" HMA SHOULDER	LEVELING BINDER	HMA BINDER, BASE COURSE, LOWER LIFTS SHOULDER, PATCHING
PG:	PG64-22	PG64-22	PG64-22
DESIGN AIR VOIDS:	4.0% @ N50	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL 9.5	IL 9.5	IL 19.0
FRICTION AGGREGATE:	MIX "C"	N/A	N/A

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED - CWG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - BWC	REVISED -					717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	3
	PLOT SCALE = #SCALE#	CHECKED - RMD	REVISED -							CONTRACT NO. 72882		
	PLOT DATE = #DATE#	DATE - 02/09/09	REVISED -		SCALE:	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: ROADWAY BRRP 80 FED / 20 ST RURAL 0004	BOX CULVERT BRRP 80 FED / 20 ST S. N. 054-7069 0040	OVERFLOW BRIDGE BRRP 80 FED / 20 ST S. N. 054-0515 0011	BRIDGE REPAIR BRRP 80 FED / 20 ST S. N. 054-0009 0014
20100500	TREE REMOVAL, ACRES	ACRE	2	2			
20200100	EARTH EXCAVATION	CU YD	34,440	12,925	200	21,315	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	1,723	1,723			
20300100	CHANNEL EXCAVATION	CU YD	210		210		
20400800	FURNISHED EXCAVATION	CU YD	19,775	6,160	595	13,020	
20800150	TRENCH BACKFILL	CU YD	234	234			
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	40,725	38,655	2,070		
25000200	SEEDING, CLASS 2	ACRE	10.50	9.50	1.00		
25000350	SEEDING, CLASS 7	ACRE	1.75			1.75	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	945	855	90		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	945	855	90		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	945	855	90		
25000700	AGRICULTURAL GROUND LIMESTONE	TON	21	19	2		
25100115	MULCH, METHOD 2	ACRE	10.50	9.50	1.00		

14

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 1 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	4
		CONTRACT NO. 72882		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE ROADWAY BRRP 80 FED / 20 ST RURAL 0004	BOX CULVERT BRRP 80 FED / 20 ST S. N. 054-7069 0040	OVERFLOW BRIDGE BRRP 80 FED / 20 ST S. N. 054-0515 0011	BRIDGE REPAIR BRRP 80 FED / 20 ST S. N. 054-0009 0014
25100630	EROSION CONTROL BLANKET	SQ YD	8,056			8,056	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	1,225	950	100	175	
28000400	PERIMETER EROSION BARRIER	FOOT	7,543	7,543			
28000500	INLET AND PIPE PROTECTION	EACH	9	9			
28100109	STONE RIPRAP, CLASS A5	SQ YD	1,949	183	682	1,084	
28200200	FILTER FABRIC	SQ YD	1,908	183	682	1,043	
31100100	SUBBASE GRANULAR MATERIAL, TYPE A	TON	1,858	1,175		683	
31100700	SUBBASE GRANULAR MATERIAL, TYPE A 8"	SQ YD	650		144	506	
35100700	AGGREGATE BASE COURSE, TYPE A 8"	SQ YD	5,590	5,590			
35501332	HOT-MIX ASPHALT BASE COURSE, 12"	SQ YD	989			989	
35650500	BASE COURSE WIDENING 10"	SQ YD	283		133		150
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	362	362			
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	194	194			
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	14	14			

14

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 2 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	5
		CONTRACT NO. 72B82		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				ROADWAY BRRP 80 FED / 20 ST RURAL 0004	BOX CULVERT BRRP 80 FED / 20 ST S. N. 054-7069 0040	OVERFLOW BRIDGE BRRP 80 FED / 20 ST S. N. 054-0515 0011	BRIDGE REPAIR BRRP 80 FED / 20 ST S. N. 054-0009 0014
40600300	AGGREGATE (PRIME COAT)	TON	35	35			
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	424	424			
40600895	CONSTRUCTING TEST STRIP	EACH	2	2			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	194	194			
40600990	TEMPORARY RAMP	SQ YD	141			113	28
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	1,689	1,689			
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	1,366	1,366			
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	42			42	
44000100	PAVEMENT REMOVAL	SQ YD	1849		278	1571	
44000152	HOT-MIX ASPHALT SURFACE REMOVAL, 3/4"	SQ YD	8,013	8,013			
44200144	PAVEMENT PATCHING, TYPE II, 12 INCH	SQ YD	50	50			
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	320	320			
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	1,563	1,563			
48203100	HOT-MIX ASPHALT SHOULDERS	TON	13	13			

14

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 3 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	6
		CONTRACT NO. 72B82		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				ROADWAY BRRP 80 FED / 20 ST RURAL 0004	BOX CULVERT BRRP 80 FED / 20 ST S. N. 054-7069 0040	OVERFLOW BRIDGE BRRP 80 FED / 20 ST S. N. 054-0515 0011	BRIDGE REPAIR BRRP 80 FED / 20 ST S. N. 054-0009 0014
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1		1		
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1			1	
50102400	CONCRETE REMOVAL	CU YD	20.2				20.2
50105220	PIPE CULVERT REMOVAL	FOOT	62	27		35	
50200100	STRUCTURE EXCAVATION	CU YD	848		643	205	
50300100	FLOOR DRAINS	EACH	12			12	
50300225	CONCRETE STRUCTURES	CU YD	103.4			103.4	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	300.8			278.1	22.7
50300260	BRIDGE DECK GROOVING	SQ YD	1,522			639	883
50300280	CONCRETE ENCASEMENT	CU YD	2.1			2.1	
50300300	PROTECTIVE COAT	SQ YD	900			825	75
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1			1	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	2,016				2,016
50500505	STUD SHEAR CONNECTORS	EACH	2,430			2,430	

14

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 4 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	7
		CONTRACT NO. 72B82		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BLANK, WESSELINK, COOK & ASSOCIATES
ENGINEERS - CONSULTANTS   DECATUR, ILLINOIS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE ROADWAY BRRP 80 FED / 20 ST RURAL 0004	BOX CULVERT BRRP 80 FED / 20 ST S. N. 054-7069 0040	OVERFLOW BRIDGE BRRP 80 FED / 20 ST S. N. 054-0515 0011	BRIDGE REPAIR BRRP 80 FED / 20 ST S. N. 054-0009 0014
50800105	REINFORCEMENT BARS	POUND	18, 900		18, 900		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	80, 320		780	76, 760	2, 780
50800515	BAR SPLICERS	EACH	106		58		48
51200958	FURNISHING METAL SHELL PILES 14" X 0.250"	FOOT	310			310	
51201610	FURNISHING STEEL PILES HP12X63	FOOT	380			380	
51202305	DRIVING PILES	FOOT	690			690	
51203200	TEST PILE METAL SHELLS	EACH	2			2	
51203610	TEST PILE STEEL HP12X63	EACH	1			1	
51204650	PILE SHOES	EACH	12			12	
51500100	NAME PLATES	EACH	1			1	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	136				136
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	2				2
52100520	ANCHOR BOLTS, 1"	EACH	86			36	50
54003000	CONCRETE BOX CULVERTS	CU YD	111.3		111.3		

14

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 5 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	8
		CONTRACT NO. 72B82		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: ROADWAY BRRP 80 FED / 20 ST RURAL 0004	BOX CULVERT BRRP 80 FED / 20 ST S. N. 054-7069 0040	OVERFLOW BRIDGE BRRP 80 FED / 20 ST S. N. 054-0515 0011	BRIDGE REPAIR BRRP 80 FED / 20 ST S. N. 054-0009 0014
	542A1075	PIPE CULVERTS, CLASS A, TYPE 2 30"	FOOT	104	104			
	542A1093	PIPE CULVERTS, CLASS A, TYPE 2 48"	FOOT	137			137	
	542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	64	64			
	542D0253	PIPE CULVERTS, CLASS D, TYPE 1 48"	FOOT	71	71			
	542D1063	PIPE CULVERTS, CLASS D, TYPE 2 18"	FOOT	249	249			
	54213453	END SECTIONS 18"	EACH	8	8			
	54213483	END SECTIONS 48"	EACH	2	2			
	54213675	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"	EACH	2	2			
	54213693	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 48"	EACH	1			1	
	54261348	CONCRETE END SECTION, STANDARD 542001, 48", 1:3	EACH	2			2	
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	66			66	
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	3,850	2,100	575	1,175	
*	63000025	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	FOOT	50		50		
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	6	6			

14

* SPECIALTY ITEM

BLANK, WESSELINK, COOK & ASSOCIATES
ENGINEERS - CONSULTANTS
DECATUR, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 6 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	9
		CONTRACT NO. 72882		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: ROADWAY BRRP 80 FED / 20 ST RURAL 0004	BOX CULVERT BRRP 80 FED / 20 ST S. N. 054-7069 0040	OVERFLOW BRIDGE BRRP 80 FED / 20 ST S. N. 054-0515 0011	BRIDGE REPAIR BRRP 80 FED / 20 ST S. N. 054-0009 0014
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	12	4	4	4	
	63200310	GUARDRAIL REMOVAL	FOOT	2,724	840	508	1,376	
	66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	33	25	8		
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	24	24			
	67100100	MOBILIZATION	L SUM	1	1			
	70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	2		1		1
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1			
	70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1			
	70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1			
	70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1			
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	5			
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	3		1	1	1
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	424	424			
	70300230	TEMPORARY PAVEMENT MARKING - LINE 5"	FOOT	15,339	15,339			

14

* SPECIALTY ITEM

BLANK, WESSELINK, COOK & ASSOCIATES
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DECATUR, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 7 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	10
		CONTRACT NO. 72882		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
					ROADWAY BRRP 80 FED / 20 ST RURAL 0004	BOX CULVERT BRRP 80 FED / 20 ST S. N. 054-7069 0040	OVERFLOW BRIDGE BRRP 80 FED / 20 ST S. N. 054-0515 0011	BRIDGE REPAIR BRRP 80 FED / 20 ST S. N. 054-0009 0014
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	9,034		2,944	4,534	1,556
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	875		350		525
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	825		325		500
	70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	8		2	4	2
	70600332	IMPACT ATTENUATORS, RELOCATE (FULLYREDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4		2		2
*	72000100	SIGN PANEL - TYPE 1	SQ FT	29	29			
*	73000100	WOOD SIGN SUPPORT	FOOT	60	60			
*	78001120	PAINT PAVEMENT MARKING - LINE 5"	FOOT	15,339	15,339			
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	47	47			
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	59	30	10	19	
*	78200420	GUARDRAIL MARKERS, TYPE B	EACH	5			5	
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	12		4	4	4
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	6,415		1,589	3,438	1,388
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	44		17	26	1

14

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 8 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	11
		CONTRACT NO. 72882		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				ROADWAY BRRP	BOX CULVERT BRRP	OVERFLOW BRIDGE BRRP	BRIDGE REPAIR BRRP
				80 FED / 20 ST	80 FED / 20 ST	80 FED / 20 ST	80 FED / 20 ST
				RURAL	S. N. 054-7069	S. N. 054-0515	S. N. 054-0009
				0004	0040	0011	0014
K1004595	PRUNING FOR SAFETY AND EQUIPMENT CLEARANCE	L SUM	1	1			
X0322469	PLUG EXISTING FLOOR DRAINS	EACH	48				48
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	473	473			
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	119			119	
X7010204	TRAFFIC CONTROL AND PROTECTION, STANDARD 701331 (SPECIAL)	EACH	1			1	
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	1			
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	22			22	
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	2,016				2,016
Z0001905	STRUCTURAL STEEL REPAIR	POUND	4,209				4,209
Z0004552	APPROACH SLAB REMOVAL	SQ YD	116			116	
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	889				889
Z0012162	BRIDGE DECK MICROSILICA CONCRETE OVERLAY 2 1/4"	SQ YD	889				889
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1			

13

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 9 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	12
		CONTRACT NO. 72882		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE ROADWAY BRRP 80 FED / 20 ST RURAL 0004	BOX CULVERT BRRP 80 FED / 20 ST S. N. 054-7069 0040	OVERFLOW BRIDGE BRRP 80 FED / 20 ST S. N. 054-0515 0011	BRIDGE REPAIR BRRP 80 FED / 20 ST S. N. 054-0009 0014
	Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	1				1
	Z0023500	FILLING EXISTING CULVERTS	CU YD	26	26			
	Z0023602	GRANULAR CULVERT BACKFILL	CU YD	85		85		
	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	145			145	
*	Z0054404	ROCK FILL - EMBANKMENT	CU YD	3,278		1,723	1,555	
ϕ	Z0076600	TRAINEES	HOUR	1500	1500			
	Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	310		310		
ϕ	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1500	1500			
9	Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	12				12

* SPECIALTY ITEM

ϕ 0042

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ENGINEERS - CONSULTANTS
DECATUR, ILLINOIS

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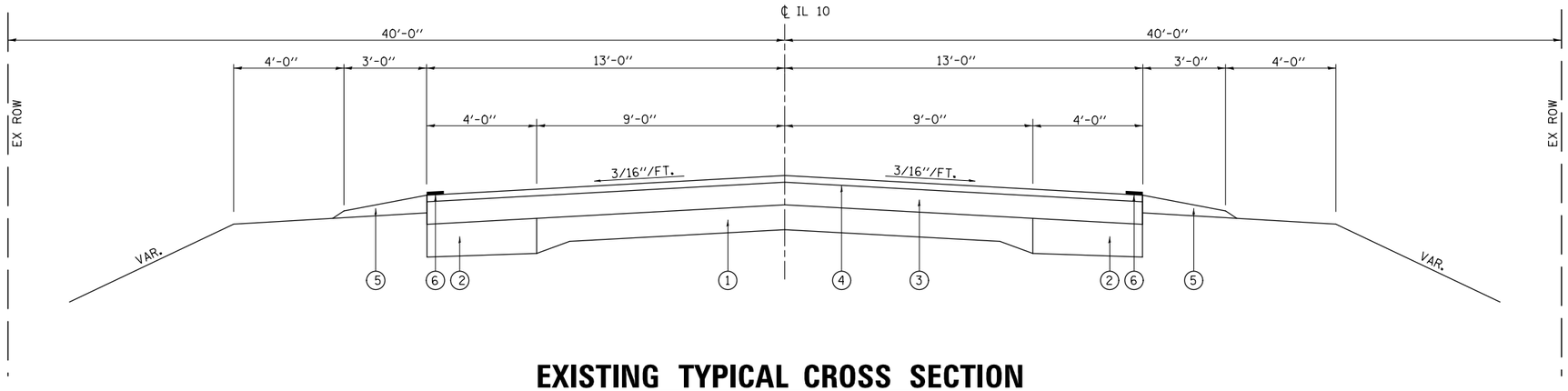
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 10 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	13
		CONTRACT NO. 72882		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

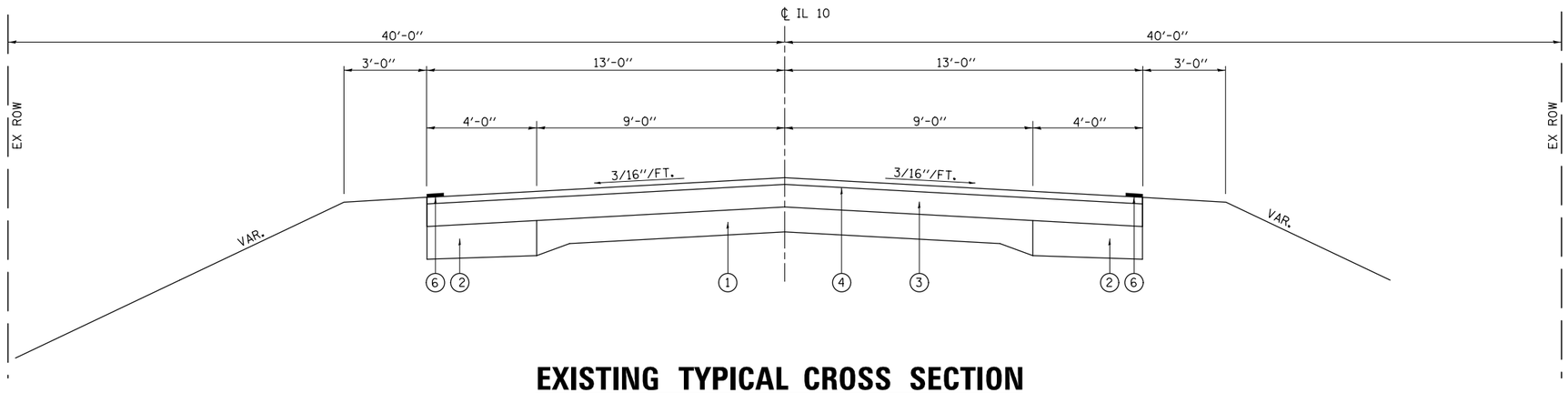


EXISTING TYPICAL CROSS SECTION

STA. 484+00.00 TO STA. 486+00.00
STA. 491+50.00 TO STA. 508+79.00 (APPROACH PAVEMENT)
(APPROACH PAVEMENT) STA. 510+51.00 TO STA. 522+79.50

SUPERELEVATION DATA
PC STA. 498+84.76
PT STA. 508+36.26
e = 6.8%
TRANSITIONS:
STA. 498+25.45 TO 499+73.69
STA. 507+42.76 TO 508+91.00

LEGEND
(1) EX PCC PAVEMENT (9'-6"-9')
(2) EX HMA BASE COURSE WIDENING, 9"
(3) EX HMA OVERLAY (4" AND VAR)
(4) EX HMA SURFACE COURSE, 1 1/4"
(5) EX AGGREGATE SHOULDER
(6) EX EDGE LINE STRIPING



EXISTING TYPICAL CROSS SECTION

STA. 486+00.00 TO STA. 491+50.00

LEGEND
(1) EX PCC PAVEMENT (9'-6"-9')
(2) EX HMA BASE COURSE WIDENING, 9"
(3) EX HMA OVERLAY (4" AND VAR)
(4) EX HMA SURFACE COURSE, 1 1/4"
(5) EX AGGREGATE SHOULDER
(6) EX EDGE LINE STRIPING

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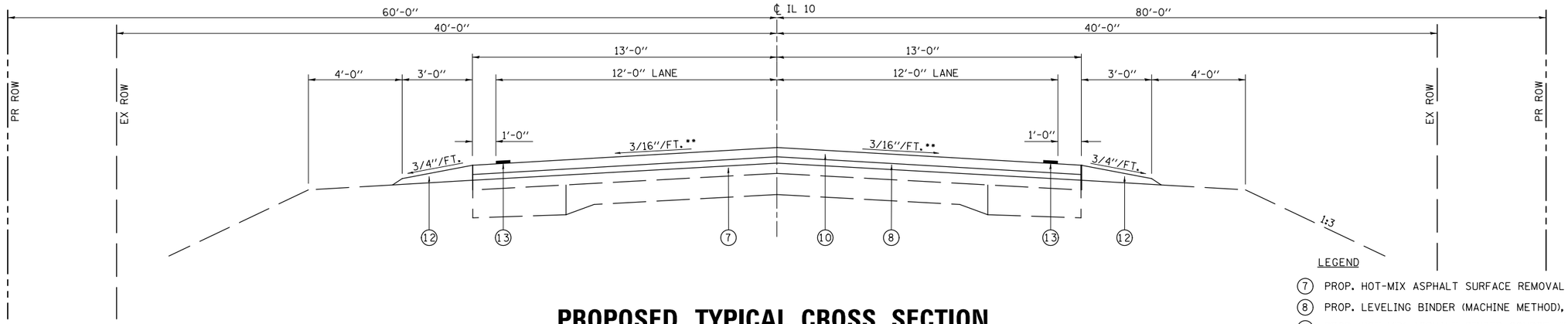
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS – FAP 717 (IL RTE 10)

SCALE: | SHEET NO. 1 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	14
		CONTRACT NO. 72B82		
	ILLINOIS	FED. AID PROJECT		



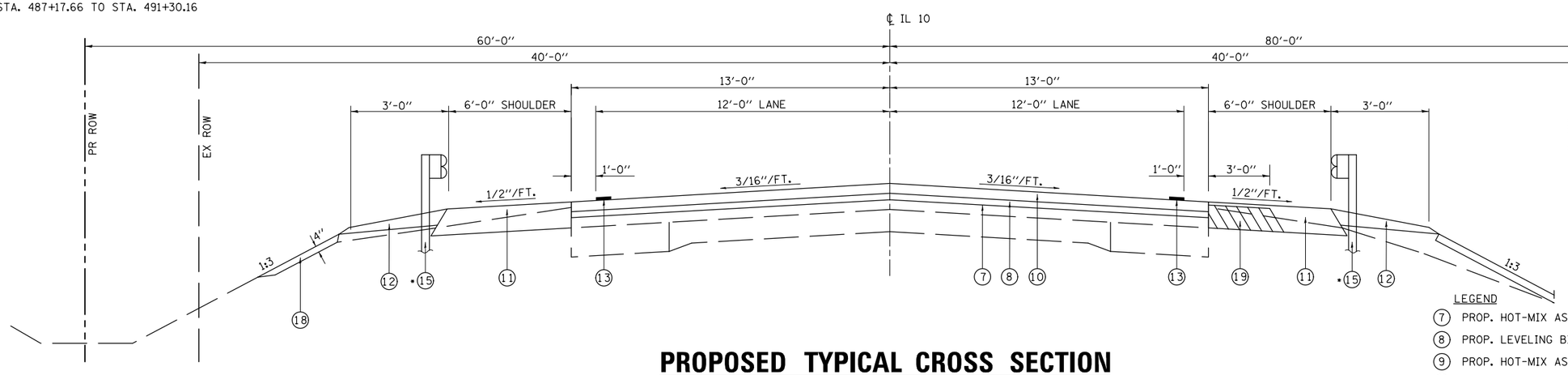
PROPOSED TYPICAL CROSS SECTION

STA. 484+00.00 TO STA. 486+00.00
STA. 491+50.00 TO STA. 497+16.76 LT
STA. 491+50.00 TO STA. 497+96.76 RT

LEGEND

(7) PROP. HOT-MIX ASPHALT SURFACE REMOVAL (3/4″)
(8) PROP. LEVELING BINDER (MACHINE METHOD), N50 (3/4″)
(9) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (VAR. DEPTH)
(10) PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (1 1/2″)
(11) PROP. HOT-MIX ASPHALT SHOULDERS, 8″
(12) PROP. AGGREGATE WEDGE SHOULDER, TYPE B
(13) PROP. PAINT PAVEMENT MARKING - LINE 5″
(14) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (10″)
(15) PROP. STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FT POSTS
(16) PROP. SUBBASE GRANULAR MATERIAL, TYPE A, 8″
(17) PROP. AGGREGATE SHOULDERS, TYPE B
(18) TOPSOIL FURNISH AND PLACEMENT, 4″

*RT STA. 486+16.32 TO STA. 490+28.82
LT STA. 487+17.66 TO STA. 491+30.16



PROPOSED TYPICAL CROSS SECTION

STA. 486+00.00 TO STA. 491+50.00

LEGEND

(7) PROP. HOT-MIX ASPHALT SURFACE REMOVAL (3/4″)
(8) PROP. LEVELING BINDER (MACHINE METHOD), N50 (3/4″)
(9) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (VAR. DEPTH)
(10) PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (1 1/2″)
(11) PROP. HOT-MIX ASPHALT SHOULDERS, 8″
(12) PROP. AGGREGATE WEDGE SHOULDER, TYPE B
(13) PROP. PAINT PAVEMENT MARKING - LINE 5″
(14) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (10″)
(15) PROP. STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FT POSTS
(16) PROP. SUBBASE GRANULAR MATERIAL, TYPE A, 8″
(17) PROP. AGGREGATE SHOULDERS, TYPE B
(18) TOPSOIL FURNISH AND PLACEMENT, 4″
(19) PROP. BASE COURSE WIDENING, 10″ & PAVEMENT REMOVAL

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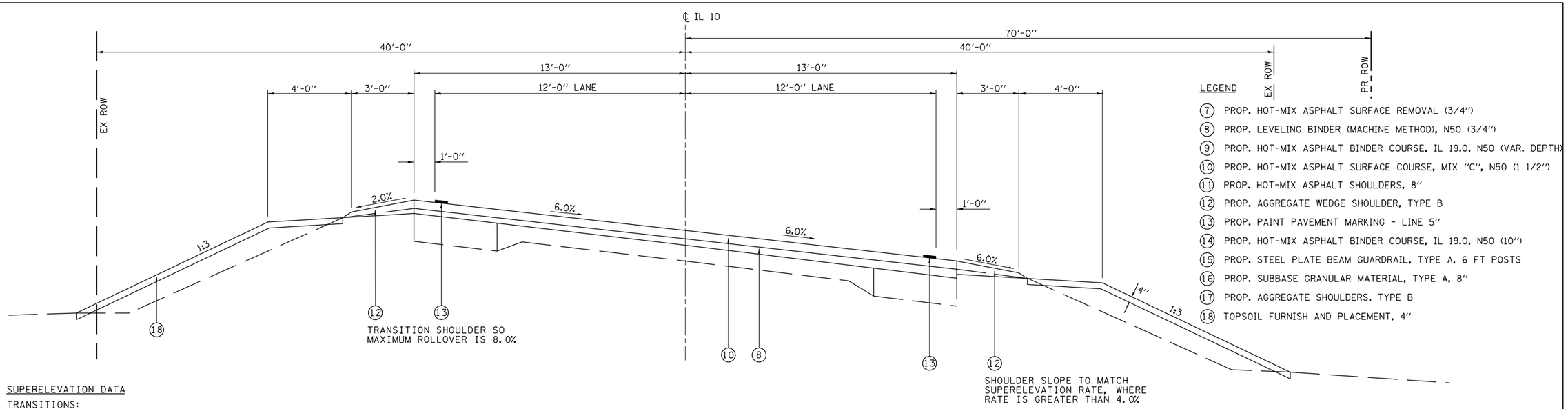
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS – FAP 717 (IL RTE 10)

SCALE: | SHEET NO. 2 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	15
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

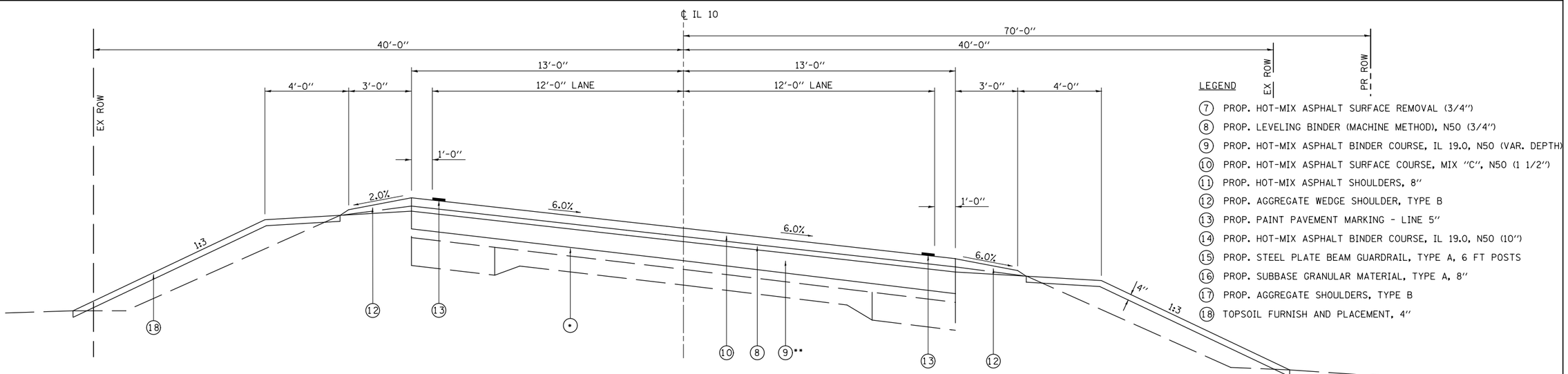


SUPERELEVATION DATA

TRANSITIONS:
STA. 497+16.76 TO STA. 499+16.76 LT
STA. 497+96.76 TO STA. 499+16.76 RT

PROPOSED TYPICAL CROSS SECTION

STA. 497+16.76 TO STA. 500+00.00 LT
STA. 497+96.76 TO STA. 500+00.00 RT



*HOT-MIX ASPHALT SURFACE REMOVAL VARIABLE DEPTH
STA. 500+00.00 TO STA. 500+66.67
STA. 501+85.00 TO STA. 502+50.00
STA. 504+00.00 TO STA. 504+31.82

*HOT-MIX ASPHALT SURFACE REMOVAL (3/4")
STA. 502+50.00 TO STA. 504+00.00

** FROM 504+00.00 TO STA. 507+00.00

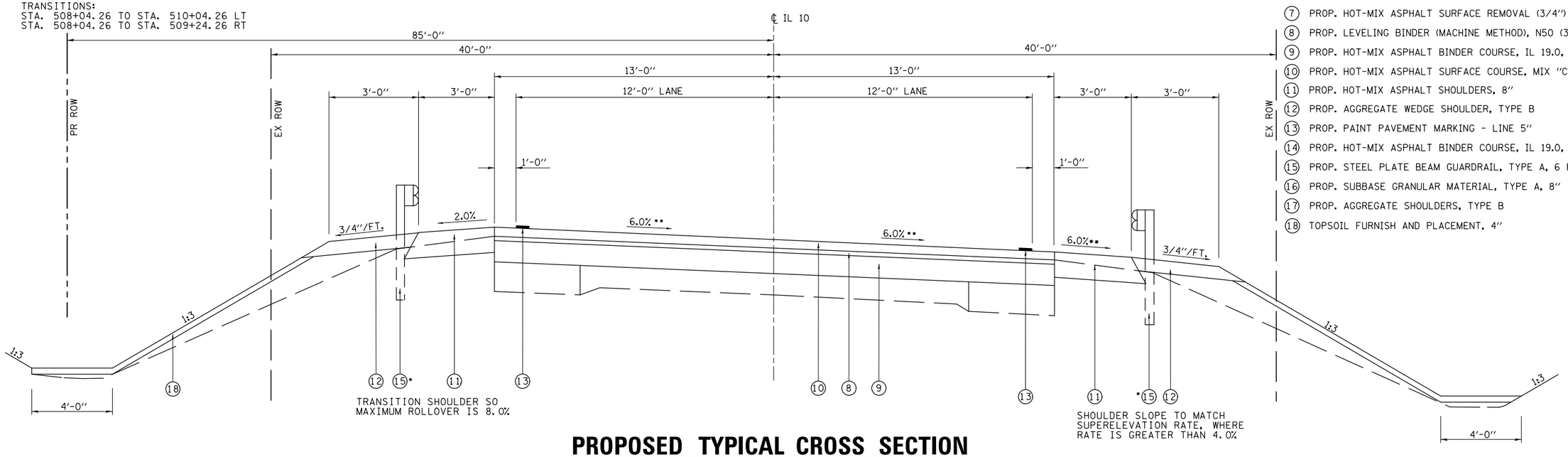
PROPOSED TYPICAL CROSS SECTION

STA. 500+00.00 TO STA. 507+00.00

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS – FAP 717 (IL RTE 10)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	16
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -					CONTRACT NO. 72B82		
	PLOT DATE = $DATE$	DATE -	REVISED -		SCALE: SHEET NO. 3 OF 5 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

**SUPERELEVATION DATA

TRANSITIONS:
STA. 508+04.26 TO STA. 510+04.26 LT
STA. 508+04.26 TO STA. 509+24.26 RT



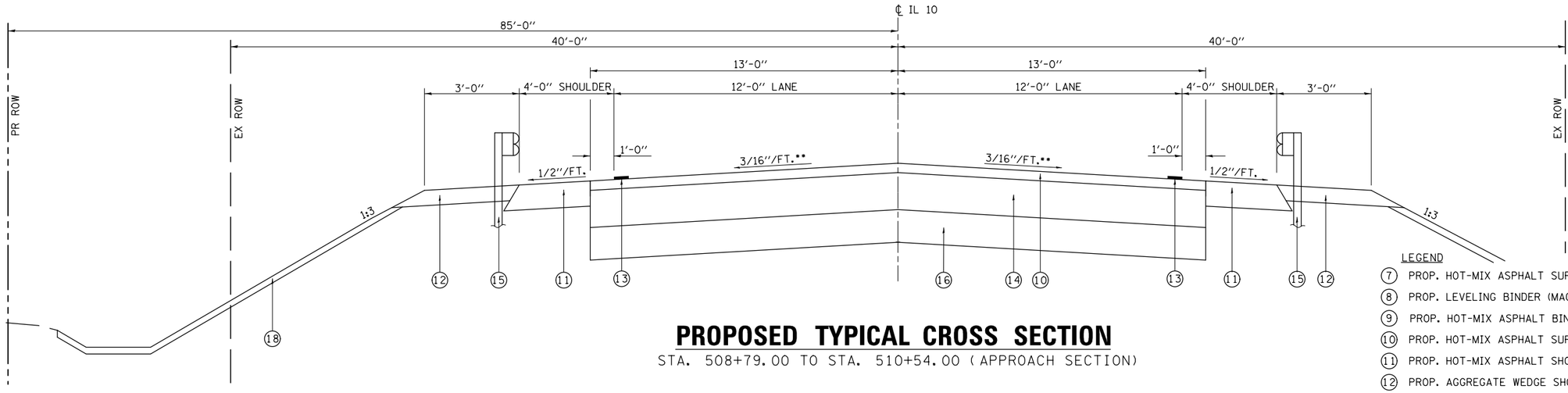
PROPOSED TYPICAL CROSS SECTION

STA. 507+00.00 TO STA. 508+79.00

*RT STA. 507+99.82 TO STA. 508+79.00
LT STA. 508+37.32 TO STA. 508+79.00

LEGEND

(7) PROP. HOT-MIX ASPHALT SURFACE REMOVAL (3/4")
(8) PROP. LEVELING BINDER (MACHINE METHOD), N50 (3/4")
(9) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (VAR. DEPTH)
(10) PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (1 1/2")
(11) PROP. HOT-MIX ASPHALT SHOULDERS, 8"
(12) PROP. AGGREGATE WEDGE SHOULDER, TYPE B
(13) PROP. PAINT PAVEMENT MARKING - LINE 5"
(14) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (10")
(15) PROP. STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FT POSTS
(16) PROP. SUBBASE GRANULAR MATERIAL, TYPE A, 8"
(17) PROP. AGGREGATE SHOULDERS, TYPE B
(18) TOPSOIL FURNISH AND PLACEMENT, 4"



PROPOSED TYPICAL CROSS SECTION

STA. 508+79.00 TO STA. 510+54.00 (APPROACH SECTION)

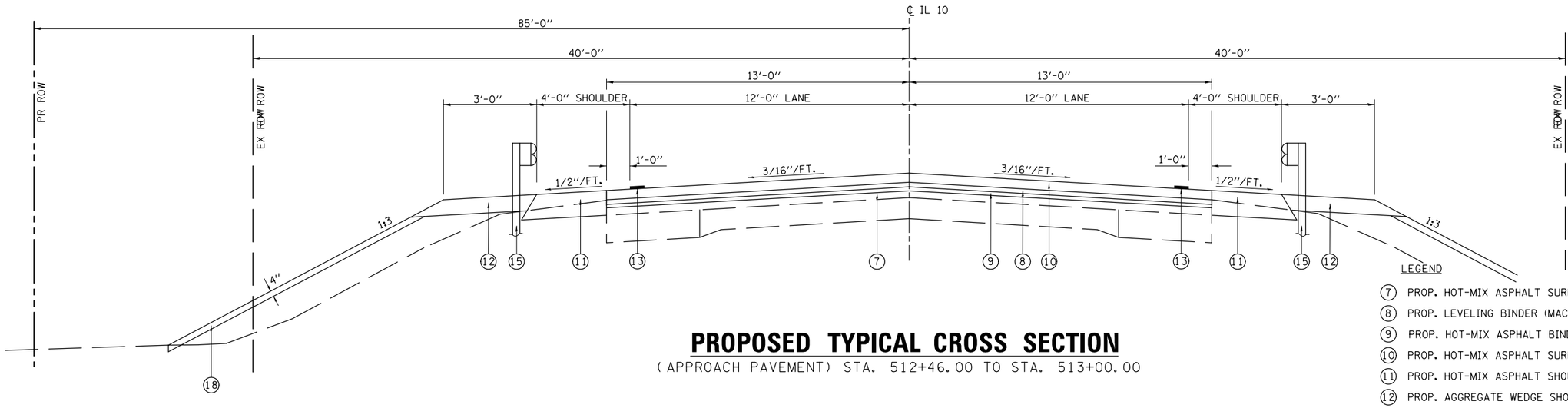
**SUPERELEVATION DATA

TRANSITIONS:
STA. 508+04.26 TO STA. 510+04.26 LT
STA. 508+04.26 TO STA. 509+24.26 RT

LEGEND

(7) PROP. HOT-MIX ASPHALT SURFACE REMOVAL (3/4")
(8) PROP. LEVELING BINDER (MACHINE METHOD), N50 (3/4")
(9) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (VAR. DEPTH)
(10) PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (1 1/2")
(11) PROP. HOT-MIX ASPHALT SHOULDERS, 8"
(12) PROP. AGGREGATE WEDGE SHOULDER, TYPE B
(13) PROP. PAINT PAVEMENT MARKING - LINE 5"
(14) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (10")
(15) PROP. STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FT POSTS
(16) PROP. SUBBASE GRANULAR MATERIAL, TYPE A, 8"
(17) PROP. AGGREGATE SHOULDERS, TYPE B
(18) TOPSOIL FURNISH AND PLACEMENT, 4"

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS – FAP 717 (IL RTE 10)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	17
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -					CONTRACT NO. 72B82		
	PLOT DATE = $DATE$	DATE -	REVISED -		SCALE: SHEET NO. 4 OF 5 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

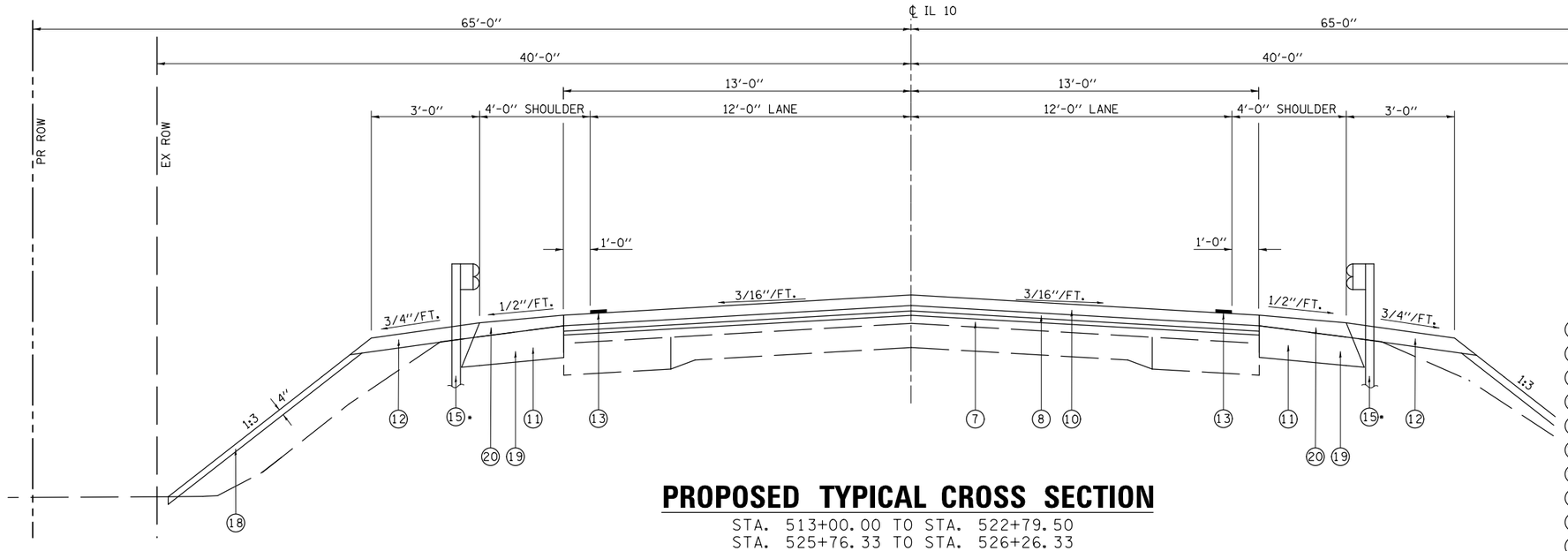


PROPOSED TYPICAL CROSS SECTION

(APPROACH PAVEMENT) STA. 512+46.00 TO STA. 513+00.00

LEGEND

(7) PROP. HOT-MIX ASPHALT SURFACE REMOVAL (3/4")
(8) PROP. LEVELING BINDER (MACHINE METHOD), N50 (3/4")
(9) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (VAR. DEPTH)
(10) PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (1 1/2")
(11) PROP. HOT-MIX ASPHALT SHOULDERS, 8"
(12) PROP. AGGREGATE WEDGE SHOULDER, TYPE B
(13) PROP. PAINT PAVEMENT MARKING - LINE 5"
(14) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (10")
(15) PROP. STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FT POSTS
(16) PROP. SUBBASE GRANULAR MATERIAL, TYPE A, 8"
(17) PROP. AGGREGATE SHOULDERS, TYPE B
(18) TOPSOIL FURNISH AND PLACEMENT, 4"



PROPOSED TYPICAL CROSS SECTION

STA. 513+00.00 TO STA. 522+79.50
STA. 525+76.33 TO STA. 526+26.33

NOTE: BASE COURSE WIDENING, 10" WILL REMAIN IN PLACE

LT STA. 521+30.00 TO STA. 522+79.50
LT STA. 525+76.33 TO STA. 526+83.50
RT STA. 521+86.12 TO STA. 522+79.50
RT STA. 525+76.33 TO STA. 526+74.66

*LT STA. 513+00.00 TO STA. 521+24.79
LT STA. 521+75.06 TO STA. 522+79.50
RT STA. 513+00.00 TO STA. 522+79.50

LEGEND

(7) PROP. HOT-MIX ASPHALT SURFACE REMOVAL (3/4")
(8) PROP. LEVELING BINDER (MACHINE METHOD), N50 (3/4")
(9) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (VAR. DEPTH)
(10) PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (1 1/2")
(11) PROP. HOT-MIX ASPHALT SHOULDERS, 8"
(12) PROP. AGGREGATE WEDGE SHOULDER, TYPE B
(13) PROP. PAINT PAVEMENT MARKING - LINE 5"
(14) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (10")
(15) PROP. STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FT POSTS
(16) PROP. SUBBASE GRANULAR MATERIAL, TYPE A, 8"
(17) PROP. AGGREGATE SHOULDERS, TYPE B
(18) TOPSOIL FURNISH AND PLACEMENT, 4"
(19) PROP. BASE COURSE WIDENING, 10"
(20) PROP. HOT-MIX ASPHALT SHOULDERS

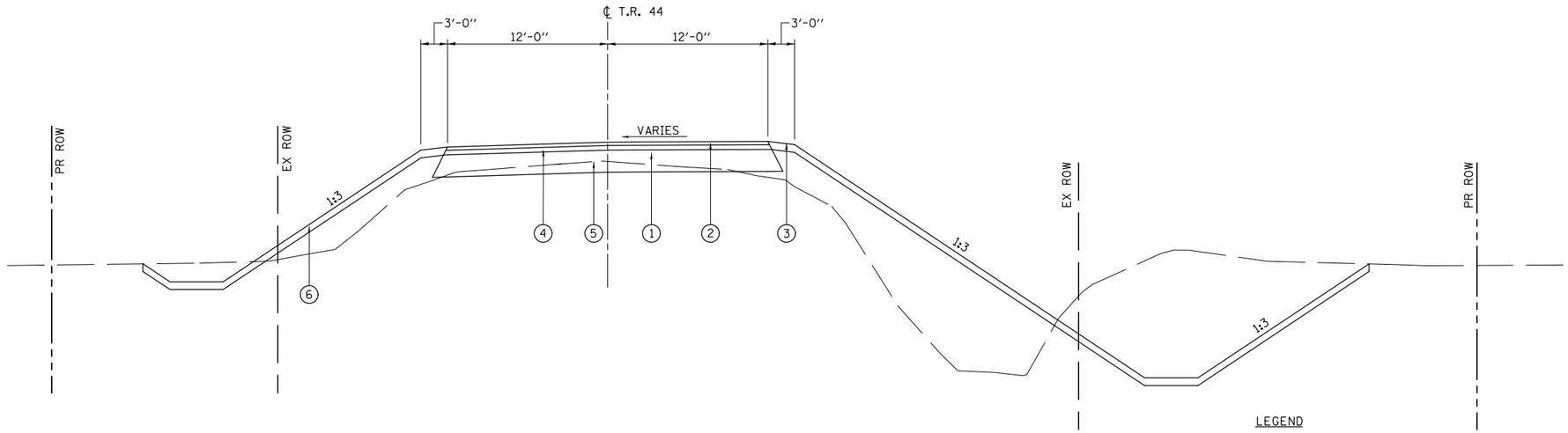
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS – FAP 717 (IL RTE 10)

SCALE: | SHEET NO. 5 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	18
		CONTRACT NO. 72B82		
	ILLINOIS	FED. AID PROJECT		

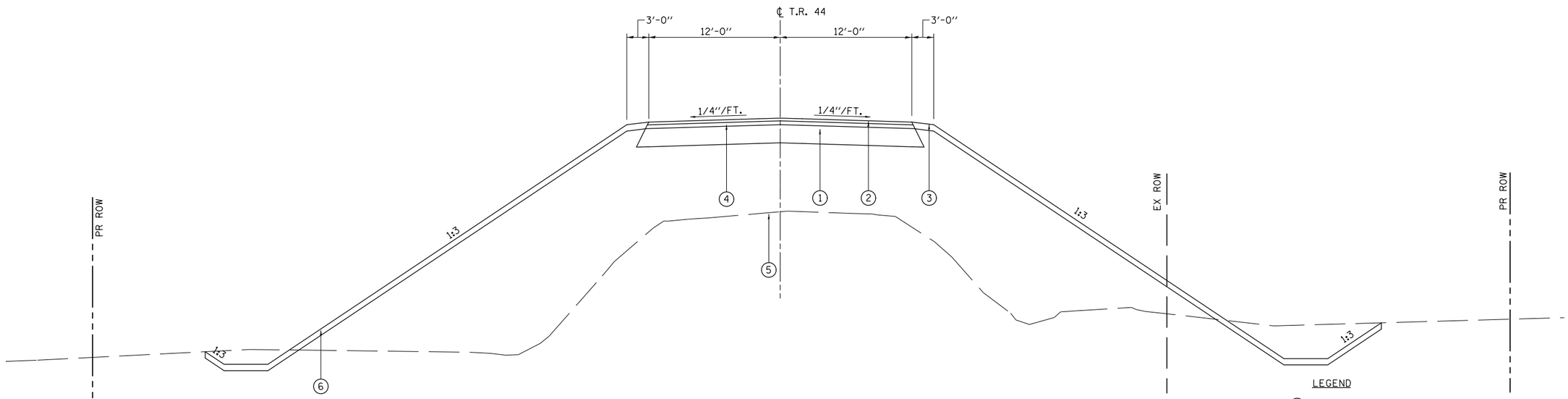


PROPOSED TYPICAL CROSS SECTION–T.R. 44

STA. 10+00.00 TO STA. 19+12.11

LEGEND

1. PROP. SUB-BASE GRANULAR MATERIAL, TYPE A, 8"
2. PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (1 ½")
3. PROP. EARTH SHOULDER
4. PROP. HOT-MIX BINDER COURSE, IL-19.0, N50 (2 ½")
5. EXIST. OIL & CHIP SURFACE
6. TOPSOIL FURNISH AND PLACEMENT, 4"



PROPOSED TYPICAL CROSS SECTION–TR 44

STA. 21+88.64 TO STA. 26+24.98

LEGEND

1. PROP. SUB-BASE GRANULAR MATERIAL, TYPE A, 8"
2. PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (1 ½")
3. PROP. EARTH SHOULDER
4. PROP. HOT-MIX BINDER COURSE, IL-19.0, N50 (2 ½")
5. EXIST. OIL & CHIP SURFACE
6. TOPSOIL FURNISH AND PLACEMENT, 4"

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

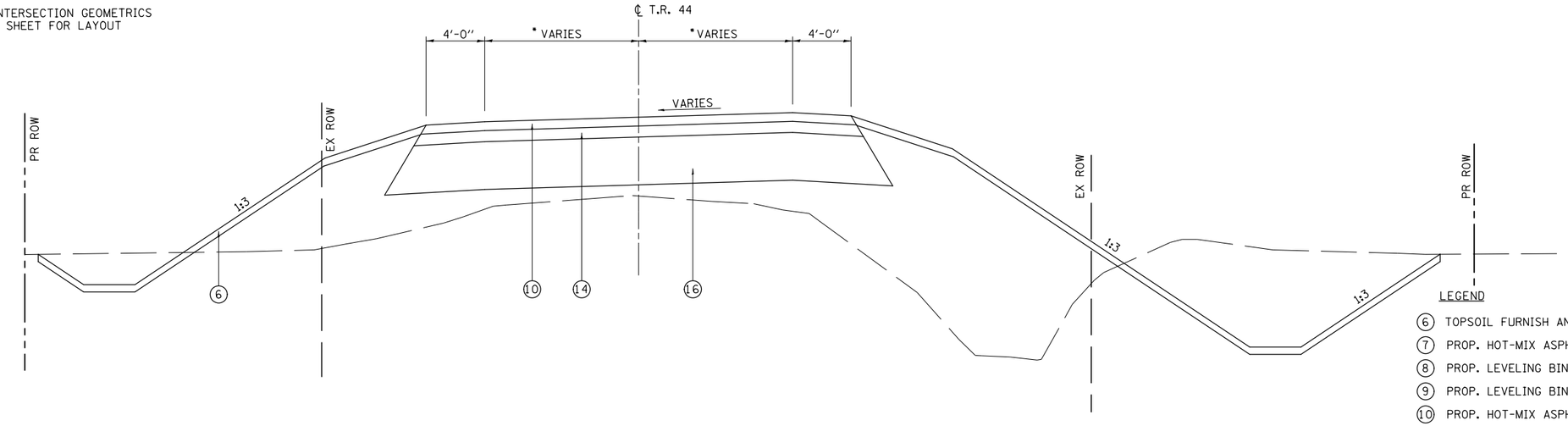
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS – T.R. 44

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	19
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

•SEE INTERSECTION GEOMETRICS
TR 44 SHEET FOR LAYOUT



PROPOSED TYPICAL CROSS SECTION–T.R. 44

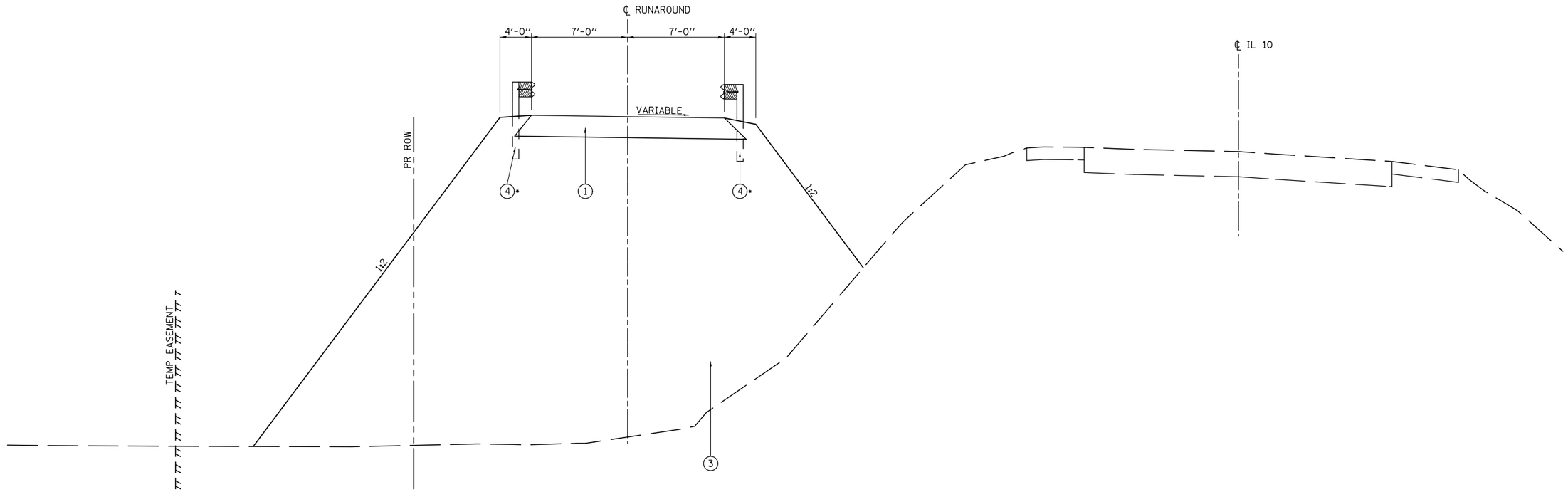
STA. 19+12.11 TO STA. 20+36.26 (IL 10)
(IL 10) STA. 20+62.26 TO STA. 21+88.64

LEGEND

(6) TOPSOIL FURNISH AND PLACEMENT, 4"
(7) PROP. HOT-MIX ASPHALT SURFACE REMOVAL (VAR. DEPTH)
(8) PROP. LEVELING BINDER (MACHINE METHOD), N50 (3/4")
(9) PROP. LEVELING BINDER (MACHINE METHOD), N50 (VAR. DEPTH)
(10) PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (1 1/2")
(11) PROP. HOT-MIX ASPHALT SHOULDERS, 8"
(12) PROP. AGGREGATE WEDGE SHOULDER, TYPE B
(13) PROP. PAINT PAVEMENT MARKING - LINE 5"
(14) PROP. HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 (2.5")
(15) PROP. STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FT POSTS
(16) PROP. SUBBASE GRANULAR MATERIAL, TYPE A, 8"
(17) PROP. AGGREGATE SHOULDERS, TYPE B

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS – T.R. 44				
		DRAWN -	REVISED -						
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -						
	PLOT DATE = $DATE$	DATE -	REVISED -		SCALE:	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	20
		CONTRACT NO. 72B82		
	ILLINOIS	FED. AID PROJECT		



PROPOSED TYPICAL CROSS SECTION–RUNAROUND

STA. 106+65.00 TO STA. 115+73.65

LEGEND

(1) PROP. HOT-MIX ASPHALT BASE COURSE, 12"
(3) FURNISHED EXCAVATION
(4) STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FT POSTS

•LT STA. 107+14.35 TO STA. 115+00.03
RT STA. 107+83.37 TO STA. 113+74.35

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION – RUNAROUND

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	21
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

EARTHWORK

LOCATION	EARTH EXCAVATION (CUT) (CU YD)	EARTH EXCAV. ADJUSTED FOR SHRINKAGE • (CU YD)	EMBANKMENT (FILL) (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)	TOPSOIL FURNISH AND PLACEMENT, 4" (CU YD)
IL 10 RT (SN 054-7069)	105	79	385	-306	-120
IL 10 LT (SN 054-7069)	95	71	360	-289	-110
SUB-TOTAL	200			-595	-230
1) TEMP. RUNAROUND CONST.	110	83	12,670	-12,587	
2) IL 10 RT FINAL	2,510	1,883	7,440	-5,557	-910
3) TEMP. IL 10 LT STAGE I	1,895	1,421	1,855	-434	-70
TR 44 SOUTH	8,780	6,585	12,550	-5,965	-810
TR 44 NORTH	1,590	1,193	7,220	-6,027	-1,415
4) IL 10 LT FINAL	11,390	8,543	3,125	5,418	-490
OVERFLOW CHANNEL	7,920	5,940		5,940	-600
SUB-TOTAL	34,195			-19,212	-4,295
SN 054-0009	45	34		34	
TOTAL	34,440			-19,773	-4,525 (CU YD)
ROUNDED TOTAL	34,440			19,775	4,525 (CU YD)
EARTH EXCAVATION	34,440		FURNISHED EXCAVATION	19,775	TOPSOIL FURNISH 40,725 (SQ YD)

•AN EARTH SHRINKAGE FACTOR OF 0.25 IS APPLIED
1) SEE TEMPORARY RUNAROUND CROSS SECTIONS
2) SEE FAP 717 (IL 10) CROSS SECTIONS
3) SEE TEMPORARY RUNAROUND CROSS SECTIONS
4) SEE FAP 717 (IL 10) & TEMPORARY RUNAROUND CROSS SECTIONS

CHANNEL EXCAVATION

LOCATION	CU YD
SN 054-7069	210
TOTAL	210

CONSTRUCTING TEST STRIP

LOCATION	EACH
IL 10	1
IL 10	1
TOTAL	2

TREE REMOVAL (ACRES)

LOCATION	STATION TO	STATION	OFFSET	ACRE
IL 10	500+50.00	505+41.00	70' RT	0.1
	505+41.00	506+19.00	70'-316' RT	0.2
	506+19.30	512+50.00	316'-543' RT	1.2
	510+30.00	515+00.00	110'-65' LT	0.4
			TOTAL	1.9
			ROUNDED TOTAL	2.0

SEEDING, FERTILIZERS AND MULCH

LOCATION	STATION TO	STATION	OFFSET	SEEDING CLASS 2 (ACRE)	SEEDING CLASS 7 (ACRE)	NITROGEN FERTILIZER NUTRIENT (POUND)	PHOSPHORUS FERTILIZER NUTRIENT (POUND)	POTASSIUM FERTILIZER NUTRIENT (POUND)	AGRICULTURAL GROUND LIMESTONE (TON)	TEMPORARY EROSION CONTROL SEEDING (POUND)	MULCH METHOD 2 (ACRE)
IL 10	484+00.00	486+00.00	LT	0.05							
	484+00.00	486+00.00	RT	0.05							
	486+00.00	492+00.00	LT	0.34							
	486+00.00	492+00.00	RT	0.34							
	492+00.00	498+00.00	LT	0.07							
	492+00.00	498+00.00	RT	0.14							
			SUBTOTAL	0.99		90	90	90	2.0	100	1.00
			ROUNDED SUBTOTAL	1.00							
IL 10	498+00.00	500+50.00	RT	0.06							
	498+00.00	505+00.00	LT	0.08							
	500+50.00	522+79.50	RT	2.03							
	506+33.00	522+79.50	LT	2.08							
TR 44	10+00.00	26+24.98	LT	1.25							
	10+00.00	26+24.98	RT	2.90							
OVERFLOW CHANNEL	802+25.00	806+40.00	LT&RT	1.05							
			RUNAROUND LT SUBTOTAL		1.03						
			RUNAROUND RT SUBTOTAL		0.63						
			RUNAROUND REMOVAL SUBTOTAL							175	
			SUBTOTAL	9.45	1.66	855	855	855	19.0	950	9.50
			ROUNDED SUBTOTAL	9.50	1.75						
			ROUNDED TOTAL	10.50	1.75	945	945	945	21	1225	10.50

PERIMETER EROSION BARRIER

LOCATION	STATION TO	STATION	OFFSET	FOOT
IL 10	485+00.00	488+66.00	LT	366
	489+10.13	492+60.10	LT	355
	485+00.00	492+91.58	RT	829
	493+43.78	498+00.00	RT	457
			SUBTOTAL	2007
IL 10	500+50.00	505+41.71	RT	470
	507+06.00	522+79.50	LT	1616
	512+08.00	522+79.50	RT	1074
TR 44	9+62.50	19+93.00	LT	1070
	9+00.00	12+20.00	RT	273
	20+78.00	22+57.00	RT	196
	22+97.00	26+09.00	RT	329
	21+03.00	26+24.98	LT	508
			SUBTOTAL	5536
			TOTAL	7543

RIPRAP AND FILTER FABRIC

LOCATION	STATION TO	STATION	OFFSET	STONE RIPRAP• CLASS A5 (SQ YD)	FILTER• FABRIC (SQ YD)
CULVERT CHANNEL	50+00.00	50+76.29	LT&RT	682	682
TR 44	12+11.00	12+50.00	RT	183	183
			TOTAL	865	865

• SEE BRIDGE PLANS FOR ADDITIONAL QUANTITY.

