

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	(19VBR)BR	COLES	92	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 74149		

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CROSS SECTIONS	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

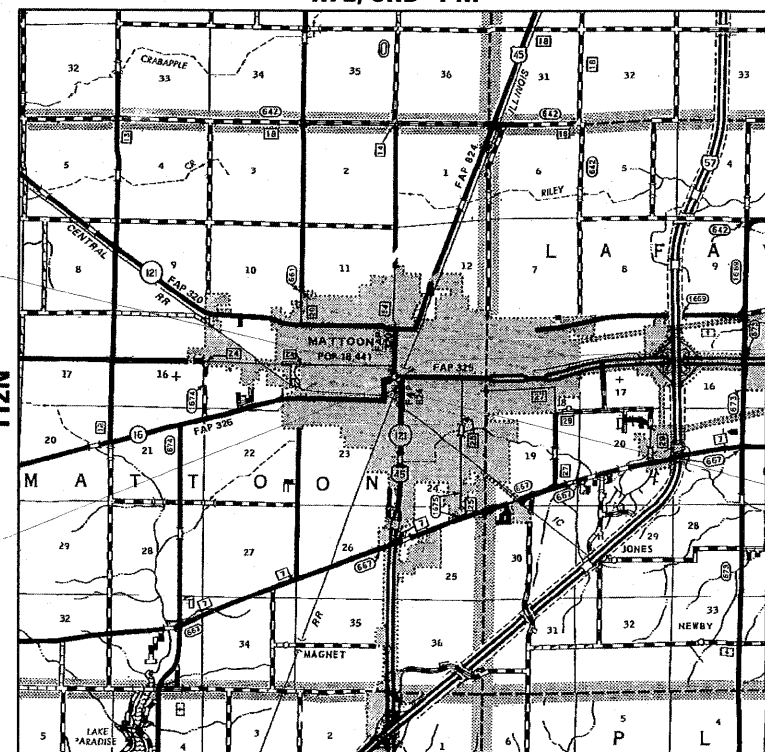
**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 325 (IL 16)
SECTION (19VBR)BR
PROJECT: **ESP-0325(051)**
COLES COUNTY

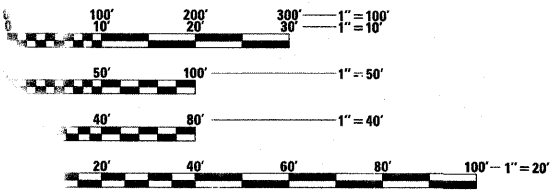
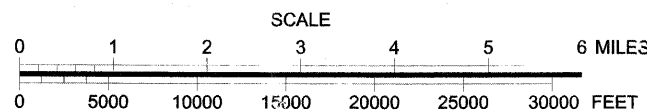
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SUPERSTRUCTURE REPLACEMENT & WIDENING
OVER CANADIAN NATIONAL RAILWAY

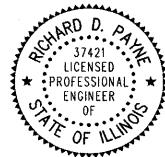
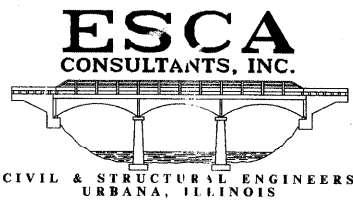
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LOCATION MAP



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



Richard D. Payne DATE: 08/03/09
ILLINOIS PROFESSIONAL LICENSE NO. 37421
(EXPIRATION DATE: 11-30-09)

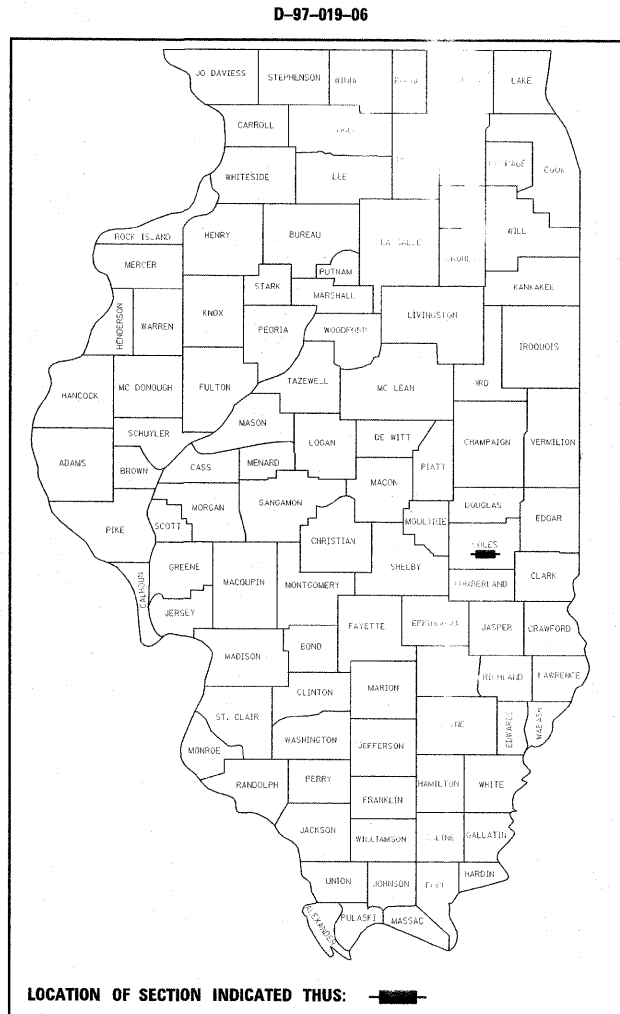
DESIGNED BY	_____
CHECKED BY	_____
IN CHARGE	_____
DATE	_____
PROJECT CHANGE NO.	_____
DATE OF CHANGE	_____
BY	_____
REVISIONS	_____

UTILITY LOCATION INFORMATION FOR EXCAVATION
892-0123

7 NO. (217)342-3951
ENGINEER: TOM ROMAN
MANAGER:
MATTOON
NO.: 74149

**DESIGN DESIGNATION
N.A.**

GROSS LENGTH = 440 FT. = 0.083 MI.
NET LENGTH = 440 FT. = 0.083 MI.



FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL
DESIGN SPEED: 40 mph
POSTED SPEED: 35 mph
ADT: 16500 (2004), 20500(2024)
PV: 91.6%
TRUCKS: 8.4%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 10, 2009

Deputy Director of Highways, Region Engineer
October 2, 2009
Charles J. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT

October 2, 2009
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**



LIST OF ILLINOIS DOT HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
420001-07	PAVEMENT JOINTS
420401-08	BRIDGE APPROACH PAVEMENT CONNECTOR
420601-05	24' (7.2 m) PCC PAVEMENT
420701-02	PAVEMENT FABRIC
421001-02	BAR REINFORCEMENT FOR CRC PAVEMENT
421206-06	36' (10.8 m) CRC PAVEMENT (WITH LUG SYSTEM)
424001-05	CURB RAMPS FOR SIDEWALKS
515001-03	NAME PLATE FOR BRIDGES
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606306-03	CORRUGATED PC CONCRETE MEDIANS
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
664001-02	CHAIN LINK FENCE
667101-01	PERMANENT SURVEY MARKERS
701101-02	OFF-ROAD OPERATIONS, MULTILANE, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 4.5 m (15') AWAY
701606-06	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-04	LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A AND B METAL POSTS (FOR SIGNS AND MARKERS)
780001-02	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
814001-02	HANDHOLES
873001-02	TRAFFIC SIGNAL GROUNDING AND BONDING
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS

GENERAL NOTES

- THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.
- EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- ALL SAW CUTTING OF EXISTING PAVEMENT SHALL BE CONSIDERED INCLUDED IN THE PAY ITEMS INVOLVED. THE MINIMUM SAW CUT DEPTH IN THE PAVEMENT SHALL BE 1/2" UNLESS OTHERWISE NOTED.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
- 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.
- ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
- FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL HOT-MIX ASPHALT	2.016 TONS/CU YD
ALL AGGREGATE	2.05 TONS/CU YD
BITUMINOUS MATERIALS:	
ON PAVEMENT	0.09 GAL/SQ YD
INTERMEDIATE LIFTS (FOG COAT)	0.04 GAL/SQ YD
AGGREGATE (PRIME COAT)	0.0015 TONS/SQ YD
- ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF 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.
- ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE FERTILIZED AND SEEDED OR SODDED. SEEDING SHALL BE CLASS 3A ACCORDING TO THE APPLICABLE ARTICLES OF SECTION 250 OF THE STANDARD SPECIFICATIONS AND PLACED ON ALL SLOPES OVER 1:3(V:H). SEEDING AND SODDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SODDED WILL BE DETERMINED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE JULIE NUMBER IS 800-892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.
- FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.
- ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.
- TREE REMOVAL WILL BE REQUIRED TO CONSTRUCT THE PROPOSED SE RETAINING WALL. AN ESTIMATED QUANTITY OF 50 UNITS OF TREE REMOVAL (6 TO 15 UNITS DIAMETER) HAS BEEN INCLUDED FOR THIS WORK. OUTSIDE OF THIS AREA TREES SHALL BE PRESERVED THROUGHOUT THIS SECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. GENERALLY, TREES OUTSIDE THE CLEAR ZONE, AND WHICH DO NOT INTERFERE WITH CONSTRUCTION, SHALL NOT BE DISTURBED.
- THE QUANTITY OF SHORT-TERM PAVEMENT MARKING SHOWN ON THE PLANS IS BASED ON ONE APPLICATION FOR THE INITIAL OPENING OF THE COMPLETED STRUCTURE TO TRAFFIC AND ONE ADDITIONAL APPLICATION. TEMPORARY TAPE SHALL BE USED FOR SHORT-TERM PAVEMENT MARKING.
- THE CONTRACTOR SHALL PROVIDE INTERNET ACCESSIBILITY TO THE HMA PLANT QUALITY CONTROL LAB SO THAT HMA PLANT REPORTS CAN BE EMAILED TO THE DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL HOT-MIX ASPHALT ITEMS.
- THE CONTRACTOR SHALL USE EITHER RC-70 OR AN EMULSIFIED POLYMER PRIME SS-1HP FOR THE PAY ITEM BITUMINOUS MATERIALS (PRIME COAT).
- EXCELSIOR BLANKET SHALL BE USED AT ALL EROSION CONTROL BLANKET LOCATIONS.
- BEFORE ORDERING WATER MAIN, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.
- AT LOCATIONS WHERE THE PROPOSED PCC PAVEMENT IS LESS THAN TWO (2) FEET IN WIDTH, THE PAVEMENT SHALL BE POURED MONOLITHIC WITH THE ADJACENT PCC APPURTENANCE. THE QUANTITY OF PAVEMENT POURED MONOLITHIC WILL BE MEASURED AND PAID FOR AS PCC PAVEMENT 9".
- SIDEWALK REMOVAL SHALL BE EXTENDED TO THE NEAREST SCORED GROOVE OR JOINT. THIS MAY REQUIRE REMOVAL BEYOND THE LIMITS SHOWN ON THE PLANS. PAYMENT WILL BE MADE FOR THE ACTUAL QUANTITY REMOVED.

- THIS SECTION INCLUDES WORK WHICH WILL INVOLVE THE CANADIAN NATIONAL RAILWAY (CN). ALL WORK ON OR ABOVE CN ROW SHALL BE COORDINATED WITH CN.
- THE FOLLOWING UTILITIES ARE INVOLVED IN THIS PROJECT:

NAME/ADDRESS OF UTILITY COMPANY	TYPE	LOCATION	EST. DATE OF RELOCATION
AMEREN CIPS 711 S. 9TH ST. MATTOON, ILLINOIS 61938-6149 (217)234-0462	ELECTRIC	WEST END OF STRUCTURE	NOT REQUIRED
CONSOLIDATED COMMUNICATIONS 121 S. 17TH ST. MATTOON, ILLINOIS 61938-3987 (217)234-9971	TELEPHONE	EAST OF STRUCTURE	NOT REQUIRED
CITY OF MATTOON 208 N. 19TH ST. P.O. BOX 99 MATTOON, ILLINOIS 61938 (217)235-5460	WATER	ATTACHED TO STRUCTURE	COORDINATE WITH CONSTRUCTION

COMMITMENTS

- NONE AS OF JULY, 2009. REFER TO COMMITMENT FILE FOR ANY COMMITMENTS AFTER THIS DATE.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREPARED BY: _____
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: _____
DISTRICT LAND ACQUISITION ENGINEER

EXAMINED BY: _____
DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: _____
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: _____
DISTRICT CONSTRUCTION ENGINEER

EXAMINED BY: _____
DISTRICT MATERIALS ENGINEER

EXAMINED BY: _____
DISTRICT PROJECT IMPLEMENTATION ENGINEER

EXAMINED BY: _____
ASSISTANT REGIONAL ENGINEER

APPROVED BY: _____
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

DATE _____ 20 _____

FILE NAME = 0774149-SHT-GENNOTE02.DGN	USER NAME = HAS	DESIGNED - MTD	REVISED -
		DRAWN - KAH	REVISED -
		CHECKED - MTD	REVISED -
		DATE - AUGUST 3, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HIGHWAY STANDARDS, GENERAL NOTES AND COMMITMENTS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	(19VBR)BR	COLES	92	2
CONTRACT NO. 74149				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				



SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	URBAN 100% FED. TOTAL	CONSTRUCTION TYPE CODE	
				X120-50	
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	50	50	
20200100	EARTH EXCAVATION	CU YD	490	490	
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	565	565	
20800150	TRENCH BACKFILL	CU YD	32	32	
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	85	85	
25000305	SEEDING, CLASS 3A	ACRE	0.13	0.13	
25000350	SEEDING, CLASS 7	ACRE	0.13	0.13	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	14	14	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	14	14	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	14	14	
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.3	0.3	
25100630	EROSION CONTROL BLANKET	SQ YD	625	625	
25200110	SODDING, SALT TOLERANT	SQ YD	127	127	
25200200	SUPPLEMENTAL WATERING	UNIT	6	6	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	16	16	
28000400	PERIMETER EROSION BARRIER	FOOT	100	100	
28000500	INLET AND PIPE PROTECTION	EACH	2	2	
31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	SQ YD	832	832	
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	86	86	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	122	122	
40600300	AGGREGATE (PRIME COAT)	TON	2	2	
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQ YD	743	743	
40600990	TEMPORARY RAMP	SQ YD	335	335	
40603345	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	130	130	
42000400	PORTLAND CEMENT CONCRETE PAVEMENT 9"	SQ YD	100	100	
42001200	PAVEMENT FABRIC	SQ YD	100	100	
42001300	PROTECTIVE COAT	SQ YD	1250	1250	
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	69	69	
42100200	CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT 9"	SQ YD	561	561	
42100800	PAVEMENT REINFORCEMENT 9"	SQ YD	561	561	

* SPECIALITY ITEM

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	URBAN 100% FED. TOTAL	CONSTRUCTION TYPE CODE	
				X120-50	
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	158	158	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1060	1060	
42400800	DETECTABLE WARNINGS	SQ FT	28	28	
44000100	PAVEMENT REMOVAL	SQ YD	525	525	
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	350	350	
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	277	277	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	510	510	
44000600	SIDEWALK REMOVAL	SQ FT	1981	1981	
44000700	APPROACH SLAB REMOVAL	SQ YD	389	389	
44003100	MEDIAN REMOVAL	SQ FT	450	450	
44003510	MEDIAN REMOVAL PARTIAL DEPTH	SQ FT	684	684	
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1	1	
50102400	CONCRETE REMOVAL	CU YD	179	179	
50104605	CONCRETE RETAINING WALL REMOVAL	CU YD	210	210	
50157300	PROTECTIVE SHIELD	SQ YD	375	375	
50200100	STRUCTURE EXCAVATION	CU YD	1500	1500	
50300225	CONCRETE STRUCTURES	CU YD	759.3	759.3	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	705.3	705.3	
50300260	BRIDGE DECK GROOVING	SQ YD	1175	1175	
50300300	PROTECTIVE COAT	SQ YD	1518	1518	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	234380	234380	
50800515	BAR SPLICERS	EACH	173	173	
50900105	ALUMINUM RAILING, TYPE L	FOOT	232	232	
50900905	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	168	168	
50901760	PIPE HANDRAIL	FOOT	80	80	
51200957	FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT	3844	3844	
51202305	DRIVING PILES	FOOT	3844	3844	
51203200	TEST PILE METAL SHELLS	EACH	3	3	
51500100	NAME PLATES	EACH	1	1	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	186	186	
56100600	WATER MAIN 6"	FOOT	300	300	

* SPECIALITY ITEM

FILE NAME
D774149-SH1-50q83.dgn

USER NAME
PLOT DATE
PLOT DATE

DESIGNED - MTD
DRAWN - HAS
CHECKED - MTD
DATE - AUGUST 3, 2009

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: NONE SHEET NO. 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE. 325	SECTION (19VB)BR	COUNTY	TOTAL SHEETS 92	SHEET NO. 3
FED. ROAD DIST. NO. ILLINOIS			PROJECT NO. 74149	



SUMMARY OF QUANTITIES

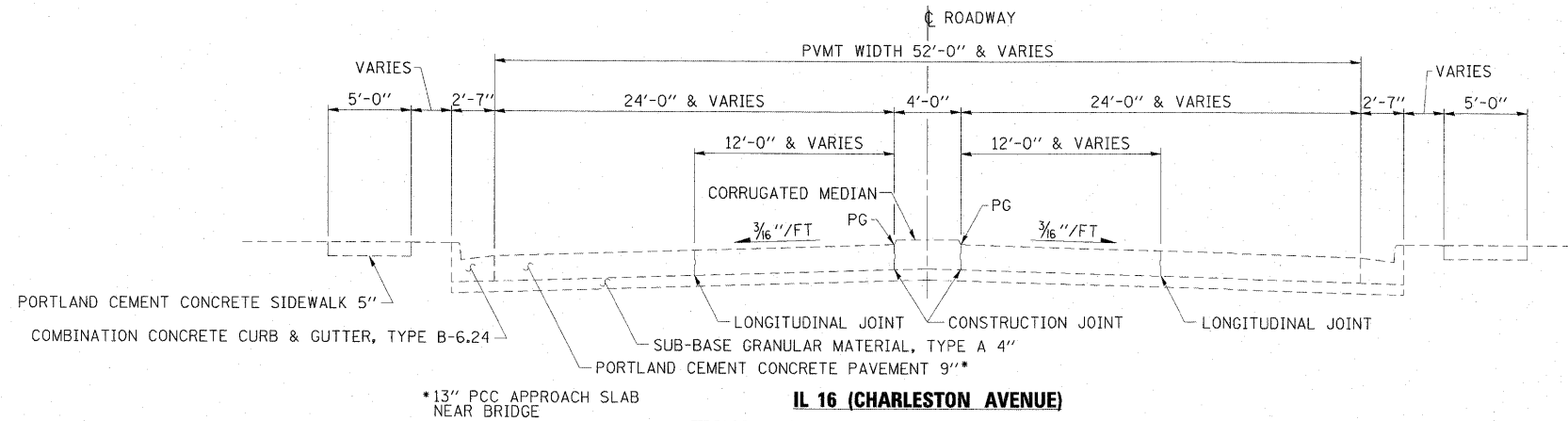
CODE NO.	ITEM	UNIT	TOTAL	CONSTRUCTION TYPE CODE	
				URBAN 100% FED.	X120-50
56108200	ADJUSTING WATER VALVES 6"	EACH	1	1	
58700300	CONCRETE SEALER	SQ FT	1400	1400	
59000200	EPOXY CRACK INJECTION	FOOT	490	490	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	350	350	
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	215	215	
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	1	1	
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	379	379	
66400305	CHAIN LINK FENCE, 6'	FOOT	18	18	
66410400	CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED	FOOT	41	41	
66700205	PERMANENT SURVEY MARKERS, TYPE I	EACH	2	2	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12	
67100100	MOBILIZATION	L SUM	1	1	
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1	
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1	
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	20	20	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	32	32	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	368	368	
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	188	188	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1419	1419	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1020	1020	
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	80	80	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	104	104	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1582	1582	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	225	225	
* 72400600	RELOCATE SIGN PANEL ASSEMBLY - TYPE B	EACH	1	1	
* 72400710	RELOCATE SIGN PANEL - TYPE 1	SQ FT	12	12	
* 72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	48	48	

* SPECIALITY ITEM

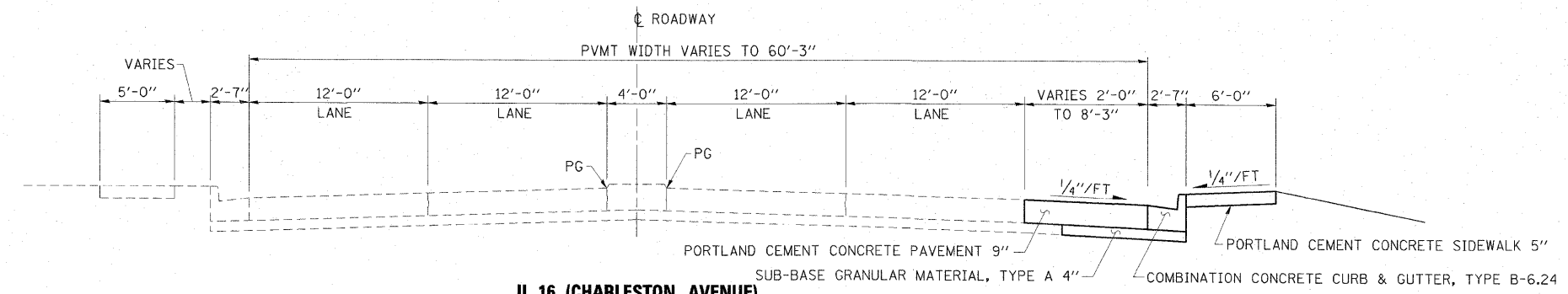
SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL	CONSTRUCTION TYPE CODE	
				URBAN 100% FED.	X120-50
73000100	WOOD SIGN SUPPORT	FOOT	20	20	
73700100	REMOVE GROUND-MOUNTED SIGN SUPPORT	EACH	3	3	
73700300	REMOVE CONCRETE FOUNDATION - OVERHEAD	EACH	1	1	
78005100	EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	188	188	
78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	1419	1419	
78005130	EPOXY PAVEMENT MARKING - LINE 6"	FOOT	1020	1020	
78005150	EPOXY PAVEMENT MARKING - LINE 12"	FOOT	80	80	
78005180	EPOXY PAVEMENT MARKING - LINE 24"	FOOT	104	104	
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	29	29	
78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	8	8	
78100200	TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER	EACH	20	20	
* 78100300	REPLACEMENT REFLECTOR	EACH	11	11	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	511	511	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	13	13	
* 80300100	LOCATING UNDERGROUND CABLE	FOOT	55	55	
* 81012600	CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	200	200	
* 81021590	CONDUIT AUGERED 4" DIA., PVC	FOOT	69	69	
* 81200120	CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	232	232	
* 81400100	HANDHOLE	EACH	2	2	
* 81400115	HANDHOLE TO BE ADJUSTED	EACH	1	1	
* 81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	50	50	
* 81900302	TRENCH AND BACKFILL WITH SCREENINGS OR SAND	FOOT	150	150	
* 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3	3	
* 87100110	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 6F	FOOT	485	485	
* 87301105	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 12 1C	FOOT	485	485	
* 87301235	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 4C	FOOT	175	175	
* 87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	400	400	
* 88040150	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2	2	
* 88600100	DETECTOR LOOP, TYPE I	FOOT	60	60	
* 89501150	RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	2	2	
* 89501300	RELOCATE EXISTING MAST ARM ASSEMBLY AND POLE	EACH	1	1	

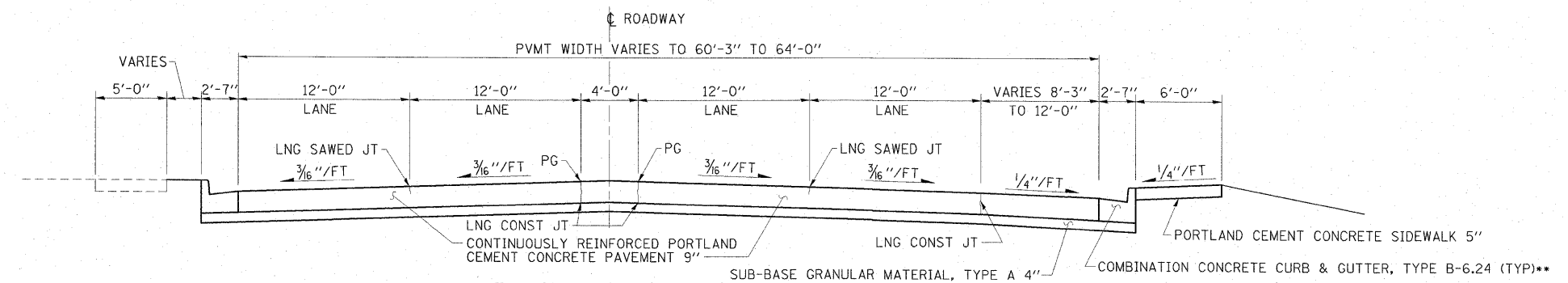
* SPECIALITY ITFM



IL 16 (CHARLESTON AVENUE)
EXISTING TYPICAL ROADWAY SECTION

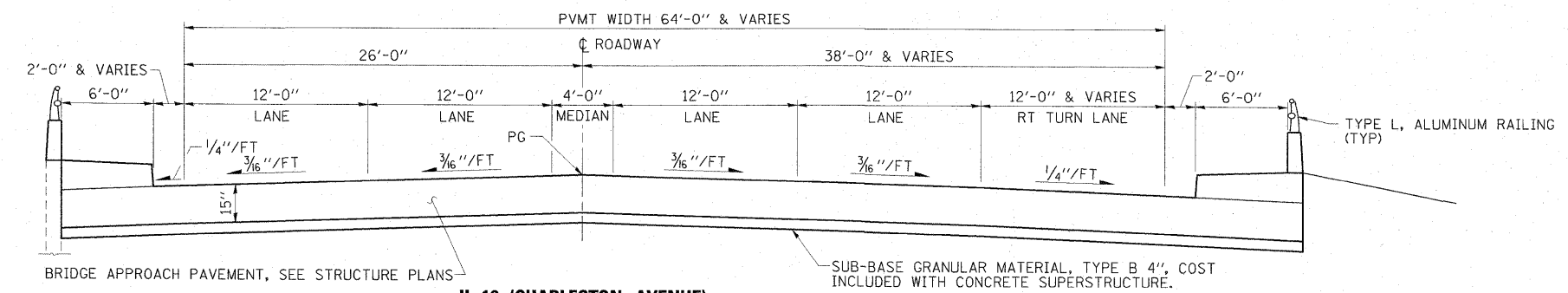


IL 16 (CHARLESTON AVENUE)
PROPOSED TYPICAL ROADWAY SECTION
STA 28+56.92 TO STA 29+03.00



IL 16 (CHARLESTON AVENUE)
PROPOSED TYPICAL ROADWAY SECTION
STA 29+03.00 TO STA 29+85.27

** USE 10' TRANSITIONS TO 9" CURB HEIGHT WHERE ADJACENT TO ANCHOR SLAB OR BRIDGE APPROACH PAVEMENT, COST INCLUDED.



IL 16 (CHARLESTON AVENUE)
PROPOSED BRIDGE APPROACH SECTION
STA 29+85.27 TO STA 30+15.27
STA 31+04.00 TO STA 31+34.00 ***

***PCC CONNECTOR TO STA 31+40.00

FILE NAME = D774149-SHT-1typics106.dgn	USER NAME = HAS	DESIGNED - MTD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS			F.A.P. RTE. 325	SECTION (19VBR)BR	COUNTY COLES	TOTAL SHEETS 92	SHEET NO. 6
PLOT SCALE = 0.0033' / IN.	CHECKED - MTD	DATE - AUGUST 3, 2009	REVISED -		SCALE: NONE	SHEET NO. 1 OF 2 SHEETS	STA. TO STA.	CONTRACT NO. 74149				
PLOT DATE = 7/31/2009 10:22:27 AM	DATE - AUGUST 3, 2009	REVISED -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID							



EARTHWORK SCHEDULE						
LOCATION	SUITABLE EARTH EXCAVATION	SUITABLE EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	SUITABLE INCIDENTAL EXCAVATION MATERIAL	SUITABLE INCIDENTAL EXC. MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT (NOT A PAY ITEM)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
STA 28+50 TO 30+00, RT	410	307			20	+287
STA 43+75 TO 45+00, LT	80	60			760	-700
W. ABUTMENT PGE			130	97		+97
E. ABUTMENT PGE			225	168		+168
W. BRIDGE APPR. PVMT FOOTING			20	15		+15
E. BRIDGE APPR. PVMT FOOTING			30	22		+22
E. ABUTMENT FOOTING			70	52		+52
SW RETAINING WALL			80	60		+60
SE RETAINING WALL FOOTING			20	15		+15
TOTALS	490	367	575	429	780	+16

NOTES

1. EXCAVATION USED AS EMBANKMENT = (SUITABLE EARTH EXCAVATION - SUITABLE INCIDENTAL EXCAVATION)*0.75

SEEDING & SODDING SCHEDULE									
LOCATION	SEEDING, CLASS		FERTILIZER NUTRIENTS			AGRICULTURAL GROUND LIMESTONE	EROSION CONTROL BLANKET	SODDING, SALT TOLERANT	SUPPLEMENTAL WATERING
	3A	7	NITROGEN	PHOSPHORUS	POTASSIUM				
	ACRE	ACRE	POUND	POUND	POUND				
STA 28+15 TO 29+44, RT			1.0	1.0	1.0			73	3.5
STA 28+92 TO CE AT 29+60, LT			0.4	0.4	0.4			27	1.2
STA 31+70 TO 31+98, LT			0.3	0.3	0.3			12	0.6
STA 31+87, RT			0.3	0.3	0.3			15	0.7
SW CORNER OF BRIDGE	0.07	0.07	6.5	6.5	6.5	0.15	337		
NE CORNER OF BRIDGE	0.01	0.01	1.0	1.0	1.0	0.05	60		
SE CORNER OF BRIDGE	0.05	0.05	4.5	4.5	4.5	0.10	228		
TOTALS	0.13	0.13	14.0	14.0	14.0	0.30	625	127	6.0

EROSION CONTROL SCHEDULE			
LOCATION	TEMP EROSION CONTROL SEEDING	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION
	POUND	FOOT	EACH
ON BARE AREAS AS NEEDED	16		
SW CORNER OF BRIDGE		20	
SE CORNER OF BRIDGE		50	
NE CORNER OF BRIDGE		30	
STA 30+66.9, 68.9' RT			1
STA 31+16.3, 47.9' LT			1
TOTALS	16	100	2

PCC PAVEMENT SCHEDULE					
LOCATION	PCC PAVEMENT 9"	PAVEMENT FABRIC	BRIDGE APPROACH PVMT CONNECTOR (PCC)	CONTINUOUSLY REINFORCED PCC PAVEMENT 9"	PAVEMENT REINFORCEMENT 9"
	SQ YD	SQ YD	SQ YD	SQ YD	SQ YD
STA 28+23.67 TO 29+03.00, RT	30	30			
PVMT REPLACEMENT(S) AT E. CONNECTOR	45	45			
STA 43+72.45 TO 44+53.12, LT	25	25			
E. BRIDGE APPROACH PVMT CONNECTOR			69		
STA 29+03.00 TO W. BRIDGE APPR. PVMT, LT				233	233
STA 29+03.00 TO W. BRIDGE APPR. PVMT, CL				37	37
STA 29+03.00 TO W. BRIDGE APPR. PVMT, RT				291	291
TOTALS	100	100	69	561	561

HMA SCHEDULE					
LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	PCC SURFACE REMOVAL-BUTT JOINT	TEMPORARY RAMP	HMA SURFACE COURSE, MIX "D", N90
	GALLON	TON	SQ YD	SQ YD	TON
STA 31+98.04 BUTT JOINT			297	33	
STA 43+69.00 BUTT JOINT			446	27	
E. BRIDGE APPROACH PVMT CONNECTOR				68	
PCC PVMT ALONG W. SIDE LAKE LAND BLVD				45	
LAKE LAND BLVD/CHARLESTON AVE. INTERSECTION	91	1.5			91
TOTALS	91	1.5	743	173	91

PCC SIDEWALK SCHEDULE			
LOCATION	PCC SIDEWALK 5 INCH	DETECTABLE WARNINGS	SIDEWALK REMOVAL
	SQ FT	SQ FT	SQ YD
STA 28+17.1 TO 29+44.02, RT	495		
STA 28+17.1 TO W. ABUTMENT, RT			567
STA 29+48.6 TO W. BRIDGE APPR. PVMT, LT	167		
STA 29+48.6 TO W. ABUTMENT, LT			323
E. ABUTMENT TO STA 31+98.04, LT			433
E. BRIDGE APPR. PVMT TO STA 31+98.04, LT	320		
STA 31+74, RT	34	12	34
STA 31+89, LT		8	
E. BRIDGE APPROACH PAVEMENT, RAMP		8	
STA 43+65.1 TO 43+72.45, LT	44		
STA 43+65.1 TO E. ABUTMENT, LT			624
TOTALS	1060	28	1981

WATER MAIN SCHEDULE				
LOCATION	TRENCH BACKFILL	WATER MAIN 6"	ADJUSTING WATER VALVES 6"	WATER MAIN REMOVAL 6"
	CU YD	FOOT	EACH	FOOT
STA 29+30.4, 40.0' RT			1	
STA 29+30.4, 40.0' RT TO 29+89.4, 38.4' RT	13.3	60		60
STA 29+89.4, 38.4' RT TO 30+15.8, 35.8' LT	17.5	80		80
STA 30+15.8, 35.8' LT TO 31+70.0, 35.8' LT		155		155
STA 31+70.0, 35.8' LT TO 31+75.0, 35.8' LT	1.2	5		5
TOTALS	32.0	300	1	300

SUB-BASE SCHEDULE		
LOCATION	SUB-BASE GRANULAR MATERIAL	
	TYPE A 4"	TYPE B 4" (NOT A PAY ITEM)
	SQ YD	SQ YD
STA 28+23.67 TO 29+03.00, RT	53	
STA 29+03.00 TO W. BRIDGE APPR. PVMT FOOTING, LT & RT	596	
W. BRIDGE APPR. PVMT FOOTING TO W. ABUT., LT & RT		192
E. ABUT. TO E. BRIDGE APPR. PVMT FOOTING, LT & RT		240
E. BRIDGE APPR. PVMT FOOTING TO STA 31+98.04, LT & RT	85	
STA 43+65.1, TO E. BRIDGE APPR. PVMT FOOTING, LT	98	
TOTALS	832	432

DRIVEWAY REMOVAL SCHEDULE		
LOCATION	AGGREGATE FOR TEMPORARY ACCESS	DRIVEWAY PAVEMENT REMOVAL
	TON	SQ YD
STA 28+50, CE RT	61	135
STA 29+60, CE LT	25	60
STA 29+64, CE RT		82
TOTALS	86	277



PAVEMENT MARKING SCHEDULE													
LOCATION	DESCRIPTION	SHORT-TERM PAVEMENT MARKING	TEMPORARY PAVEMENT MARKING					WORK ZONE PAVEMENT MARKING REMOVAL	EPOXY PAVEMENT MARKING				
			LETTERS & SYMBOLS	LINE 4"	LINE 6"	LINE 12"	LINE 24"		LETTERS & SYMBOLS	LINE 4"	LINE 6"	LINE 12"	LINE 24"
			FOOT	SQ FT	FOOT	FOOT	FOOT		SQ FT	SQ FT	FOOT	FOOT	FOOT
STA 29+03 TO 29+95, LT	SOLID WHITE	16			92			51.3			92		
STA 29+95 TO 30+75, LT	SKIP-DASH WHITE	16			20			15.3			20		
STA 28+25 TO 30+75, RT	SKIP-DASH WHITE	48			70			51.0			70		
STA 29+64 TO 30+75, RT	SOLID WHITE	24			111			63.5			111		
STA 11+31 TO 14+11, LT	SKIP-DASH WHITE	56			70			53.7			70		
STA 11+31 TO 13+09, LT	SOLID WHITE	40			178			102.3			178		
STA 43+09 TO 44+51, RT	SOLID WHITE				142			71.0			142		
STA 28+16, MEDIAN NOSE	SOLID YELLOW - DOUBLE			13				4.3		13			
STA 28+16 TO 30+77, MEDIAN	SOLID YELLOW - DOUBLE	72		1044				372.0		1044			
MEDIAN STRIPES	SOLID YELLOW					80		80.0				80	
STA 30+77, MEDIAN NOSE	SOLID YELLOW - DOUBLE			13				4.3		13			
STA 41+51 TO 43+09, RT	SKIP-DASH WHITE	64			40			41.3			40		
STA 43+69 TO 44+53, MEDIAN	SOLID YELLOW - DOUBLE	32		336				122.7		336			
STA 44+53, MEDIAN NOSE	SOLID YELLOW - DOUBLE			13				4.3		13			
CROSSWALKS	SOLID WHITE				297			148.5			297		
STA 30+77, STOP BAR	SOLID WHITE						42	84.0					42
STA 31+96, STOP BAR	SOLID WHITE						34	68.0					34
STA 44+53, STOP BAR	SOLID WHITE						28	56.0					28
TURN ARROWS	SOLID WHITE							188.0		188			
TOTALS		368	188	1419	1020	80	104	1581.5	188	1419	1020	80	104

PAVEMENT & APPURTENANCE REMOVAL SCHEDULE					
LOCATION	PAVEMENT REMOVAL	COMBINATION CURB AND GUTTER REMOVAL	APPROACH SLAB REMOVAL	MEDIAN REMOVAL	MEDIAN REMOVAL PARTIAL DEPTH
	SQ YD	FOOT	SQ YD	SQ FT	SQ FT
STA 28+23.67 TO W. ABUTMENT, RT		180			
STA 29+03.00 TO W. ABUTMENT, LT		122			
STA 29+03.00 TO W. ABUTMENT, CL				450	
STA 29+03.00 TO EX W. APPROACH SLAB, LT & RT	442.2				
EX W. APPROACH SLAB			157		
EX E. APPROACH SLAB			232		
E. ABUTMENT TO STA 31+98.04, LT		84			
EX E. APPROACH SLAB TO STA 31+72.00, LT & RT	46.2				
STA 43+65.1 TO E. ABUTMENT, LT		124			
STA 44+46.1 TO 44+79.5, LT	36.6				
STA 28+16.5 TO 29+03.00, CL					346
STA 43+67.6 TO 44+52.00, CL					338
TOTALS	525.0	510	389	450	684

PROTECTIVE COAT SCHEDULE	
LOCATION	PROTECTIVE COAT
	SQ YD
PCC PAVEMENT 9"	100
PCC PAVEMENT CONNECTOR	69
CRC PAVEMENT 9"	561
CONC CURB & GUTTER, TYPE B-6.24	94
SW ANCHOR SLAB	35
SE ANCHOR SLAB	86
PCC DRIVEWAY	188
PCC SIDEWALK	117
BRIDGE DECK AND APPROACH PAVEMENTS	1518
TOTAL	2768

SURVEY MARKERS SCHEDULE	
LOCATION	PERMANENT SURVEY MARKERS, TYPE I
PT STA 28+70.91	1
STA 31+38.45 = STA 45+13.34, CL	1
TOTAL	2

CHAIN LINK FENCE SCHEDULE		
LOCATION	CHAIN LINK FENCE, 6'	CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED
	FOOT	FOOT
SE RETAINING WALL	18	
NE RETAINING WALL		17
SW RETAINING WALL		6
NW RETAINING WALL		18
TOTALS	18	41



CURB AND GUTTER SCHEDULE

LOCATION	FRAMES AND GRATES TO BE ADJUSTED	COMBINATION CONC C&G TYPE B-6.24
	EACH	FOOT
STA 28+23.67 TO 29+44.02, RT		120
STA 28+50, CE RT		63
STA 29+03.00 TO W. BRIDGE APPR. PAVEMENT, LT		93
STA 29+60, CE LT		41
E. BRIDGE APPR. PAVEMENT TO STA 31+98.04, LT		54
STA 31+80.0, 28.0' LT	1	
STA 43+65.1 TO 43+72.45, LT		8
TOTALS	1	379