EROSION CONTROL BLANKET

LOCATION	STATION TO	STATION	OFFSET	SQ YD
RUNAROUND	107+00.00	114+50.00	LT	5000
RUNAROUND	108+00.00	113+50.00	RT	3056
			TOTAL	8056

TRENCH BACKFILL

LOCATION	STATION	OFFSET	CU YD
IL 10	509+62.00	LT&RT	113
TR 44	18+50.00	LT&RT	39
	22+00.00	LT&RT	82
		TOTAL	234

SUBBASE GRANULAR MATERIAL, TYPE A

LOCATION	STATION TO	STATION	TON
TR 44	17+25.00	20+17.00	1175
IL 10	509+00.00	510+00.00	683
		TOTAL	1858

SUBBASE GRANULAR MATERIAL, TYPE A 8"

LOCATION	STATION TO	STATION	OFFSET	SQ YD
IL 10	488+48.19	488+98.19	LT&RT	144
	508+79.00	510+54.00	LT&RT	506
			TOTAL	650

BASE COURSE WIDENING, 10"

LOCATION	STATION TO	STATION	OFFSET	SQ YD
IL 10	486+75.00	490+75.00	RT	133
IL 10	521+30.00	522+79.50	LT	50
	521+86.12	522+79.50	RT	31
	525+76.33	526+83.50	LT	36
	525+76.33	526+74.66	RT	33
			TOTAL	283

INLET & PIPE PROTECTION

LOCATION		STATION	OFFSET	EACH
IL 10	FE	492+72.00	LT	1
	FE	493+22.00	RT	1
			SUBTOTAL	2
IL 10		509+62.00	59' LT	1
TR 44	FE	12+32.00	31' LT	1
	FE	12+33.48	40' RT	1
	FE	14+28.72	66' RT	1
		18+50.00	44' LT	1
		22+00.00	55' LT	1
	FE	23+13.19	54' RT	1
			SUBTOTAL	7
			TOTAL	9

AGGREGATE SURFACE COURSE, TYPE B

LOCATION		STATION	OFFSET	TON
IL 10	FE	492+72.00	LT	32
	FE	493+22.00	RT	32
			SUBTOTAL	64
IL 10	FE	499+48.00	LT	15
	FE	521+50.00	LT	46
TR 44	FE	12+00.00	LT	40
	FE	12+00.00	RT	45
	FE	14+00.00	RT	57
	FE	22+75.00	RT	78
	FE	26+09.00	LT	17
			SUBTOTAL	298
			TOTAL	362

AGGREGATE FOR TEMPORARY ACCESS

LOCATION		STATION	OFFSET	TON
IL 10	FE	492+72.00	LT	13
	FE	493+22.00	RT	13
			SUBTOTAL	26
IL 10	FE	499+48.00	LT	12
	FE	522+05.00	LT	12
TR 44	FE	14+00.00	RT	57
	FE	22+75.00	RT	78
	FE	26+09.00	LT	9
			SUBTOTAL	168
			TOTAL	194

AGGREGATE BASE COURSE, TYPE A 8"

LOCATION	STATION TO	STATION	OFFSET	SQ YD
TR 44	10+00.00	19+12.11	LT&RT	2534
	19+12.11	20+36.26	LT&RT	788
	20+62.26	21+88.64	LT&RT	711
	21+88.64	26+24.98	LT&RT	1212
SHOULDERS	19+12.11	20+36.26	LT	74
	19+12.11	20+36.26	RT	106
	20+62.26	21+88.64	LT	92
	20+62.26	21+88.64	RT	73
			TOTAL	5590

HOT-MIX ASPHALT BASE COURSE, 12"

LOCATION	STATION TO	STATION	OFFSET	TON
RUNAROUND	104+25.64	108+82.51	LT&RT	396
	108+82.51	114+09.56	LT&RT	551
	114+09.56	115+73.65	LT&RT	42
			TOTAL	989

BITUMINOUS MATERIALS (PRIME COAT)

LOCATION	STATION TO	STATION	OFFSET	TON
IL 10	484+00.00	498+00.00	LT&RT	3.0
IL 10	498+00.00	522+79.50	LT&RT	5.7
TR 44	10+00.00	26+24.98	LT&RT	3.8
RUNAROUND	104+25.64	115+73.65	LT&RT	1.2
IL 10	525+76.33	526+26.33	LT&RT	0.2
			TOTAL	13.9
			ROUNDED TOTAL	14

AGGREGATE (PRIME COAT)

LOCATION	STATION TO	STATION	OFFSET	TON
IL 10	484+00.00	498+00.00	LT&RT	12.0
IL 10	498+00.00	522+79.50	LT&RT	22.7
IL 10	525+76.33	526+26.33	LT&RT	0.3
			TOTAL	35

LEVELING BINDER (MACHINE METHOD), N50

LOCATION	STATION TO	STATION	OFFSET	TON
IL 10	484+30.00	498+00.00	LT&RT	166
IL 10	498+00.00	508+79.00	LT&RT	131
	512+46.00	522+79.50	LT&RT	125
IL 10	525+76.33	526+26.33	LT&RT	2
			TOTAL	424

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

LOCATION	STATION TO	STATION	OFFSET	SQ YD
IL 10	484+00.00	484+30.00	LT&RT	87
IL 10	525+96.33	526+26.33	LT&RT	107
			TOTAL	194

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	22
		CONTRACT NO. 72B82		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TEMPORARY RAMP

LOCATION	STATION TO	STATION	OFFSET	SQ YD
IL 10	508+49.00	508+79.00	LT&RT	87
	512+46.00	512+55.00	LT&RT	26
		SN 054-0515 SUBTOTAL		113
IL 10	522+39.50	522+79.50	LT&RT	14
	525+76.33	526+16.33	LT&RT	14
		SN 054-0009 SUBTOTAL		28
		TOTAL		141

HOT-MIX ASPHALT BINDER COURSE, IL -19.0, N50

LOCATION	STATION TO	STATION	OFFSET	TON
IL 10	488+48.19	488+98.19	LT&RT	81
IL 10	500+66.67	501+85.00	LT&RT	14
	504+00.00	508+79.00	LT&RT	542
	508+79.00	510+54.00	LT&RT	283
	512+46.00	513+00.00	LT&RT	7
TR 44	10+00.00	19+12.11	LT&RT	341
	19+12.11	20+36.26	LT&RT	110
	20+62.26	21+88.64	LT&RT	100
	21+88.64	26+24.98	LT&RT	163
SHOULDERS	19+12.11	20+36.26	LT	10
	19+12.11	20+36.26	RT	15
	20+62.26	21+88.64	LT	13
	20+62.26	21+88.64	RT	10
		TOTAL		1689

HOT-MIX ASPHALT SURFACE COURSE, MIX C, N50

LOCATION	STATION TO	STATION	OFFSET	TON
IL 10	484+00.00	498+00.00	LT&RT	341
IL 10	498+00.00	510+54.00	LT&RT	304
	512+46.00	522+79.50	LT&RT	252
TR 44	10+00.00	20+36.26	LT&RT	270
	20+62.26	26+24.98	LT&RT	158
SHOULDERS	19+12.11	20+36.26	LT	6
	19+12.11	20+36.26	RT	9
	20+62.26	21+88.64	LT	8
	20+62.26	21+88.64	RT	6
IL 10	525+76.33	526+26.33	LT&RT	12
		TOTAL		1366

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)

LOCATION	STATION TO	STATION	OFFSET	SQ YD
IL 10	510+48.00	510+54.00	LT&RT	21
	512+46.00	512+52.00	LT&RT	21
		TOTAL		42

PAVEMENT REMOVAL

LOCATION	STATION TO	STATION	OFFSET	SQ YD
CULVERT	488+48.10	488+98.40	LT&RT	145
	486+75.00	490+75.00	RT	133
		SN 054-7069 SUBTOTAL		278
BRIDGE	510+50.50	512+52.00	LT&RT	582
RUNAROUND	104+25.64	115+73.65	LT&RT	989
		SN 054-0515 SUBTOTAL		1571
		TOTAL		1849

HOT-MIX ASPHALT SURFACE REMOVAL, 3/4"

LOCATION	STATION TO	STATION	OFFSET	SQ YD
IL 10	484+30.00	498+00.00	LT&RT	3958
IL 10	498+00.00	500+00.00	LT&RT	578
	502+50.00	504+00.00	LT&RT	433
	512+46.00	522+79.50	LT&RT	2986
IL 10	525+76.33	525+96.33	LT&RT	58
		TOTAL		8013

AGGREGATE SHOULDERS, TYPE B

LOCATION	STATION TO	STATION	OFFSET	TON
TR 44	19+12.11	20+36.26	LT	19
	20+62.26	21+88.64	LT	24
		TOTAL		43

HOT-MIX ASPHALT SHOULDERS, 8"

LOCATION	STATION TO	STATION	OFFSET	SQ YD
IL 10	486+00.00	491+50.00	LT	367
	486+00.00	491+50.00	RT	367
			SUBTOTAL	734
IL 10	506+54.95	510+54.00	LT	133
	507+95.35	510+54.00	RT	86
	512+46.00	521+30.00	LT	295
	512+46.00	521+86.12	RT	314
			SUBTOTAL	829
		TOTAL		1563

AGGREGATE WEDGE SHOULDER, TYPE B

LOCATION	STATION TO	STATION	OFFSET	TON
IL 10	484+00.00	486+00.00	LT	9
	484+00.00	486+00.00	RT	9
	486+00.00	491+50.00	LT	25
	486+00.00	491+50.00	RT	25
	491+50.00	498+00.00	LT	30
	491+50.00	498+00.00	RT	30
			SUBTOTAL	128
TR 44	498+00.00	500+00.00	LT	9
	498+00.00	500+00.00	RT	9
	500+00.00	504+26.65	LT	19
	500+00.00	505+09.23	RT	23
	506+33.03	510+54.00	LT	19
	507+26.43	510+54.00	RT	15
	512+46.00	522+79.50	LT	47
	512+46.00	522+79.50	RT	47
			SUBTOTAL	188
IL 10	525+76.33	526+26.33	LT	2
	525+76.33	526+26.33	RT	2
			SUBTOTAL	4
		TOTAL		320

HOT-MIX ASPHALT SHOULDERS

LOCATION	STATION TO	STATION	OFFSET	TON
IL 10	521+30.00	522+79.50	LT&RT	4
	521+86.12	522+79.50	LT&RT	3
	525+76.33	526+83.50	LT&RT	3
	525+76.33	526+74.66	LT&RT	3
		TOTAL		13

REMOVAL OF EXISTING STRUCTURES NO. 1

LOCATION	EACH
SN 054-7010	1

REMOVAL OF EXISTING STRUCTURES NO. 2

LOCATION	EACH
SN 054-0008	1

PIPE CULVERT REMOVAL

LOCATION	STATION TO	OFFSET	STATION	OFFSET	FOOT
RUNAROUND	509+62.00	85.4' LT	509+62.00	50.3' LT	35
TR 44	22+62.83	42.5' RT	22+87.52	35.4' RT	27
				TOTAL	62

PIPE CULVERTS, CLASS A, TYPE 2, 30"

LOCATION	STATION TO	OFFSET	STATION	OFFSET	FOOT
TR 44	22+00.00	50.8' LT	22+00.00	52.7' RT	104

PIPE CULVERTS, CLASS A, TYPE 2, 48"

LOCATION	STATION TO	OFFSET	STATION	OFFSET	FOOT
IL 10	509+62.00	85.4' LT	509+62.00	51.2' RT	137

PIPE CULVERTS, CLASS D, TYPE 1, 18"

LOCATION	STATION TO	OFFSET	STATION	OFFSET	FOOT
TR 44	11+68.00	29.8' LT	12+32.00	30.6' LT	64

PIPE CULVERTS, CLASS D, TYPE 1, 48"

LOCATION	STATION TO	OFFSET	STATION	OFFSET	FOOT
TR 44	11+64.13	38.8' RT	12+33.48	40.1' RT	71

PIPE CULVERTS, CLASS D, TYPE 2, 18"

LOCATION	STATION TO	OFFSET	STATION	OFFSET	FOOT
TR 44	13+70.50	45' RT	14+28.72	65.6' RT	66
	18+50.00	44' LT	18+50.00	46' RT	90
	22+26.81	65.1' RT	23+13.19	54.1' RT	93
				TOTAL	249

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

LOCATION	STATION TO	STATION	OFFSET	FOOT
IL 10	486+66.32	488+53.82	RT	187.5
	487+67.66	488+67.66	LT	100.0
	488+78.82	489+78.82	RT	100.0
	488+92.66	490+80.16	LT	187.5
		SN 054-7069 SUBTOTAL		575.0
IL 10	508+49.82	510+24.82	RT	175.0
	508+87.32	510+24.82	LT	137.5
	512+73.98	520+73.98	LT	800.0
	512+73.98	522+37.50	RT	975.0
	522+25.00	522+37.50	LT	12.5
		SN 054-0515 SUBTOTAL		2100.0
RUNAROUND	107+63.96	114+48.38	LT	687.5
	108+33.91	113+24.38	RT	487.5
			SUBTOTAL	1175.0
			TOTAL	3850.0

STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES

LOCATION	STATION TO	STATION	OFFSET	FOOT
IL 10	488+53.82	488+78.82	RT	25.0
	488+67.66	488+92.66	LT	25.0
			TOTAL	50.0

TRAFFIC BARRIER TERMINAL, TYPE 6

LOCATION	STATION TO	STATION	OFFSET	EACH
IL 10	510+24.82	510+68.57	LT	1
	510+24.82	510+68.57	RT	1
	512+30.23	512+73.98	LT	1
	512+30.23	512+73.98	RT	1
	522+37.50	522+81.25	LT	1
	522+37.50	522+81.25	RT	1
			TOTAL	6

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

LOCATION	STATION TO	STATION	OFFSET	EACH
IL 10	486+16.32	486+66.32	RT	1
	487+17.66	487+67.66	LT	1
	489+78.82	490+28.82	RT	1
	490+80.16	491+30.16	LT	1
		SN 054-7069 SUBTOTAL		4
IL 10	507+99.82	508+49.82	RT	1
	508+37.32	508+87.32	LT	1
	520+73.98	521+23.98	LT	1
	521+75.00	522+25.00	LT	1
		SN 054-0515 SUBTOTAL		4
RUNAROUND	107+14.35	107+63.96	LT	1
	107+83.37	108+33.91	RT	1
	113+24.38	113+74.35	RT	1
	114+48.38	115+00.03	LT	1
			SUBTOTAL	4
			TOTAL	12

GUARDRAIL REMOVAL

LOCATION	STATION TO	STATION	OFFSET	FOOT
IL 10	487+08.08	490+11.74	RT	304
	487+99.55	490+03.41	LT	204
		SN 054-7069 SUBTOTAL		508
	507+29.22	508+95.93	RT	167
	507+69.49	508+96.05	LT	127
	510+29.00	511+56.72	RT	128
	510+28.84	512+31.47	LT	203
	521+28.21	522+79.08	RT	151
	522+15.32	522+79.01	LT	64
		SN 054-0515 SUBTOTAL		840
RUNAROUND	107+14.35	115+00.03	LT	788
	107+83.37	113+74.35	RT	588
			SUBTOTAL	1376
			TOTAL	2724

SHORT TERM PAVEMENT MARKING

LOCATION	STATION TO	STATION	OFFSET	FOOT
IL 10	484+00.00	498+00.00	LT&RT	140
IL 10	498+00.00	522+79.50	LT&RT	248
IL 10	522+79.50	526+26.33	LT&RT	36
			TOTAL	424

TEMPORARY CONCRETE BARRIER

LOCATION	STATION TO	STATION	OFFSET	FOOT
STAGE I	487+23.15	490+47.09	LT&RT	325
STAGE II	486+72.74	490+22.02	LT&RT	25
		SN 054-7069 SUBTOTAL		350
STAGE I	521+86.83	526+92.79	LT&RT	500
STAGE II	521+61.58	526+92.79	LT&RT	25
		SN 054-0009 SUBTOTAL		525
			TOTAL	875

RELOCATE TEMPORARY CONCRETE BARRIER

LOCATION	STATION TO	STATION	OFFSET	FOOT
STAGE II	486+72.24	490+22.02	LT&RT	325
		SN 054-7069 SUBTOTAL		325
STAGE II	521+61.58	526+92.79	LT&RT	500
		SN 054-0009 SUBTOTAL		500
			TOTAL	825

END SECTIONS 18"

LOCATION	STATION	OFFSET	EACH
TR 44	11+68.00	29.8' LT	1
	12+32.00	30.6' LT	1
	13+70.50	45' RT	1
	14+28.72	65.6' RT	1
	18+20.00	46'RT	1
	18+50.00	44' LT	1
	22+26.81	65.1' RT	1
	23+13.19	54.1' RT	1
		TOTAL	8

END SECTIONS 48"

LOCATION	STATION	OFFSET	EACH
TR 44	11+64.13	38.8' RT	1
	12+33.48	40.1' RT	1
		TOTAL	2

PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"

LOCATION	STATION	OFFSET	EACH
TR 44	22+00.00	50.8' LT	1
	22+00.00	52.7' RT	1
		TOTAL	2

PRECAST REINFORCED CONCRETE FLARED END SECTIONS, 48"

LOCATION	STATION	OFFSET	EACH
IL 10	509+62.00	85.4' LT	1

CONCRETE END SECTIONS, STD 542001, 48", 1:3

LOCATION	STATION	OFFSET	EACH
IL 10	509+62.00	50.3' LT	1
	509+62.00	51.2' RT	1
		TOTAL	2

FURNISHING AND ERECTING RIGHT OF WAY MARKERS

STATION	OFFSET	EACH
487+75.00	40' RT	1
488+00.00	80' RT	1
488+00.00	40' LT	1
488+25.00	60' LT	1
489+50.00	60' LT	1
489+50.00	80' RT	1
489+75.00	40' RT	1
489+75.00	40' LT	1
SN 054-7069 SUBTOTAL		8
500+50.00	40' RT	1
500+50.00	70' RT	1
505+00.00	40' LT	1
505+41.00	70' RT	1
507+39.00	85' LT	1
512+50.00	85' LT	1
512+50.00	65' LT	1
512+50.00	65' RT	1
522+79.50	65' LT	1
522+79.50	40' LT	1
522+79.50	65' RT	1
522+79.50	40' RT	1
9+62.47	35' LT	1
9+62.47	40' LT	1
9+62.47	45' RT	1
9+62.47	60' RT	1
11+84.02	60' RT	1
15+33.41	40' LT	1
17+57.00	72.74' LT	1
23+81.29	53.28' LT	1
24+25.00	45' RT	1
26+25.00	35' RT	1
26+25.00	35' LT	1
26+33.97	29.88' LT	1
26+33.98	33.12' RT	1
	SUBTOTAL	25
	TOTAL	33

FILE NAME = $FILEL$

USER NAME = $USER$ | PLOT SCALE = $SCALE$ | PLOT DATE = $DATE$

DESIGNED - | DRAWN - | CHECKED - | DATE -

REVISED - | REVISED - | REVISED - | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. 2 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	23
		CONTRACT NO. 72B82		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TEMPORARY BRIDGE TRAFFIC SIGNALS

LOCATION	EACH
SN 054-7069	1
SN 054-0515	1
SN 054-0009	1
TOTAL	3

IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3

LOCATION	STATION	OFFSET	EACH
IL 10 STAGE I CULVERT	487+23.15	LT	1
	490+47.09	LT	1
	SN 054-7069 SUBTOTAL		2
IL 10 STAGE I BRIDGE	510+65.00	LT	1
	510+65.00	RT	1
	512+35.00	LT	1
	512+35.00	RT	1
	SN 054-0515 SUBTOTAL		4
IL 10 STAGE I BRIDGE	521+86.83	LT	1
	526+92.79	LT	1
	SN 054-0009 SUBTOTAL		2
	TOTAL		8

IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3

LOCATION	STATION	OFFSET	EACH
IL 10 STAGE II CULVERT	486+72.74	RT	1
	490+22.02	RT	1
	SN 054-7069 SUBTOTAL		2
IL 10 STAGE II BRIDGE	521+61.58	RT	1
	526+92.79	RT	1
	SN 054-0009 SUBTOTAL		2
	TOTAL		4

FILLING EXISTING CULVERTS

LOCATION	STATION	OFFSET	CU YD
IL 10	503+35.63	LT&RT	9
	507+14.60	LT&RT	14
TR 44	22+10.00	RT	3
	TOTAL		26

TEMPORARY PAVEMENT MARKING - LINE 5"

LOCATION	STATION TO	STATION	WHITE (FOOT)	YELLOW (FOOT)
IL 10	484+00.00	498+00.00	2800	350
	491+37.00	498+00.00		663
IL 10	498+00.00	504+26.65	627	
	498+00.00	505+09.23	709	
	498+00.00	498+84.76		20
	498+00.00	522+79.50		2480
	498+84.76	522+79.50		2395
	506+54.95	522+79.50	1625	
	507+95.35	522+79.50	1484	
TR 44	LT 19+12.11	20+35.81	170	
	RT 19+12.11	20+35.81	245	
	LT 20+62.77	21+88.64	214	
	RT 20+62.77	21+88.64	169	
IL 10	522+79.50	526+26.33		347
	522+79.50	526+26.33		347
	522+79.50	526+26.33	347	
	522+79.50	526+26.33	347	
	TOTAL		8737	6602
	TOTAL		15339	

WORKZONE PAVEMENT MARKING REMOVAL

LOCATION	STATION TO	STATION	OFFSET	SQ FT
IL 10	484+00.00	498+00.00	-	47
IL 10	484+00.00	498+00.00	-	1589
(STAGE I)	485+47.87	492+40.88		578
		485+47.87	RT	26
		492+40.88	LT	26
(STAGE II)	484+87.44	492+38.00		626
		484+87.44	RT	26
		492+38.00	LT	26
		SN 054-7069 SUBTOTAL		2944
IL 10	498+00.00	522+79.50	-	83
IL 10	498+00.00	522+79.50	-	3892
TR 44	19+12.11	20+35.81	LT	71
	19+12.11	20+35.81	RT	102
	20+62.77	21+88.64	LT	89
	20+62.77	21+88.64	RT	70
RUNAROUND	504+52.95	505+85.35	RT	55
	505+85.35	506+64.96	RT	9
	507+17.68	507+37.37	RT	14
	514+92.13	515+57.00	LT	27
	513+94.93	515+57.00	RT	70
		504+08.00	RT	26
		516+20.00	LT	26
		SN 054-0515 SUBTOTAL		4534
IL 10	522+79.50	526+26.33	-	12
IL 10	522+79.50	526+26.33	-	578
(STAGE I)	520+15.94	522+79.50	LT	110
	521+86.12	522+79.50	RT	39
	525+76.33	528+42.98	LT	111
	525+76.33	526+74.66	RT	41
		519+55.94	RT	26
		528+73.59	LT	26
(STAGE II)	520+09.07	528+38.82	RT	346
	521+67.73	526+83.50	LT	215
		519+99.07	RT	26
		529+18.82	LT	26
		SN 054-0009 SUBTOTAL		1556
		TOTAL		9034

PAINT PAVEMENT MARKING - LINE 5"

LOCATION	STATION TO	STATION	WHITE (FOOT)	YELLOW (FOOT)
IL 10	484+00.00	498+00.00	2800	350
	491+37.00	498+00.00		663
IL 10	498+00.00	504+26.65	627	
	498+00.00	505+09.23	709	
	498+00.00	498+84.76		20
	498+00.00	522+79.50		2480
	498+84.76	522+79.50		2395
	506+54.95	522+79.50	1625	
	507+95.35	522+79.50	1484	
TR 44	LT 19+12.11	20+35.81	170	
	RT 19+12.11	20+35.81	245	
	LT 20+62.77	21+88.64	214	
	RT 20+62.77	21+88.64	169	
IL 10	522+79.50	526+26.33		347
	522+79.50	526+26.33		347
	522+79.50	526+26.33	347	
	522+79.50	526+26.33	347	
	TOTAL		8737	6602
	TOTAL		15339	

TERMINAL MARKER-DIRECT APPLIED

LOCATION	STATION	OFFSET	EACH
IL 10	486+16.32	RT	1
	487+17.66	LT	1
	490+28.82	RT	1
	491+30.16	LT	1
	SN 054-7069 SUBTOTAL		4
IL 10	507+99.82	RT	1
	508+37.32	LT	1
	521+23.98	LT	1
	521+75.00	LT	1
	SN 054-0515 SUBTOTAL		4
RUNAROUND	107+14.35	LT	1
	107+83.37	RT	1
	113+74.35	RT	1
	115+00.03	LT	1
	SUBTOTAL		4
	TOTAL		12

PAVEMENT MARKING REMOVAL

LOCATION	STATION TO	STATION	WHITE (SQ FT)	YELLOW (SQ FT)
IL 10	484+00.00	498+00.00	1167	146
	491+37.00	498+00.00		276
	SN 054-7069 SUBTOTAL		1167	422
IL 10	498+00.00	506+05.12	335	
	498+00.00	506+62.96	360	
	498+00.00	498+84.76		8
	498+00.00	508+79.50		450
	512+46.00	522+79.50	431	
	498+84.76	508+79.50		414
	512+46.00	522+79.50	431	
	506+72.31	508+79.50	86	
	512+46.00	522+79.50		431
	507+33.93	508+79.50	61	
	512+46.00	522+79.50		431
	SN 054-0515 SUBTOTAL		1704	1734
IL 10	522+79.50	526+26.33		347
	522+79.50	526+26.33		347
	522+79.50	526+26.33	347	
	522+79.50	526+26.33	347	
	SN 054-0009 SUB-TOTAL		694	694
	TOTAL		3565	2850
	TOTAL		6415	

SIGN PANEL - TYPE 1

LOCATION	STATION	OFFSET	SQ FT
IL 10	491+44.00	30' LT	6
TR 44	18+10.00	15' RT	6.25
	19+65.00	26' RT	5
	21+23.00	29' LT	5
	22+90.00	15' LT	6.25
	TOTAL		28.5

WOOD SIGN SUPPORT

LOCATION	STATION	OFFSET	FOOT
IL 10	491+44.00	30' LT	12
TR 44	18+10.00	15' RT	12
	19+65.00	26' RT	12
	21+23.00	29' LT	12
	22+90.00	15' LT	12
	TOTAL		60

RAISED REFLECTIVE PAVEMENT MARKER

LOCATION	STATION TO	STATION	RRP MARKER REMOVAL	RRP MARKER
IL 10	484+00.00	488+00.00	6	
	489+60.00	497+60.00	11	
	484+00.00	497+60.00		18
	SN 054-7069 SUB-TOTAL		17	18
IL 10	498+00.00	508+40.00	14	
	498+00.00	510+00.00		16
	513+20.00	522+00.00	12	12
	SN 054-0515 SUB-TOTAL		26	28
IL 10		526+00.00	1	1
	SN 054-0009 SUB-TOTAL		1	1
	TOTAL		44	47

HOT-MIX ASPHALT SURFACE REMOVAL VARIABLE DEPTH

LOCATION	STATION TO	STATION	OFFSET	SQ YD
IL 10	500+00.00	500+66.67	LT&RT	193
	501+85.00	502+50.00	LT&RT	188
	504+00.00	504+31.82	LT&RT	92
	TOTAL			473

APPROACH SLAB REMOVAL

LOCATION	STATION TO	STATION	OFFSET	SQ YD
IL 10	508+79.50	508+99.50	LT&RT	58
	510+30.50	510+50.50	LT&RT	58
	TOTAL			116

GUARDRAIL MARKERS

LOCATION	STATION TO	STATION	OFFSET	TYPE A (EACH)	TYPE B (EACH)
IL 10	486+96.32	490+16.32	RT	5	
	487+30.16	490+50.16	LT	5	
	SN 054-7069 SUBTOTAL			10	
IL 10	508+79.82	510+39.82	RT	3	
	511+19.82	511+99.82	RT		2
	512+79.82	522+39.82	RT	13	
IL 10	508+43.98	510+03.98	LT	3	
	510+83.98	512+43.98	LT		3
	513+23.98	520+43.98	LT	10	
IL 10		522+05.25	LT	1	
	SN 054-0515 SUBTOTAL			40	5
RUNAROUND	108+63.37	113+48.37	RT	8	
RUNAROUND	107+45.03	114+45.03	LT	11	
	SN 054-0515 SUBTOTAL			19	
	TOTAL			59	5

ROCK FILL - EMBANKMENT

LOCATION	STATION TO	STATION	OFFSET	CU YD
IL 10	509+00.00	510+00.00	LT&RT	1,555
TR 44	17+25.00	20+17.00	LT&RT	1,723
	TOTAL			3,278

REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

LOCATION	STATION TO	STATION	CU YD
TR 44	17+25.00	20+17.00	1,723

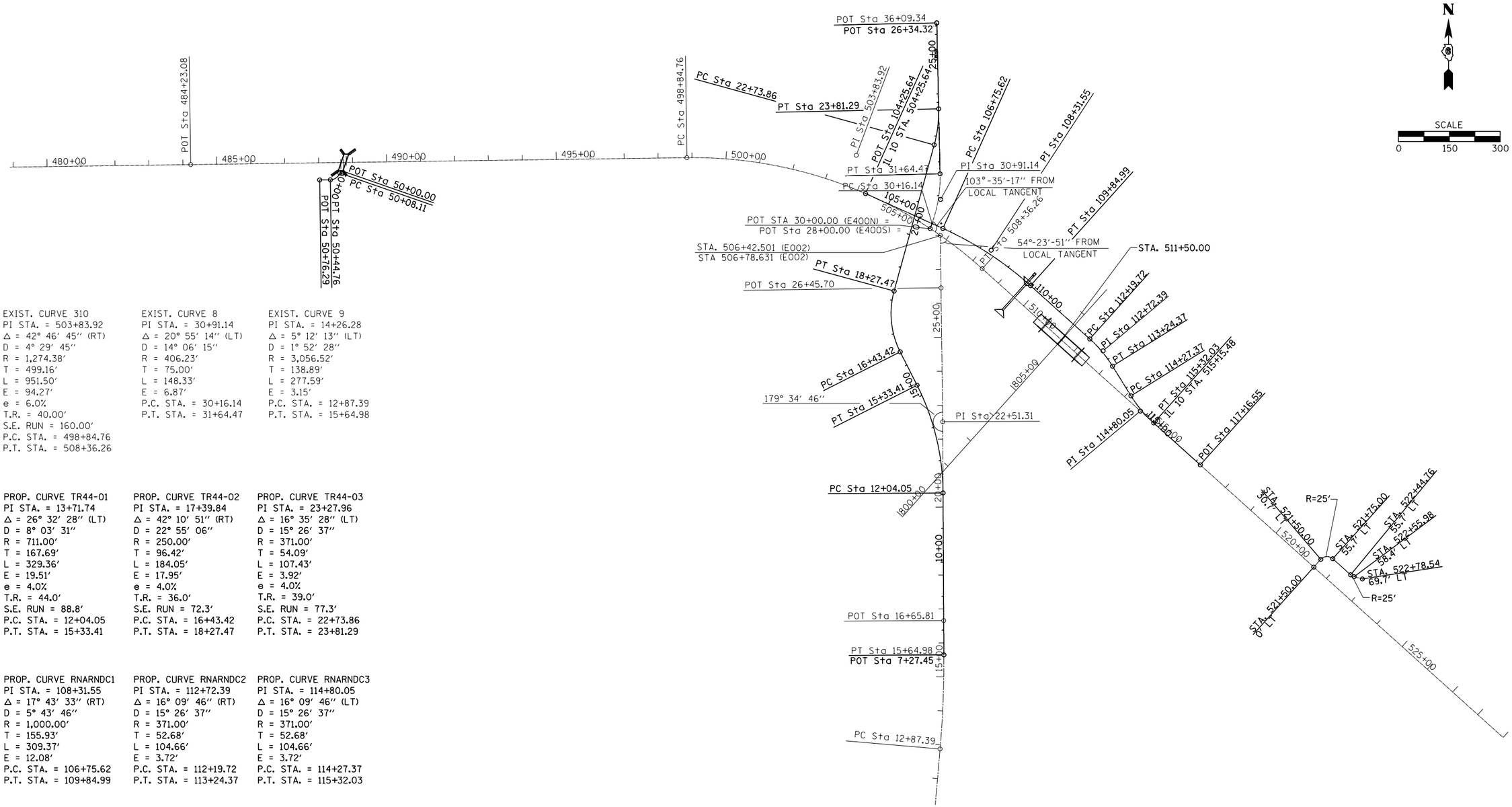
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	24
		CONTRACT NO. 72B82		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EXIST. CURVE 310
PI STA. = 503+83.92
Δ = 42° 46′ 45″ (RT)
D = 4° 29′ 45″
R = 1,274.38′
T = 499.16′
L = 951.50′
E = 94.27′
e = 6.0%
T.R. = 40.00′
S.E. RUN = 160.00′
P.C. STA. = 498+84.76
P.T. STA. = 508+36.26

EXIST. CURVE 8
PI STA. = 30+91.14
Δ = 20° 55′ 14″ (LT)
D = 14° 06′ 15″
R = 406.23′
T = 75.00′
L = 148.33′
E = 6.87′
P.C. STA. = 30+16.14
P.T. STA. = 31+64.47

EXIST. CURVE 9
PI STA. = 14+26.28
Δ = 5° 12′ 13″ (LT)
D = 1° 52′ 28″
R = 3,056.52′
T = 138.89′
L = 277.59′
E = 3.15′
P.C. STA. = 12+87.39
P.T. STA. = 15+64.98

PROP. CURVE TR44-01
PI STA. = 13+71.74
Δ = 26° 32′ 28″ (LT)
D = 8° 03′ 31″
R = 711.00′
T = 167.69′
L = 329.36′
E = 19.51′
e = 4.0%
T.R. = 44.0′
S.E. RUN = 88.8′
P.C. STA. = 12+04.05
P.T. STA. = 15+33.41

PROP. CURVE TR44-02
PI STA. = 17+39.84
Δ = 42° 10′ 51″ (RT)
D = 22° 55′ 06″
R = 250.00′
T = 96.42′
L = 184.05′
E = 17.95′
e = 4.0%
T.R. = 36.0′
S.E. RUN = 72.3′
P.C. STA. = 16+43.42
P.T. STA. = 18+27.47

PROP. CURVE TR44-03
PI STA. = 23+27.96
Δ = 16° 35′ 28″ (LT)
D = 15° 26′ 37″
R = 371.00′
T = 54.09′
L = 107.43′
E = 3.92′
e = 4.0%
T.R. = 39.0′
S.E. RUN = 77.3′
P.C. STA. = 22+73.86
P.T. STA. = 23+81.29

PROP. CURVE RNARNDC1
PI STA. = 108+31.55
Δ = 17° 43′ 33″ (RT)
D = 5° 43′ 46″
R = 1,000.00′
T = 155.93′
L = 309.37′
E = 12.08′
P.C. STA. = 106+75.62
P.T. STA. = 109+84.99

PROP. CURVE RNARNDC2
PI STA. = 112+72.39
Δ = 16° 09′ 46″ (RT)
D = 15° 26′ 37″
R = 371.00′
T = 52.68′
L = 104.66′
E = 3.72′
P.C. STA. = 112+19.72
P.T. STA. = 113+24.37

PROP. CURVE RNARNDC3
PI STA. = 114+80.05
Δ = 16° 09′ 46″ (LT)
D = 15° 26′ 37″
R = 371.00′
T = 52.68′
L = 104.66′
E = 3.72′
P.C. STA. = 114+27.37
P.T. STA. = 115+32.03

BM TJM1 - CHSLD "□" IN TOP OF NORTH BROKEN HEADWALL ±3'-0" WEST OF EAST END OF HEADWALL BOX #054-7010, STA. 488+97, ELEV. 539.60

BM 53 - CHSLD "□" SET IN NORTHWEST HEADWALL OF BRIDGE SN 054-0008, STA. 510+80 ELEV. 543.97

BLANK, WESSELINK, COOK & ASSOCIATES
ENGINEERS - CONSULTANTS
DECATUR, ILLINOIS

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - CWG	REVISED -
		DRAWN - BWC	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - RMD	REVISED -
	PLOT DATE = $DATE$	DATE - 02/09/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES, & BENCHMARKS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	25
		CONTRACT NO. 72B82		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SEC. 15, T20N, R4W, 3RD P.M.

6178107A

MARY WHITE FLETCHER AS TO 1/2 INTEREST,
A LIFE ESTATE OF MURIEL B. WHITE &
RODNEY J. WHITE, JAMES R. WHITE
AND JOHN T. WHITE 1/2 INTEREST

SEC. 15, T20N, R4W, 3RD P.M.

6178108

DAVID LEWIS SCULLY TRUST UNDER
THE WILL OF T.A. SCULLY, DECEASED

N

50' 0' 50' 100'

PROJECT BEGINS
STA. 484+00.00

MATCH LINE STA 483+00.00

MATCH LINE STA 498+00.00

485+00.00
40' LT

485+00.00
55' LT

EXISTING SN 054-7010
REMOVAL OF EXISTING
STRUCTURES NO. 1
(DOUBLE 7'x9' RCB)

488+25.00
60' LT

488+18.75
55' LT

GUARDRAIL REMOVAL

STEEL PLATE BEAM GUARDRAIL,
TYPE A, 6 FOOT POSTS

TRAFFIC BARRIER TERMINAL,
TYPE 1 (SPECIAL) TANGENT

489+50.00
60' LT

489+75.00
40' LT

NO PASSING ZONE W14-3

EX 15" CMP
TO REMAIN

F.E. +72

AGGREGATE SURFACE COURSE, TYPE B

PROPOSED CONSTRUCTION LIMITS

SECTION LINE

EXISTING ROW LINE

484+23.08

PROPOSED T.E.

TRAFFIC BARRIER TERMINAL,
TYPE 1 (SPECIAL) TANGENT

488+00.00
40' LT

PROPOSED ROW LINE

485+00

490+00

℄ FAP 717
(IL RTE 10)

495+00

4' 12' 12' 4'

17' 12' 12'

40'

±50

BUTT JOINT

485+00.00
40' RT

PROPOSED T.E.

487+75.00
40' RT

TRAFFIC BARRIER TERMINAL,
TYPE 1 (SPECIAL) TANGENT

EX 15" CMP
TO REMAIN

F.E. +22

485+00.00
55' RT

TRAFFIC BARRIER TERMINAL,
TYPE 1 (SPECIAL) TANGENT

487+84.38
55' RT

PROPOSED ROW LINE

489+75.00
40' RT

489+50.00
80' RT

EXISTING RIPRAP

AGGREGATE SURFACE COURSE, TYPE B

PROPOSED CONSTRUCTION LIMITS

STEEL PLATE BEAM GUARDRAIL,
TYPE A, 6 FOOT POSTS

488+00.00
80' RT

GUARDRAIL REMOVAL

STONE RIPRAP, CLASS A5

6178109B

RODNEY J. WHITE,
JAMES R. WHITE
AND JOHN T. WHITE

SEC. 22, T20N, R4W, 3RD P.M.

STRUCTURE NO. 054-7069
CONCRETE BOX CULVERTS
(12'x9')
℄ STA. 488+73.19
USFL 25' LT= 528.93
DSFL 25' RT= 528.92

6178107B

MARY WHITE FLETCHER AS TO 1/2 INTEREST,
A LIFE ESTATE OF MURIEL B. WHITE &
RODNEY J. WHITE, JAMES R. WHITE
AND JOHN T. WHITE 1/2 INTEREST

SEC. 22, T20N, R4W, 3RD P.M.

BM TJMI - CHSLD " □ " IN TOP
OF NORTH BROKEN HEADWALL
±3'-0" WEST OF EAST END OF
HEADWALL BOX #054-7010,
STA. 488+97, ELEV. 539.60

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

PROFILE
SURVEYED
PLOTTED
PROFILES CHECKED
BAR. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

STA. 484+00.00
ELEVATION 540.94

PROPOSED PROFILE
FAP RTE 717 (IL 10)

EXISTING PROFILE
FAP RTE 717 (IL 10)

EXISTING PROFILE
RIGHT DITCH

EXISTING PROFILE
LEFT DITCH

EXISTING PROFILE
RIGHT DITCH

ELEV. 528.92

0.12 %

ELEV. 528.83

PROPOSED RT DITCH

555 550 545 540 535 530 525 520 515

484+00	485+00	486+00	487+00	488+00	489+00	490+00	491+00	492+00	493+00	494+00	495+00	496+00	497+00	498+00
540.94	540.97	540.97	540.98	540.92	540.96	540.96	540.93	540.89	540.91	540.90	540.88	540.81	540.76	540.74	540.71	540.64	540.63	540.65 (LT DITCH)	540.68 (LT DITCH)	540.69 (LT DITCH)	540.69 (LT DITCH)	540.68 (LT DITCH)	540.65 (LT DITCH)	540.61 (LT DITCH)	540.65 (LT DITCH)	540.68 (LT DITCH)	540.71 (LT DITCH)	540.74 (LT DITCH)
540.94	541.04	541.09	541.10	541.04	541.08	541.08	541.05	541.01	541.03	541.02	541.00	540.93	540.88	540.86	540.83	540.76	540.75	540.77 (RT DITCH)	540.80 (RT DITCH)	540.81 (RT DITCH)	540.81 (RT DITCH)	540.80 (RT DITCH)	540.77 (RT DITCH)	540.73 (RT DITCH)	540.77 (RT DITCH)	540.80 (RT DITCH)	540.83 (RT DITCH)	540.86 (RT DITCH)

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN & PROFILE – FAP 717 (IL RTE 10)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
$MODELNAME$		DRAWN -	REVISED -			717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	26
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -						CONTRACT NO. 72B82	
	PLOT DATE = $DATE$	DATE -	REVISED -		SCALE: SHEET 1 OF 3 SHEETS STA. 483+00.00 TO STA. 498+00.00			ILLINOIS	FED. AID PROJECT	

PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
R.O.W. CHECKED
CADD FILE NAME
BY
DATE

PROFILE
NOTE BOOK
NO.
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATIONS CHK'D
BY
DATE

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

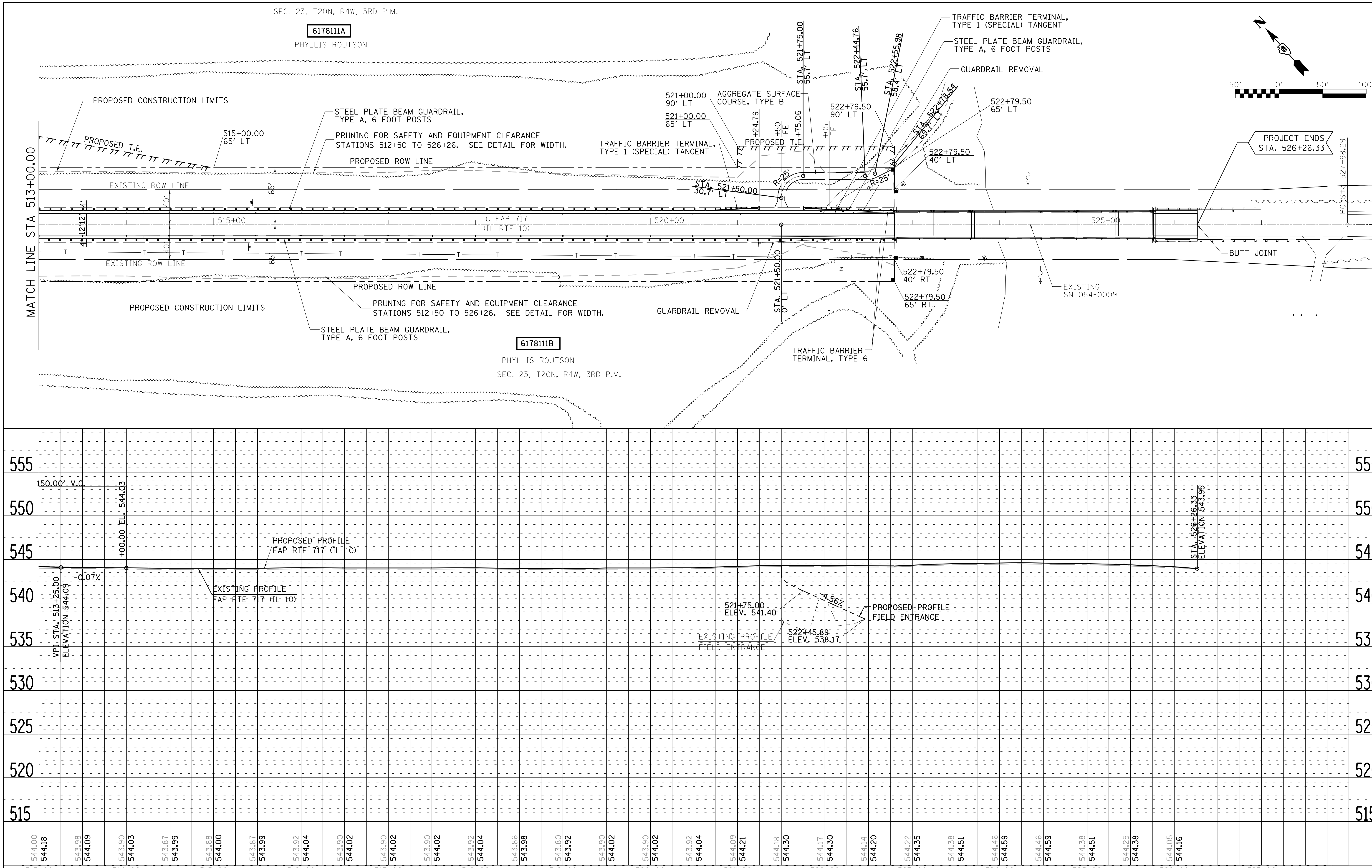
PLAN & PROFILE – FAP 717 (IL RTE 10)

SCALE: SHEET 2 OF 3 SHEETS STA. 498+00.00 TO STA. 513+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	27

CONTRACT NO. 72B82

ILLINOIS FED. AID PROJECT


SEC. 23, T20N, R4W, 3RD P.M.
6178111A
PHYLLIS ROUTSON
MATCH LINE STA 513+00.00
PROPOSED CONSTRUCTION LIMITS
PROPOSED T.E.
515+00.00
65' LT
STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
PRUNING FOR SAFETY AND EQUIPMENT CLEARANCE STATIONS 512+50 TO 526+26. SEE DETAIL FOR WIDTH.
PROPOSED ROW LINE
EXISTING ROW LINE
℄ FAP 717 (IL RTE 10)
TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
521+00.00
90' LT
521+00.00
65' LT
AGGREGATE SURFACE COURSE, TYPE B
STA. 521+75.00 55.7' LT
STA. 522+44.76 55.7' LT
STA. 522+55.98 58.4' LT
STA. 522+78.54 69.1' LT
STA. 521+50.00 30.7' LT
522+79.50
90' LT
522+79.50
65' LT
522+79.50
40' LT
STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
GUARDRAIL REMOVAL
PROJECT ENDS STA. 526+26.33
PC STA. 527+98.29
BUTT JOINT
EXISTING SN 054-0009
522+79.50
40' RT
522+79.50
65' RT
STA. 521+50.00 0' LT
TRAFFIC BARRIER TERMINAL, TYPE 6
6178111B
PHYLLIS ROUTSON
SEC. 23, T20N, R4W, 3RD P.M.
150.00' V.C.
VPI STA. 513+25.00 ELEVATION 544.09
+00.00 EL. 544.03
-0.07%
PROPOSED PROFILE FAP RTE 717 (IL 10)
EXISTING PROFILE FAP RTE 717 (IL 10)
521+75.00 ELEV. 541.40
-4.56%
522+45.89 ELEV. 538.17
PROPOSED PROFILE FIELD ENTRANCE
EXISTING PROFILE FIELD ENTRANCE
STA. 526+26.33 ELEVATION 543.95
555
550
545
540
535
530
525
520
515
544.00 544.18
543.98 544.09
543.90 544.03
543.87 543.99
543.88 544.00
543.87 543.99
543.92 544.04
543.90 544.02
543.90 544.02
543.90 544.02
543.92 544.04
543.86 543.98
543.80 543.92
543.90 544.02
543.90 544.02
543.92 544.04
544.09 544.21
544.18 544.30
544.17 544.30
544.14 544.20
544.22 544.35
544.38 544.51
544.46 544.59
544.46 544.59
544.38 544.51
544.25 544.38
544.05 544.16
513+00
514+00
515+00
516+00
517+00
518+00
519+00
520+00
521+00
522+00
523+00
524+00
525+00
526+00
527+00

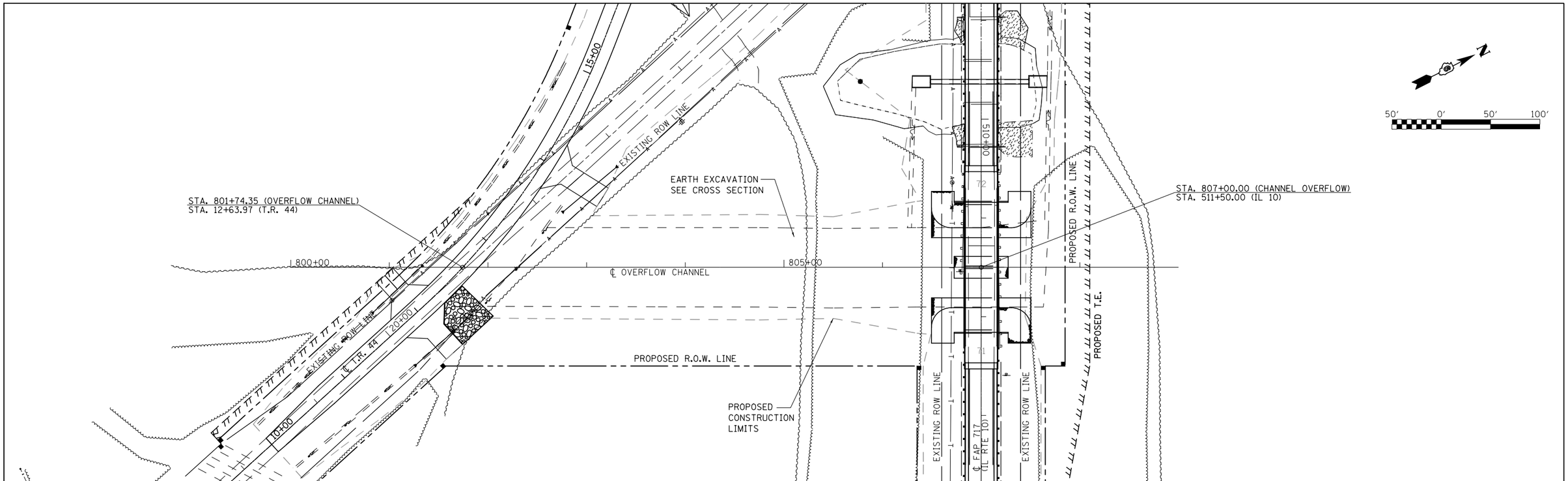
FILE NAME =	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN & PROFILE – FAP 717 (IL RTE 10)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
$FILEL$		DRAWN -	REVISED -			717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218 / 28
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -			CONTRACT NO. 72B82			
$MODELNAME$	PLOT DATE = $DATE$	DATE -	REVISED -		SCALE: SHEET 3 OF 3 SHEETS STA. 513+00.00 TO STA. 528+00.00	ILLINOIS FED. AID PROJECT			

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, R/T OF WAY CHECKED, CADD FILE NAME, NOTE BOOK NO., BY, DATE

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHK'D, NOTE BOOK NO., BY, DATE

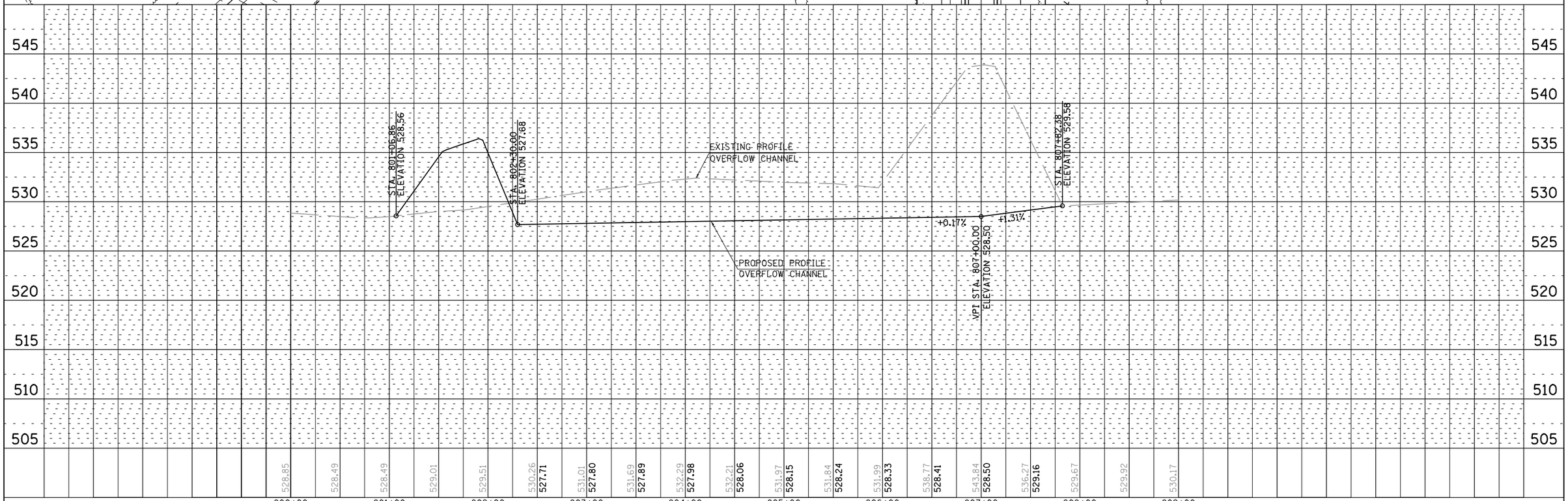
PLAN

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



PROFILE

DATE	BY
SURVEYED	
PLOTTED	
DRAWN / CHECKED	
BKM. NOTED	
STRUCTURE NOTATNS CHKD	
NOTE BOOK	
NO.	



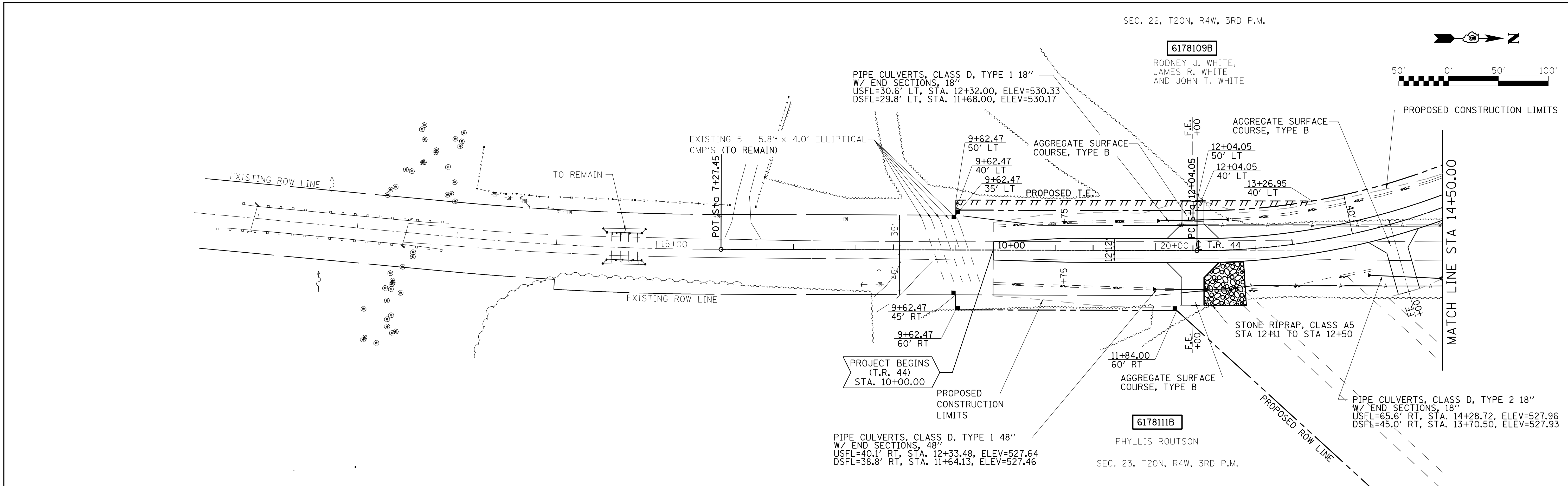
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
$MODELNAME$	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

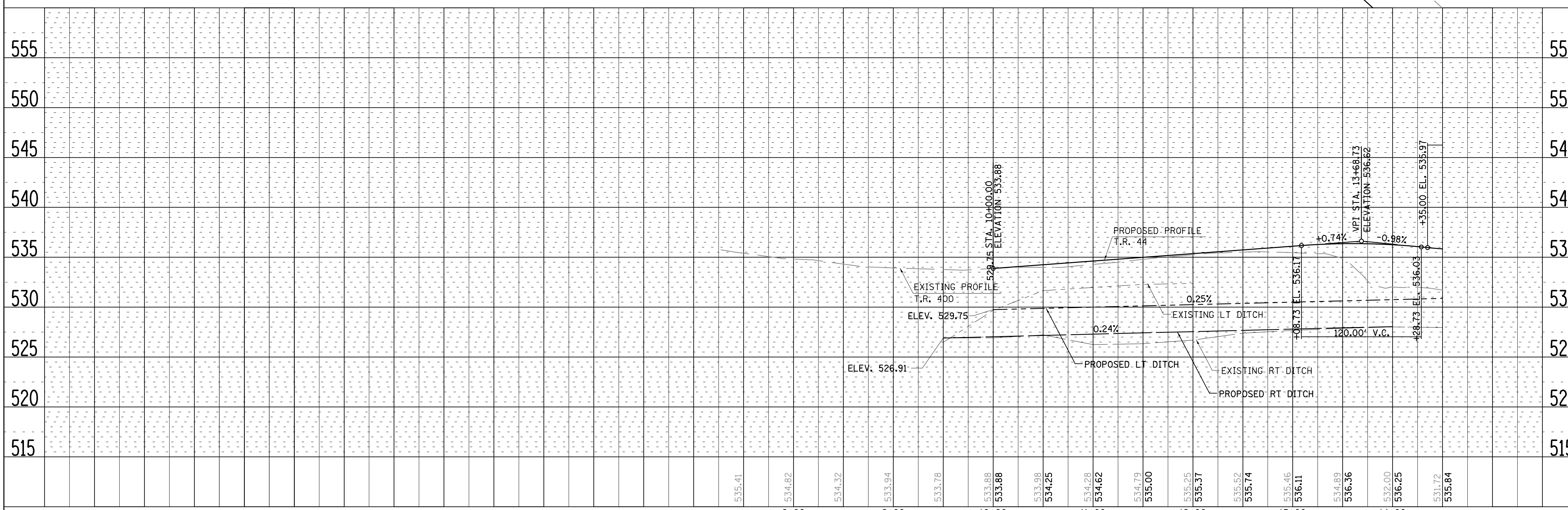
PLAN & PROFILE – OVERFLOW CHANNEL

SCALE: | SHEET 1 OF 1 SHEETS | STA. 800+00.00 TO STA. 809+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	29
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



SEC. 22, T20N, R4W, 3RD P.M.
6178109B
RODNEY J. WHITE,
JAMES R. WHITE
AND JOHN T. WHITE
50' 0' 50' 100'
PROPOSED CONSTRUCTION LIMITS
PIPE CULVERTS, CLASS D, TYPE 1 18"
W/ END SECTIONS, 18"
USFL=30.6' LT, STA. 12+32.00, ELEV=530.33
DSFL=29.8' LT, STA. 11+68.00, ELEV=530.17
EXISTING 5 - 5.8' x 4.0' ELLIPTICAL
CMP'S (TO REMAIN)
EXISTING ROW LINE
TO REMAIN
POT Sta 7+27.45
15+00
10+00
20+00
T.R. 44
9+62.47
50' LT
9+62.47
40' LT
9+62.47
35' LT
PROPOSED T.E.
AGGREGATE SURFACE
COURSE, TYPE B
12+04.05
50' LT
12+04.05
40' LT
13+26.95
40' LT
PC Sta 12+04.05
F.E. +00
MATCH LINE STA 14+50.00
9+62.47
45' RT
9+62.47
60' RT
PROJECT BEGINS
(T.R. 44)
STA. 10+00.00
PROPOSED
CONSTRUCTION
LIMITS
11+84.00
60' RT
AGGREGATE SURFACE
COURSE, TYPE B
STONE RIPRAP, CLASS A5
STA 12+11 TO STA 12+50
PIPE CULVERTS, CLASS D, TYPE 2 18"
W/ END SECTIONS, 18"
USFL=65.6' RT, STA. 14+28.72, ELEV=527.96
DSFL=45.0' RT, STA. 13+70.50, ELEV=527.93
PROPOSED ROW LINE
6178111B
PHYLLIS ROUTSON
PIPE CULVERTS, CLASS D, TYPE 1 48"
W/ END SECTIONS, 48"
USFL=40.1' RT, STA. 12+33.48, ELEV=527.64
DSFL=38.8' RT, STA. 11+64.13, ELEV=527.46
SEC. 23, T20N, R4W, 3RD P.M.



555
550
545
540
535
530
525
520
515
STA. 10+00.00
ELEVATION 533.88
529.75
PROPOSED PROFILE
T.R. 44
VPI STA. 13+68.73
ELEVATION 536.62
+0.74%
-0.98%
+35.00 EL. 535.97
+08.73 EL. 536.17
+28.73 EL. 536.03
120.00' V.C.
EXISTING PROFILE
T.R. 400
ELEV. 529.75
0.25%
EXISTING LT DITCH
0.24%
ELEV. 526.91
PROPOSED LT DITCH
EXISTING RT DITCH
PROPOSED RT DITCH
535.41
534.82
534.32
533.94
533.78
533.88 533.88
533.98 534.25
534.28 534.62
534.79 535.00
535.25 535.37
535.52 535.74
535.46 536.11
534.89 536.36
532.00 536.25
531.72 535.84
8+00
9+00
10+00
11+00
12+00
13+00
14+00

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

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHK'D, NOTE BOOK NO. — BY — DATE

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN & PROFILE – T.R. 44	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -			717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218 / 30
$MODELNAME$	PLOT SCALE = $SCALE$	CHECKED -	REVISED -			CONTRACT NO. 72B82			
	PLOT DATE = $DATE$	DATE -	REVISED -		SCALE: SHEET 1 OF 2 SHEETS STA. 3+57.45 TO STA. 14+50.00	ILLINOIS FED. AID PROJECT			

SEC. 22, T20N, R4W, 3RD P.M.

6178109B
RODNEY J. WHITE,
JAMES R. WHITE
AND JOHN T. WHITE

PIPE CULVERTS, CLASS D, TYPE 2
18" W/ END SECTIONS, 18"
USFL=44' LT, STA. 18+50.00, ELEV=531.00
DSFL=46' RT, STA. 18+50.00, ELEV=530.40

17+57.00
72.74' LT

19+92.42
60.02' LT

PROPOSED ROW LINE

PT Sta 18+27.47

15+33.41
40' LT

PT Sta 15+33.41

15+00

40'

60'

℄ T.R. 44

T20N, R4W, SEC. 22

6178109B
RODNEY J. WHITE,
JAMES R. WHITE
AND JOHN T. WHITE

STOP AHEAD
W3-1
30"x30"

STOP
R1-1
30"x30"

20+00

MATCH LINE STA 14+50.00

F.E.

25+00 EXISTING ℄ T.R. 400E
(TO BE REMOVED)

EXISTING ROW LINE

EXISTING 48" CMP
(TO REMAIN)

6178111B
PHYLLIS ROUTSON
SEC. 23, T20N, R4W, 3RD P.M.

℄ FAP 717
(IL RTE 10)

PROPOSED T.E.

SEC. 22,
T20N, R4W,
3RD P.M.

6178109A
RODNEY J. WHITE,
JAMES R. WHITE
AND JOHN T. WHITE

505+00.00
40' LT

505+00

STOP
R1-1
30"x30'

22+29.51
71.47' LT

PC Sta 22+73.86

+90

STOP AHEAD
W3-1
30"x30"

SEC. 15, T20N, R4W, 3RD P.M.

6178108
DAVID LEWIS SCULLY TRUST UNDER
THE WILL OF T.A. SCULLY, DECEASED

50' 0' 50' 100'

PROPOSED CONSTRUCTION LIMITS

REMOVE "UNSUITABLE MATERIAL" TO A DEPTH OF 1.5 FEET AND REPLACE WITH "ROCK FILL-EMBANKMENT".

26+25.00
35' LT

26+33.97
29.88' LT

AGGREGATE SURFACE
COURSE, TYPE B

23+81.29
53.28' LT

PT Sta 23+81.29

PROPOSED ROW LINE

EXISTING 15" CMP
(TO REMAIN)

F.E.
+103

+25

POT Sta 26+34.32

PROJECT ENDS
(T.R. 400)
STA. 26+24.98

℄ T.R. 44

EXISTING ℄ T.R. 400E

25+00 25+00

PROPOSED ROW LINE

24+25.00
45' RT

26+25.00
35' RT

26+33.98
33.12' RT

EXISTING 18" CMP
(TBR)

PIPE CULVERTS, CLASS D, TYPE 2 18"
W/ END SECTIONS, 18"
USFL=54.1' RT, STA. 23+13.19, ELEV=531.21
DSFL=65.1' RT, STA. 22+26.81, ELEV=530.01

507+08.32
117' LT

22+53.06
97.55' RT

23+00.50
74.75' RT

22+65.00
142' RT

AGGREGATE SURFACE
COURSE, TYPE B

22+84.48
131.76' RT

22+82.00
142' RT

507+39.00
85' LT

STA. 22+10.00
EXISTING 18" CMP
(TO BE FILLED)

APPROX. PROPERTY LINE

6178111A
PHYLLIS ROUTSON
SEC. 23, T20N, R4W, 3RD P.M.

PIPE CULVERTS, CLASS A, TYPE 2
30" W/ PRC FLARED END SECTIONS, 30"
USFL=50.8' LT, STA. 22+00.00, ELEV=530.25
DSFL=52.7' RT, STA. 22+00.00, ELEV=530.00

6178110
BRUCE E. & TERRICA K.
BUCHHOLZ
SEC. 14, T20N, R4W, 3RD P.M.

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

PROFILE
SURVEYED
PLOTTED
DRAINAGE CHECKED
BAR. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

555 550 545 540 535 530 525 520 515

250.00' V.C.

+85.00 EL. 537.24

PROPOSED PROFILE
T.R. 44

-0.98%

+2.00%

6.25%

ELEV.
531.00

VPI STA. 15+60.00
ELEVATION 534.75

PROPOSED LT DITCH

EXISTING RT DITCH

EXISTING PROFILE
T.R. 400

VPI STA. 20+35.81
ELEVATION 544.25

VPI STA. 20+49.29
ELEVATION 545.02

VPI STA. 20+62.77
ELEVATION 545.79

+2.00%

+0.50%

+0.50%

VPI STA. 22+20.00
ELEVATION 546.56

-3.70%

+52.50 EL. 546.24

ELEV. 530.25

ELEV. 530.50

-0.50%

0.16%

ELEV. 529.84

135.00' V.C.

+87.50 EL. 544.08

ELEV. 530.00

PROPOSED RT DITCH

PROPOSED LT DITCH

+67.44 EL. 541.12

200.00' V.C.

+67.44 EL. 537.62

-3.70%

+0.20%

EXISTING RT DITCH

0.87%

0.86%

VPI STA. 24+67.44
ELEVATION 537.43

ELEV. 533.69

EXISTING LT DITCH

ELEV. 533.50

STA. 26+24.98
ELEVATION 537.74

531.72	531.19	531.26	531.62	532.10	532.91	527.56	525.21	527.24	530.11	530.21	531.53	544.21	535.72	530.78	531.07	532.95	537.79	537.63	537.37	537.13	537.14	537.41	537.71
535.84	535.59	535.63	535.97	536.62	537.54	538.54	539.54	540.54	541.54	542.54	543.53	545.06	545.98	546.23	546.13	545.25	543.62	541.77	540.02	538.73	537.93	537.62	537.69

15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00

FILE NAME =	USER NAME = $USER$	DESIGNED -	REVISED -
$FILE1$		DRAWN -	REVISED -
$MODELNAME$	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE – T.R. 44

SCALE: | SHEET 2 OF 2 SHEETS | STA. 14+50.00 TO STA. 26+24.98

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	31
		CONTRACT NO. 72B82		
		ILLINOIS FED. AID PROJECT		

SEC. 15, T20N, R4W, 3RD P.M.

6178108

DAVID LEWIS SCULLY TRUST UNDER THE WILL OF T.A. SCULLY, DECEASED

505+00.00
40' LT

PROPOSED CONSTRUCTION LIMITS

SEC. 22, T20N, R4W, 3RD P.M.

RODNEY J. WHITE, JAMES R. WHITE AND JOHN T. WHITE

6178109A

EXISTING ROW LINE

POT Sta 104+25.64
Sta. 504+25.64 (IL 10)

105+00

℄ FAP 717 (IL RTE 10)

EXISTING ROW LINE

PROPOSED ROW LINE

24" CMP

505+41.00
70' RT

6178109B

RODNEY J. WHITE, JAMES R. WHITE AND JOHN T. WHITE

SEC. 22, T20N, R4W, 3RD P.M.

PC Sta 106+75.62

+14.35

℄ T.R. 400E

STA. 509+62 (IL RTE 10)
PIPE CULVERTS, CLASS A, TYPE 2 48" W/ CONCRETE END SECTION, 48"
USFL = 85.4' LT, ELEV=529.12
DSFL = 51.2' RT, ELEV=528.77

48" CMP

SEC. 23, T20N, R4W, 3RD P.M.

6178111B

PHYLLIS ROUTSON

507+08.32
117' LT

507+39.00
85' LT

6178111A

PHYLLIS ROUTSON

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL), TANGENT

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

508+36.26
85' LT

PRECAST REINFORCED CONCRETE FLARED END SECTIONS 48"

PT Sta 108+31.55

PT Sta 109+84.99

EXISTING SN 054-0008

EXISTING SN 054-0008
REMOVAL OF EXISTING STRUCTURES NO. 2

STRUCTURE NO. 054-0515
℄ STA. 511+50 (IL RTE 10)
132'-0" BK TO BK ABUTMENTS
32'-0" REINFORCED CONCRETE DECK
SKEW = 0

512+50.00
110' LT

512+50.00
85' LT

512+50.00
65' LT

PROPOSED CONSTRUCTION LIMITS

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL), TANGENT

PROPOSED T.E.

PROPOSED ROW LINE

110+00

℄ FAP 717 (IL RTE 10)

PC Sta 112+19.72

PI Sta 112+72.39

PT Sta 113+24.37

510+00

58'

512+50.00
65' RT

EXISTING ROW LINE

PROPOSED ROW LINE

515+00.00
65' LT

PC Sta 114+27.37

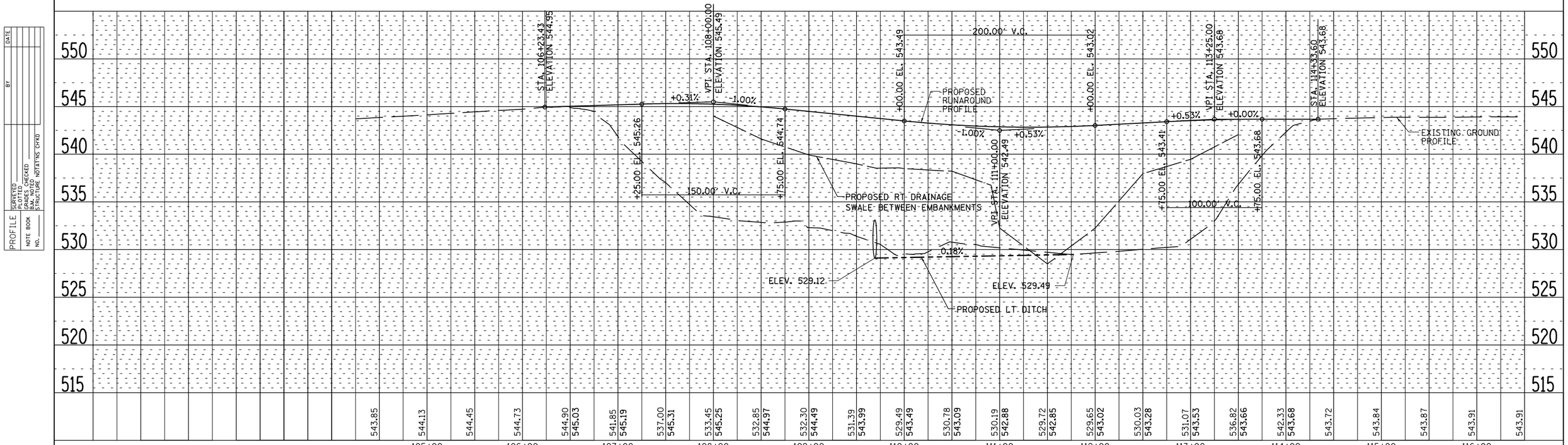
PT Sta 115+32.03

Sta. 515+16.48 (IL 10)

115+00

POT Sta 117+16.55

50' 0' 50' 100'



PLAN

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

PROFILE

SURVEYED	BY
PLOTTED	
GRADES CHECKED	
B.M. NOTED	
STRUCTURE NOTATNS CHKD	DATE
NOTE BOOK	
NO.	

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

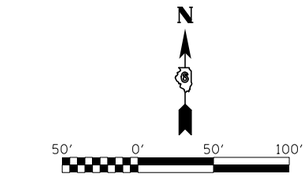
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

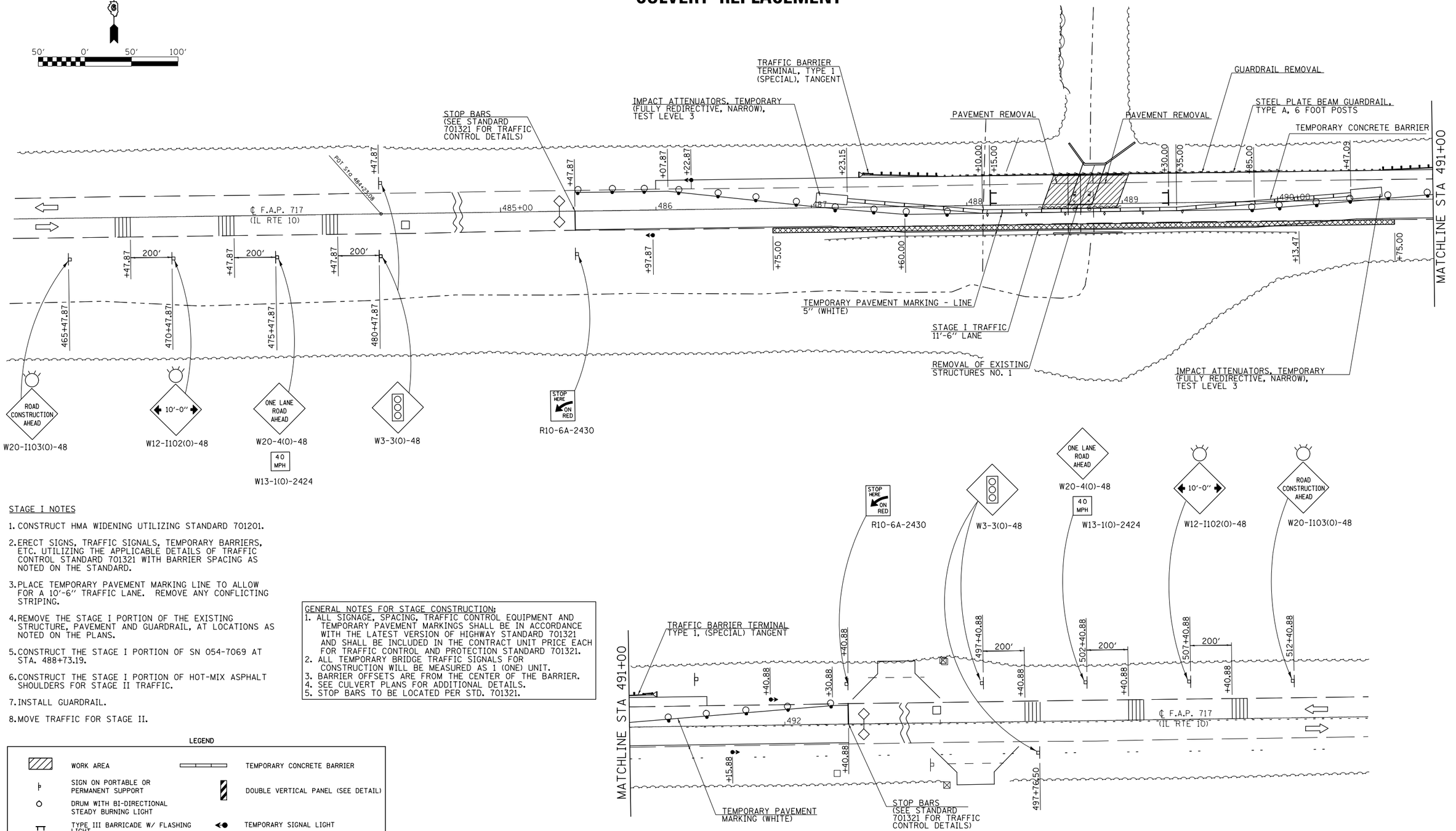
PLAN & PROFILE – RUNAROUND

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. 3+57.45 TO STA. 9+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	32
		CONTRACT NO. 72B82		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE I TRAFFIC CONTROL
CULVERT REPLACEMENT





STAGE I NOTES

1. CONSTRUCT HMA WIDENING UTILIZING STANDARD 701201.
2. ERECT SIGNS, TRAFFIC SIGNALS, TEMPORARY BARRIERS, ETC. UTILIZING THE APPLICABLE DETAILS OF TRAFFIC CONTROL STANDARD 701321 WITH BARRIER SPACING AS NOTED ON THE STANDARD.
3. PLACE TEMPORARY PAVEMENT MARKING LINE TO ALLOW FOR A 10′-6″ TRAFFIC LANE. REMOVE ANY CONFLICTING STRIPING.
4. REMOVE THE STAGE I PORTION OF THE EXISTING STRUCTURE, PAVEMENT AND GUARDRAIL, AT LOCATIONS AS NOTED ON THE PLANS.
5. CONSTRUCT THE STAGE I PORTION OF SN 054-7069 AT STA. 488+73.19.
6. CONSTRUCT THE STAGE I PORTION OF HOT-MIX ASPHALT SHOULDERS FOR STAGE II TRAFFIC.
7. INSTALL GUARDRAIL.
8. MOVE TRAFFIC FOR STAGE II.

GENERAL NOTES FOR STAGE CONSTRUCTION:

1. ALL SIGNAGE, SPACING, TRAFFIC CONTROL EQUIPMENT AND TEMPORARY PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAY STANDARD 701321 AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.
2. ALL TEMPORARY BRIDGE TRAFFIC SIGNALS FOR CONSTRUCTION WILL BE MEASURED AS 1 (ONE) UNIT.
3. BARRIER OFFSETS ARE FROM THE CENTER OF THE BARRIER.
4. SEE CULVERT PLANS FOR ADDITIONAL DETAILS.
5. STOP BARS TO BE LOCATED PER STD. 701321.

LEGEND

	WORK AREA		TEMPORARY CONCRETE BARRIER
⊦	SIGN ON PORTABLE OR PERMANENT SUPPORT		DOUBLE VERTICAL PANEL (SEE DETAIL)
○	DRUM WITH BI-DIRECTIONAL STEADY BURNING LIGHT		
⊤⊤	TYPE III BARRICADE W/ FLASHING LIGHT	◂●	TEMPORARY SIGNAL LIGHT
	TEMPORARY PAVEMENT MARKING	○○○	IMPACT ATTENUATOR
	HMA BASE COURSE WIDENING, 10″		

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

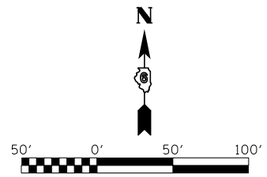
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

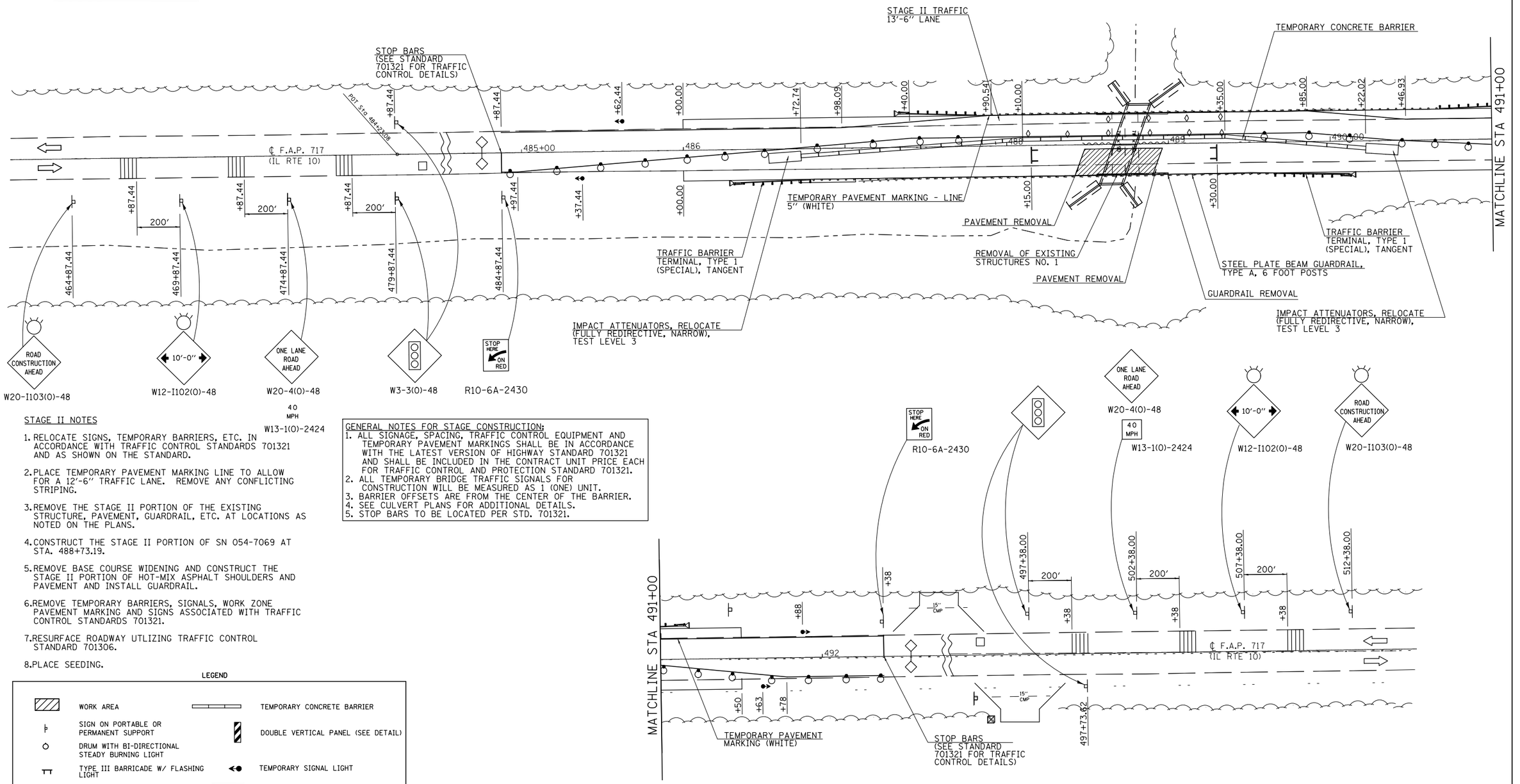
STAGE I CONSTRUCTION – FAP 717 (IL RTE 10) – CULVERT

SCALE: | SHEET NO. 1 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	33
		CONTRACT NO. 72B82		
		ILLINOIS	FED. AID PROJECT	

STAGE II TRAFFIC CONTROL
CULVERT REPLACEMENT





STAGE II NOTES

1. RELOCATE SIGNS, TEMPORARY BARRIERS, ETC. IN ACCORDANCE WITH TRAFFIC CONTROL STANDARDS 701321 AND AS SHOWN ON THE STANDARD.
2. PLACE TEMPORARY PAVEMENT MARKING LINE TO ALLOW FOR A 12′-6″ TRAFFIC LANE. REMOVE ANY CONFLICTING STRIPING.
3. REMOVE THE STAGE II PORTION OF THE EXISTING STRUCTURE, PAVEMENT, GUARDRAIL, ETC. AT LOCATIONS AS NOTED ON THE PLANS.
4. CONSTRUCT THE STAGE II PORTION OF SN 054-7069 AT STA. 488+73.19.
5. REMOVE BASE COURSE WIDENING AND CONSTRUCT THE STAGE II PORTION OF HOT-MIX ASPHALT SHOULDERS AND PAVEMENT AND INSTALL GUARDRAIL.
6. REMOVE TEMPORARY BARRIERS, SIGNALS, WORK ZONE PAVEMENT MARKING AND SIGNS ASSOCIATED WITH TRAFFIC CONTROL STANDARDS 701321.
7. RESURFACE ROADWAY UTLIZING TRAFFIC CONTROL STANDARD 701306.
8. PLACE SEEDING.

GENERAL NOTES FOR STAGE CONSTRUCTION:

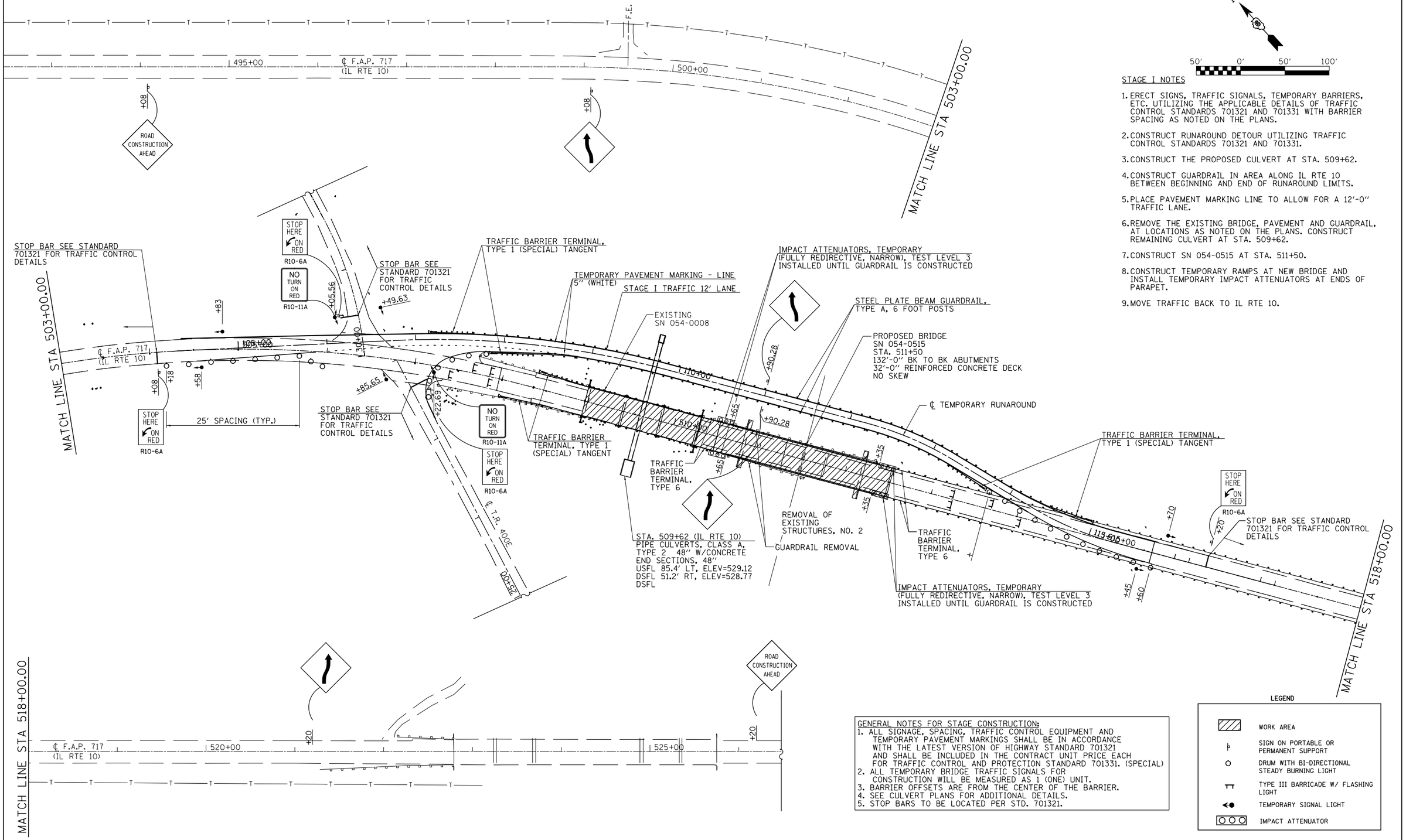
1. ALL SIGNAGE, SPACING, TRAFFIC CONTROL EQUIPMENT AND TEMPORARY PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAY STANDARD 701321 AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.
2. ALL TEMPORARY BRIDGE TRAFFIC SIGNALS FOR CONSTRUCTION WILL BE MEASURED AS 1 (ONE) UNIT.
3. BARRIER OFFSETS ARE FROM THE CENTER OF THE BARRIER.
4. SEE CULVERT PLANS FOR ADDITIONAL DETAILS.
5. STOP BARS TO BE LOCATED PER STD. 701321.

LEGEND

▨	WORK AREA	▬▬▬	TEMPORARY CONCRETE BARRIER
⊦	SIGN ON PORTABLE OR PERMANENT SUPPORT	▨	DOUBLE VERTICAL PANEL (SEE DETAIL)
○	DRUM WITH BI-DIRECTIONAL STEADY BURNING LIGHT	◄●	TEMPORARY SIGNAL LIGHT
⊤⊤	TYPE III BARRICADE W/ FLASHING LIGHT	○○○	IMPACT ATTENUATOR
———	TEMPORARY PAVEMENT MARKING		

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE II CONSTRUCTION – FAP 717 (IL RTE 10) – CULVERT			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	34
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -							CONTRACT NO. 72B82		
	PLOT DATE = $DATE$	DATE -	REVISED -		SCALE:	SHEET NO. 2 OF 5 SHEETS	STA. TO STA.		ILLINOIS FED. AID PROJECT			

STAGE I TRAFFIC CONTROL
BRIDGE REPLACEMENT



50' 0' 50' 100'

STAGE I NOTES

1. ERECT SIGNS, TRAFFIC SIGNALS, TEMPORARY BARRIERS, ETC. UTILIZING THE APPLICABLE DETAILS OF TRAFFIC CONTROL STANDARDS 701321 AND 701331 WITH BARRIER SPACING AS NOTED ON THE PLANS.
2. CONSTRUCT RUNAROUND DETOUR UTILIZING TRAFFIC CONTROL STANDARDS 701321 AND 701331.
3. CONSTRUCT THE PROPOSED CULVERT AT STA. 509+62.
4. CONSTRUCT GUARDRAIL IN AREA ALONG IL RTE 10 BETWEEN BEGINNING AND END OF RUNAROUND LIMITS.
5. PLACE PAVEMENT MARKING LINE TO ALLOW FOR A 12'-0" TRAFFIC LANE.
6. REMOVE THE EXISTING BRIDGE, PAVEMENT AND GUARDRAIL, AT LOCATIONS AS NOTED ON THE PLANS. CONSTRUCT REMAINING CULVERT AT STA. 509+62.
7. CONSTRUCT SN 054-0515 AT STA. 511+50.
8. CONSTRUCT TEMPORARY RAMPS AT NEW BRIDGE AND INSTALL TEMPORARY IMPACT ATTENUATORS AT ENDS OF PARAPET.
9. MOVE TRAFFIC BACK TO IL RTE 10.

GENERAL NOTES FOR STAGE CONSTRUCTION:
1. ALL SIGNAGE, SPACING, TRAFFIC CONTROL EQUIPMENT AND TEMPORARY PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAY STANDARD 701321 AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701331. (SPECIAL)
2. ALL TEMPORARY BRIDGE TRAFFIC SIGNALS FOR CONSTRUCTION WILL BE MEASURED AS 1 (ONE) UNIT.
3. BARRIER OFFSETS ARE FROM THE CENTER OF THE BARRIER.
4. SEE CULVERT PLANS FOR ADDITIONAL DETAILS.
5. STOP BARS TO BE LOCATED PER STD. 701321.

LEGEND

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DRUM WITH BI-DIRECTIONAL STEADY BURNING LIGHT
- TYPE III BARRICADE W/ FLASHING LIGHT
- TEMPORARY SIGNAL LIGHT
- IMPACT ATTENUATOR

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

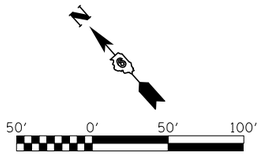
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I CONSTRUCTION – FAP 717 (IL RTE 10) – BRIDGE

SCALE: | SHEET NO. 3 OF 5 SHEETS | STA. | TO STA.

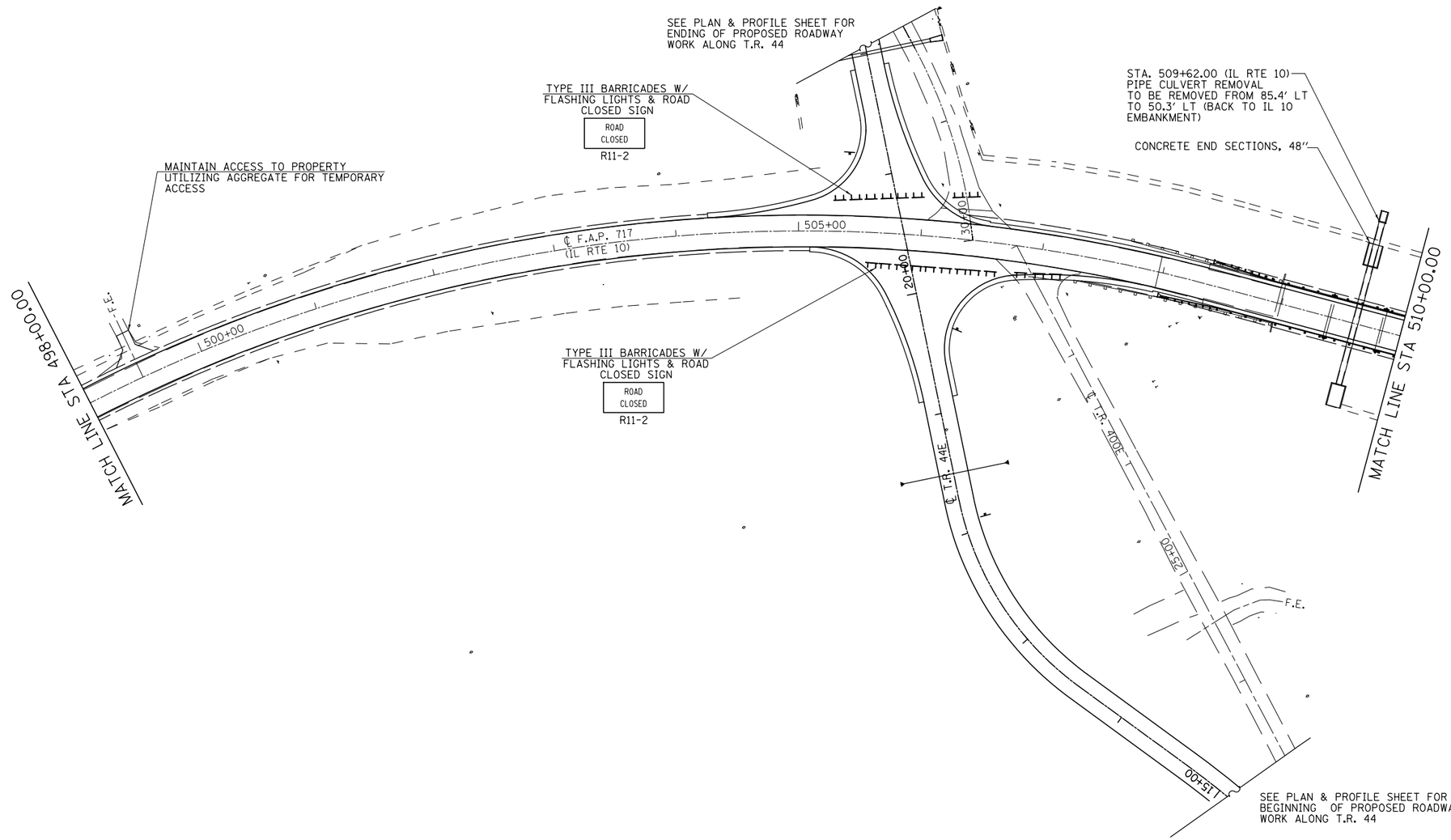
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	35
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

STAGE II TRAFFIC CONTROL
BRIDGE REPLACEMENT



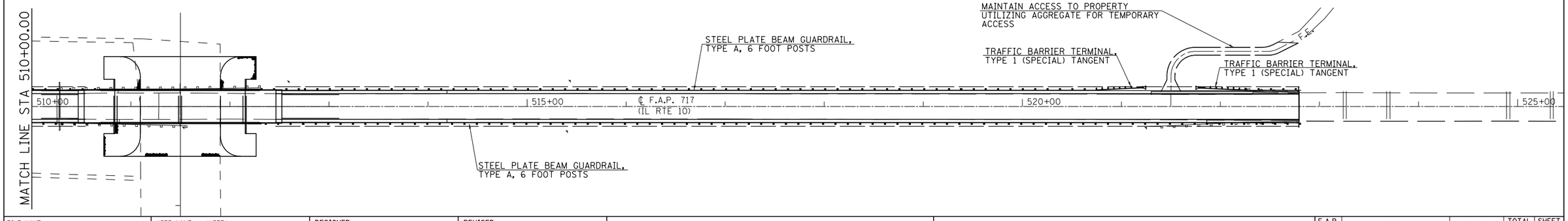
STAGE II NOTES

1. REMOVE RUNAROUND UTILIZING TRAFFIC CONTROL STDS. 701001 AND 701006.
2. CLOSE T.R. 400 IN ORDER TO CONSTRUCT THE REALIGNMENT OF THE INTERSECTION AND ROADWAY.
3. CONSTRUCT CROSSROAD CULVERTS UNDER T.R. 44 AS SHOWN ON THE PLANS.
4. CONSTRUCT T.R. 44 TO THE PROPOSED GRADELINE AS SHOWN ON THE PLANS.
5. COMPLETE HOT-MIX ASPHALT PAVING ON IL RTE 10 UTILIZING TRAFFIC CONTROL STD. 701306.
6. COMPLETE GUARDRAIL, DITCHES ON IL RTE 10, AND SEEDING UTILIZING TRAFFIC CONTROL STDS. 701006 AND 701011.
7. OPEN T.R. 44 TO TRAFFIC.
8. COMPLETE PAVEMENT MARKING UTILIZING TRAFFIC CONTROL STANDARD 701311.



LEGEND

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DRUM WITH BI-DIRECTIONAL STEADY BURNING LIGHT
- TYPE III BARRICADE W/ FLASHING LIGHT
- TEMPORARY SIGNAL LIGHT
- IMPACT ATTENUATOR



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

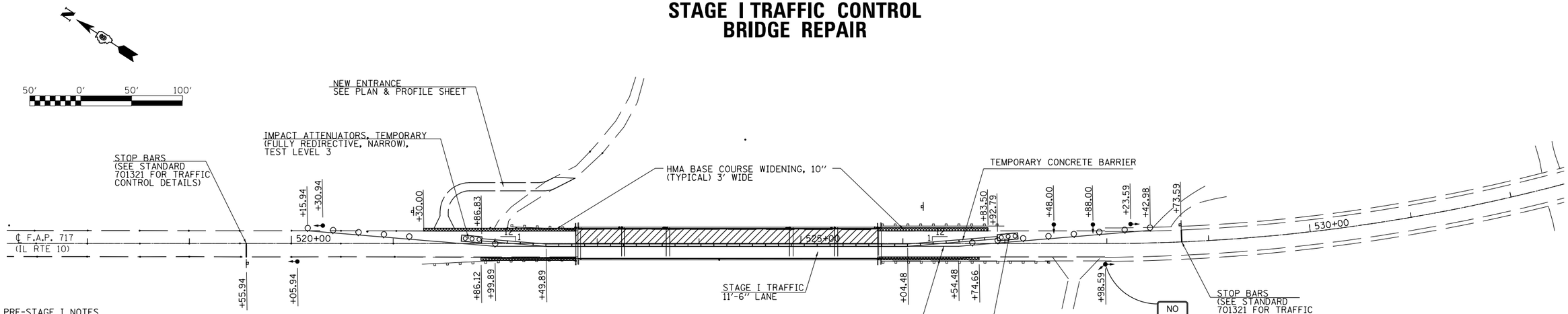
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION – FAP 717 (IL RTE 10) – BRIDGE

SCALE: | SHEET NO. 4 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	36
		CONTRACT NO. 72B82		
		ILLINOIS	FED. AID PROJECT	

STAGE I TRAFFIC CONTROL
BRIDGE REPAIR



PRE-STAGE I NOTES

1. CONSTRUCT BASE COURSE WIDENING AND NEW ENTRANCE (521+50) PRIOR TO STAGE I TRAFFIC CONTROL SETUP.

STAGE I NOTES

1. ERECT SIGNS, TRAFFIC SIGNALS, TEMPORARY BARRIERS, ETC. UTILIZING THE APPLICABLE DETAILS OF TRAFFIC CONTROL STANDARD 701321 WITH BARRIER SPACING AS NOTED ON THE STANDARD.
2. PLACE TEMPORARY PAVEMENT MARKING LINE TO ALLOW FOR A 12'-0" TRAFFIC LANE. REMOVE ANY CONFLICTING STRIPING.
3. REPAIR & OVERLAY THE STAGE I PORTION OF THE EXISTING STRUCTURE AT LOCATIONS AS NOTED ON THE PLANS.
4. CONSTRUCT THE STAGE I PORTION OF HOT-MIX ASPHALT WIDENING FOR STAGE II TRAFFIC.
5. MOVE TRAFFIC FOR STAGE II.

LEGEND

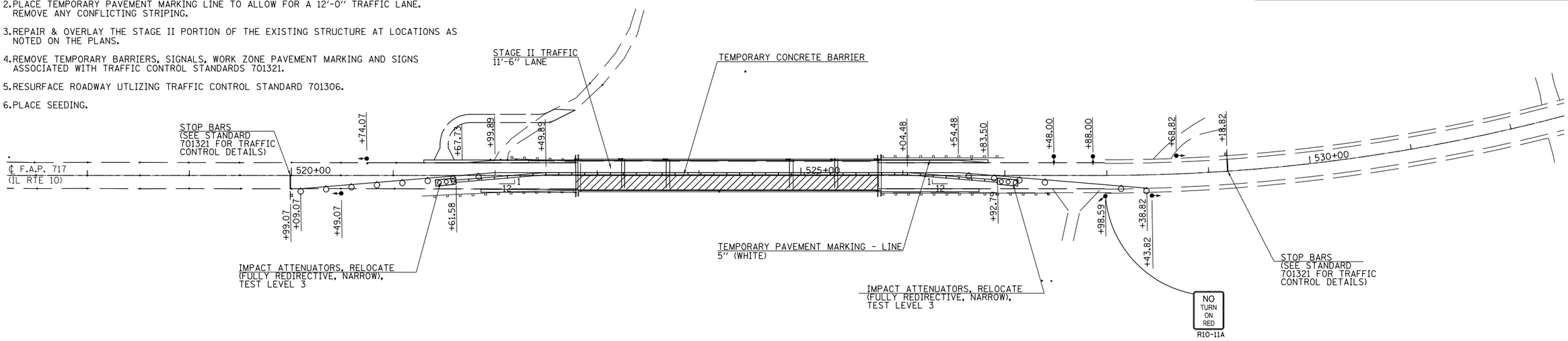
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DRUM WITH BI-DIRECTIONAL STEADY BURNING LIGHT
- IMPACT ATTENUATOR
- TEMPORARY SIGNAL LIGHT
- HMA BASE COURSE WIDENING 10"

STAGE II TRAFFIC CONTROL
BRIDGE REPAIR

GENERAL NOTES FOR STAGE CONSTRUCTION:
1. ALL SIGNAGE, SPACING, TRAFFIC CONTROL EQUIPMENT AND TEMPORARY PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAY STANDARD 701321 AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.
2. ALL TEMPORARY BRIDGE TRAFFIC SIGNALS FOR CONSTRUCTION WILL BE MEASURED AS 1 (ONE) UNIT.
3. BARRIER OFFSETS ARE FROM THE CENTER OF THE BARRIER.
4. SEE BRIDGE REPAIR PLANS FOR ADDITIONAL DETAILS.
5. STOP BARS TO BE LOCATED PER STD. 701321.

STAGE II NOTES

1. RELOCATE SIGNS, TEMPORARY BARRIERS, ETC. IN ACCORDANCE WITH TRAFFIC CONTROL STANDARDS 701321 AND AS SHOWN ON THE STANDARD.
2. PLACE TEMPORARY PAVEMENT MARKING LINE TO ALLOW FOR A 12'-0" TRAFFIC LANE. REMOVE ANY CONFLICTING STRIPING.
3. REPAIR & OVERLAY THE STAGE II PORTION OF THE EXISTING STRUCTURE AT LOCATIONS AS NOTED ON THE PLANS.
4. REMOVE TEMPORARY BARRIERS, SIGNALS, WORK ZONE PAVEMENT MARKING AND SIGNS ASSOCIATED WITH TRAFFIC CONTROL STANDARDS 701321.
5. RESURFACE ROADWAY UTLIZING TRAFFIC CONTROL STANDARD 701306.
6. PLACE SEEDING.



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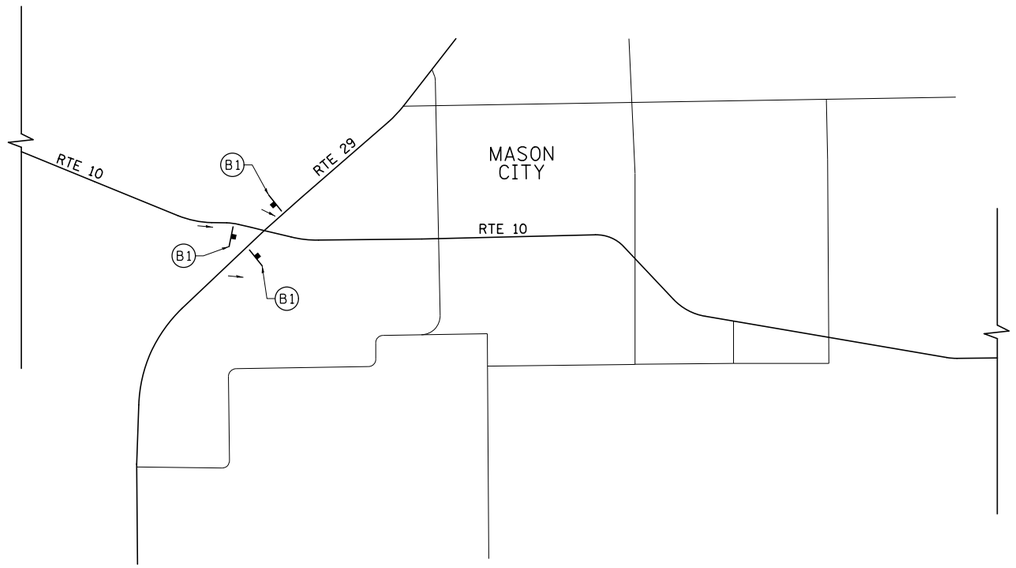
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

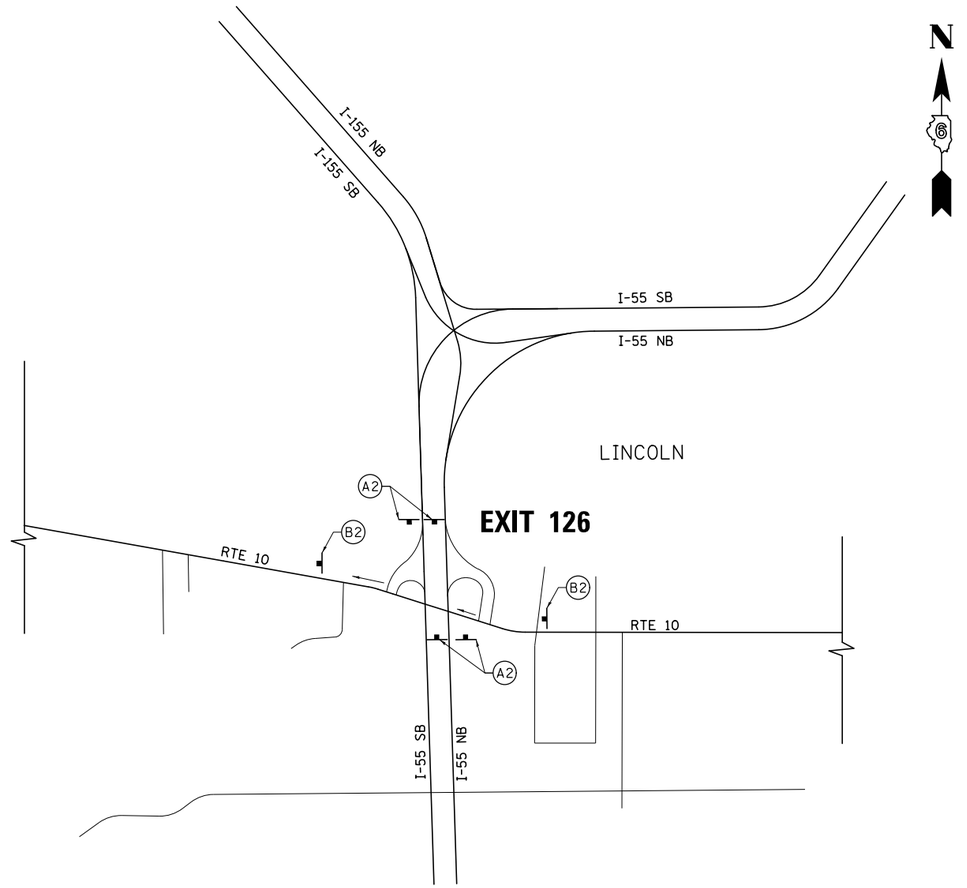
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION – FAP 717 (IL RTE 10) – 054–0009 BRIDGE

SCALE: | SHEET NO. 5 OF 5 SHEETS | STA. | TO STA.

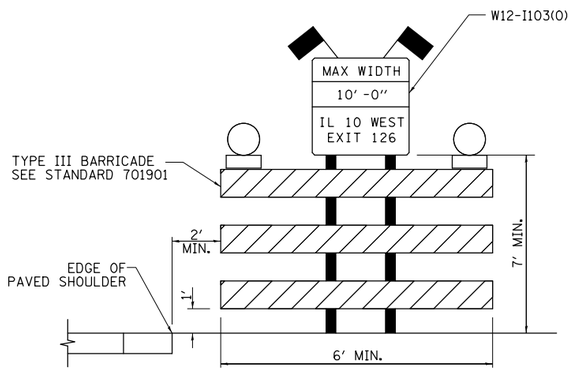
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	37
		CONTRACT NO. 72B82		
		ILLINOIS	FED. AID PROJECT	



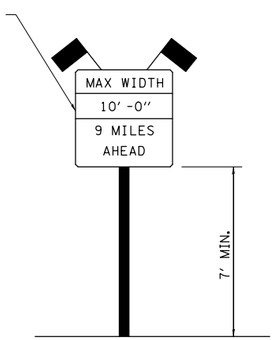


GENERAL NOTES

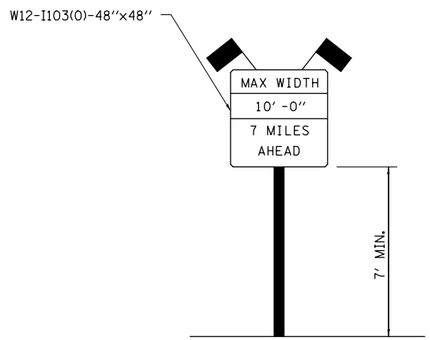
1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
3. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
4. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.
5. ALL SIGNS SHOWN ORANGE (O) SHALL BE FLUORESCENT ORANGE.
6. THE B1 SIGNS PLACED ON IL 29 SHALL INCLUDE SIGN M6-1(FO), DIRECTIONAL ARROW.



SIGN A2



SIGN B1



SIGN B2

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED - 11/06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WIDTH RESTRICTION SIGNING	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - 05/08			717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	38
	PLOT SCALE = $SCALE$	CHECKED -	REVISED - 10/08 - KJT					CONTRACT NO. 72B82		
	PLOT DATE = $DATE$	DATE -	REVISED - 01/14 - CWG		SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

STORM WATER POLLUTION PREVENTION PLAN

Route: FAP 717 Marked: IL 10

Section: (102B-1, 102CR, 102BR-2)RS-5 Project No.: NA

County: LOGAN Contract No.: 72882

(Longitude: 89°31' 25" W Latitude: 40°10' 45" N)

Starting Station: 484+00.00

Ending Station: 526+26.33

This plan has been prepared to comply with the provision of the NPDES Permit Number ILR10_____ 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.

Roger L Diskell (Signature) 12/05/13 (Date)

Region Four Engineer (Title)

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.

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 replacement of the Culvert Structure No. 054-7069, Bridge Structure No. 054-0515, and rehabilitation of Bridge Structure No. 054-0009.
2. Construction consists of embankment, grading, construction of temporary runaround, resurfacing, guardrail construction, culvert replacement, and bridge replacement.
3. Sideroad will be realigned.

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

1. Placement, maintenance, removal and proper clean-up of temporary erosion control, such as erosion control fence, riprap ditch checks, sediment basins, temporary seeding, etc.
2. Drainage structure just west of proposed bridge will be installed at current bridge location.
3. Excavating will be completed along IL Rte 10 to grade out for proposed temporary runaround.
4. Embankment will be completed along IL Rte 10 to raise the existing ground elevation to meet the proposed runaround grade/vertical alignment.
5. Temporary runaround will be constructed to finish grade.
6. Excavation will also be completed along the entire length of IL Rte 10 to grade out for proposed shoulder work.
7. Drainage structure at west end of project will be installed utilizing stage construction while maintaining drainage across IL Rte 10.
8. Final grading, paving and other miscellaneous items.
9. Placement of permanent erosion control, erosion control blanket, seeding, etc.

Area of Construction Site:

The total drainage area entering and including the construction site is estimated to be 20 acres in which 10.50 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 Prevention Plan as Referenced Documents:

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

Drainage Tributaries Receiving Water from this Construction Site:

1. Sugar Creek

FILE NAME : *FILEL* *MODEL* SWPPLAN.DGN	USER NAME = *USER*	DESIGNED -	REVISED - AUG 2007 (JCN)	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STORM WATER POLLUTION PREVENTION PLAN
		DRAWN - CADD	REVISED - OCT 2010 (JCN)		SCALE: SHEET 1 OF 7 SHEETS STA. TO STA.
	PLOT SCALE = *SCALE*	CHECKED - JCN	REVISED - MAY 2012 (JPM)		
	PLOT DATE = *DATE*	DATE - APRIL 5, 1999	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	39
		CONTRACT NO. 72882		
	ILLINOIS FED. AID PROJECT			

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 and Sediment Control".

   (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 and Sediment Control".

   (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:

1. 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
   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 and Sediment Control".

   (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) Qualified Personnel shall inspect the project at least every seven days and within 24 hours of the end of a storm that is 0.5 inch or greater as noted in BDE 2342.

   (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.

   (i) 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 various temporary erosion control pay items. No additional additional compensation will be allowed.

Description of Structural Practices After Final Grading:

1. 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.

2. 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.

3. Maintenance crews will perform regular mowings to aid in keeping weeds down and establishing a good roadside seed stand.

4. Maintenance crews will also aid in any ditch lining maintenance or in any drainage problems.

5. 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: Compliance Assurance Section

BLANK, WESSELINK, COOK & ASSOCIATES
ENGINEERS - CONSULTANTS
DECATUR, ILLINOIS

FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED -	REVISED - AUG 2007 (JCN)	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STORM WATER POLLUTION PREVENTION PLAN
$MODEL$ SWPPLAN.DGN		DRAWN - CADD	REVISED - OCT 2010 (JCN)		
	PLOT SCALE = $SCALE$	CHECKED - JCN	REVISED - MAY 2012 (JPM)		SCALE: SHEET 2 OF 7 SHEETS STA. TO STA.
	PLOT DATE = $DATE$	DATE - APRIL 5, 1999	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	40
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

CONTRACTOR CERTIFICATION STATEMENT

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 _____.

Route: FAP 717 Marked: IL 10

Section: (102B-1, 102CR, 102BR-2)RS-5 Project No.: NA

County: Logan Contract No.: 72B82

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.

In addition, I have read and understand all of the information and requirements stated in the SWPPP for the above mentioned project; I have received copies of all appropriate maintenance procedures; and, I have provided all documentation required to be in compliance with the Permit ILR10 and SWPPP and will provide timely updates to these documents as necessary.

Signature_____ Date_____

Title_____

Name of Firm_____ ☐ Contractor

Street Address_____ ☐ Subcontractor

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.