RAISED REFLECTIVE PAVEMENT MARKER SCHEDULE

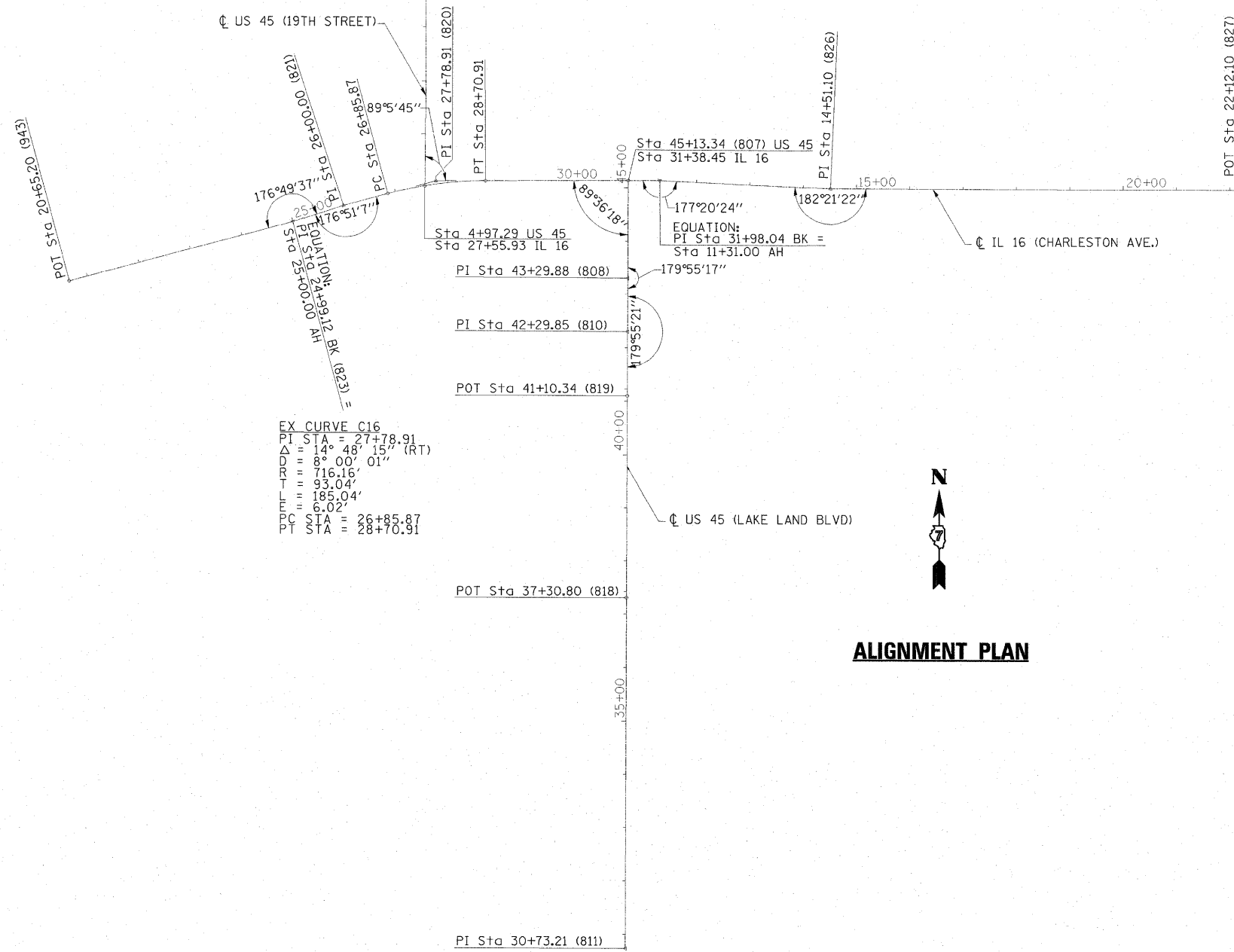
LOCATION	DESCRIPTION	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	REPLACEMENT REFLECTOR	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL
		EACH	EACH	EACH	EACH
STA 28+34, 2' LT & RT	TWO-WAY AMBER	2			
STA 28+74, 2' LT & RT	TWO-WAY AMBER	2			
STA 29+14, 2' LT & RT	TWO-WAY AMBER	2			
STA 29+29, 14' RT	ONE-WAY CRYSTAL	1			
STA 29+37, 14' LT	ONE-WAY CRYSTAL	1			
STA 29+54, 2' LT & RT	TWO-WAY AMBER	2			
STA 29+64, 26' RT	ONE-WAY CRYSTAL	1			
STA 29+69, 14' RT	ONE-WAY CRYSTAL	1			
STA 29+77, 14' LT	ONE-WAY CRYSTAL	1	1		
STA 29+94, 26' RT	ONE-WAY CRYSTAL	1	2		
STA 29+94, 2' LT & RT	TWO-WAY AMBER	2	1		
STA 30+09, 14' RT	ONE-WAY CRYSTAL	1	1		
STA 30+34, 26' RT	ONE-WAY CRYSTAL		1		
STA 30+34, 2' LT & RT	TWO-WAY AMBER		2		
STA 30+49, 14' RT	ONE-WAY CRYSTAL			1	1
STA 30+51, 14' LT	ONE-WAY CRYSTAL			1	1
STA 30+74, 26' RT	ONE-WAY CRYSTAL			1	1
STA 30+74, 2' LT & RT	TWO-WAY AMBER			1	1
STA 11+32, 4' LT	ONE-WAY CRYSTAL			1	1
STA 11+69, 4' LT	ONE-WAY CRYSTAL			1	1
STA 11+87, 15' LT	ONE-WAY CRYSTAL			1	1
STA 12+08, 4' LT	ONE-WAY CRYSTAL			1	1
STA 12+45, 4' LT	ONE-WAY CRYSTAL				
STA 12+67, 15' LT	ONE-WAY CRYSTAL			1	1
STA 12+84, 4' LT	ONE-WAY CRYSTAL			1	1
STA 13+43, 15' LT	ONE-WAY CRYSTAL				
STA 41+73, 16' RT	ONE-WAY CRYSTAL	1		1	1
STA 42+13, 16' RT	ONE-WAY CRYSTAL				1
STA 42+53, 16' RT	ONE-WAY CRYSTAL				1
STA 42+70, 2' LT	TWO-WAY AMBER	1			
STA 42+93, 16' RT	ONE-WAY CRYSTAL	1			
STA 43+10, 4' LT	TWO-WAY AMBER	1			
STA 43+33, 16' RT	ONE-WAY CRYSTAL				
STA 43+50, 3' LT & RT	TWO-WAY AMBER	2			
STA 43+73, 16' RT	ONE-WAY CRYSTAL	1			
STA 43+90, 2' LT & RT	TWO-WAY AMBER	2			
STA 44+13, 16' RT	ONE-WAY CRYSTAL	1			
STA 44+30, 2' LT & RT	TWO-WAY AMBER	2			
TOTALS		29	8	11	13

SIGN SCHEDULE

LOCATION	RELOCATE SIGN PANEL ASSEMBLY - TYPE B	RELOCATE SIGN PANEL - TYPE 1	TELESCOPING SIGN SUPPORT	WOOD SIGN SUPPORT	REMOVE GROUND-MOUNTED SIGN SUPPORT	REMOVE CONCRETE FOUNDATION-OVERHEAD
	EACH	SQ FT	FOOT	FOOT	EACH	EACH
STA 29+37, 48' RT		6	24			
STA 29+41, 49' RT	1			20		
STA 29+94, 37' RT					1	
STA 29+98, 42' RT					2	
STA 29+98.2, 38.4' RT						1
STA 31+77, 40' LT		6	24			
TOTALS	1	12	48	20	3	1

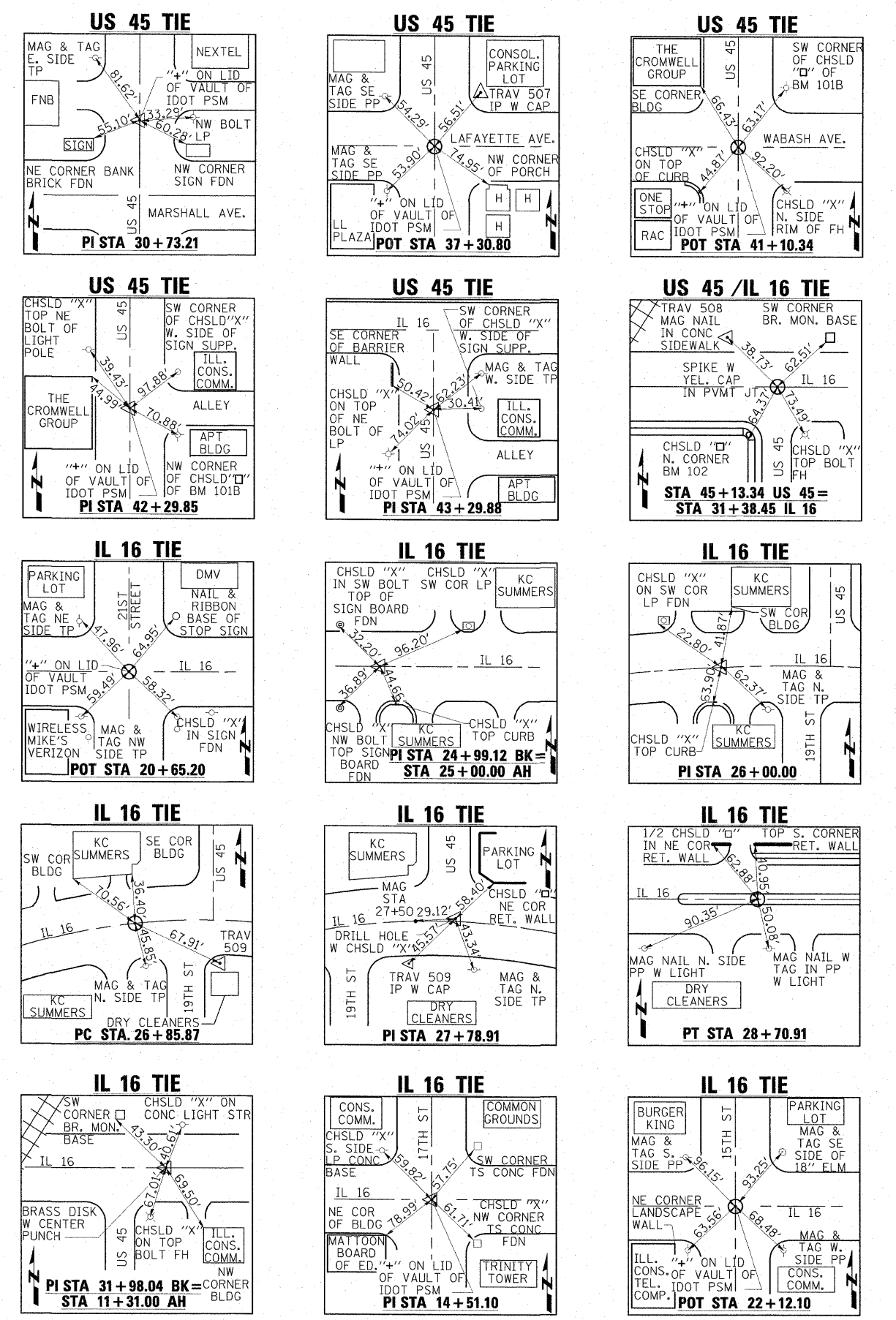
PAVEMENT MARKING REMOVAL SCHEDULE

LOCATION	DESCRIPTION	PAVEMENT MARKING REMOVAL
		SQ FT
NB US 45		
STA 41+70 TO 43+09, RT	4" SKIP-DASH LANE LINE	13.3
STA 43+09 TO 44+51, RT	4" SOLID LANE LINE	47.3
STA 43+09 TO 44+51, RT	TURN ARROWS	62.4
STA 44+53, RT	24" STOP BAR	56.0
WB IL 16		
STA 11+31, LT	24" STOP BAR	68.0
STA 11+31 TO 14+11, LT	4" SKIP-DASH LANE LINE	23.3
STA 11+31 TO 13+09, LT	4" SOLID LANE LINE	59.3
STA 11+31 TO 13+09, CL	TURN ARROWS	46.9
CROSSWALKS	6" SOLID LINE	134.5
TOTAL		511.0



ALIGNMENT PLAN

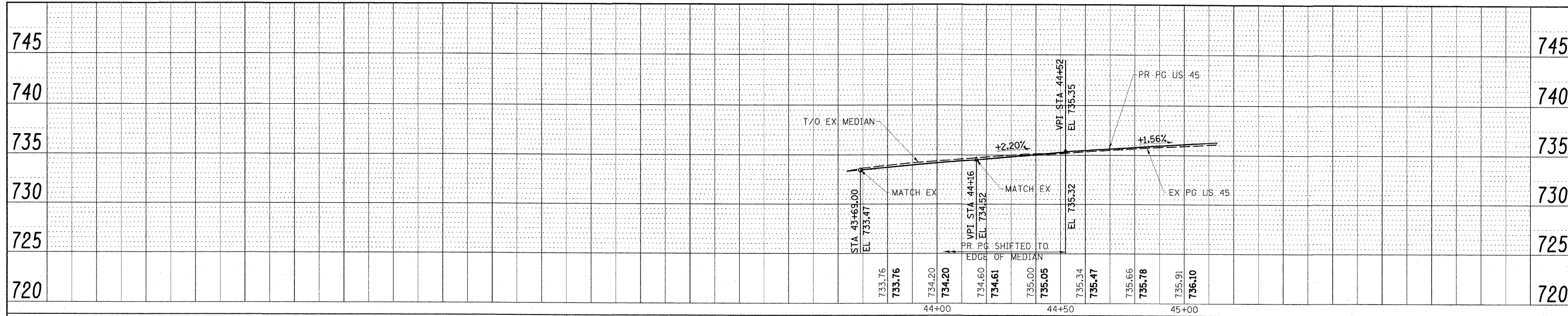
BENCHMARKS (NAVD 88)				
POINT	ELEVATION	STATION	OFFSET	DESCRIPTION
101	719.70	31+78 US 45	36.9' LT (W)	CHSLD SQUARE ON NE CORNER OF TRAFFIC SIGNAL POLE FOUNDATION IN NE QUAD OF MARSHALL AVE. AND LAKE LAND BLVD INTERSECTION
101A	723.96	33+77 US 45	18.0' RT (E) FROM EOP	FIRE HYDRANT, CHSLD "X", WEST BOLT, INTERSECTION WABASH ST & LAKE LAND BLVD, NE QUAD.
101B	729.34	41+64 US 45	4.5' RT (E) FROM EOP	CHSLD SQUARE IN LIGHT POLE FOUNDATION, INTERSECTION WABASH ST & LAKE LAND BLVD, NE QUAD.
102	738.58	30+63.74 IL 16	48.2' RT (S)	CHSLD SQUARE BASE OF WALK SIGNAL, SE CORNER OF SN 015-0064





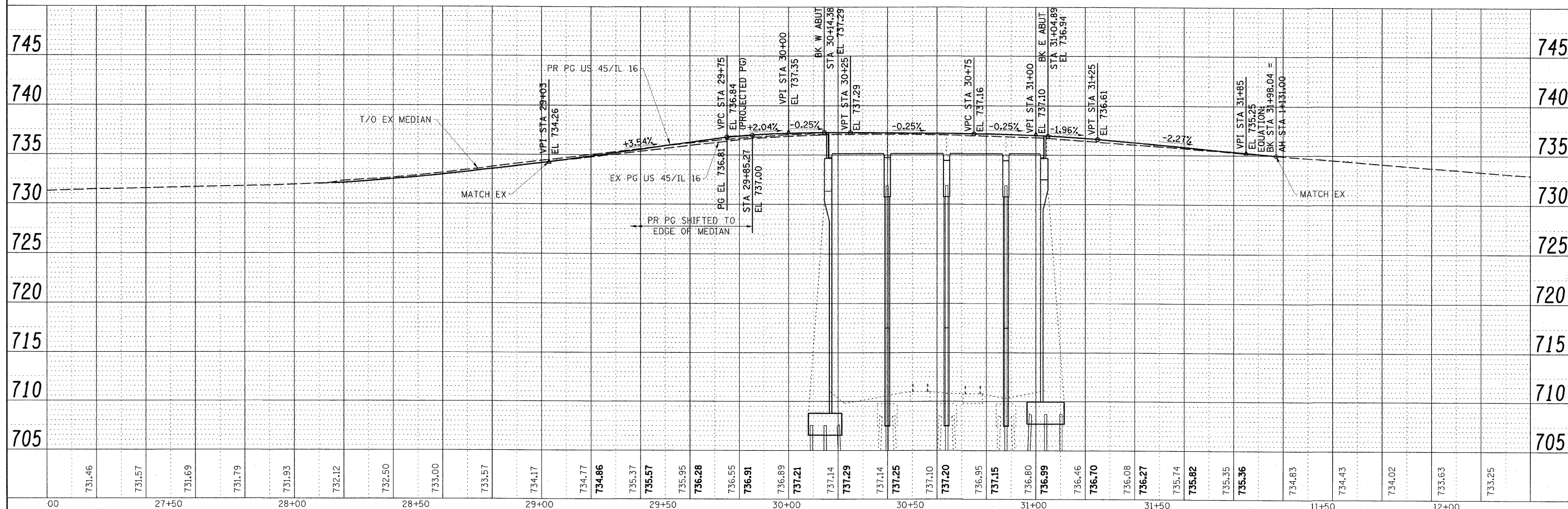
PLAN	SURVEYED	BY	DATE
	GRADES CHECKED		
	ALIGNMENT CHECKED		
	AS NOTED		
	STRUCTURE NOTATIONS OK'D		
	NOTE BOOK NO.		
	FILE NAME		

PROFILE	SURVEYED	BY	DATE
	GRADES CHECKED		
	ALIGNMENT CHECKED		
	AS NOTED		
	STRUCTURE NOTATIONS OK'D		
	NOTE BOOK NO.		
	FILE NAME		



US 45 (LAKE LAND BLVD)

IL 16 (CHARLESTON AVE.)



FILE NAME =	USER NAME = HAS	DESIGNED - DAJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 45 / IL 16 PROFILES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
D774149-SHT-PLN-F01.dgn		DRAWN - CJ/HAS	REVISED -			325	(19VBR)BR	COLES	92	13	
SCALE: (HORIZ) 1"=20' (VERT) 1"=5'		CHECKED - MTD	REVISED -			CONTRACT NO. 74149					
PLOT DATE = 7/31/2009 10:23:50 AM		DATE - AUGUST 3, 2009	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



SCHEDULES OF QUANTITIES

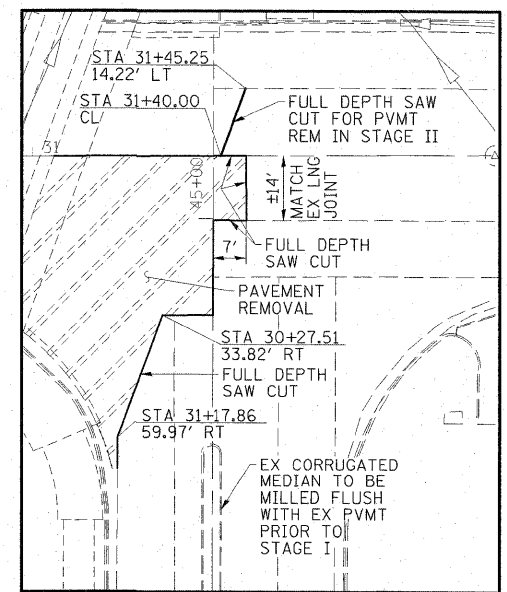
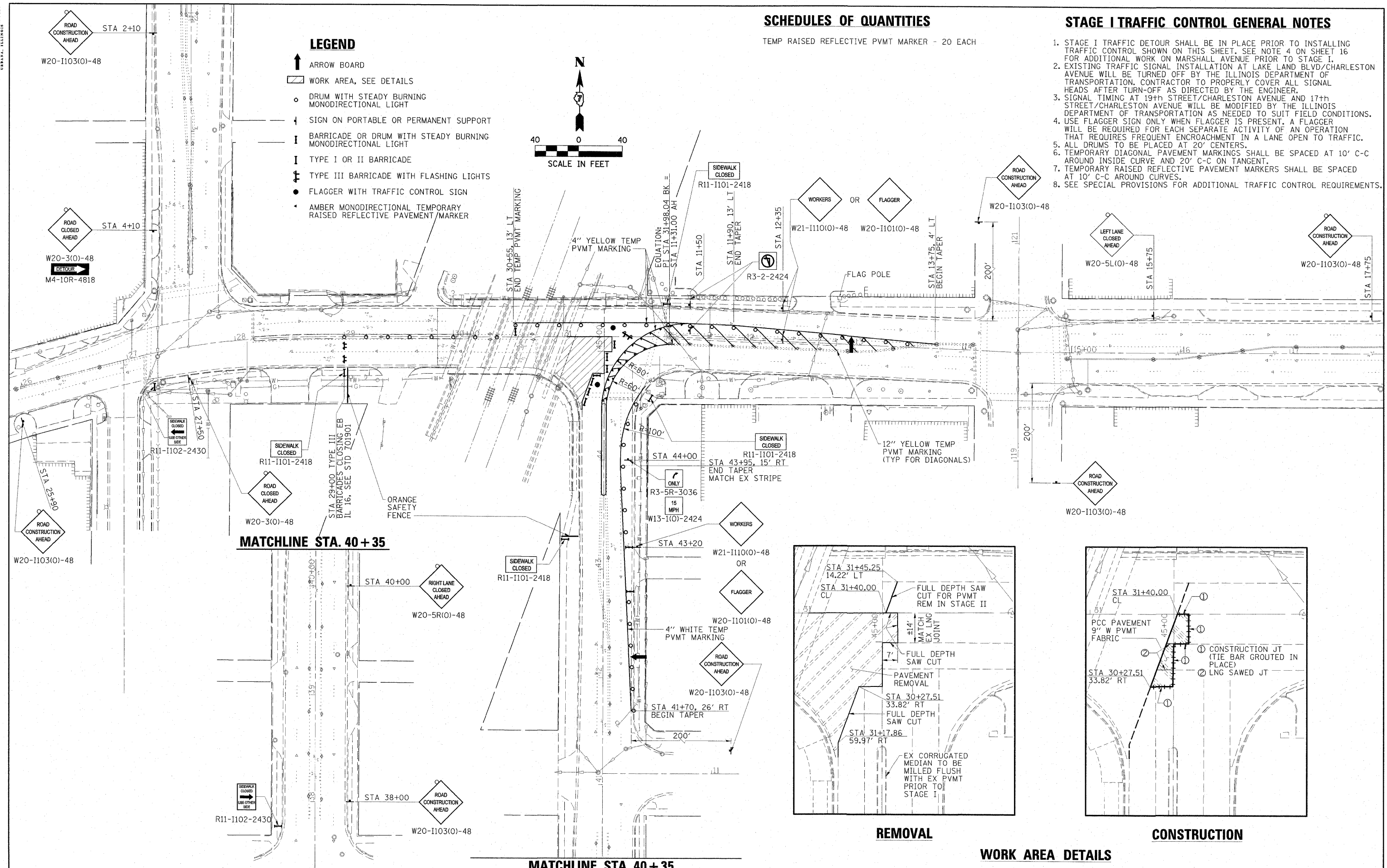
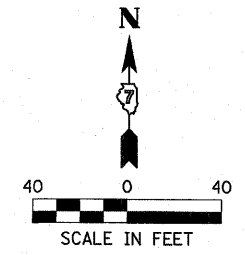
TEMP RAISED REFLECTIVE PVMT MARKER - 20 EACH

STAGE I TRAFFIC CONTROL GENERAL NOTES

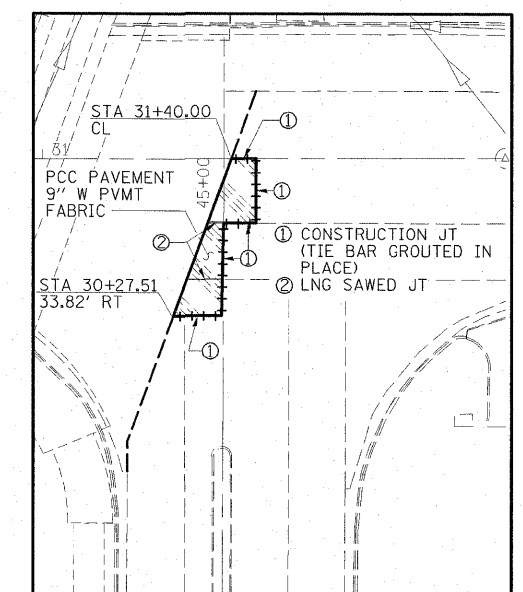
1. STAGE I TRAFFIC DETOUR SHALL BE IN PLACE PRIOR TO INSTALLING TRAFFIC CONTROL SHOWN ON THIS SHEET. SEE NOTE 4 ON SHEET 16 FOR ADDITIONAL WORK ON MARSHALL AVENUE PRIOR TO STAGE I.
2. EXISTING TRAFFIC SIGNAL INSTALLATION AT LAKE LAND BLVD/CHARLESTON AVENUE WILL BE TURNED OFF BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION. CONTRACTOR TO PROPERLY COVER ALL SIGNAL HEADS AFTER TURN-OFF AS DIRECTED BY THE ENGINEER.
3. SIGNAL TIMING AT 19th STREET/CHARLESTON AVENUE AND 17th STREET/CHARLESTON AVENUE WILL BE MODIFIED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION AS NEEDED TO SUIT FIELD CONDITIONS.
4. USE FLAGGER SIGN ONLY WHEN FLAGGER IS PRESENT. A FLAGGER WILL BE REQUIRED FOR EACH SEPARATE ACTIVITY OF AN OPERATION THAT REQUIRES FREQUENT ENCROACHMENT IN A LANE OPEN TO TRAFFIC.
5. ALL DRUMS TO BE PLACED AT 20' CENTERS.
6. TEMPORARY DIAGONAL PAVEMENT MARKINGS SHALL BE SPACED AT 10' C-C AROUND INSIDE CURVE AND 20' C-C ON TANGENT.
7. TEMPORARY RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE SPACED AT 10' C-C AROUND CURVES.
8. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.

LEGEND

- ↑ ARROW BOARD
- ▭ WORK AREA, SEE DETAILS
- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
- ⊥ SIGN ON PORTABLE OR PERMANENT SUPPORT
- ▬ BARRICADE OR DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
- ▬ TYPE I OR II BARRICADE
- ⊥ TYPE III BARRICADE WITH FLASHING LIGHTS
- FLAGGER WITH TRAFFIC CONTROL SIGN
- ▲ AMBER MONODIRECTIONAL TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER



REMOVAL



CONSTRUCTION

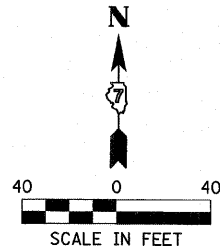
WORK AREA DETAILS

FILE NAME = D774149-SHT-Stage01.dgn	USER NAME = HAS	DESIGNED - MTD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE I TRAFFIC CONTROL PLAN			F.A.P. RTE. = 325	SECTION = (19)WB/R	COUNTY = COLES	TOTAL SHEETS = 92	SHEET NO. = 14
PLOT SCALE = 0.0833" / 1"	CHECKED - MTD	DATE - AUGUST 3, 2009	REVISED -		SCALE: 1"=40'	SHEET NO. 1 OF 1 SHEETS	STA. 26+00 TO STA. 17+80	CONTRACT NO. 74149				
PLOT DATE = 8/3/2009 4:38:33 PM	DATE -	REVISED -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID							



LEGEND

- ↑ ARROW BOARD
- ▭ WORK AREA
- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
- ⊥ SIGN ON PORTABLE OR PERMANENT SUPPORT
- ▬ BARRICADE OR DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
- ⊥ TYPE I OR II BARRICADE
- ⊥ TYPE III BARRICADE WITH FLASHING LIGHTS
- ◀ AMBER MONODIRECTIONAL TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER
- SINGLE 2100 POUND SAND MODULE PAID FOR AS "IMPACT ATTENUATOR, TEMPORARY"

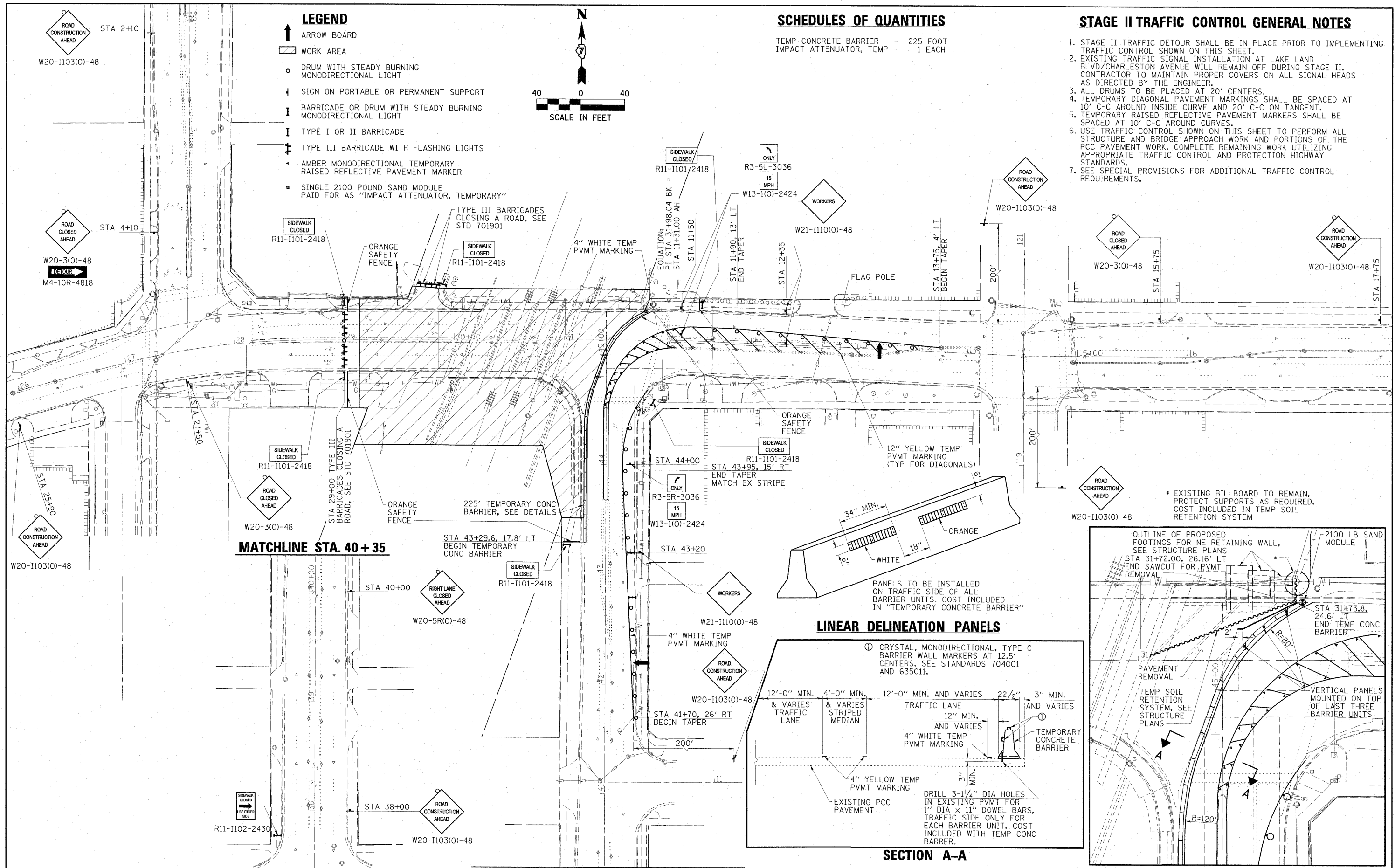


SCHEDULES OF QUANTITIES

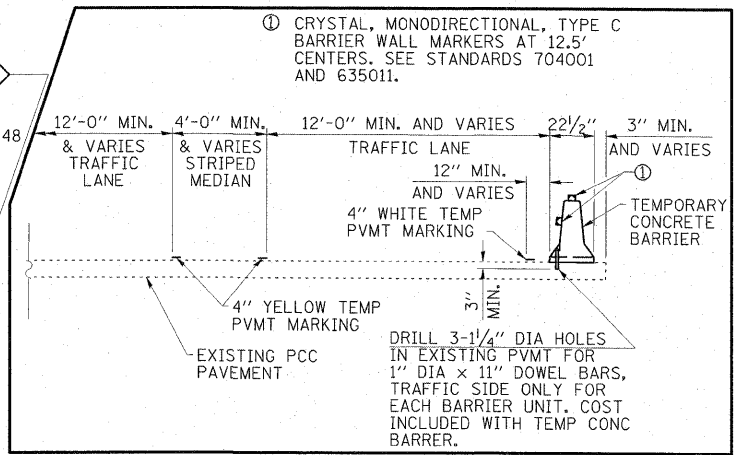
TEMP CONCRETE BARRIER - 225 FOOT
 IMPACT ATTENUATOR, TEMP - 1 EACH

STAGE II TRAFFIC CONTROL GENERAL NOTES

1. STAGE II TRAFFIC DETOUR SHALL BE IN PLACE PRIOR TO IMPLEMENTING TRAFFIC CONTROL SHOWN ON THIS SHEET.
2. EXISTING TRAFFIC SIGNAL INSTALLATION AT LAKE LAND BLVD/CHARLESTON AVENUE WILL REMAIN OFF DURING STAGE II. CONTRACTOR TO MAINTAIN PROPER COVERS ON ALL SIGNAL HEADS AS DIRECTED BY THE ENGINEER.
3. ALL DRUMS TO BE PLACED AT 20' CENTERS.
4. TEMPORARY DIAGONAL PAVEMENT MARKINGS SHALL BE SPACED AT 10' C-C AROUND INSIDE CURVE AND 20' C-C ON TANGENT.
5. TEMPORARY RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE SPACED AT 10' C-C AROUND CURVES.
6. USE TRAFFIC CONTROL SHOWN ON THIS SHEET TO PERFORM ALL STRUCTURE AND BRIDGE APPROACH WORK AND PORTIONS OF THE PCC PAVEMENT WORK. COMPLETE REMAINING WORK UTILIZING APPROPRIATE TRAFFIC CONTROL AND PROTECTION HIGHWAY STANDARDS.
7. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.

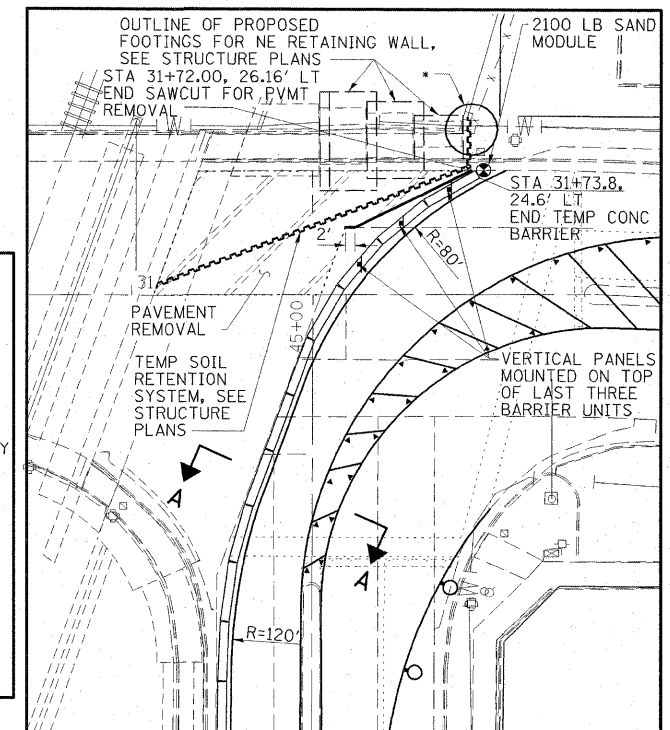


LINEAR DELINEATION PANELS



SECTION A-A

TEMP CONC BARRIER DETAILS



PARTIAL PLAN

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DESIGNED - MTD
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 CHECKED - MTD
 DATE - AUGUST 3, 2009

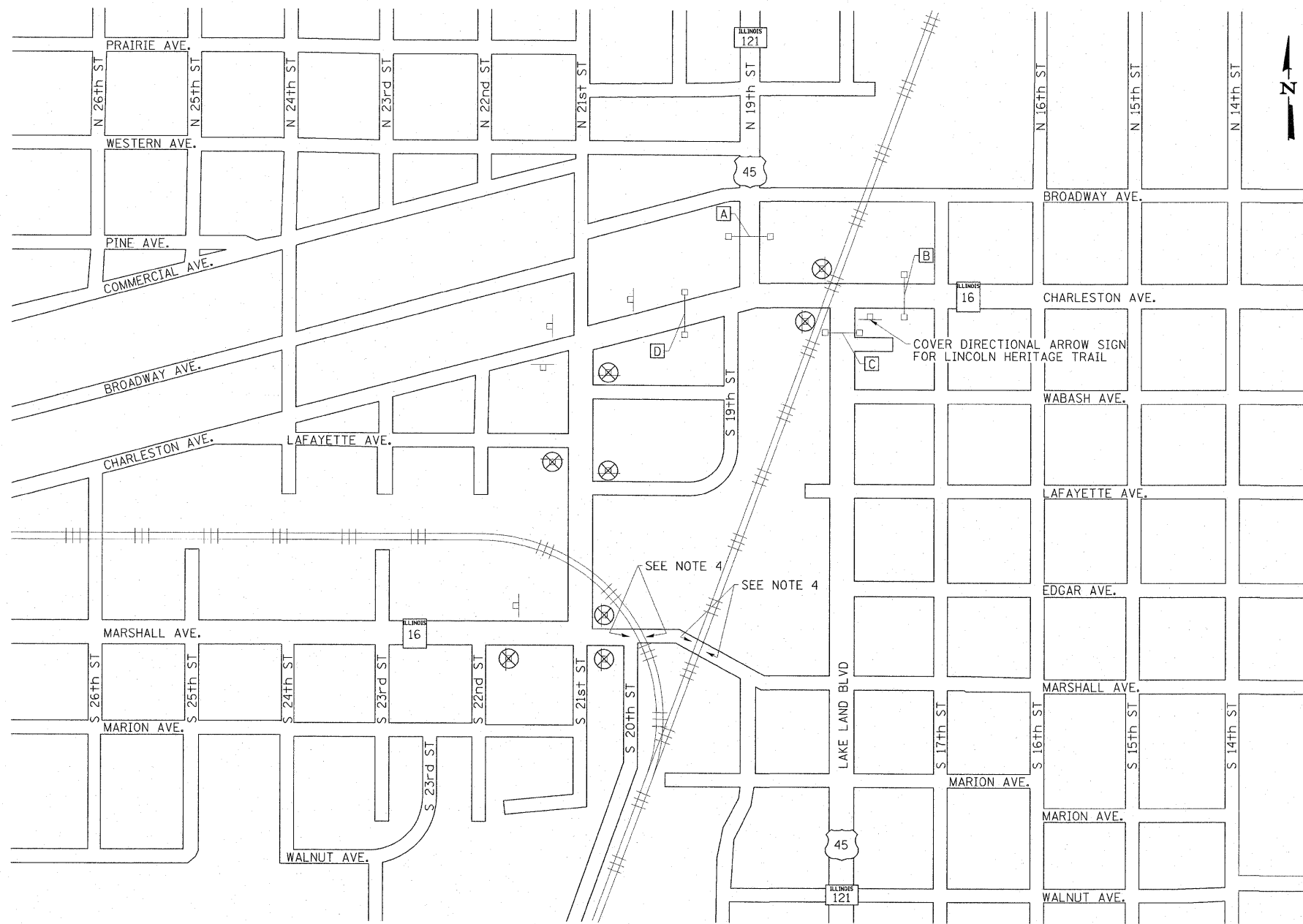
REVISED -
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 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

STAGE II TRAFFIC CONTROL PLAN

SCALE: 1"=40' SHEET NO. 1 OF 1 SHEETS STA. 26+00 TO STA. 17+80

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	(19VBR)BR	COLES	92	15
CONTRACT NO. 74149				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				



EXISTING ROUTE SIGN PLAN NOTES

1. COVER OR REMOVE SIGNS AS NOTED AND AS DIRECTED BY THE ENGINEER.
2. SIGN PANELS THAT ARE REMOVED SHALL BE REINSTALLED ON THEIR ORIGINAL SUPPORTS UNLESS THE SUPPORTS CONFLICT WITH NEW CONSTRUCTION. COST INCLUDED IN "TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR."
3. EXISTING SIGN SUPPORTS THAT CONFLICT WITH NEW CONSTRUCTION SHALL BE REMOVED AND REPLACED AS SPECIFIED ELSEWHERE IN THE PLANS AND WILL BE PAID FOR SEPARATELY.
4. EXISTING RAILROAD CROSSING TAPERS TO BE MILLED 2" MINIMUM AND RESURFACED. A DETECTOR LOOP IS PRESENT IN THE WEST TAPER OF THE WEST CROSSING AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. ESTIMATED QUANTITIES FOR THIS WORK ARE AS FOLLOWS:
 - HOT-MIX ASPHALT SURFACE REMOVAL, 2" - 350 SY
 - BITUMINOUS MATERIALS (PRIME COAT) - 31 GALLON
 - AGGREGATE (PRIME COAT) - 0.5 TON
 - TEMPORARY RAMP - 162 SY
 - HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90 - 39 TON
 - DETECTOR LOOP, TYPE I - 60 FOOT (TWO INSTALLATIONS)

THIS WORK SHALL BE COMPLETED BEFORE DIRECTING TRAFFIC ONTO THE STAGE I DETOUR UNLESS THE CONTRACTOR PLANS TO START BRIDGE WORK PRIOR TO THE START-UP OF HMA PLANTS. IF BRIDGE WORK IS STARTED PRIOR TO HMA PLANT START-UP THEN, AS A TEMPORARY MEASURE, THE EXISTING RAILROAD CROSSING TAPERS SHALL BE MILLED AS DIRECTED BY THE ENGINEER TO PROVIDE A SMOOTH SURFACE. THE COST OF THIS MILLING SHALL BE INCLUDED IN THE COST OF HOT-MIX ASPHALT SURFACE REMOVAL, 2" AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

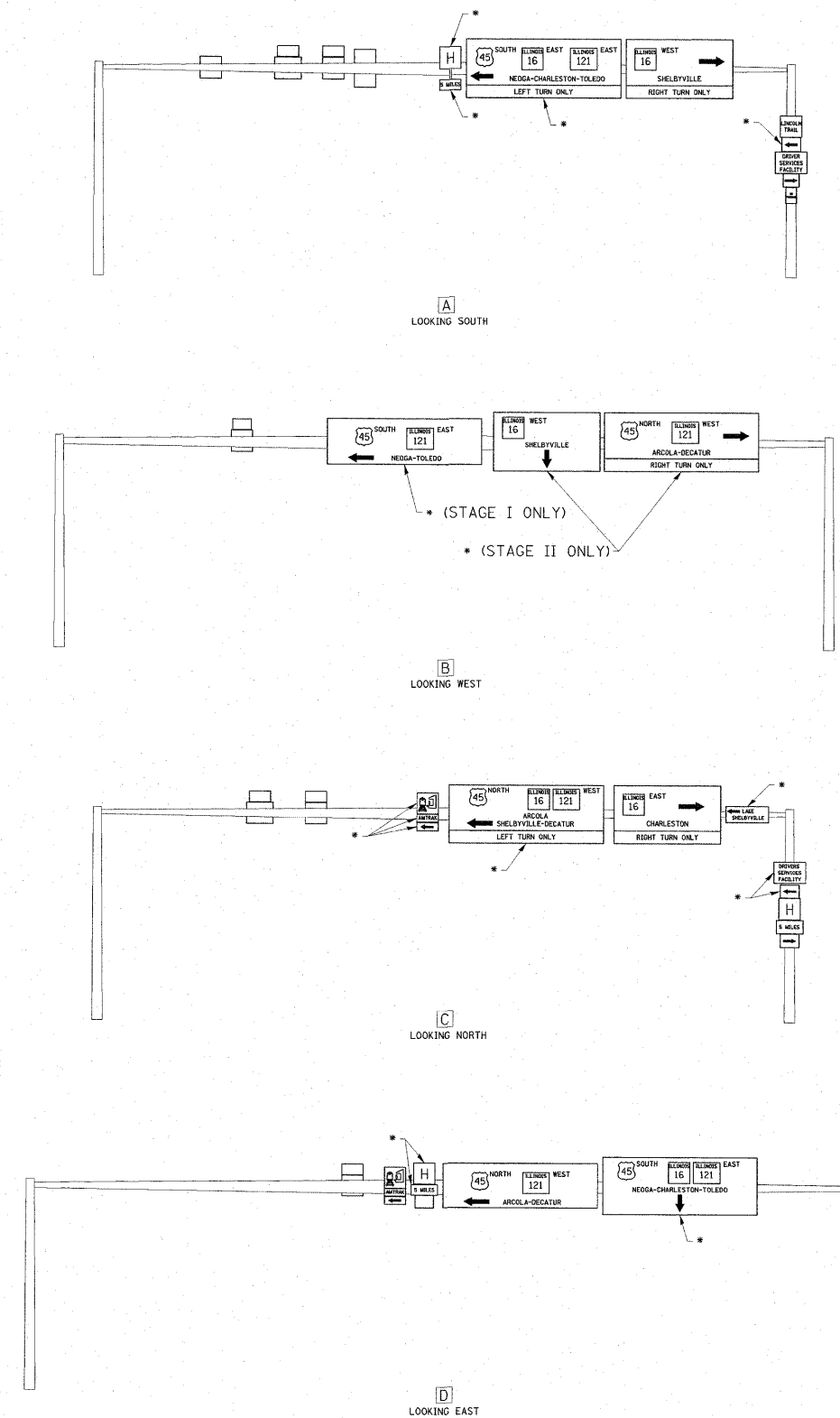
EXISTING ROUTE SIGN PLAN

LEGEND

- EXISTING ROUTE SIGN
- ⊗ SIGN TO BE COVERED OR REMOVED WHILE DETOUR IS IN PLACE
- EXISTING OVERHEAD SIGN STRUCTURE, SEE DETAILS

OVERHEAD SIGN DETAILS

- A, B, ETC. SIGN IDENTIFICATION CORRELATED TO EXISTING ROUTE SIGN PLAN
- SIGN PANEL TO BE COVERED WHILE DETOUR IS IN PLACE



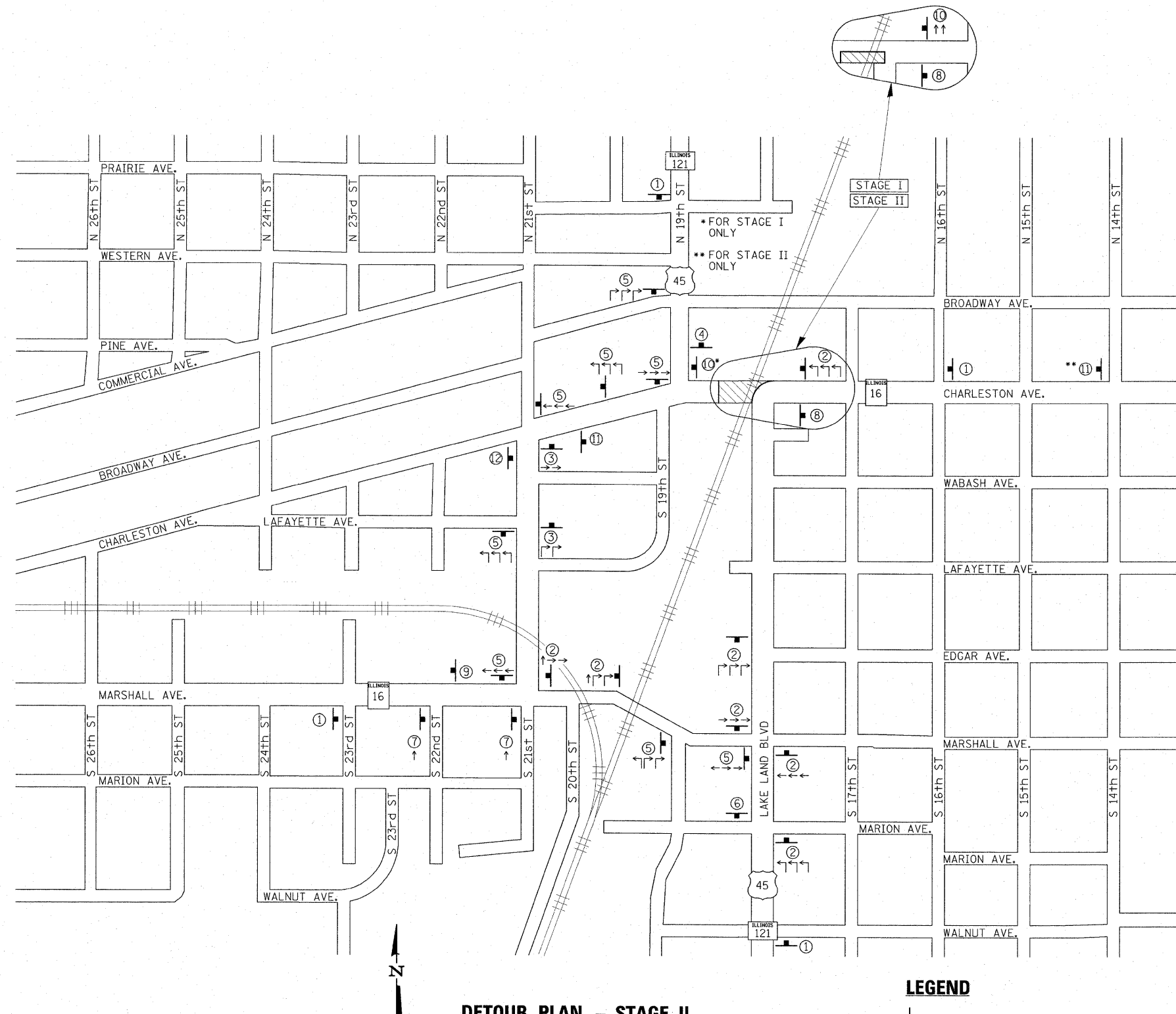
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		CHECKED - MTD	REVISED -
		DATE - AUGUST 3, 2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EXISTING ROUTE SIGNS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	(19VBR)BR	COLES	92	16
CONTRACT NO. 74149				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



DETOUR PLAN - STAGE II

LEGEND

- ⊥ POST MOUNTED SIGN
- ①, ②, ETC. SIGN NUMBER, SEE DETAILS
- ↔, ↗, ETC. DIRECTIONAL ARROW SIGN

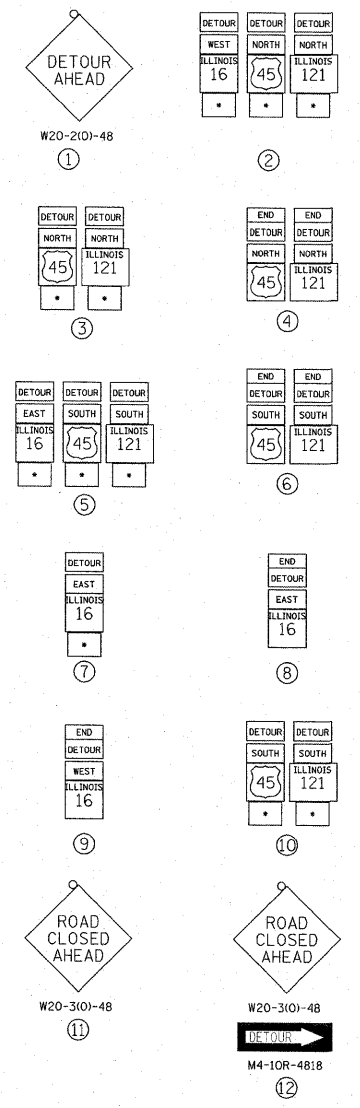
DETOUR PLAN NOTES

1. STAGE I DETOUR SAME AS STAGE II EXCEPT AS SHOWN ON INSET DETAIL.
2. ROUTE SIGNS WILL BE PROVIDED BY IDOT. CONTRACTOR TO PROVIDE ALL OTHER SIGNS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTION AND MAINTENANCE OF ALL DETOUR ROUTE SIGNS.
4. ALL WORK SHOWN ON THIS SHEET SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR."
5. IN ADDITION TO THE SIGNS SHOWN, PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE LOCATED APPROXIMATELY ONE (1) MILE IN ADVANCE OF EACH OF THE DETOUR AHEAD SIGNS, AS DIRECTED BY THE ENGINEER.