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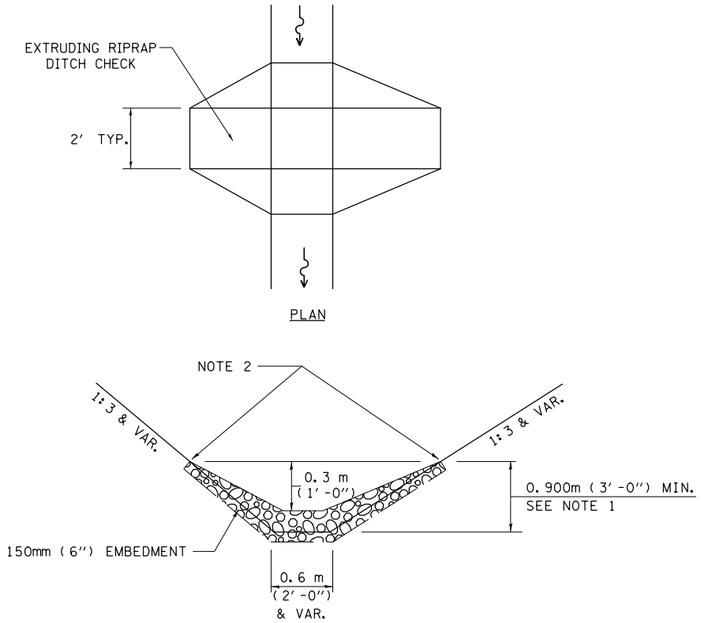
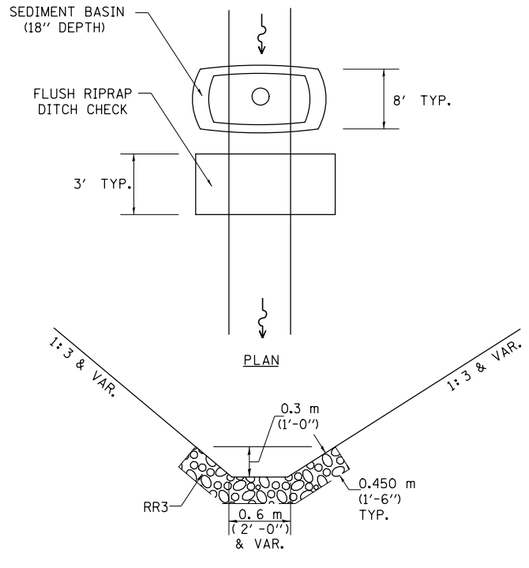


OPTION 1

(EXTRUDING DITCH CHECK)
RECOMMENDED FOR AREAS
W/ RIPRAP DITCH LINING



OPTION 2

(FLUSH DITCH CHECK)
RECOMMENDED FOR AREAS
W/O RIPRAP DITCH LINING

STONE DUMPED RIPRAP DITCH CHECK

OPTIONS 1 & 2 OR
AS DIRECTED BY THE ENGINEER

NOTE 1: RIPRAP SHALL EXTEND FAR ENOUGH UP THE SLOPES TO ALLOW 0.3m (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

ITEM	SYMBOL
AGGREGATE DITCH CHECKS	
INLET PIPE PROTECTION	
PERIMETER EROSION BARRIER	
SEDIMENT BASINS	
EARTH EXCAVATION FOR EROSION CONTROL AGGREGATE (EROSION CONTROL)	
PRESERVE EXISTING TREES, WOODLANDS, AND UNDERSTORY (OUTSIDE CONSTRUCTION LIMITS)	
ITEM PLACED AT BEGINNING OF CONSTRUCTION (Requirement)	* ITEM *
ITEM PLACED AS DIRECTED BY ENGINEER (When required by situation)	ITEM
DIRECTION OF OVERLAND FLOW	

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

BLANK, WESSELINK, COOK & ASSOCIATES
ENGINEERS - CONSULTANTS
DECATUR, ILLINOIS

FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED -	REVISED - AUG 2007 (JCN)	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STORM WATER POLLUTION PREVENTION PLAN
SWPPLAN.DGN		DRAWN - CADD	REVISED - OCT 2010 (JCN)		
$MODDRAWING$	PLOT SCALE = $SCALE$	CHECKED - JCN	REVISED - MAY 2012 (JPM)		
	PLOT DATE = $DATE$	DATE - APRIL 5, 1999	REVISED -		SCALE: SHEET 4 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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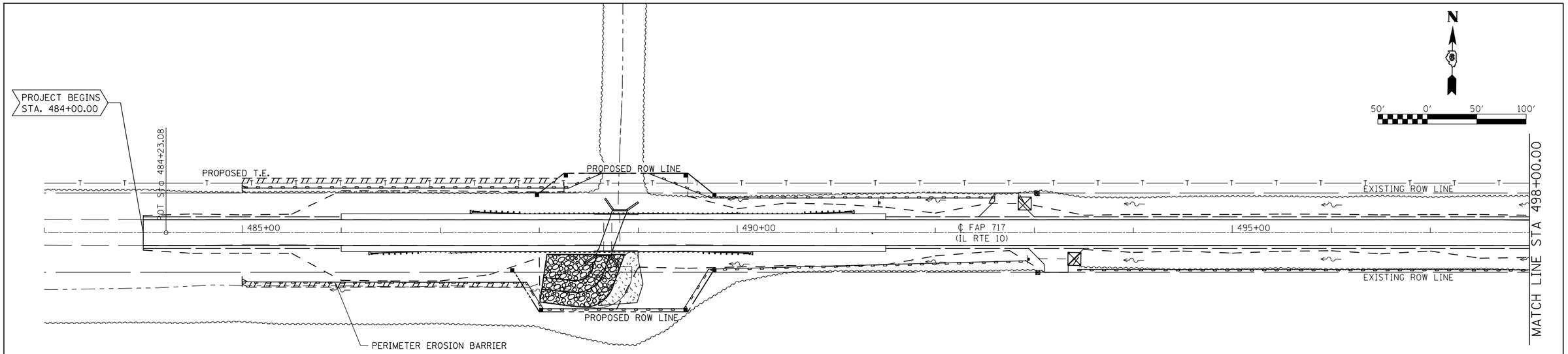
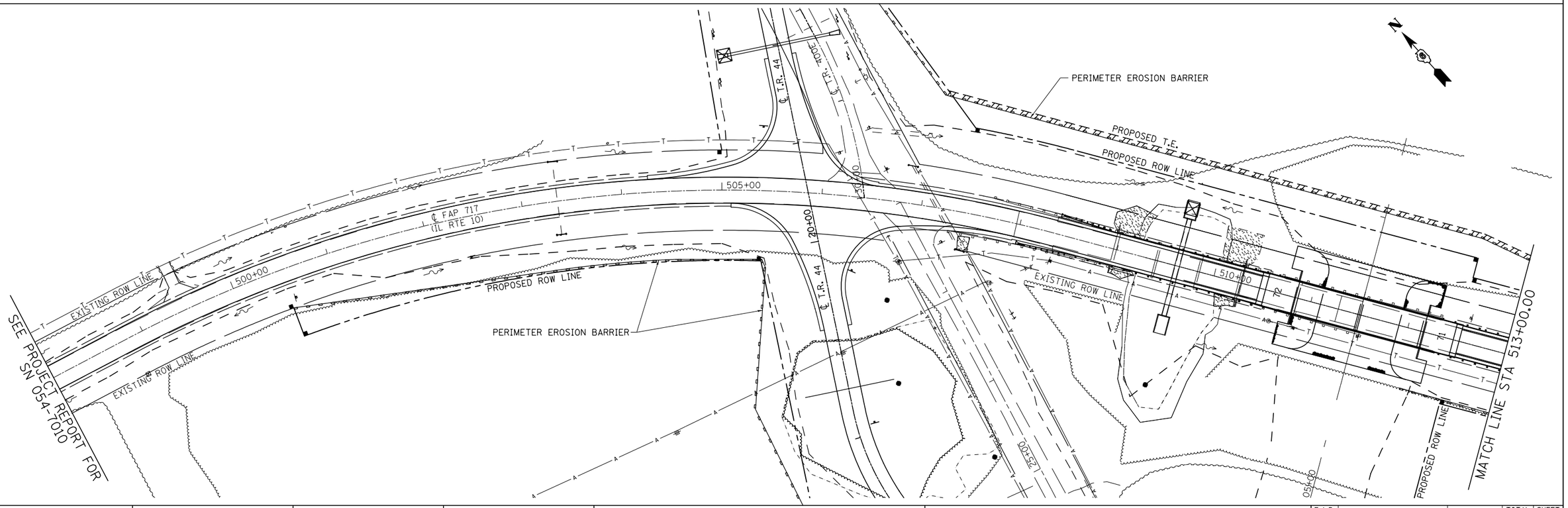
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			





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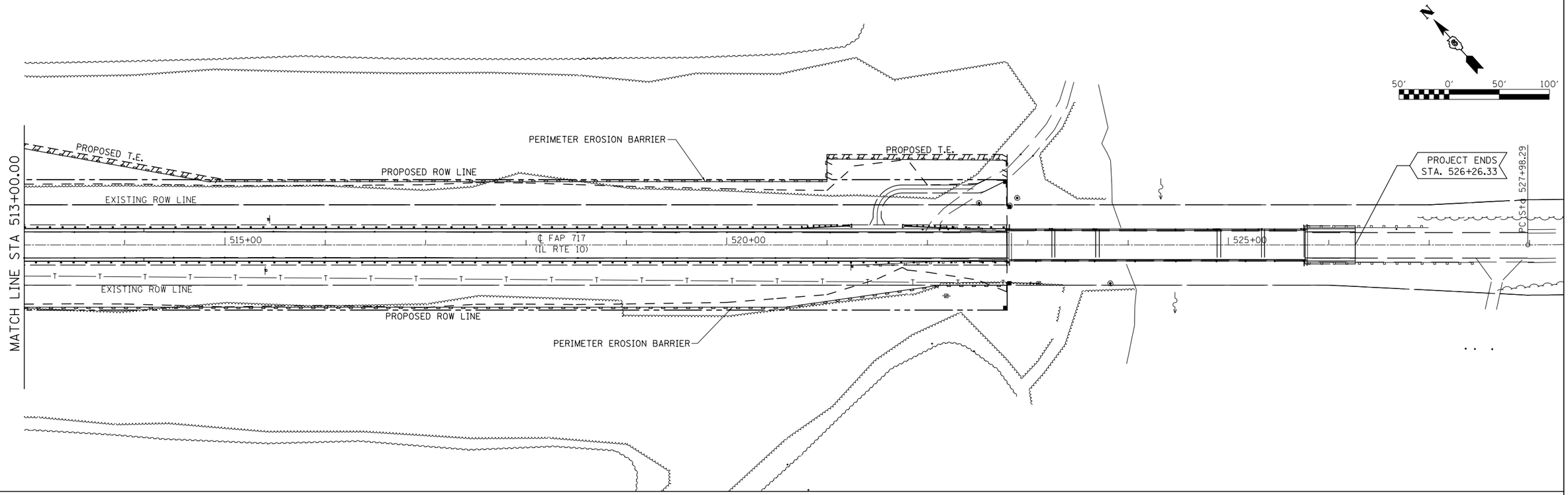
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	43
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



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		DRAWN -	REVISED -			717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	44
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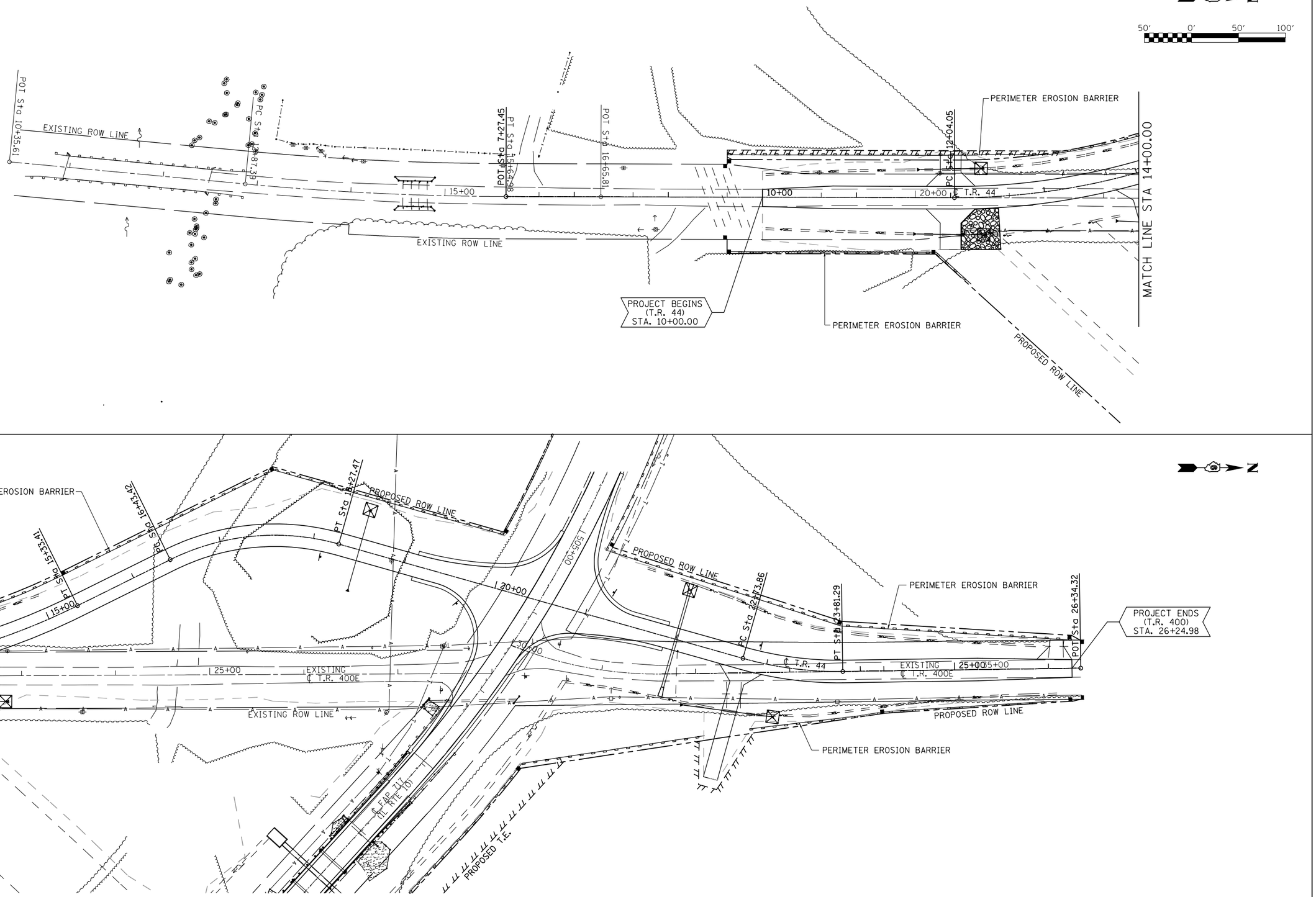

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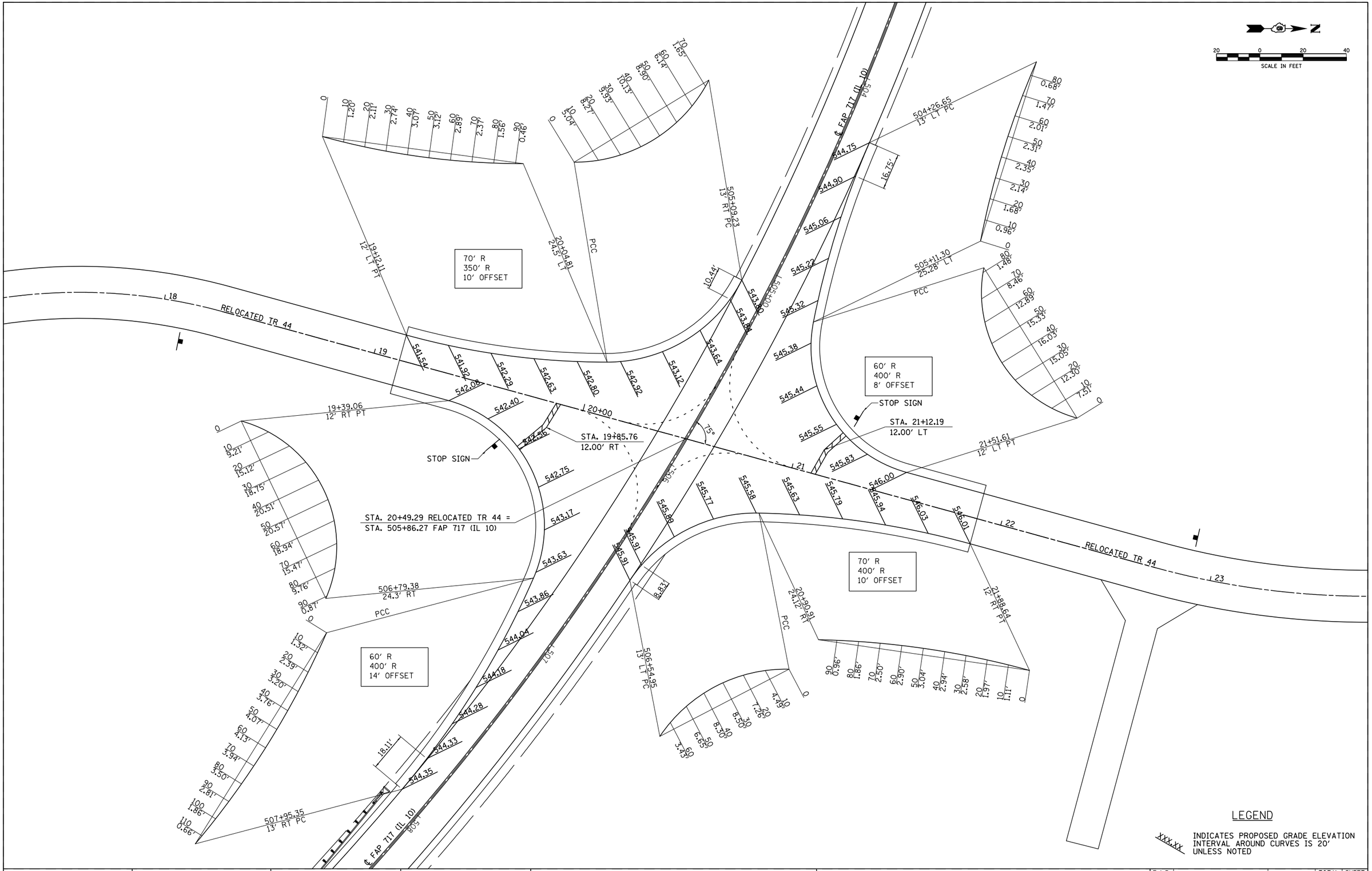
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	45
		CONTRACT NO. 72B82		
		ILLINOIS FED. AID PROJECT		



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

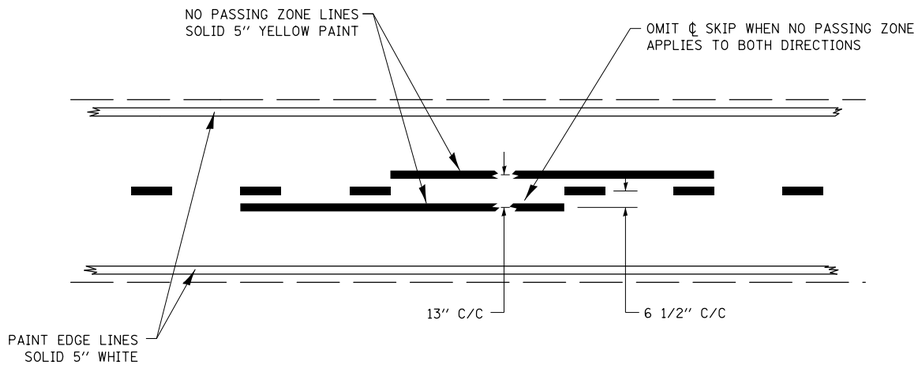
INTERSECTION GEOMETRICS
RELOCATED T.R. 44

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

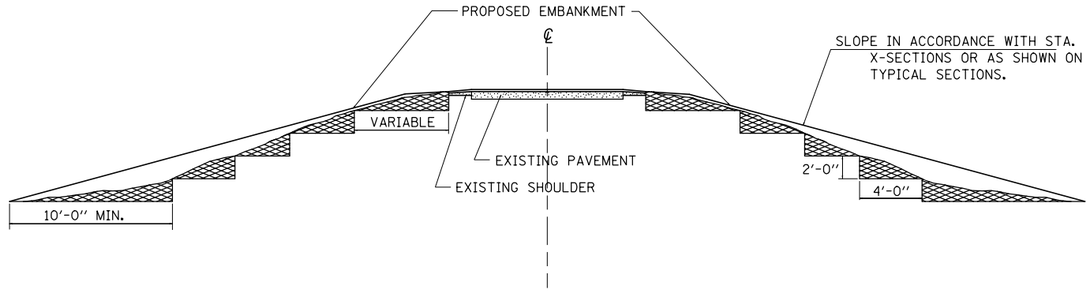
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	46
		CONTRACT NO. 72B82		
		ILLINOIS FED. AID PROJECT		

BLANK, WESSELINK, COOK & ASSOCIATES
ENGINEERS - CONSULTANTS
DECATUR, ILLINOIS

"NO PASSING ZONES" ARE TO BE FIELD VERIFIED BY THE BUREAU OF OPERATIONS.

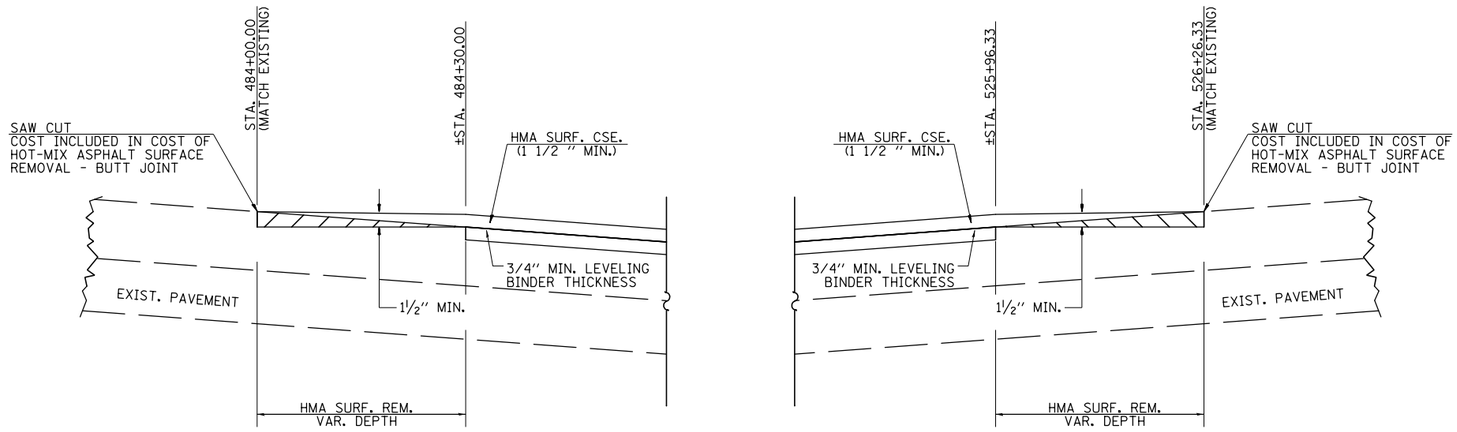


PAVEMENT MARKING



MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04 OF THE STANDARD SPECIFICATION. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF THIS WORK.

TYPICAL CROSS SECTION SHOWING STEP CONSTRUCTION ON EXISTING FILL



HMA SURFACE REMOVAL – BUTT JOINT

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - CWG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROADWAY DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - BWC	REVISED -			717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	47
	PLOT SCALE = $SCALE$	CHECKED - RMD	REVISED -					CONTRACT NO. 72B82		
	PLOT DATE = $DATE$	DATE - 02/09/09	REVISED -		SCALE: SHEET NO. 1 OF 2 SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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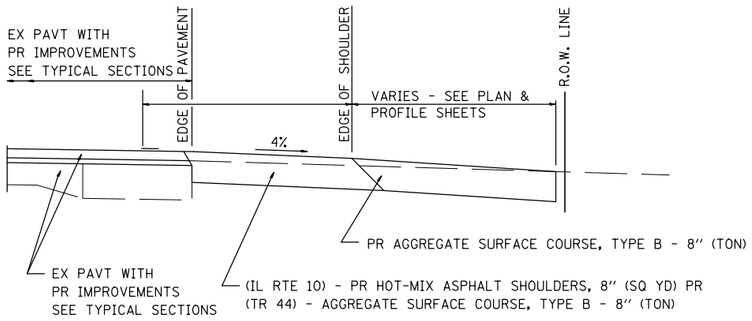
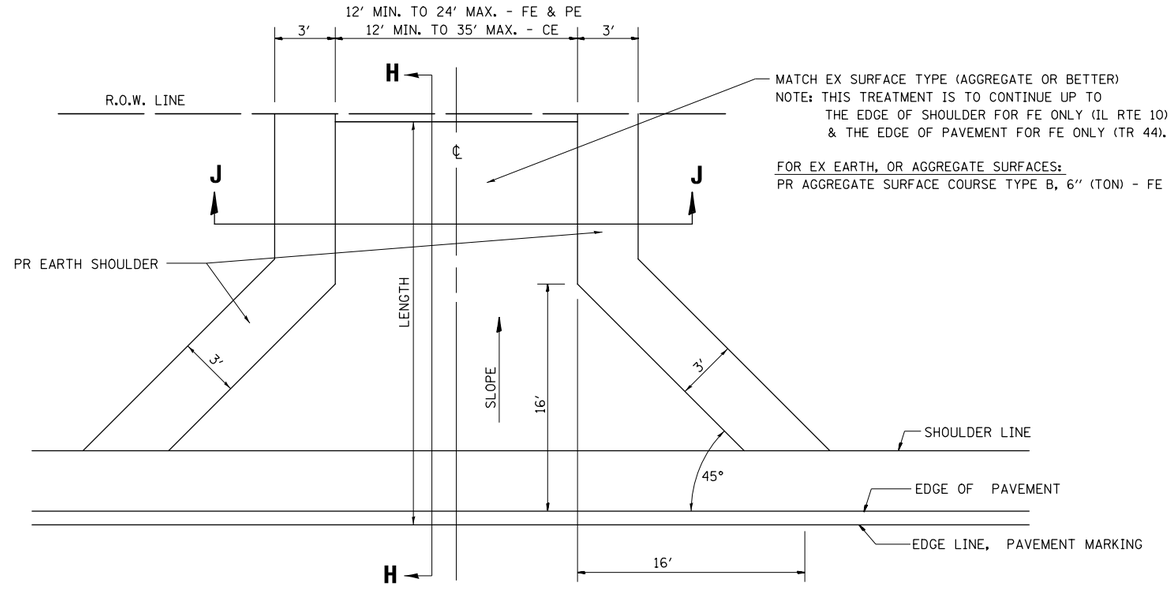
DECATUR, ILLINOIS

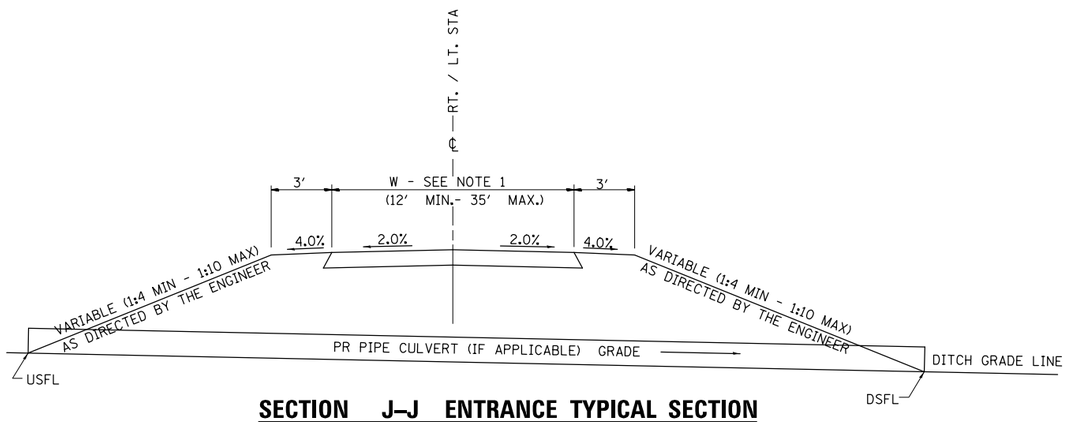


SECTION H–H FOR EX EARTH/AGGREGATE FE

DETAIL F – RURAL PE, CE OR FE



PLAN



SECTION J–J ENTRANCE TYPICAL SECTION

NOTE 1: WIDTH OF ENTRANCE MAY BE INCREASED AT THE PIPE CULVERT DUE TO THE DITCHLINE BEING LOCATED IN THE ENTRANCE FLARE AREA.

NOTES

THE RESIDENT ENGINEER WILL DETERMINE THE EXACT TYPE OF IMPROVEMENT TO BE COMPLETED FOR ALL ENTRANCES, SIDEROADS AND MAILBOX TURNOUTS ON THIS PROJECT.

THE PLAN DETAILS AND SCHEDULES SHOULD BE USED AS A GUIDE FOR THE ENGINEER TO IMPLEMENT THE FINAL DESIGN. THE ENGINEER MAY DECIDE TO SALVAGE PORTIONS OF THE EXISTING ENTRANCE PAVEMENT STRUCTURE; THEREFORE, REDUCING PAY ITEM QUANTITIES. NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR THIS REDUCTION IN QUANTITIES.

ANY WORK THE ENGINEER REQUIRES WHICH IS NOT COVERED BY A PAY ITEM CONTAINED IN THE PLANS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - CWG	REVISED -
		DRAWN - BWC	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - RMD	REVISED -
	PLOT DATE = $DATE$	DATE - 02/09/09	REVISED -

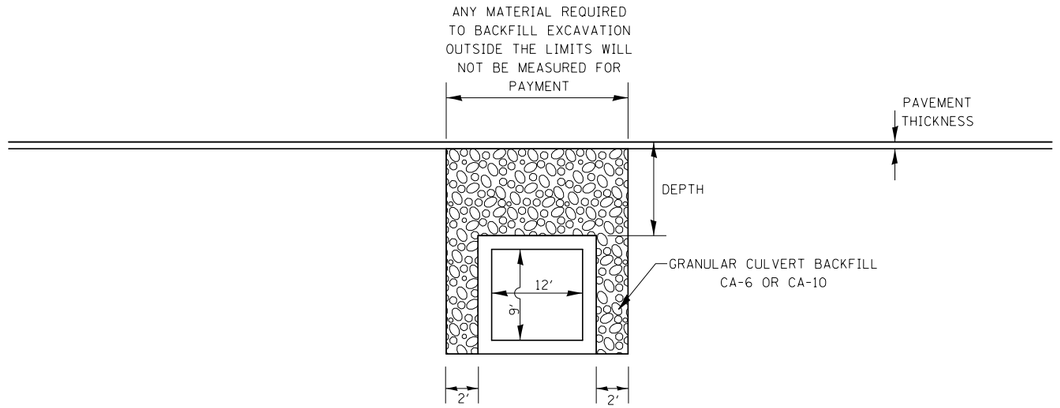
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY DETAILS

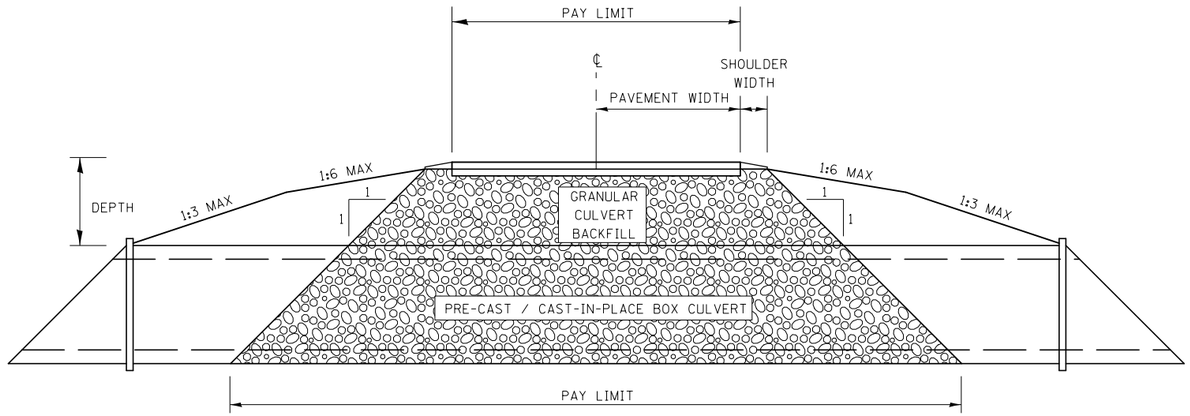
SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	48
		CONTRACT NO. 72B82		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BLANK, WESSELINK, COOK & ASSOCIATES
ENGINEERS - CONSULTANTS DECATUR, ILLINOIS



PROFILE GRANULAR BACKFILL DETAIL
FOR EXISTING ALIGNMENTS & CONSTRUCTION



CROSS SECTION GRANULAR BACKFILL DETAIL
FOR EXISTING ALIGNMENTS & CONSTRUCTION

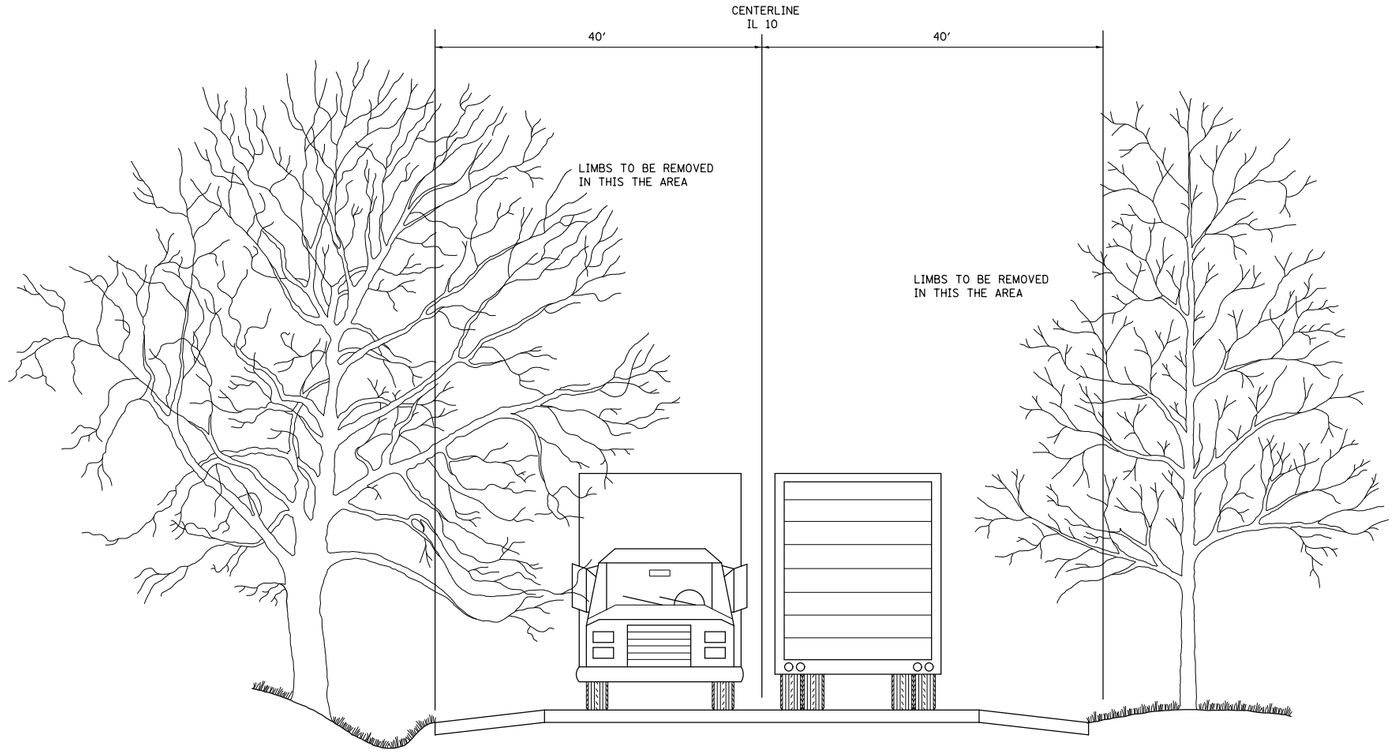
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - BKL	REVISED -
		DRAWN - BKL	REVISED -
Granular Backfill Details.dgn	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GRANULAR BACKFILL DETAIL
TO BOTTOM OF BOX CULVERT

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	49
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



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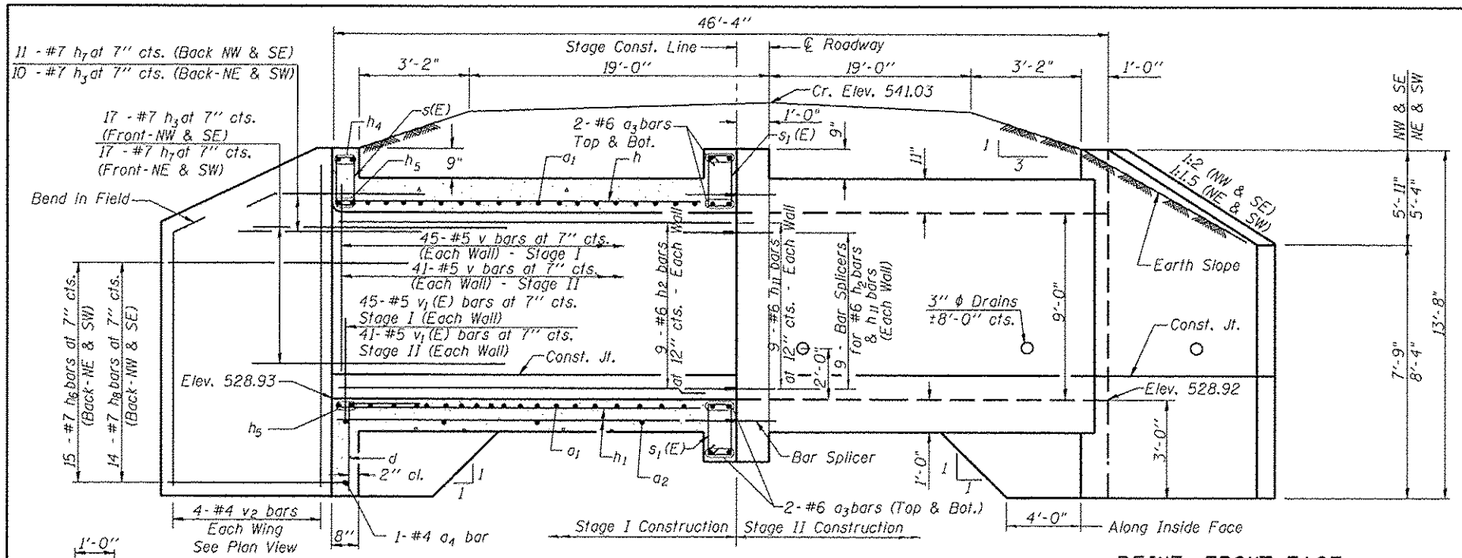
		DRAWN -	REVISED - BWC 11-26-2013					717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	49A
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -							CONTRACT NO. 72B82		
	PLOT DATE = $DATE$	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

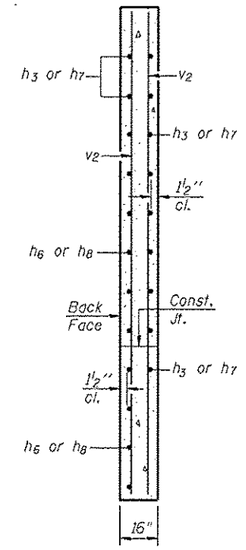


HALF LONG. SECTION

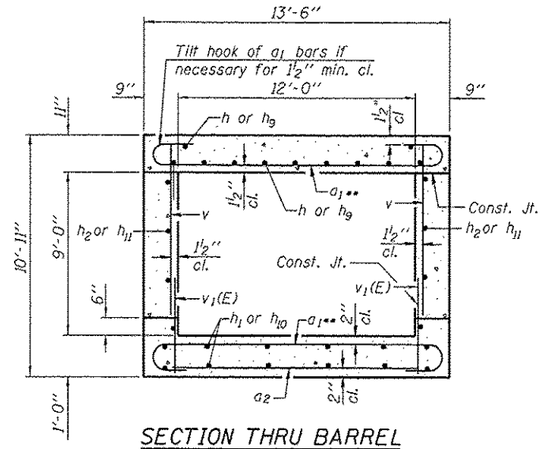
HALF ELEVATION

REINF.-FRONT FACE

Dimensions at Rt. L's to ℄ Roadway

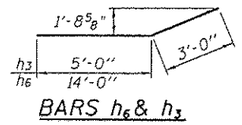


SECTION A-A

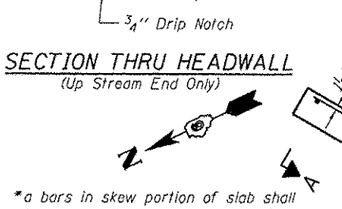


SECTION THRU BARREL

**Tilt a_1 bars as required to maintain clearances.

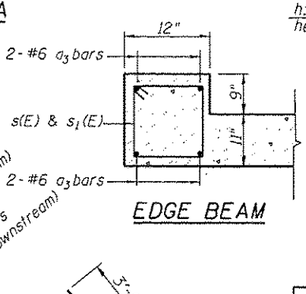


BARS h_6 & h_3



SECTION THRU HEADWALL

(Up Stream End Only)



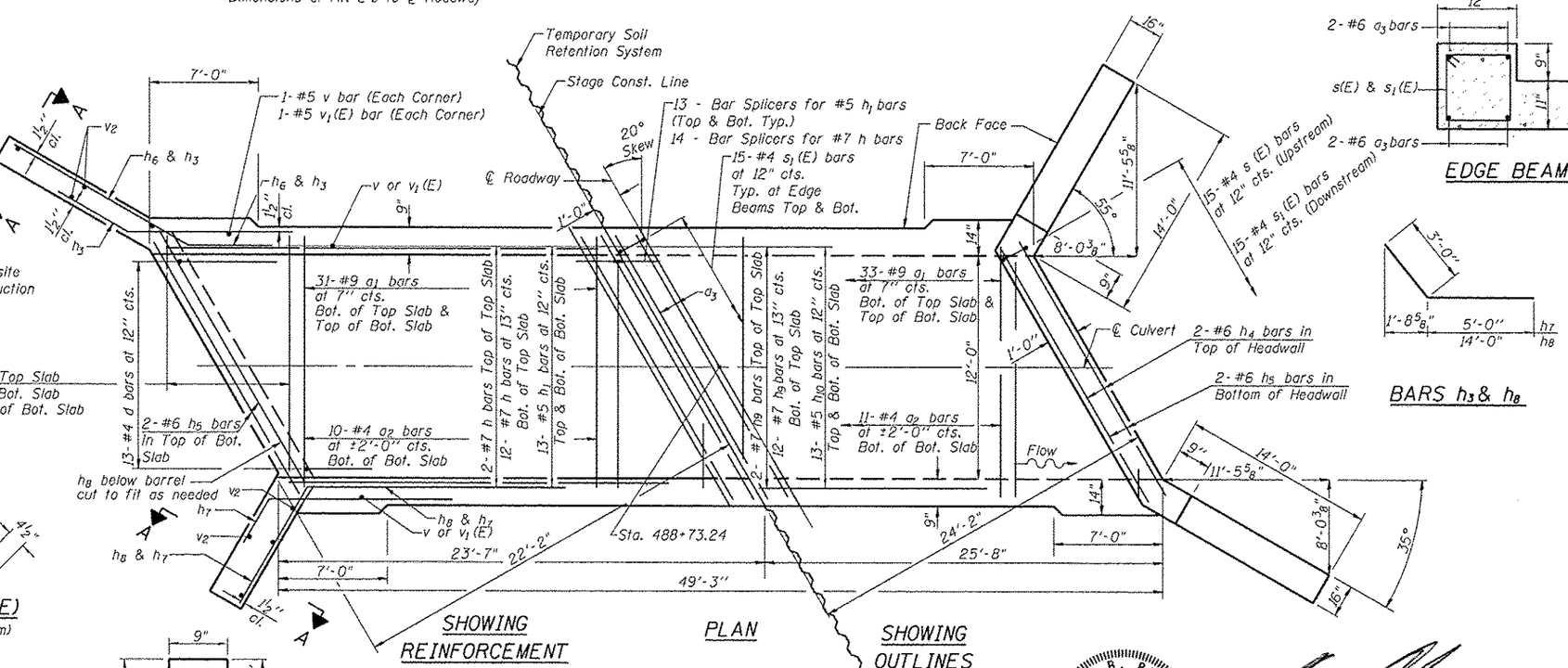
EDGE BEAM

DESIGN STRESSES

f_y = 60,000 psi

f'_c = 3,500 psi

LOADING HL-93



* 7 - #9 a_1 bars at 7" cts. Bot. of Top Slab

* 7 - #9 a_1 bars at 7" cts. Top of Bot. Slab

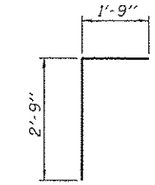
* 2 - #4 a_2 bars at 2'-0" cts. Bot. of Bot. Slab

* a_3 bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bars to be used in opposite end of culvert and at staged construction joint (Typ. 4 Locations).

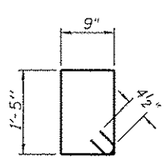
BARS h_3 & h_8

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_1	156	#9	15'-8"	
a_2	25	#4	12'-6"	
a_3	16	#6	14'-1"	
a_4	2	#4	14'-10"	
d	26	#4	4'-6"	
h	14	#7	23'-4"	
h_1	26	#5	23'-4"	
h_2	18	#6	23'-4"	
h_3	54	#7	8'-0"	
h_4	4	#6	13'-6"	
h_5	8	#6	14'-0"	
h_6	30	#7	17'-0"	
h_7	56	#7	8'-0"	
h_8	28	#7	17'-0"	
h_9	14	#7	25'-5"	
h_{10}	26	#5	25'-5"	
h_{11}	18	#6	25'-5"	
s(E)	15	#4	4'-11"	
s_1(E)	75	#4	5'-1"	
v	176	#5	9'-3"	
v_1(E)	176	#5	2'-7"	
v_2	16	#4	13'-5"	
Concrete Box Culverts			Cu. Yd.	111.3
Reinforcement Bars, Epoxy Coated			Pound	780
Reinforcement Bars			Pound	18,900
Bar Splicers			Each	58

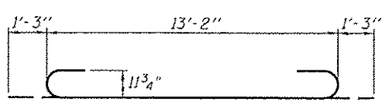


BAR d

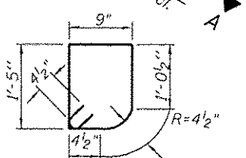


BAR s_1(E)

(Downstream)



BAR a_1



BAR s(E)

(Upstream)

NOTES

Reinforcement bars designated (E) shall be epoxy coated.

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.

SHOWING REINFORCEMENT

PLAN

SHOWING OUTLINES

PETER B. BAYLES 081-006042 LICENSED STRUCTURAL ENGINEER ILLINOIS

Peter B. Bayles, P.E., S.E.
Structural Engineer License No. 081-006042
Expiration Date: 11/30/2014

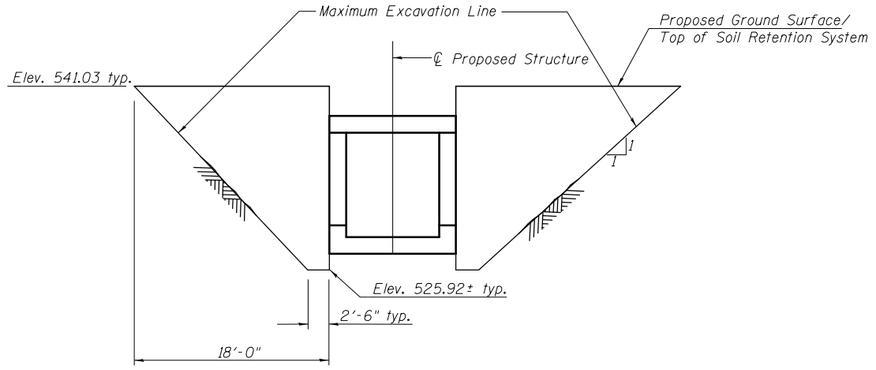
BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED	PBB	REVISED	-
		CHECKED	PBB	REVISED	-
	PLOT SCALE =	DRAWN	CGF	REVISED	-
	PLOT DATE =	CHECKED	PBB	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED 12 x 9 BOX CULVERT, STRUCTURE NO. 054-7069
ILLINOIS ROUTE 10
SHEET NO. 1 OF 5 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717		LOGAN	218	50
(102B-1,102CR,102BR-2)BS-5		CONTRACT NO. 72882		
ILLINOIS	FED. AID PROJECT			



TEMPORARY SOIL RETENTION SYSTEM

(Looking North)

Note:
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design, signed and sealed by a Licensed Structural Engineer, including plan details and calculations for review and acceptance by the Engineer.

BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures No. 1	Each			1
Structure Excavation	Cu Yd		643	643
Temporary Soil Retention System	Sq Ft		310	310
Name Plates	Each			1

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED PBB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY SOIL RETENTION, STRUCTURE NO. 054-7069	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED PBB	REVISED -			717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	51
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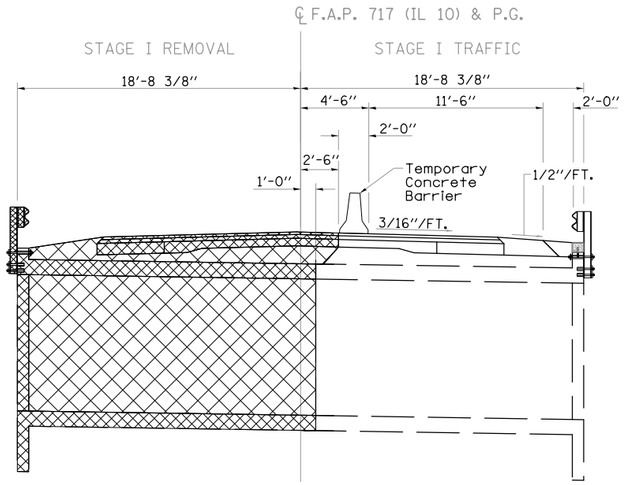
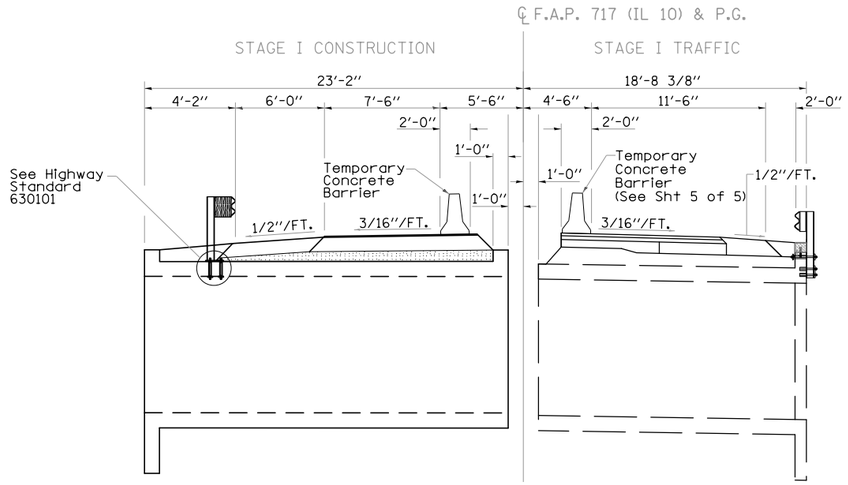
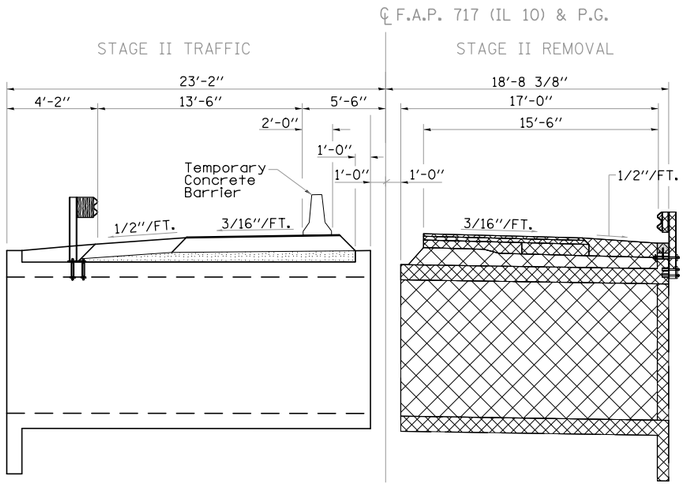
	PLOT DATE =	CHECKED PBB	REVISED -		SHEET NO. 2 OF 5 SHEETS		ILLINOIS	FED. AID PROJECT		



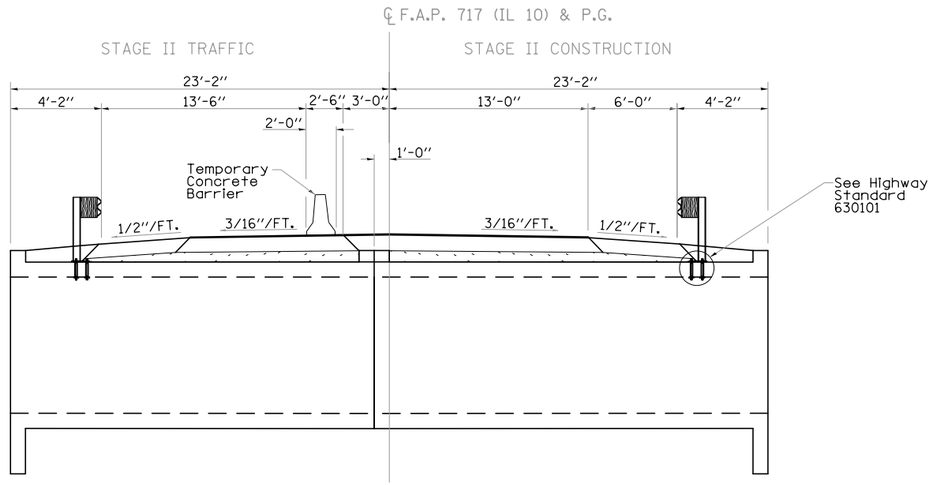
STAGE I REMOVAL



STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED PBB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGING DETAILS STRUCTURE NO. 054–7069	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED PBB	REVISED -			717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	52
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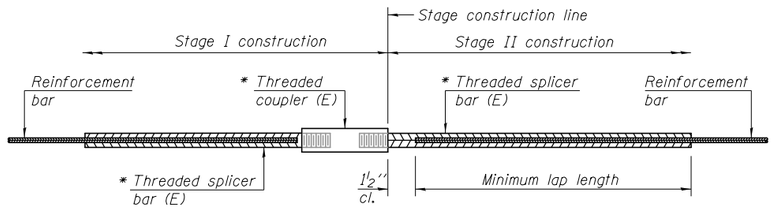
	PLOT DATE =	CHECKED CWG	REVISED -		SHEET NO. 3 OF 5 SHEETS		ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

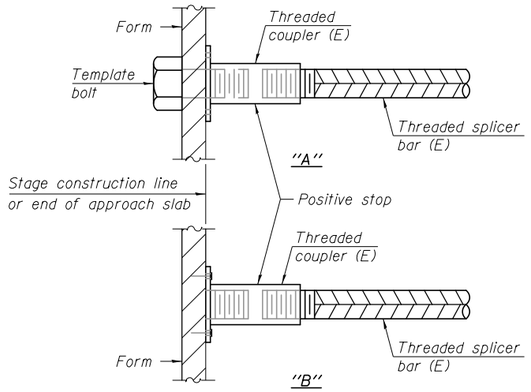
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

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
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

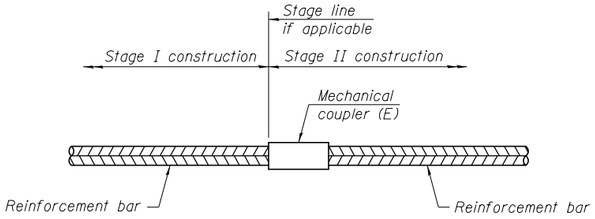
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Top/Bottom slab	#5	13	1
Bottom/Bottom slab	#5	13	1
Sidewall	#6	9	1
Sidewall	#6	9	1
Top Slab	#7	14	1



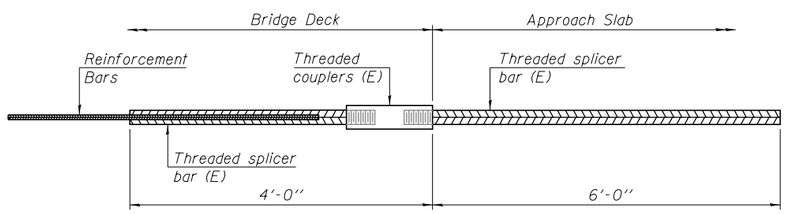
INSTALLATION AND SETTING METHODS

"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.



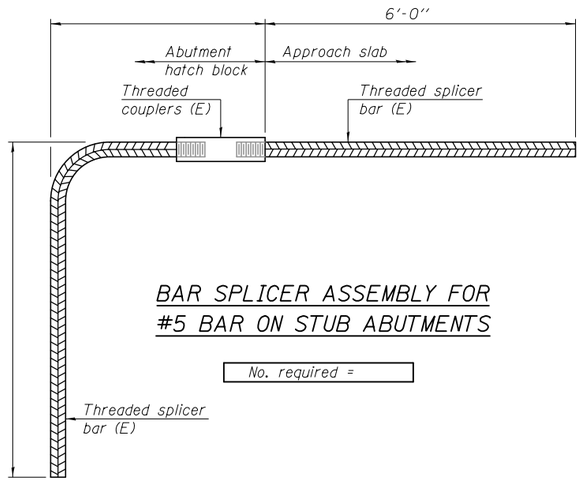
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

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

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

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

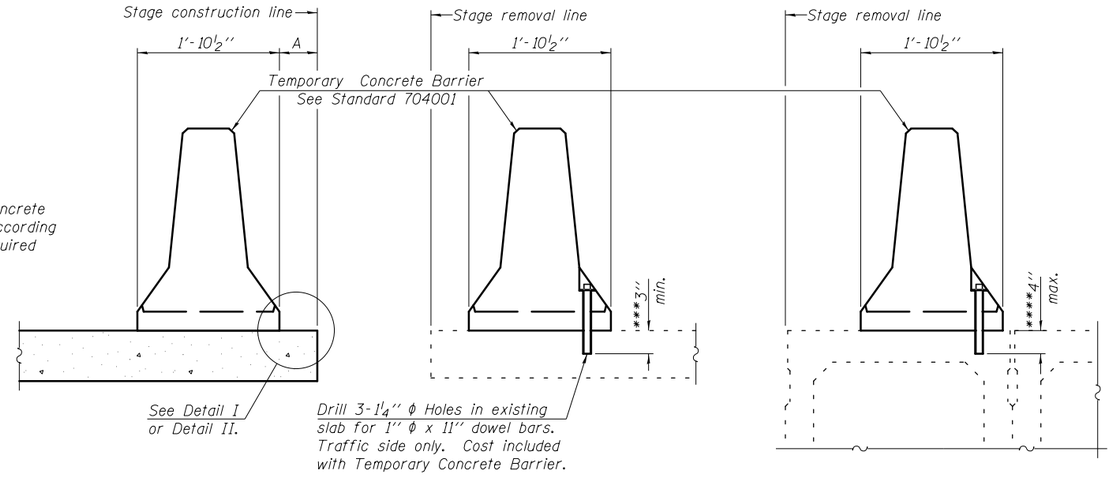
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 1-27-12

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED PBB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 054-7069	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED PBB	REVISED -			717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	53
	PLOT SCALE =	DRAWN CGF	REVISED -					CONTRACT NO. 72B82		
	PLOT DATE =	CHECKED PBB	REVISED -		SHEET NO. 4 OF 5 SHEETS		ILLINOIS	FED. AID PROJECT		

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1'' x 7' 'x ''W'' steel ℙ to the top layer of couplers with 2-$\frac{5}{8}$'' ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1'' x 7'' x ''W'' steel ℙ to the concrete slab or concrete wearing surface with 2-$\frac{5}{8}$'' ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

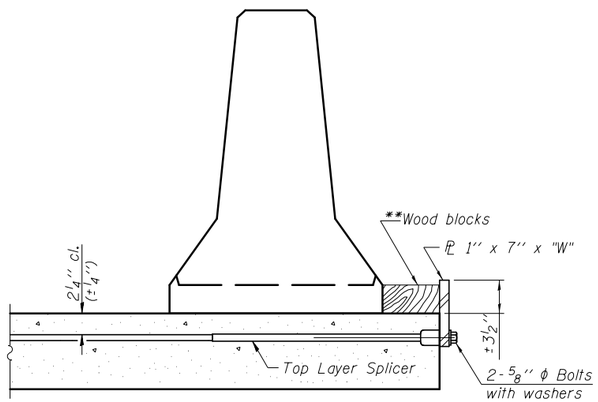
Cost of anchorage is included with Temporary Concrete Barrier.

The 1'' x 7'' x ''W'' 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.

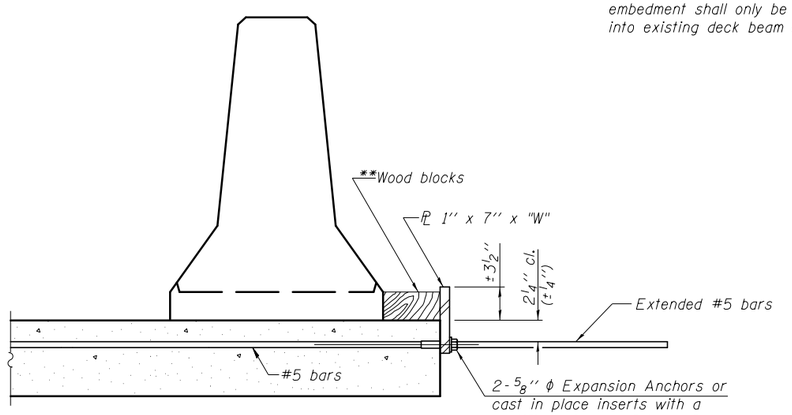
SECTIONS THRU SLAB OR DECK BEAM

*** 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.



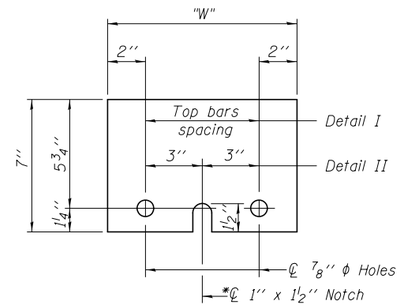
DETAIL I



DETAIL II

** 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 the steel retainer plate.

"W" = Top bars spacing + 4''



STEEL RETAINER ℙ 1'' x 7'' x ''W''

* Required only with Detail II

R-27 7-1-10

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

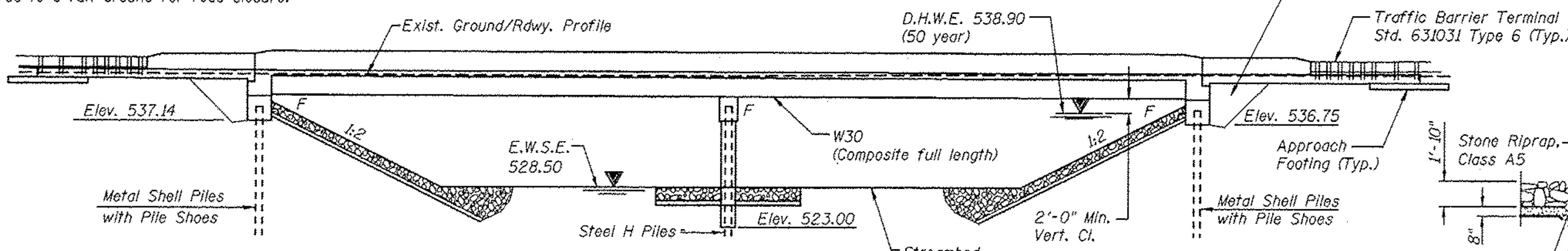
FILE NAME =	USER NAME =	DESIGNED PBB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 054–7069	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED PBB	REVISED -			717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	54
	PLOT SCALE =	DRAWN CGF	REVISED -					CONTRACT NO. 72B82		
	PLOT DATE =	CHECKED PBB	REVISED -		SHEET NO. 5 OF 5 SHEETS		ILLINOIS	FED. AID PROJECT		

Bench Mark: B.M. 53 Chiseled square set in the northwest headwall of structure 054-0008. Elevation 543.97.

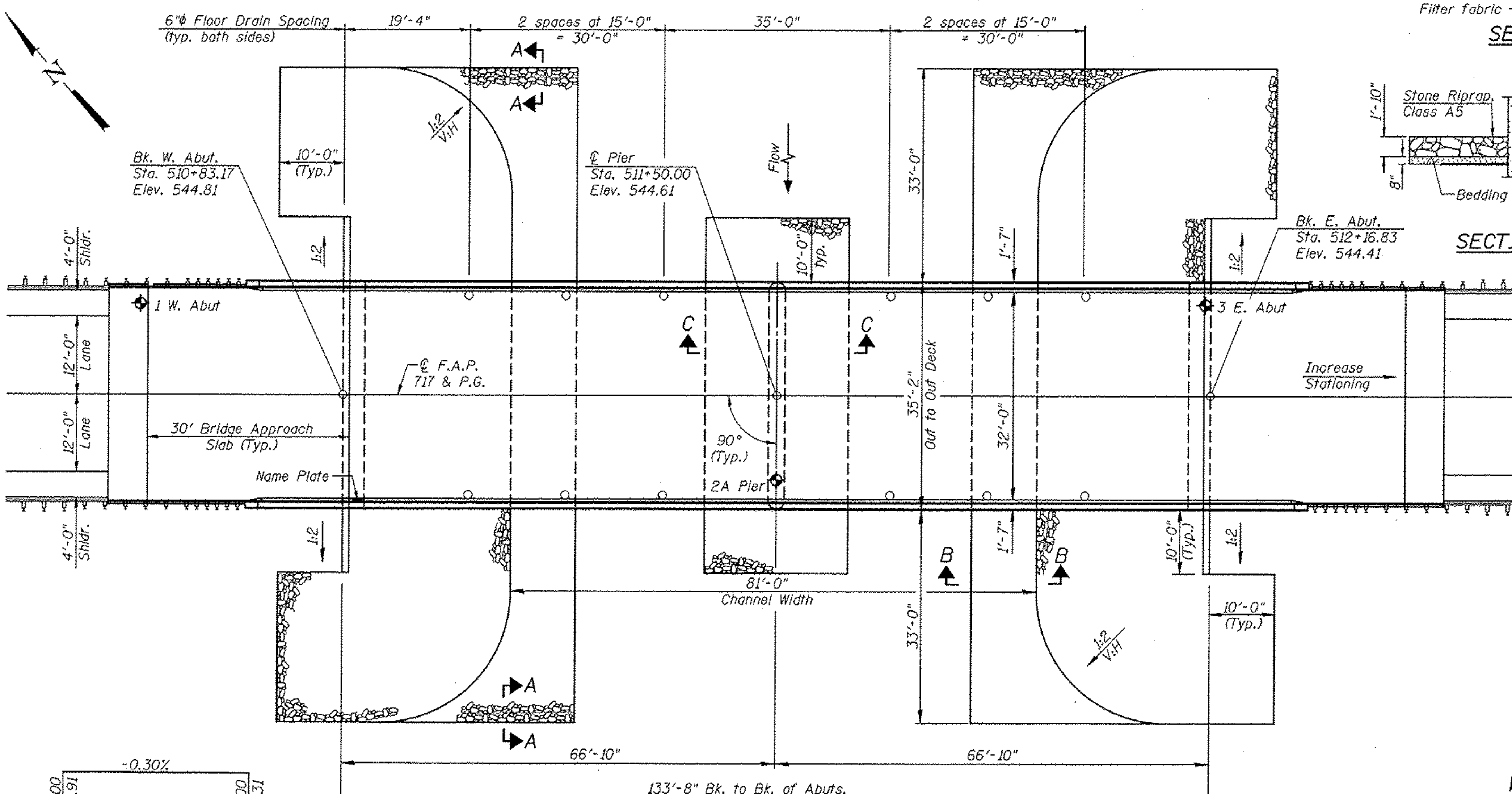
Existing Structure: S.N. 054-0008 built in 1931 as S.B.I. Rte. 120, Section 102-B and reconstructed in 1983 as F.A. 717, Section 102BR-1 at Station 509+65. The three-span superstructure consists of precast, prestressed concrete deck beams with a HMA wearing surface. A 5½" Concrete Wearing Surface was added in 1999. The substructure consists of pile bent abutments and piers supported on Concrete and Steel H Piles. The structure length is 132'-0" bk-to-bk of abutments and 34'-0" out-to-out of deck with no skew. The existing structure is ±185 ft west of the proposed structure and will be removed. The overflow channel alignment will be adjusted.

Traffic to be detoured to a run-around for road closure.

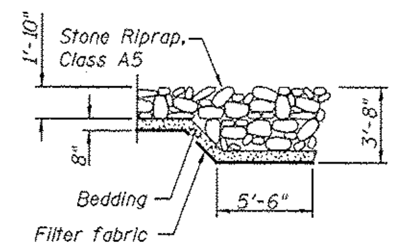
No Salvage



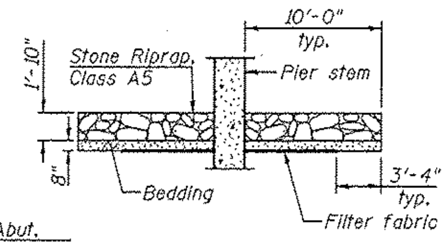
ELEVATION



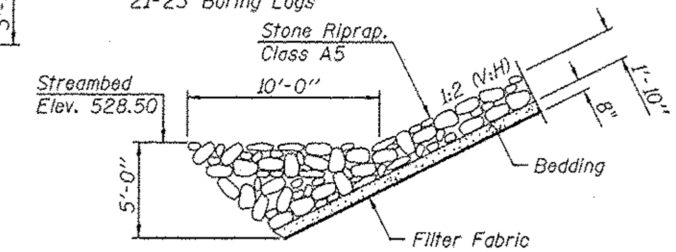
PLAN



SECTION A-A



SECTION C-C



SECTION B-B

INDEX OF SHEETS

LOADING HL-93

Allow 50 psf. for future wearing surface.

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications
6th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)

SEISMIC DATA

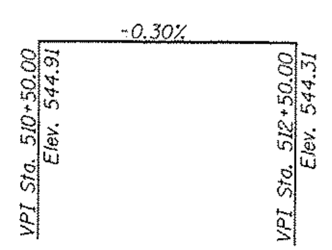
Seismic Performance Zone (SPZ)= 1
Design Spectral Acceleration at 1.0 sec. (SD1)= 0.132
Design Spectral Acceleration at 0.2 sec. (SDs)= 0.221
Soil Site Class= D

WATERWAY INFORMATION

Drainage Area = 365 sq. mi. Low Grade Elev. 540.61 @ Sta. 496+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	3791	586	689	536.7	1.0	1.0	537.7	537.7
Design	50	8267	830	954	538.9	2.0	2.0	540.9	540.9
Base	100	11469	938	1068	539.8	3.4	3.4	543.2	543.2
Overtopping		<500 Yr.							
Max. Calc.	500	19560	1189	1212	542.1	3.2	3.2	545.3	545.3

10 year velocity through Existing Bridge = 4.79 ft/s
10 year velocity throught Proposed Bridge = 5.66 ft/s



PROFILE GRADE F.A.P. RTE. 717

Along ℄ Roadway

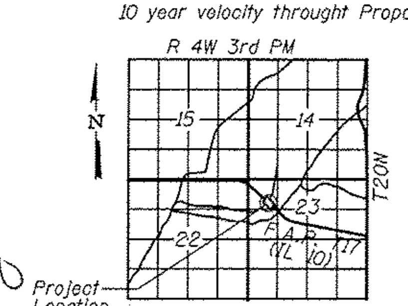
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevations (ft.)	W. Abut.	Pier	E. Abut.
Q_{100}	537.14	520.30	536.75
Q_{500}	537.14	520.30	536.75

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

LICENSED STRUCTURAL ENGINEER MARY COOMBE BLOXDORF 4859 SPRINGFIELD STATE OF ILLINOIS

ILLINOIS STRUCTURAL NO. 4859
EXPIRES 11/30/14
DATE: 10/22/13



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
IL 10 OVER SUGAR CREEK OVERFLOW
F.A.P. 717
SEC. (102B-1, 102CR, 102BR-2)RS-5
LOGAN COUNTY
STATION 511+50.00
STRUCTURE NO. 054-0515

FILE NAME = ...\0549515-72882-001-gpe.dgn
CB PROJECT NO 07384-8

Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

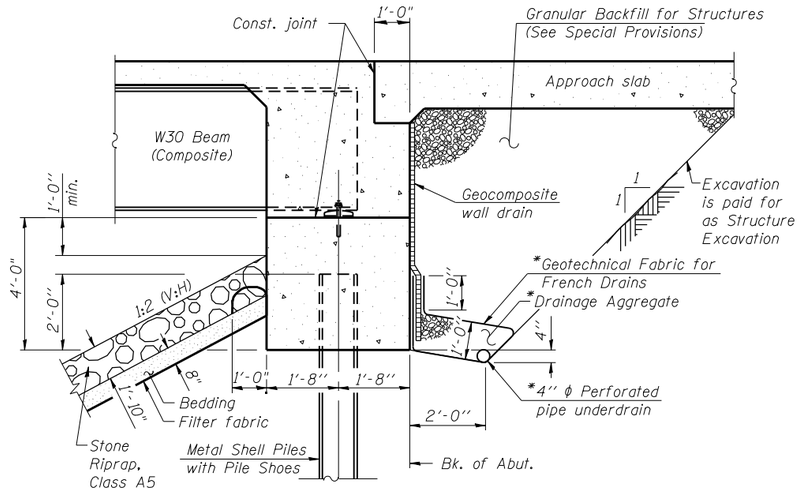
USER NAME = _MML_	DESIGNED AMC	REVISED -	
	CHECKED MCB	REVISED -	
PLOT SCALE = 21.3334 ' / IN.	DRAWN MML	REVISED -	
PLOT DATE = 10/24/2013	CHECKED MCB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	55

CONTRACT NO. 72882
ILLINOIS FED. AID PROJECT



SECTION THRU INTEGRAL ABUTMENT

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

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).

STATION 511+50.00
BUILT BY
STATE OF ILLINOIS
F.A.P. RT. 717
SEC. (102B-1, 102CR, 102BR-2)RS-5
LOADING HL-93
STRUCTURE NO. 054-0515

NAME PLATE

See Std. 515001

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts $\frac{7}{8}$ in. ϕ, holes $\frac{15}{16}$ in. ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 150,960 lbs.

All structural steel shall be AASHTO M 270 Grade 50W.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 1'-6". Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

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

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.		205	205
Removal of Existing Structures No. 2	Each			1
Granular Backfill for Structures	Cu. Yd.		119	119
Concrete Structures	Cu. Yd.		103.4	103.4
Concrete Superstructure	Cu. Yd.	278.1		278.1
Protective Coat	Sq. Yd.	825		825
Bridge Deck Grooving	Sq. Yd.	639		639
Stud Shear Connectors	Each	2430		2430
Reinforcement Bars, Epoxy Coated	Pound	61,610	15,150	76,760
Name Plates	Each	1		1
Furnishing and Erecting Structural Steel	L. Sum	1		1
Pipe Underdrains for Structures, 4"	Foot		145	145
Geocomposite Wall Drain	Sq. Yd.		66	66
Anchor Bolts, 1"	Each	36		36
Stone Riprap, Class A5	Sq. Yd.		1084	1084
Filter Fabric	Sq. Yd.		1043	1043
Floor Drains	Each	12		12
Furnishing Metal Shell Piles 14" x 0.250"	Foot		310	310
Furnishing Steel Piles HP 12 x 63	Foot		380	380
Driving Piles	Foot		690	690
Test Pile Metal Shells	Each		2	2
Test Pile Steel HP 12 x 63	Each		1	1
Pile Shoes	Each		12	12
Asbestos Bearing Pad Removal	Each		22	22
Concrete Encasement	Cu. Yd.		2.1	2.1

FILE NAME = ...\054515-72B82-002-gen_data.dgn
CB PROJECT NO 07084-8

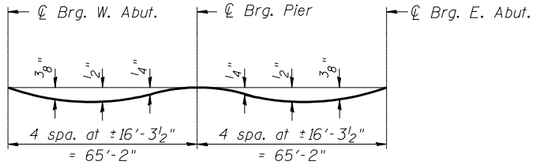
Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

USER NAME = _MML_	DESIGNED AMC	REVISED -
	CHECKED MCB	REVISED -
PLOT SCALE = 0.2.0000 ':' / IN.	DRAWN MML	REVISED -
PLOT DATE = 10/23/2013	CHECKED MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 054-0515
SHEET NO. 2 OF 23 SHEETS

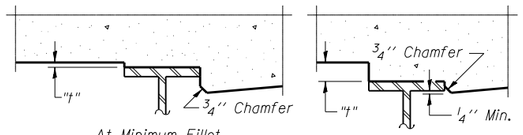
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	56
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



DEAD LOAD DEFLECTION DIAGRAM

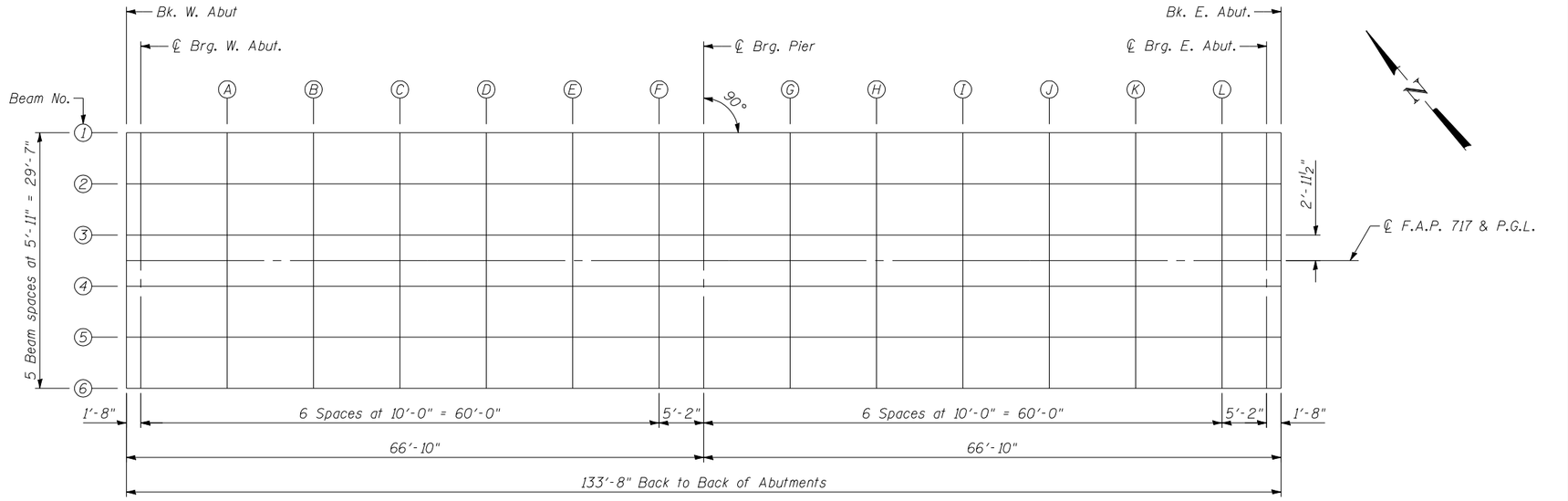
(Includes weight of concrete only.)

Note:
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 4 of 23 sheets.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below and on sheet 4 of 23 sheets, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	51083.17	-14.79	544.56	544.56
℄ Brg. W. Abut.	51084.84	-14.79	544.56	544.56
A	51094.84	-14.79	544.53	544.55
B	51104.84	-14.79	544.50	544.53
C	51114.84	-14.79	544.47	544.51
D	51124.84	-14.79	544.44	544.47
E	51134.84	-14.79	544.41	544.43
F	51144.84	-14.79	544.38	544.38
℄ Brg. Pier	51150.00	-14.79	544.36	544.36
G	51160.00	-14.79	544.33	544.34
H	51170.00	-14.79	544.30	544.33
I	51180.00	-14.79	544.27	544.31
J	51190.00	-14.79	544.24	544.28
K	51200.00	-14.79	544.21	544.24
L	51210.00	-14.79	544.18	544.20
℄ Brg. E. Abut.	51215.17	-14.79	544.17	544.17
Back of E. Abut.	51216.84	-14.79	544.16	544.16

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	51083.17	-8.87	544.67	544.67
℄ Brg. W. Abut.	51084.84	-8.87	544.66	544.66
A	51094.84	-8.87	544.63	544.66
B	51104.84	-8.87	544.60	544.64
C	51114.84	-8.87	544.57	544.61
D	51124.84	-8.87	544.54	544.58
E	51134.84	-8.87	544.51	544.53
F	51144.84	-8.87	544.48	544.49
℄ Brg. Pier	51150.00	-8.87	544.47	544.47
G	51160.00	-8.87	544.44	544.45
H	51170.00	-8.87	544.41	544.43
I	51180.00	-8.87	544.38	544.42
J	51190.00	-8.87	544.35	544.39
K	51200.00	-8.87	544.32	544.35
L	51210.00	-8.87	544.29	544.30
℄ Brg. E. Abut.	51215.17	-8.87	544.27	544.27
Back of E. Abut.	51216.84	-8.87	544.27	544.27

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	51083.17	-2.96	544.76	544.76
℄ Brg. W. Abut.	51084.84	-2.96	544.76	544.76
A	51094.84	-2.96	544.73	544.75
B	51104.84	-2.96	544.70	544.73
C	51114.84	-2.96	544.67	544.71
D	51124.84	-2.96	544.64	544.67
E	51134.84	-2.96	544.61	544.62
F	51144.84	-2.96	544.58	544.58
℄ Brg. Pier	51150.00	-2.96	544.56	544.56
G	51160.00	-2.96	544.53	544.54
H	51170.00	-2.96	544.50	544.53
I	51180.00	-2.96	544.47	544.51
J	51190.00	-2.96	544.44	544.48
K	51200.00	-2.96	544.41	544.44
L	51210.00	-2.96	544.38	544.39
℄ Brg. E. Abut.	51215.17	-2.96	544.37	544.37
Back of E. Abut.	51216.84	-2.96	544.36	544.36

E-S

7-1-10

FILE NAME = ...\05405I5-72882-003-tos-elev1.dgn
CB PROJECT NO 07084-B

Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

USER NAME = _MML_	DESIGNED - AMC	REVISED -	
	CHECKED - MCB	REVISED -	
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PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 054-0515
SHEET NO. 3 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	57
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

℄ ROADWAY & PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	51083.17	0.00	544.81	544.81
℄ Brg. W. Abut.	51084.84	0.00	544.81	544.81
A	51094.84	0.00	544.78	544.80
B	51104.84	0.00	544.75	544.78
C	51114.84	0.00	544.72	544.75
D	51124.84	0.00	544.69	544.72
E	51134.84	0.00	544.66	544.67
F	51144.84	0.00	544.63	544.63
℄ Brg. Pier	51150.00	0.00	544.61	544.61
G	51160.00	0.00	544.58	544.59
H	51170.00	0.00	544.55	544.57
I	51180.00	0.00	544.52	544.56
J	51190.00	0.00	544.49	544.53
K	51200.00	0.00	544.46	544.49
L	51210.00	0.00	544.43	544.44
℄ Brg. E. Abut.	51215.17	0.00	544.41	544.41
Back of E. Abut.	51216.84	0.00	544.41	544.41

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	51083.17	2.96	544.76	544.76
℄ Brg. W. Abut.	51084.84	2.96	544.76	544.76
A	51094.84	2.96	544.73	544.75
B	51104.84	2.96	544.70	544.73
C	51114.84	2.96	544.67	544.71
D	51124.84	2.96	544.64	544.67
E	51134.84	2.96	544.61	544.62
F	51144.84	2.96	544.58	544.58
℄ Brg. Pier	51150.00	2.96	544.56	544.56
G	51160.00	2.96	544.53	544.54
H	51170.00	2.96	544.50	544.53
I	51180.00	2.96	544.47	544.51
J	51190.00	2.96	544.44	544.48
K	51200.00	2.96	544.41	544.44
L	51210.00	2.96	544.38	544.39
℄ Brg. E. Abut.	51215.17	2.96	544.37	544.37
Back of E. Abut.	51216.84	2.96	544.36	544.36

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	51083.17	8.87	544.67	544.67
℄ Brg. W. Abut.	51084.84	8.87	544.66	544.66
A	51094.84	8.87	544.63	544.66
B	51104.84	8.87	544.60	544.64
C	51114.84	8.87	544.57	544.61
D	51124.84	8.87	544.54	544.58
E	51134.84	8.87	544.51	544.53
F	51144.84	8.87	544.48	544.49
℄ Brg. Pier	51150.00	8.87	544.47	544.47
G	51160.00	8.87	544.44	544.45
H	51170.00	8.87	544.41	544.43
I	51180.00	8.87	544.38	544.42
J	51190.00	8.87	544.35	544.39
K	51200.00	8.87	544.32	544.35
L	51210.00	8.87	544.29	544.30
℄ Brg. E. Abut.	51215.17	8.87	544.27	544.27
Back of E. Abut.	51216.84	8.87	544.27	544.27

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut.	51083.17	14.79	544.56	544.56
℄ Brg. W. Abut.	51084.84	14.79	544.56	544.56
A	51094.84	14.79	544.53	544.55
B	51104.84	14.79	544.50	544.53
C	51114.84	14.79	544.47	544.51
D	51124.84	14.79	544.44	544.47
E	51134.84	14.79	544.41	544.43
F	51144.84	14.79	544.38	544.38
℄ Brg. Pier	51150.00	14.79	544.36	544.36
G	51160.00	14.79	544.33	544.34
H	51170.00	14.79	544.30	544.33
I	51180.00	14.79	544.27	544.31
J	51190.00	14.79	544.24	544.28
K	51200.00	14.79	544.21	544.24
L	51210.00	14.79	544.18	544.20
℄ Brg. E. Abut.	51215.17	14.79	544.17	544.17
Back of E. Abut.	51216.84	14.79	544.16	544.16

FILE NAME = ...\054051S-72B82-004-tos-elev2.dgn
CB PROJECT NO 07084-B

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USER NAME = _MML_	DESIGNED - AMC	REVISED -
	CHECKED - MCB	REVISED -
PLOT SCALE = 0.1667 ' / IN.	DRAWN - MML	REVISED -
PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 054-0515
SHEET NO. 4 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	58
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

NORTH EDGE OF SHOULDER

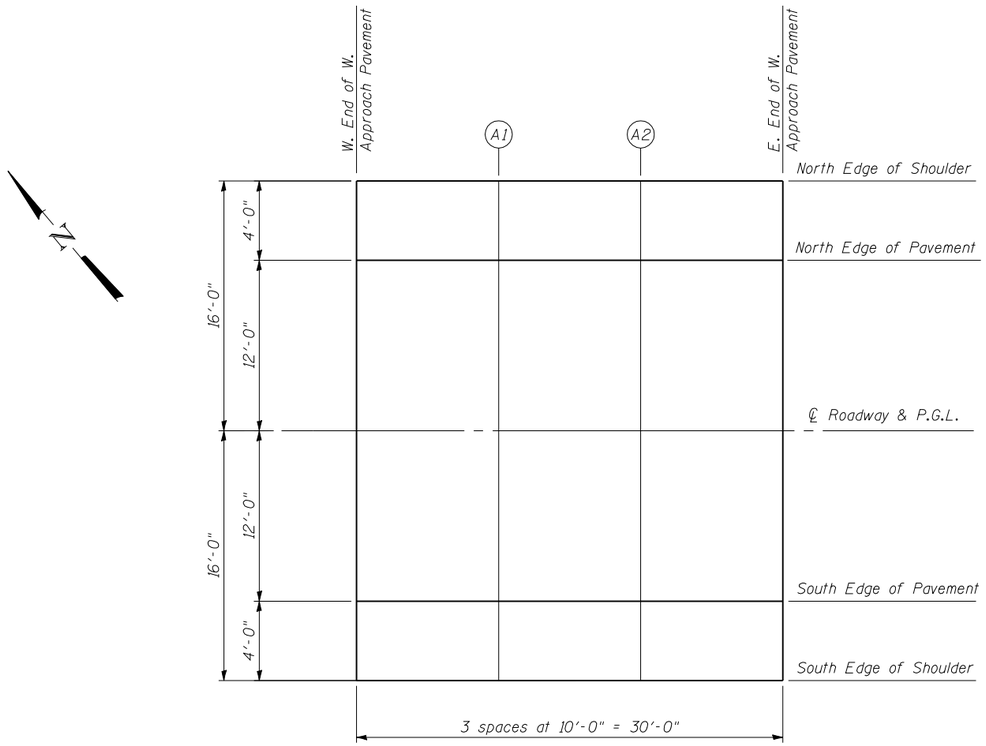
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	51054.17	-16.00	544.63
A1	51064.17	-16.00	544.60
A2	51074.17	-16.00	544.57
E. End of W. Appr.	51084.17	-16.00	544.54

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	51054.17	-12.00	544.71
A1	51064.17	-12.00	544.68
A2	51074.17	-12.00	544.65
E. End of W. Appr.	51084.17	-12.00	544.62

℄ ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	51054.17	0.00	544.90
A1	51064.17	0.00	544.87
A2	51074.17	0.00	544.84
E. End of W. Appr.	51084.17	0.00	544.81



PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	51054.17	12.00	544.71
A1	51064.17	12.00	544.68
A2	51074.17	12.00	544.65
E. End of W. Appr.	51084.17	12.00	544.62

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	51054.17	16.00	544.63
A1	51064.17	16.00	544.60
A2	51074.17	16.00	544.57
E. End of W. Appr.	51084.17	16.00	544.54

FILE NAME = ...\05405I5-72B82-005-tos-appr-w.dgn
CB PROJECT NO 07084-8

E-AS 7-1-10

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Design Firm License No. 184-002703

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PLOT SCALE = 10.6667 ' / IN.	DRAWN - MML	REVISED -
PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 054-0515
SHEET NO. 5 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	59
		CONTRACT NO. 72B82		
	ILLINOIS	FED. AID PROJECT		

NORTH EDGE OF SHOULDER

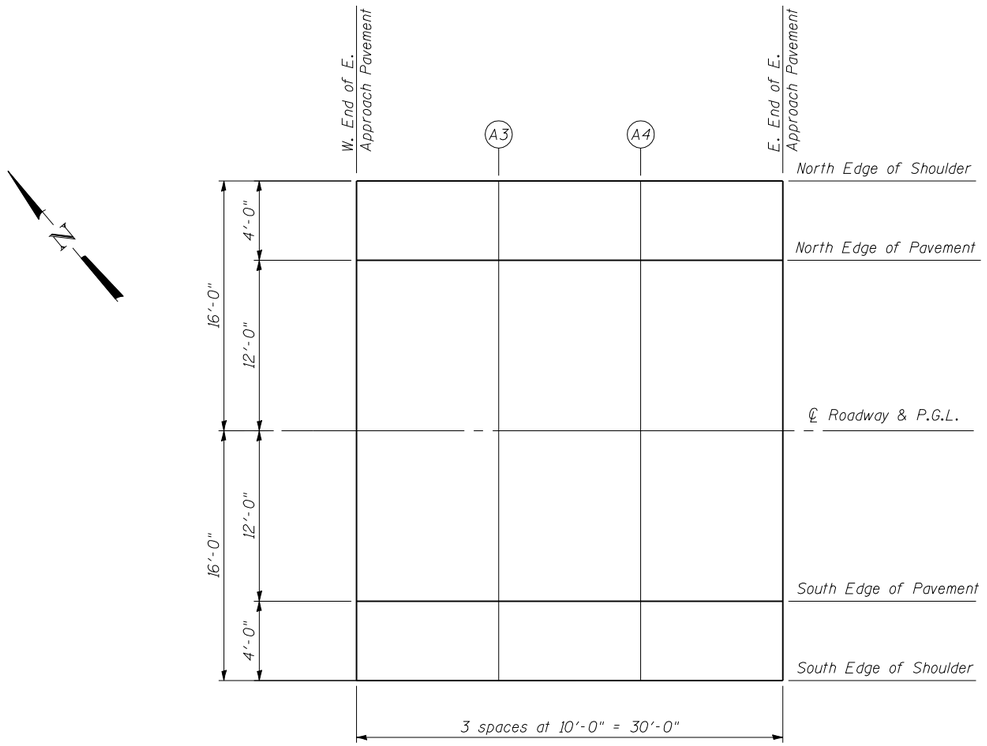
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr.	51215.83	-16.00	544.14
A3	51225.83	-16.00	544.11
A4	51235.83	-16.00	544.08
E. End of E. Appr.	51245.83	-16.00	544.05

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr.	51215.83	-12.00	544.22
A3	51225.83	-12.00	544.19
A4	51235.83	-12.00	544.16
E. End of E. Appr.	51245.83	-12.00	544.13

℄ ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr.	51215.83	0.00	544.41
A3	51225.83	0.00	544.38
A4	51235.83	0.00	544.35
E. End of E. Appr.	51245.83	0.00	544.32



PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr.	51215.83	12.00	544.22
A3	51225.83	12.00	544.19
A4	51235.83	12.00	544.16
E. End of E. Appr.	51245.83	12.00	544.13

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr.	51215.83	16.00	544.14
A3	51225.83	16.00	544.11
A4	51235.83	16.00	544.08
E. End of E. Appr.	51245.83	16.00	544.05

FILE NAME = ...\05405I5-72B82-806-tos-appr-e.dgn
CB PROJECT NO 07084-8

E-AS 7-1-10

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PLOT SCALE = 10.6667 ' / IN.	DRAWN - MML	REVISED -
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STATE OF ILLINOIS
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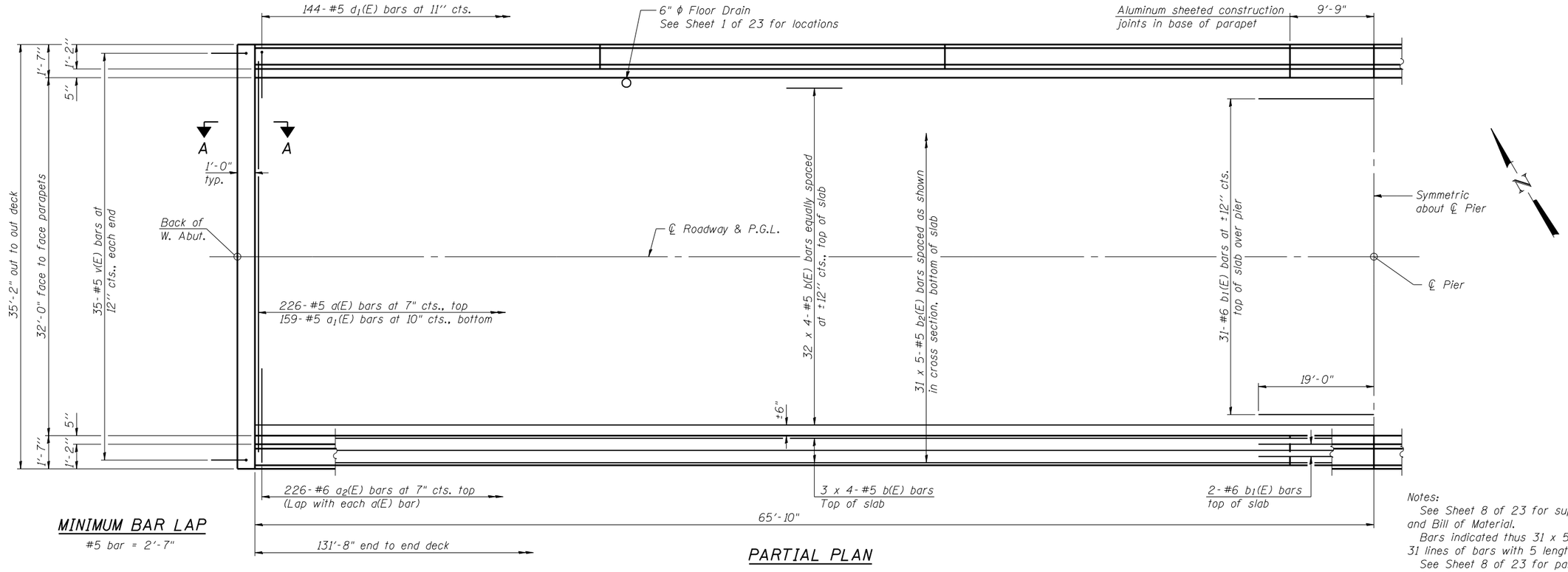
TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 054-0515
SHEET NO. 6 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	60
		CONTRACT NO. 72B82		
	ILLINOIS	FED. AID PROJECT		

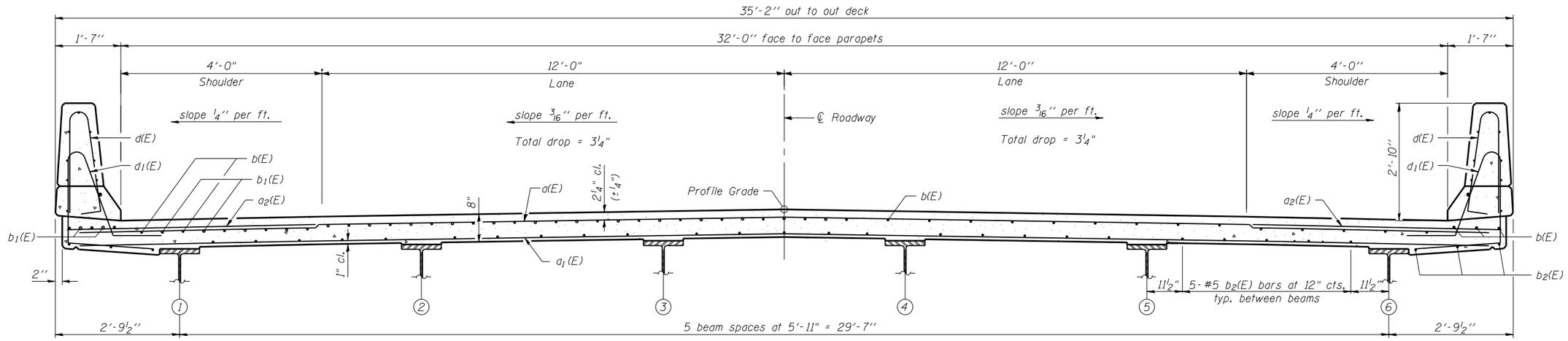


MINIMUM BAR LAP

#5 bar = 2'-7"

PARTIAL PLAN

Notes:
See Sheet 8 of 23 for superstructure details and Bill of Material.
Bars indicated thus 31 x 5-#5 etc. indicates 31 lines of bars with 5 lengths per line.
See Sheet 8 of 23 for parapet reinforcement.
See Sheet 9 of 23 for Sec. A-A.



NEAR PIER **NEAR MIDSPAN**

CROSS SECTION
(Looking East)

SI-2-0 8-31-12

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PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 054-0515
SHEET NO. 7 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	61
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

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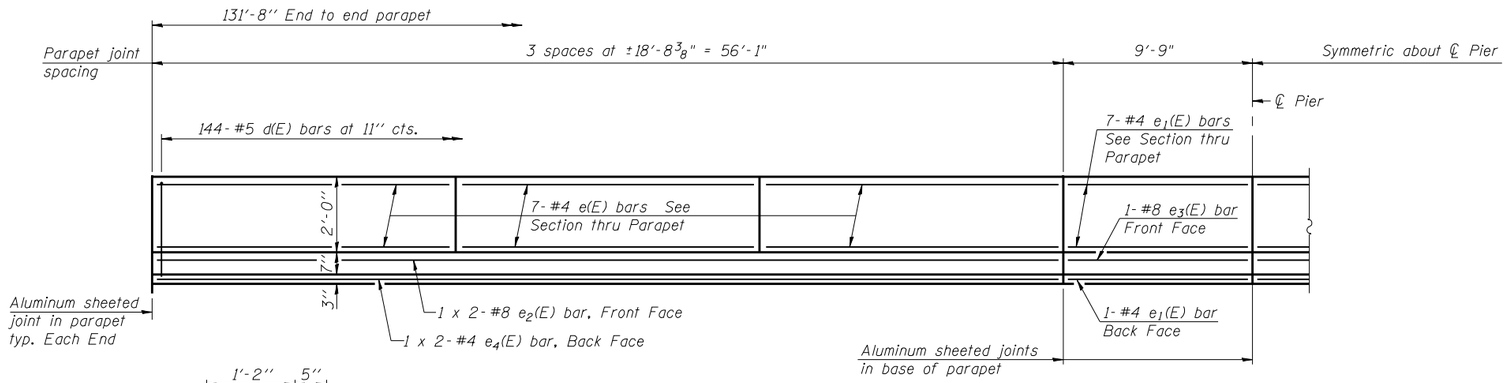
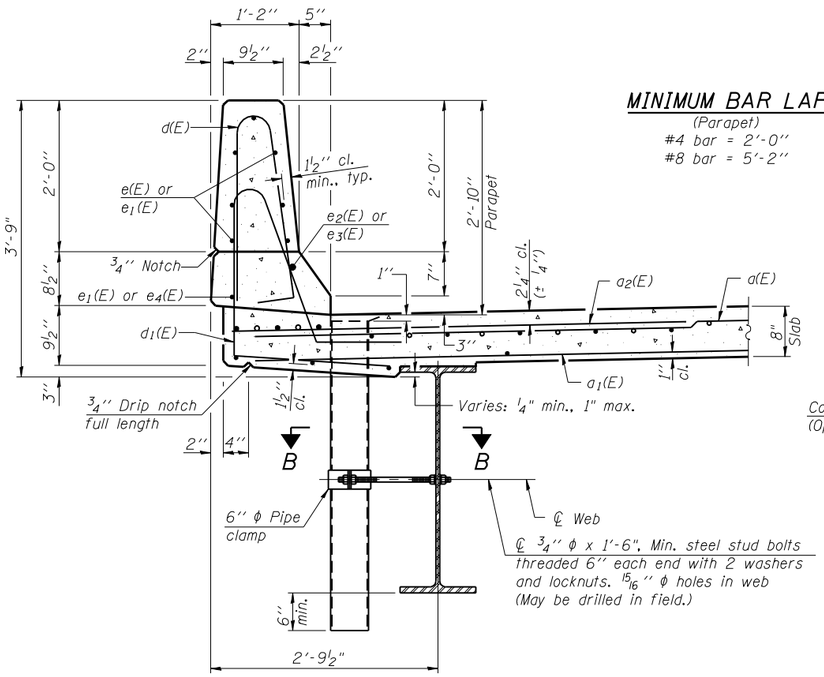
CB PROJECT NO 07084-8



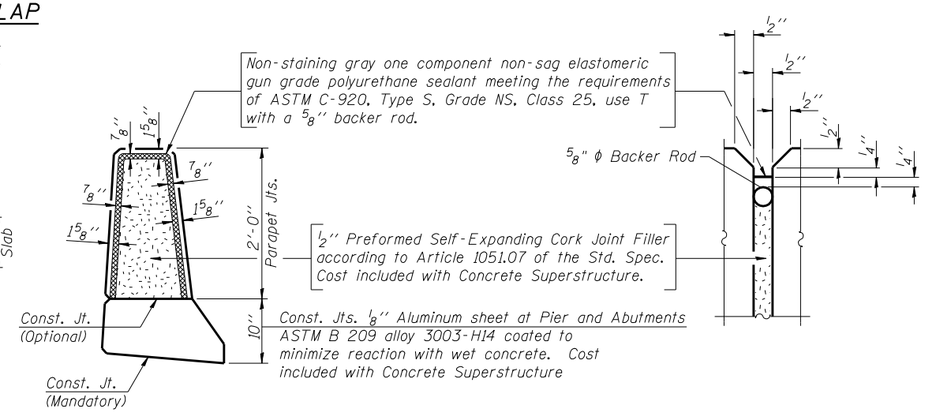
INSIDE ELEVATION OF PARAPET



MINIMUM BAR LAP

(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"

SECTION THRU PARAPET



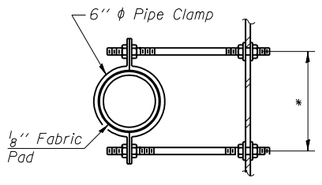
PARAPET JOINT DETAILS

Notes:
Floor drains need not be painted.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.
Drains shall be located clear of all diaphragms.

SUPERSTRUCTURE BILL OF MATERIAL

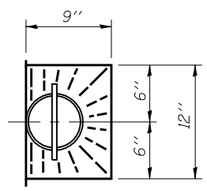
Bar	No.	Size	Length	Shape
a(E)	226	#5	34'-6"	
a1(E)	159	#5	34'-2"	
a2(E)	452	#6	6'-6"	
b(E)	152	#5	34'-10"	
b1(E)	35	#6	38'-0"	
b2(E)	155	#5	28'-4"	
d(E)	288	#5	5'-7"	
d1(E)	288	#5	7'-4"	
e(E)	84	#4	18'-4"	
e1(E)	32	#4	9'-5"	
e2(E)	8	#8	30'-6"	
e3(E)	4	#8	9'-5"	
e4(E)	8	#4	28'-11"	
m(E)	8	#6	34'-10"	
m1(E)	30	#6	5'-7"	
m2(E)	12	#6	2'-5"	
m3(E)	36	#5	4'-0"	
s(E)	72	#5	7'-4"	
s1(E)	72	#5	9'-0"	
v(E)	70	#5	3'-1"	
Reinforcement Bars, Epoxy Coated			Pound	38,640
Concrete Superstructure			Cu. Yds.	170.8

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

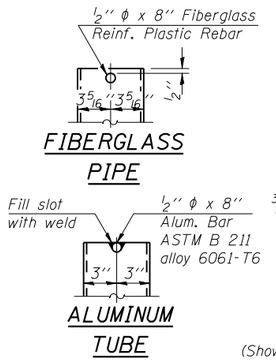


SECTION B-B

*Dimension as required by Pipe Clamp

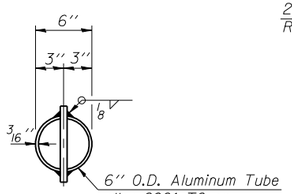


TOP PLAN



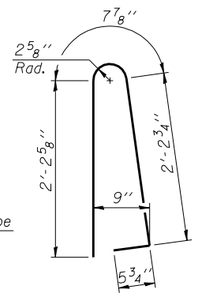
FIBERGLASS PIPE

ALUMINUM TUBE

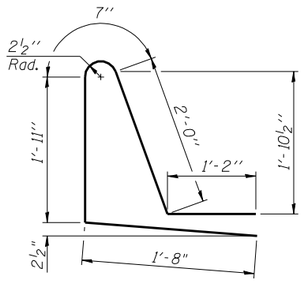


TOP PLAN

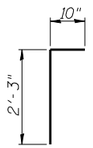
(Showing Aluminum Tube)



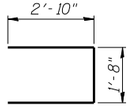
BAR d(E)



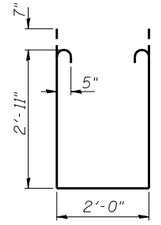
BAR d1(E)



BAR v(E)



BAR s(E)



BAR s1(E)

SI-D2-0

8-31-12

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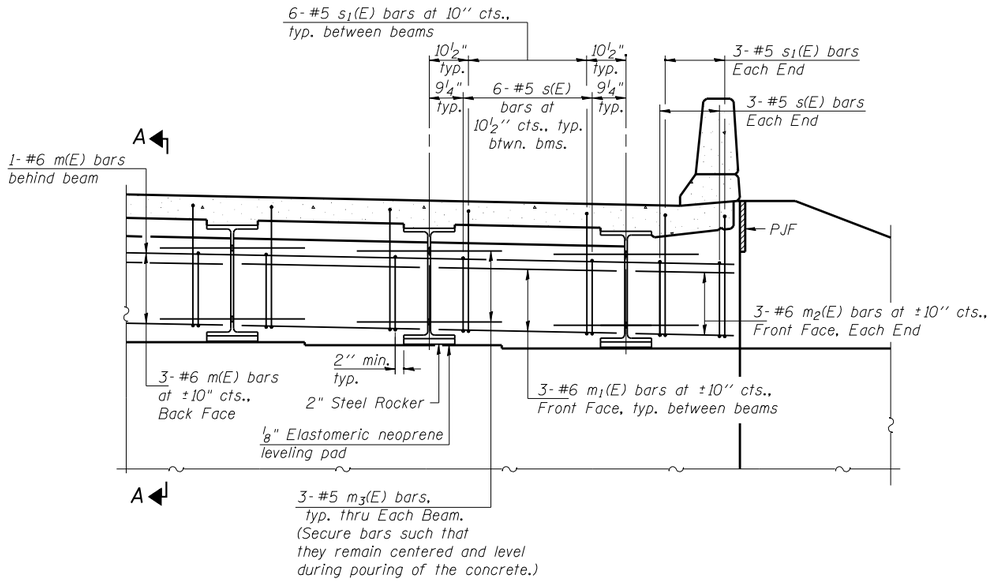
PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

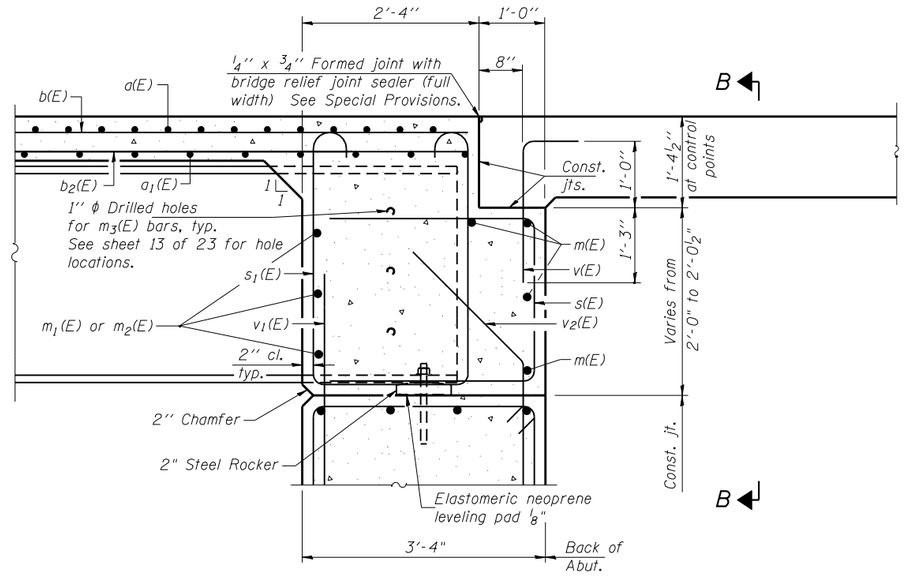
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 054-0515
SHEET NO. 8 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	62
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

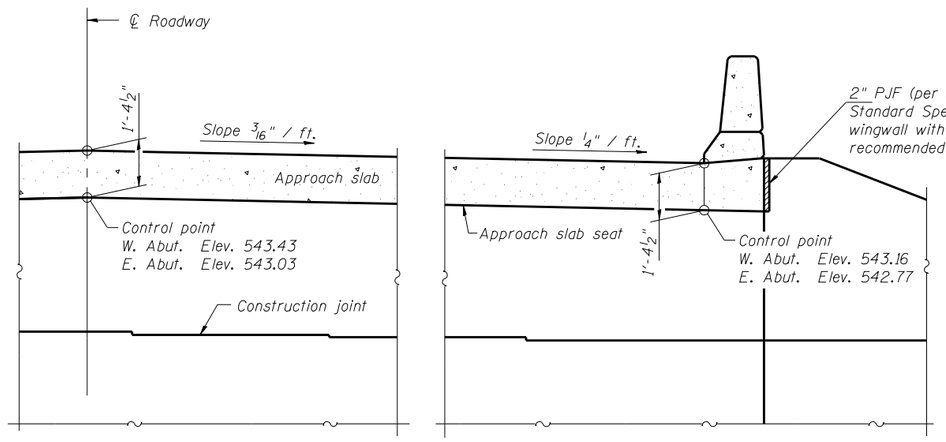
FILE NAME = ...\054051S-72B82-008-super-det.dgn
CB PROJECT NO 07084-8



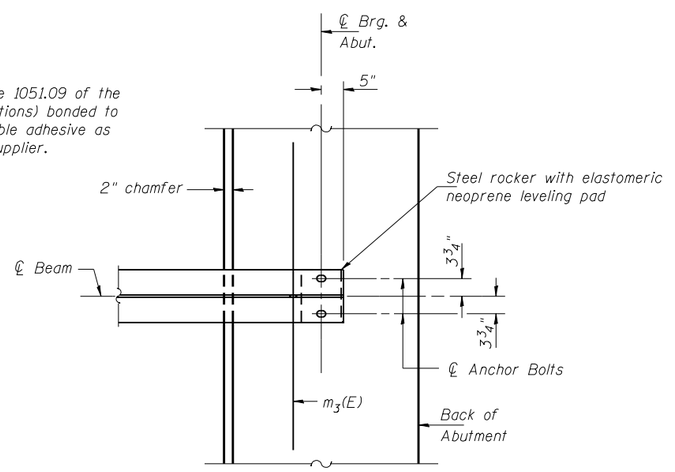
DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A



SECTION B-B



PARTIAL PLAN AT ABUTMENT
(Showing bottom flange of beam)

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 8 of 23.

Concrete in diaphragm is included with Concrete Superstructure on sheet 8 of 23.

For details of bars s(E), s_1(E) and v(E) see sheet 8 of 23.

The approach slab seat shall have a constant slope determined from the control points shown.

For bearing details see sheet 14 of 23.

DSI-2440-0 8-31-12

FILE NAME = ...\05405115-72B82-009-diaphr-dgn
CB PROJECT NO 07084-B

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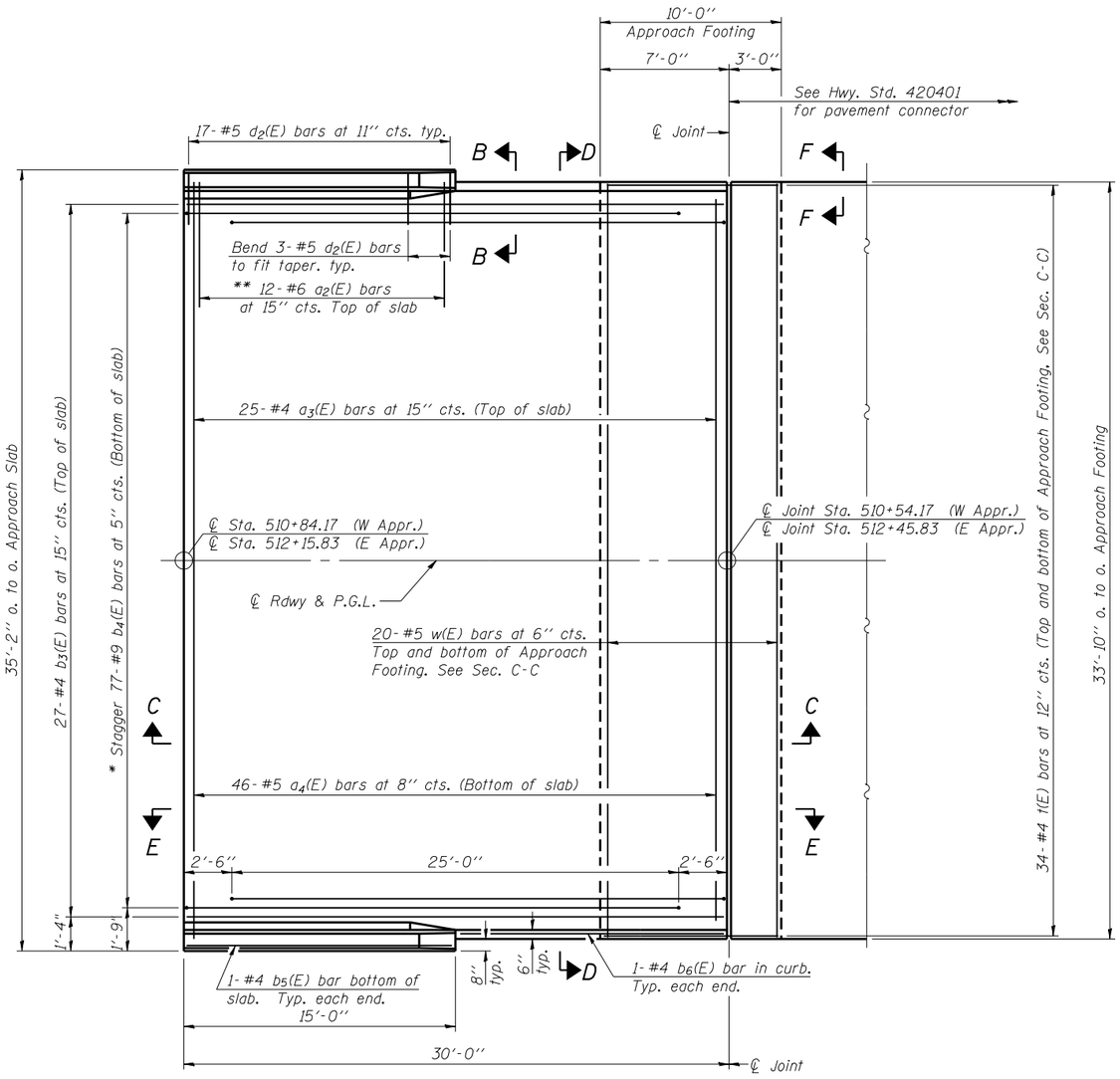
	CHECKED - MCB	REVISED -
PLOT SCALE = 0.1667 ' / IN.	DRAWN - MML	REVISED -
PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

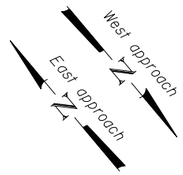
DIAPHRAGM DETAILS
STRUCTURE NO. 054-0515
SHEET NO. 9 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	63
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



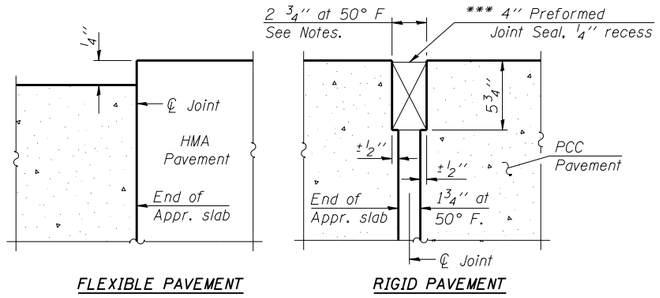
PLAN

* Tilt #9 b_4(E) bars as required to maintain clearance.
** Space between a_3(E) bars, typ. ea. parapet.



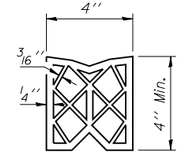
Notes:
See sheet 11 of 23 for Sections C-C & D-D and View E-E.
a_3(E) and a_4(E) bar spacings measured along ℄ Rdwy.
The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be $1\frac{1}{2}$" for installation purposes.

*** Cost included with Concrete Superstructure.

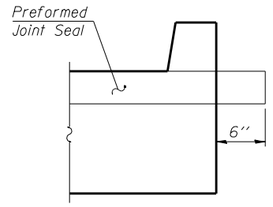


FLEXIBLE PAVEMENT RIGID PAVEMENT

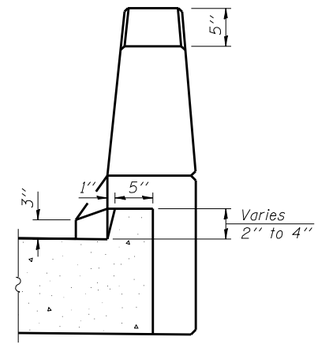
DETAIL A



PREFORMED
JOINT SEAL



VIEW F-F



VIEW B-B

BA-0 12-12-12

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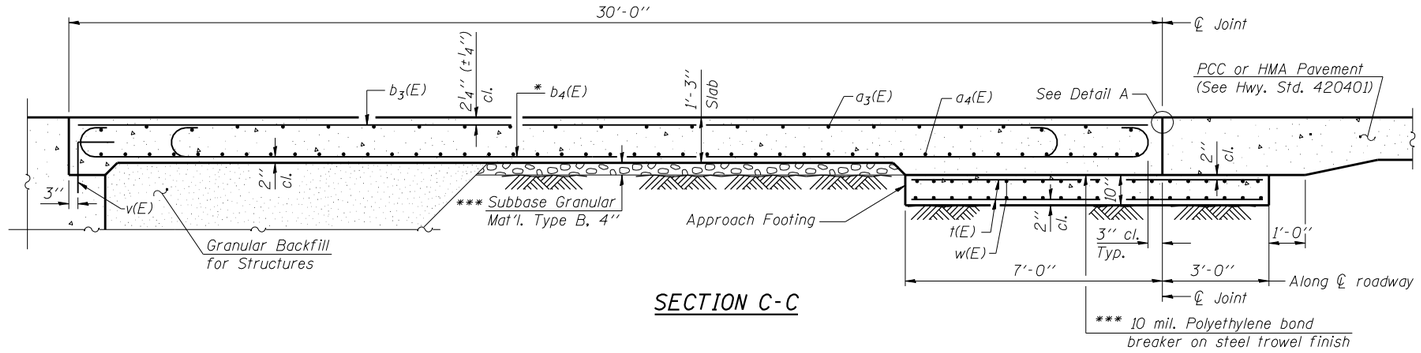
PLOT SCALE = 0.1667 ' / IN.	DRAWN - MML	REVISED -
PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

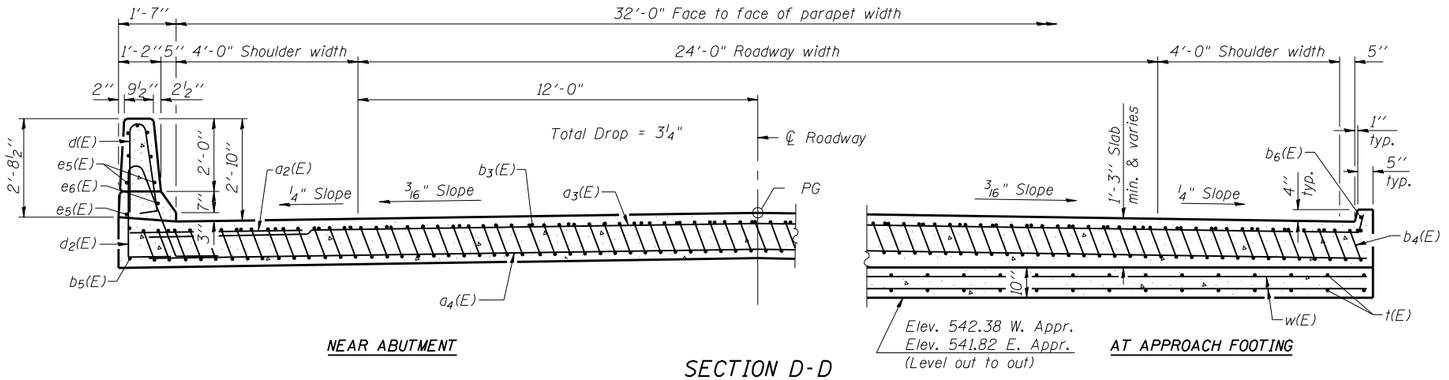
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 054-0515
SHEET NO. 10 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	64
		CONTRACT NO. 72B82		
		ILLINOIS FED. AID PROJECT		

FILE NAME = ...\0540515-72B82-010-apr.dgn
CB PROJECT NO 07084-8



SECTION C-C



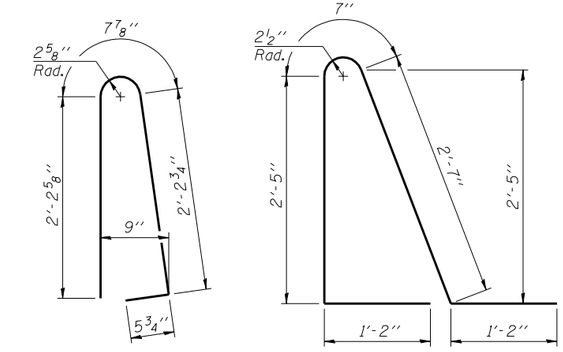
NEAR ABUTMENT

AT APPROACH FOOTING

SECTION D-D

(See Plan for dimensions not shown)

Notes:
- See sheet 11 of 23 for Detail A.
- Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
- Approach footing concrete shall be paid for as Concrete Structures.
- Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
- For v(E) bar details, see sheet 8 of 23.
- The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
- Cost of excavation for approach footing included with Concrete Structures.
- For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 23.
- For additional parapet details, see sheet 8 of 23.

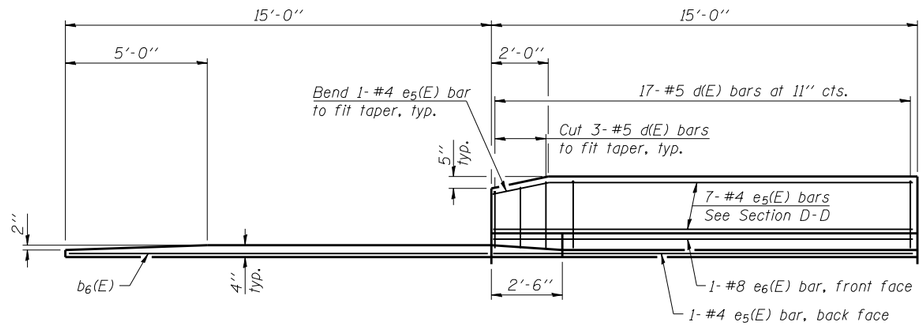


BAR d(E)

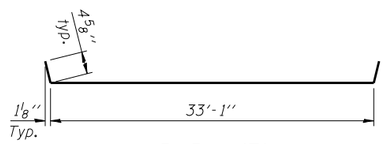
BAR d_2(E)

* Tilt #9 b_4(E) bars as required to maintain clearance.

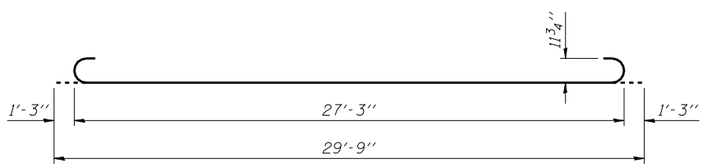
*** Cost included with Concrete Superstructure.