SIGN DETAILS

①, ②, ETC. SIGN NUMBER CORRELATED TO DETOUR PLAN

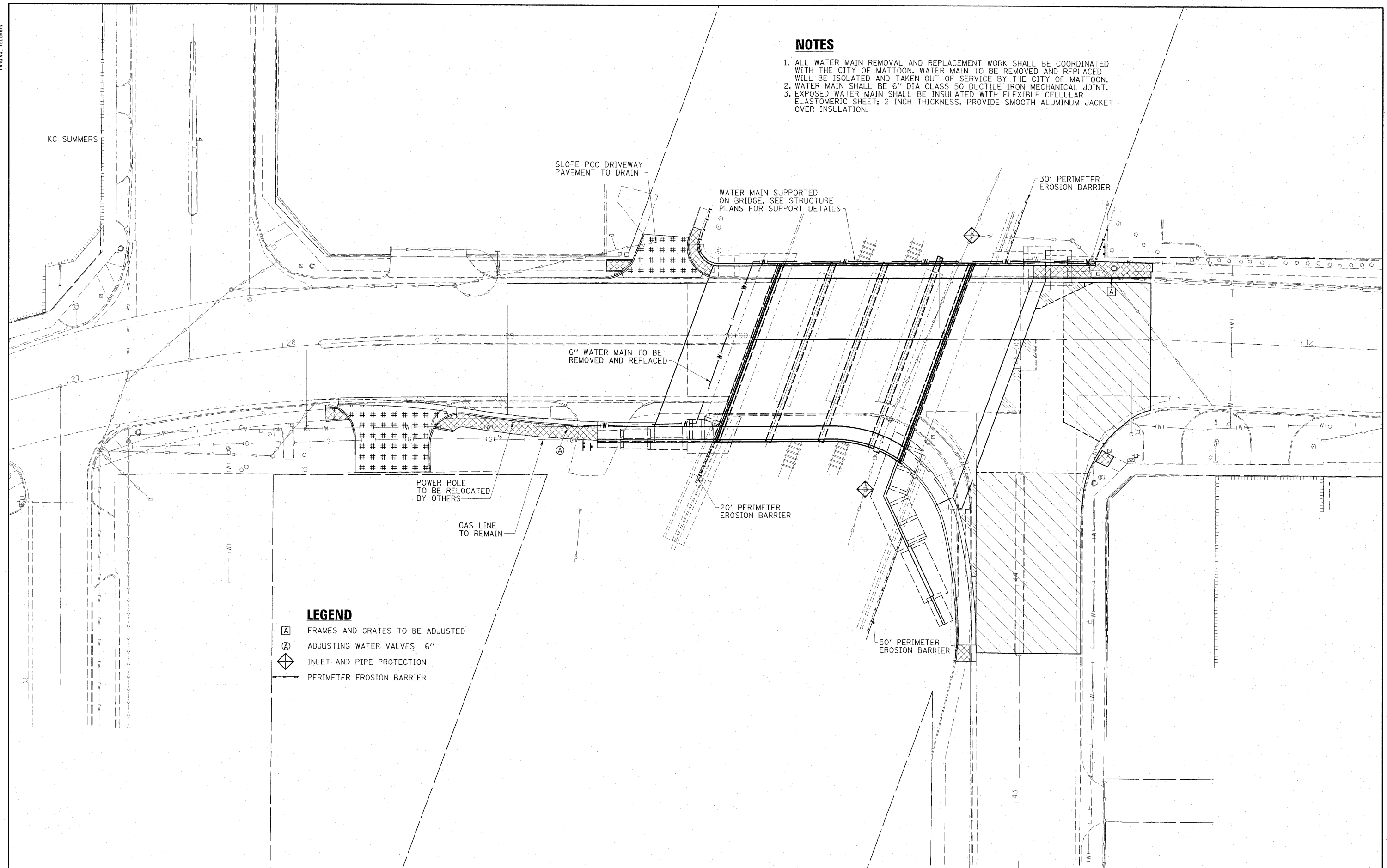
* DIRECTIONAL ARROW SIGN, SEE PLAN FOR DIRECTIONS





NOTES

1. ALL WATER MAIN REMOVAL AND REPLACEMENT WORK SHALL BE COORDINATED WITH THE CITY OF MATTOON. WATER MAIN TO BE REMOVED AND REPLACED WILL BE ISOLATED AND TAKEN OUT OF SERVICE BY THE CITY OF MATTOON.
2. WATER MAIN SHALL BE 6" DIA CLASS 50 DUCTILE IRON MECHANICAL JOINT.
3. EXPOSED WATER MAIN SHALL BE INSULATED WITH FLEXIBLE CELLULAR ELASTOMERIC SHEET; 2 INCH THICKNESS. PROVIDE SMOOTH ALUMINUM JACKET OVER INSULATION.



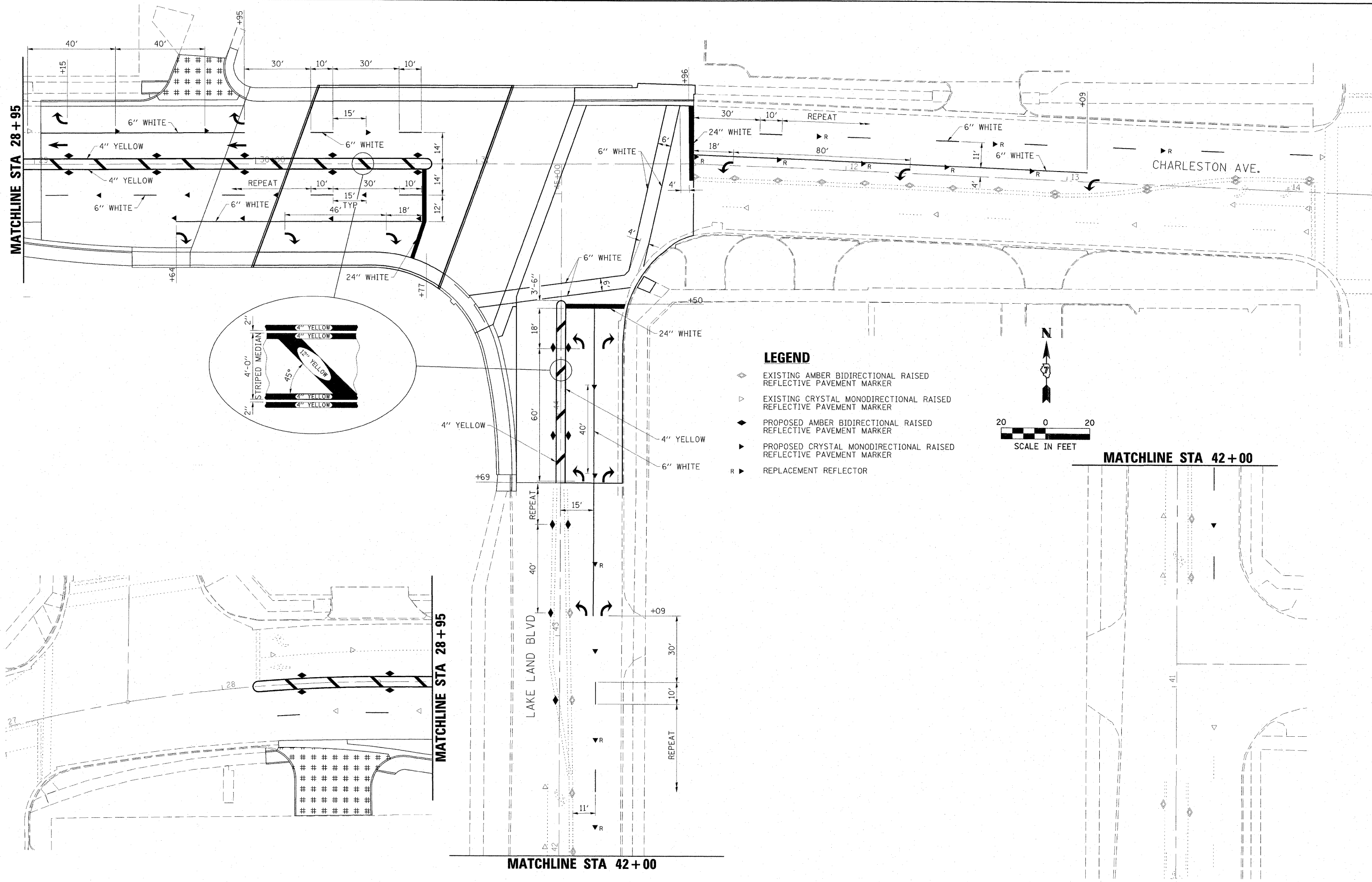
- LEGEND**
- [A] FRAMES AND GRATES TO BE ADJUSTED
 - (A) ADJUSTING WATER VALVES 6"
 - ◆ INLET AND PIPE PROTECTION
 - PERIMETER EROSION BARRIER

FILE NAME = D774149-SHT-EROS01.dgn	USER NAME = HAS	DESIGNED - MTD	REVISED -
		DRAWN - HAS	REVISED -
		CHECKED - MTD	REVISED -
		DATE - AUGUST 3, 2009	REVISED -

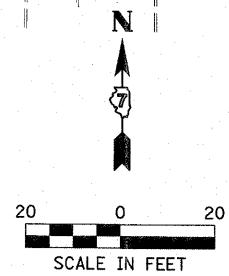
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EROSION CONTROL, DRAINAGE AND UTILITIES PLAN			
SCALE: 1"=20'	SHEET NO. 1 OF 1 SHEETS	STA. 26+80	TO STA. 12+45

F.A.P. RTE. 325	SECTION (19VBR)BR	COUNTY COLES	TOTAL SHEETS 92	SHEET NO. 18
CONTRACT NO. 74149				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				



- LEGEND**
- ◊ EXISTING AMBER BIDIRECTIONAL RAISED REFLECTIVE PAVEMENT MARKER
 - ▽ EXISTING CRYSTAL MONODIRECTIONAL RAISED REFLECTIVE PAVEMENT MARKER
 - ◆ PROPOSED AMBER BIDIRECTIONAL RAISED REFLECTIVE PAVEMENT MARKER
 - ▶ PROPOSED CRYSTAL MONODIRECTIONAL RAISED REFLECTIVE PAVEMENT MARKER
 - R ▶ REPLACEMENT REFLECTOR



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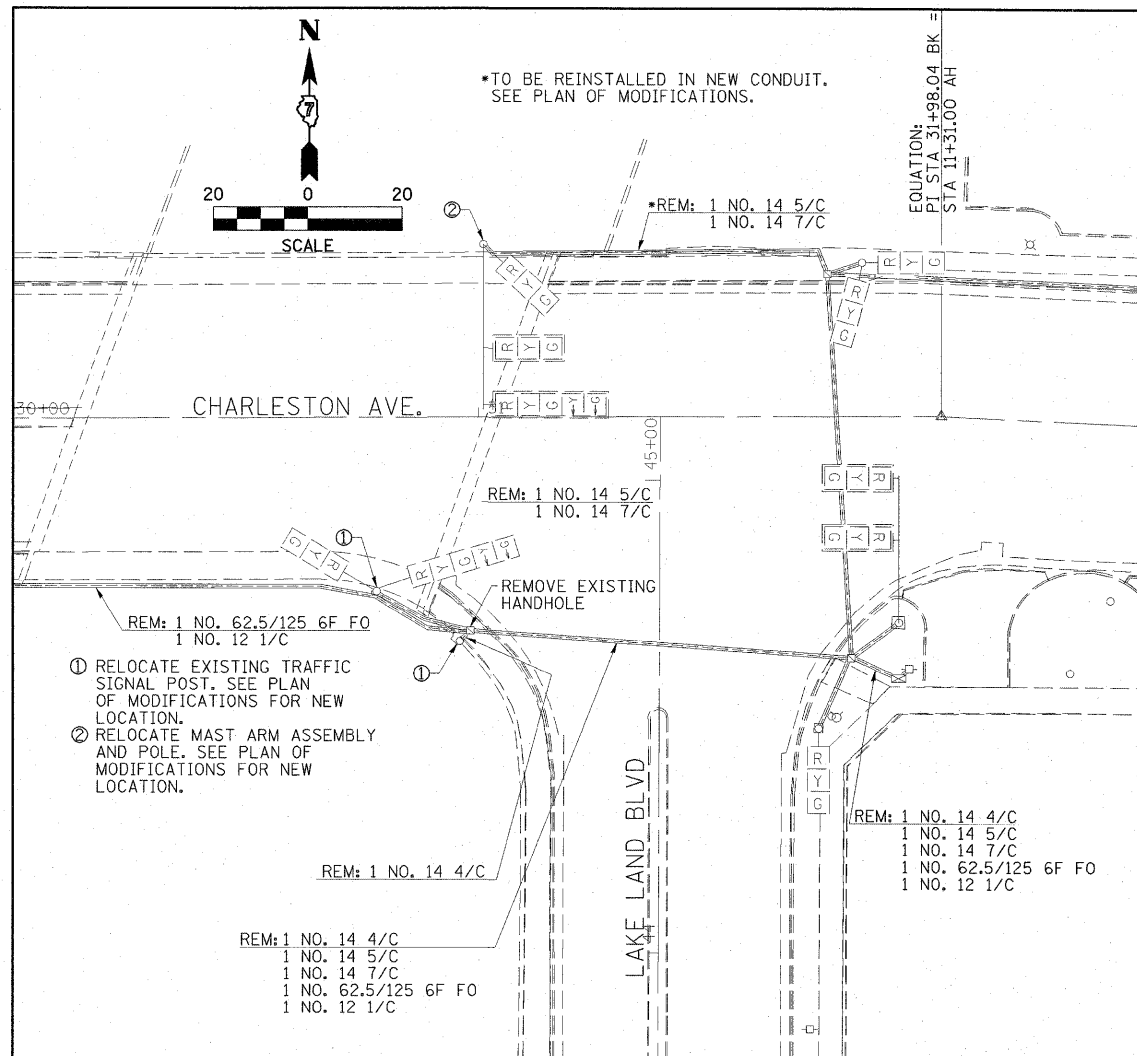
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 DATE - AUGUST 3, 2009

REVISED -
 REVISED -
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 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING PLAN
 SCALE: 1"=20'
 SHEET NO. 1 OF 1 SHEETS
 STA. 27+00 TO STA. 14+30

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	(19VBR)BR	COLES	92	19
CONTRACT NO. 74149				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				



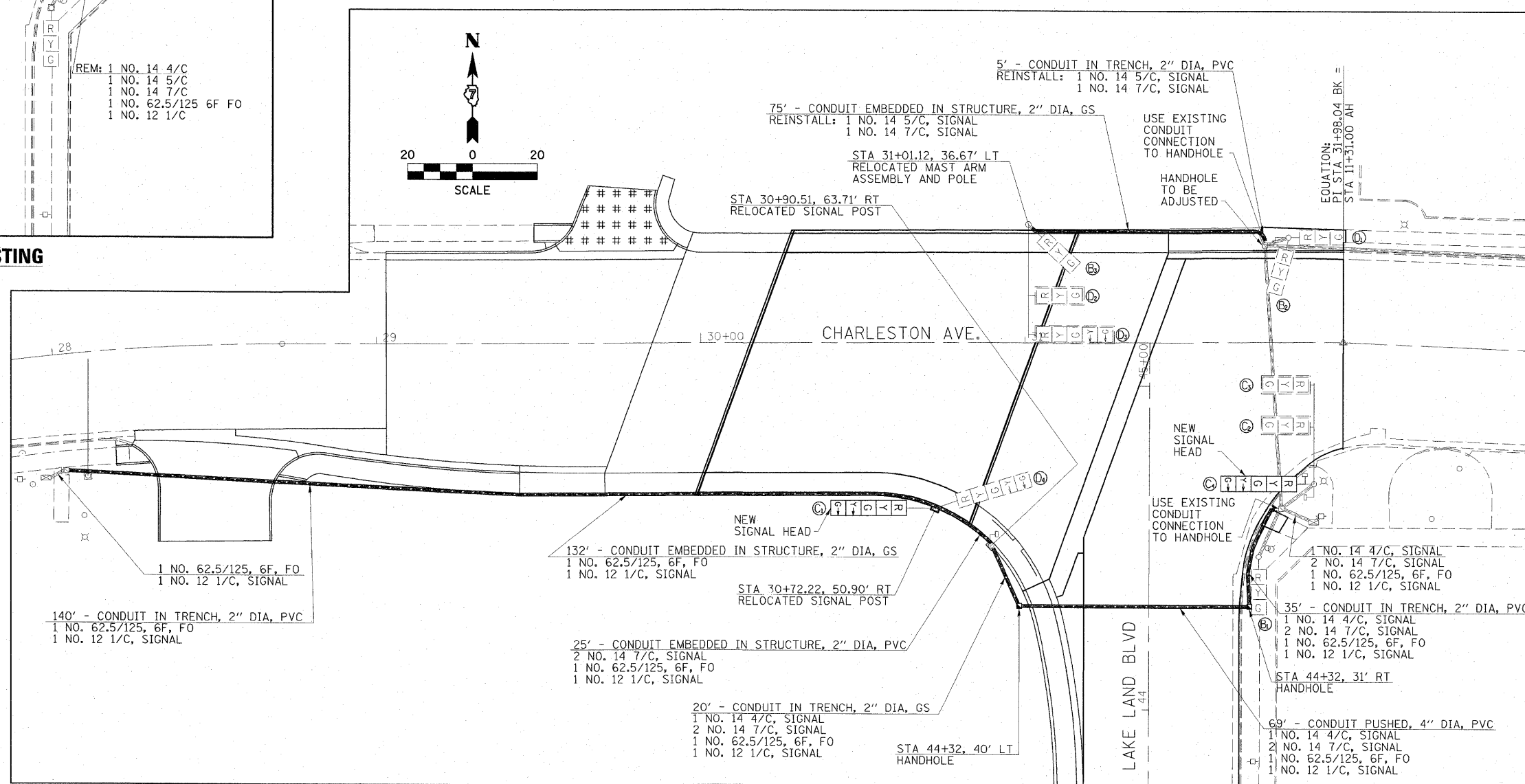
TRAFFIC SIGNAL PLAN - EXISTING

TRAFFIC SIGNAL GENERAL NOTES

1. SIGNAL FACES FOR THE SOUTH APPROACH ARE NOTED AS "B", "C" FOR THE WEST APPROACH AND "D" FOR THE EAST APPROACH.
2. SIGNAL HEADS (C₂-C₃) AND (D₂-D₃) SHALL BE WIRED IN PARALLEL.
3. PROPOSED SIGNAL HEAD C₄ SHALL UTILIZE THE EXISTING SEVEN CONDUCTOR CABLE THAT WAS PREVIOUSLY INSTALLED FOR FUTURE USE.
4. THIS SIGNAL INSTALLATION WILL BE TURNED OFF BY THE DISTRICT 7 BUREAU OF OPERATIONS TO FACILITATE STRUCTURE AND BRIDGE APPROACH WORK AND PORTIONS OF THE PCC PAVEMENT WORK. ALL TRAFFIC SIGNAL WORK SHOWN ON THIS SHEET SHOULD BE COMPLETED DURING THIS PERIOD.
5. THE EXISTING SIGNAL TIMINGS SHALL BE UTILIZED AT EACH INTERSECTION EXCEPT AS MODIFIED BY THE DISTRICT 7 BUREAU OF OPERATIONS.
6. MAST ARM MOUNTED SIGNALS SHALL BE INSTALLED SO THAT ALL PARTS OF THE SIGNAL HEAD, INCLUDING BACKPLATE, ARE A MINIMUM OF 16'-0" ABOVE THE ROADWAY SURFACE AT THE LOCATION OF THE SIGNAL HEAD. ALIGN ADJACENT RED INDICATIONS AT SAME HEIGHT.
7. MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION WILL BE REQUIRED AT THE FOLLOWING INTERSECTIONS.
 - CHARLESTON AVE./19th STREET
 - CHARLESTON AVE./LAKE LAND BLVD
 - CHARLESTON AVE./17th STREET

LIST OF MATERIAL

ITEM	UNIT	QUANTITY
LOCATING UNDERGROUND CABLE	FOOT	55
CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	200
CONDUIT PUSHED, 4" DIA., PVC	FOOT	69
CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	232
HANDHOLE	EACH	2
HANDHOLE TO BE ADJUSTED	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	50
TRENCH AND BACKFILL WITH SCREENINGS OR SAND	FOOT	150
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 6F	FOOT	485
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 12 1/C	FOOT	485
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 4/C	FOOT	175
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7/C	FOOT	400
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	2
RELOCATE EXISTING MAST ARM ASSEMBLY AND POLE	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1310
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	250
REMOVE EXISTING HANDHOLE	EACH	1



TRAFFIC SIGNAL PLAN - MODIFICATIONS

FILE NAME = 0774149-SHT-TS01.dgn	USER NAME = HAS	DESIGNED - MTD	REVISED -
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		CHECKED - MTD	REVISED -
		DATE - AUGUST 3, 2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

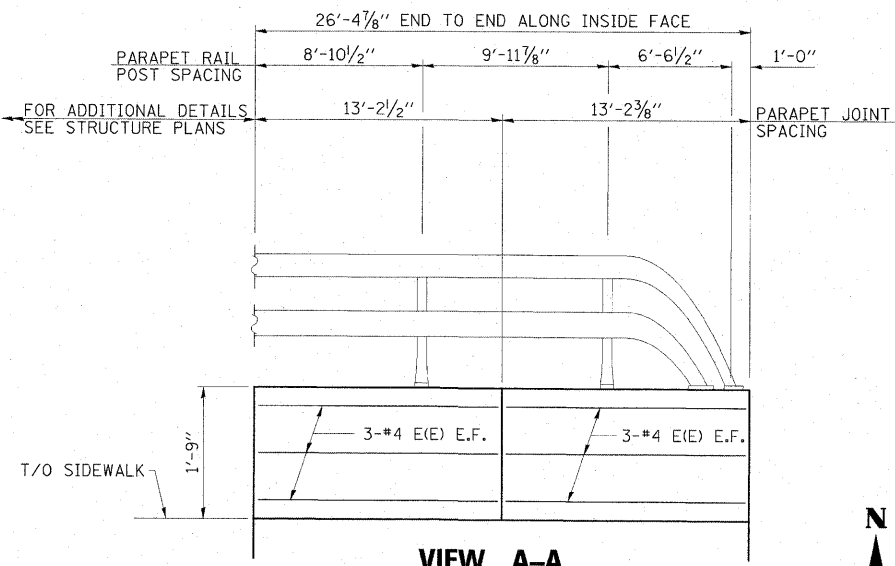
**TRAFFIC SIGNAL MODIFICATIONS
CHARLESTON AVE./LAKE LAND BLVD**

SCALE: 1"=20' SHEET NO. 1 OF 1 SHEETS STA. 27+80 TO STA. 11+70

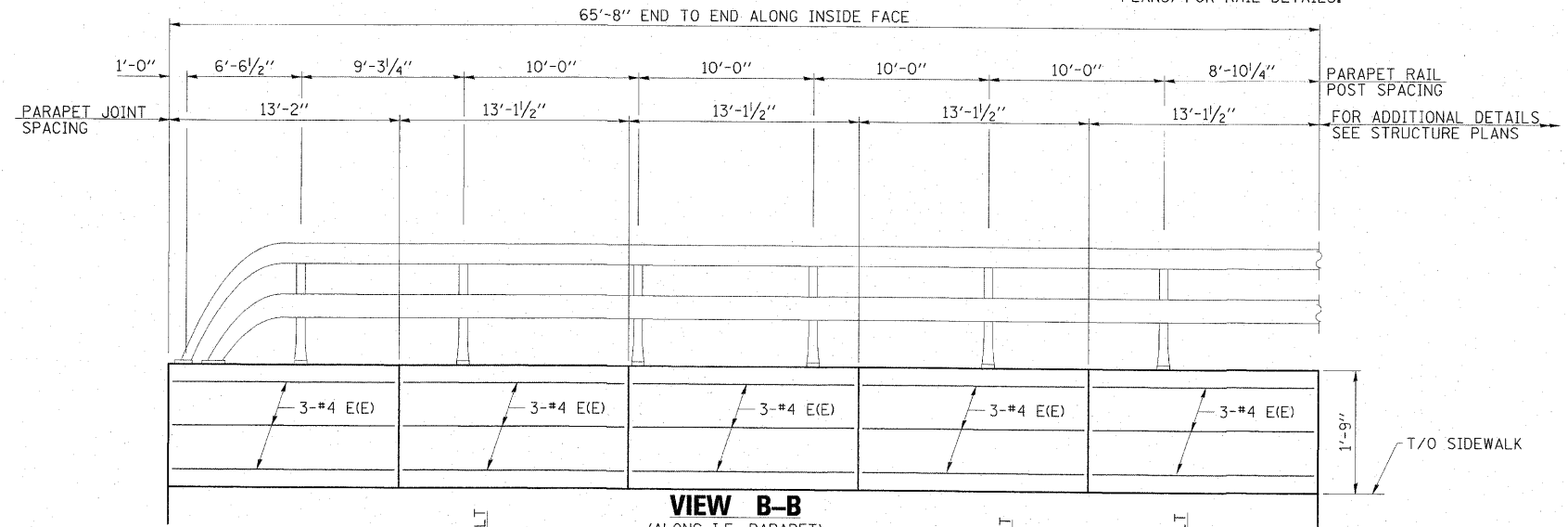
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CONTRACT NO. 74149				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				

NOTES

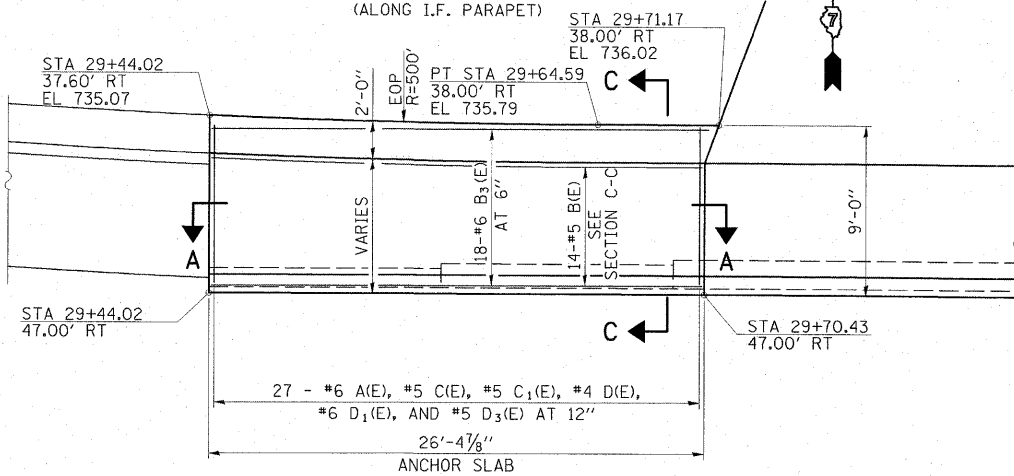
1. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
2. BARS INDICATED THUS: 18x3-#6 ETC. INDICATES 18 LINES OF BARS WITH 3 LENGTHS PER LINE.
3. SEE SUPERSTRUCTURE DETAILS (SHEET 10 OF 35 OF STRUCTURE PLANS) FOR PARAPET JOINT DETAILS.
4. SEE ALUMINUM RAILING, TYPE L (SHEET 16 OF 35 OF STRUCTURE PLANS) FOR RAIL DETAILS.



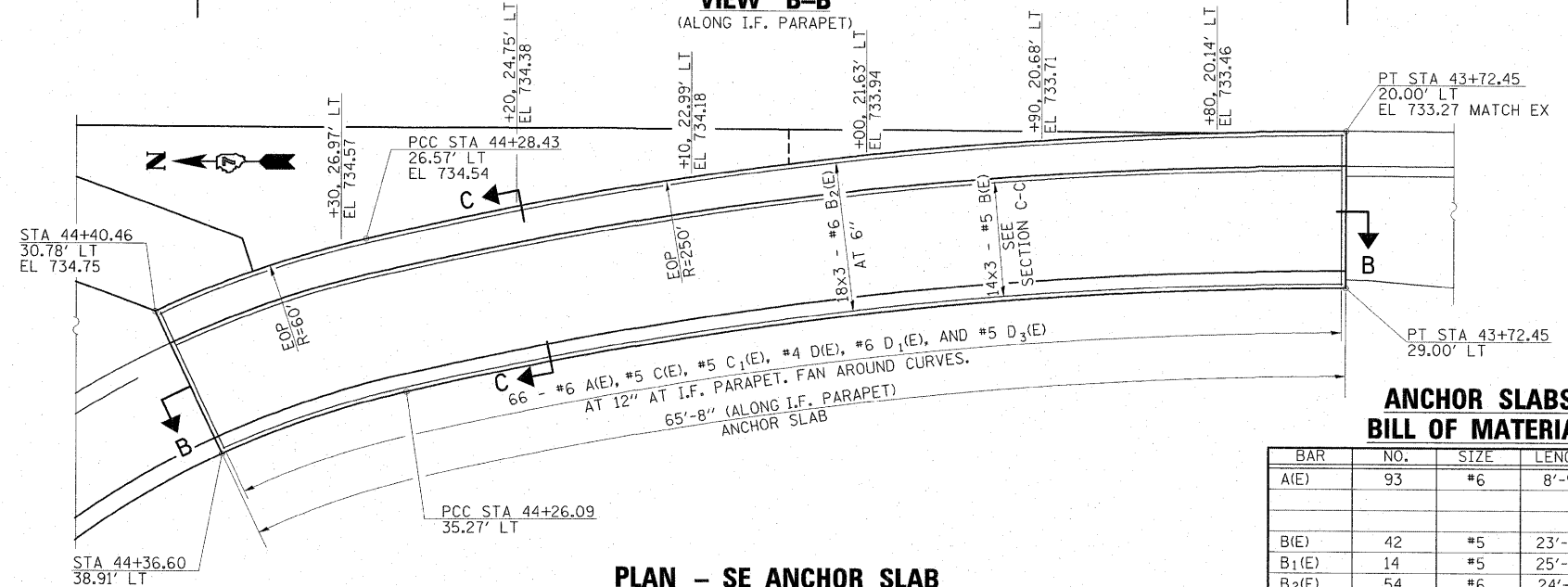
VIEW A-A
(ALONG I.F. PARAPET)



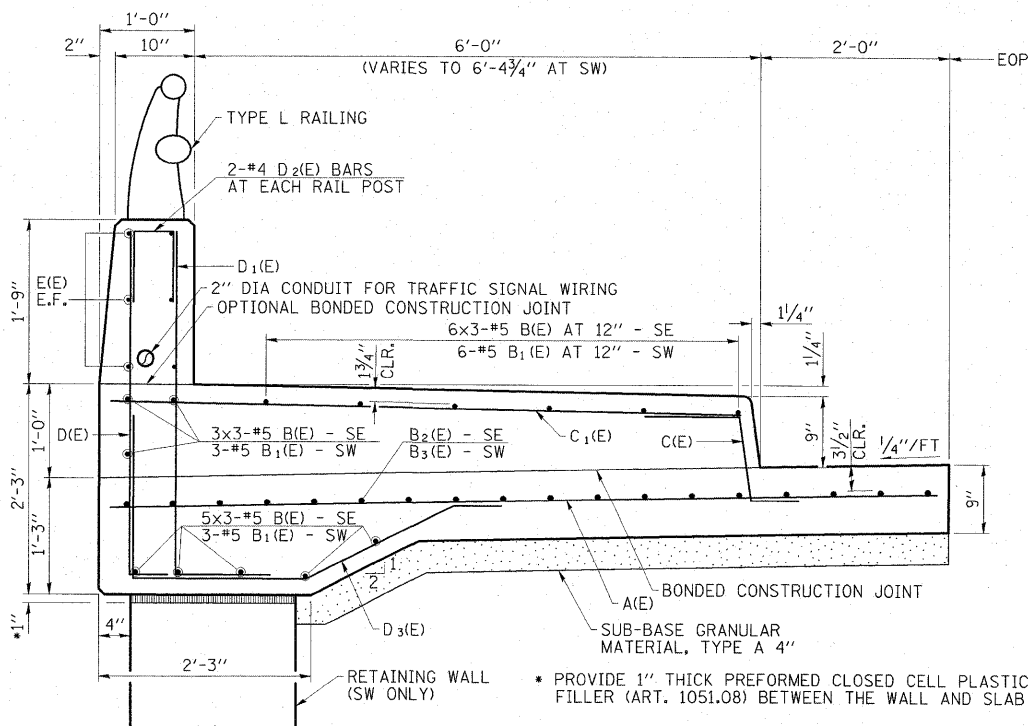
VIEW B-B
(ALONG I.F. PARAPET)



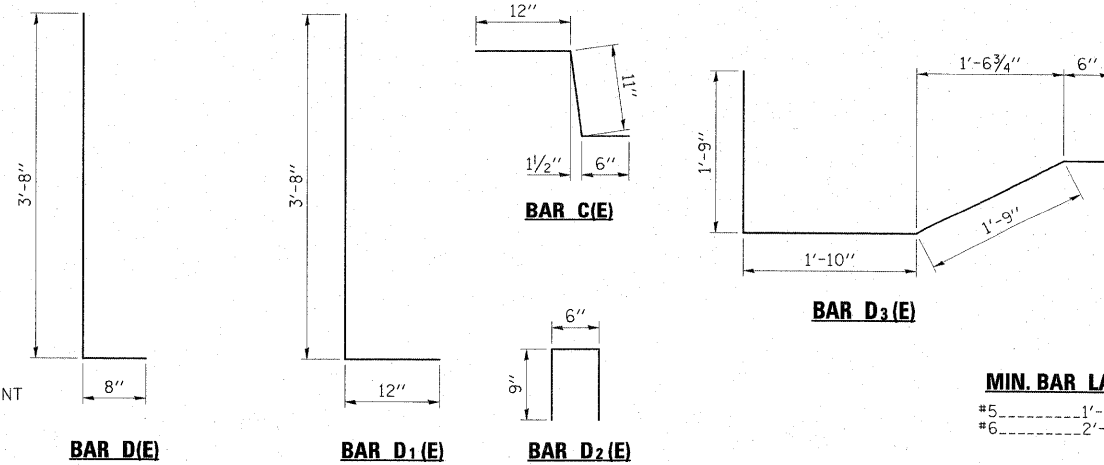
PLAN - SW ANCHOR SLAB



PLAN - SE ANCHOR SLAB



SECTION C-C



MIN. BAR LAP

**ANCHOR SLABS
BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
A(E)	93	#6	8'-9"	—
B(E)	42	#5	23'-11"	—
B ₁ (E)	14	#5	25'-11"	—
B ₂ (E)	54	#6	24'-6"	—
B ₃ (E)	18	#6	25'-11"	—
C(E)	93	#5	2'-5"	~
C ₁ (E)	93	#5	6'-8"	—
D(E)	93	#4	4'-4"	L
D ₁ (E)	93	#6	4'-8"	L
D ₂ (E)	20	#4	2'-0"	n
D ₃ (E)	93	#5	5'-10"	~
E(E)	42	#4	12'-10"	—
REINFORCEMENT BARS, EPOXY COATED			POUND	8100
CONCRETE STRUCTURES			CU YD	55.6
PROTECTIVE COAT			SQ YD	121
ALUMINUM RAILING, TYPE L			FOOT	90

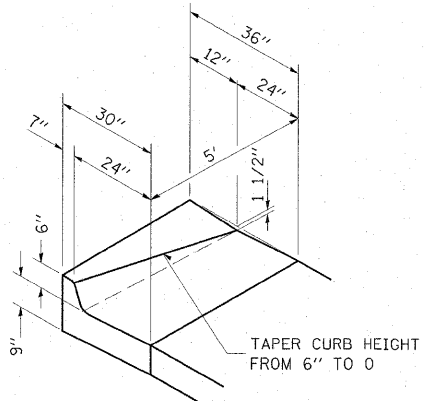
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

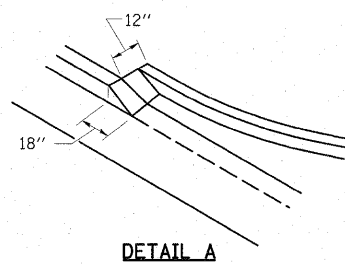
ANCHOR SLAB AND RAILING DETAILS

SCALE: 1"=20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

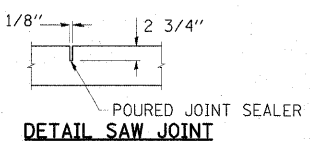
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CONTRACT NO. 74149			ILLINOIS FED. AID PROJECT AID	



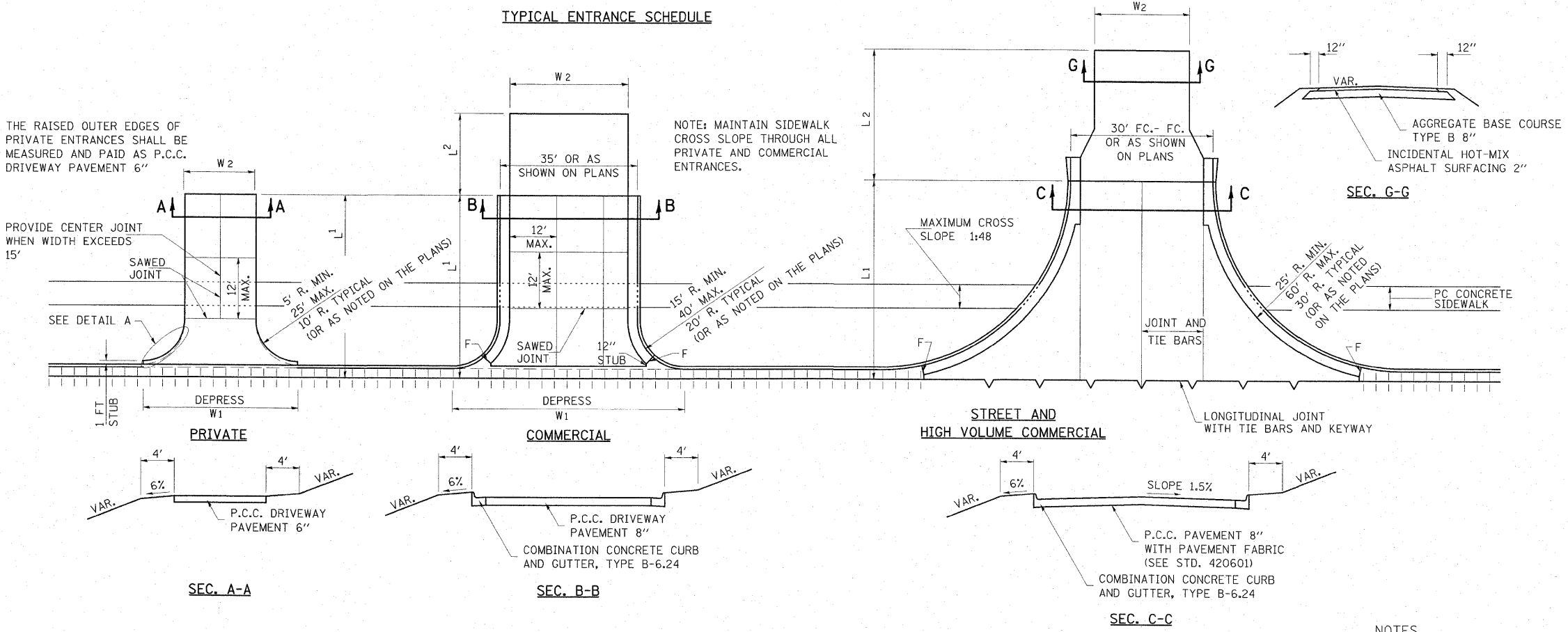
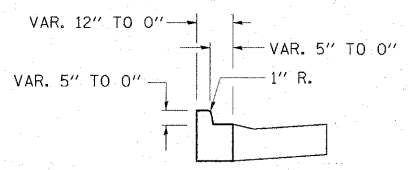
SPECIAL OUTLET FOR COMBINATION CURB AND GUTTER B-6.24



DETAIL A



**POURED JOINT SEALER
DETAIL SAW JOINT**



THE RAISED OUTER EDGES OF PRIVATE ENTRANCES SHALL BE MEASURED AND PAID AS P.C.C. DRIVEWAY PAVEMENT 6"

NOTE: MAINTAIN SIDEWALK CROSS SLOPE THROUGH ALL PRIVATE AND COMMERCIAL ENTRANCES.

PROVIDE CENTER JOINT WHEN WIDTH EXCEEDS 15'

SEC. A-A
PRIVATE
P.C.C. DRIVEWAY PAVEMENT 6"

SEC. B-B
COMMERCIAL
P.C.C. DRIVEWAY PAVEMENT 8"
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24

SEC. C-C
STREET AND HIGH VOLUME COMMERCIAL
P.C.C. PAVEMENT 8" WITH PAVEMENT FABRIC (SEE STD. 420601)
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24

ENTRANCE SCHEDULE

STATION	TYPE	L1	L2	W1	W2	AGGREGATE BASE COURSE TYPE B	AGGREGATE SURFACE COURSE TYPE B	INCIDENTAL HOT-MIX ASPHALT SURFACING	PCC PAVEMENT, 6"	PAVEMENT FABRIC	PCC DRIVEWAY PAVEMENT, 6"	PCC DRIVEWAY PAVEMENT, 8"	TEMP. ACCESS (PRIVATE ENTRANCE)	TEMP. ACCESS (COMMERCIAL ENTRANCE)	TEMP. ACCESS ROAD
						TON	TON	TON	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.	EACH	EACH	EACH
28+50, RT	CE	33'	-	68'	31'							110			
29+60, LT	CE	23'	-	53'	20'							48			

NOTES

THE WORK FOR THE SPECIAL OUTLET FOR COMBINATION CURB & GUTTER B-6.24 SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE PORTIONS OF STANDARD 606001 AND SECTION 606 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24

THE COST OF THE ASPHALT MATERIALS, AND AGGREGATE (PRIME COAT) FOR ENTRANCES AND PUBLIC ROAD APPROACHES SHALL BE INCLUDED IN INCIDENTAL HOT-MIX ASPHALT SURFACING.

SURFACE MIX SHALL BE HOT-MIX ASPHALT C N 70.

OMIT TIE BARS WITHIN 15' OF MAINLINE PAVEMENT CONTRACTION JOINT OCCURRING WITHIN LIMITS OF ENTRANCES AND RADIUS RETURNS.

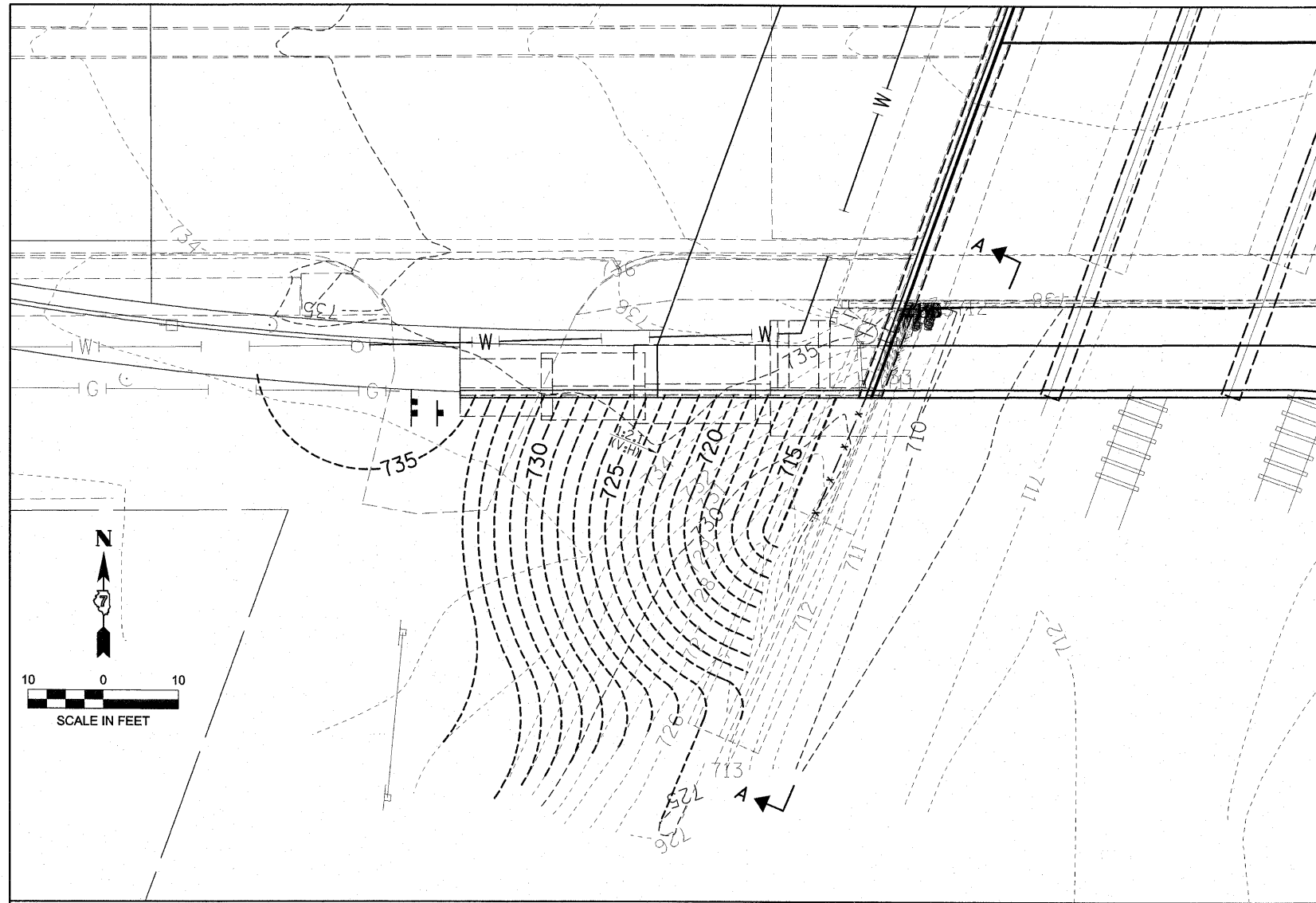
CONTRACTION JOINTS IN MAINLINE PAVEMENT SHALL EXTEND THRU ENTRANCES AND RADIUS RETURNS. SAWED JOINTS SHALL BE ADJUSTED ACCORDINGLY.

F = 1" PREFORMED EXPANSION JOINT FILLER.

WHEN PAVEMENT IS CONSTRUCTED MONOLITHICALLY, THE JOINTS SHALL BE SAWED JOINTS WITH TIE BARS. WHEN CONSTRUCTED OTHERWISE, THE JOINTS SHALL BE LONGITUDINAL JOINTS WITH TIE BARS AND KEYWAY.

DEPRESSED CURB & GUTTER THROUGH COMMERCIAL ENTRANCES SHALL BE PAID FOR AS DRIVEWAY PAVEMENT.

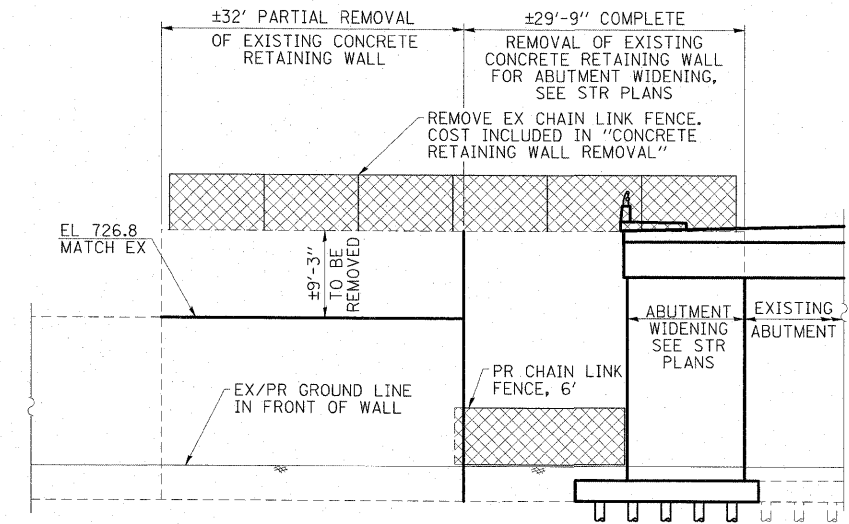
DEPRESSED CURB AND GUTTER THROUGH PRIVATE ENTRANCES SHALL BE PAID FOR AS CURB AND GUTTER.



PARTIAL GRADING PLAN

NOTES

1. THE EXISTING SW RETAINING WALL IS PROPERTY OF CANADIAN NATIONAL (CN) RAILWAY. ALL REMOVAL WORK SHALL BE COORDINATED WITH CN.
2. ALL REMOVAL WORK SHALL BE PERFORMED ACCORDING TO APPLICABLE PORTIONS OF SECTION 501 OF THE STANDARD SPECIFICATIONS.
3. THE RE-SHAPED SLOPE SHALL BE SEEDED WITH CLASS 3A MIXTURE AND COVERED WITH EROSION CONTROL BLANKET.



SECTION A-A

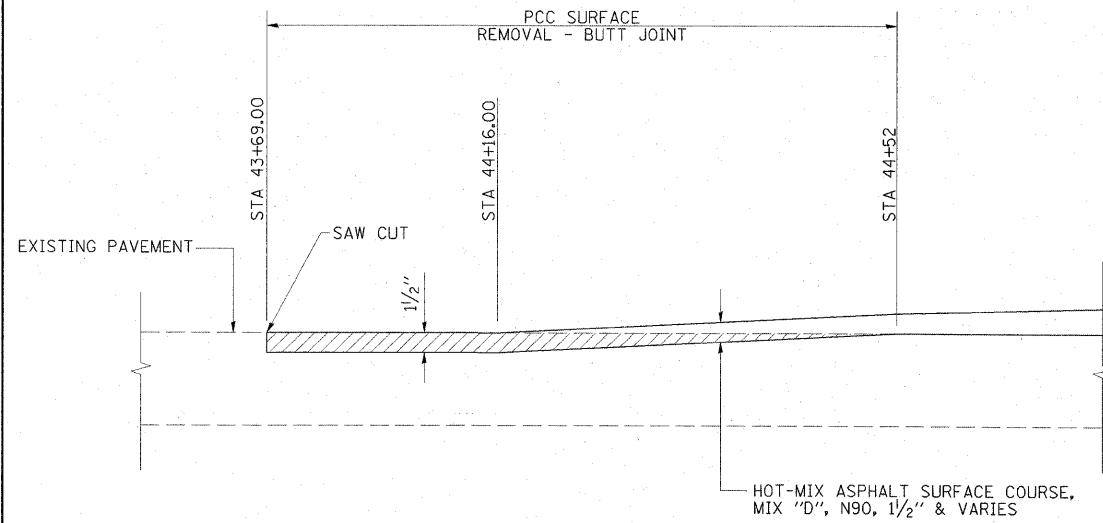
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		DRAWN - HAS	REVISED -
		CHECKED - MTD	REVISED -
		DATE - AUGUST 3, 2009	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

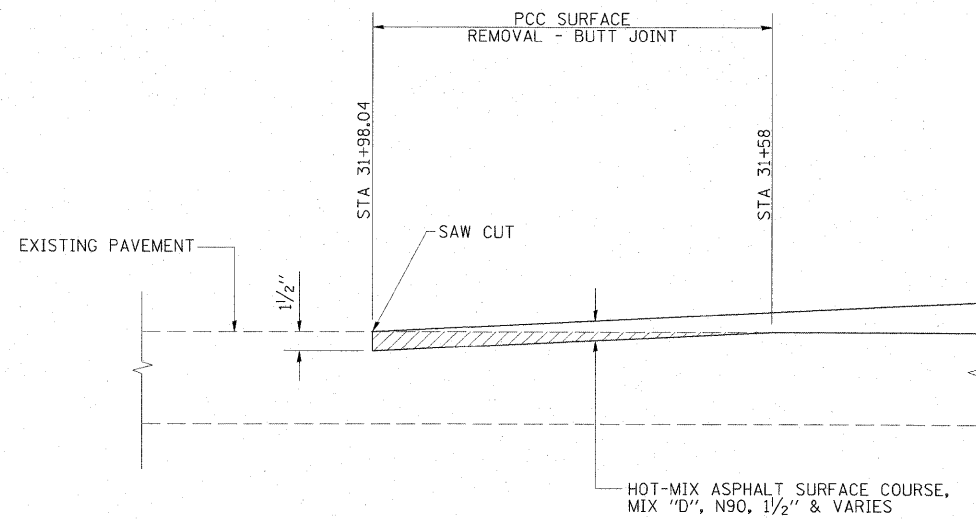
SW RETAINING WALL REMOVAL AND GRADING DETAILS

SCALE: 1"=20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

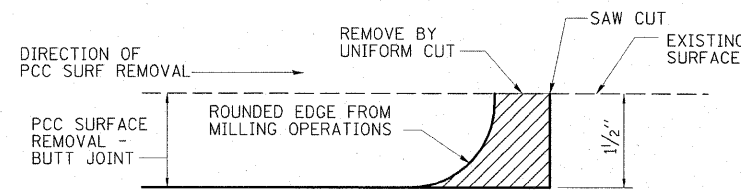
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	(19VBR)BR	COLES	92	23
CONTRACT NO. 74149				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT AID				



BUTT JOINT SECTION - STA 43+69.00

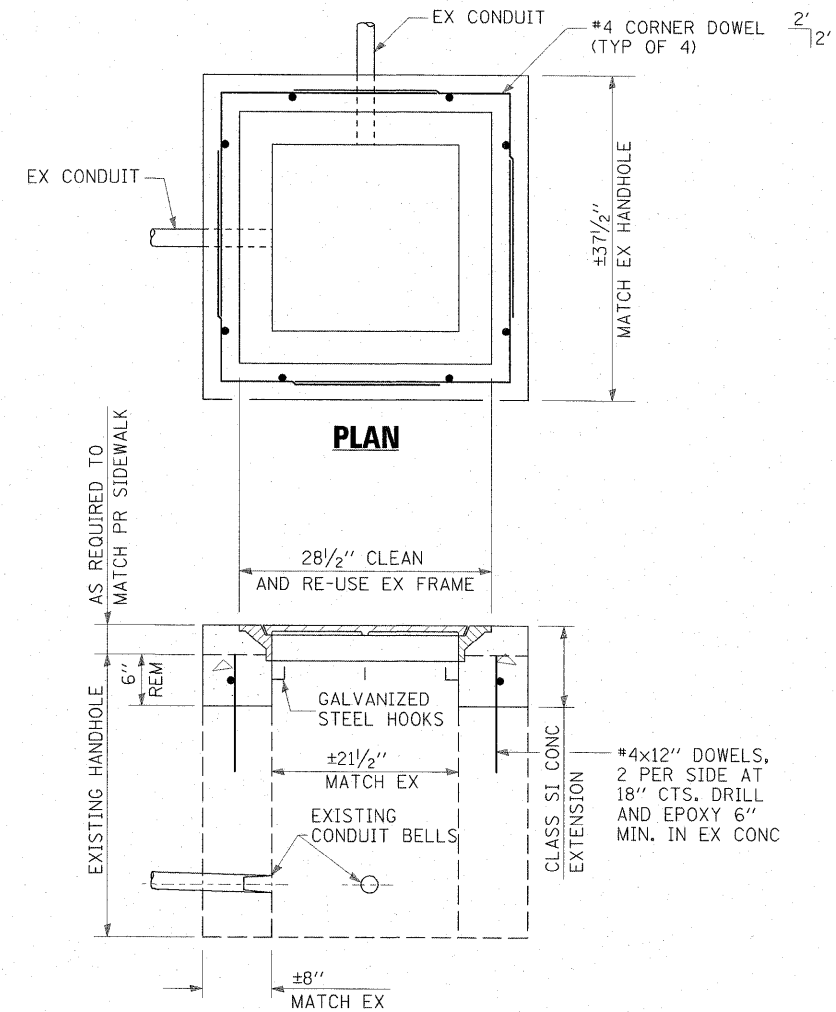


BUTT JOINT SECTION - STA 31+98.04



DETAIL AT BUTT JOINT

NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE COST OF ALL WORK SHOWN IN THE DETAIL IS INCLUDED IN PCC SURFACE REMOVAL - BUTT JOINT. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL.



HANDHOLE ADJUSTMENT DETAIL

FILE NAME = D774149-SHT-Details24.dgn	USER NAME = HAS	DESIGNED - MTD	REVISED -
		DRAWN - HAS	REVISED -
		CHECKED - MTD	REVISED -
		DATE - AUGUST 3, 2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MISCELLANEOUS DETAILS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 325	SECTION (19VBR)BR	COUNTY COLES	TOTAL SHEETS 92	SHEET NO. 24
CONTRACT NO. 74149				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

B.M. 102: Chiseled Square S.E. corner of the base of the walk/don't walk traffic signal on bridge S.N. 015-0064, Elev. 738.58

Original Structure: SN 015-0014, 5-span structure built in 1915, improved in 1930 as ICRR Bridge 172-5, and widened in 1948 as SBI 25, Section 19VB, Station 30+77.15 was completely replaced in 1981 by SN 015-0064.

Existing Structure: SN 015-0064, built in 1981 as FAP 91, Section 19VBR at Station 30+63.74. The existing structure is a 4-span PPC Deck Beam bridge on closed abutments and multi-column piers with adjacent retaining walls at all four corners of the structure. The southwest retaining wall is owned by the Canadian National Railroad. The structure is 90'-6" bk.-to-bk. of abutments and 70'-0" o.-o. of deck and varies. The existing superstructure will be replaced along with additional work as required to repair the northeast and southwest retaining walls.

Traffic is to be detoured.

Salvage: Suitable sections of the existing railing to be salvaged and re-used.

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.06g
Site Coefficient (s) = 1.5

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HSD-44

Allow 25# / Sq. Ft. for future wearing surface

DESIGN STRESSES

Field Units (New & Existing)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

LEGEND

- ◆ B-1 Soil Borings (1975)
- ▨ Indicates retaining wall removal required for structure widening

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

B-5

B-3

B-8

B-1

B-9

B-4

B-2

B-6

B-7

Existing N.E. Retaining Wall
To be replaced
See Details on Sheet 27 of 35

① Conduit Embedded in Structure, 2" dia., Galvanized Steel.

City of Mattoon existing Water Main attached to structure to be removed and replaced - See sheet 3 of 35 for sequence

Exist. Traffic Signal to be removed and re-installed on the new pier cap.

30'-0" Bridge Approach Slab

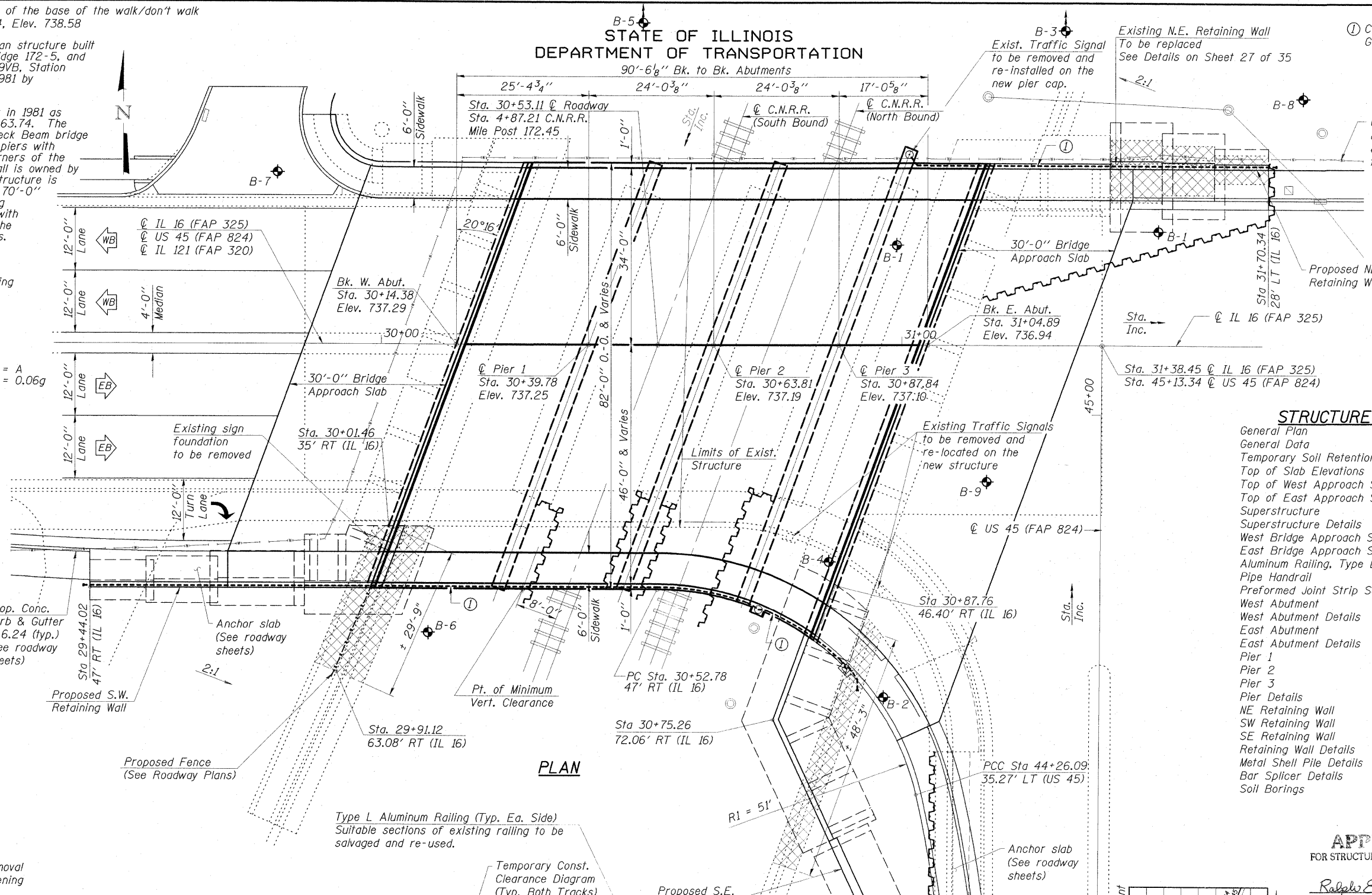
Bk. E. Abut. Sta. 31+04.89 Elev. 736.94

Sta. Inc. @ IL 16 (FAP 325)

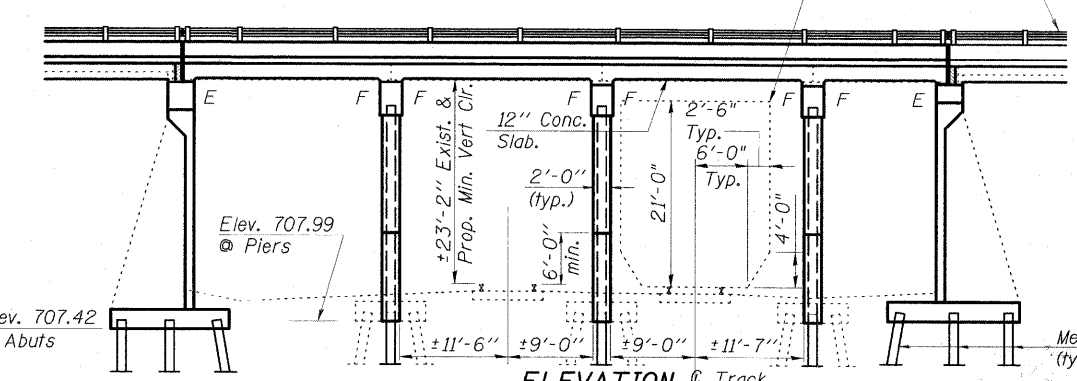
Sta. 31+38.45 @ IL 16 (FAP 325)
Sta. 45+13.34 @ US 45 (FAP 824)

STRUCTURE INDEX OF SHEETS

General Plan	Dwg. No. 1 of 35
General Data	Dwg. No. 2 of 35
Temporary Soil Retention System	Dwg. No. 3 of 35
Top of Slab Elevations	Dwg. No. 4-5 of 35
Top of West Approach Slab Elevations	Dwg. No. 6 of 35
Top of East Approach Slab Elevations	Dwg. No. 7 of 35
Superstructure	Dwg. No. 8 of 35
Superstructure Details	Dwg. No. 9-11 of 35
West Bridge Approach Slab Details	Dwg. No. 12-13 of 35
East Bridge Approach Slab Details	Dwg. No. 14-15 of 35
Aluminum Railing, Type L	Dwg. No. 16 of 35
Pipe Handrail	Dwg. No. 17 of 35
Preformed Joint Strip Seal	Dwg. No. 18 of 35
West Abutment	Dwg. No. 19 of 35
West Abutment Details	Dwg. No. 20 of 35
East Abutment	Dwg. No. 21 of 35
East Abutment Details	Dwg. No. 22 of 35
Pier 1	Dwg. No. 23 of 35
Pier 2	Dwg. No. 24 of 35
Pier 3	Dwg. No. 25 of 35
Pier Details	Dwg. No. 26 of 35
NE Retaining Wall	Dwg. No. 27 of 35
SW Retaining Wall	Dwg. No. 28 of 35
SE Retaining Wall	Dwg. No. 29 of 35
Retaining Wall Details	Dwg. No. 30 of 35
Metal Shell Pile Details	Dwg. No. 31 of 35
Bar Splicer Details	Dwg. No. 32 of 35
Soil Borings	Dwg. No. 33-35 of 35



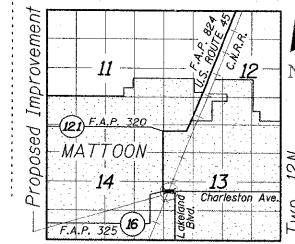
PLAN



ELEVATION @ Track
(Dim. at Rt. L's unless noted otherwise)

PARAPET RADIUS DATA
2 Center Curve
R1 = 51'
R2 = 241'
5' Offset

Metal Shell Piles (typ. @ Abutts. & Piers)



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-10
Ralph E. Anderson
SIGNATURE
08/03/09
DATE

GENERAL PLAN
IL 16 OVER CN RAILROAD
FAP ROUTE 325-SECTION (19VBR)BR
COLES COUNTY
STATION 30+53.11
STRUCTURE NO. 015-0064

ESCA CONSULTANTS, INC.

DESIGNED BY:	JAJ	03/09
DRAWN BY:	DWH	03/09
CHECKED BY:	MTC	03/09
APPROVED BY:	Di	08/09

SHEET NO. 1	F.A.P. RTE. 325	SECTION (19VBR)BR	COUNTY COLES	TOTAL SHEETS 92	SHEET NO. 25
35 SHEETS		CONTRACT NO. 74149		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

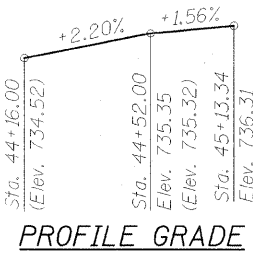
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOTAL BILL OF MATERIAL

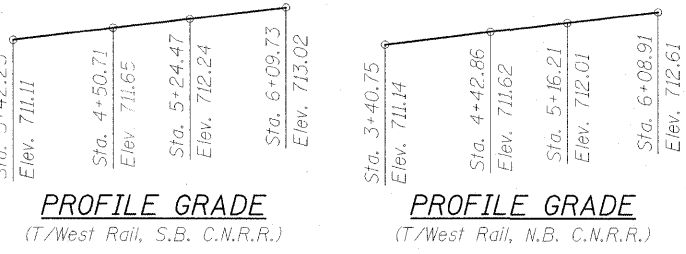
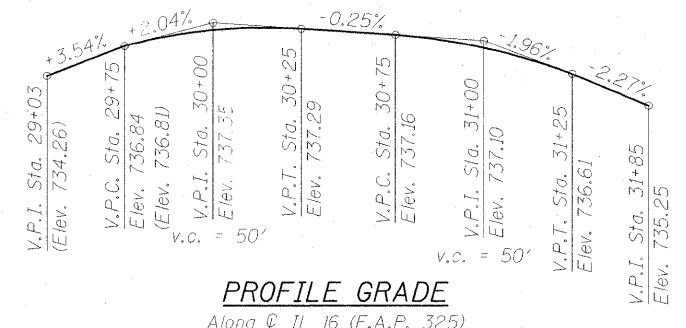
ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.	-	565	565
Removal of Existing Superstructures	Each	1	-	1
Concrete Removal	Cu. Yd.	4	175	179
Concrete Retaining Wall Removal	Cu. Yd.	-	210	210
Protective Shield	Sq. Yd.	375	-	375
Structure Excavation	Cu. Yd.	-	1500	1500
Concrete Structures	Cu. Yd.	-	703.7	703.7
Concrete Superstructure	Cu. Yd.	705.3	-	705.3
Bridge Deck Grooving	Sq. Yd.	1175	-	1175
Protective Coat	Sq. Yd.	1518	-	1518
Reinforcement Bars, Epoxy Coated	Pound	156110	70170	226280
Bar Splicers	Each	173	-	173
Aluminum Railing, Type L	Foot	142	-	142
Removing and Re-Erecting Existing Railing	Foot	168	-	168
Pipe Handrail	Foot	-	80	80
Furnishing Metal Shell Piles 12"x0.25"	Foot	-	3844	3844
Driving Piles	Foot	-	3844	3844
Test Pile Metal Shells	Each	-	3	3
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	186	-	186
Concrete Sealer	Sq. Ft.	-	1400	1400
Epoxy Crack Injection	Foot	-	490	490
Geocomposite Wall Drain	Sq. Yd.	-	350	350
Pipe Underdrains for Structures 4"	Foot	-	215	215
Conduit Embedded in Structure, 2" Dia., Galvanized Steel	Foot	217	-	217
Asbestos Bearing Pad Removal	Each	-	66	66
Water Main Removal 6 Inch	Foot	155	-	155
Temporary Soil Retention System, Location 1	Sq. Ft.	-	75	75
Temporary Soil Retention System, Location 2	Sq. Ft.	-	75	75
Temporary Soil Retention System, Location 3	Sq. Ft.	-	75	75
Temporary Soil Retention System, Location 4	Sq. Ft.	-	105	105
Temporary Soil Retention System, Location 5	Sq. Ft.	-	880	880
Temporary Soil Retention System, Location 6	Sq. Ft.	-	850	850
Structural Repair of Concrete (Depth Equal to or less than 5 inches)	Sq. Ft.	-	37	37
Pipe Support	Each	13	-	13

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- 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 work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Concrete Sealer shall be applied to the designated areas of the abutments and piers.
- The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
- The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach pavement.
- Coordination with the Canadian National Railway (CN) will be required during construction. Planned interruptions of rail traffic, if allowed, must be minimized and coordinated/approved by CN. Temporary reduced construction clearances must be approved by CN.
- Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.
- Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
- The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal of the superstructure.
- If the Contractor's procedure for existing deck beam removal involves placement of cranes or other heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Costs included in Removal of Existing Superstructures.
- The existing expansion bearing pads contain ASBESTOS. See Special Provisions for Asbestos Bearing Pad Removal.
- Slipforming of parapets is not allowed.
- The Metal Shell piles shall be according to ASTM A 252 Grade 3.
- Protective Shield will be required in spans 2 and 3 during removal operations.



Note: Elevations in () are along edge of median.
See Roadway Plans for locations of medians.



STATION 30+63.74
RE-BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 325 - SEC. (19VBR)BR
LOADING HS20-44
STR. NO. 015-0064

NAME PLATE
See Std. 515001

ESCA
CONSULTANTS, INC.

DESIGNED BY:	DAJ	11/08
DRAWN BY:	DWH	11/08
CHECKED BY:	MTD	03/09
APPROVED BY:	RDP	08/09

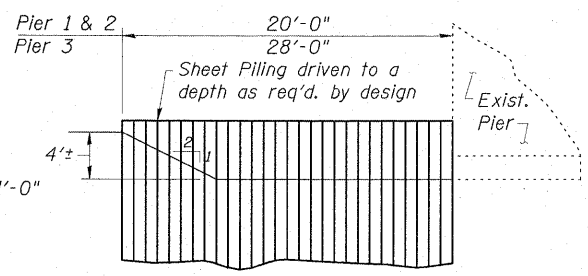
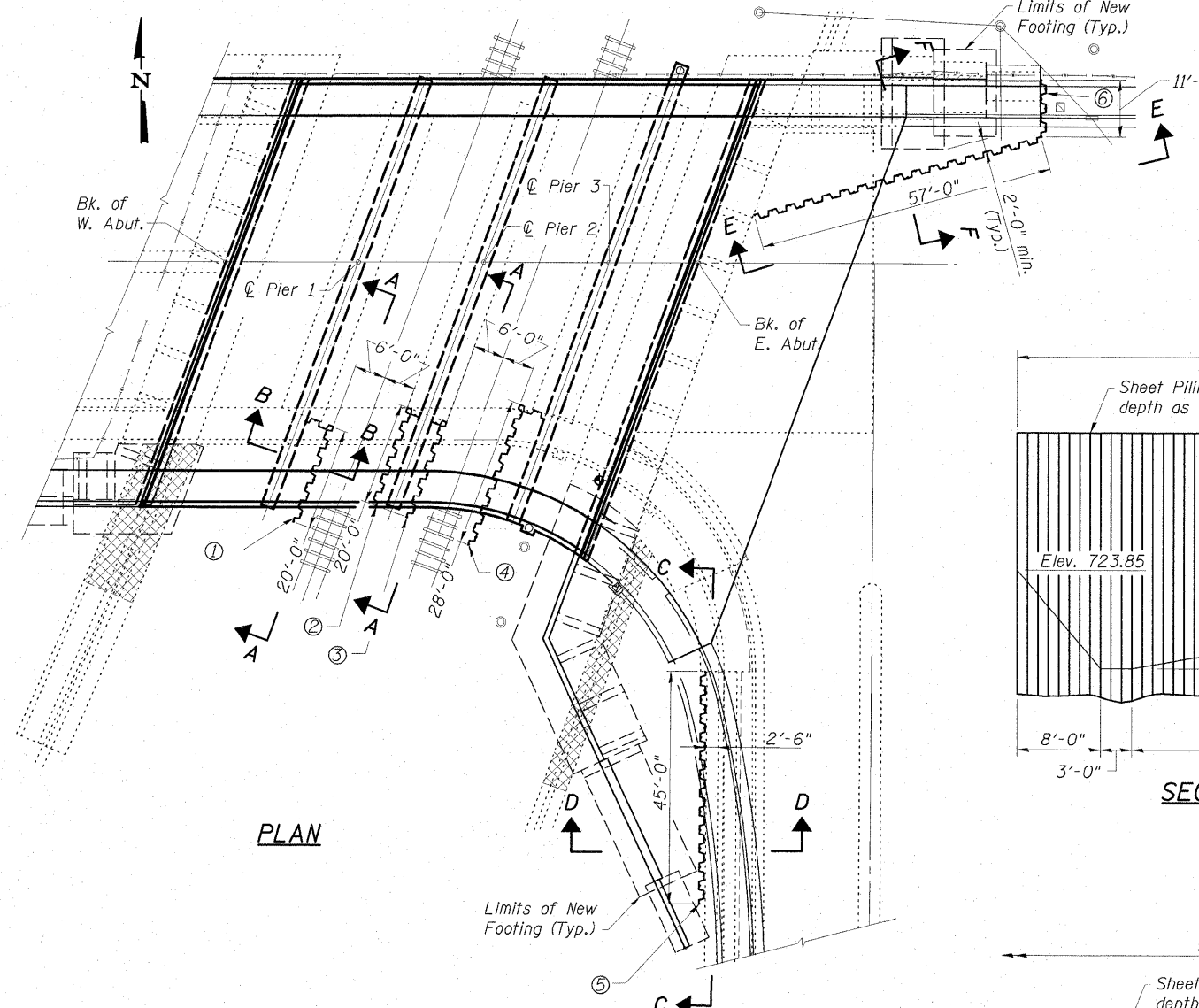
GENERAL DATA
STRUCTURE NO. 015-0064

SHEET NO. 2 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	26
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74149					

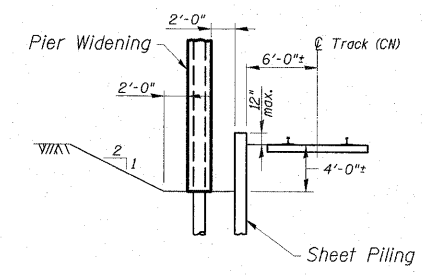
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- ① Temporary Soil Retention System, Location 1
- ② Temporary Soil Retention System, Location 2
- ③ Temporary Soil Retention System, Location 3
- ④ Temporary Soil Retention System, Location 4
- ⑤ Temporary Soil Retention System, Location 5
- ⑥ Temporary Soil Retention System, Location 6

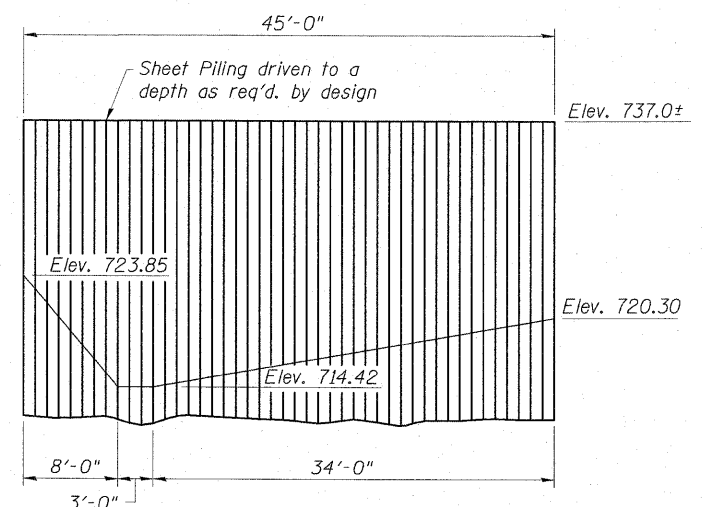
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



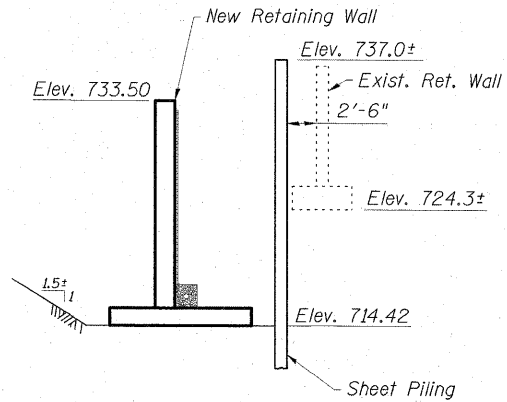
SECTION A-A



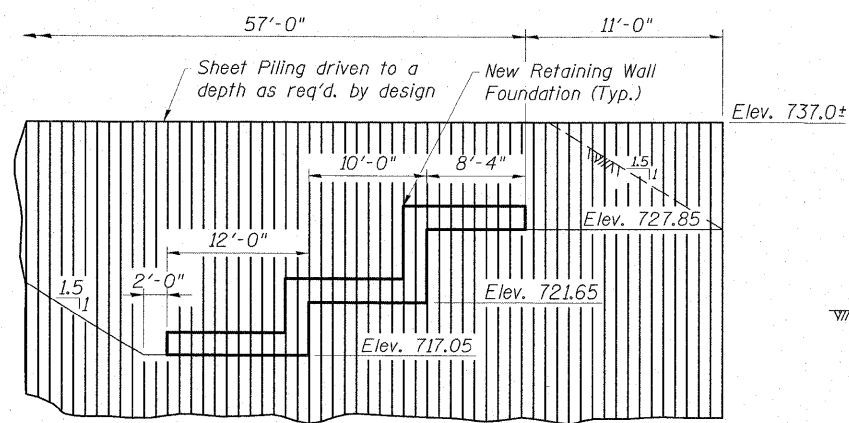
SECTION B-B



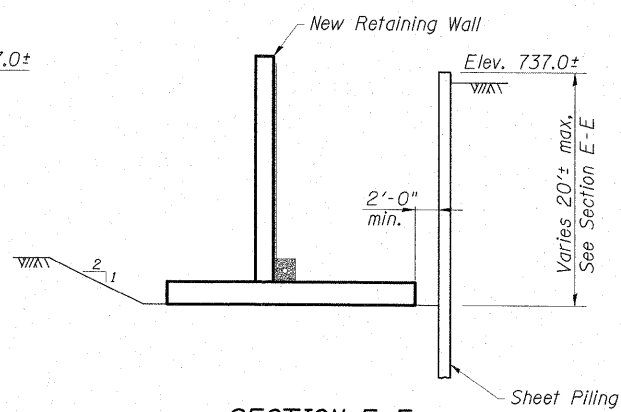
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

NOTES

1. 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 including plan details and calculations for review and acceptance by the Engineer.
2. The Temporary Soil Retention Systems required for Pier Extensions (Locations 1 thru 4) shall be designed for Railroad Live Load (Cooper E-90). The live load shall be treated as a strip load and the pressure distribution shall be determined according to the AREMA Manual for Railway Engineering. Copies of the Contractor's sealed Plans and calculations are to be submitted to CN for review prior to installation.