VIEW E-E



BAR a_3(E)



BAR b_4(E)

TWO APPROACHES
BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	a_2(E)	48	#6	6'-6"	
	a_3(E)	50	#4	33'-11"	
	a_4(E)	92	#5	33'-6"	
	b_3(E)	54	#4	29'-8"	
	b_4(E)	154	#9	29'-9"	
	b_5(E)	4	#4	14'-8"	
	b_6(E)	4	#4	14'-9"	
	d(E)	68	#5	5'-7"	
	d_2(E)	68	#5	7'-11"	
	e_5(E)	32	#4	14'-8"	
	e_6(E)	4	#8	14'-8"	
	t(E)	136	#4	9'-8"	
	w(E)	80	#5	33'-6"	
	Concrete Superstructure		Cu. Yd.	107.3	
	Concrete Structures		Cu. Yd.	20.8	
**	Reinforcement Bars, Epoxy Coated		Pound	26,640	

** 22,970 lbs (Superstructure)
3,670 lbs (Substructure)

BA-0 12-12-12

FILE NAME = ...\054-0515-72B82-011-appr-det.dgn
CB PROJECT NO 07084-8

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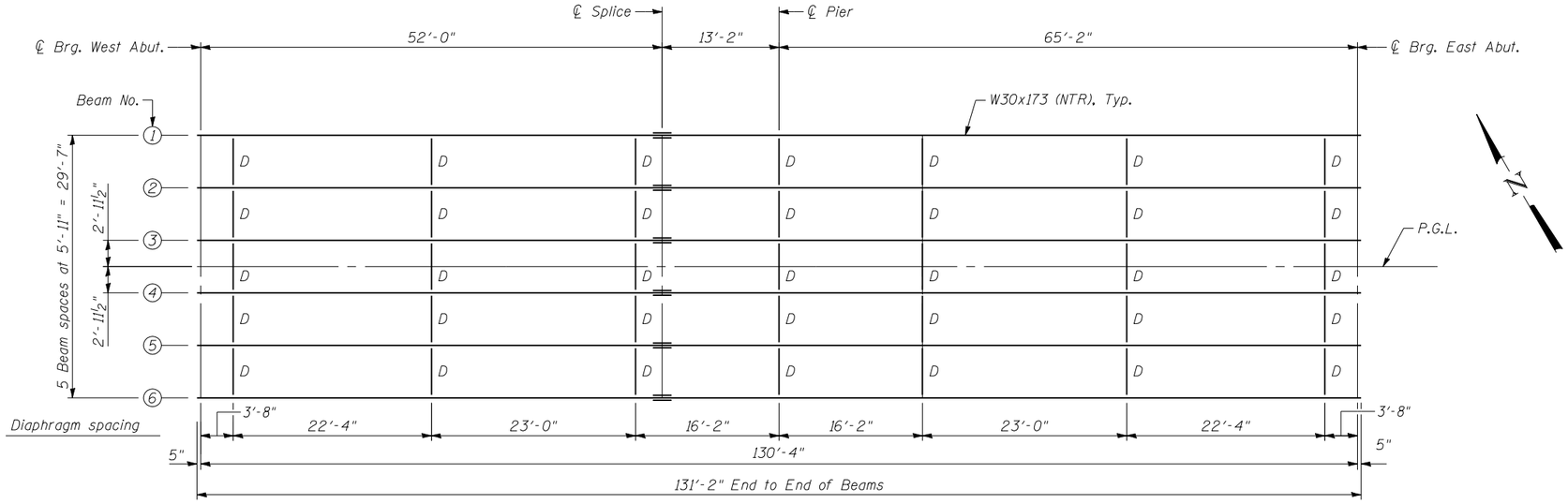
	CHECKED - MCB	REVISED -
PLOT SCALE = 0.1667 ' / IN.	DRAWN - MML	REVISED -
PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 054-0515
SHEET NO. 11 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	65
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



FRAMING PLAN

TOP OF BEAM ELEVATIONS

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
℄ W. Abutment	543.85	543.96	544.05	544.05	543.96	543.85
℄ Splice	543.66	543.76	543.85	543.85	543.76	543.66
℄ Pier	543.62	543.73	543.82	543.82	543.73	543.62
℄ E. Abutment	543.46	543.57	543.66	543.66	543.57	543.46

For Fabrication Only

INTERIOR BEAM MOMENT TABLE			
		0.4 Sp. 1 or 0.6 Span 2	Pier
I_s	(in^4)	8230	8230
$I_c(n)$	(in^4)	18,953	18,953
$I_c(3n)$	(in^4)	13,829	13,829
$I_c(cr)$	(in^4)	-	10,190
S_s	(in^3)	541	541
$S_c(n)$	(in^3)	734	734
$S_c(3n)$	(in^3)	664	664
$S_c(cr)$	(in^3)	-	589
DC1	(k/')	0.813	0.813
M_{DC1}	('k)	243.5	427.4
DC2	(k/')	0.150	0.150
M_{DC2}	('k)	44.9	78.8
DW	(k/')	0.267	0.267
M_{DW}	('k)	79.9	140.2
M_{L+IM}	('k)	670.1	646
M_u (Strength I)	('k)	1653	1974
$\phi_f M_n$	('k)	3415	
f_s DC1	(ksi)	5.4	9.5
f_s DC2	(ksi)	0.8	1.6
f_s DW	(ksi)	1.3	2.9
f_s (L+IM)	(ksi)	11.0	13.2
f_s (Service II)	(ksi)	21.8	31.2
$0.95R_hF_{yf}$	(ksi)	47.5	47.5
f_s (Total)(Strength I)	(ksi)	29.0	41.3
$\phi_f F_n$	(ksi)	-	50.0
V_f	(k)	23	24

INTERIOR BEAM REACTION TABLE			
		Abut.	Pier
R_{DC1}	(k)	19.9	66.1
R_{DC2}	(k)	3.7	12.2
R_{DW}	(k)	6.5	21.7
R_{L+IM}	(k)	64.7	109.0
R_{Total}	(k)	94.8	209.0

Notes:

All diaphragms shall be installed as steel is erected and secured with erection pins and bolts. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

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

M_{DC1}: 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.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{L+IM} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_s(L+IM)$

$\phi_f F_n$: Non-Compact composite or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.

FILE NAME = ...\05405115-72B82-012-framing-plan.dgn
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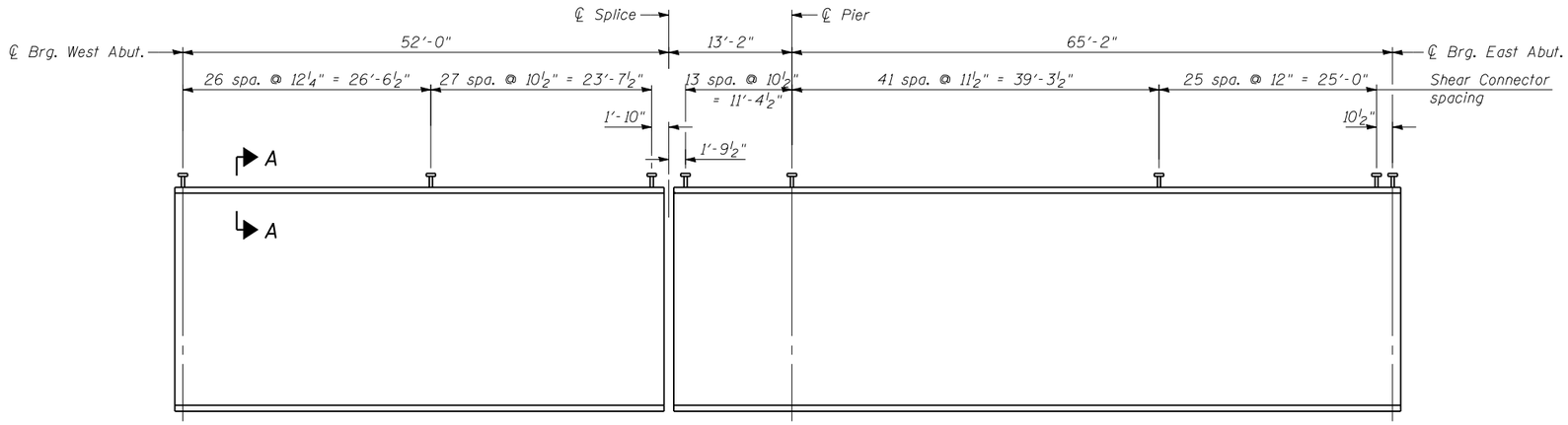
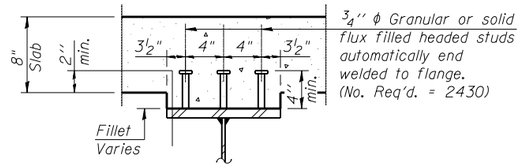
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 054-0515
SHEET NO. 12 OF 23 SHEETS

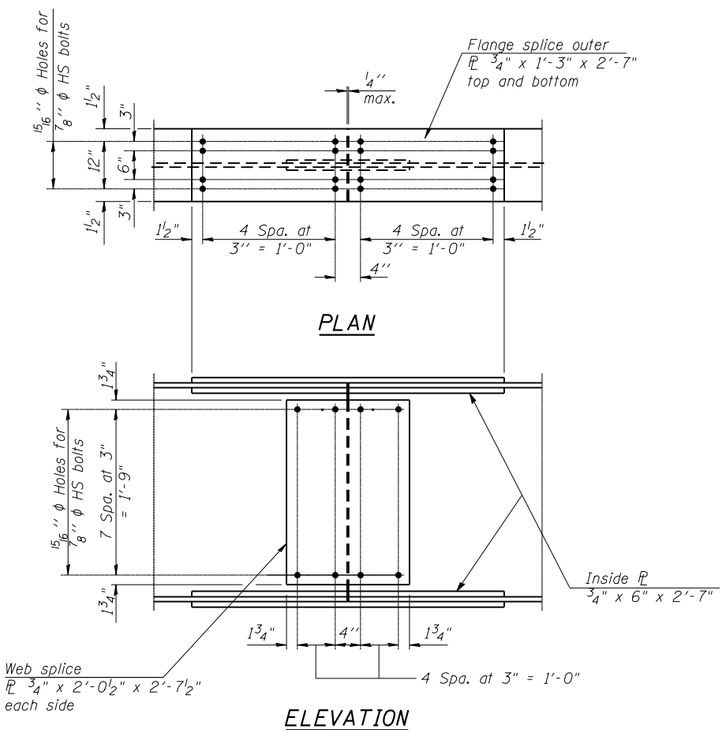
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	66
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



BEAM ELEVATION
(Showing shear connector spacing)



SECTION A-A

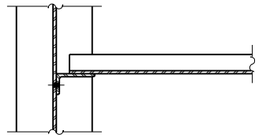


PLAN

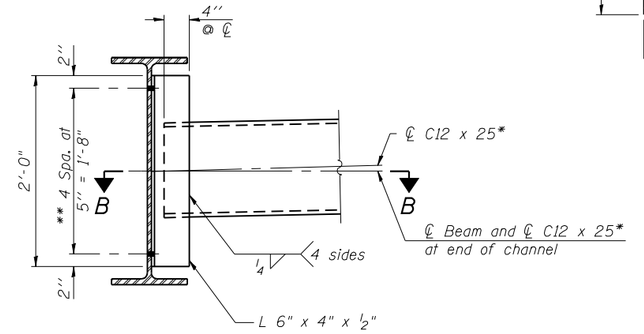
ELEVATION

SPLICE DETAIL
(6 Required)

Note:
Splice Plates shall conform to the Impact Testing Requirement, Zone 2.



SECTION B-B

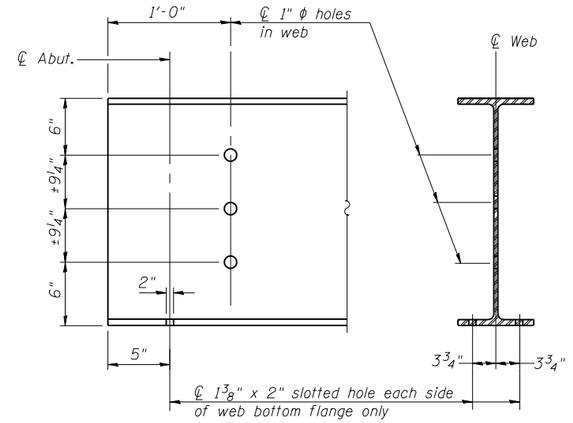


DIAPHRAGM D
(35 required)

Note:
Two hardened washers required for each set of oversized holes.

* Alternate C12x30 channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.

** ¾" ϕ HS bolts, 15/16" ϕ holes



END OF BEAM DETAIL
(Showing required hole locations)

FILE NAME = ...\05405I5-72B82-013-struct-steel-details.dgn
CB PROJECT NO 07084-8

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STATE OF ILLINOIS
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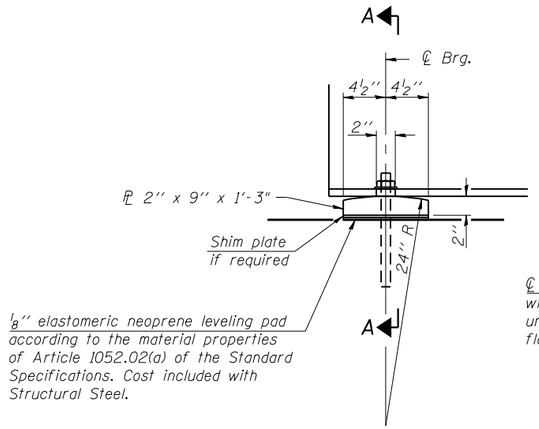
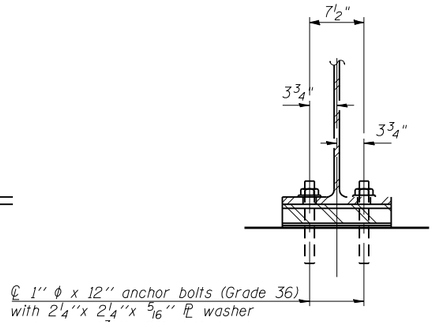
STRUCTURAL STEEL DETAILS
STRUCTURE NO. 054-0515
SHEET NO. 13 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	67
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

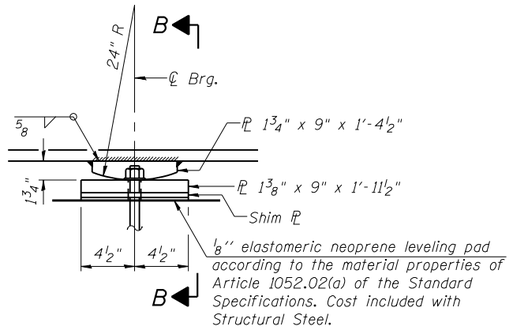


ELEVATION AT ABUTMENT

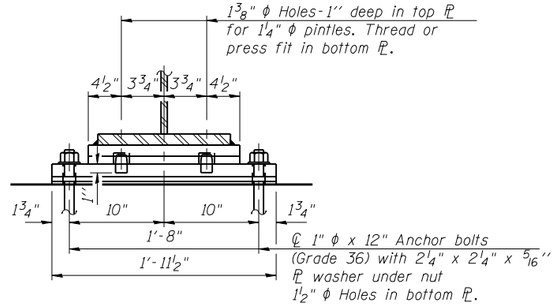


SECTION A-A

INTEGRAL ABUTMENT BEARING

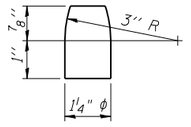


ELEVATION AT PIER



SECTION B-B

FIXED BEARING - PIER



PINTLE

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts 1"	Each	36

I-2E-1

1-27-12

FILE NAME = ...\054515-72B82-014-bearing.dgn
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BEARING DETAILS
STRUCTURE NO. 054-0515
SHEET NO. 14 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	68
		CONTRACT NO. 72B82		
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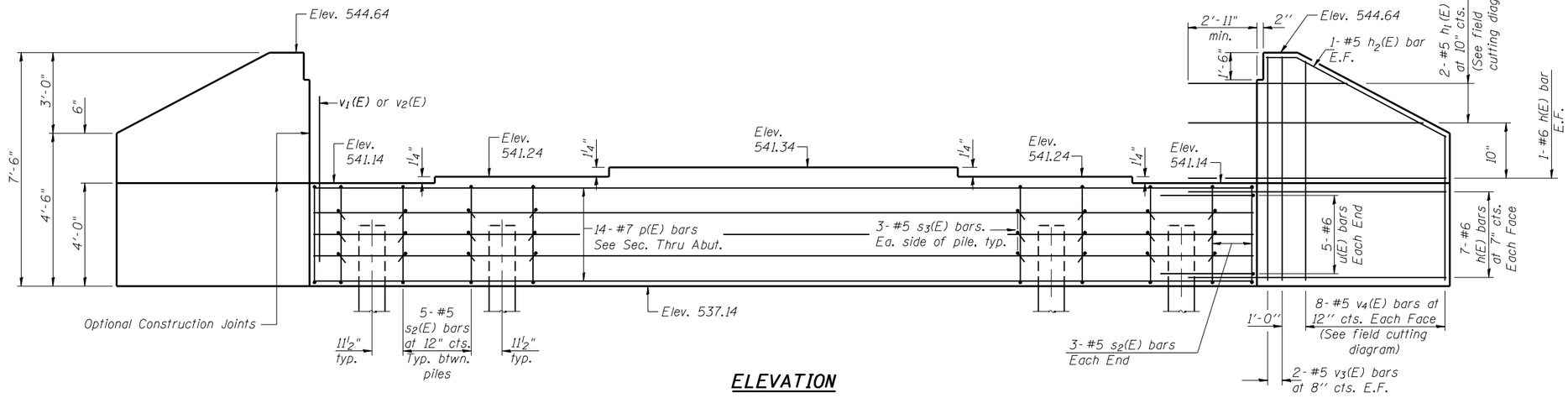
Notes:
Pour steps monolithically with cap.



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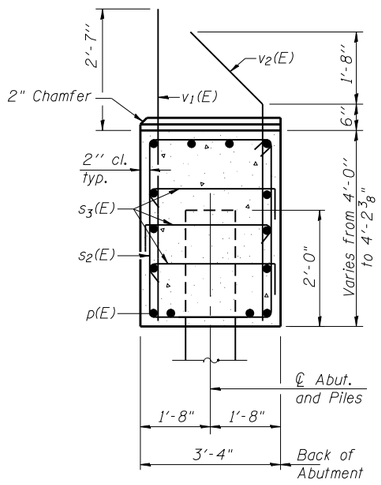

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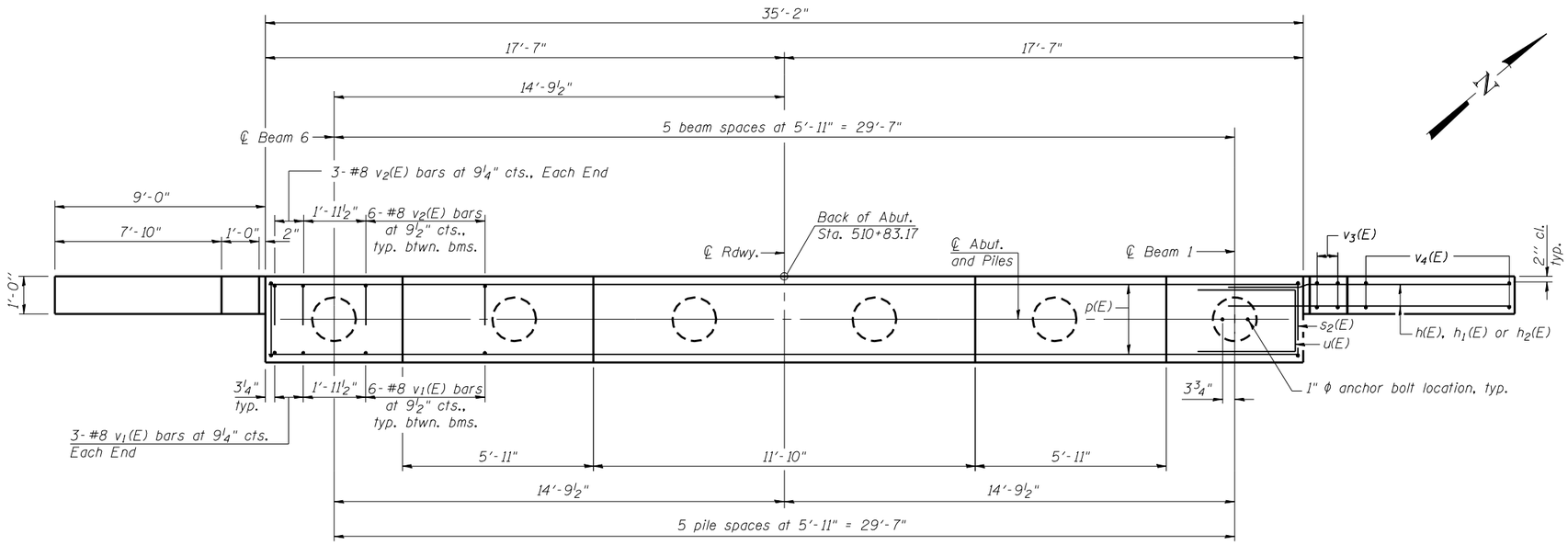


PLAN

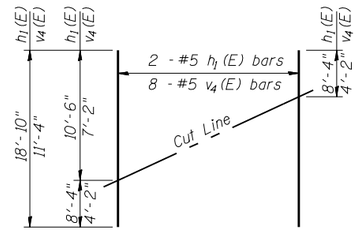
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	32	#6	11'-11"	
h1(E)	4	#5	18'-10"	
h2(E)	4	#5	8'-10"	
p(E)	14	#7	34'-10"	
s2(E)	31	#5	14'-3"	
s3(E)	36	#5	4'-0"	
u(E)	10	#6	10'-6"	
v1(E)	36	#8	6'-5"	
v2(E)	36	#8	6'-8"	
v3(E)	8	#5	7'-2"	
v4(E)	16	#5	11'-4"	
Structure Excavation		Cu. Yd.	92	
Concrete Structures		Cu. Yd.	21.5	
Reinforcement Bars, Epoxy Coated		Pound	3960	
Furnishing Metal Shell Piles 14" x 0.250"		Foot	120	
Driving Piles		Foot	120	
Test Pile Metal Shells		Each	1	
Pile Shoes		Each	6	

For details of piles see sheet 19 of 23.

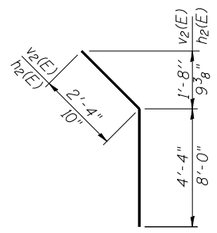
PILE DATA

Type: Metal Shell-14" x 0.250" with Pile Shoes
Nominal Required Bearing: 300 kip
Factored Resistance Available: 165 kip
Est. Length: 24 ft.
No. Production Piles: 5
No. Test Piles: 1

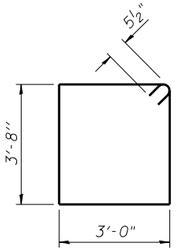


FIELD CUTTING DIAGRAM

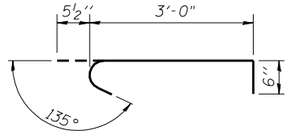
Order $h_1(E)$ and $v_4(E)$ full length. Cut as shown and use remainder of bars in opposite face.



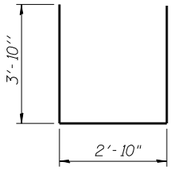
BAR $v_2(E)$ & $h_2(E)$



BAR $s_2(E)$



BAR $s_3(E)$



BAR u(E)

AI-2440-0 8-31-12

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USER NAME = MML	DESIGNED - AMC	REVISED -
	CHECKED - MCB	REVISED -
PLOT SCALE = 0.1667 ' / IN.	DRAWN - MML	REVISED -
PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -

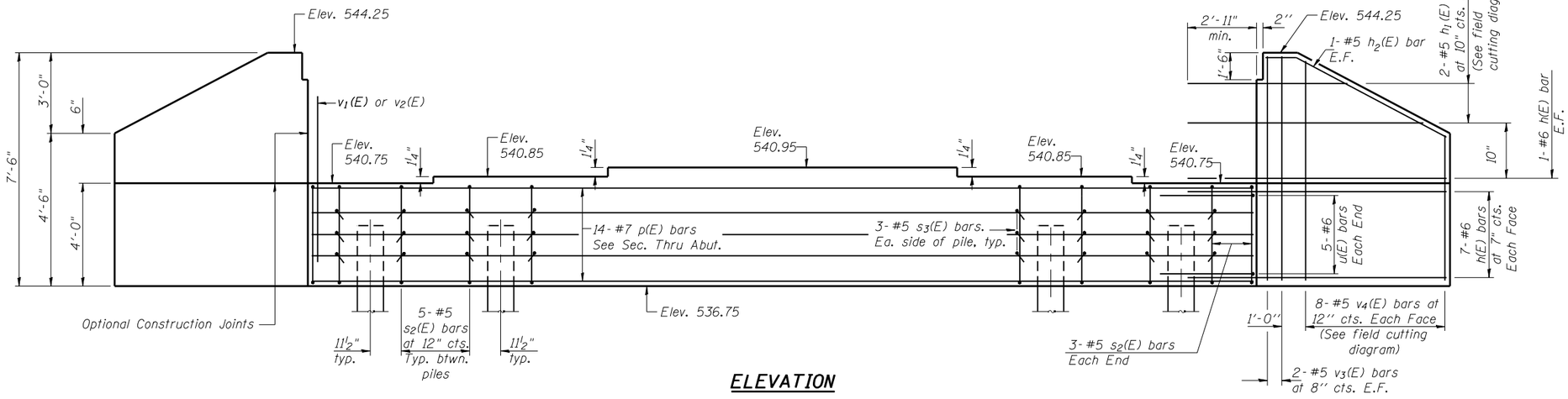
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT
STRUCTURE NO. 054-0515
SHEET NO. 15 OF 23 SHEETS

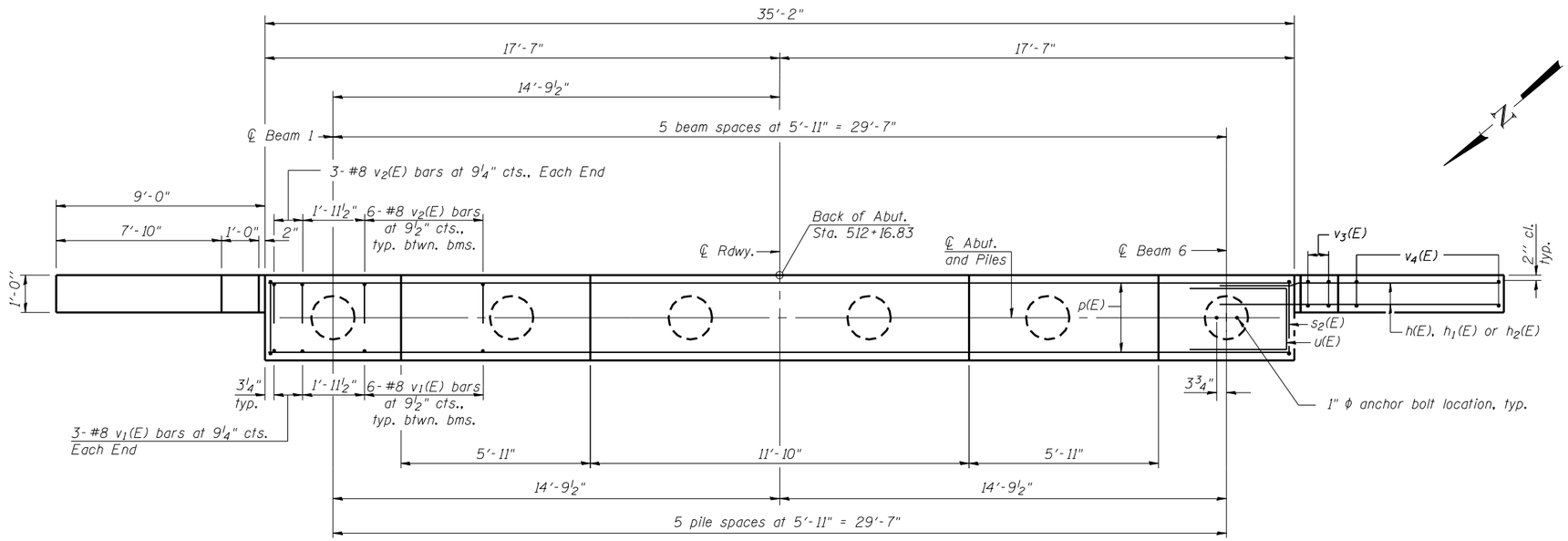
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	69
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

FILE NAME = ...\05405515-72B82-015-wabut.dgn
CB PROJECT NO 07084-8

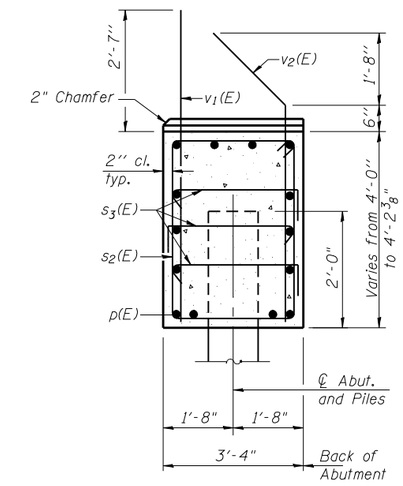
Notes:
Pour steps monolithically with cap.



ELEVATION



PLAN



SEC. THRU ABUT.

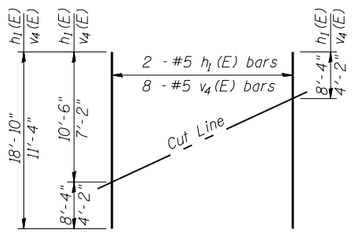
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	32	#6	11'-11"	
h_1(E)	4	#5	18'-10"	
h_2(E)	4	#5	8'-10"	
p(E)	14	#7	34'-10"	
s_2(E)	31	#5	14'-3"	
s_3(E)	36	#5	4'-0"	
u(E)	10	#6	10'-6"	
v_1(E)	36	#8	6'-5"	
v_2(E)	36	#8	6'-8"	
v_3(E)	8	#5	7'-2"	
v_4(E)	16	#5	11'-4"	
Structure Excavation		Cu. Yd.	92	
Concrete Structures		Cu. Yd.	21.5	
Reinforcement Bars, Epoxy Coated		Pound	3960	
Furnishing Metal Shell Piles 14" x 0.250"		Foot	190	
Driving Piles		Foot	190	
Test Pile Metal Shells		Each	1	
Pile Shoes		Each	6	

For details of piles see sheet 19 of 23.

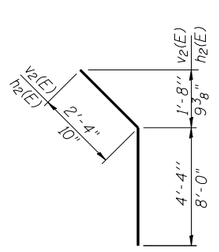
PILE DATA

Type: Metal Shell-14" x 0.250" with Pile Shoes
Nominal Required Bearing: 300 kip
Factored Resistance Available: 165 kip
Est. Length: 38 ft.
No. Production Piles: 5
No. Test Piles: 1

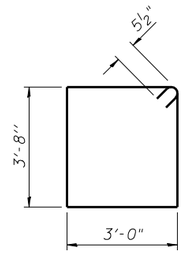


FIELD CUTTING DIAGRAM

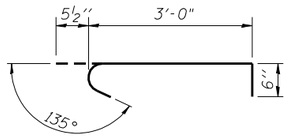
Order h_1(E) and v_4(E) full length. Cut as shown and use remainder of bars in opposite face.



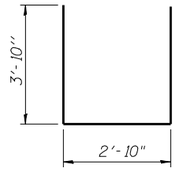
BAR v_2(E) & h_2(E)



BAR s_2(E)



BAR s_3(E)



BAR u(E)

AI-2440-0 8-31-12

Coombe-Bloxdorf P.C. -CIVIL ENGINEERS- -STRUCTURAL ENGINEERS- -LAND SURVEYORS- Design Firm License No. 184-002703	USER NAME = _MML_	DESIGNED - AMC	REVISED -
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	PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -

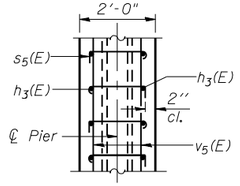
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT
STRUCTURE NO. 054-0515
SHEET NO. 16 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	70
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

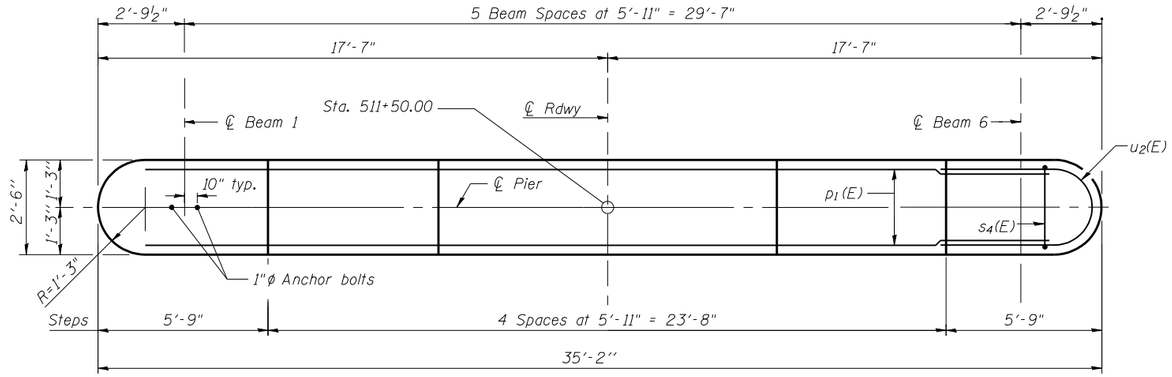
FILE NAME = ...\054051S-72B82-016-eabut.dgn
CB PROJECT NO 07084-8

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 18 of 23.

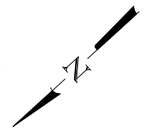


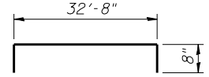
SECTION THRU WALL AT PILE LOCATION

Showing alternating placement of s_5(E) bars

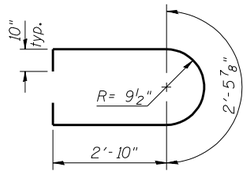


TOP PLAN

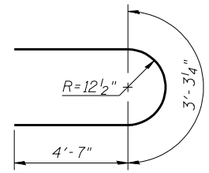




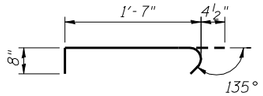
BAR h_3(E)



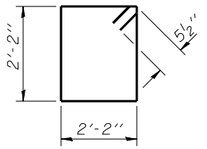
BAR u_1(E)



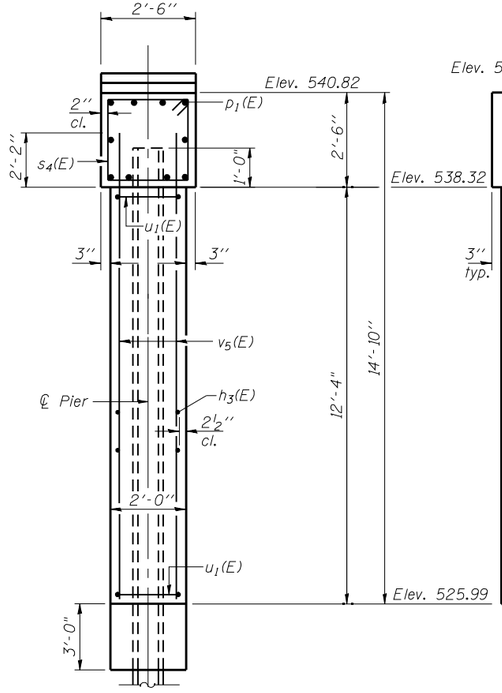
BAR u_2(E)



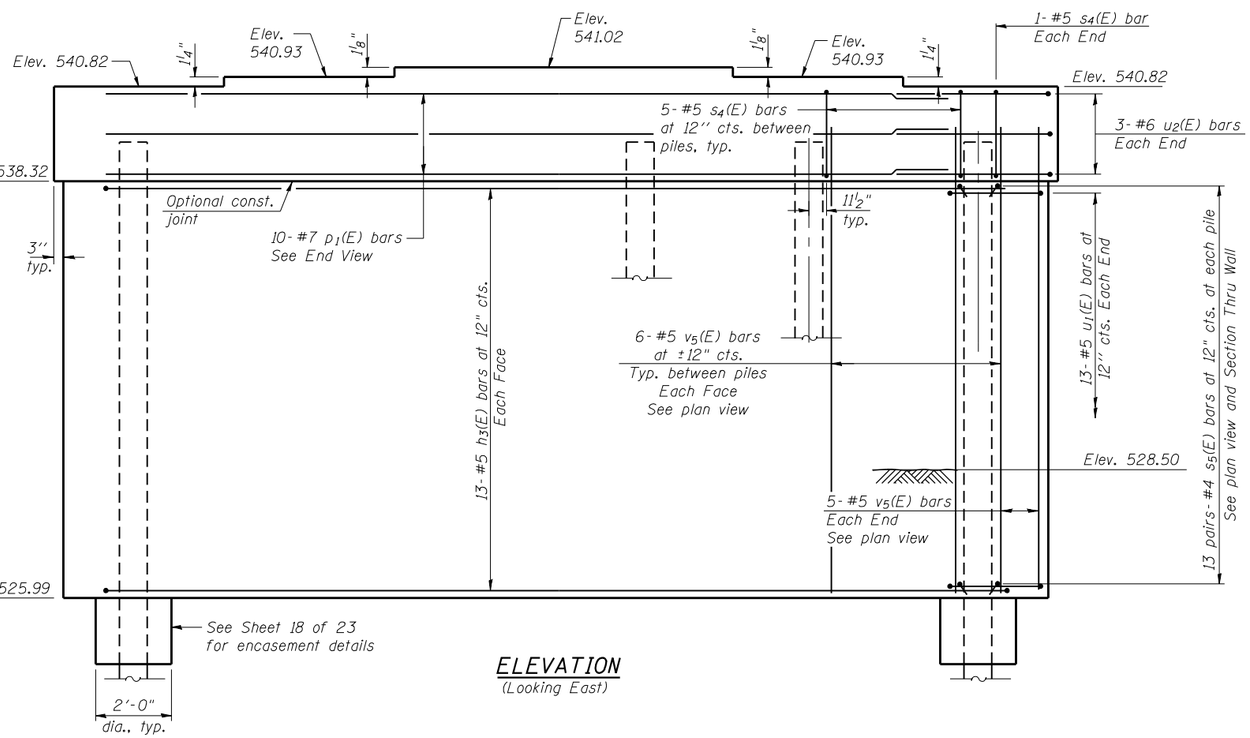
BAR s_5(E)



BAR s_4(E)



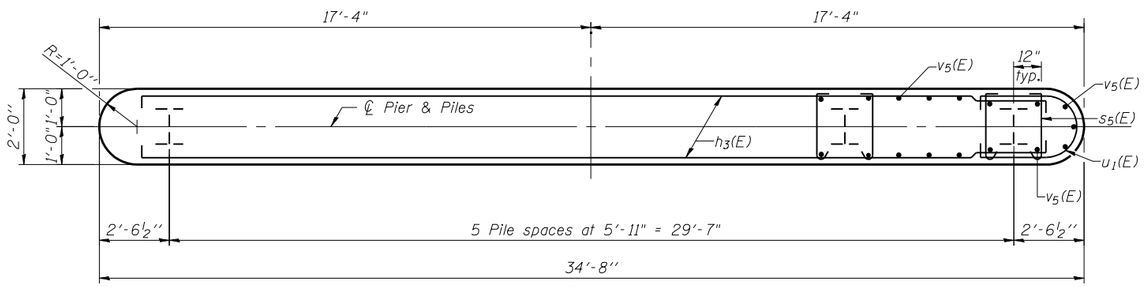
END VIEW



ELEVATION
(Looking East)

PILE DATA

Type: Steel HP 12x63
Nominal Required Bearing: 463 kip
Factored Resistance Available: 250 kip
Est. Length: 76 ft.
No. Production Piles: 5
No. Test Piles: 1



PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_3(E)	26	#5	34'-0"	
p_1(E)	10	#7	32'-8"	
s_4(E)	27	#5	9'-7"	
s_5(E)	156	#4	2'-8"	
u_1(E)	26	#5	9'-10"	
u_2(E)	6	#6	12'-6"	
v_5(E)	70	#5	14'-3"	
Structure Excavation		Cu. Yd.		21
Concrete Structures		Cu. Yd.		39.6
Reinforcement Bars, Epoxy Coated		Pound		3,560
Furnishing Steel Piles HP 12 x 63		Foot		380
Driving Piles		Foot		380
Test Pile Steel HP 12 x 63		Each		1
Concrete Encasement		Cu. Yd.		2.1

FILE NAME = ...\054\0515-72B82-017-pier.dgn
CB PROJECT NO 07084-8

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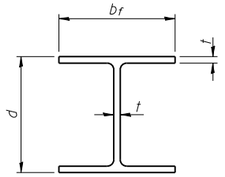
PLOT SCALE = 0.1667 ' / IN.	DRAWN - MML	REVISED -
PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

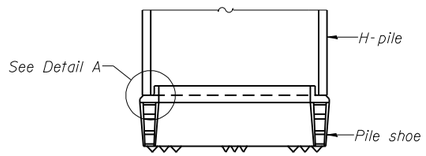
PIER
STRUCTURE NO. 054-0515
SHEET NO. 17 OF 22 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	71
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

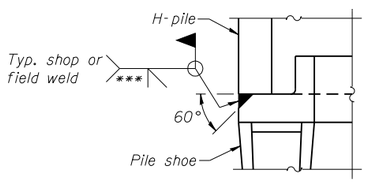


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

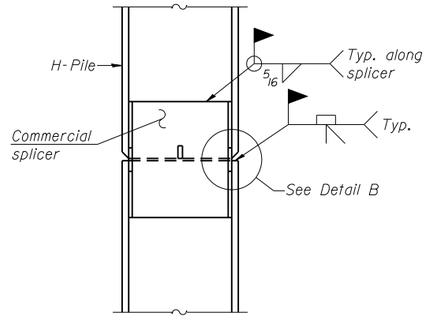


ELEVATION

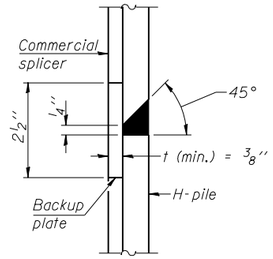


DETAIL A

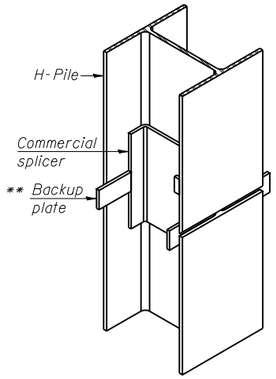
H-PILE SHOE ATTACHMENT



ELEVATION

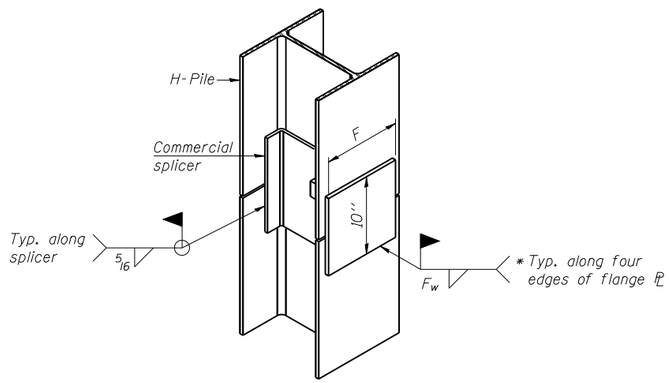


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



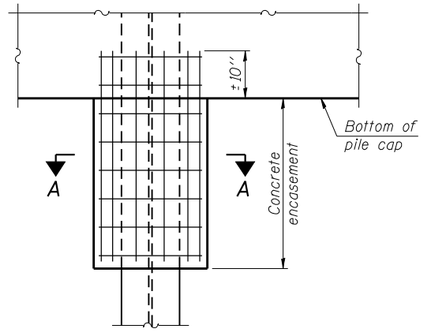
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

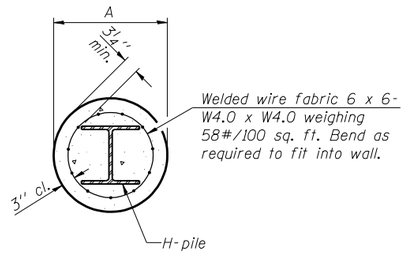
* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).



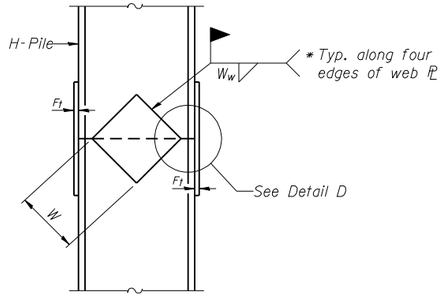
ELEVATION



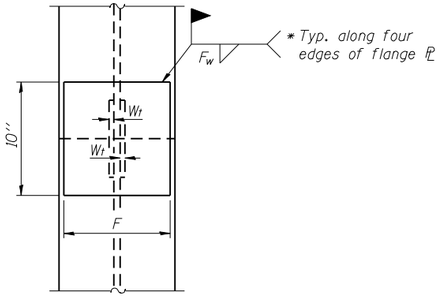
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

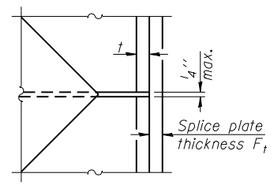
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

Designation	F	F_f	F_w	W	W_f	W_w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

F-HP 1-27-12

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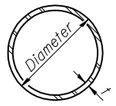
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 054-0515
SHEET NO. 18 OF 23 SHEETS

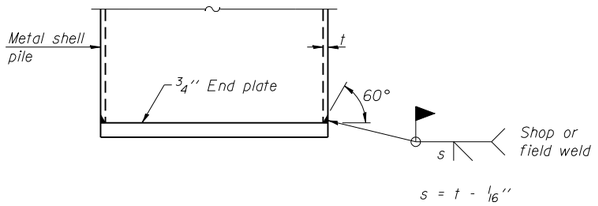
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	72
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

FILE NAME = ...\054O515-72882-018-piles.dgn
CB PROJECT NO 07084-8

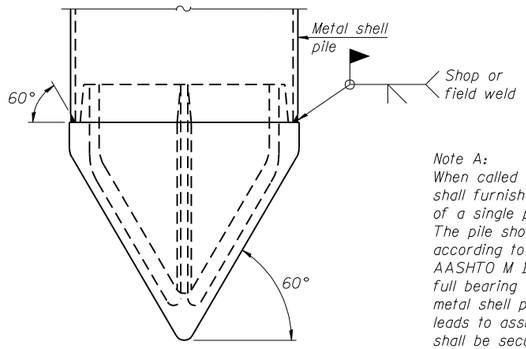


METAL SHELL PILE TABLE

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



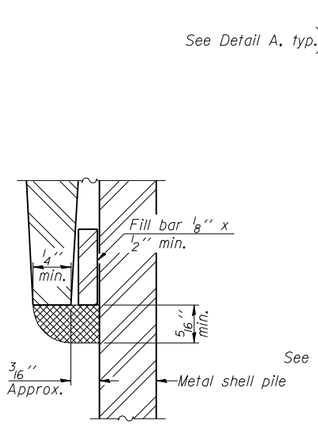
END PLATE ATTACHMENT



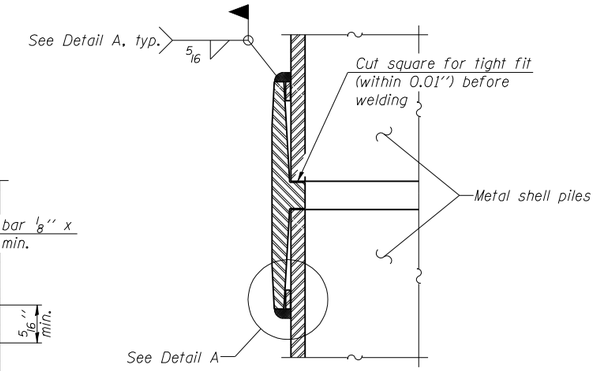
Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

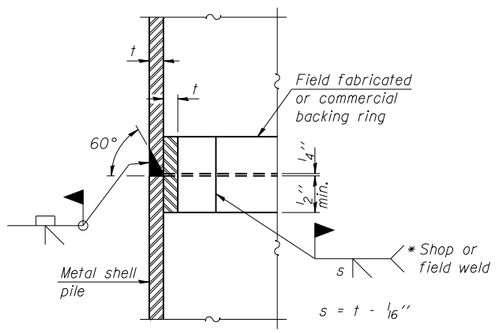


DETAIL A



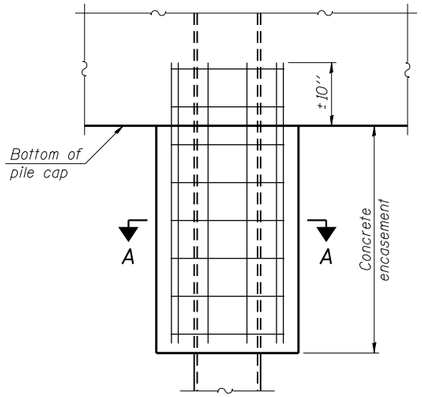
Notes:
The 1/8″ x 1/2″ min. fill bar may be constructed of 2 bars with a 1/8″ max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE

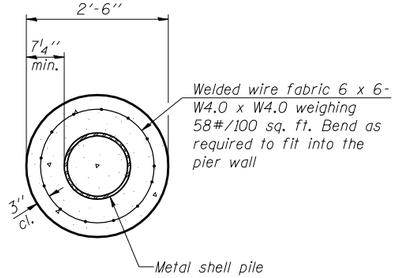


COMPLETE PENETRATION WELD SPLICE

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



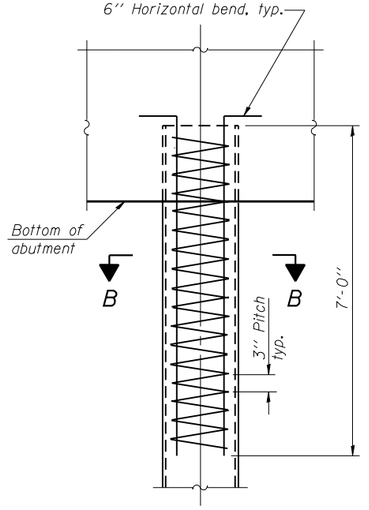
ELEVATION



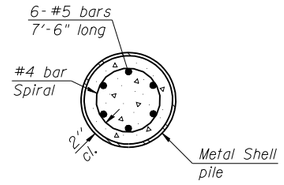
SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

CONCRETE ENCASEMENT AT PIERS



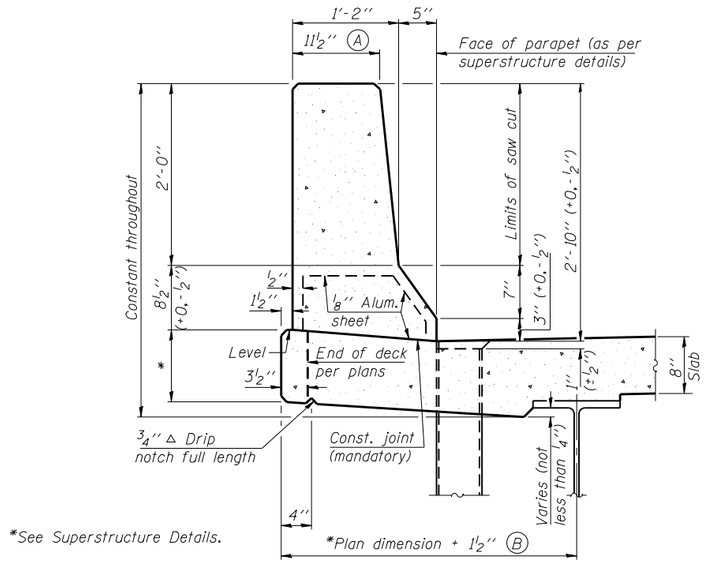
ELEVATION



SECTION B-B

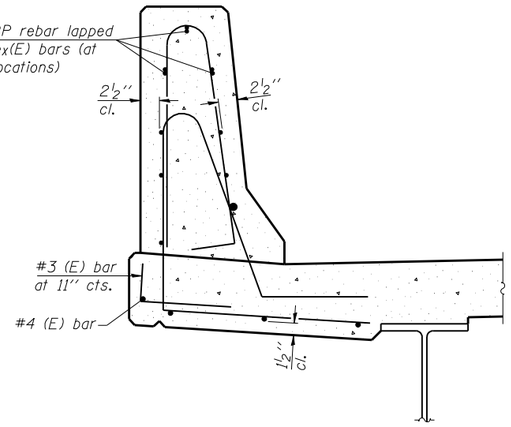
METAL SHELL REINFORCEMENT AT ABUTMENTS

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



34" F SHAPE PARAPET SECTION

(Showing dimensions)



SECTION

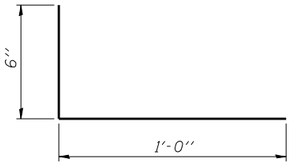
(34" parapet shown - 42" parapet similar)
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

GENERAL NOTES

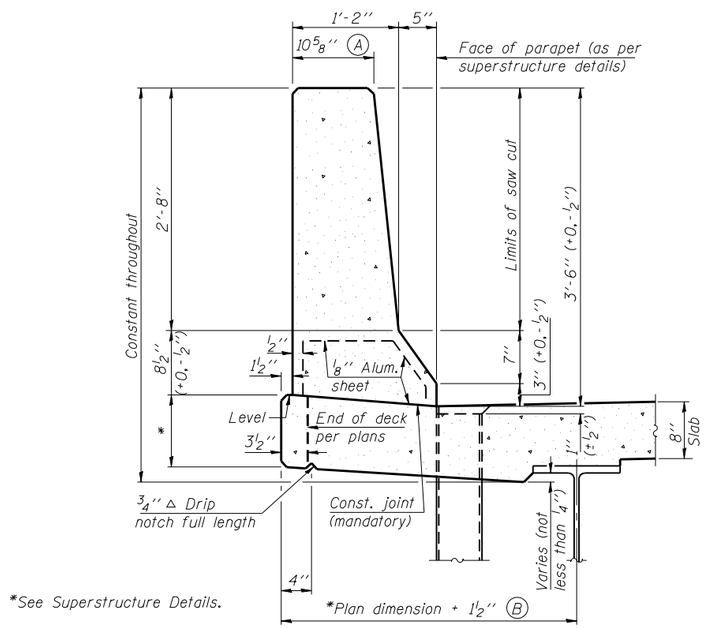
All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0165 cu. yds./ft. for 34" parapet or = 0.0223 cu. yds./ft. for 42" parapet.

Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler.

Steel superstructure shown. Other superstructure types similar.