SEQUENCE-TEMPORARY SHEET PILING RETENTION SYSTEM, LOCATION 6

1. Drive sheet piling, to limits shown on approved design.
2. Excavate between sheet piling and back face of existing wall down to top of footing.
3. Take watermain out of service.
4. Remove watermain.
5. Remove concrete wall.
6. Remove concrete footings.
7. Pour new concrete footings and walls, & install drainage system.
8. Backfill behind wall.
9. Remove sheet piling.
10. Install replacement watermain.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Temporary Soil Retention System, Location 1	Sq. Ft.	75
Temporary Soil Retention System, Location 2	Sq. Ft.	75
Temporary Soil Retention System, Location 3	Sq. Ft.	75
Temporary Soil Retention System, Location 4	Sq. Ft.	105
Temporary Soil Retention System, Location 5	Sq. Ft.	880
Temporary Soil Retention System, Location 6	Sq. Ft.	850

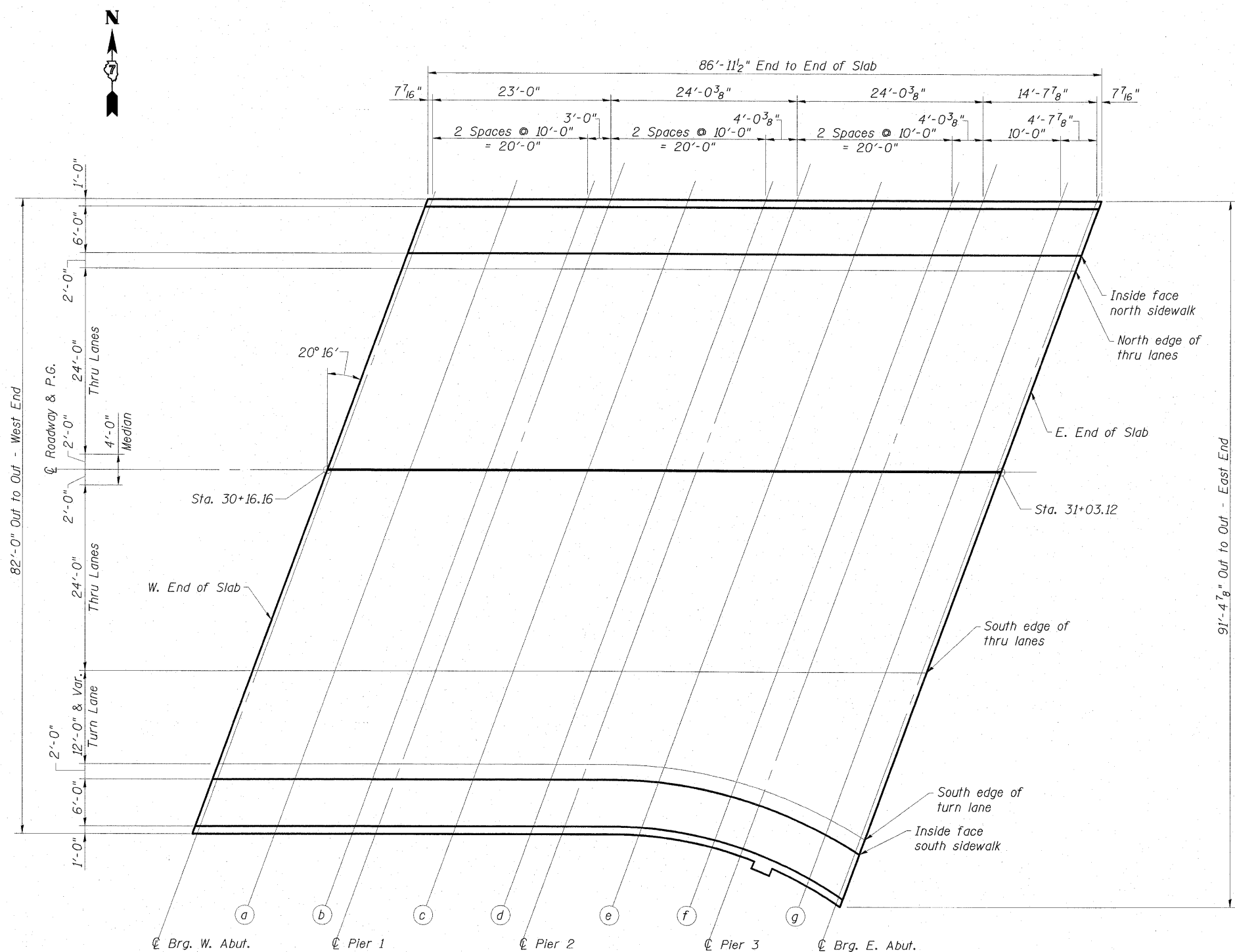
**TEMPORARY SOIL
RETENTION SYSTEM
STRUCTURE NO. 015-0064**

ESCA
CONSULTANTS, INC.

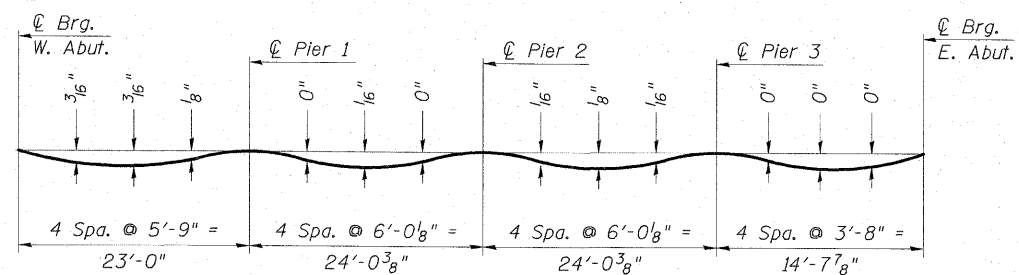
DESIGNED BY: RDP 03/09
 DRAWN BY: DWH 03/09
 CHECKED BY: MTD 03/09
 APPROVED BY: RDP 08/09

SHEET NO. 3 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	27
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74149					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN



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 on Dwg. No. 5 of 35.

DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only.)

ESCA
CONSULTANTS, INC.

DESIGNED BY: DAJ 11/08
DRAWN BY: DWH 11/08
CHECKED BY: MTD 03/09
APPROVED BY: RDP 08/09

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 015-0064

SHEET NO. 4 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	28
			CONTRACT NO. 74149		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INSIDE FACE NORTH SIDEWALK

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W. End of Slab	30+26.50	-28.00	736.84	736.84
⊕ Brg. W. Abut.	30+27.12	-28.00	736.84	736.84
a	30+37.12	-28.00	736.81	736.83
b	30+47.12	-28.00	736.79	736.79
⊕ Pier 1	30+50.12	-28.00	736.78	736.78
c	30+60.12	-28.00	736.75	736.76
d	30+70.12	-28.00	736.73	736.73
⊕ Pier 2	30+74.15	-28.00	736.72	736.72
e	30+84.15	-28.00	736.67	736.68
f	30+94.15	-28.00	736.60	736.60
⊕ Pier 3	30+98.18	-28.00	736.56	736.56
g	31+08.18	-28.00	736.44	736.44
⊕ Brg. E. Abut.	31+12.83	-28.00	736.37	736.37
E. End of Slab	31+13.45	-28.00	736.36	736.36

NORTH EDGE OF THRU LANES

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W. End of Slab	30+25.76	-26.00	736.88	736.88
⊕ Brg. W. Abut.	30+26.38	-26.00	736.88	736.88
a	30+36.38	-26.00	736.86	736.88
b	30+46.38	-26.00	736.83	736.83
⊕ Pier 1	30+49.38	-26.00	736.82	736.82
c	30+59.38	-26.00	736.80	736.81
d	30+69.38	-26.00	736.77	736.77
⊕ Pier 2	30+73.41	-26.00	736.76	736.76
e	30+83.41	-26.00	736.72	736.73
f	30+93.41	-26.00	736.65	736.65
⊕ Pier 3	30+97.44	-26.00	736.61	736.61
g	31+07.44	-26.00	736.49	736.49
⊕ Brg. E. Abut.	31+12.10	-26.00	736.43	736.43
E. End of Slab	31+12.72	-26.00	736.42	736.42

CL ROADWAY & PROFILE GRADE

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W. End of Slab	30+16.16	0.00	737.29	737.29
⊕ Brg. W. Abut.	30+16.78	0.00	737.29	737.29
a	30+26.78	0.00	737.29	737.31
b	30+36.78	0.00	737.26	737.26
⊕ Pier 1	30+39.78	0.00	737.25	737.25
c	30+49.78	0.00	737.23	737.24
d	30+59.78	0.00	737.20	737.20
⊕ Pier 2	30+63.81	0.00	737.19	737.19
e	30+73.81	0.00	737.17	737.18
f	30+83.81	0.00	737.12	737.12
⊕ Pier 3	30+87.84	0.00	737.10	737.10
g	30+97.84	0.00	737.01	737.01
⊕ Brg. E. Abut.	31+02.50	0.00	736.96	736.96
E. End of Slab	31+03.12	0.00	736.95	736.95

SOUTH EDGE OF THRU LANES

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W. End of Slab	30+06.56	26.00	736.85	736.85
⊕ Brg. W. Abut.	30+07.18	26.00	736.85	736.85
a	30+17.18	26.00	736.89	736.91
b	30+27.18	26.00	736.88	736.88
⊕ Pier 1	30+30.18	26.00	736.87	736.87
c	30+40.18	26.00	736.85	736.86
d	30+50.18	26.00	736.82	736.82
⊕ Pier 2	30+54.21	26.00	736.81	736.81
e	30+64.21	26.00	736.79	736.80
f	30+74.21	26.00	736.76	736.76
⊕ Pier 3	30+78.24	26.00	736.74	736.74
g	30+88.24	26.00	736.69	736.69
⊕ Brg. E. Abut.	30+92.90	26.00	736.65	736.65
E. End of Slab	30+93.52	26.00	736.65	736.65

SOUTH EDGE OF TURN LANE

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W. End of Slab	30+02.13	38.00	736.57	736.57
⊕ Brg. W. Abut.	30+02.75	38.00	736.57	736.57
a	30+12.75	38.00	736.63	736.65
b	30+22.75	38.00	736.64	736.64
⊕ Pier 1	30+25.75	38.00	736.63	736.63
c	30+35.75	38.00	736.61	736.62
d	30+45.75	38.00	736.58	736.58
⊕ Pier 2	30+49.78	38.00	736.57	736.57
e	30+59.64	38.39	736.54	736.55
f	30+68.96	40.22	736.48	736.48
⊕ Pier 3	30+72.57	41.36	736.44	736.44
g	30+81.17	45.14	736.33	736.33
⊕ Brg. E. Abut.	30+85.00	47.38	736.27	736.27
E. End of Slab	30+85.50	47.71	736.26	736.26

INSIDE FACE SOUTH SIDEWALK

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W. End of Slab	30+01.39	40.00	736.52	736.52
⊕ Brg. W. Abut.	30+02.01	40.00	736.53	736.53
a	30+12.01	40.00	736.58	736.60
b	30+22.01	40.00	736.60	736.60
⊕ Pier 1	30+25.01	40.00	736.59	736.59
c	30+35.01	40.00	736.57	736.58
d	30+45.01	40.00	736.54	736.54
⊕ Pier 2	30+49.04	40.00	736.53	736.53
e	30+58.92	40.33	736.50	736.51
f	30+68.27	42.10	736.44	736.44
⊕ Pier 3	30+71.88	43.23	736.41	736.41
g	30+80.47	47.04	736.30	736.30
⊕ Brg. E. Abut.	30+84.29	49.30	736.23	736.23
E. End of Slab	30+84.79	49.63	736.22	736.22

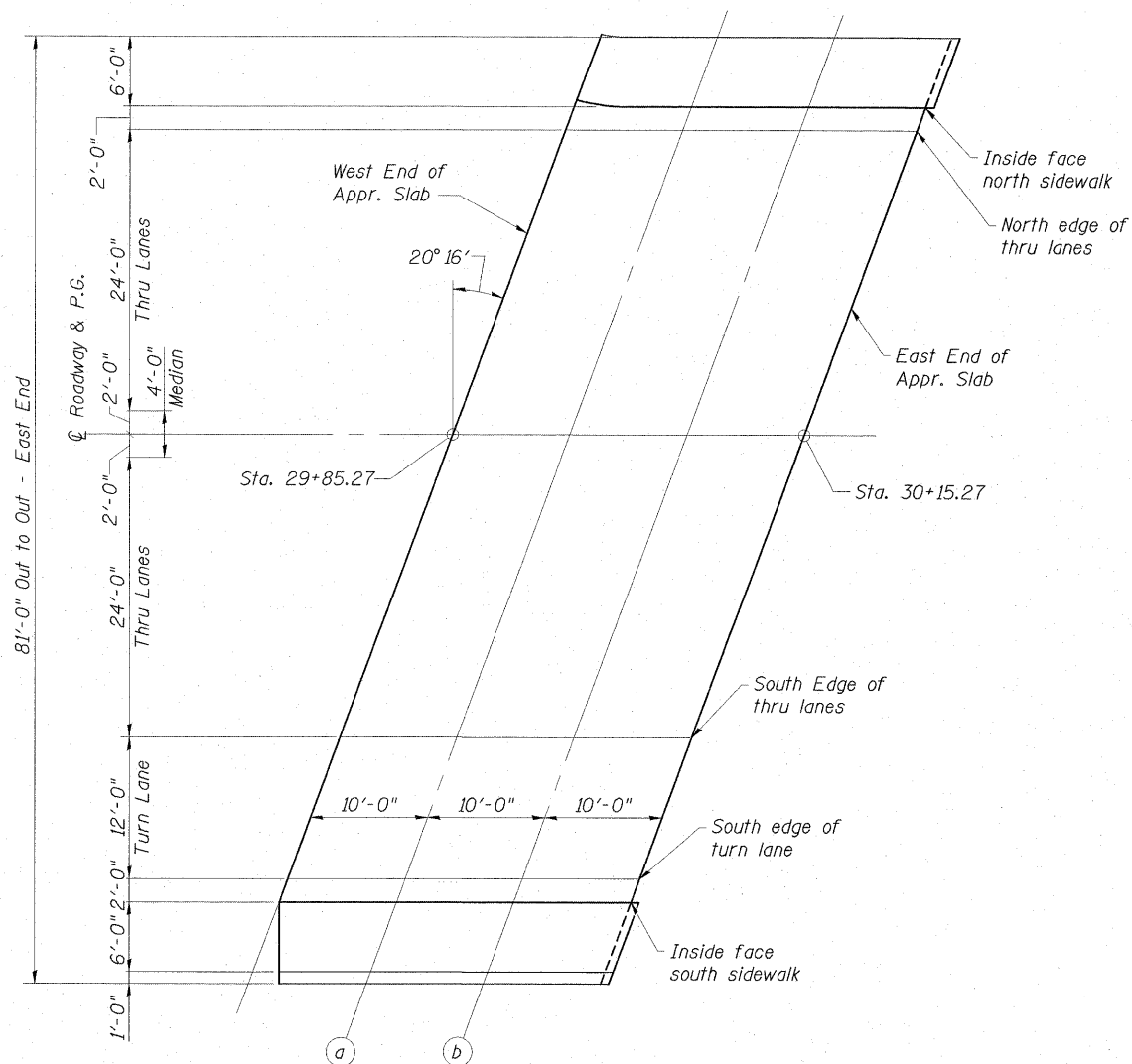
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DRAWN BY: DWH 11/08
CHECKED BY: MTD 03/09
APPROVED BY: RDP 08/09

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 015-0064

SHEET NO. 5	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	29
35 SHEETS	CONTRACT NO. 74149				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN

INSIDE FACE NORTH SIDEWALK

Location	Station	Offset (ft.)	Theoretical Grade Elevations
W. End Appr. Slab	29+95.83	-28.59	736.71
a	30+05.61	-28.00	736.80
b	30+15.61	-28.00	736.84
E. End Appr. Slab	30+25.61	-28.00	736.84

NORTH EDGE OF THRU LANES

Location	Station	Offset (ft.)	Theoretical Grade Elevations
W. End Appr. Slab	29+94.87	-26.00	736.75
a	30+04.87	-26.00	736.84
b	30+14.87	-26.00	736.88
E. End Appr. Slab	30+24.87	-26.00	736.88

CL ROADWAY & PROFILE GRADE

Location	Station	Offset (ft.)	Theoretical Grade Elevations
W. End Appr. Slab	29+85.27	0.00	737.03
a	29+95.27	0.00	737.16
b	30+05.27	0.00	737.25
E. End Appr. Slab	30+15.27	0.00	737.29

SOUTH EDGE OF THRU LANES

Location	Station	Offset (ft.)	Theoretical Grade Elevations
W. End Appr. Slab	29+75.67	26.00	736.45
a	29+85.67	26.00	736.63
b	29+95.67	26.00	736.76
E. End Appr. Slab	30+05.67	26.00	736.84

SOUTH EDGE OF TURN LANE

Location	Station	Offset (ft.)	Theoretical Grade Elevations
W. End Appr. Slab	29+71.24	38.00	736.06
a	29+81.24	38.00	736.30
b	29+91.24	38.00	736.45
E. End Appr. Slab	30+01.24	38.00	736.56

INSIDE FACE SOUTH SIDEWALK

Location	Station	Offset (ft.)	Theoretical Grade Elevations
W. End Appr. Slab	29+70.50	40.00	735.99
a	29+80.50	40.00	736.25
b	29+90.50	40.00	736.40
E. End Appr. Slab	30+00.50	40.00	736.51

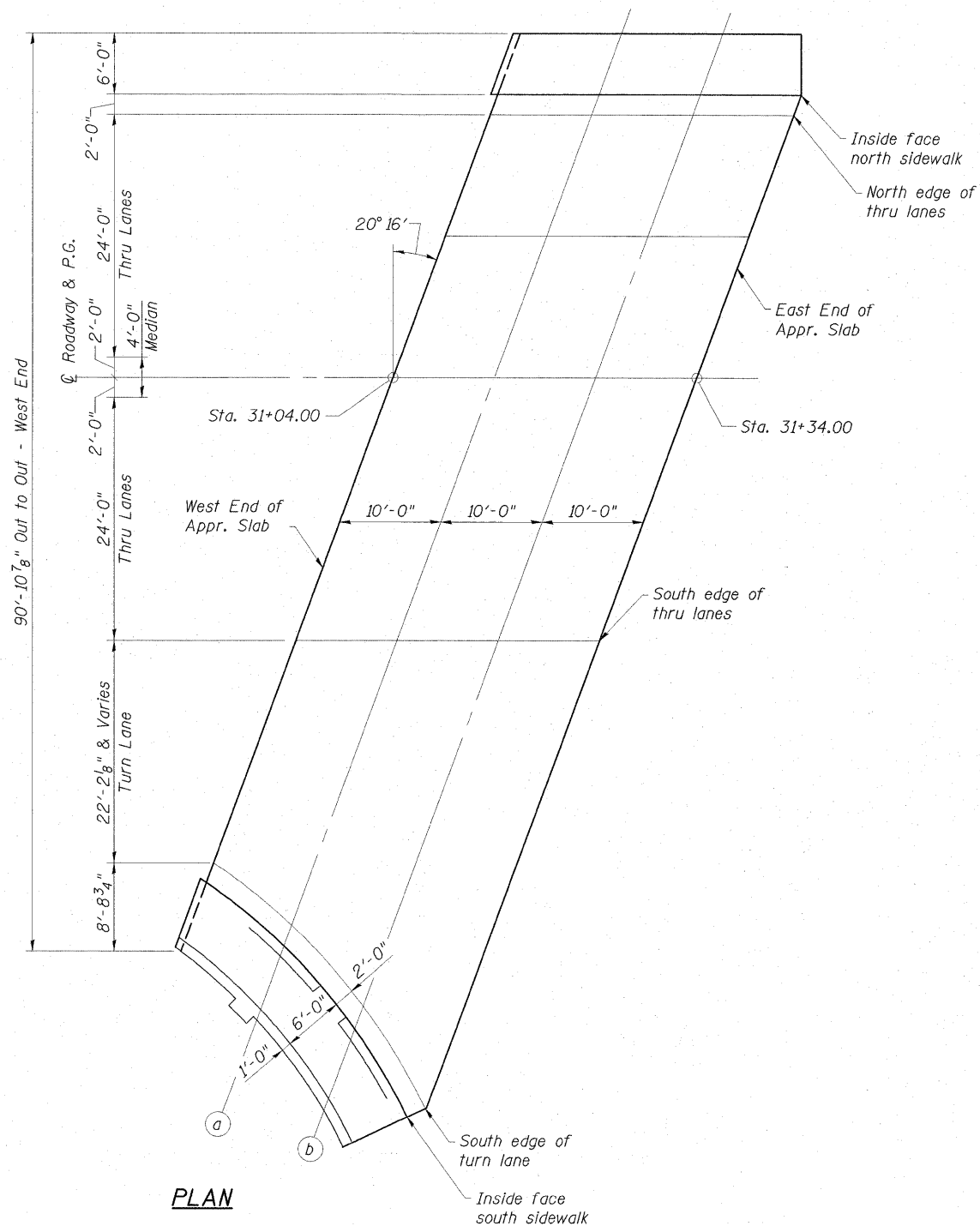
TOP OF WEST
APPROACH SLAB ELEVATIONS
STRUCTURE NO. 015-0064

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APPROVED BY: RDP 08/09

SHEET NO. 6 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	30
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74149					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



INSIDE FACE NORTH SIDEWALK

Location	Station	Offset (ft.)	Theoretical Grade Elevations
W. End Appr. Slab	31+14.34	-28.00	736.35
a	31+24.34	-28.00	736.17
b	31+34.34	-28.00	735.95
E. End Appr. Slab	31+44.34	-28.00	735.72

NORTH EDGE OF THRU LANES

Location	Station	Offset (ft.)	Theoretical Grade Elevations
W. End Appr. Slab	31+13.60	-26.00	736.40
a	31+23.60	-26.00	736.23
b	31+33.60	-26.00	736.01
E. End Appr. Slab	31+43.60	-26.00	735.78

CL ROADWAY & PROFILE GRADE

Location	Station	Offset (ft.)	Theoretical Grade Elevations
W. End Appr. Slab	31+04.00	0.00	736.94
a	31+14.00	0.00	736.80
b	31+24.00	0.00	736.63
E. End Appr. Slab	31+34.00	0.00	736.41

SOUTH EDGE OF THRU LANES

Location	Station	Offset (ft.)	Theoretical Grade Elevations
W. End Appr. Slab	30+94.40	26.00	736.64
a	31+04.40	26.00	736.53
b	31+14.40	26.00	736.39
E. End Appr. Slab	31+24.40	26.00	736.21

SOUTH EDGE OF TURN LANE

Location	Station	Offset (ft.)	Theoretical Grade Elevations
W. End Appr. Slab	30+86.21	48.18	736.24
a	30+93.95	54.31	735.74
b	31+01.01	62.27	735.25
E. End Appr. Slab	31+07.17	72.67	734.78

INSIDE FACE SOUTH SIDEWALK

Location	Station	Offset (ft.)	Theoretical Grade Elevations
W. End Appr. Slab	30+85.50	50.11	736.21
a	30+93.19	56.35	735.71
b	31+00.18	64.53	735.21
E. End Appr. Slab	31+05.37	73.51	734.71

TOP OF EAST
APPROACH SLAB ELEVATIONS
STRUCTURE NO. 015-0064

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SHEET NO. 7 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	31
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74149					

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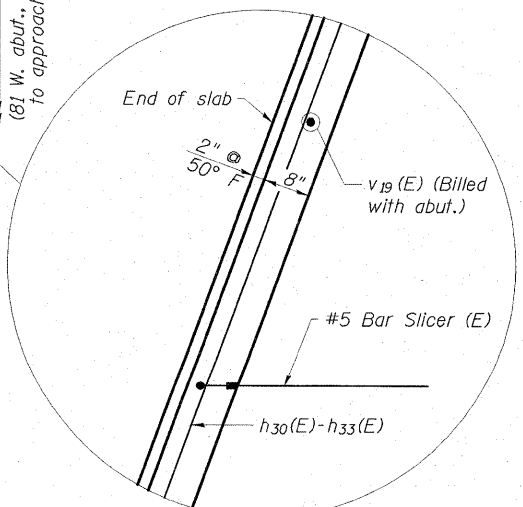
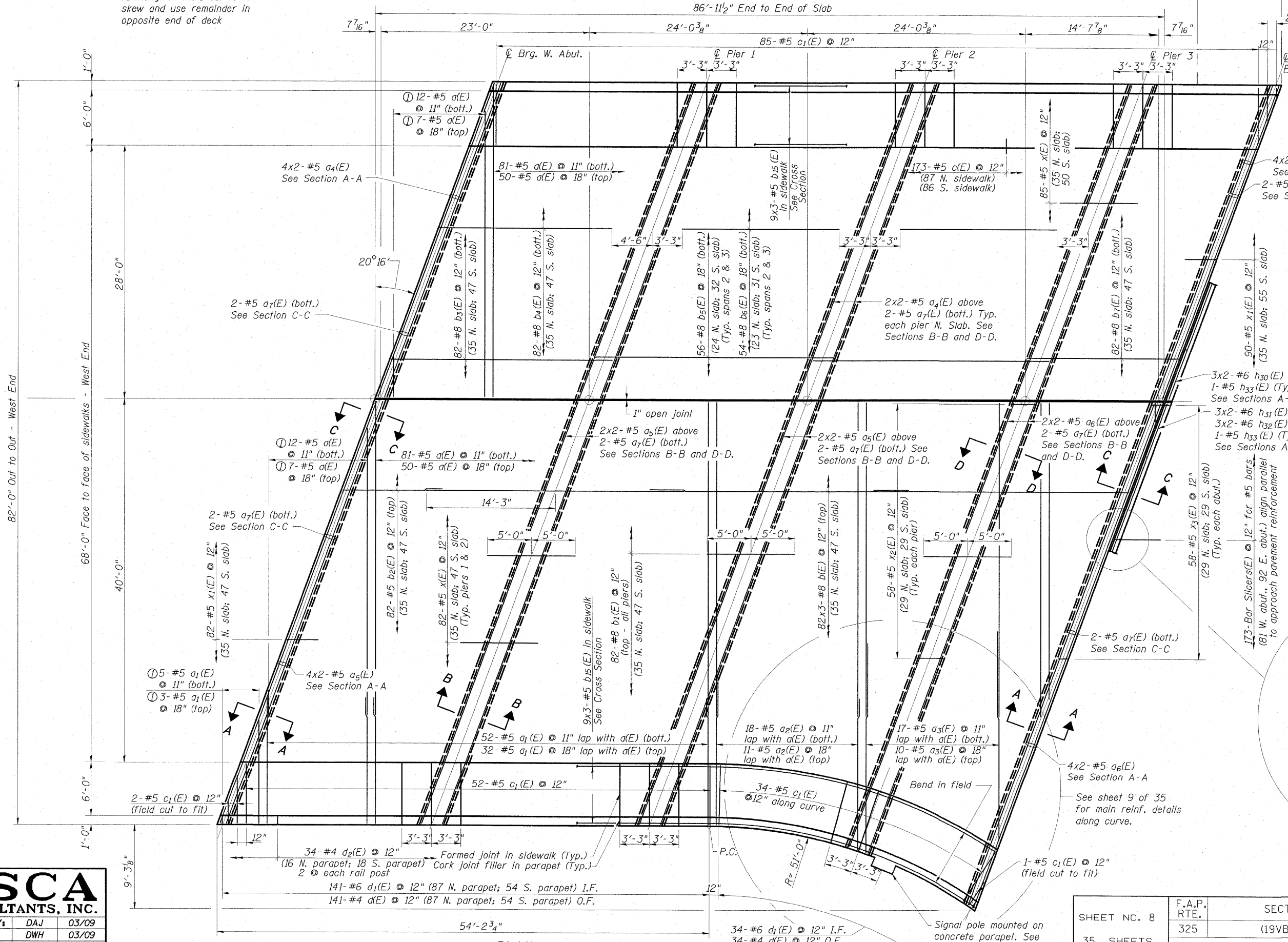
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**
86'-11 1/2" End to End of Slab

7 Pipe Support Brackets @ 12'-0" (North side only)
See details on Sheet 10 of 35.

① Order a(E), a₁(E) & c₁(E) bars full length. Field cut to fit skew and use remainder in opposite end of deck

- NOTES**
1. Bars indicated thus: 82 x 3-#8 etc. indicates 83 lines of bars with 3 lengths per line.
 2. See Sheets 9, 10, & 11 of 35 for Superstructure Details, Bill of Material and sections.

Min. Bar Lap	
#5	1'-10"
#6	2'-2"
#8	2'-9"



**SUPERSTRUCTURE
STRUCTURE NO. 015-0064**

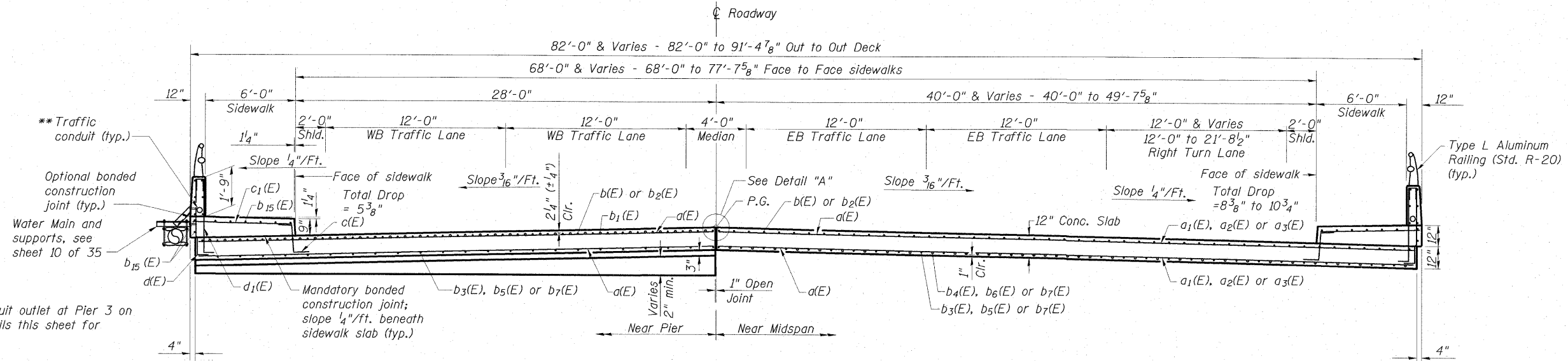
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CHECKED BY:	MTD	03/09
APPROVED BY:	RDP	08/09

PLAN

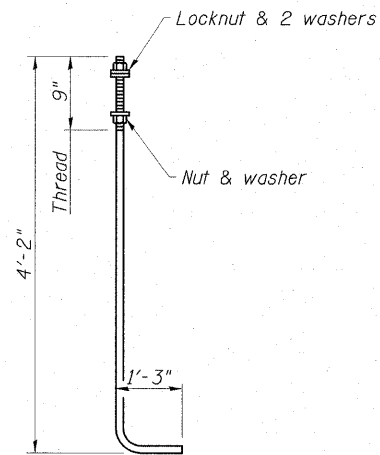
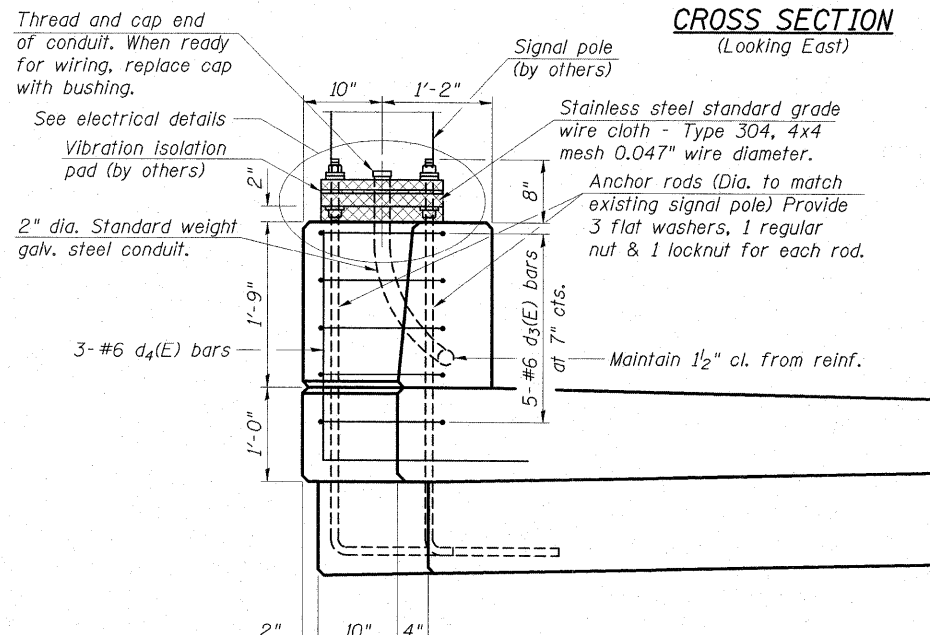
SHEET NO. 8 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	32
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74149					

STATE OF ILLINOIS
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**Provide traffic conduit outlet at Pier 3 on North Side; see details this sheet for south side

CROSS SECTION
(Looking East)

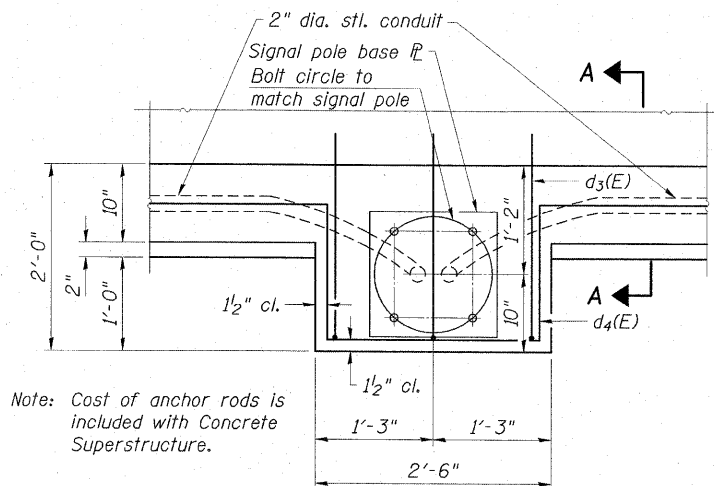


ANCHOR ROD

Diameter to match existing signal pole.
(ASTM F 1554 Grade 105)

SECTION A-A

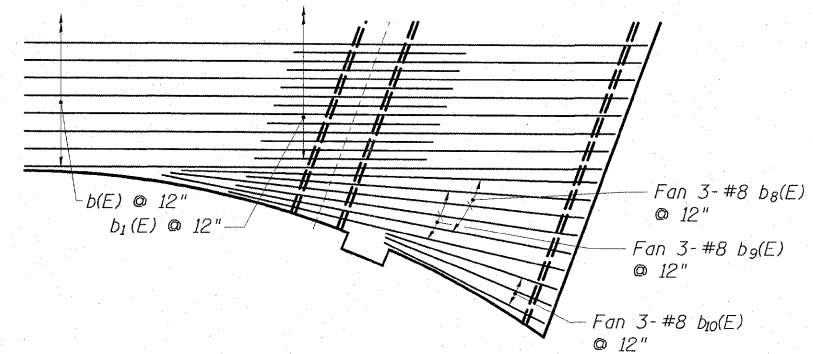
(Bridge slab shown; Approach slab similar)



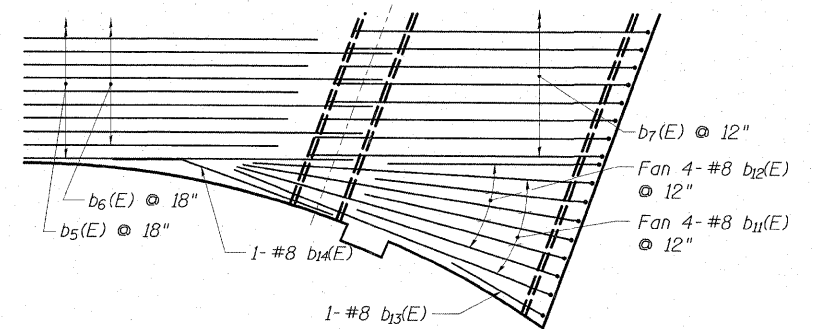
Note: Cost of anchor rods is included with Concrete Superstructure.

PLAN

SIGNAL POLE MOUNTED ON CONCRETE PARAPET



TOP REINFORCEMENT PLAN
(Over SE Curb)



BOTTOM REINFORCEMENT PLAN
(Over SE Curb)

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 015-0064

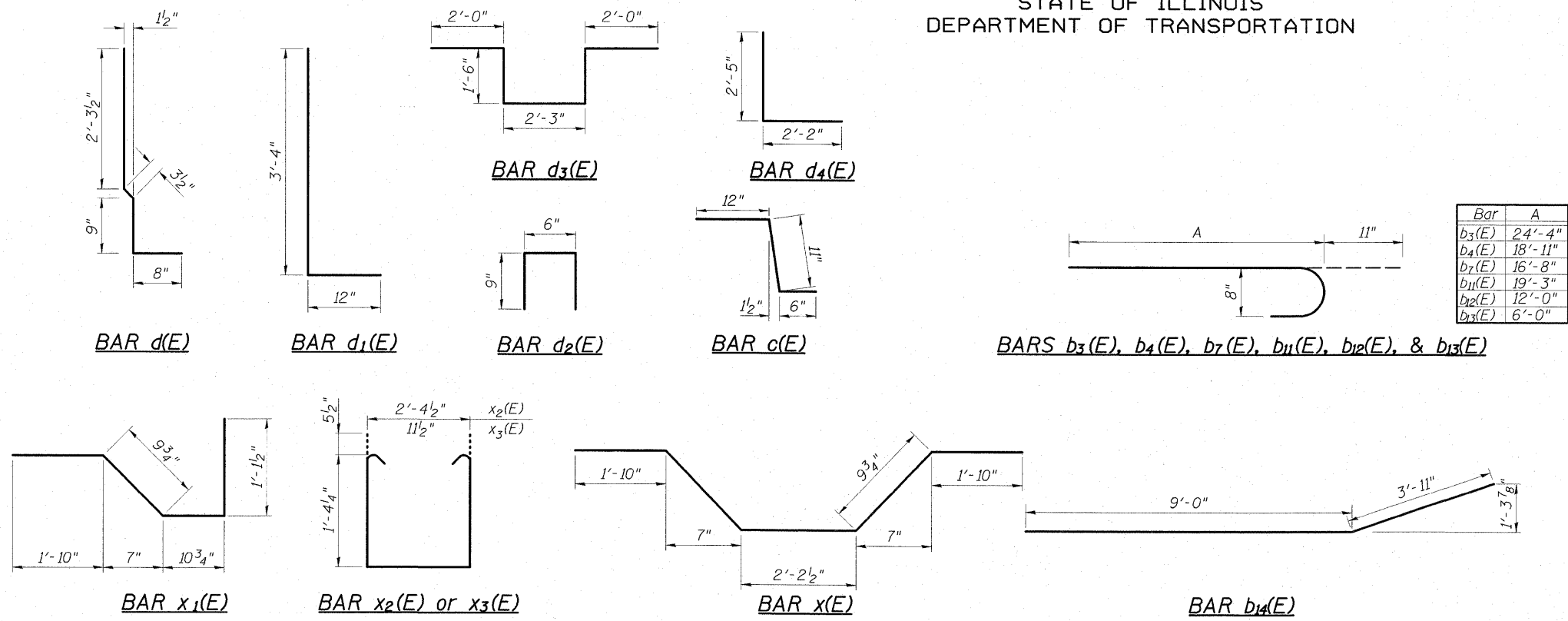
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APPROVED BY:	RDP	08/09

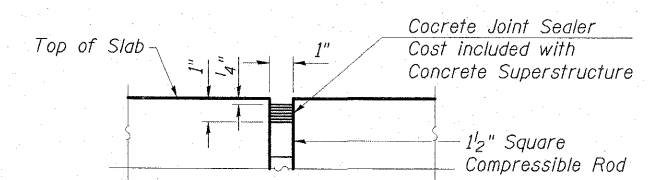
SHEET NO. 9 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	33
			CONTRACT NO. 74149		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

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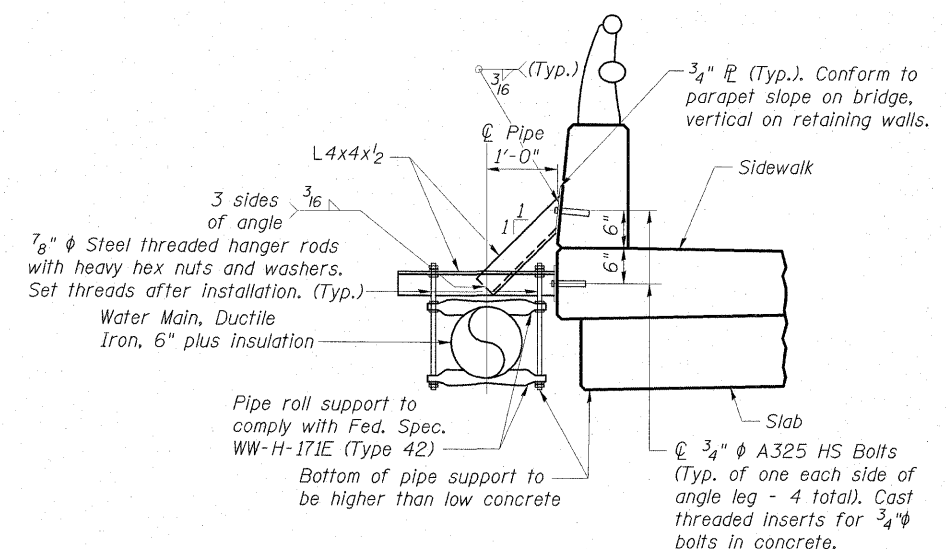
STATE OF ILLINOIS
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Bar	A
b ₃ (E)	24'-4"
b ₄ (E)	18'-11"
b ₇ (E)	16'-8"
b ₁₁ (E)	19'-3"
b ₁₂ (E)	12'-0"
b ₁₃ (E)	6'-0"



DETAIL "A"

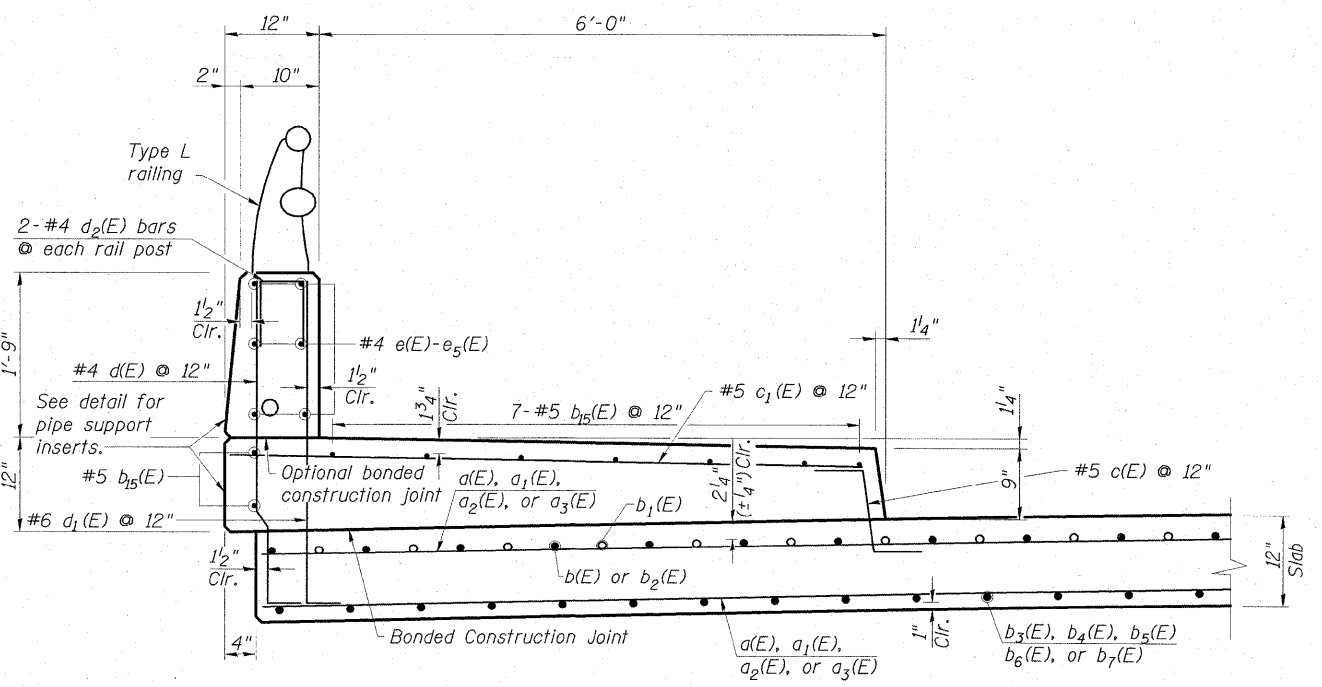


PIPE SUPPORT DETAILS

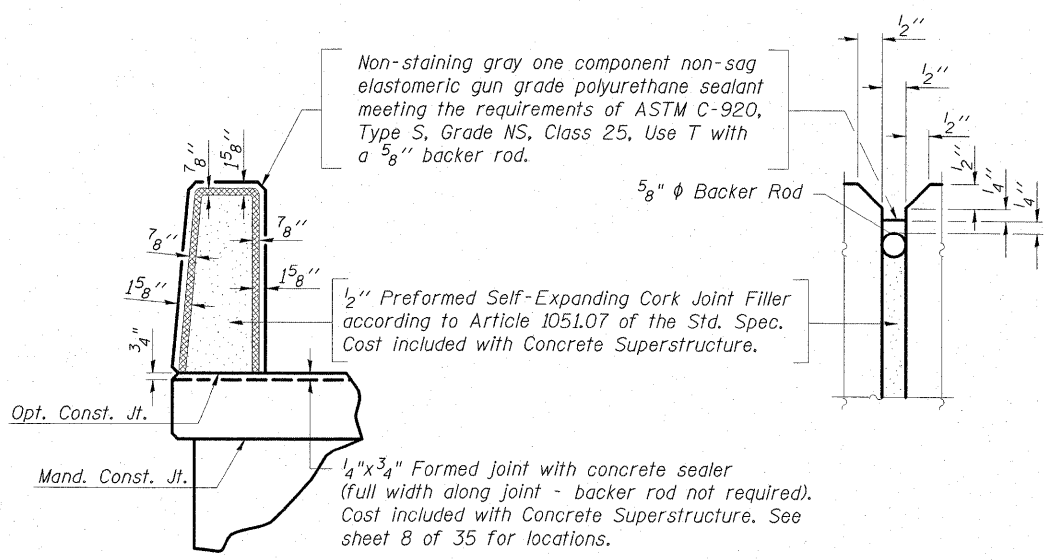
(Provide supports at 12'-0" max. centers; 7 on Bridge parapet, 1 on NW Retaining Wall, and 5 on NE Retaining Wall)

PIPE SUPPORT NOTES

- All hanger rods, angles, washers, nuts, and plates shall be stainless steel. Bolts, inserts, and other permanent pipe support items shall be galvanized.
- All structural steel angles and plates for pipe supports shall be Type 304 stainless steel with a minimum yield strength of 38 ksi.
- The cost of all materials, labor, and equipment necessary to install the pipe supports on the proposed bridge shall be included in Pipe Support.



SECTION THRU SIDEWALK



PARAPET JOINT DETAILS

SUPERSTRUCTURE DETAILS

STRUCTURE NO. 015-0064

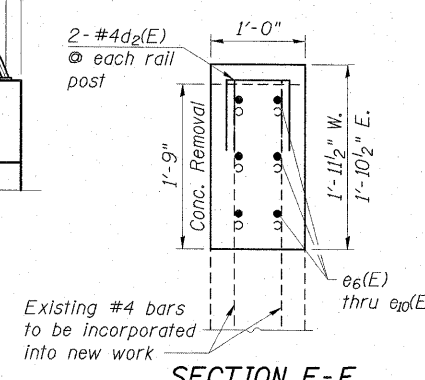
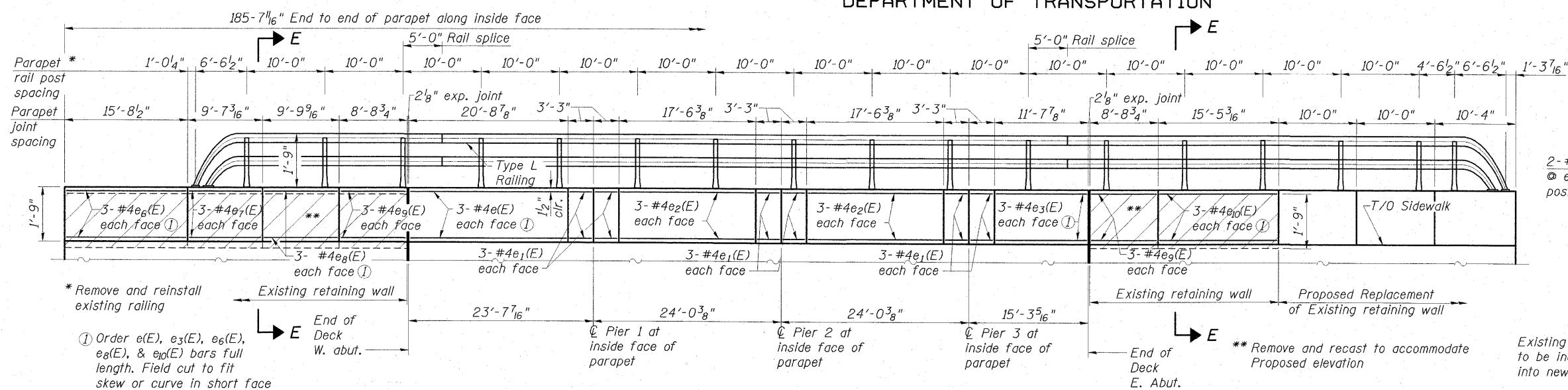
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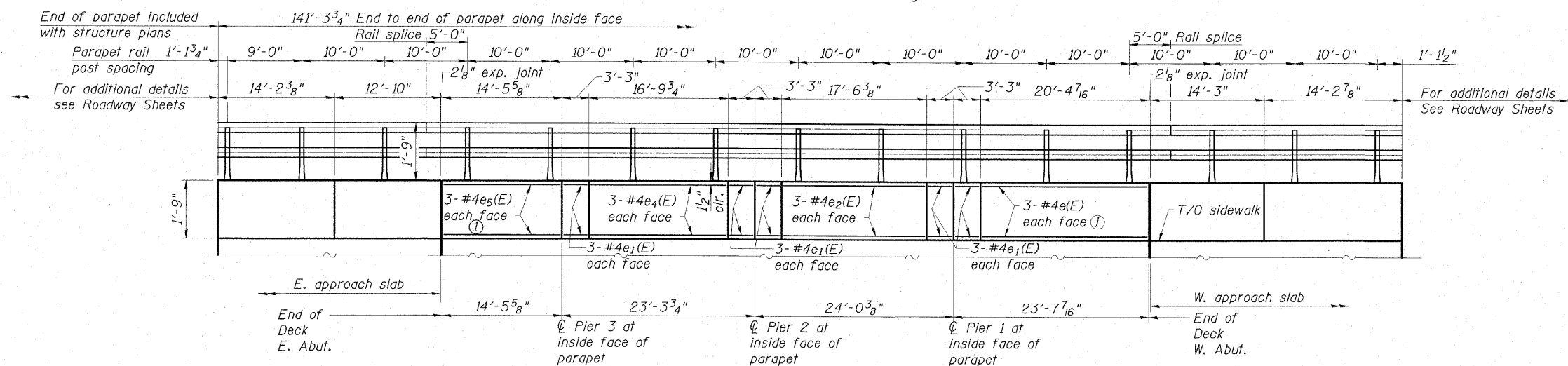
SHEET NO. 10 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	34
CONTRACT NO. 74149					
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

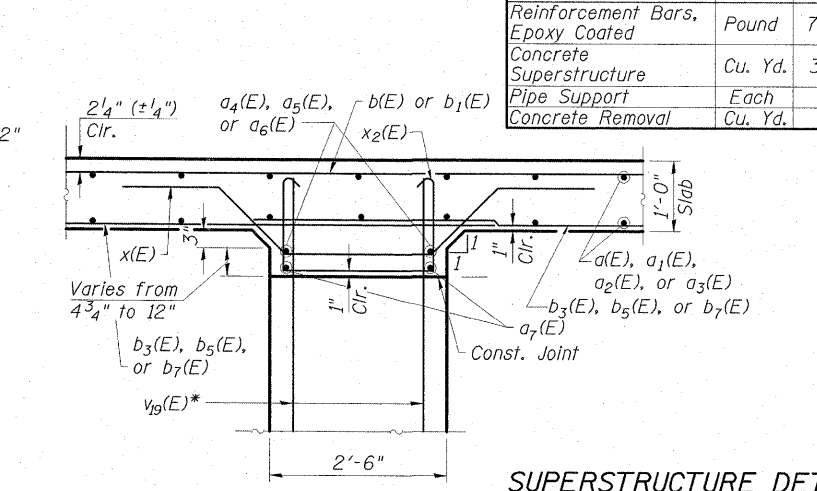
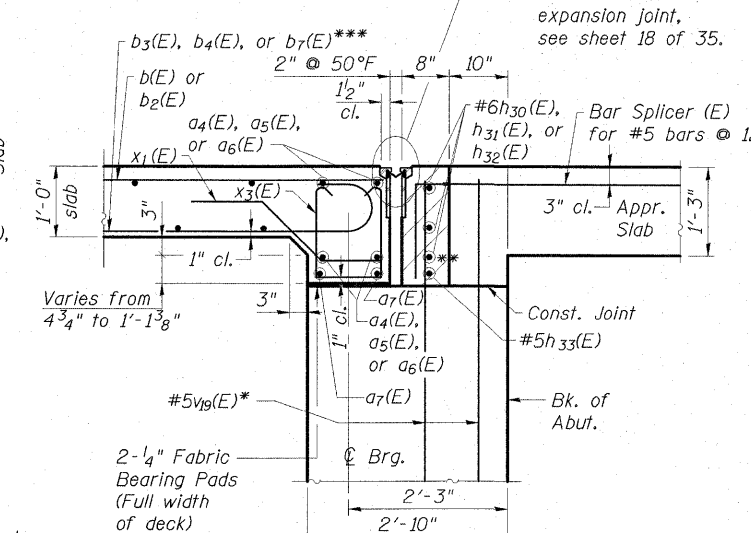
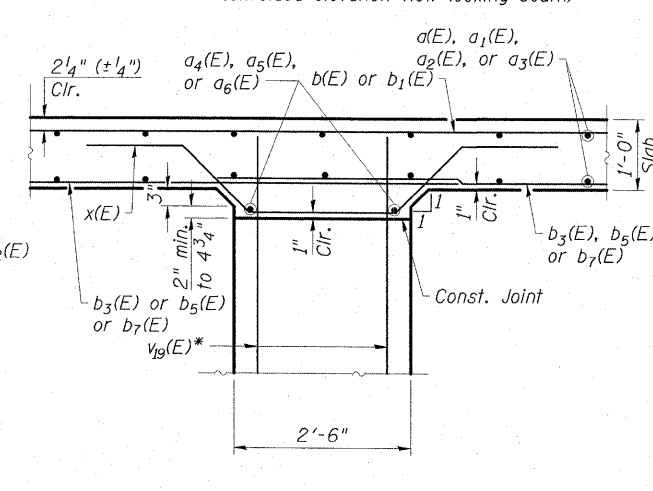
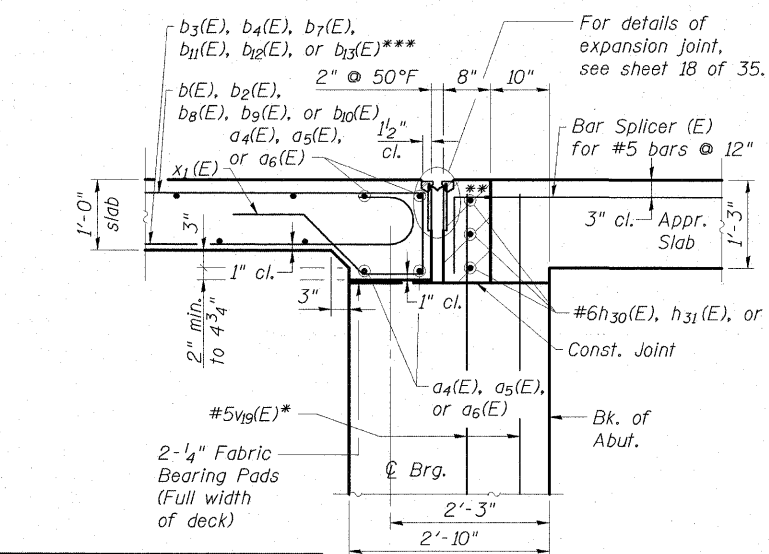
**SUPERSTRUCTURE
BILL OF MATERIAL**



ELEVATION OF INSIDE FACE OF NORTH PARAPET
(Unfolded elevation view looking north)



ELEVATION OF INSIDE FACE OF SOUTH PARAPET
(Unfolded elevation view looking south)



Bar No.	Size	Length	Shape
a ₁ (E)	300 #5	34'-4"	
a ₂ (E)	92 #5	13'-10"	
a ₃ (E)	27 #5	23'-1"	
a ₄ (E)	28 #5	19'-3"	
a ₅ (E)	16 #5	25'-8"	
a ₆ (E)	12 #5	30'-5"	
a ₇ (E)	20 #5	31'-0"	
b(E)	246 #8	27'-8"	
b ₁ (E)	246 #8	10'-0"	
b ₂ (E)	82 #5	11'-1"	
b ₃ (E)	82 #8	25'-3"	
b ₄ (E)	82 #8	19'-10"	
b ₅ (E)	112 #8	26'-0"	
b ₆ (E)	108 #8	17'-6"	
b ₇ (E)	82 #8	17'-7"	
b ₈ (E)	3 #8	23'-6"	
b ₉ (E)	3 #8	19'-6"	
b ₁₀ (E)	3 #8	10'-2"	
b ₁₁ (E)	4 #8	20'-2"	
b ₁₂ (E)	4 #8	12'-11"	
b ₁₃ (E)	1 #8	16'-11"	
b ₁₄ (E)	1 #8	12'-11"	
b ₁₅ (E)	54 #5	30'-2"	
c(E)	173 #5	2'-5"	
c ₁ (E)	176 #5	6'-8"	
d(E)	175 #4	4'-0"	
d ₁ (E)	175 #6	4'-4"	
d ₂ (E)	46 #4	2'-0"	
d ₃ (E)	5 #6	9'-3"	
d ₄ (E)	3 #6	4'-7"	
e(E)	12 #4	20'-4"	
e ₁ (E)	66 #4	2'-11"	
e ₂ (E)	18 #4	17'-2"	
e ₃ (E)	6 #4	11'-7"	
e ₄ (E)	6 #4	16'-6"	
e ₅ (E)	6 #4	14'-1"	
e ₆ (E)	6 #4	15'-4"	
e ₇ (E)	6 #4	9'-3"	
e ₈ (E)	6 #4	9'-9"	
e ₉ (E)	12 #4	8'-5"	
e ₁₀ (E)	6 #4	15'-0"	
h ₃₀ (E)	12 #6	19'-5"	
h ₃₁ (E)	6 #6	25'-10"	
h ₃₂ (E)	6 #6	30'-7"	
h ₃₃ (E)	4 #5	31'-0"	
x(E)	249 #5	7'-6"	
x ₁ (E)	172 #5	4'-8"	
x ₂ (E)	174 #5	6'-0"	
x ₃ (E)	116 #5	4'-7"	
Reinforcement Bars, Epoxy Coated	Pound	79770	
Concrete Superstructure	Cu. Yd.	358.0	
Pipe Support	Each	13	
Concrete Removal	Cu. Yd.	4	

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 015-0064**

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CHECKED BY: MTD 03/09
APPROVED BY: RDP 08/09

*v₉(E) bars billed with substructure. See sheets 20-26 of 35. Top of bar to be 3" below top of concrete.
** Hatched area to be poured after super structure forms have been removed. Quantity of concrete included with Concrete Superstructure.

*** Tilt hooks as required to maintain clearance.

SHEET NO. 11	F.A.P. RTE. 325	SECTION (19VBR)BR	COUNTY COLES	TOTAL SHEETS 92	SHEET NO. 35
35 SHEETS			CONTRACT NO. 74149		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

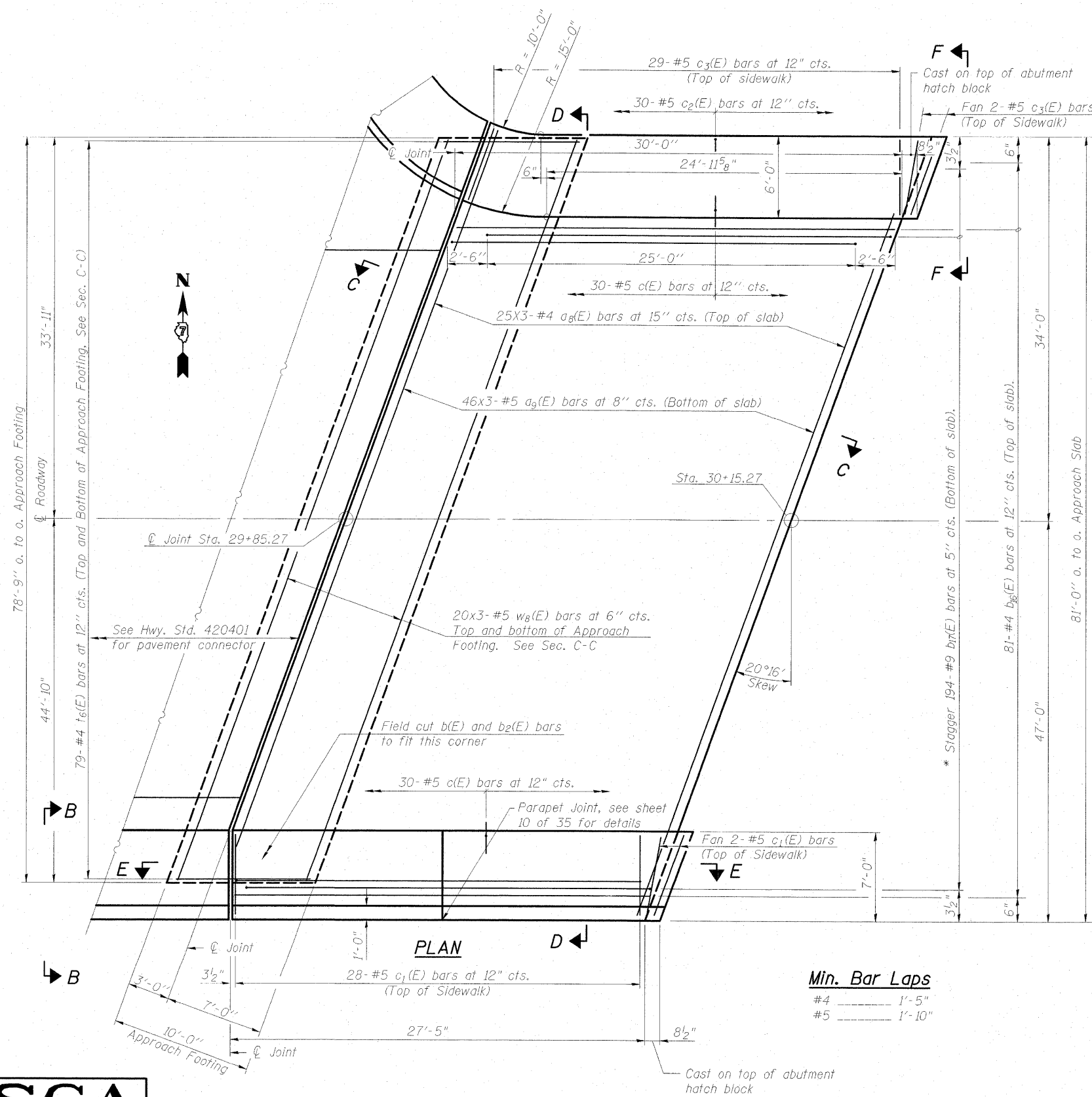
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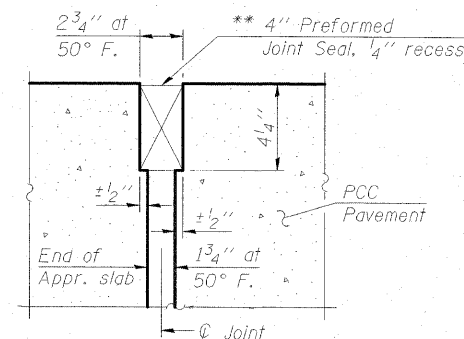
* Tilt #9 $b_7(E)$ bars as required to maintain clearance.

Notes:

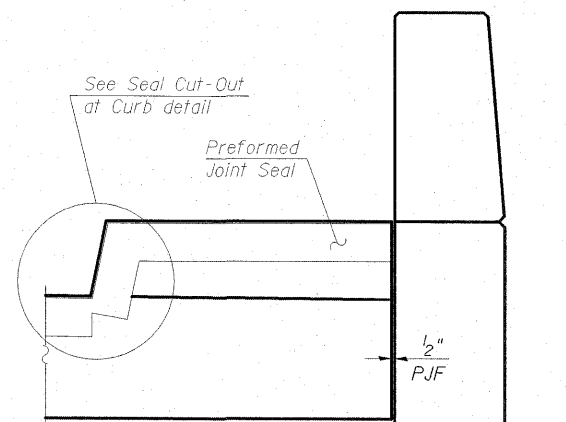
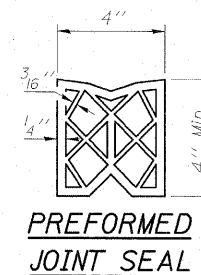
See sheet 13 of 35 for Sections C-C & D-D and View E-E.
 $a_8(E)$, $a_9(E)$ and $w_8(E)$ bar spacings measured parallel to \varnothing Rdwy.
Bars indicated thus: 46x3 - #5 etc. indicates 46 lines of bars with 3 lengths per line.



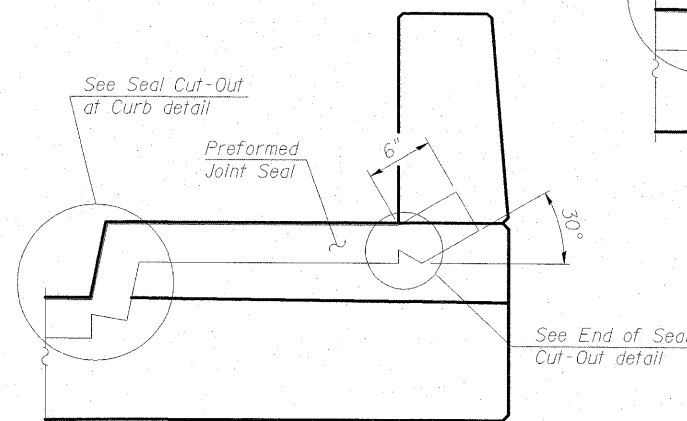
** Cost included with Concrete Superstructure.



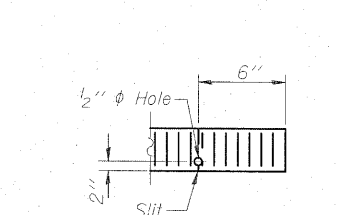
DETAIL A



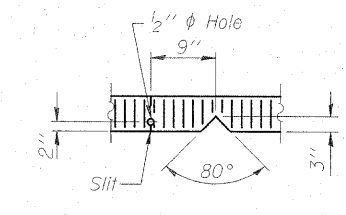
VIEW F-F



VIEW B-B



END OF SEAL CUT-OUT



SEAL CUT-OUT AT CURB

Min. Bar Laps

- #4 _____ 1'-5"
- #5 _____ 1'-10"

(Sheet 1 of 2)

WEST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 015-0064

ESCA
CONSULTANTS, INC.

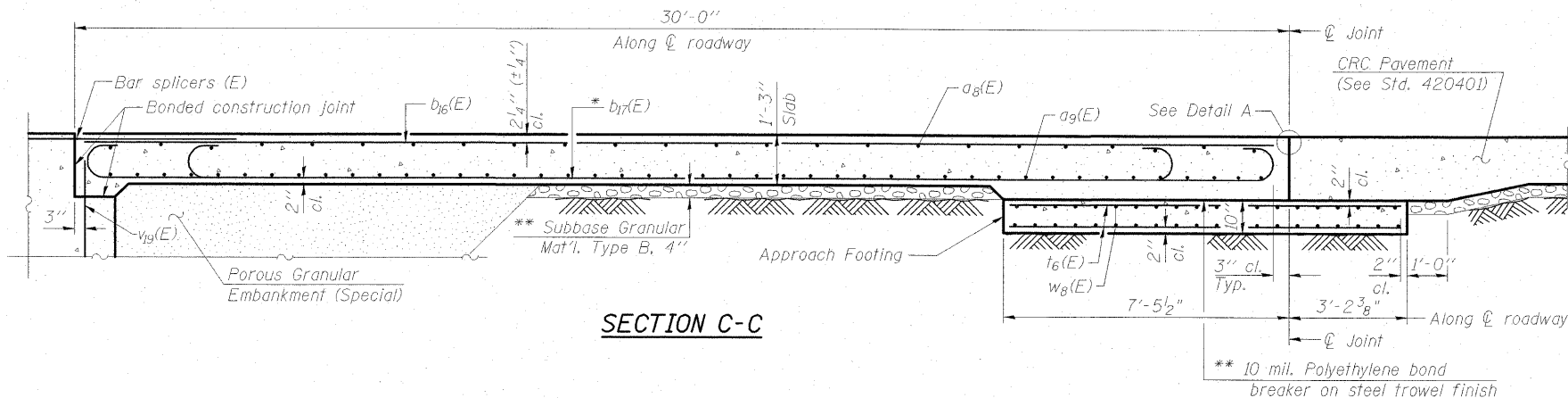
DESIGNED BY: MTD 03/09
DRAWN BY: HAS 03/09
CHECKED BY: MTD 03/09
APPROVED BY: RDP 08/09

SHEET NO. 12 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	36
CONTRACT NO. 74149					
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

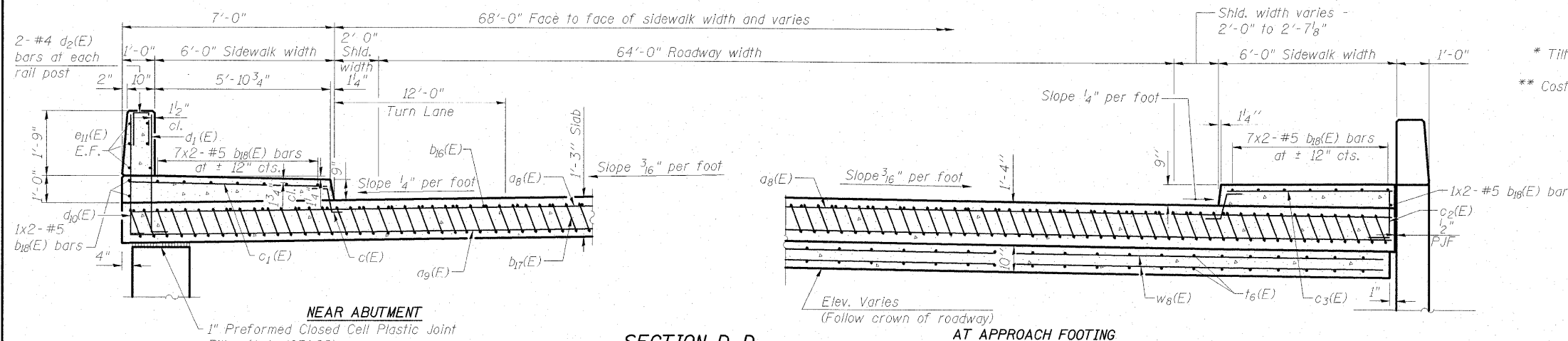
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:

See sheet 12 of 35 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 $v_{19}(E)$ bar details, see sheet 19 of 35.
The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
For bar splicer details, see sheet 32 of 35.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 30 of 35.



SECTION C-C



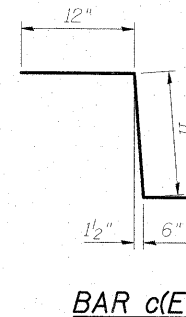
SECTION D-D

(See Plan for dimensions not shown)

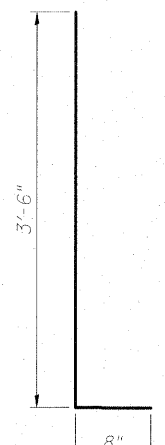
AT APPROACH FOOTING

BILL OF MATERIAL

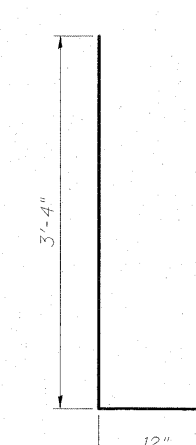
Bar	No.	Size	Length	Shape
$a_8(E)$	75	#4	29'-8"	—
$a_9(E)$	138	#5	29'-11"	—
$b_{16}(E)$	81	#4	29'-8"	—
$b_{17}(E)$	194	#9	29'-9"	—
$b_{18}(E)$	34	#5	16'-7"	—
$c(E)$	60	#5	2'-5"	┌
$c_1(E)$	30	#5	6'-8"	—
$c_2(E)$	30	#5	3'-4"	┌
$c_3(E)$	31	#5	5'-8"	—
$d_1(E)$	29	#6	4'-4"	┌
$d_2(E)$	6	#4	2'-0"	┌
$d_{10}(E)$	29	#4	4'-2"	┌
$e_{11}(E)$	12	#4	13'-10"	—
$t_6(E)$	158	#4	10'-3"	—
$w_8(E)$	120	#5	29'-2"	—
Concrete Superstructure	Cu. Yd.		147.6	
Concrete Structures	Cu. Yd.		25.9	
Reinforcement Bars, Epoxy Coated	Pound		33380	



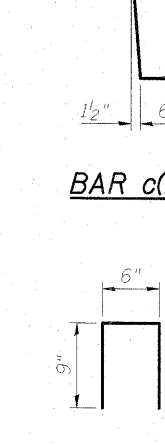
BAR c(E)



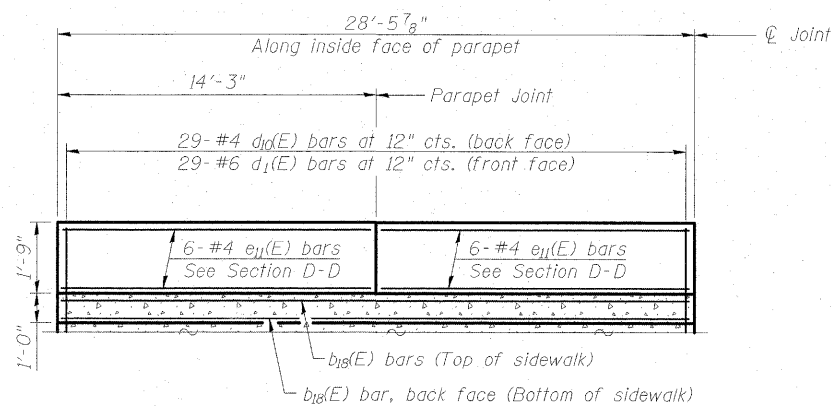
BAR $d_{10}(E)$



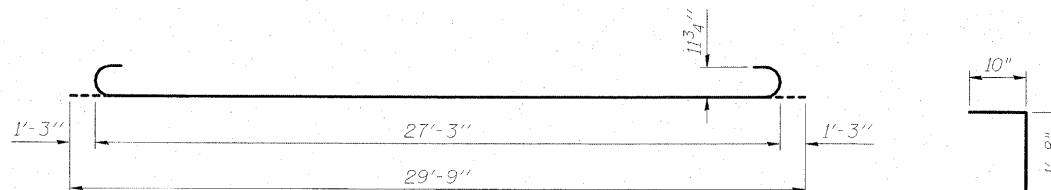
BAR $d_1(E)$



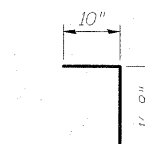
BAR $d_2(E)$



VIEW E-E



BAR $b_{17}(E)$



BAR $c_2(E)$

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DESIGNED BY:	MTD	03/09
DRAWN BY:	HAS	03/09
CHECKED BY:	MTD	03/09
APPROVED BY:	RDP	08/09

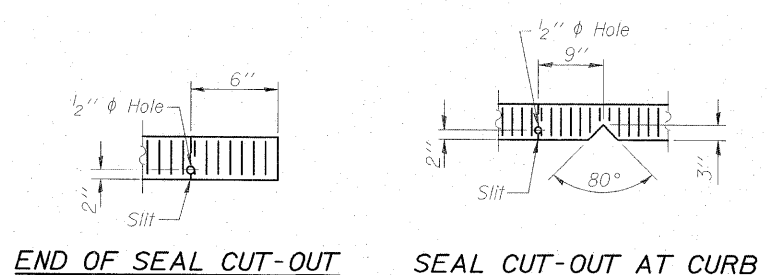
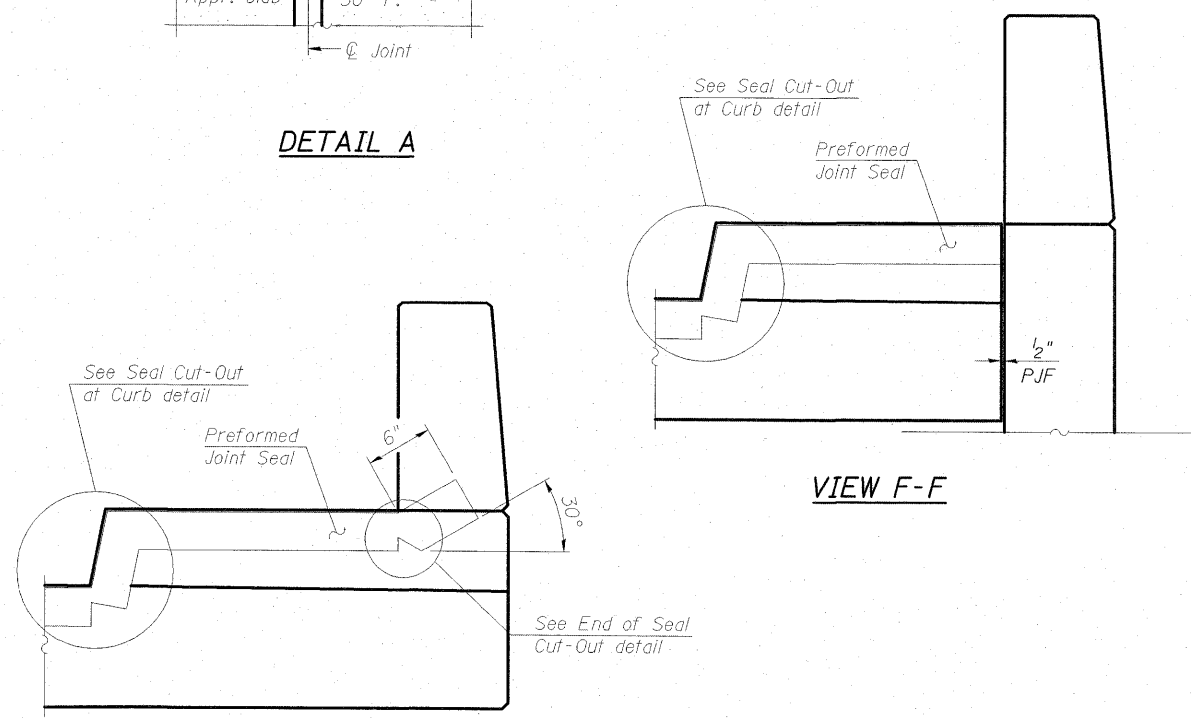
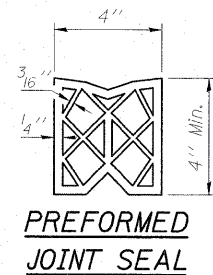
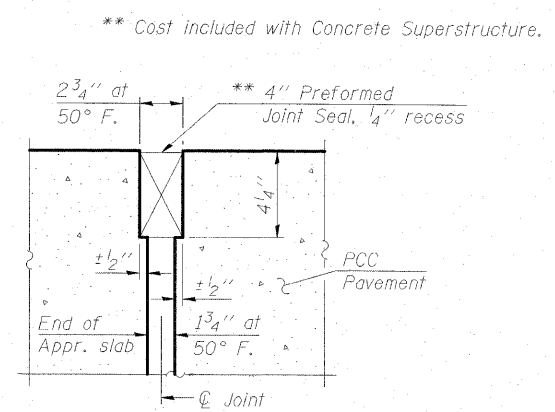
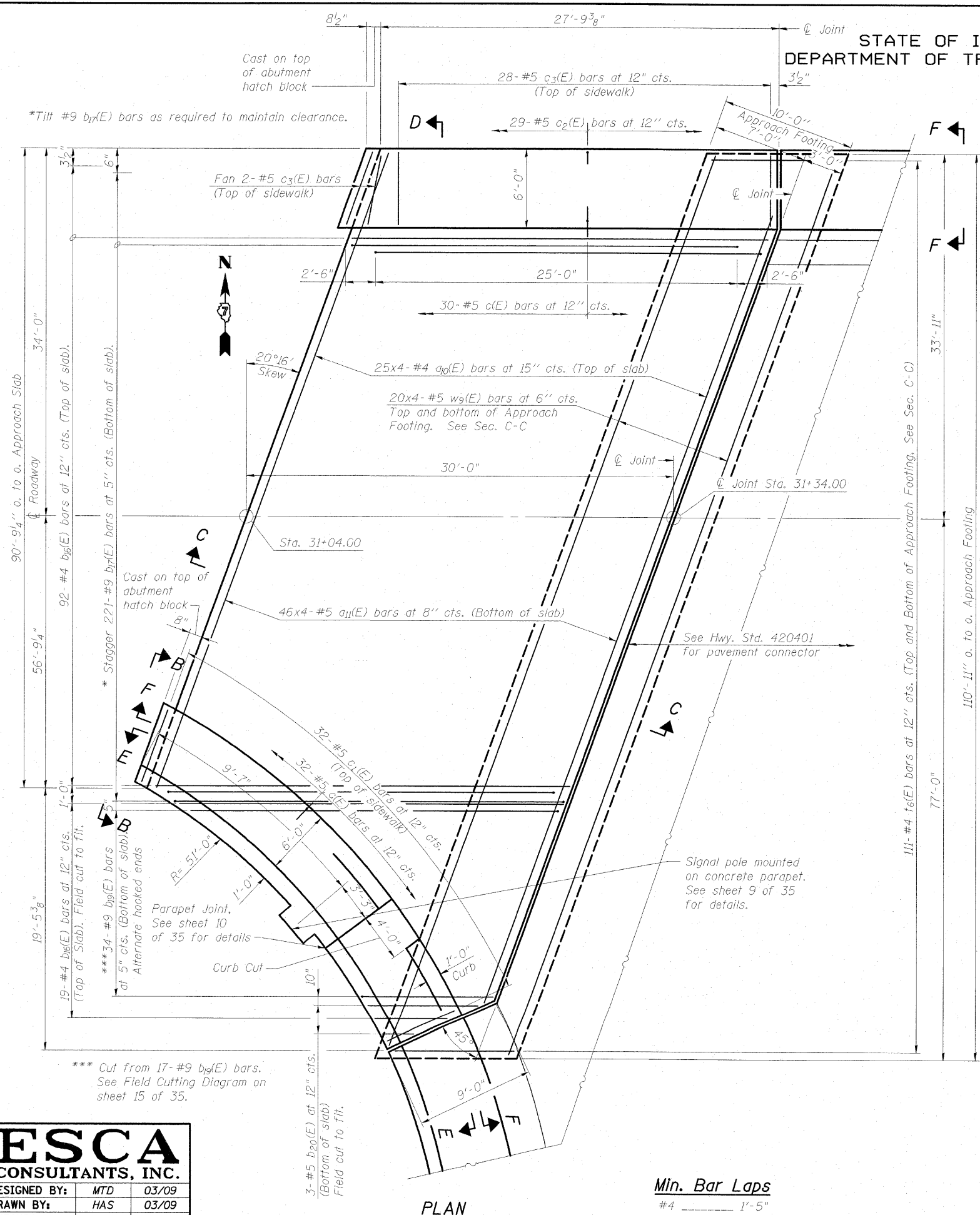
(Sheet 2 of 2)
WEST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 015-0064

SHEET NO. 13	F.A.P. RTE. 325	SECTION (19VBR)BR	COUNTY COLES	TOTAL SHEETS 92	SHEET NO. 37
35 SHEETS	CONTRACT NO. 74149		ILLINOIS FED. AID PROJECT		

0150064-74149-14-EGP-Slab01.dgn 7/31/2009 12:36:17 PM HAS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See sheet 15 of 35 for Sections C-C & D-D and View E-E.
 $a_{10}(E)$, $a_{11}(E)$ and $w_9(E)$ bar spacings parallel to Rdwy.
Bars indicated thus: 20x4-#5 etc. Indicates 20 lines of bars with 4 lengths per line.