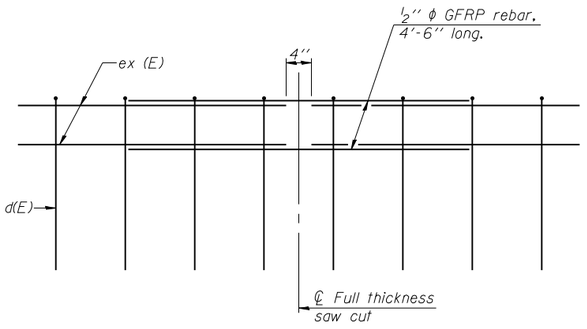


#3 (E) BAR



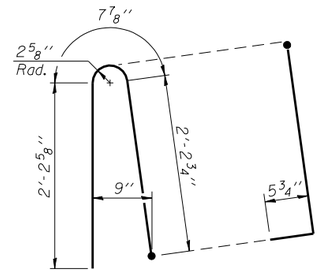
42" F SHAPE PARAPET SECTION

(Showing dimensions)



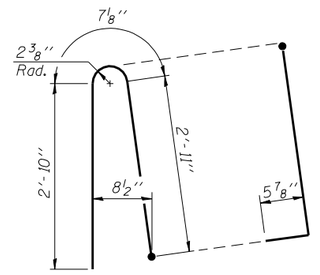
GFRP REBAR STIFFENING DETAIL

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



ALTERNATE BAR d(E)

(For 34" parapet when conduit is present)



ALTERNATE BAR d(E)

(For 42" parapet when conduit is present)

SFP 34-42

8-16-12

FILE NAME = ...\05405115-72B82-020-slipform.dgn
CB PROJECT NO 07084-8

Coombe-Bloxdorf P.C. -CIVIL ENGINEERS- -STRUCTURAL ENGINEERS- -LAND SURVEYORS- Design Firm License No. 184-002703	USER NAME = _MML_	DESIGNED - AMC	REVISED -
		CHECKED - MCB	REVISED -
	PLOT SCALE = 0.1667 ' / IN.	DRAWN - MML	REVISED -
	PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 054-0515
SHEET NO. 20 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	74
		CONTRACT NO. 72B82		
		ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Date 10/21/09

ROUTE IL-10 DESCRIPTION Over Sugar Creek Overflow LOGGED BY M. Tappan

SECTION 102 B-2 LOCATION NW 1/4, SEC. 23, TWP. 20 N, RNG. 4 W, 3 PM

COUNTY Logan DRILLING METHOD Mud Rotary HAMMER TYPE 140 # AUTO

STRUCT. NO. 054-0515
Station 511+50

BORING NO. 1 W. Abut
Station 510+52
Offset 14.0ft LT
Ground Surface Elev. 544.1 ft

Surface Water Elev. 532.1 ft
Stream Bed Elev. 523.9 ft

Groundwater Elev.:
▽ First Encounter Mud Rotary ft
▽ Upon Completion ft
▼ After Hrs. Plugged ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material
				Brownish Gray Moist SILTY CLAY (Fill)
	2			
	1	.90	17	
	3	B		
	1			Brown and Gray
-6	2	1.3	22	
	3	B		
537.50				
	2			Very Dark Gray Moist SILTY CLAY
	2	1.6	25	
	3	B		
	1			Olive Gray
-10	3	2.1	19	
	4	B		
	1			Black
	3	1.5	29	
	3	B		
	1			Gray and Brown Moist SILTY CLAY
-15	1	.60	21	
	2	B		
527.60				
	2			Orangish Brown Moist SANDY CLAY LOAM
	2	.50	21	
	3	S-8		
526.10				
				Orangish Brown to Gray Fine SANDY GRAVEL
-20	4			
	5			

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material
	6			Orangish Brown to Gray Fine SANDY GRAVEL *(continued)*
	5			Brown Fine Sandy Gravel
	8			
	5			
	2			Gray
-25	3			
518.60	2			
				Brown and Olive Gray Moist CLAY LOAM (Till)
	11			
	25	11.2	10	
	40	S-12		
	17			Gray Moist CLAY LOAM (Till)
-30	43	11.0	8	
	57	S-13		
	/5"			
	12			
-35	15	8.7	10	
	21	B		
				Gray Moist CLAY LOAM (Till) Interbedded with Medium Sand
-40	14			
	24	9.0	8	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name:S:\SOILS\SIGNIT FILES\LOGS\ANG\54-0515.GPJ Data Template:D9TEMP1.7.GDT Date Printed:2/26/13
Latitude 40° 10.717N Longitude 89° 31.347W Datum NAD83 Job Number D-96-044-08

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Date 10/21/09

ROUTE IL-10 DESCRIPTION Over Sugar Creek Overflow LOGGED BY M. Tappan

SECTION 102 B-2 LOCATION NW 1/4, SEC. 23, TWP. 20 N, RNG. 4 W, 3 PM

COUNTY Logan DRILLING METHOD Mud Rotary HAMMER TYPE 140 # AUTO

STRUCT. NO. 054-0515
Station 511+50

BORING NO. 1 W. Abut
Station 510+52
Offset 14.0ft LT
Ground Surface Elev. 544.1 ft

Surface Water Elev. 532.1 ft
Stream Bed Elev. 523.9 ft

Groundwater Elev.:
▽ First Encounter Mud Rotary ft
▽ Upon Completion ft
▼ After Hrs. Plugged ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material
	25	S-13		Brown and Olive Gray Moist CLAY LOAM (Till) *(continued)*
501.60				
				Gray Medium SANDY GRAVEL
	3			
-45	17			
	23			
	5			
-50	14			
	22			
	5			Gray Medium Sand with Some Pea GRAVEL
-55	9			
	23			
	14			Gray Medium SANDY GRAVEL with 2" Gray Moist SANDY CLAY LOAM (Till) Seam
-60	36			

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material
	64			Gray Medium SANDY GRAVEL *(continued)*
	/5"			
481.60				
				Gray Moist CLAY LOAM (Till)
	15			
-65	32	10.7	9	
478.60	49	S-12		
				Boring Completed
				Ref. Sta. to Sta. 510+00 Sta. Increase to East
				Ref. Elev. to BM # 53 Chsld Square on NW Headwall = 544.0
-70				
-75				
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name:S:\SOILS\SIGNIT FILES\LOGS\ANG\54-0515.GPJ Data Template:D9TEMP1.7.GDT Date Printed:2/26/13
Latitude 40° 10.717N Longitude 89° 31.347W Datum NAD83 Job Number D-96-044-08

FILE NAME = ...\054-0515-72B82-021-borings.dgn
CB PROJECT NO 07884-8

Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

USER NAME = _MML_	DESIGNED - AMC	REVISED -
	CHECKED - MCB	REVISED -
PLOT SCALE = 0.1667 ' / IN.	DRAWN - MML	REVISED -
PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 054-0515
SHEET NO. 21 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	75
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
District 6

Date 3/7/12

ROUTE IL-10 DESCRIPTION Over Sugar Creek Overflow LOGGED BY M. Tappan

SECTION 102 B-2 LOCATION NW 1/4, SEC. 23, TWP. 20 N, RNG. 4 W, 3 PM

COUNTY Logan DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 054-0515
Station 511+50

BORING NO. 2A Pier
Station 511+50
Offset 13.0ft RT
Ground Surface Elev. 543.8 ft

Surface Water Elev. 524.3 ft
Stream Bed Elev. 521.2 ft

Groundwater Elev.:
First Encounter 523.3 ft
Upon Completion Washed ft
After ___ Hrs. Plugged ft

Description	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Black Moist SILTY CLAY (Fill)		2		
		3	1.7	24
		5	B	
		2		
		3	1.4	22
		3	B	
	-5			
Olive Brown and Dark Gray Moist SILTY CLAY (Fill)		1		
		3	1.2	22
		3	B	
		1		
		2	.90	19
		2	B	
	-10			
533.30				
Grayish Brown Moist SILTY CLAY LOAM (Fill)		1		
		2	.80	24
		3	S-12	
530.30		1		
Light Yellowish Brown Moist Fine SAND		2		
		2		
	-15			
Tan Moist Medium SAND with Some 1/4" to 1/2" Pea GRAVEL		1		
		3		
		3		
Brown and Gray Moist Medium SANDY GRAVEL		2		
		6		
		6		
	-20			

Description	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Light Yellowish Brown Moist Fine SAND *(continued)* Gray		1		
		3		
		3		
520.30		1		
Olive Gray Moist CLAY LOAM (Till)		3	2.7	12
		6	S-14	
	-25			
Olive Brown and Gray Washed		7		
		17	8.0	10
		24	B	
Gray Washed		7		
		32	8.8	8
		52	S-5	
	-30			
Washed		8		
		9	6.1	8
		9	S-12	
	-35			
507.30				
Gray Medium SANDY GRAVEL Washed		7		
		17		
		19		
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\LOGAN\054-0515.GPJ Data Template D6TEMPLT.GDT Date Printed 2/26/13
Latitude 40.10.701N Longitude 89.31.340W Datum NAD83 Job Number D-96-044-08

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
District 6

Date 3/7/12

ROUTE IL-10 DESCRIPTION Over Sugar Creek Overflow LOGGED BY M. Tappan

SECTION 102 B-2 LOCATION NW 1/4, SEC. 23, TWP. 20 N, RNG. 4 W, 3 PM

COUNTY Logan DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 054-0515
Station 511+50

BORING NO. 2A Pier
Station 511+50
Offset 13.0ft RT
Ground Surface Elev. 543.8 ft

Surface Water Elev. 524.3 ft
Stream Bed Elev. 521.2 ft

Groundwater Elev.:
First Encounter 523.3 ft
Upon Completion Washed ft
After ___ Hrs. Plugged ft

Description	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Gray Medium SANDY GRAVEL Washed *(continued)*				
		11		
		14		
		23		
	-45			
Washed		17		
		24		
		24		
	-50			
491.30				
Gray Moist CLAY LOAM (Till) Washed		10		
		47	5.5	7
		53	S-5	
	-55	/3"		
Gray Moist CLAY LOAM (Till) Sample Broken. Washed.		22		
		52	10.0	8
484.30		48	E	
Boring Completed	-60	/5"		

Ref. Sta. to B# 1 W. Abut. = 510+52
Sta. Increase to East

Ref. Elev. to BM # 53 = Chsld Square on NW Headwall = 544.0

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
-65			
-70			
-75			
-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

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Latitude 40.10.701N Longitude 89.31.340W Datum NAD83 Job Number D-96-044-08

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Date 3/6/12

ROUTE IL-10 DESCRIPTION Over Sugar Creek Overflow LOGGED BY M. Tappan

SECTION 102 B-2 LOCATION NW 1/4, SEC. 23, TWP. 20 N, RNG. 4 W, 3 PM

COUNTY Logan DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 054-0515
Station 511+50

BORING NO. 3 E. Abut
Station 512+16
Offset 14.0ft LT
Ground Surface Elev. 543.8 ft

Surface Water Elev. 524.3 ft
Stream Bed Elev. 521.2 ft

Groundwater Elev.:
▽ First Encounter 523.3 ft
▽ Upon Completion Washed ft
▼ After ___ Hrs. Plugged ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material Description
	2			CA-6 GRAVEL to Very Dark Gray Moist SILTY CLAY (Fill)
	3	1.6	22	
	5	B		
	1			Gray and Brown Moist SILTY CLAY (Fill)
	2	1.2	29	
	4	B		
-5				
	1			Brown and Dark Gray
	2	1.1	27	
	3	B		
	1			Olive Brown and Dark Gray Moist SILTY CLAY (Fill)
	2	1.3	22	
533.80	3	B		
-10				
	1			Very Dark Gray Moist SILTY CLAY with Iron Oxidation Nodules
	2	1.5	27	
	4	B		
	0			Brown and Gray with Iron Oxidation Nodules
	2	.70	23	
528.30	2	B		
-15				
	0			Light Brown And Light Gray Very Moist SILTY CLAY LOAM
	1	.60	24	
526.30	2	B		
	1			Gray Moist Coarse SAND
	3			
-20	3			

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material Description
	1			Gray Moist Coarse SAND ▽ *(continued)*
	3			Gray Fine SANDY GRAVEL
	4			
	1			Gray Dirty Medium SAND with Some 1/2" Pea GRAVEL
	3			
-25	3			
517.80	4			
	5	2.2	11	Brown and Gray Moist CLAY LOAM (Till) Washed
	8	B		
	2			Gray
	7	6.6	10	
	12	B		
-30				
	4			
	11	6.8	8	Gray Moist CLAY LOAM (Till)
	15	B		
-35				
	3			Gray Moist CLAY LOAM (Till)
	11	6.4	8	
	17	S-14		
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\OGAN054-0515.GPJ Data Template DOTEMPLT.GDT Date Printed 2/26/13
Latitude 40.10.694N Longitude 89.31.331W Datum NAD83 Job Number D-06-044-08

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Date 3/6/12

ROUTE IL-10 DESCRIPTION Over Sugar Creek Overflow LOGGED BY M. Tappan

SECTION 102 B-2 LOCATION NW 1/4, SEC. 23, TWP. 20 N, RNG. 4 W, 3 PM

COUNTY Logan DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 054-0515
Station 511+50

BORING NO. 3 E. Abut
Station 512+16
Offset 14.0ft LT
Ground Surface Elev. 543.8 ft

Surface Water Elev. 524.3 ft
Stream Bed Elev. 521.2 ft

Groundwater Elev.:
▽ First Encounter 523.3 ft
▽ Upon Completion Washed ft
▼ After ___ Hrs. Plugged ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material Description
				Brown and Gray Moist CLAY LOAM (Till) Washed *(continued)*
	4			Gray Moist CLAY LOAM (Till) Interbedded with Medium SAND Seams
	9	4.9	11	
498.80 -45	10	B		
				Gray Medium SANDY GRAVEL Washed 20' of Sand Blew Into Augers
	16			
	12			
-50	8			
	8			Gray Very Fine SAND Washed
	7			
-55	9			
	12			Gray Fine SAND with 2" Gray Moist SANDY CLAY LOAM (Till) Washed
	25			
-60	52			

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material Description
482.80				Gray Moist SANDY CLAY LOAM (Till) Washed Drilled Hard at 61'
	17			
	31	5.8	8	
	42	S-14		
-65				
477.80				Gray Moist CLAY LOAM (Till)
	11			Washed
	29	8.0	9	
	45	S-15		
-70				
	16			Gray Moist CLAY LOAM (Till) Washed
	32	8.8	8	
	36	S-13		
-75				
466.80				Gray Medium SANDY GRAVEL Poor Recovery. Washed.
465.30	100			
	/5"			Boring Completed
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
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Latitude 40.10.694N Longitude 89.31.331W Datum NAD83 Job Number D-06-044-08

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Date 3/6/12

ROUTE IL-10 DESCRIPTION Over Sugar Creek Overflow LOGGED BY M. Tappan

SECTION 102 B-2 LOCATION NW 1/4, SEC. 23, TWP. 20 N, RNG. 4 W, 3 PM

COUNTY Logan DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 054-0515
Station 511+50

BORING NO. 3 E. Abut
Station 512+16
Offset 14.0ft LT
Ground Surface Elev. 543.8 ft

Surface Water Elev. 524.3 ft
Stream Bed Elev. 521.2 ft

Groundwater Elev.:
▽ First Encounter 523.3 ft
▽ Upon Completion Washed ft
▼ After ___ Hrs. Plugged ft

Ref. Sta. to B# 1 W. Abut. =
510+52
Sta. Increase to East

Ref. Elev. to BM# 53 =
Chsld Square on NW Headwall =
544.0

-85

-90

-95

-100

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\OGAN054-0515.GPJ Data Template DOTEMPLT.GDT Date Printed 2/26/13
Latitude 40.10.694N Longitude 89.31.331W Datum NAD83 Job Number D-06-044-08

FILE NAME = ...\05405\5-72882-023-borings.dgn
CB PROJECT NO. 07084-8

Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

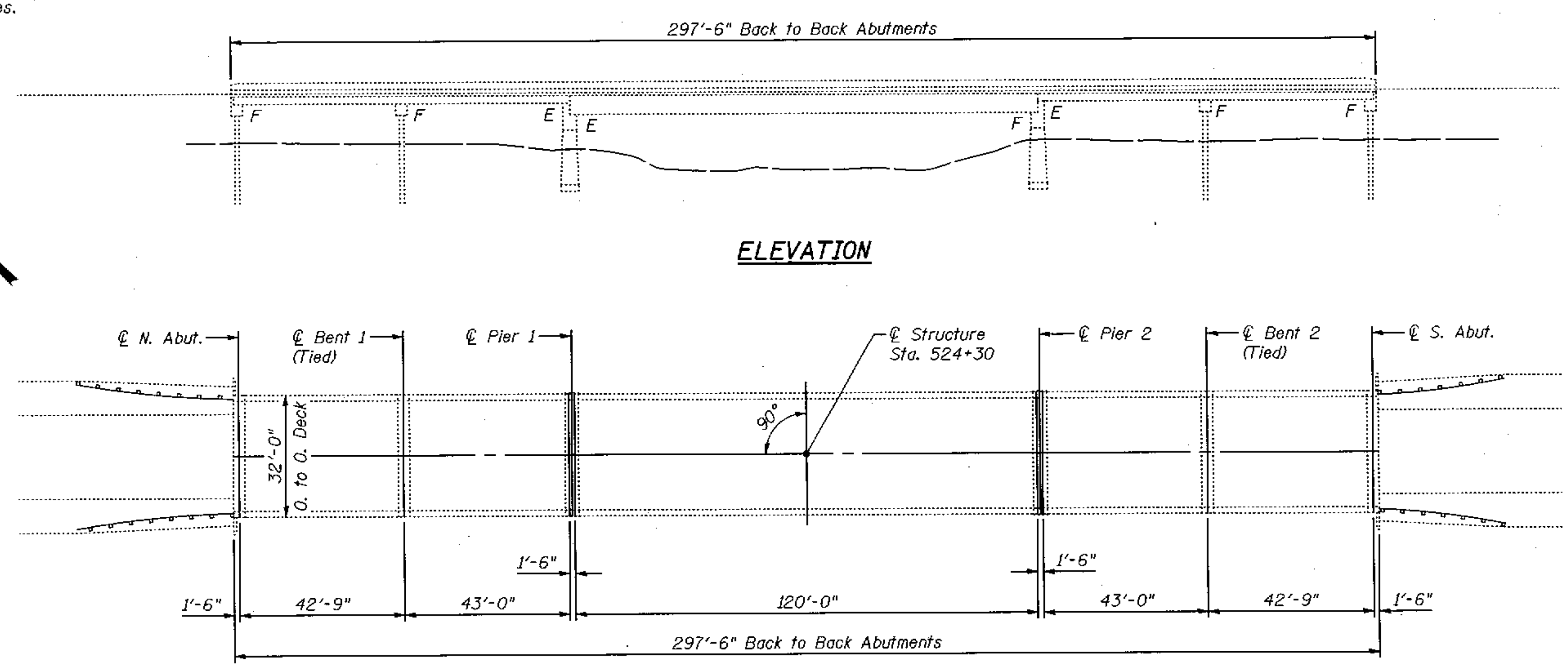
USER NAME = _MML_	DESIGNED - AMC	REVISED -
	CHECKED - MCB	REVISED -
PLOT SCALE = 0.1667 ' / IN.	DRAWN - MML	REVISED -
PLOT DATE = 10/23/2013	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 054-0515
SHEET NO. 23 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	77
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

Existing Structure: SN 054-0009 is a 5 span steel beam with 7½" bare concrete deck originally built in 1931 as SBI Rte. 120 under Sec. 102-BRC at Sta. 524+30. The four end span beam sizes are W24 while the center span is now a 60" ℄ girder which replaced an original steel truss in 1977. The concrete deck was replaced and the substructure was rebuilt in 1977 as FA Rte 717 Sec. 102BR. The substructure units are open (spill thru) abutments and solid concrete bents on concrete piles and solid concrete pier bents on timber piles.



PLAN

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Web Splice holes shall be $^{13}/_{16}$" ϕ for ¾" ϕ bolts. Flange Splice holes shall be $^{15}/_{16}$" ϕ for ⅞" ϕ bolts.

All Structural Steel shall be AASHTO M270, Grade 50.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding ¼ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Cleaning and field painting of structural steel shall be done under a separate painting contract.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special Provisions "Temporary Shoring and Cribbing".

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

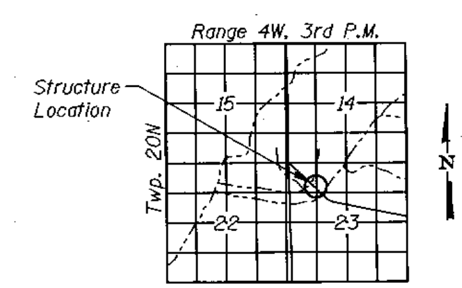
All Structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Structural Steel Repair or Furnishing and Erecting Structural Steel.

New diaphragms at abutments to be placed tight against concrete. Any gaps shall be filled with epoxy. See Special Provision "Epoxy Injection". Cost included with Furnishing and Erecting Structural Steel.

Protective Coat shall be applied to the new concrete at expansion joints including the inside face and tops of the parapets.

LICENSED STRUCTURAL ENGINEER MARY COOMBE BLOXDORF 4859 SPRINGFIELD STATE OF ILLINOIS

ILLINOIS STRUCTURAL NO. 4859
EXPIRES 11/30/14
DATE: 01/09/14



LOCATION SKETCH

SCOPE OF WORK

1 Concrete Removal at Bent and Pier Joints
2 Install Temporary Shoring and Cribbing
3 Remove existing clip angles, diaphragms and tie plates restraining beam ends called out as needing repaired
4 Cut out Beam Ends as called for in Removal Details
5 Remove and replace bearings as shown in Bearing Details
6 Place new Beam Ends as called for in Repair Details
7 Replace Diaphragms and Anchor Bolts called out in Framing Plan
8 Bridge Deck Scarification ¾"
9 Bridge Deck Repair
10 Reconstruct Joints at Piers & Bents with Preformed Joint Strip Seal
11 Place new 2¼" microsilica concrete overlay
12 Plug Existing Floor Drains at locations shown

TOTAL BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	20.2
Concrete Superstructure	Sq. Yd.	22.7
Structural Steel Repair	Pound	4209
Reinforcement Bars, Epoxy Coated	Pound	2780
Temporary Shoring & Cribbing	Each	12
Structural Steel Removal	Pound	2016
Furnishing and Erecting Structural Steel	Pound	2016
Anchor Bolts, 1"	Each	50
Bridge Deck Scarification ¾"	Sq. Yd.	889
Bridge Deck Microsilica Concrete Overlay, 2¼"	Sq. Yd.	889
Bar Splicers	Each	48
Preformed Joint Strip Seal	Foot	136
Bridge Deck Grooving	Sq. Yd.	883
Protective Coat	Sq. Yd.	75
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1
Elastomeric Bearing Assembly, Type I	Each	2
Plug Existing Floor Drains	Each	48

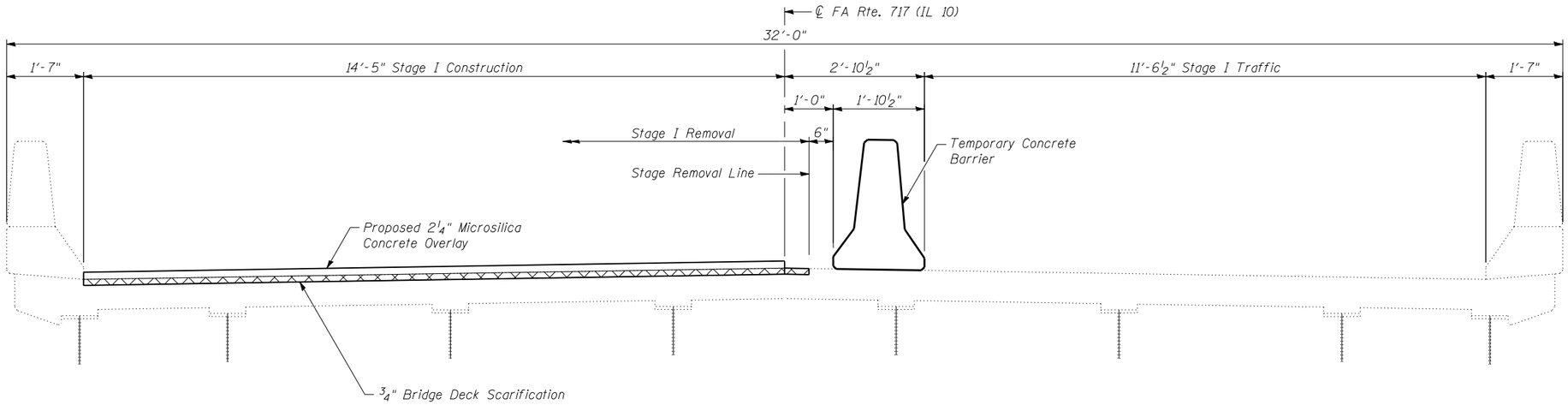
DESIGN STRESSES (1977 Construction)

FIELD UNITS

$f'c$ = 3,500 psi
fy = 60,000 psi
fs = 27,000 psi (M223 Gr 50)
20,000 psi (M183)

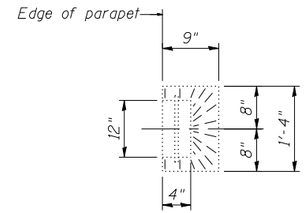
INDEX OF SHEETS

GENERAL PLAN AND ELEVATION
IL 10 OVER SUGAR CREEK
F.A.P. RTE 717
SECTION (102B-1, 102CR, 102BR-2)RS-5
STATION 524+30.00
STRUCTURE NO. 054-0009

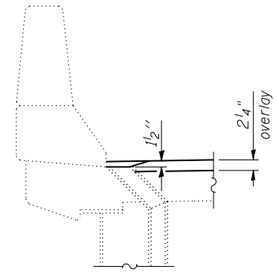


STAGE I CONSTRUCTION

(Looking South)



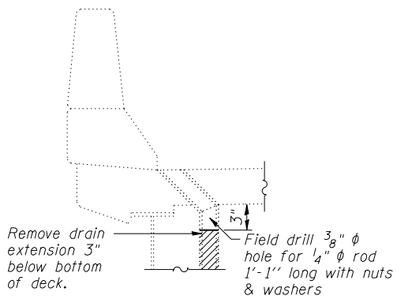
TOP PLAN AT OPEN DECK DRAINS



SECTION AT OPEN DECK DRAINS

(Showing overlay taper)

Note:
Section views shown are in spans 1, 2, 4 & 5. The overlay taper at open deck drains and drain plugging detail are similar for span 3.

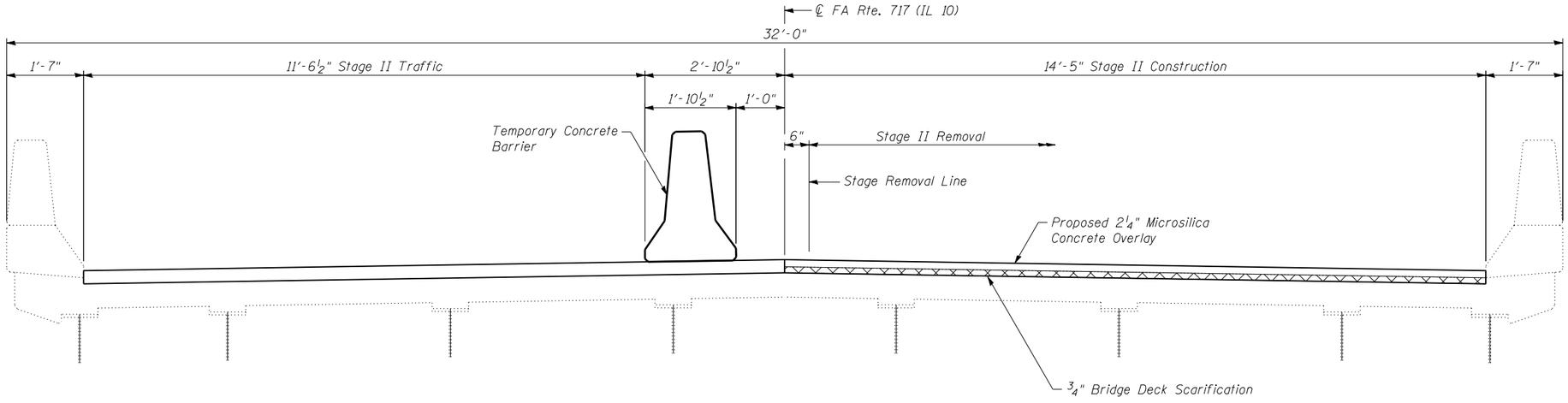


SECTION AT DRAIN PLUGGING DETAIL

Notes:
Deck Drains shall be eliminated by field drilling a ⅜" ϕ hole through the bottom of the drain just below the deck, installing a ¼" ϕ threaded rod and filling the drain with concrete.

Removal and disposal of the existing floor drains extending below the deck shall be included in the cost of Plug Existing Deck Drains.

See Sheet 4 of 13 for location of floor drains to be plugged and left open.



STAGE II CONSTRUCTION

(Looking South)

Notes:
Cross sections are shown outside expansion joint areas.
Parapet and deck will be removed full width in expansion joint reconstruction area. See Plan on Sheet 4 of 13.
See Roadway Plans for Maintenance of Traffic Details.

FILE NAME = ...\054000?-72b82-002-stage.dgn
CB PROJECT NO 072814-9

Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

USER NAME = _CFC_	DESIGNED - GJB	REVISED -
	CHECKED - MCB	REVISED -
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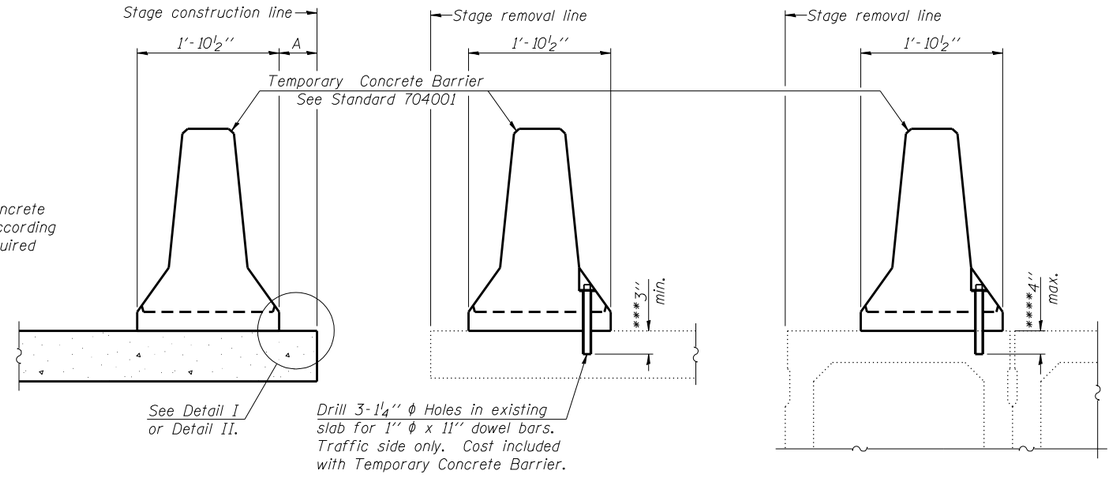
PLOT DATE = 1/8/2014	CHECKED - MCB/CME	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION
STRUCTURE NO. 054-0009
SHEET NO. 2 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	79
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1'' x 7' 'x ''W'' steel PL to the top layer of couplers with 2-⅝'' ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1'' x 7'' x ''W'' steel PL to the concrete slab or concrete wearing surface with 2-⅝'' ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

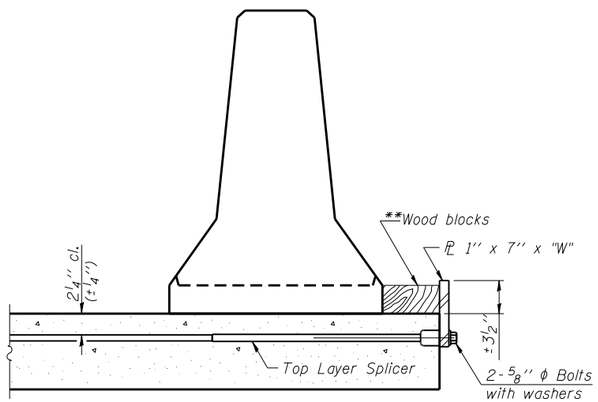
Cost of anchorage is included with Temporary Concrete Barrier.

The 1'' x 7'' x ''W'' 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.

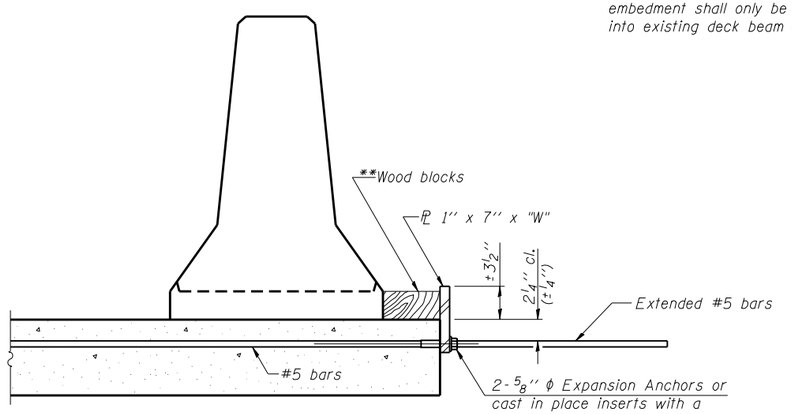
SECTIONS THRU SLAB OR DECK BEAM

*** 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.

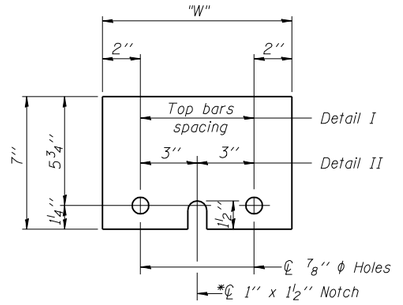
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1'' x 7'' x ''W''

* Required only with Detail II

** 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 the steel retainer plate.

"W" = Top bars spacing + 4''

R-27

7-1-10

FILE NAME = ...\054000\1-72b82-003-temp-conc-barrier.dgn
CB PROJECT NO 07084-9

Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

USER NAME = _MML_	DESIGNED - GJB	REVISED -
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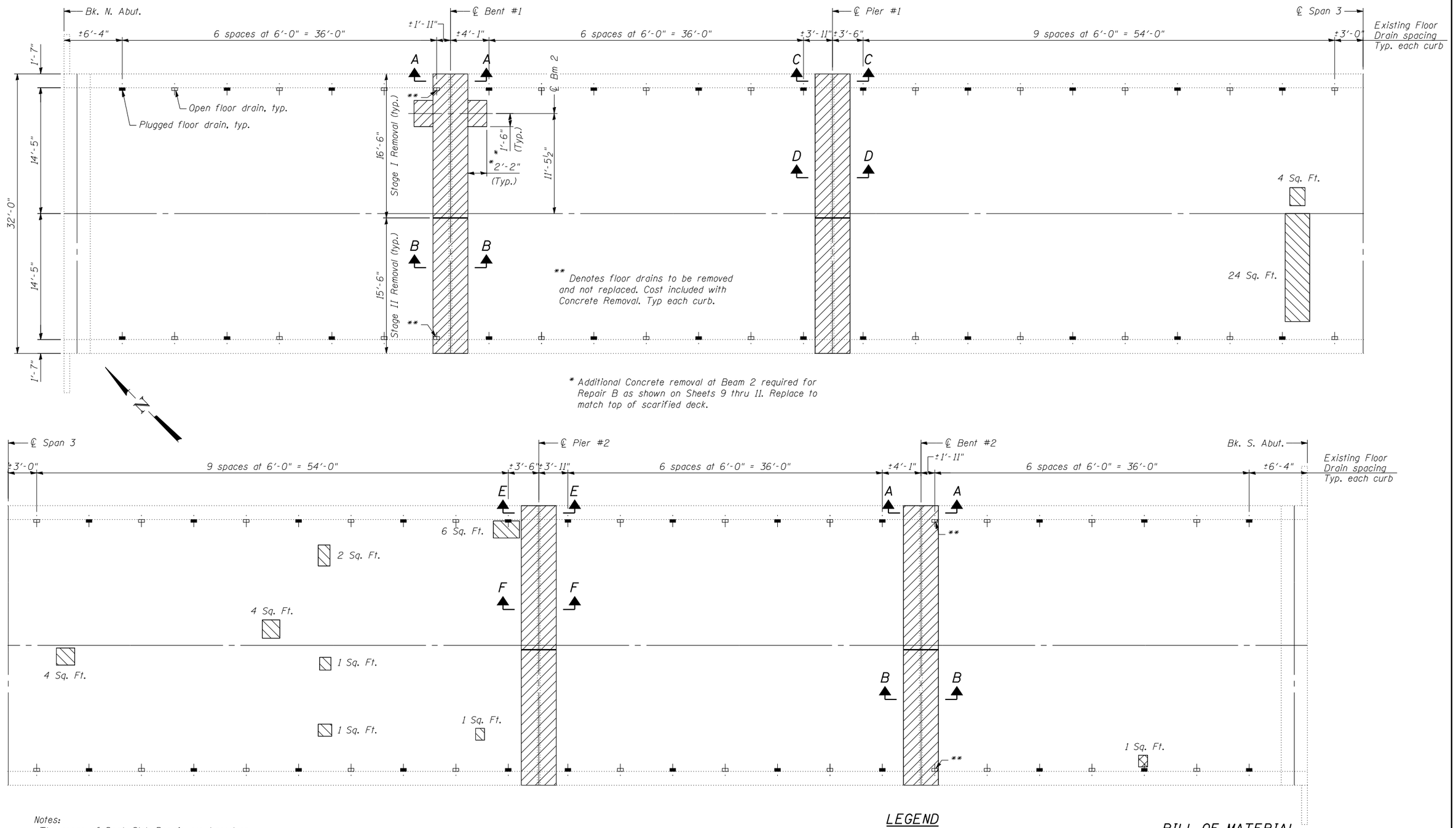
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 054-0009
SHEET NO. 3 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	80
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



Notes:
The areas of Deck Slab Repair are based on visual inspection completed in 2009 and 2011. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built Plans.
See Sheet 5 of 13 for Sections A-A thru F-F.
See Sheet 2 of 13 for Floor Drain Details.

LEGEND

- Deck Slab Repair (Partial) (For information only)
- Deck Slab Repair (Full Depth, Type I)
- Concrete Removal

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Deck Slab Repair (Partial)	Sq. Yd.	5
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1
Concrete Removal	Cu. Yd.	20.2
Plug Existing Floor Drains	Each	48

FILE NAME = ...\054009-72b82-004-deck-slab-repairs.dgn
CB PROJECT NO 07084-9

Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

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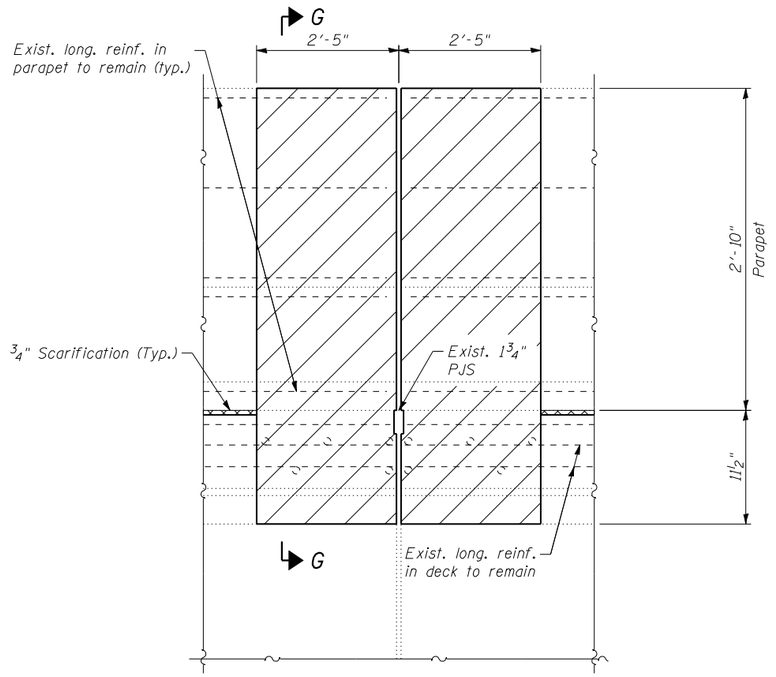
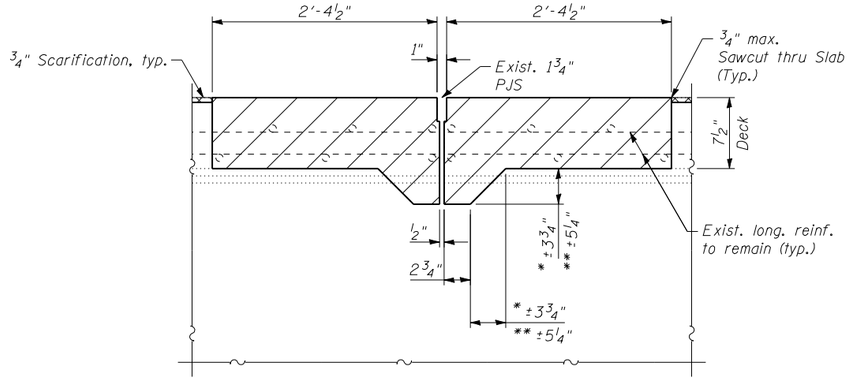
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK SLAB REPAIRS AND CONCRETE REMOVAL
STRUCTURE NO. 054-0009
SHEET NO. 4 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	81
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



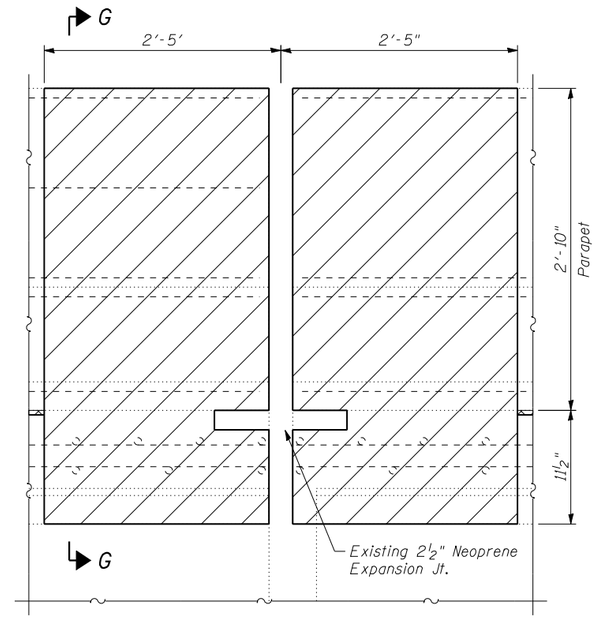
SECTION A-A
(Typ. at Bents 1 & 2)



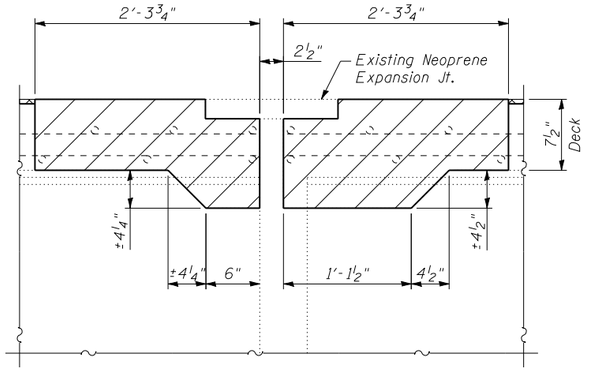
SECTION B-B
(Typ. at Bents 1 & 2)

* Beams 2 thru 7

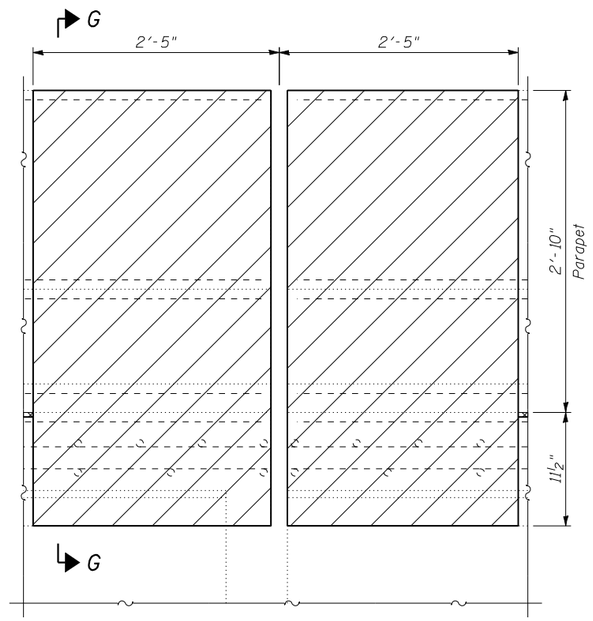
** Beams 1 & 8



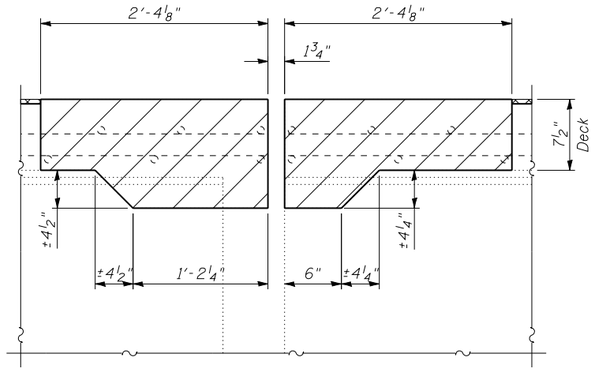
SECTION C-C
(At Pier 1)



SECTION D-D
(At Pier 1)

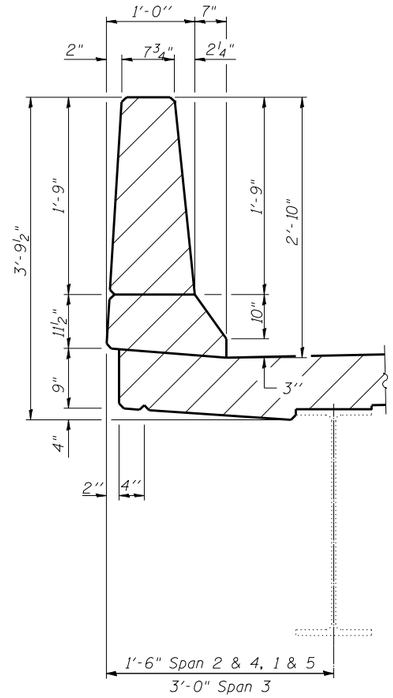


SECTION E-E
(At Pier 2)



SECTION F-F
(At Pier 2)

Notes:
Hatched areas indicate Concrete Removal.
Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction.
Any reinforcement bars to be reused that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
Work to be coordinated with damaged beam repairs.



PARAPET SECTION G-G

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CB PROJECT NO 070844-9

Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

USER NAME = _CFC.	DESIGNED - GJB	REVISED -
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PLOT DATE = 1/8/2014	CHECKED - MCB/CME	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REMOVAL DETAILS
STRUCTURE NO. 054-0009
SHEET NO. 5 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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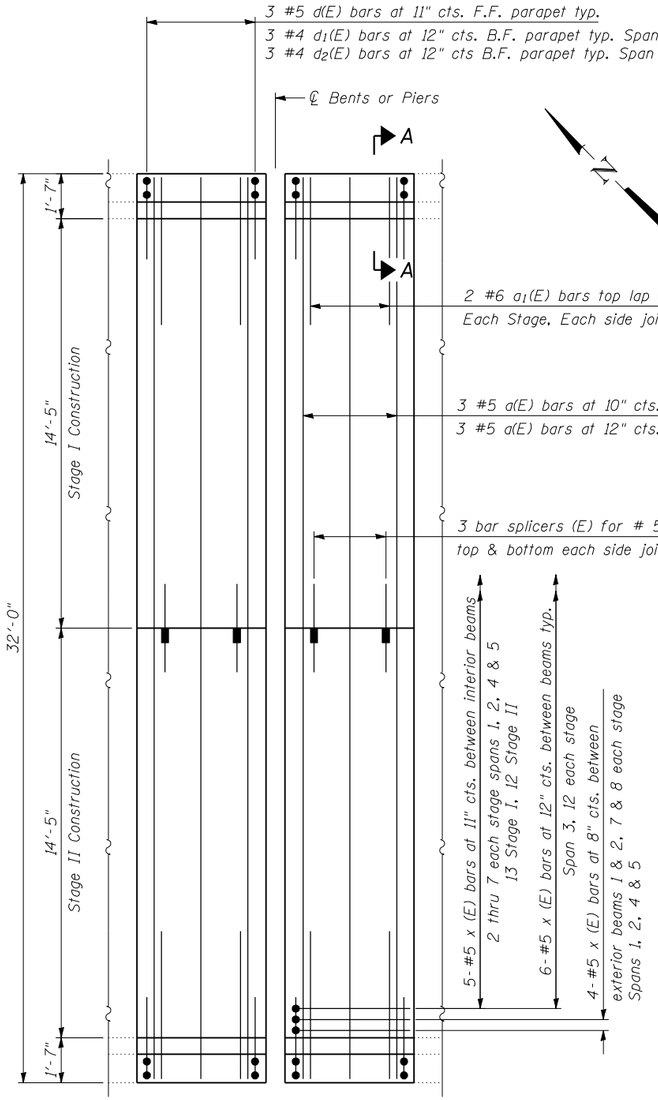
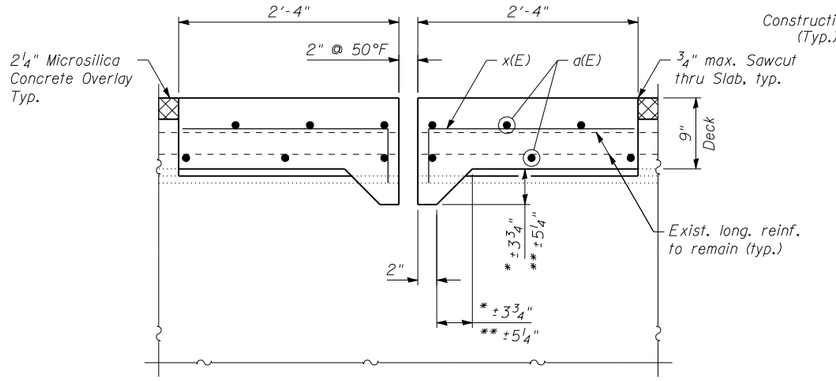
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



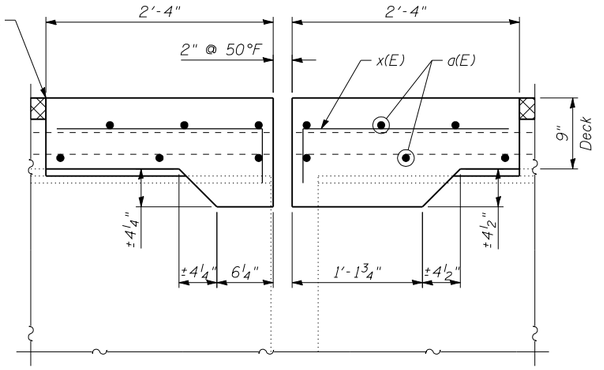
PLAN AT JOINTS



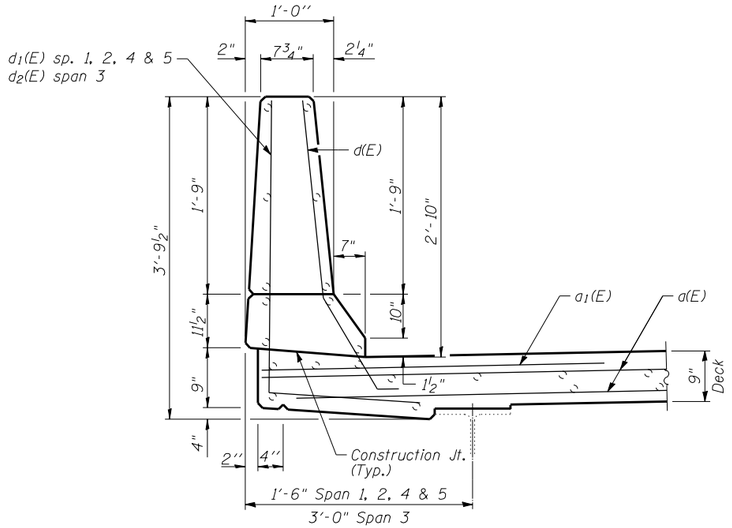
SECTION THRU JOINT BENTS 1 & 2

* Beams 2 thru 7

** Beams 1 & 8

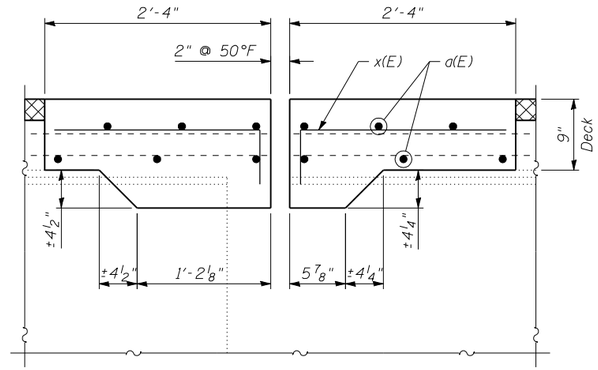


SECTION THRU JOINT PIER 1

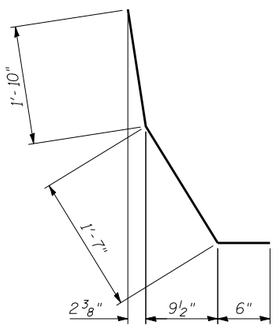


PARAPET SECTION A-A

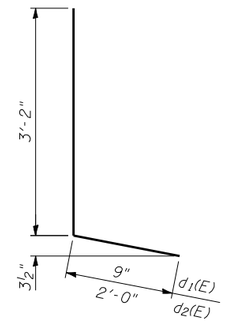
(Typ. all joints)



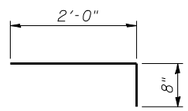
SECTION THRU JOINT PIER 2



BAR d(E)



BARS $d_1(E)$ & $d_2(E)$



BAR x(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	96	#5	15'-8"	——
$a_1(E)$	32	#6	4'-0"	——
d(E)	48	#5	3'-11"	⌋
$d_1(E)$	36	#4	3'-11"	⌋
$d_2(E)$	12	#4	5'-2"	⌋
x(E)	246	#5	2'-8"	⌐¬
Reinforcement Bars, Epoxy Coated			Pound	2780
Concrete Superstructure			Cu. Yd.	22.7

Note:
New diaphragms shall be in place at Bents and Piers before forming and pouring the concrete at joints.

FILE NAME = ...\05408081-72b82-0006-superstructure-details.dgn
CB PROJECT NO 07084-9

Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

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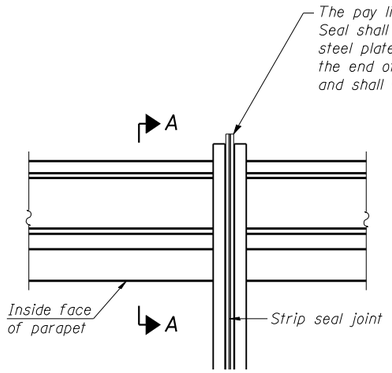
	CHECKED - MCB	REVISED -	
PLOT SCALE = 1:4.000000 ':' / IN.	DRAWN - CFC	REVISED -	
PLOT DATE = 1/8/2014	CHECKED - MCB/CME	REVISED -	

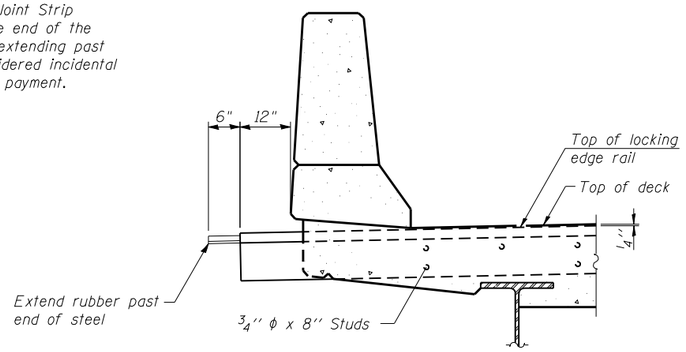
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 054-0009
SHEET NO. 6 OF 13 SHEETS

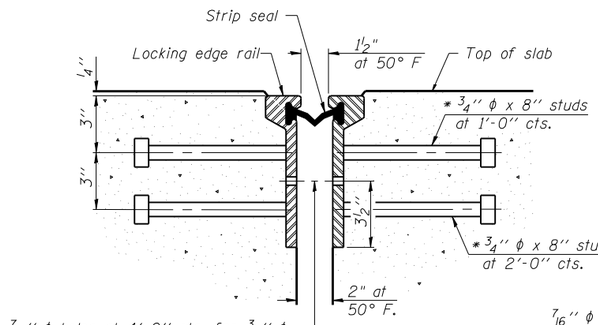
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	83
		CONTRACT NO. 72B82		
	ILLINOIS	FED. AID PROJECT		



PLAN

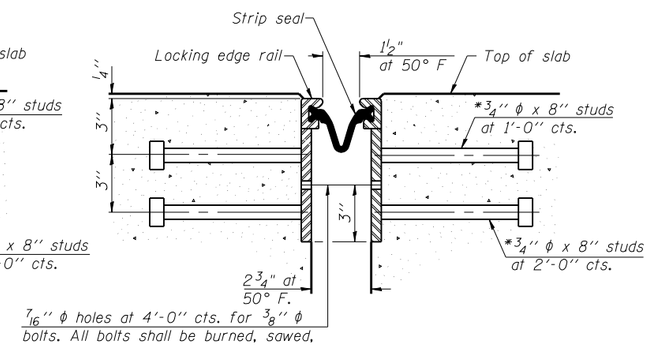


SECTION A-A



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

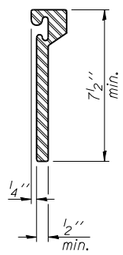
SECTION THRU ROLLED RAIL JOINT



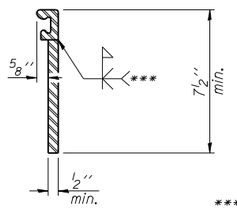
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT

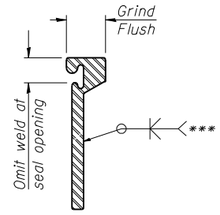
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED EXTRUDED RAIL



WELDED RAIL



*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	136

FILE NAME = ...\05400009-72b82-007_joint-strip-seal.dgn
CB PROJECT NO 07084-9

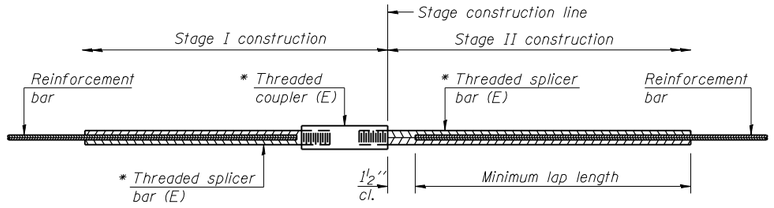
Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

USER NAME = .MML.	DESIGNED - GJB	REVISED -
	CHECKED - MCB	REVISED -
PLOT SCALE = 0:2.000000 ':' / IN.	DRAWN - CFC	REVISED -
PLOT DATE = 10/23/2013	CHECKED - MCB/CME	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 054-0009
SHEET NO. 7 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	84
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



STANDARD BAR SPLICER ASSEMBLY

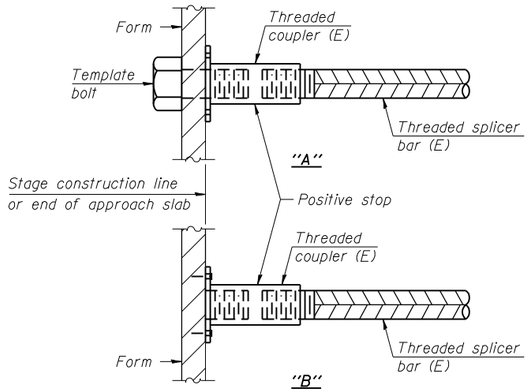
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

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
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

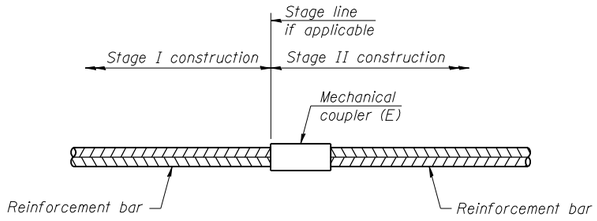
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Bent 1 Deck	#5	12	3
Pier 1 Deck	#5	12	3
Pier 2 Deck	#5	12	3
Bent 2 Deck	#5	12	3



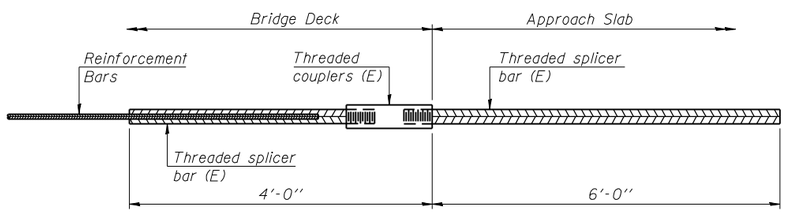
INSTALLATION AND SETTING METHODS

"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.



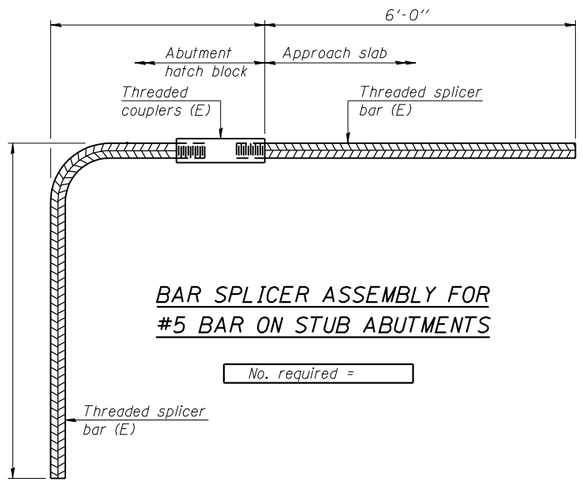
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

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

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

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

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

BSD-1

1-27-12

FILE NAME = ...\054000\1-72b82-008-bar-splicer.dgn
CB PROJECT NO 07084-9

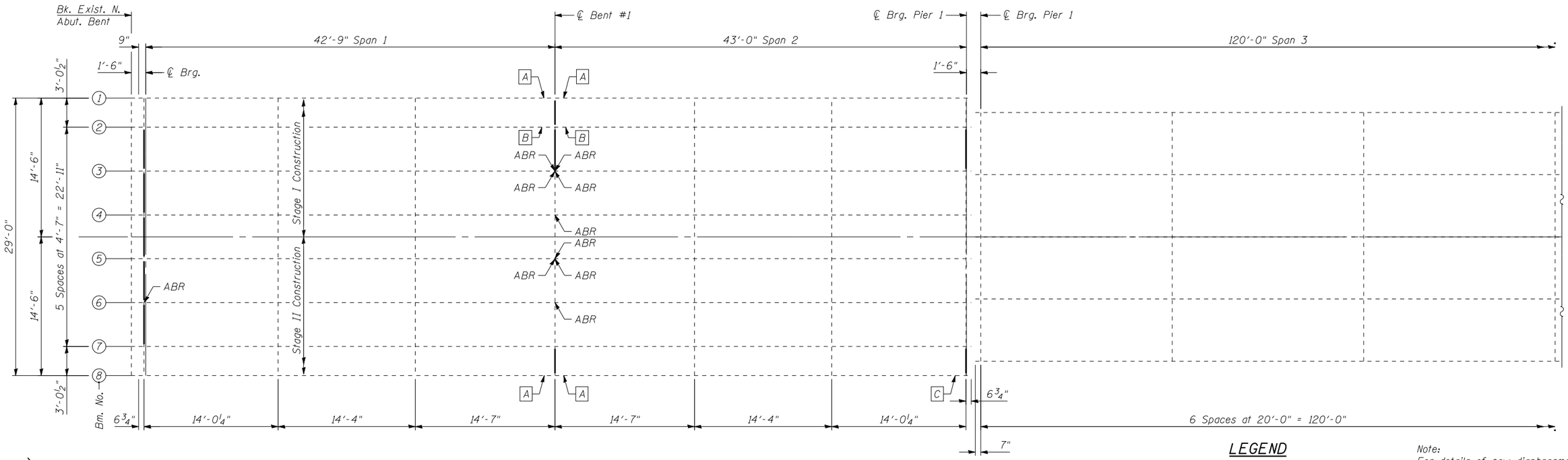
Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

USER NAME = .MML.	DESIGNED - GJB	REVISED -	
	CHECKED - MCB	REVISED -	
PLOT SCALE = 0:2.000000 ':' / IN.	DRAWN - CFC	REVISED -	
PLOT DATE = 10/23/2013	CHECKED - MCB/CME	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 054-0009
SHEET NO. 8 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	85
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



LEGEND

A B C — Repair Type & Location. See Details on Sheet 10 of 13. (12 Locations)

New Diaphragm (C12x20.7 at Both Abutment & Pier Bents. (9 Locations) W18x40 at Bents 1 & 2 (5 Locations)

Note:
For details of new diaphragms, see Sheet 12 of 13.