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DESIGNED BY: MTD 03/09
DRAWN BY: HAS 03/09
CHECKED BY: MTD 03/09
APPROVED BY: RDP 08/09

Min. Bar Laps
#4 _____ 1'-5"
#5 _____ 1'-10"

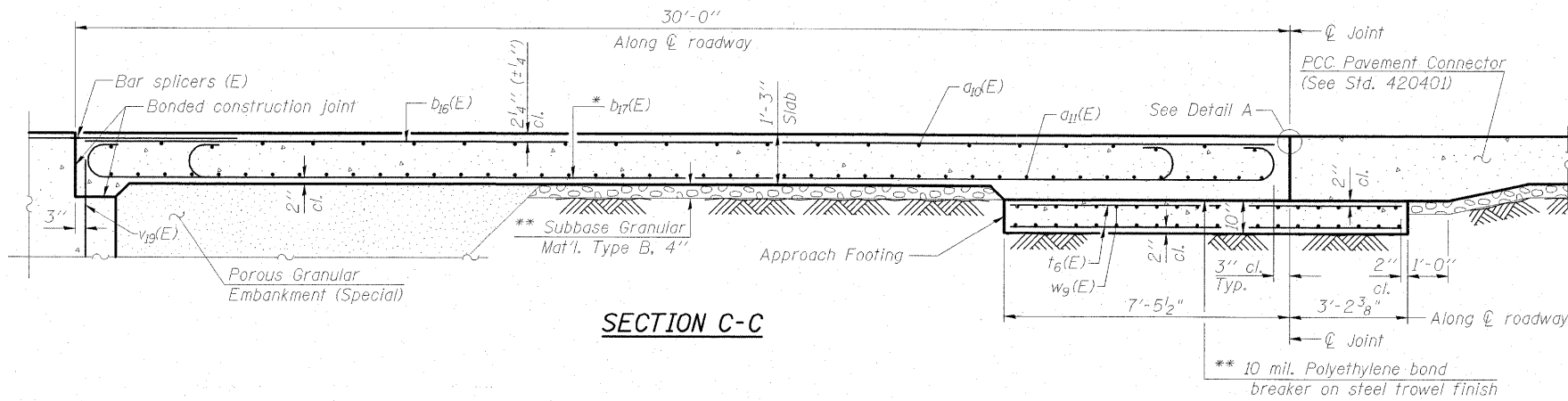
(Sheet 1 of 2)
EAST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 015-0064

SHEET NO. 14 35 SHEETS	F.A.P. RTE. 325	SECTION (19VBR)BR	COUNTY COLES	TOTAL SHEETS 92	SHEET NO. 38
	CONTRACT NO. 74149				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

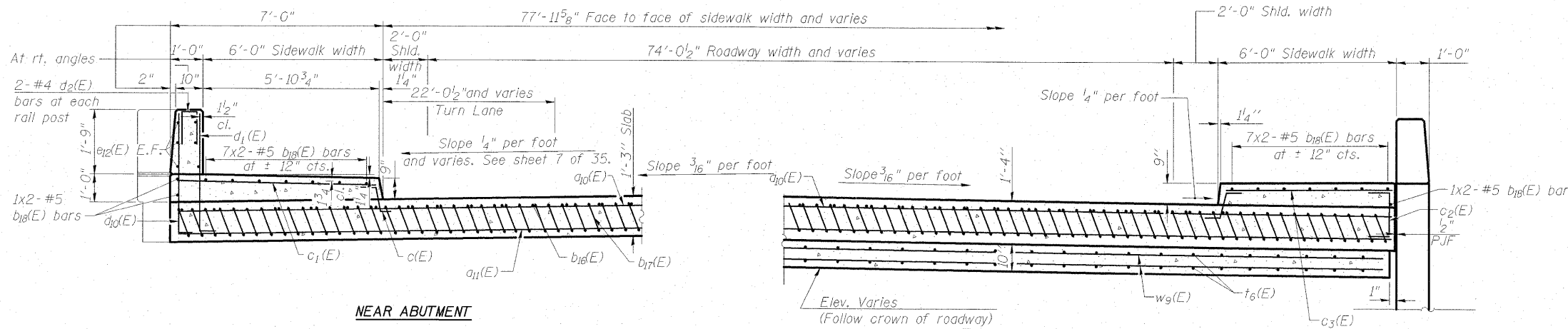
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:

See sheet 14 of 35 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 $v_{19}(E)$ bar details, see sheet 21 of 35.
The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
For bar splicer details, see sheet 32 of 35.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 30 of 35.



SECTION C-C



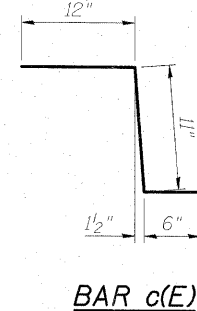
SECTION D-D

(See Plan for dimensions not shown)

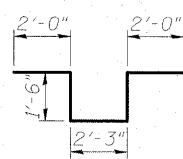
FIELD CUTTING DIAGRAM
Order $b_9(E)$ full length. Cut as shown and use remainder of bars in bottom of slab.

BILL OF MATERIAL

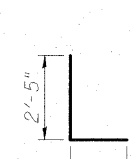
Bar	No.	Size	Length	Shape
$a_{10}(E)$	100	#4	30'-6"	—
$a_{11}(E)$	184	#5	30'-8"	—
$b_{16}(E)$	111	#4	29'-8"	—
$b_{17}(E)$	221	#9	29'-9"	—
$b_{18}(E)$	34	#5	16'-7"	—
$b_{19}(E)$	17	#9	35'-10"	—
$b_{20}(E)$	3	#5	8'-3"	—
$c(E)$	62	#5	2'-5"	┌
$c_1(E)$	32	#5	6'-8"	┌
$c_2(E)$	29	#5	3'-4"	┌
$c_3(E)$	30	#5	5'-8"	┌
$d_1(E)$	27	#6	4'-4"	┌
$d_2(E)$	6	#4	2'-0"	┌
$d_3(E)$	5	#6	9'-3"	┌
$d_4(E)$	3	#6	4'-7"	┌
$d_{10}(E)$	27	#4	4'-2"	┌
$e_{11}(E)$	6	#4	13'-10"	—
$e_{12}(E)$	6	#4	12'-6"	—
$t_6(E)$	222	#4	10'-3"	—
$w_9(E)$	160	#5	30'-11"	—
Concrete Superstructure		Cu. Yd.	199.7	
Concrete Structures		Cu. Yd.	36.5	
Reinforcement Bars, Epoxy Coated		Pound	42960	



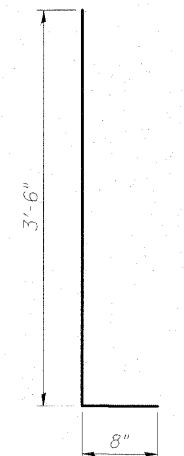
BAR c(E)



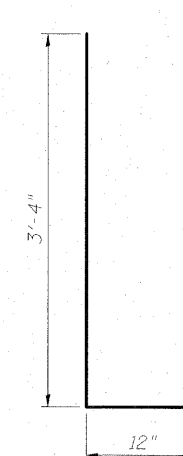
BAR d3(E)



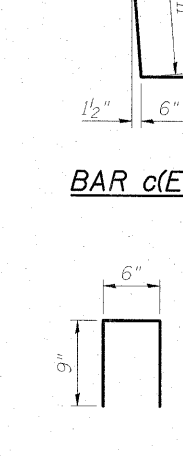
BAR d4(E)



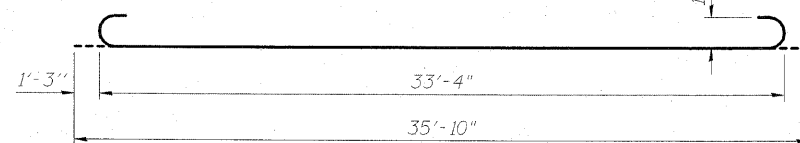
BAR d10(E)



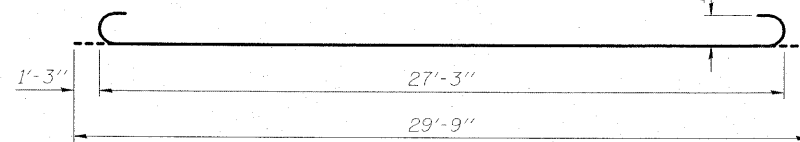
BAR d1(E)



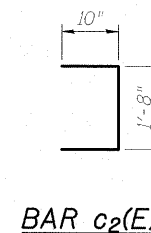
BAR d2(E)



BAR b19(E)



BAR b17(E)

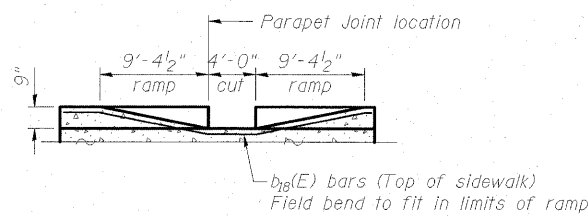


BAR c2(E)

NEAR ABUTMENT

AT APPROACH FOOTING

VIEW E-E



VIEW F-F

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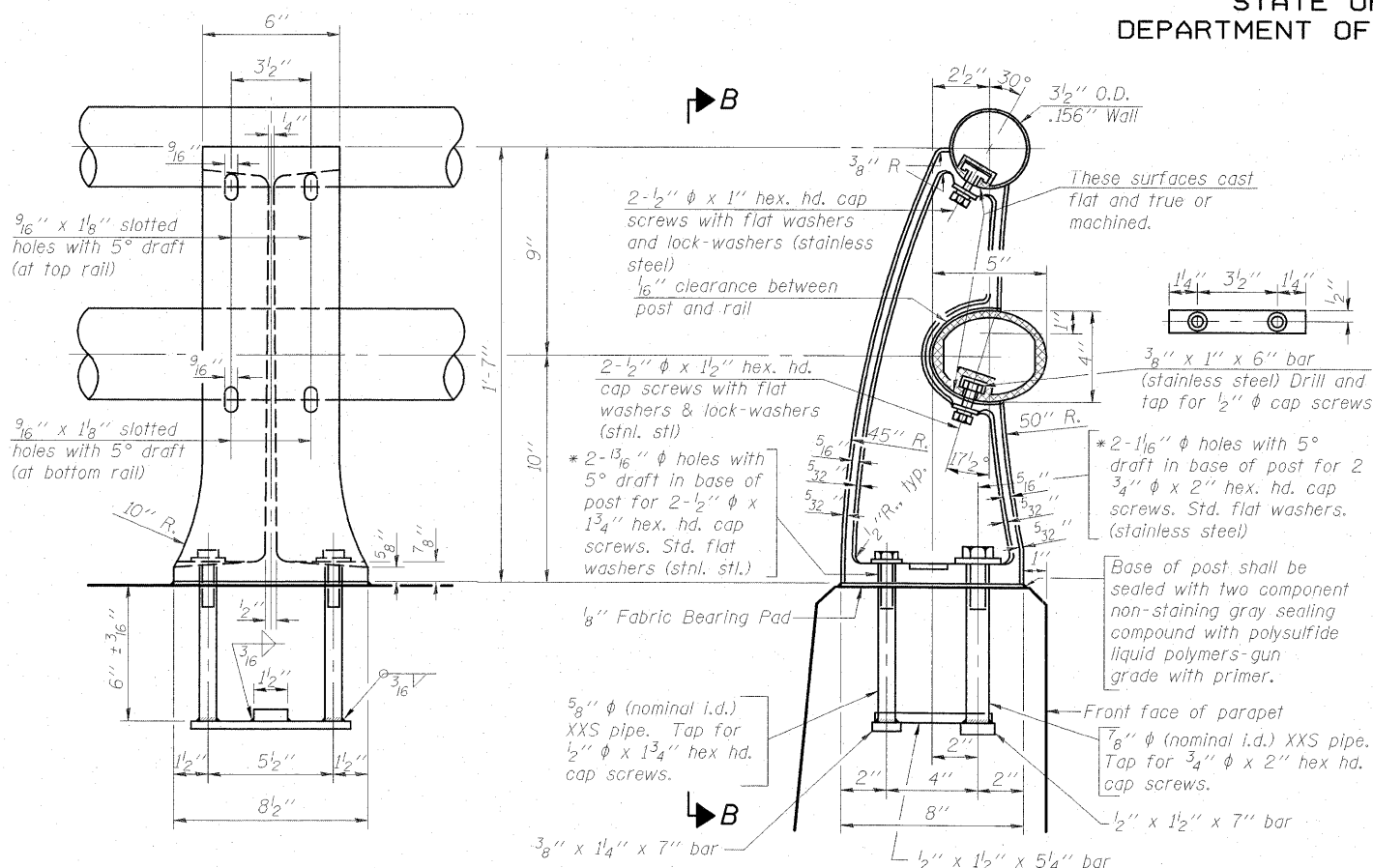
DESIGNED BY: MTD 03/09
DRAWN BY: HAS 03/09
CHECKED BY: MTD 03/09
APPROVED BY: RDP 08/09

(Sheet 2 of 2)
EAST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 015-0064

SHEET NO. 15	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
35 SHEETS	325	(19VBR)BR	COLES	92	39
			CONTRACT NO. 74149		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

01EM004-74149-16-Rail.dgn 7/31/2009 12:36:30 PM HKS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

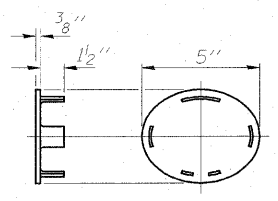


VIEW B-B

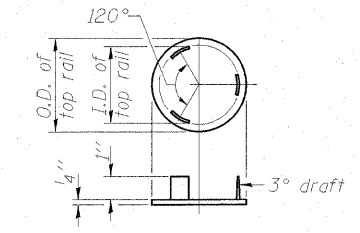
SECTION A-A

RAIL POST DETAILS

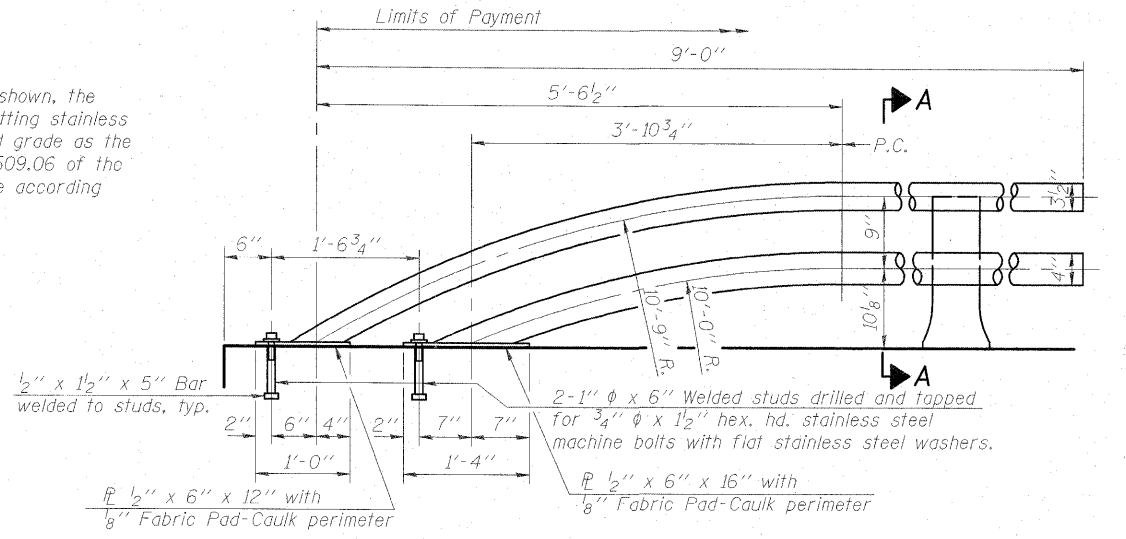
* In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



CAST END CAP
For bottom rail
DRIVE FIT TYPE

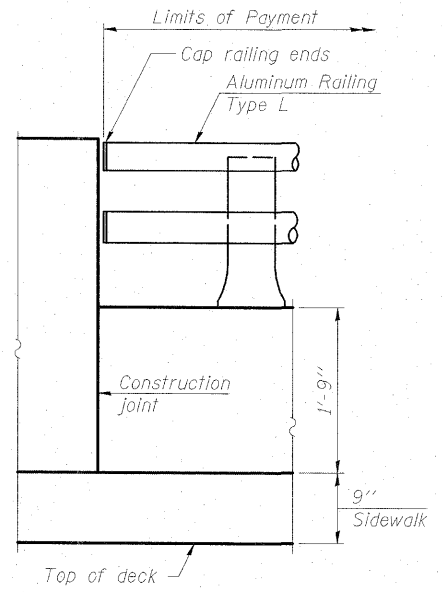


CAST END CAP
For top rail



RAIL TERMINAL SECTION

Note:
The end rail post shall be set back as required for the terminal rail section.



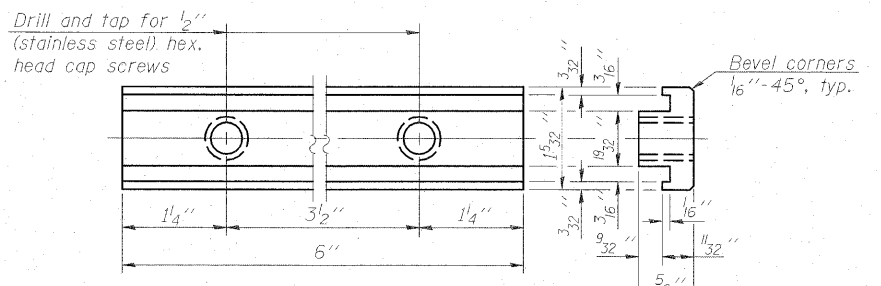
RAIL END TREATMENT FOR
TYPE 5 AND 6 TERMINAL

Notes:
All Posts shall be normal to parapet.
All joints in rail shall be spliced per detail.
All exposed rail ends shall be capped per detail.
Provide 1-1/8 inch and 2-1/16 inch Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.
See sheet 11 of 35 for rail post spacing.

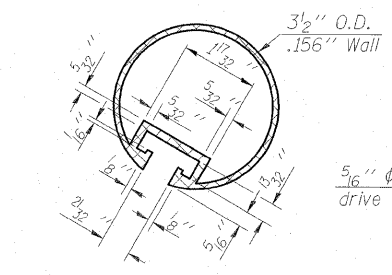
BILL OF MATERIAL

Item	Unit	Quantity
Aluminum Railing, Type L	Foot	142
Removing and Re-Erecting Existing Railing	Foot	158

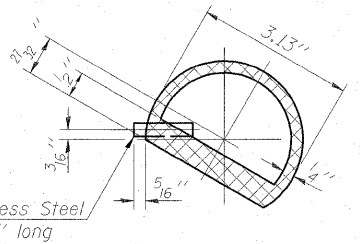
ALUMINUM RAILING, TYPE L
STRUCTURE NO. 015-0064



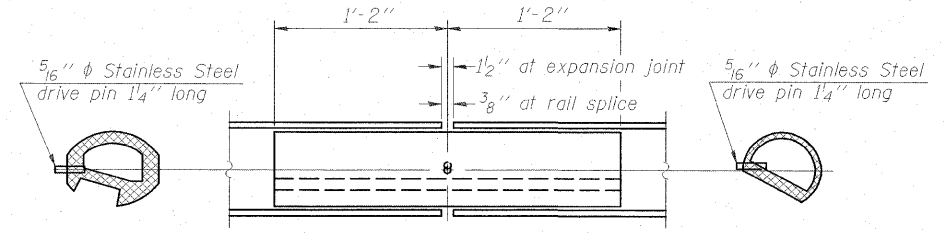
RAIL POST CLAMP BAR
For Top Rail



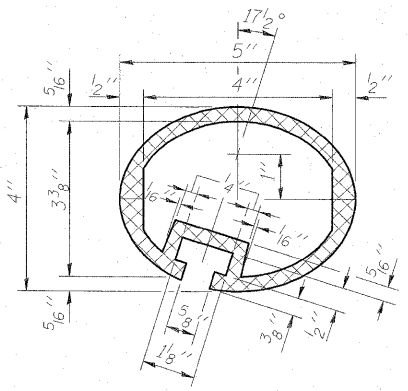
SECTION THRU TOP RAIL



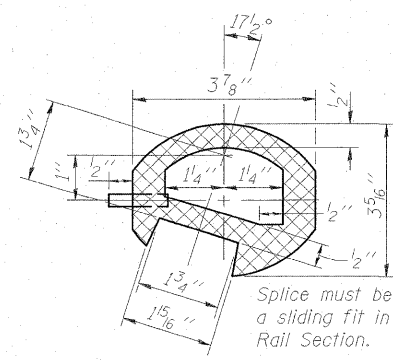
SECTION THRU SPLICE
For Top Rail



RAIL SPLICE



SEC. THRU ELLIPTICAL
RAIL SECTION



SEC. THRU SPLICE

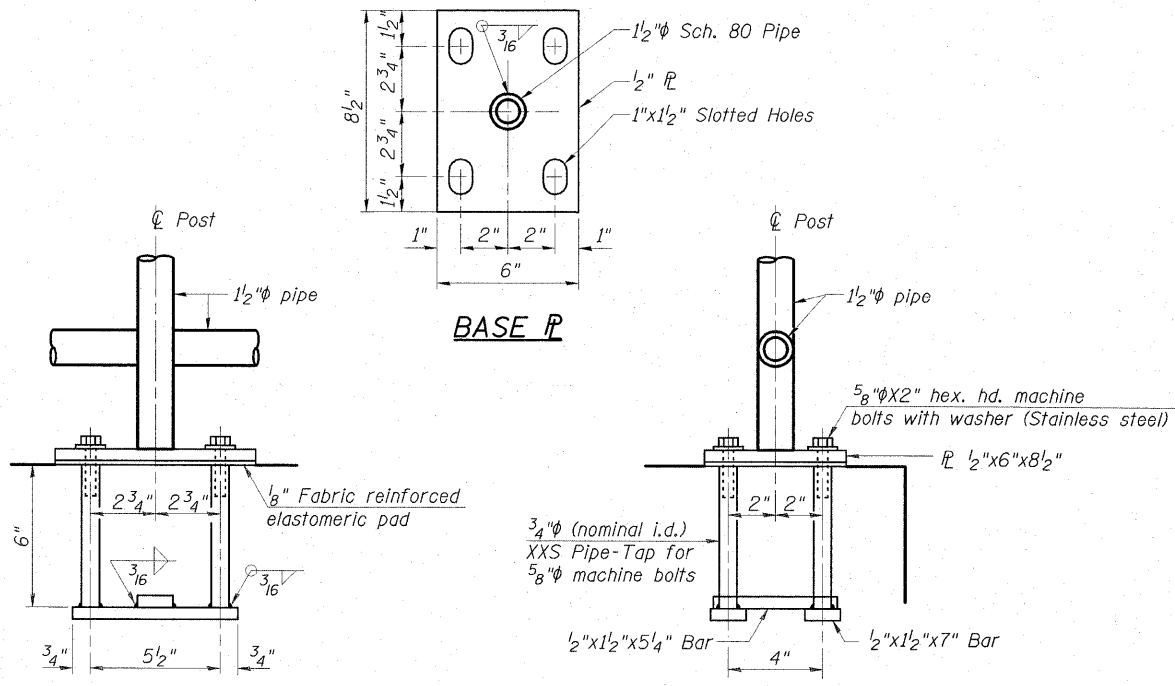
ESCA
CONSULTANTS, INC.
DESIGNED BY: DAJ 11/08
DRAWN BY: RJT 11/08
CHECKED BY: MTD 03/09
APPROVED BY: RDP 08/09

R-20 10-1-08 (7'-0" to 10'-0" Post spacing)

SHEET NO. 16 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	40
CONTRACT NO. 74149					
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

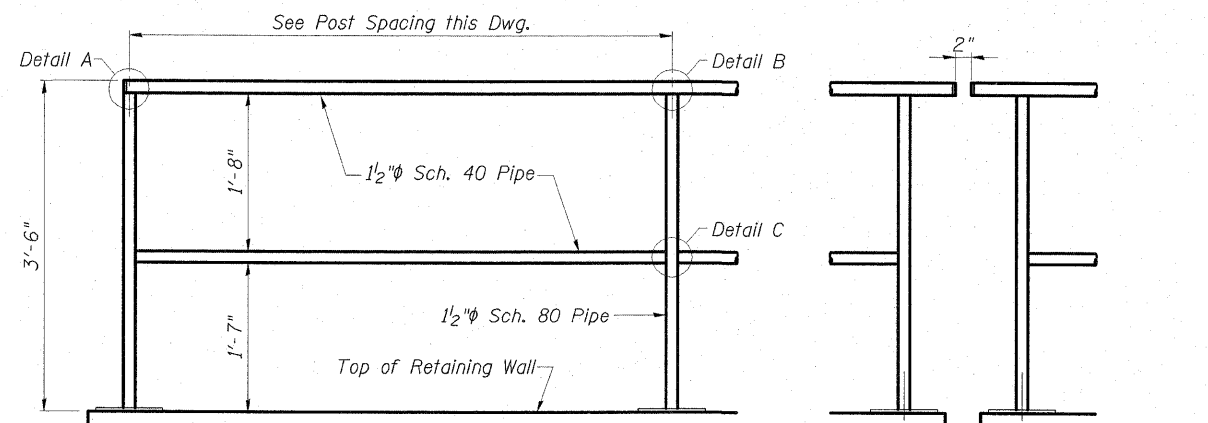
0160064-74149-17-RailPipe.dgn 7/31/2009 12:36:35 PM HAS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



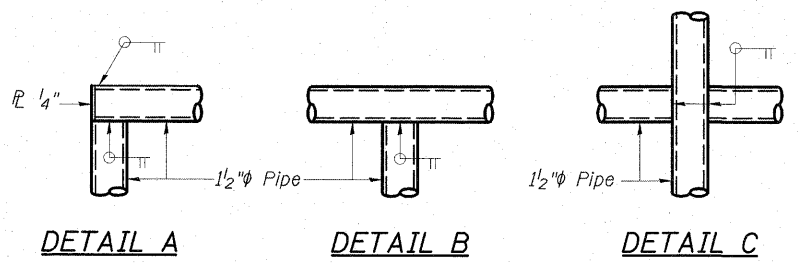
ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



TYPICAL ELEVATION

ELEVATION AT EXPANSION JOINT



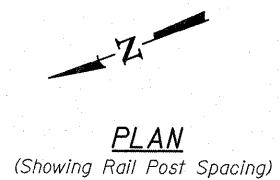
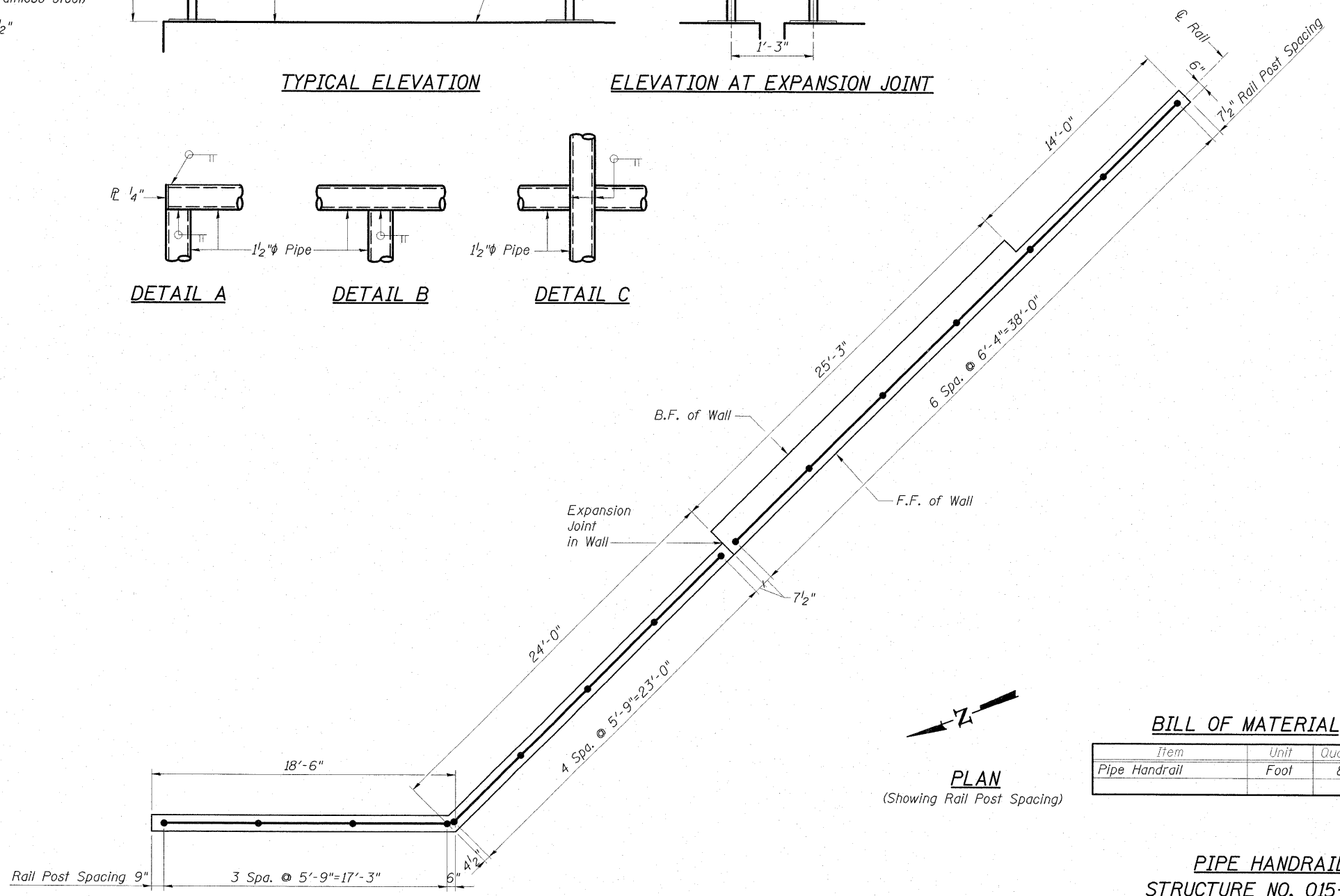
DETAIL A

DETAIL B

DETAIL C

NOTES

- All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
- Rails shall be 1/2" Schedule 40 Steel Pipe.
- Posts shall be 1/2" Schedule 80 Steel Pipe.



BILL OF MATERIAL

Item	Unit	Quantity
Pipe Handrail	Foot	80

**PIPE HANDRAIL
STRUCTURE NO. 015-0064**

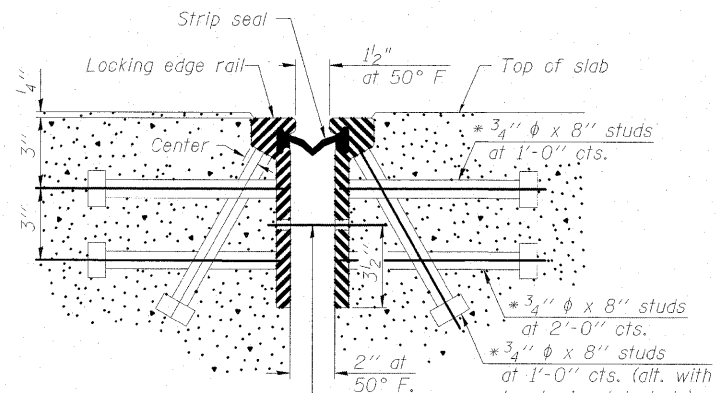
ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	03/09
DRAWN BY:	cj	03/09
CHECKED BY:	MTD	03/09
APPROVED BY:	RDP	08/09

SHEET NO. 17 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	41
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74149					

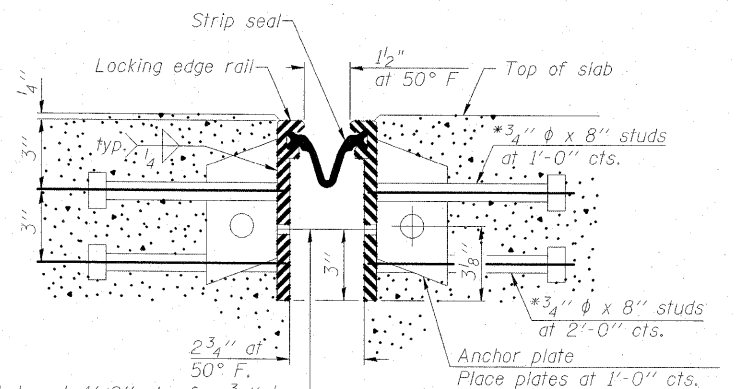
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



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

Notes:

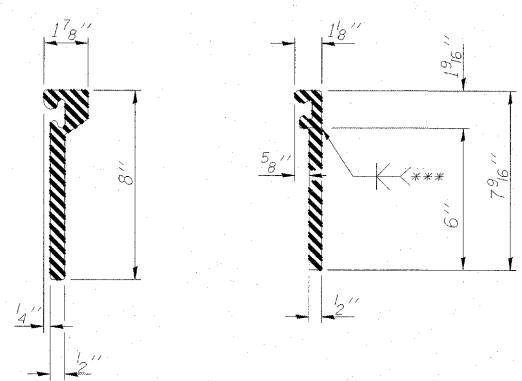
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of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

The height and thickness of the Locking Edge Rails shown are minimum dimensions. 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 and stage construction joints.

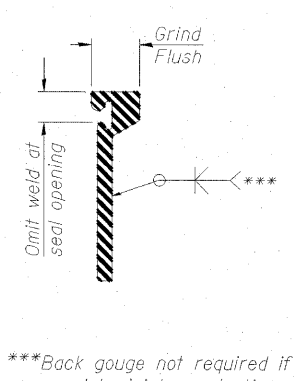
The manufacturer's recommended installation methods shall be followed.

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.



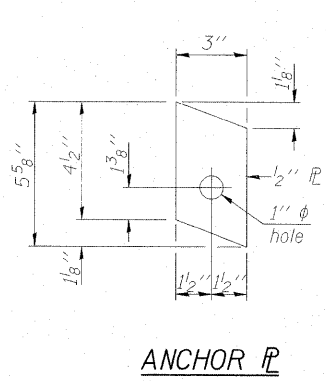
ROLLED
EXTRUDED RAIL WELDED RAIL



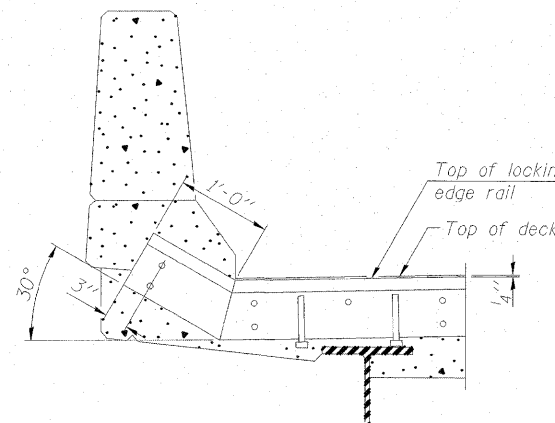
LOCKING EDGE
RAIL SPLICE

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

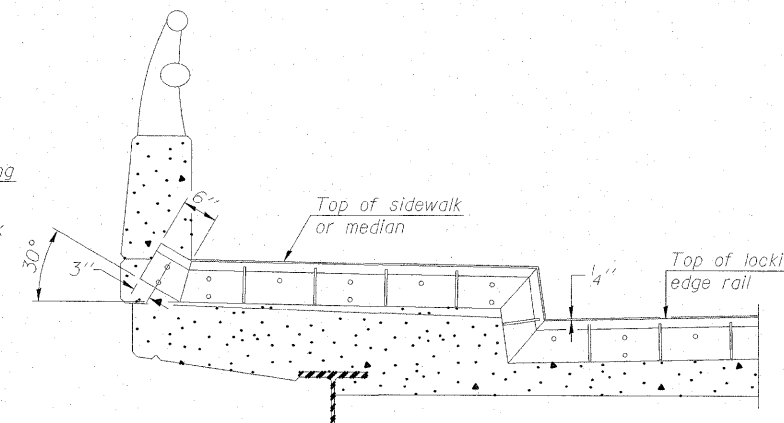
***Back gouge not required if complete joint penetration is verified by mock-up.



ANCHOR PLATE
(for welded rail)



AT PARAPET

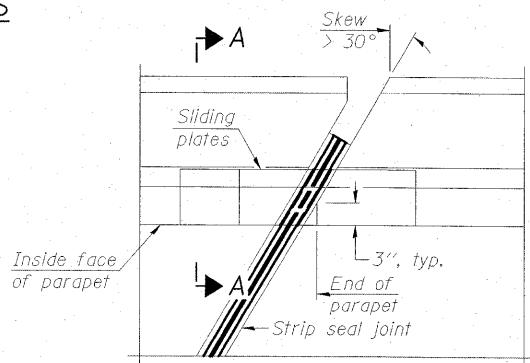


AT SIDEWALK OR MEDIAN

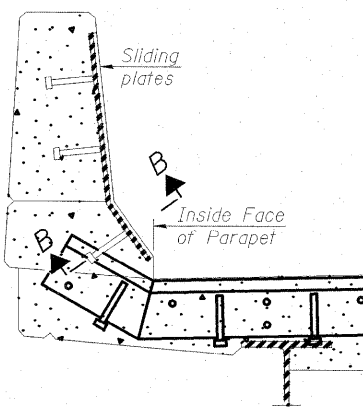
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

TYPICAL END TREATMENTS

LOCKING EDGE RAILS

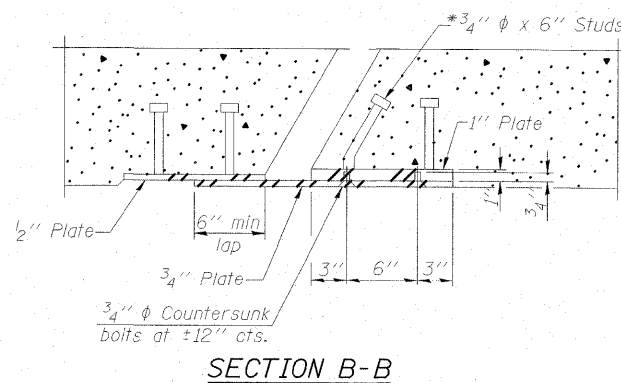


PLAN



SECTION A-A

POINT BLOCK DETAILS
(for skews > 30°)



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	186

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 015-0064

ESCA
CONSULTANTS, INC.

DESIGNED BY: DAJ 11/08
DRAWN BY: RJT 11/08
CHECKED BY: MTD 03/09
APPROVED BY: RDP 08/09

EJ-SSJ 10-1-08

SHEET NO. 18	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
35 SHEETS	325	(19VBR)BR	COLES	92	42
CONTRACT NO. 74149					
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

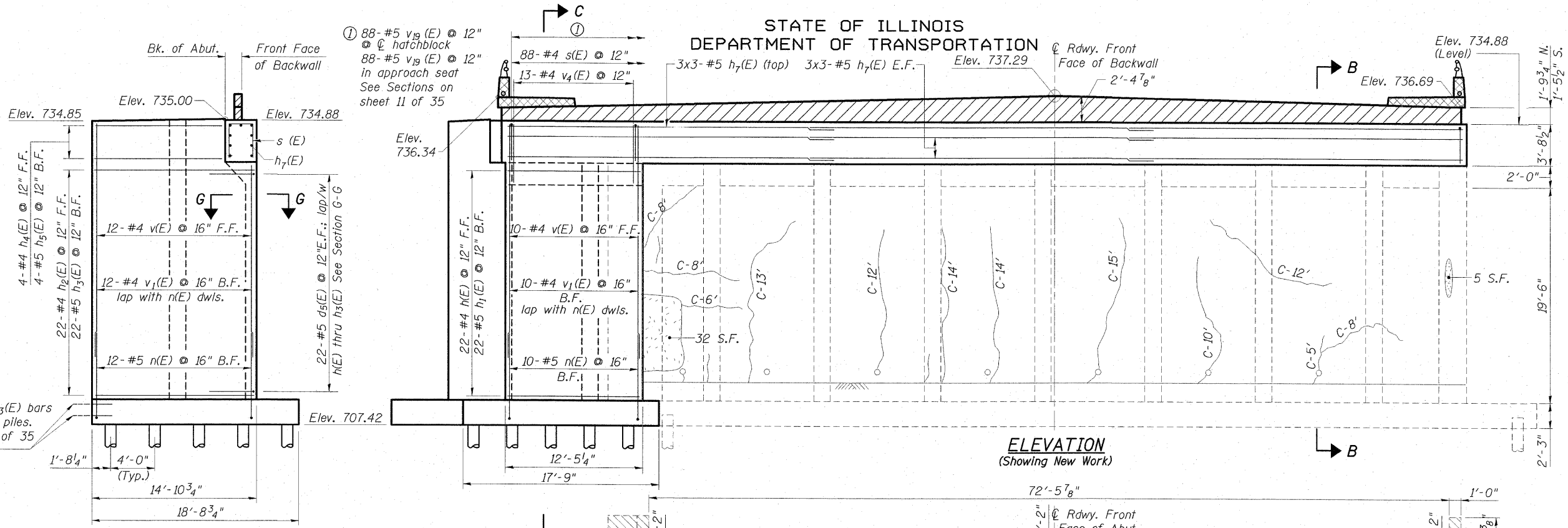
11/14/09 7:31:20 PM 123648 PM HAS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

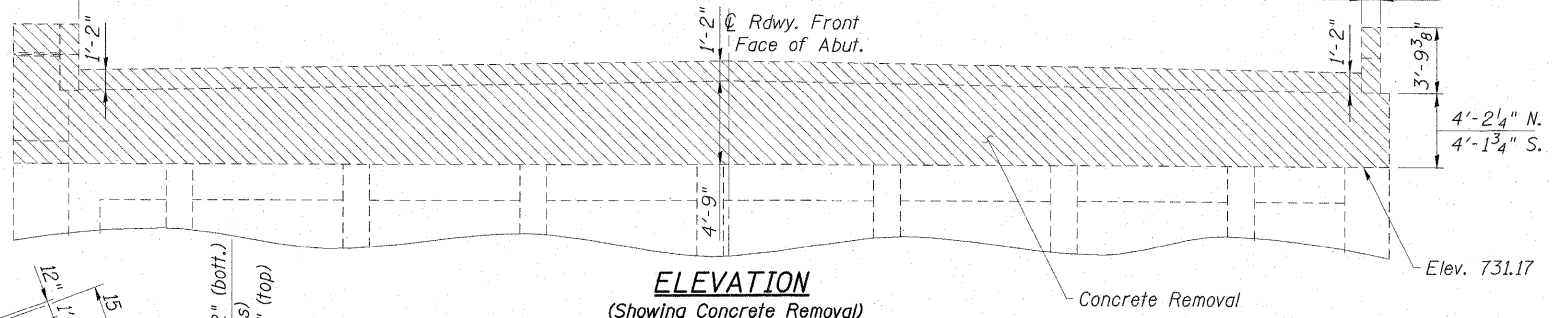
NOTES

1. For Bill of Material, Bar Bending Details and Sections B-B, C-C, D-D & G-G see sheet 20 of 35.
2. For pile details see sheet 31 of 35.
3. Bars indicated thus: 3x3-#5 etc. indicates 3 lines of bars with 3 lengths per line.
4. Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
5. Cross hatched areas to be poured with and quantity included with Bridge Approach Slab, see sheet 12 of 35.
6. Concrete sealer shall be used on the front face of the backwall and the tops and sides of the exposed bearing seat/pile cap beneath the expansion joint.