FILE NAME = ...\05400009-72b82-009-framing.dgn
CB PROJECT NO 07084-9

Coombe-Bloxdorf P.C.
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-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

USER NAME = _MML_	DESIGNED - GJB	REVISED -
	CHECKED - MCB	REVISED -
PLOT SCALE = 10:8.000000 ':' / IN.	DRAWN - CFC	REVISED -
PLOT DATE = 10/23/2013	CHECKED - MCB/GJB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND REPAIR LOCATIONS
STRUCTURE NO. 054-0009
SHEET NO. 9 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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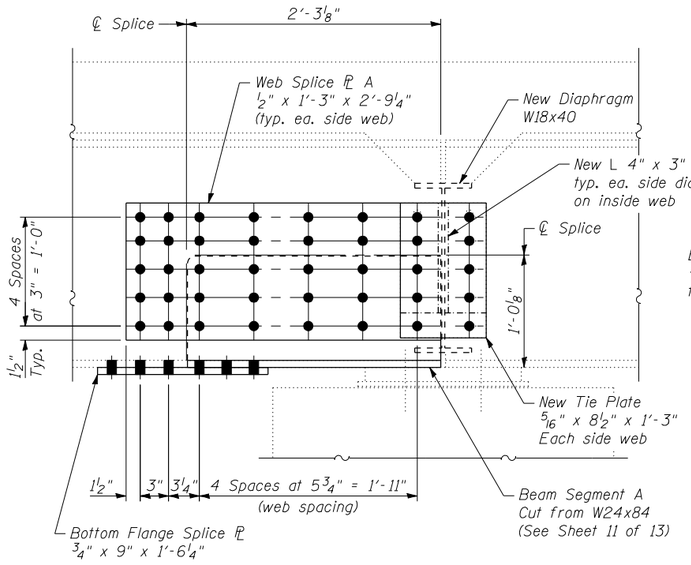
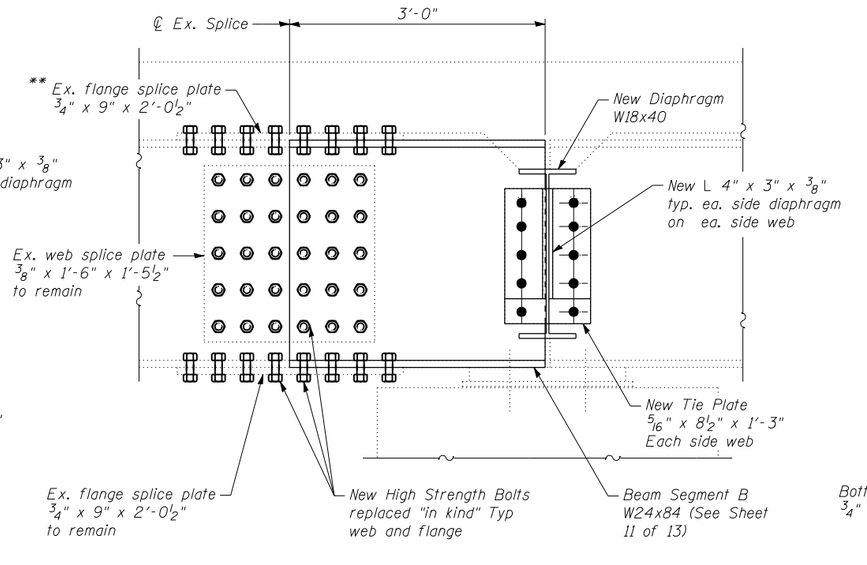
		CONTRACT NO. 72B82		
		ILLINOIS FED. AID PROJECT		



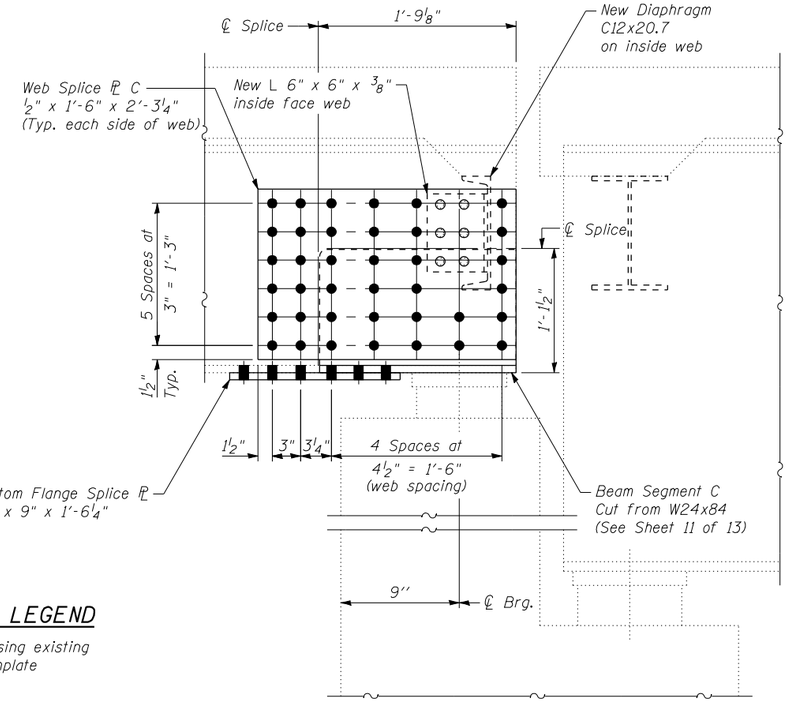
REPAIR A

(8 Required)



REPAIR B

(2 Required)



REPAIR C

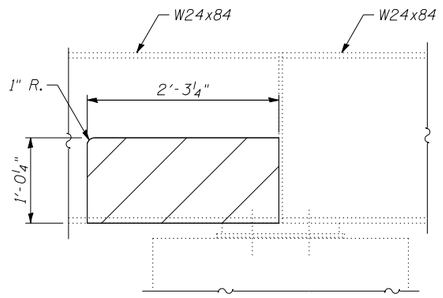
(2 Required)

* Disconnect splice to remove existing 3'-0" W24x84

** Existing top flange splice plate to remain unless replacement is deemed necessary by the Engineer

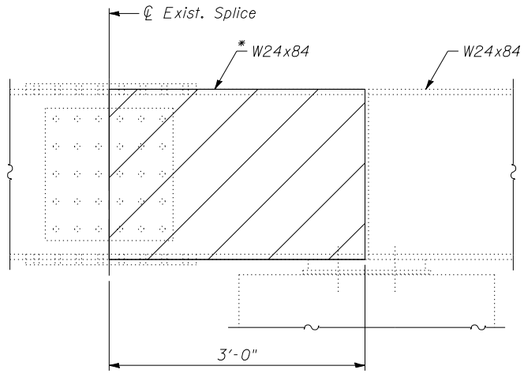
BOLT HOLE LEGEND

ↄ Field drill using existing steel as template



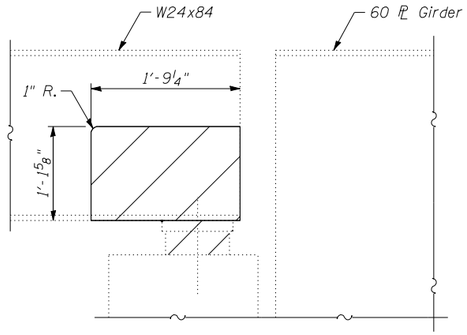
REMOVAL DETAIL FOR REPAIR A

(Diaphragm and clip L's not shown for clarity)



REMOVAL DETAIL FOR REPAIR B

(Diaphragm and clip L's not shown for clarity)



REMOVAL DETAIL FOR REPAIR C

(Diaphragm and clip L's not shown for clarity)

REACTION TABLE (k)			
		Span 1, 2, 4 & 5	Span 3
R℄	(k)	32.7	70.7
LL	(k)	23.4	39.2
Imp	(k)	7.0	8.0
Min. Shoring & Cribbing Capacity	(k)	71.9	141.5

Notes:
Temporary Shoring and Cribbing shall be in place prior to removal at each repair location and will remain in place until bearings and repairs are in place at that location

FILE NAME = ...\054000?-72b82-010-repairs-a-c.dgn
CB PROJECT NO 07284-9

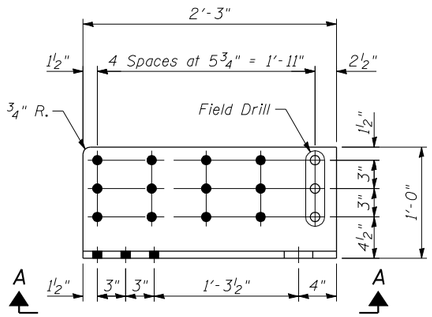
Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

USER NAME = _MML_	DESIGNED - GJB	REVISED -	
	CHECKED - MCB	REVISED -	
PLOT SCALE = 1:4.000000 ':' / IN.	DRAWN - CFC	REVISED -	
PLOT DATE = 10/23/2013	CHECKED - MCB/CME	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

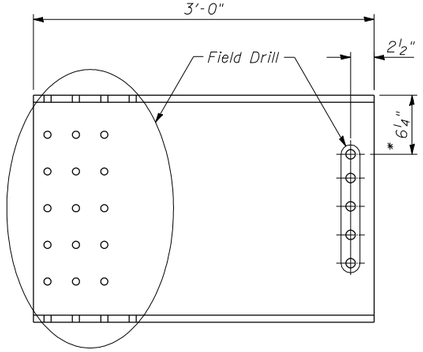
REPAIRS A THRU C
STRUCTURE NO. 054-0009
SHEET NO. 10 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	87
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



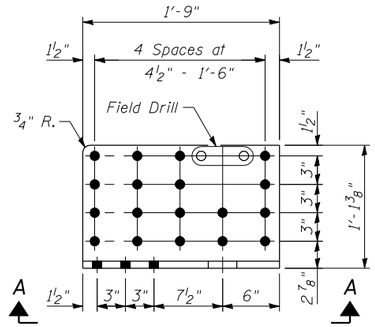
BEAM SEGMENT A

Cut from W24x84
(8 Required)



BEAM SEGMENT B

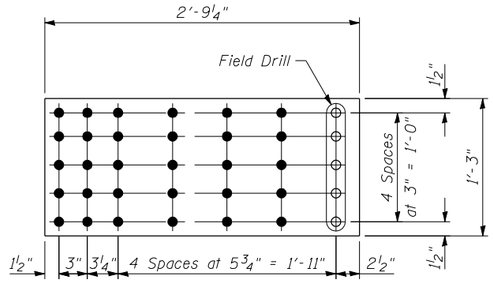
Cut from W24x84
(2 Required)



BEAM SEGMENT C

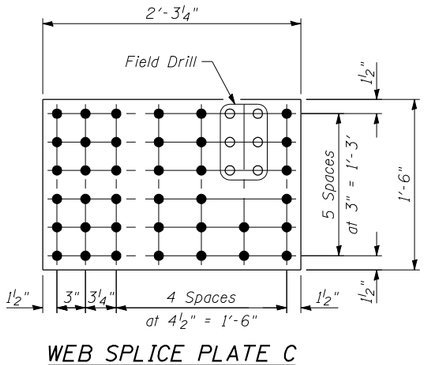
Cut from W24x84
(2 Required)

* Verify dimension by measuring on existing beam to be removed



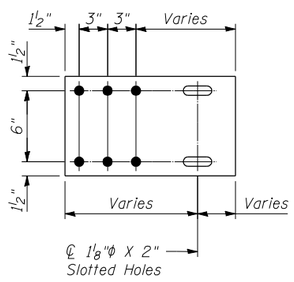
WEB SPLICE PLATE A

PL ½" x 1'-3" x 2'-9¼"
(16 Required)

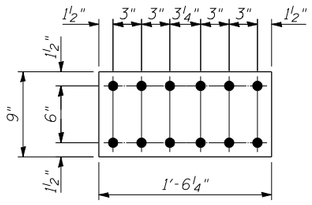


WEB SPLICE PLATE C

PL ½" x 1'-6" x 2'-3¼"
(4 Required)

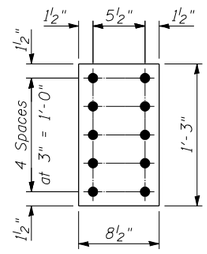


VIEW A-A



BOTTOM FLANGE SPLICE PLATE

PL ¾" x 9 " x 1'-6¼"
(10 Required)



TIE PLATE

PL 5⁄16" x 8½" x 1'-3"
(10 Required)

FILE NAME = ...\054000\9-72b82-011-repair-details.dgn
CB PROJECT NO 072084-9

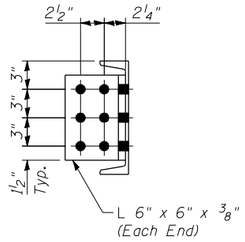
Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

USER NAME = _MML_	DESIGNED - GJB	REVISED -
	CHECKED - MCB	REVISED -
PLOT SCALE = 1:4.000000 ' ' / IN.	DRAWN - CFC	REVISED -
PLOT DATE = 10/23/2013	CHECKED - MCB/CME	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

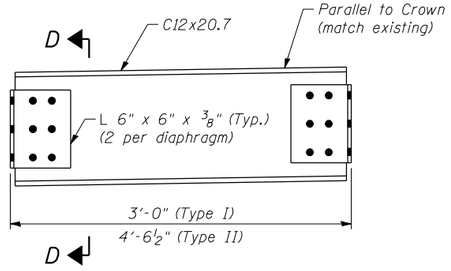
REPAIR DETAILS
STRUCTURE NO. 054-0009
SHEET NO. 11 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1, 102CR, 102BR-2)RS-5	LOGAN	218	88
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



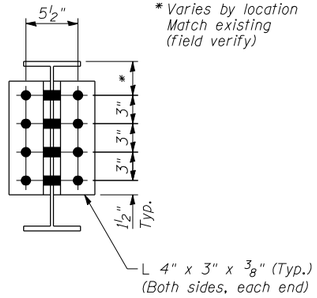
VIEW D-D

L 6" x 6" x 3/8"
(18 Required)



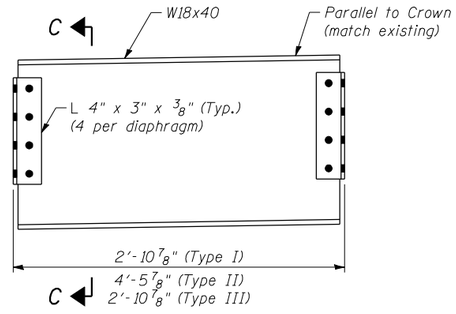
DIAPHRAGMS AT ABUTMENT AND PIER BENTS

Type I = C12x20.7 x 2'-11" (2 required)
Type II = C12x20.7 x 4'-5 1/2" (7 required)



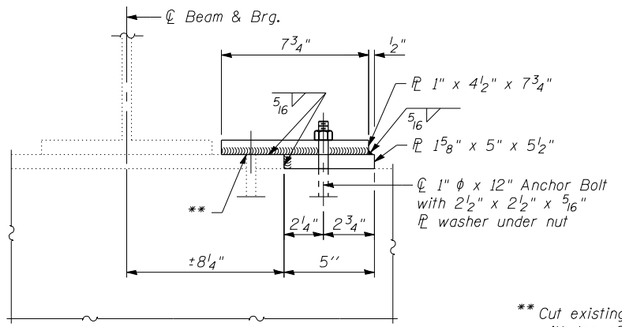
VIEW C-C

L 4" x 3" x 3/8"
(20 Required)



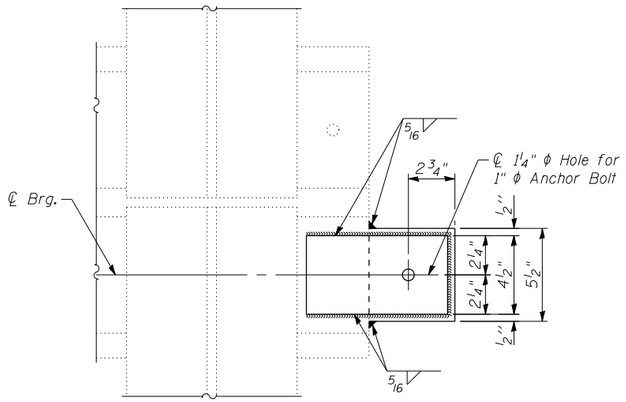
DIAPHRAGMS AT BENTS 1 AND 2

Type I = W18x40 x 2'-9 7/8" (1 required)
Type II = W18x40 x 4'-4 7/8" (1 required)
Type III = W18x40 x 2'-10 1/8" (3 required)



** Cut existing anchor bolt flush with top of existing bearing plate. Cost included with Anchor Bolts, 1"

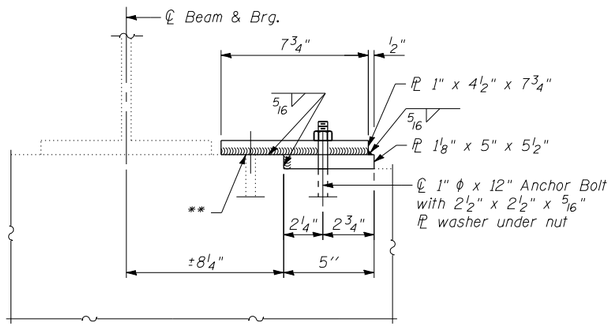
ELEVATION



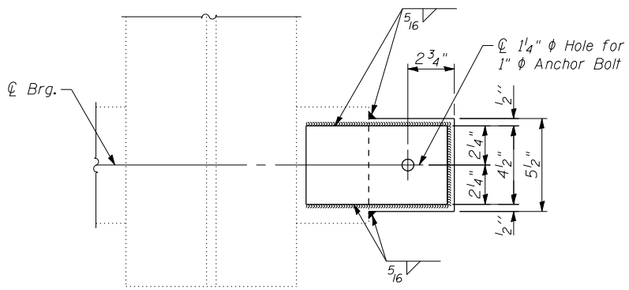
PLAN

ANCHOR BOLT REPLACEMENT AT BENTS

(15 Required)



ELEVATION



PLAN

ANCHOR BOLT REPLACEMENT AT ABUTMENTS

(7 Required)

Note:
Type I Diaphragm to be installed between beams 1 & 2 at Bent 1. Type II Diaphragm to be installed between beams 2 & 3 at Bent 1. Type III Diaphragms to be installed at all other locations Bent 1 and 2.
Cost of diaphragms, clip L's, bolts and fixed bearing plates to be paid for as Furnishing & Erecting Structural Steel.
Bearing plates shall be AASHTO M223,Grade 50.
Anchor bolts shall be installed in holes drilled after the supported member is in place. Cost included in Anchor Bolts, 1"
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Cost of field welding new plates shall be included in the cost of Structural Steel Repair.
Cost of anchor bolt replacement plates included with Structural Steel Repair.

FILE NAME = ...\054009-72b82-012-bearing-plate-diaphragm-details.dgn
CB PROJECT NO 07084-9

Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING PLATE AND DIAPHRAGM DETAILS
STRUCTURE NO. 054-0009
SHEET NO. 12 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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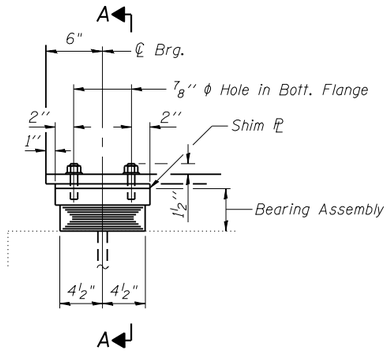
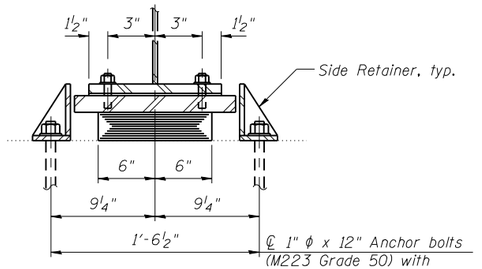
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

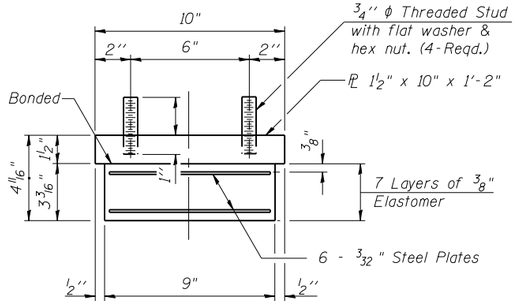


ELEVATION AT REPAIR C



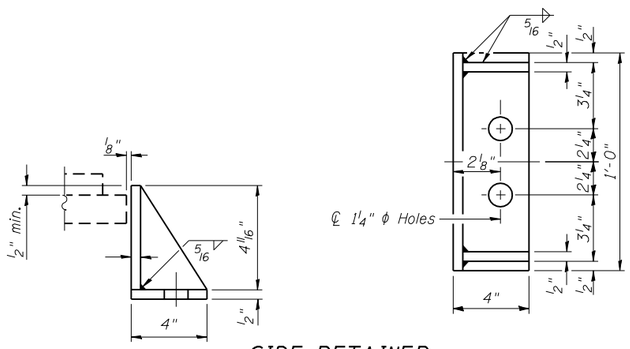
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. AT REPAIR C



BEARING ASSEMBLY

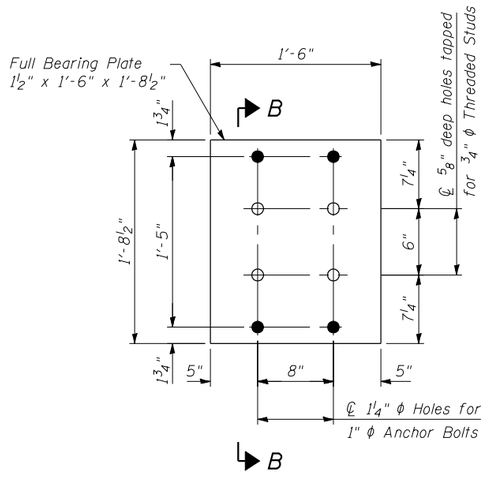
Note:
Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

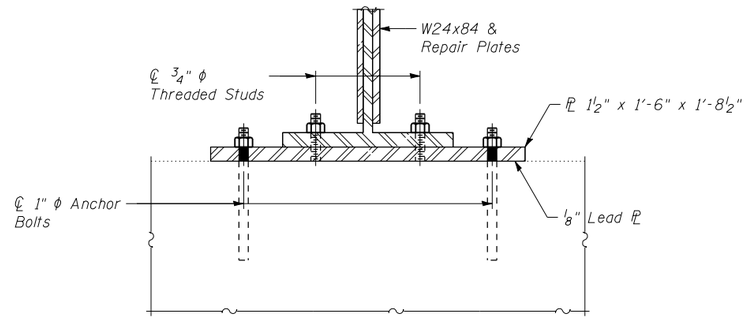
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Note:
See Sheet 10 of 13 for Reaction Table.



BEARING PLATE DETAIL AT REPAIRS A & B

(5 Required)



SECTION B-B

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts will be installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Cut existing anchor bolts at repair areas flush with the top of the concrete bearing seat. Cost included with Anchor Bolts, 1".

Removal of existing bearings under each repair shall be included in the cost of Structural Steel Repair.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	2
Anchor Bolts, 1"	Each	28

FILE NAME = ...\054008R-72b82-013-bearing-details.dgn
CB PROJECT NO 07084-9

Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 054-0009
SHEET NO. 13 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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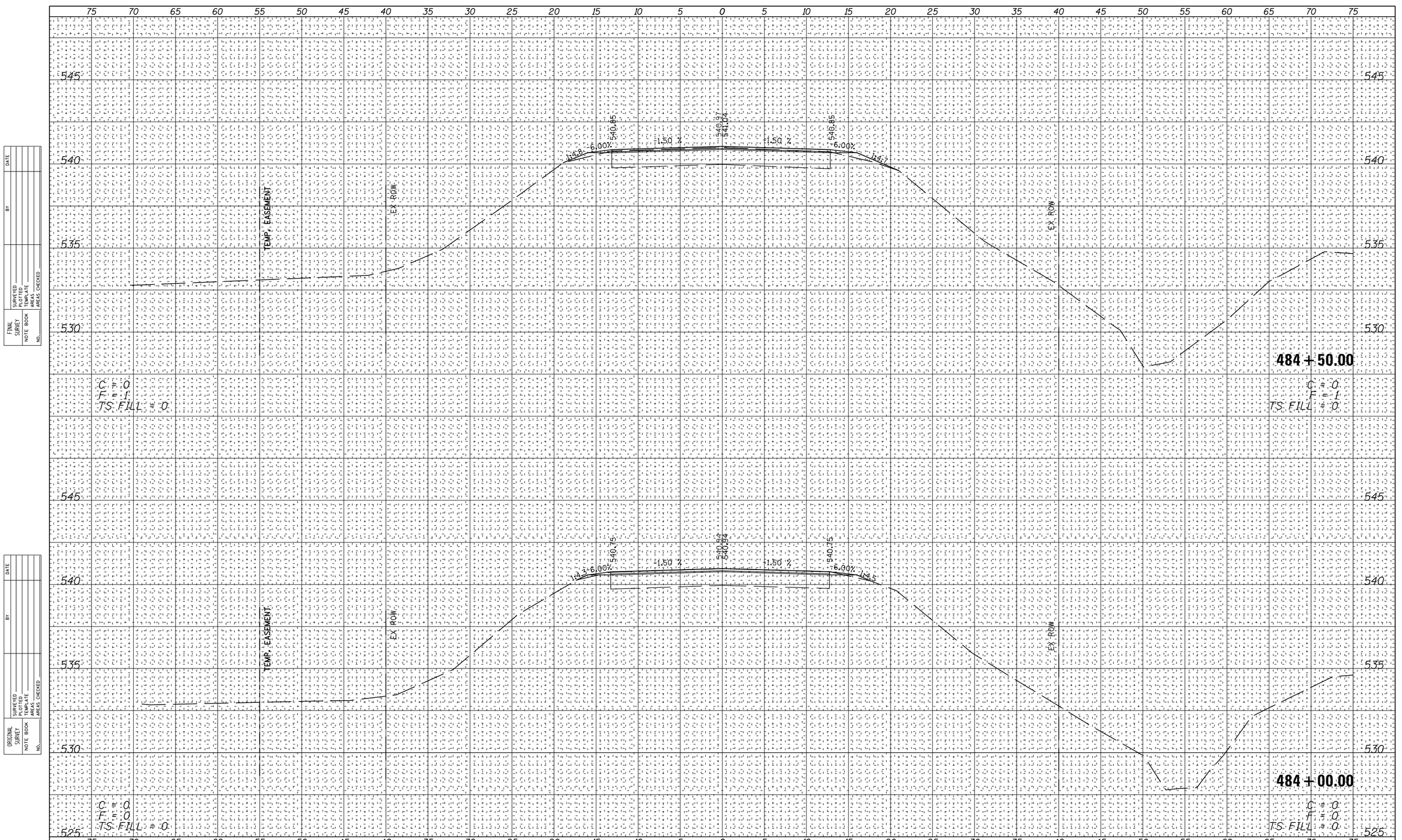
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			



FINAL SURVEY

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

ORIGINAL SURVEY

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 717 (IL 10)
CROSS SECTIONS

SCALE: | SHEET 1 OF 70 SHEETS | STA. 484+00.00 | TO STA. 484+50.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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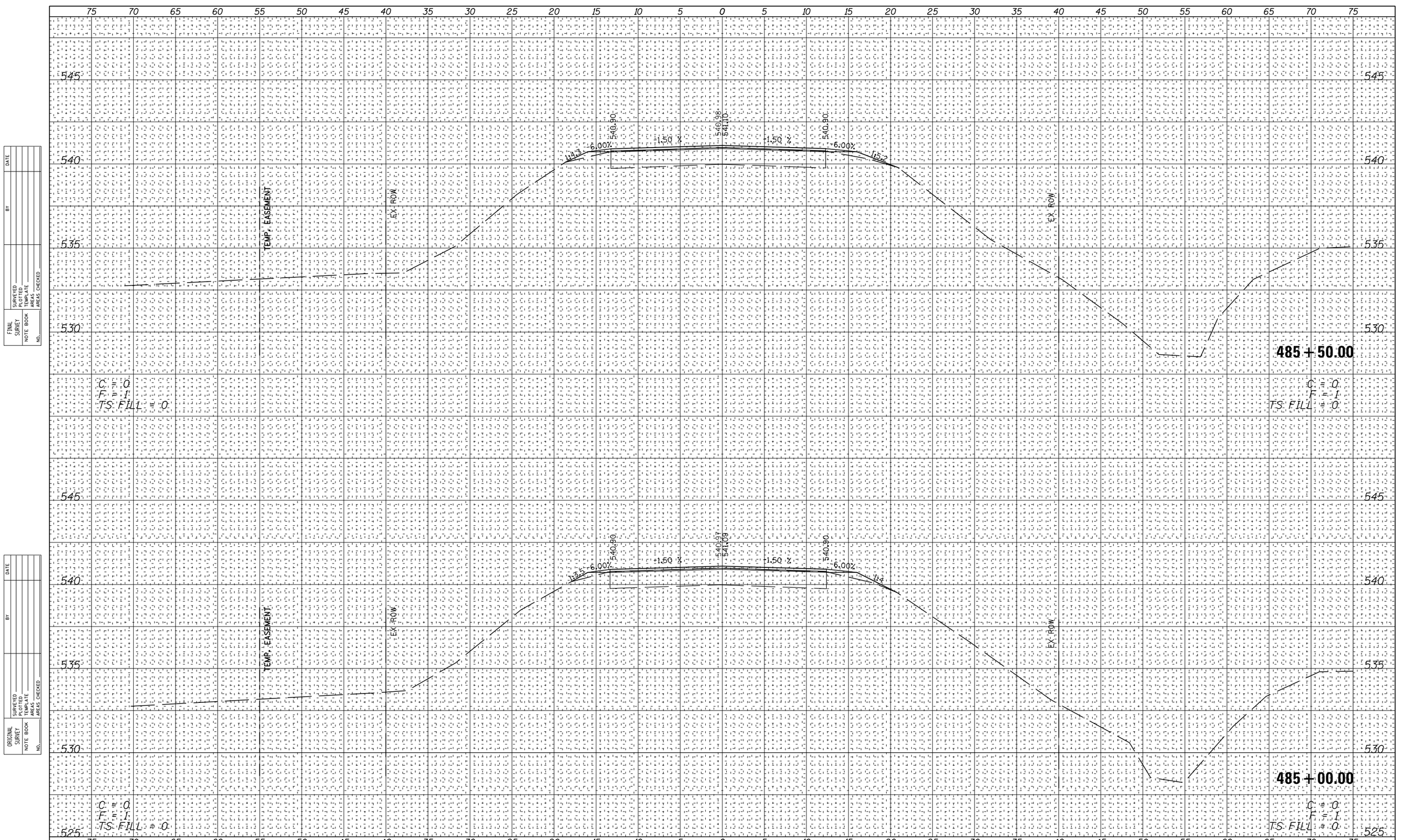

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BY	DATE

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AREAS		
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BY	DATE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 717 (IL 10)
CROSS SECTIONS

SCALE: | SHEET 2 OF 70 SHEETS | STA. 485+00.00 | TO STA. 485+50.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	92
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

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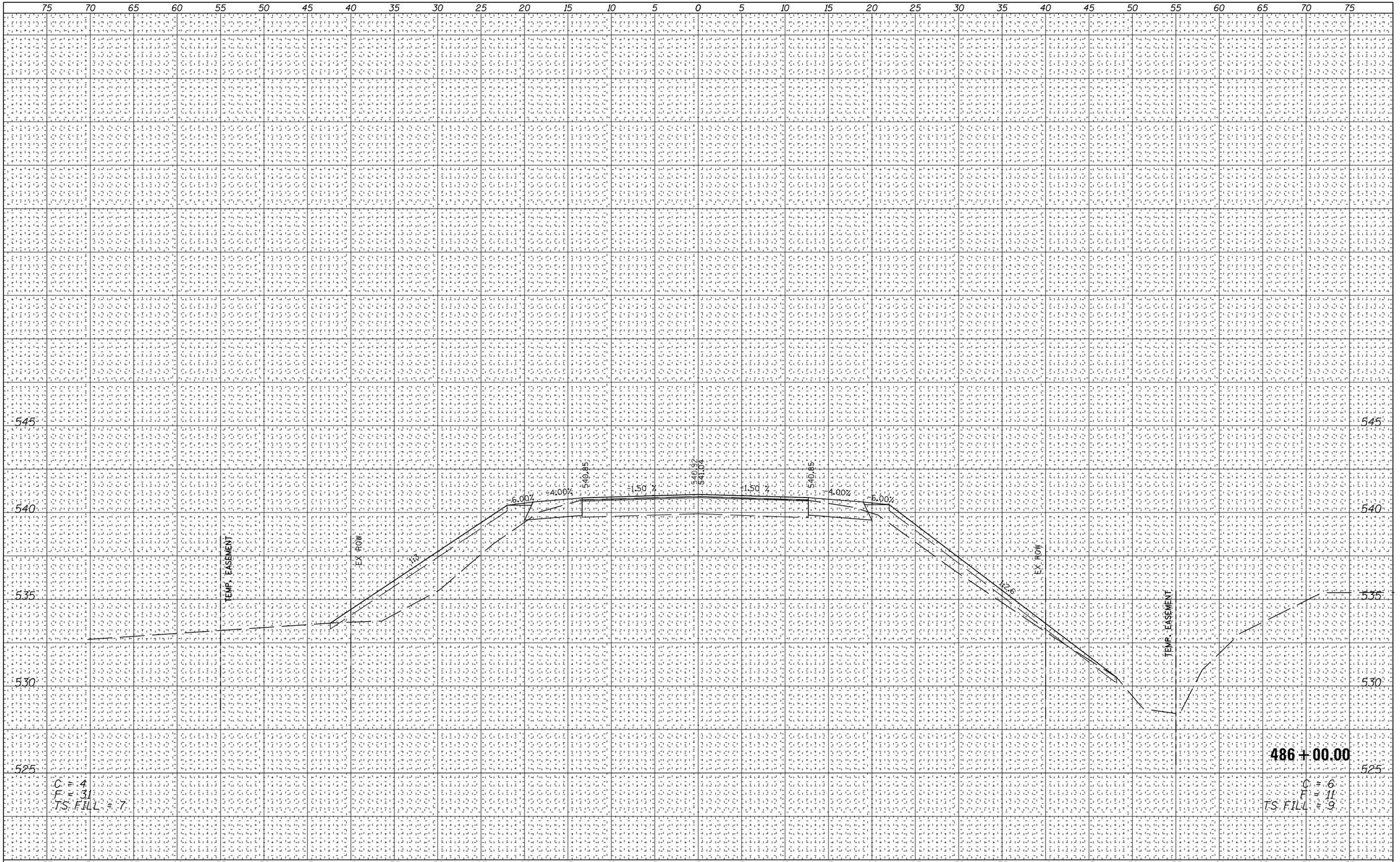

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 717 (IL 10)
CROSS SECTIONS

SCALE: | SHEET 3 OF 70 SHEETS | STA. 486+00.00 | TO STA. 486+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	93
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

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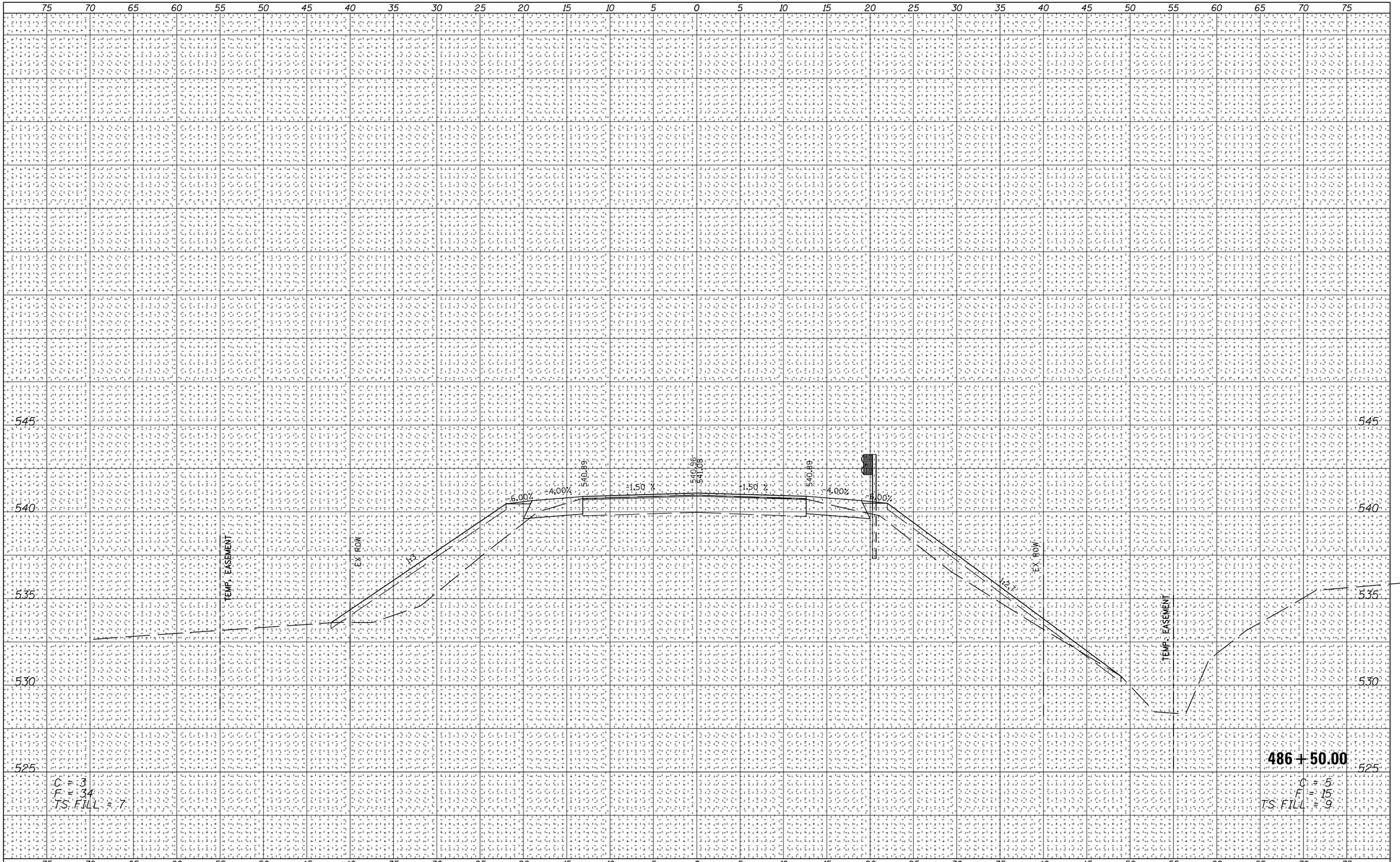

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 717 (IL 10)
CROSS SECTIONS

SCALE: | SHEET 4 OF 70 SHEETS | STA. 486+50.00 | TO STA. 486+50.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	94
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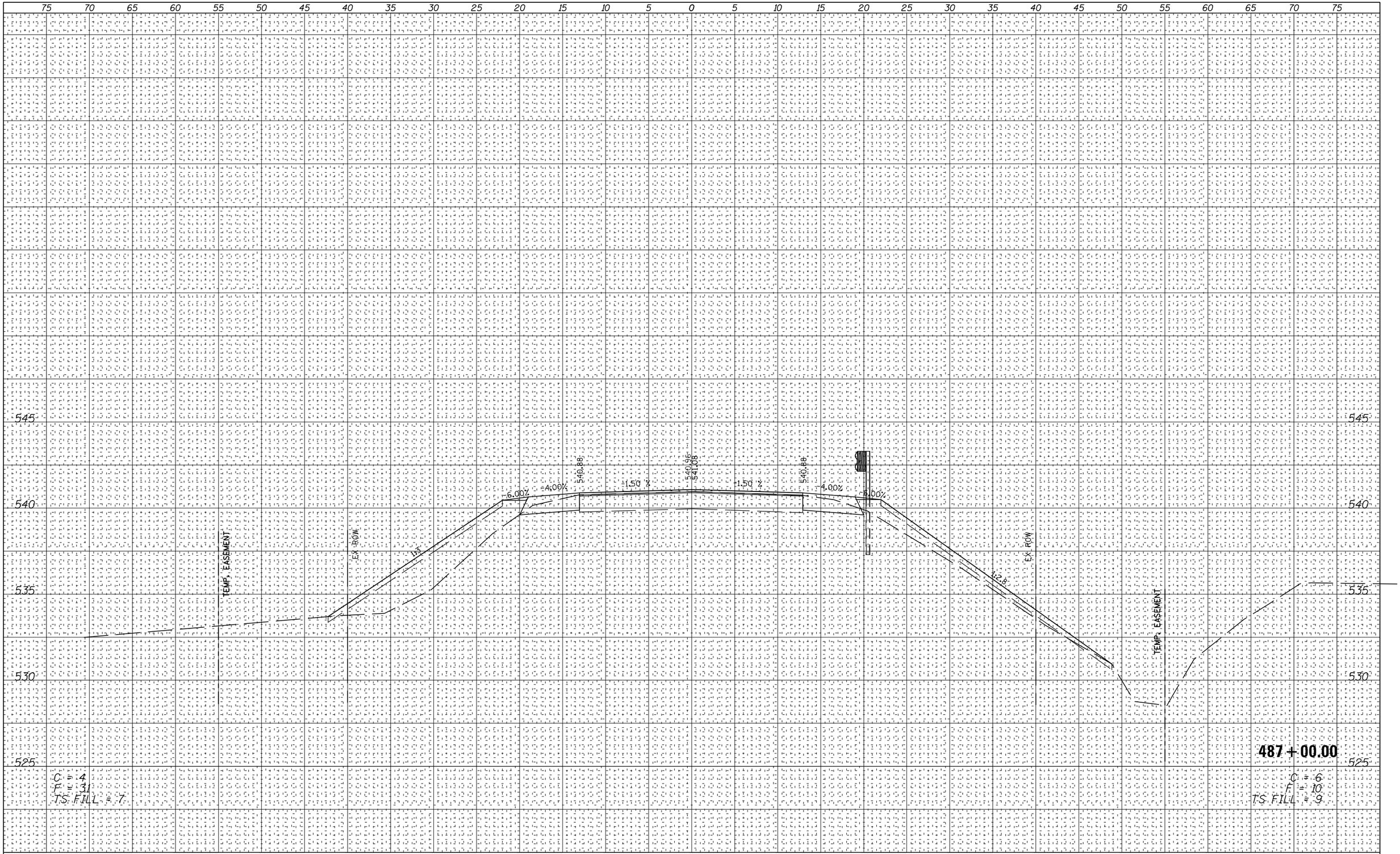

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 717 (IL 10)
CROSS SECTIONS

SCALE: | SHEET 5 OF 70 SHEETS | STA. 487+00.00 | TO STA. 487+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	95
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	ILLINOIS FED. AID PROJECT			

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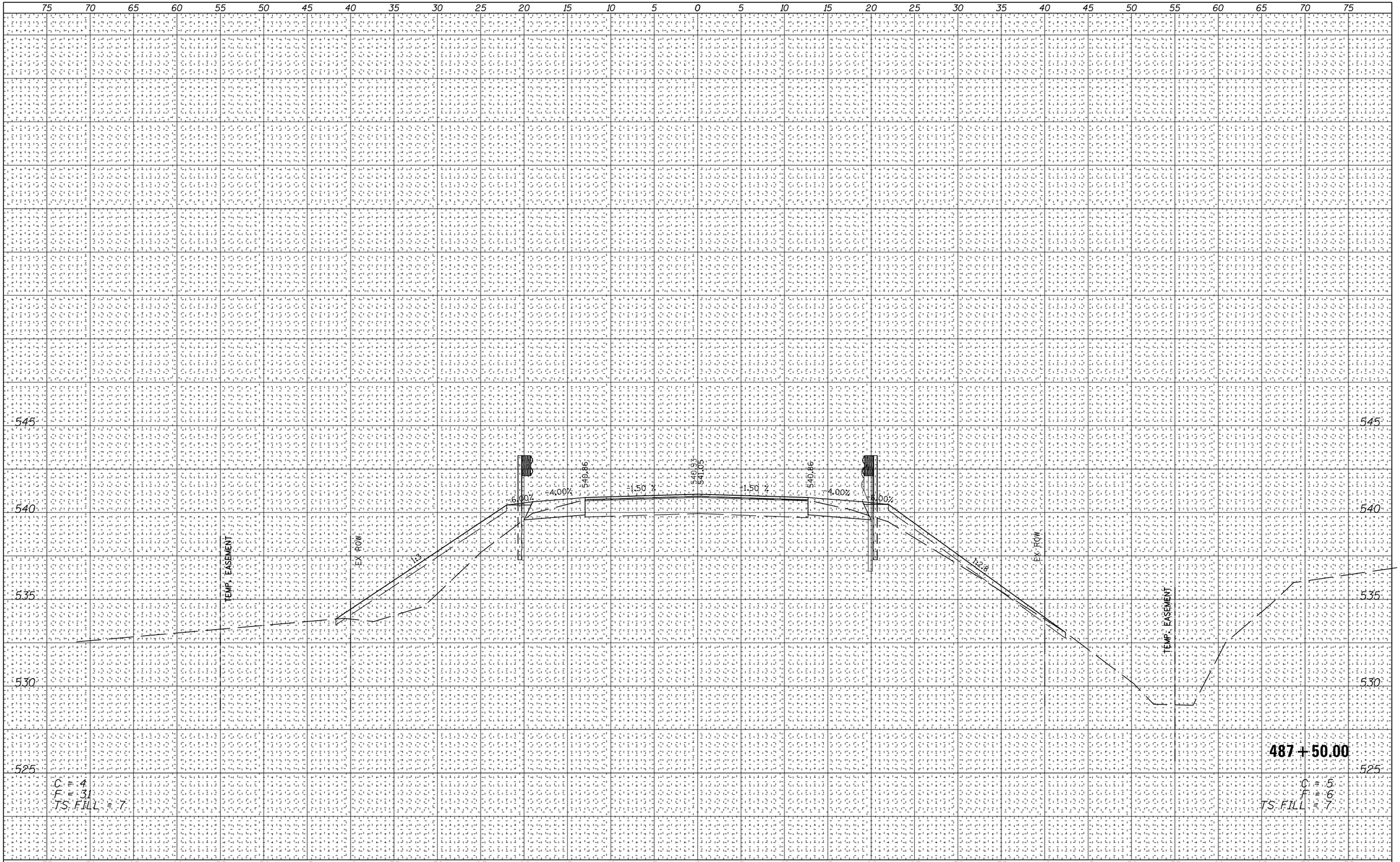

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 717 (IL 10)
CROSS SECTIONS

SCALE: | SHEET 6 OF 70 SHEETS | STA. 487+50.00 | TO STA. 487+50.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	96
		CONTRACT NO. 72B82		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY		BY	DATE
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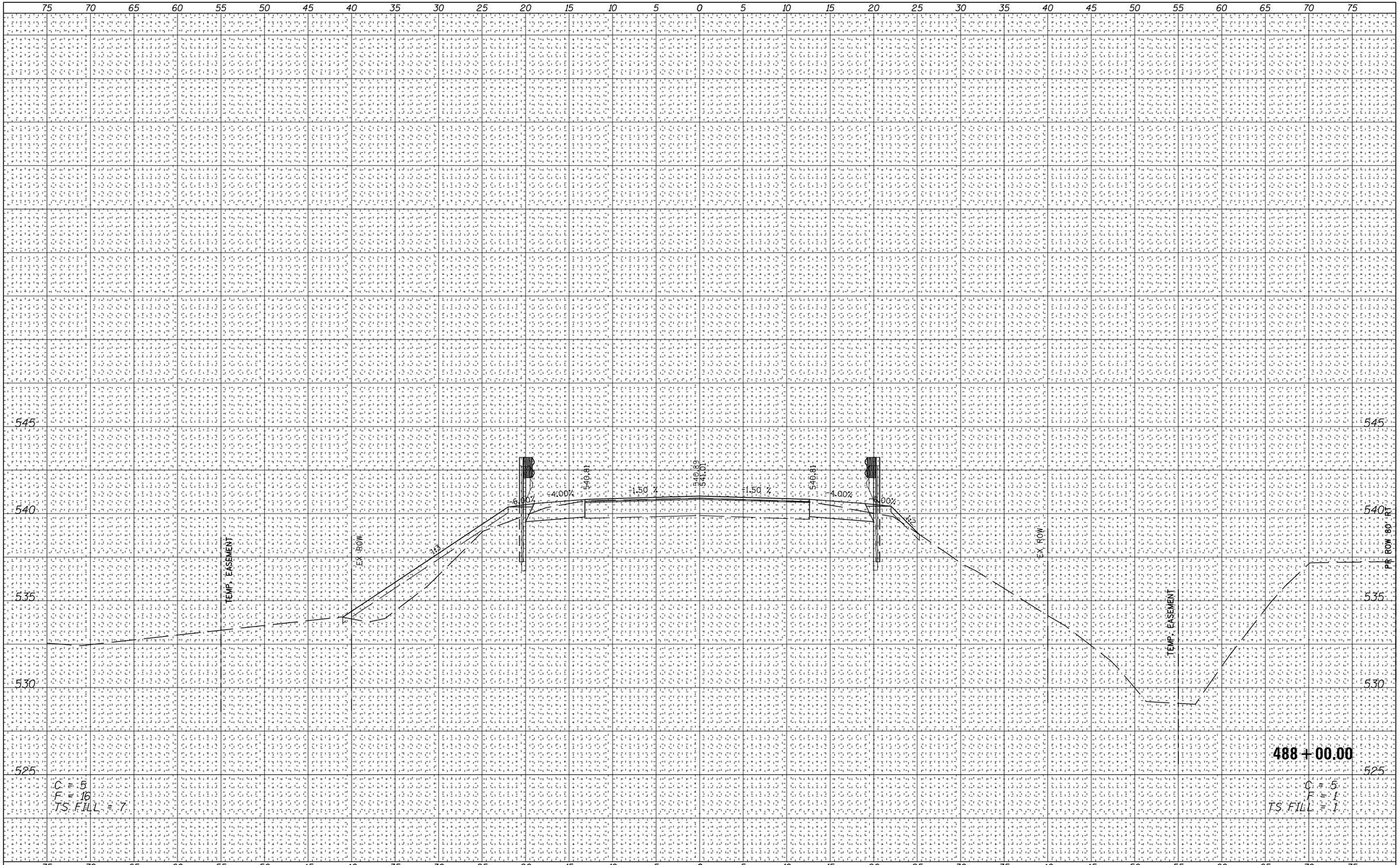

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 717 (IL 10)
CROSS SECTIONS

SCALE: | SHEET 7 OF 70 SHEETS | STA. 488+00.00 | TO STA. 488+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	(102B-1,102CR,102BR-2)RS-5	LOGAN	218	97
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	ILLINOIS FED. AID PROJECT			

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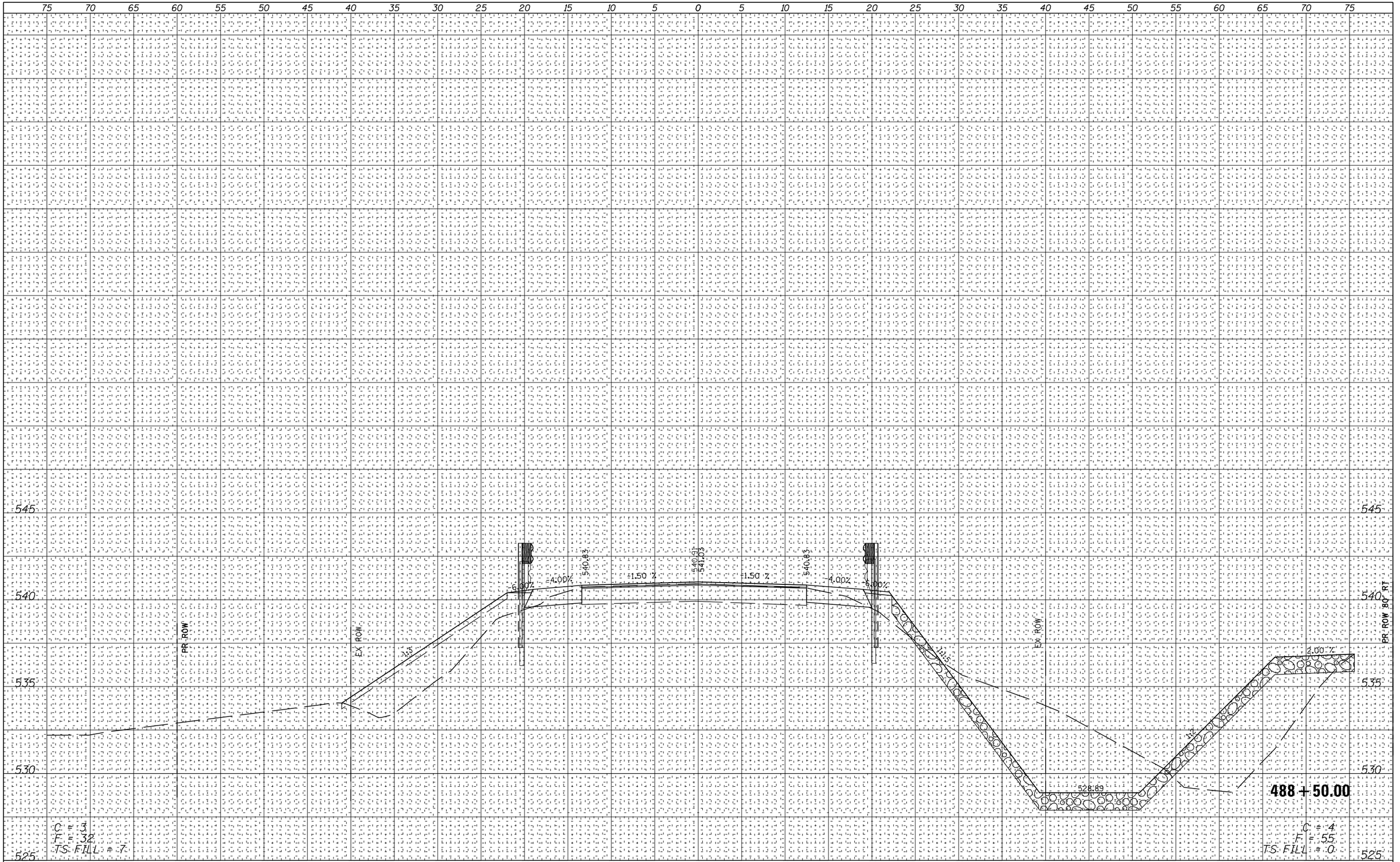

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 717 (IL 10)
CROSS SECTIONS

SCALE: | SHEET 8 OF 70 SHEETS | STA. 488+50.00 | TO STA. 488+50.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	ILLINOIS FED. AID PROJECT			

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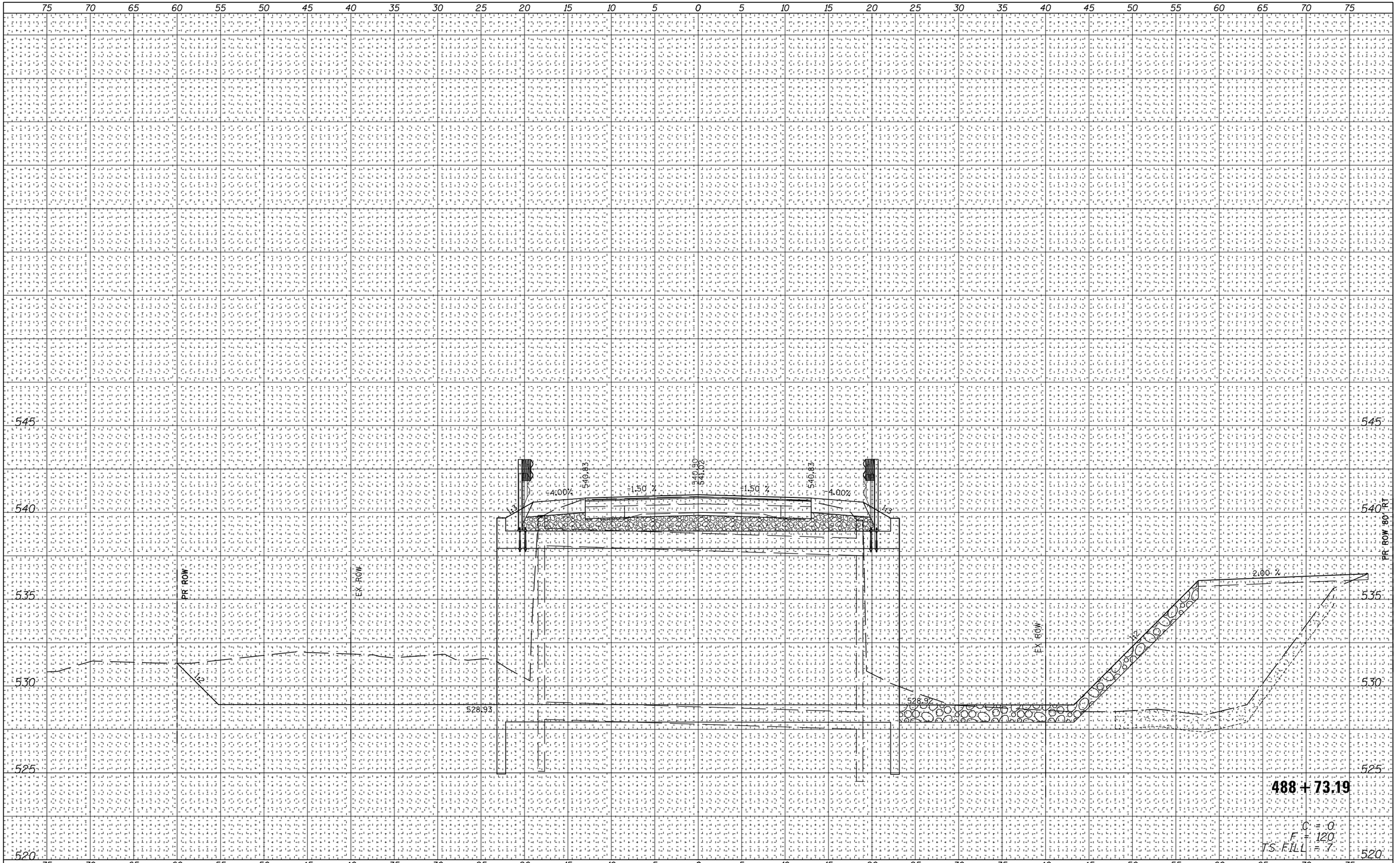

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 717 (IL 10)
CROSS SECTIONS

SCALE: | SHEET 9 OF 70 SHEETS | STA. 488+73.19 | TO STA. 488+73.19

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	ILLINOIS FED. AID PROJECT			

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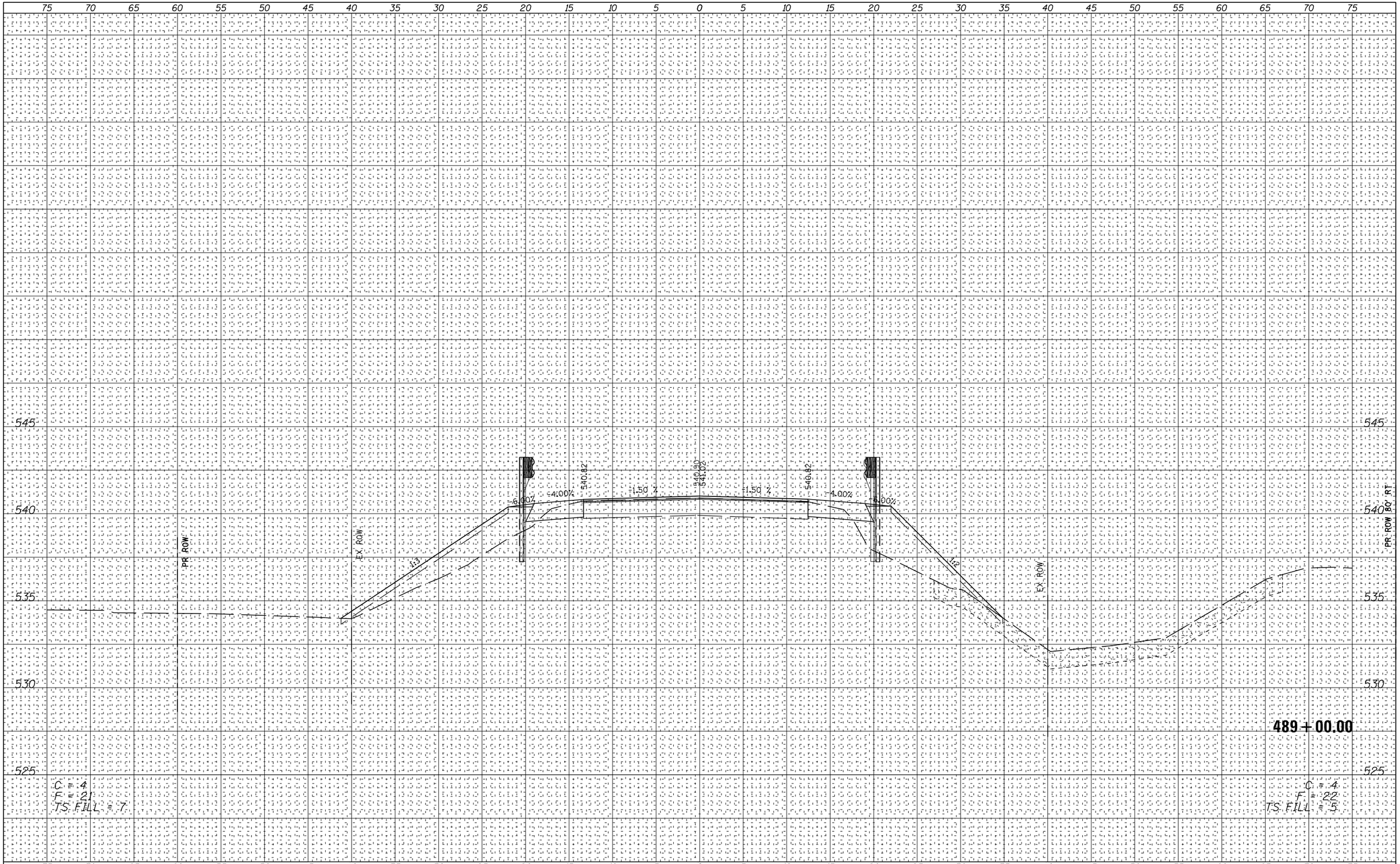

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 717 (IL 10)
CROSS SECTIONS

SCALE: | SHEET 10 OF 70 SHEETS | STA. 489+00.00 | TO STA. 489+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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