MIN. BAR LAP
 #4.....1'-4"
 #5.....1'-10"



SECTION A-A

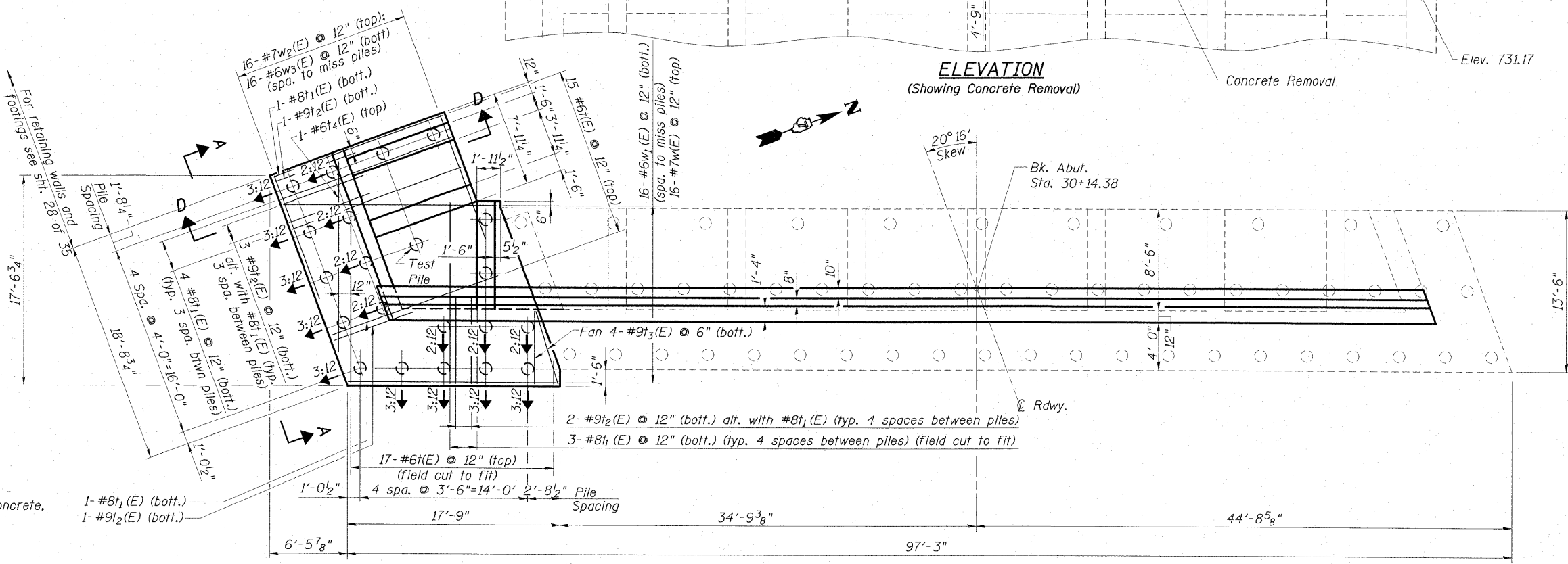


ELEVATION
(Showing Concrete Removal)

PILE DATA
 Type: Metal Shell, 12" dia. x 0.25" Wall
 Nominal Required Bearing: 270 kips
 Allowable Resistance Available: 90 kips
 Estimated Length: 55'
 No. Production Piles: 20
 No. Test Piles: 1

REPAIR LEGEND
 Inspection Date: 3/3/09

- C-6' Crack to be epoxy injected
- Delaminated or spalled area - Use Structural Repair of Concrete, Depth ≤ 5"



PLAN

**WEST ABUTMENT
STRUCTURE NO. 015-0064**

ESCA
CONSULTANTS, INC.

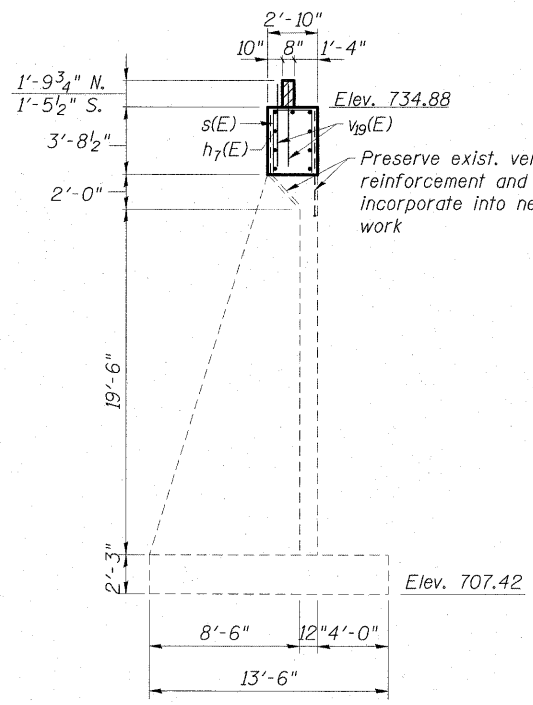
DESIGNED BY:	RDP/DAJ	11/08
DRAWN BY:	DWH/cj	11/08
CHECKED BY:	RDP	03/09
APPROVED BY:	RDP	08/09

SHEET NO. 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	43
35 SHEETS	CONTRACT NO. 74149		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

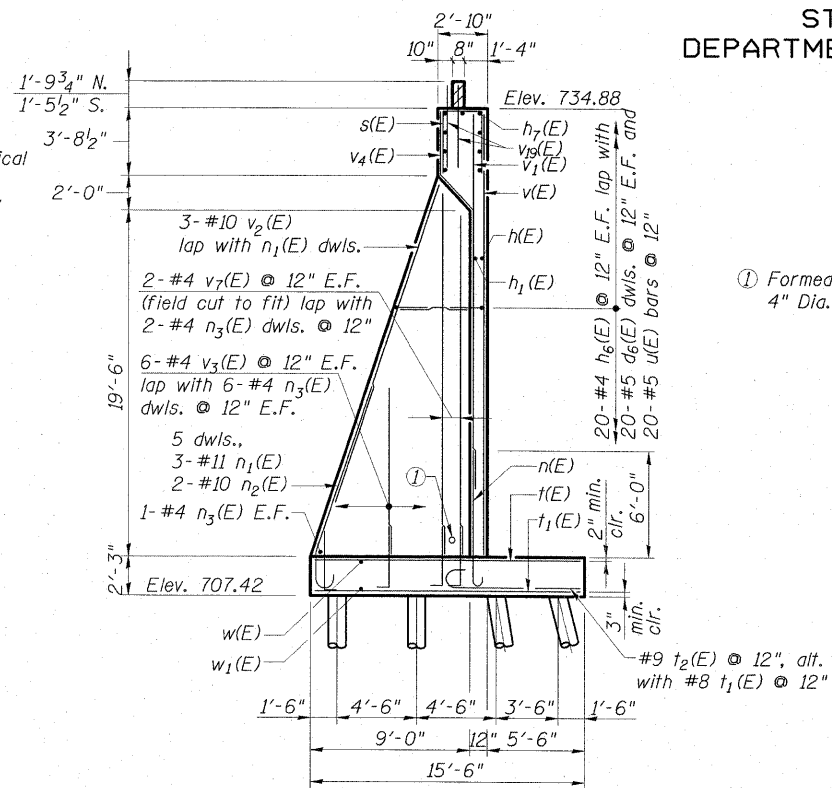
01/08/04-74149-20-WAbut-D.Dwg 7/31/2009 12:36:54 PM HNS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

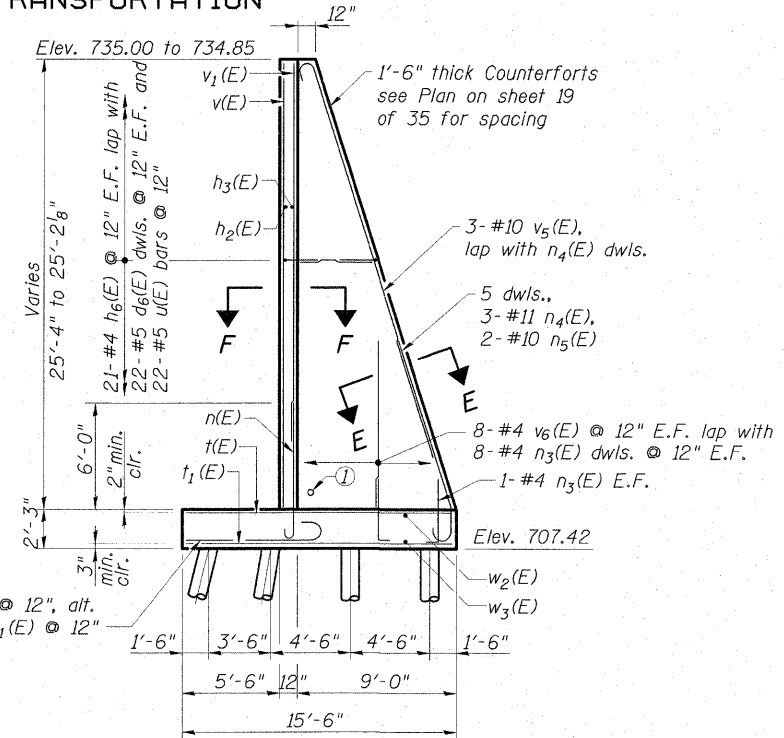
WEST ABUTMENT
BILL OF MATERIAL



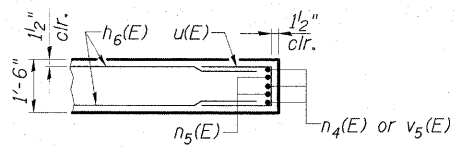
SECTION B-B



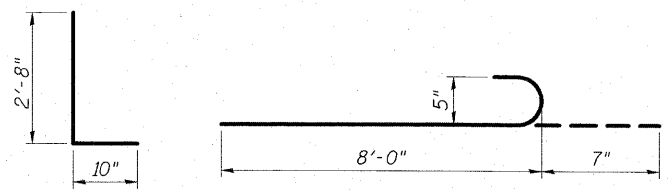
SECTION C-C



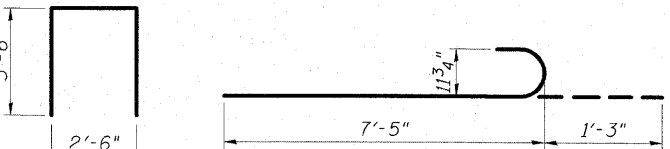
SECTION D-D



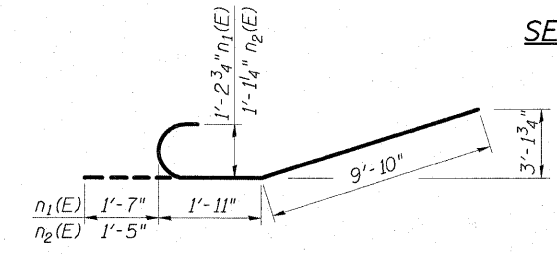
SECTION E-E



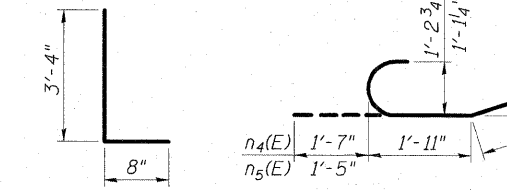
BAR d6(E)



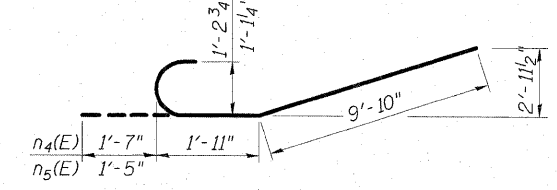
BAR n(E)



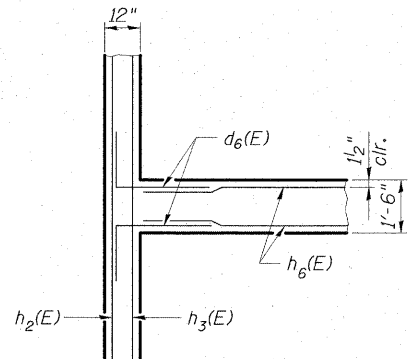
BARS n1(E) & n2(E)



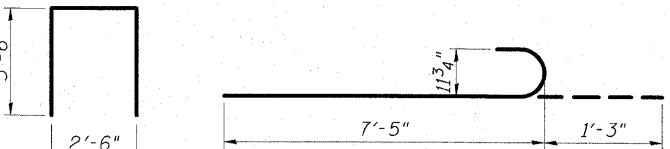
BAR n3(E)



BARS n4(E) & n5(E)



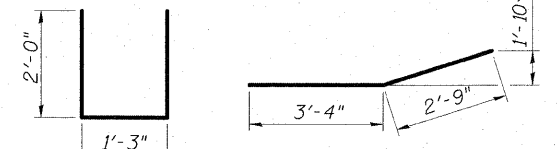
SECTION F-F



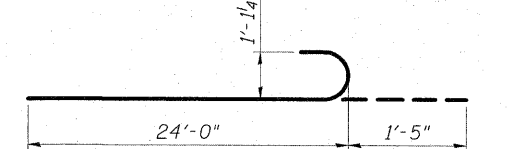
BAR s(E)



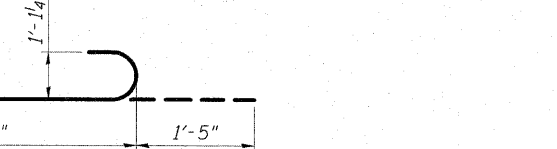
BAR t2(E)



BAR u(E)

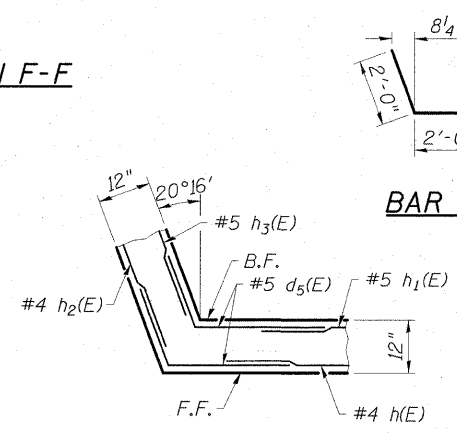


BAR v4(E)

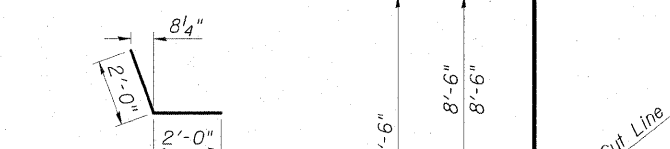


BAR v5(E)

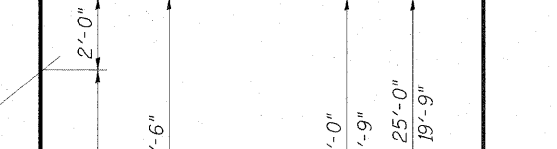
BAR BENDING DETAILS



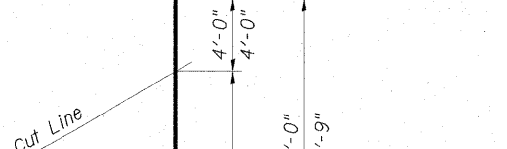
SECTION G-G



BAR d5(E)



BAR h6(E)



BARS v3(E) & v6(E)

FIELD CUTTING DIAGRAMS

Order h6(E), v3(E) & v6(E) full length. Cut as shown and use remainder of bars in opposite face.

Bar	No.	Size	Length	Shape
d5(E)	44	#5	4'-0"	L
d6(E)	128	#5	3'-6"	L
h(E)	22	#4	12'-1"	—
h1(E)	22	#5	11'-0"	—
h2(E)	22	#4	14'-6"	—
h3(E)	22	#5	13'-6"	—
h4(E)	4	#4	11'-7"	—
h5(E)	4	#5	11'-7"	—
h6(E)	62	#4	10'-6"	—
h7(E)	27	#5	30'-3"	—
n(E)	22	#5	8'-7"	—
n1(E)	3	#11	13'-4"	—
n2(E)	2	#10	13'-2"	—
n3(E)	54	#4	4'-0"	—
n4(E)	6	#11	13'-4"	—
n5(E)	4	#10	13'-2"	—
s(E)	88	#4	9'-6"	—
t(E)	32	#6	15'-2"	—
t1(E)	26	#8	15'-2"	—
t2(E)	19	#9	8'-8"	—
t3(E)	4	#9	6'-1"	—
t4(E)	1	#6	15'-10"	—
u(E)	64	#5	5'-3"	—
v(E)	22	#4	25'-0"	—
v1(E)	22	#4	20'-10"	—
v2(E)	3	#10	20'-9"	—
v3(E)	6	#4	23'-9"	—
v4(E)	13	#4	6'-1"	—
v5(E)	6	#10	25'-5"	—
v6(E)	16	#4	29'-0"	—
v7(E)	4	#4	20'-4"	—
v9(E)	176	#5	4'-0"	—
w(E)	16	#7	17'-5"	—
w1(E)	16	#6	17'-5"	—
w2(E)	16	#7	10'-0"	—
w3(E)	16	#6	10'-0"	—
Concrete Structures	Cu. Yd.	108.0		
Reinforcement Bars, Epoxy Coated	Pound	12050		
Structure Excavation	Cu. Yd.	385		
Test Pile Metal Shells	Each	1		
Furnishing Metal Shell Piles 12"x0.25"	Lin. Ft.	1100		
Driving Piles	Lin. Ft.	1100		
Epoxy Crack Injection	Foot	125		
Structural Repair of Concrete, Depth $\le 5\text{'}$	Sq. Ft.	37		
Concrete Sealer	Sq. Ft.	616		
Concrete Removal	Cu. Yd.	43		

MIN. BAR LAP

- #4 1'-4"
- #5 1'-10"
- #10 7'-3"

WEST ABUTMENT DETAILS
STRUCTURE NO. 015-0064

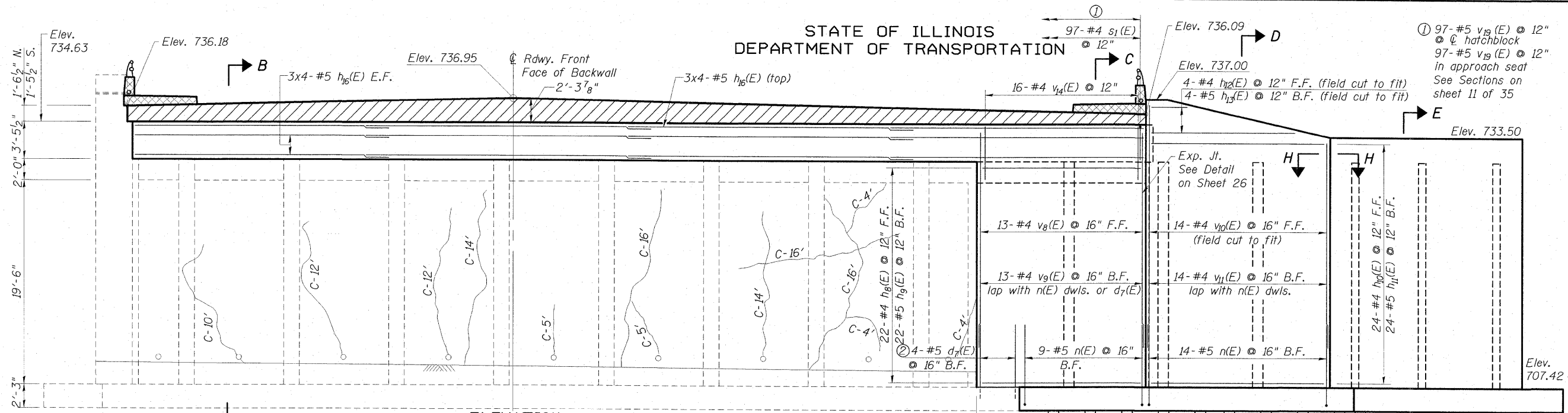
ESCA
CONSULTANTS, INC.

DESIGNED BY: RDP/DAJ 11/08
DRAWN BY: DWH/cj 11/08
CHECKED BY: RDP 03/09
APPROVED BY: RDP 08/09

SHEET NO. 20 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	44
CONTRACT NO. 74149			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

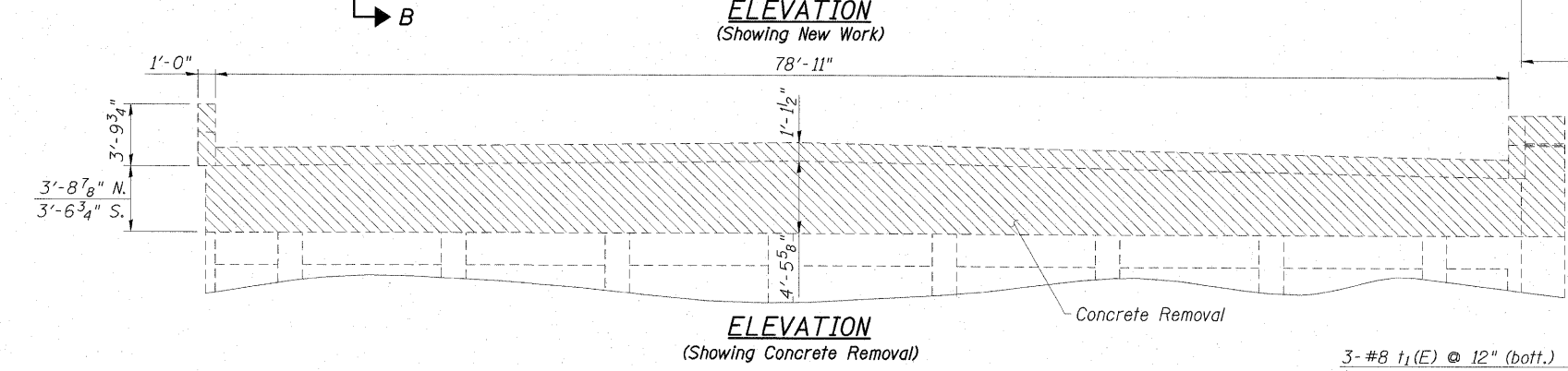
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

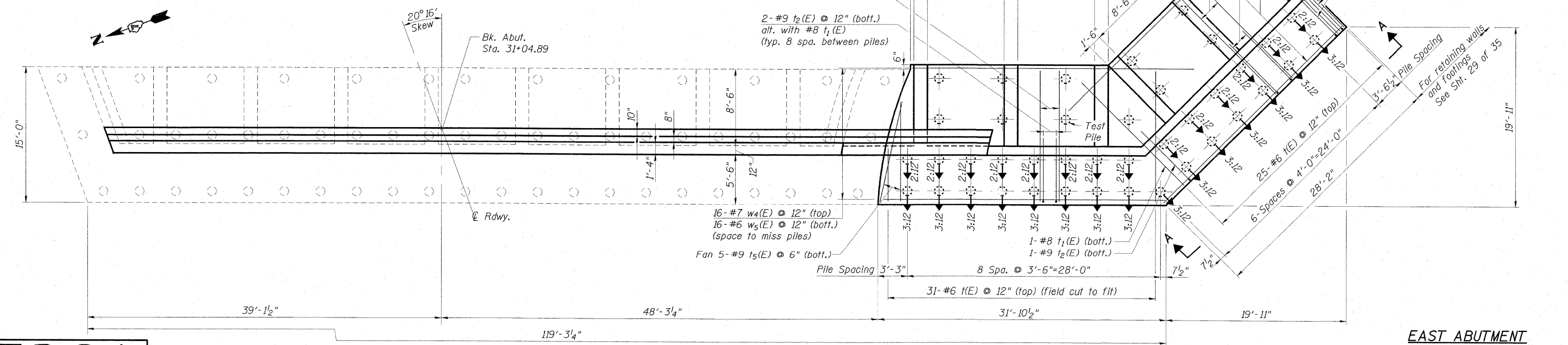


- NOTES**
- For Bill of Material, Bar Bending Details and Sections A-A, B-B, C-C, D-D, E-E & H-H see sheet 22 of 35.
 - For pile details see sheet 31 of 35.
 - Bars indicated thus: 3x3-#5 etc. indicates 3 lines of bars with 3 lengths per line.
 - Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
 - Cross hatched areas to be poured with and quantity included with Bridge Approach Slab, see sheet 14 of 35.
 - Concrete sealer shall be used on the front face of the backwall and the tops and sides of the exposed bearing seat/pile cap beneath the expansion joint.

MIN. BAR LAP
 #4.....1'-4"
 #5.....1'-10"



ELEVATION
(Showing Concrete Removal)



PLAN

**EAST ABUTMENT
STRUCTURE NO. 015-0064**

ESCA
CONSULTANTS, INC.

DESIGNED BY: RDP/DAJ 11/08
 DRAWN BY: DWH/cj 11/08
 CHECKED BY: RDP 03/09
 APPROVED BY: RDP 08/09

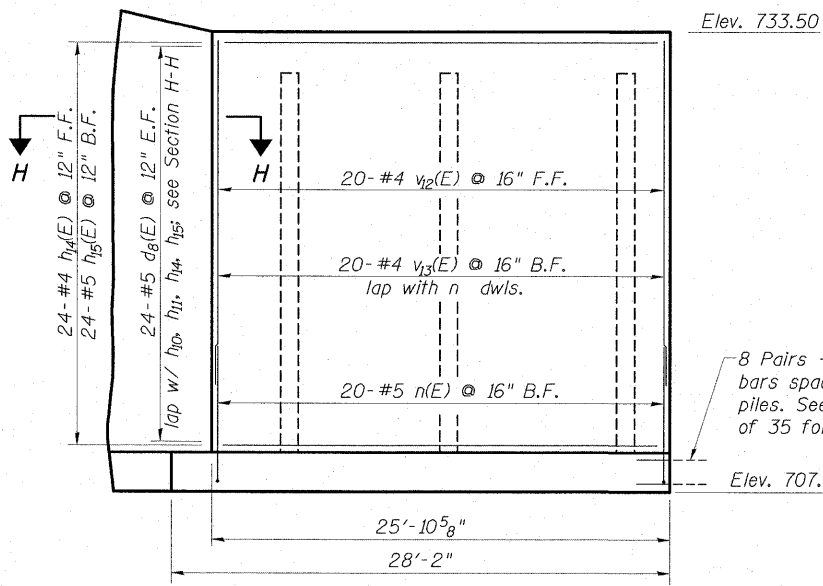
PILE DATA
 Type: Metal Shell, 12" dia. x 0.25" Wall
 Nominal Required Bearing: 270 kips
 Allowable Resistance Available: 90 kips
 Estimated Length: 55'
 No. Production Piles: 41
 No. Test Piles: 1

REPAIR LEGEND
 Inspection Date: 3/3/09
 C-6' Crack to be epoxy injected

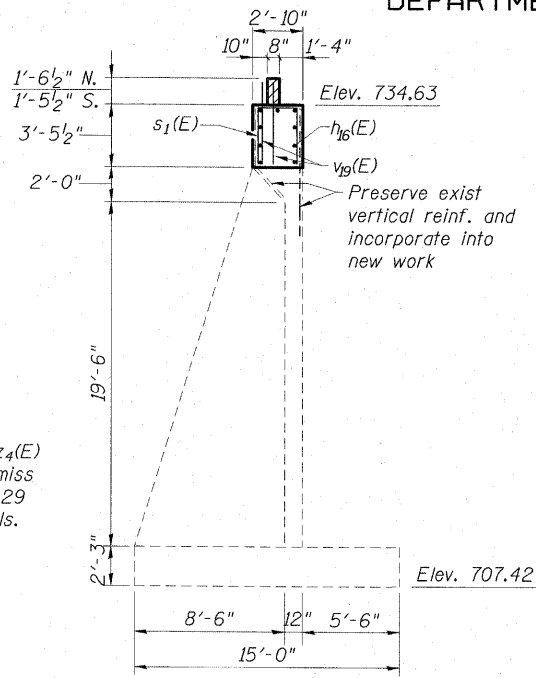
SHEET NO. 21 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	45
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74149					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

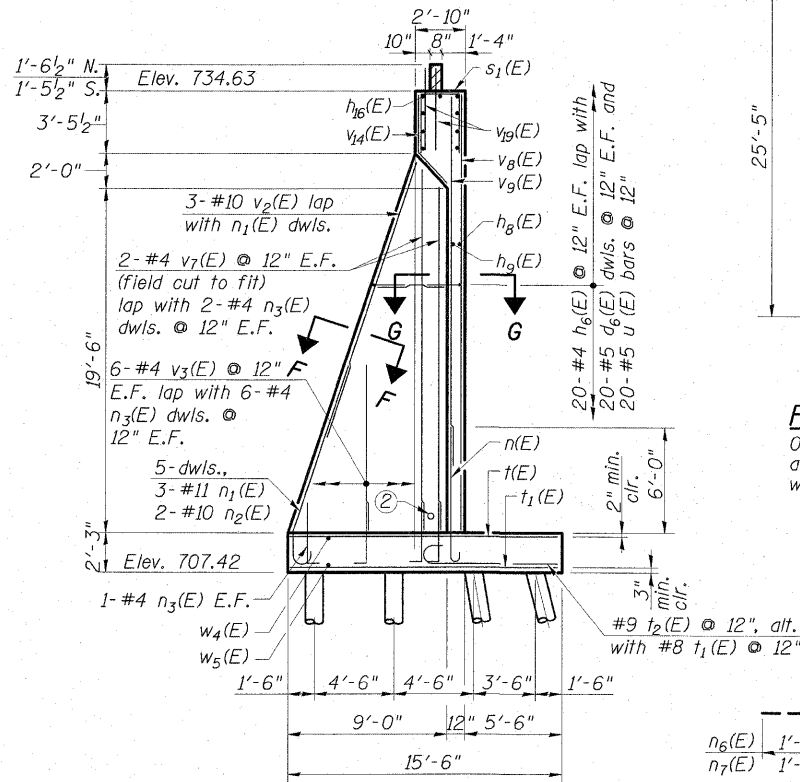
EAST ABUTMENT
BILL OF MATERIAL



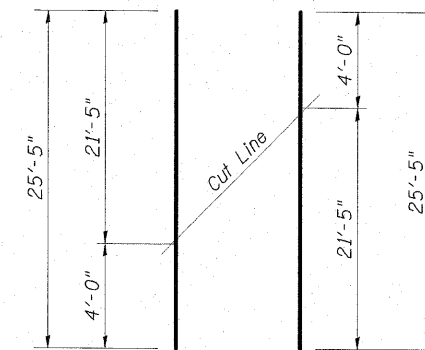
SECTION A-A



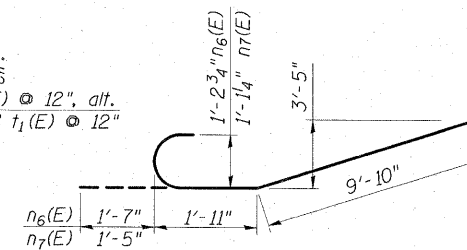
SECTION B-B



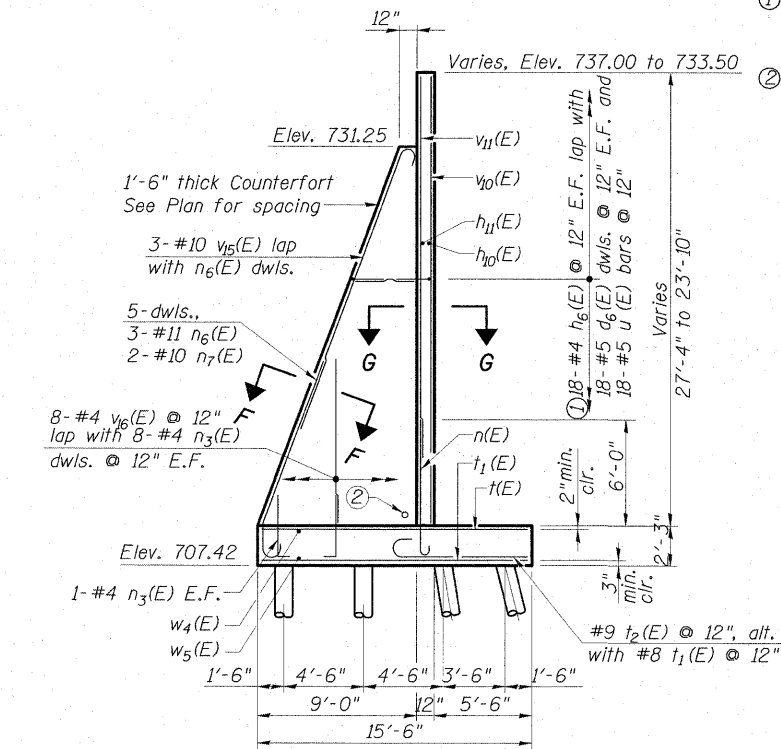
SECTION C-C



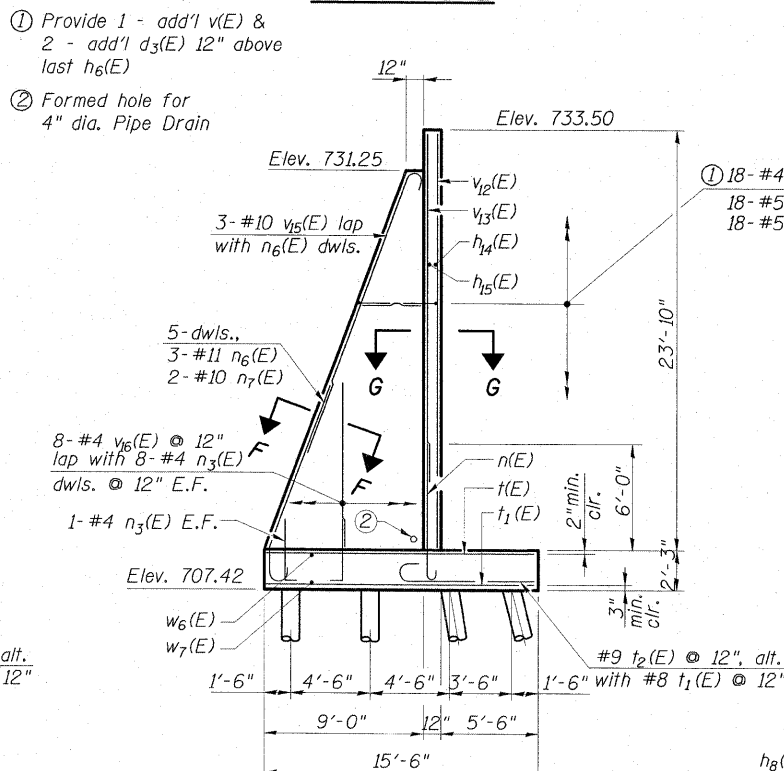
FIELD CUTTING DIAGRAM
Order $v_{16}(E)$ full length. Cut as shown and use remainder of bars in opposite wingwall.



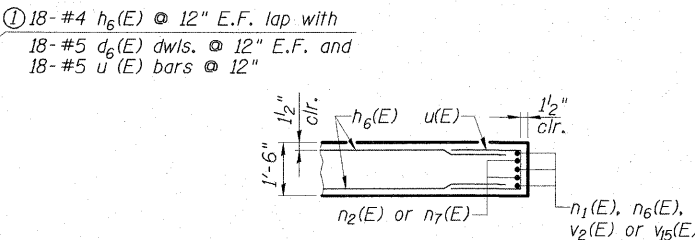
BARS $n_6(E)$ & $n_7(E)$



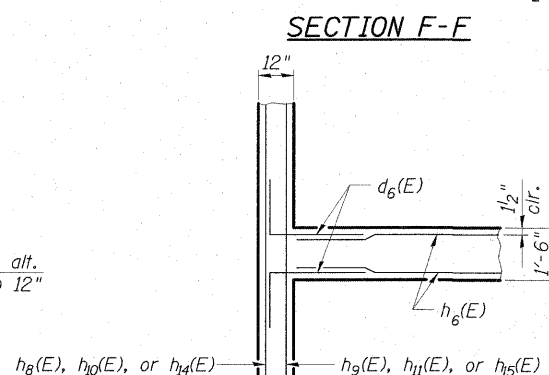
SECTION D-D



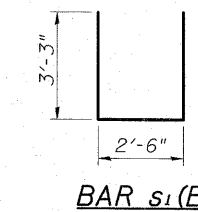
SECTION E-E



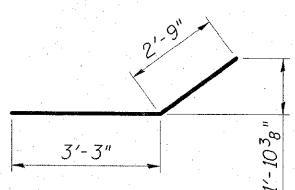
SECTION F-F



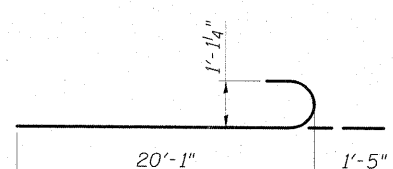
SECTION G-G



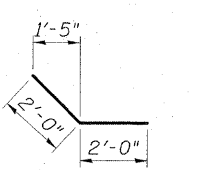
BAR $s_1(E)$



BAR $v_{14}(E)$



BAR $v_{15}(E)$



BAR $d_8(E)$

Bar	No.	Size	Length	Shape
$d_6(E)$	230	#5	3'-6"	L
$d_7(E)$	4	#5	6'-8"	
$d_8(E)$	48	#5	4'-0"	L
$h_6(E)$	110	#4	10'-6"	
$h_8(E)$	22	#4	15'-9"	
$h_9(E)$	22	#5	15'-9"	
$h_{10}(E)$	24	#4	17'-3"	
$h_{11}(E)$	24	#5	16'-6"	
$h_{12}(E)$	4	#4	14'-9"	
$h_{13}(E)$	4	#5	14'-9"	
$h_{14}(E)$	24	#4	25'-7"	
$h_{15}(E)$	24	#5	24'-10"	
$h_{16}(E)$	36	#5	25'-6"	
$n(E)$	43	#5	8'-7"	
$n_1(E)$	3	#11	13'-4"	
$n_2(E)$	2	#10	13'-2"	
$n_3(E)$	108	#4	4'-0"	L
$n_6(E)$	15	#11	13'-4"	
$n_7(E)$	10	#10	13'-2"	
$s_1(E)$	97	#4	9'-0"	U
$t(E)$	56	#6	15'-2"	
$t_1(E)$	48	#8	15'-2"	
$t_2(E)$	34	#9	8'-8"	
$t_5(E)$	5	#9	11'-0"	
$u(E)$	115	#5	5'-3"	U
$v_2(E)$	3	#10	20'-9"	
$v_3(E)$	6	#4	23'-9"	
$v_7(E)$	4	#4	20'-4"	
$v_8(E)$	13	#4	24'-8"	
$v_9(E)$	13	#4	20'-2"	
$v_{10}(E)$	14	#4	27'-2"	
$v_{11}(E)$	14	#4	22'-6"	
$v_{12}(E)$	20	#4	23'-8"	
$v_{13}(E)$	20	#4	19'-0"	
$v_{14}(E)$	16	#4	6'-0"	
$v_{15}(E)$	15	#10	21'-6"	
$v_{16}(E)$	40	#4	25'-5"	
$v_{19}(E)$	194	#5	4'-0"	
$w_4(E)$	16	#7	31'-7"	
$w_5(E)$	16	#6	31'-7"	
$w_6(E)$	16	#7	27'-11"	
$w_7(E)$	16	#6	27'-11"	

Concrete Structures	Cu. Yd.	192.7
Reinforcement Bars, Epoxy Coated	Pound	21620
Structure Excavation	Cu. Yd.	223
Test Pile Metal Shells	Each	1
Furnishing Metal Shell Piles 12"x0.25"	Lin. Ft.	2255
Driving Piles	Lin. Ft.	2255
Epoxy Crack Injection	Foot	132
Concrete Sealer	Sq. Ft.	649
Concrete Removal	Cu. Yd.	43

MIN. BAR LAP

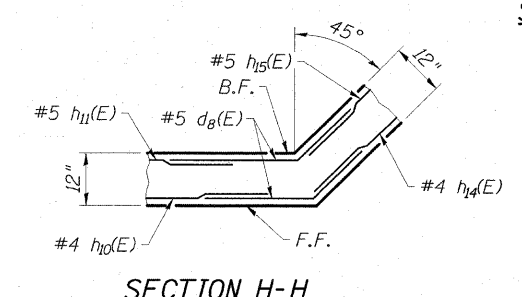
#4	1'-4"
#5	1'-10"
#10	7'-3"

EAST ABUTMENT DETAILS
STRUCTURE NO. 015-0064

SHEET NO. 22 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	46
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74149					

ESCA
CONSULTANTS, INC.

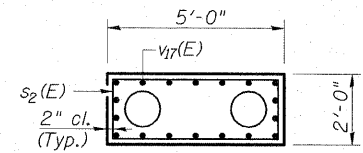
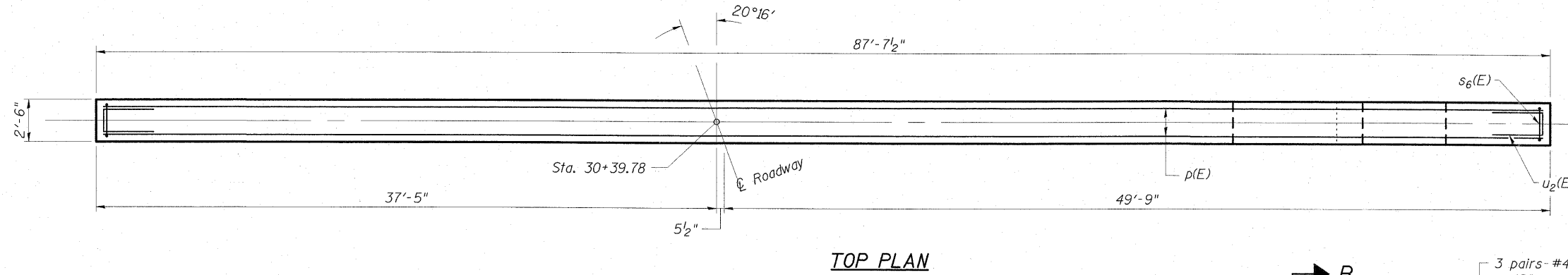
DESIGNED BY: RDP/DAJ 11/08
DRAWN BY: DWH/cj 11/08
CHECKED BY: RDP 03/09
APPROVED BY: RDP 08/09



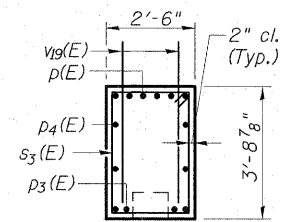
SECTION H-H

0150064-74149-23-Rev-1.dgn 7/31/2009 12:37:15 PM HAS

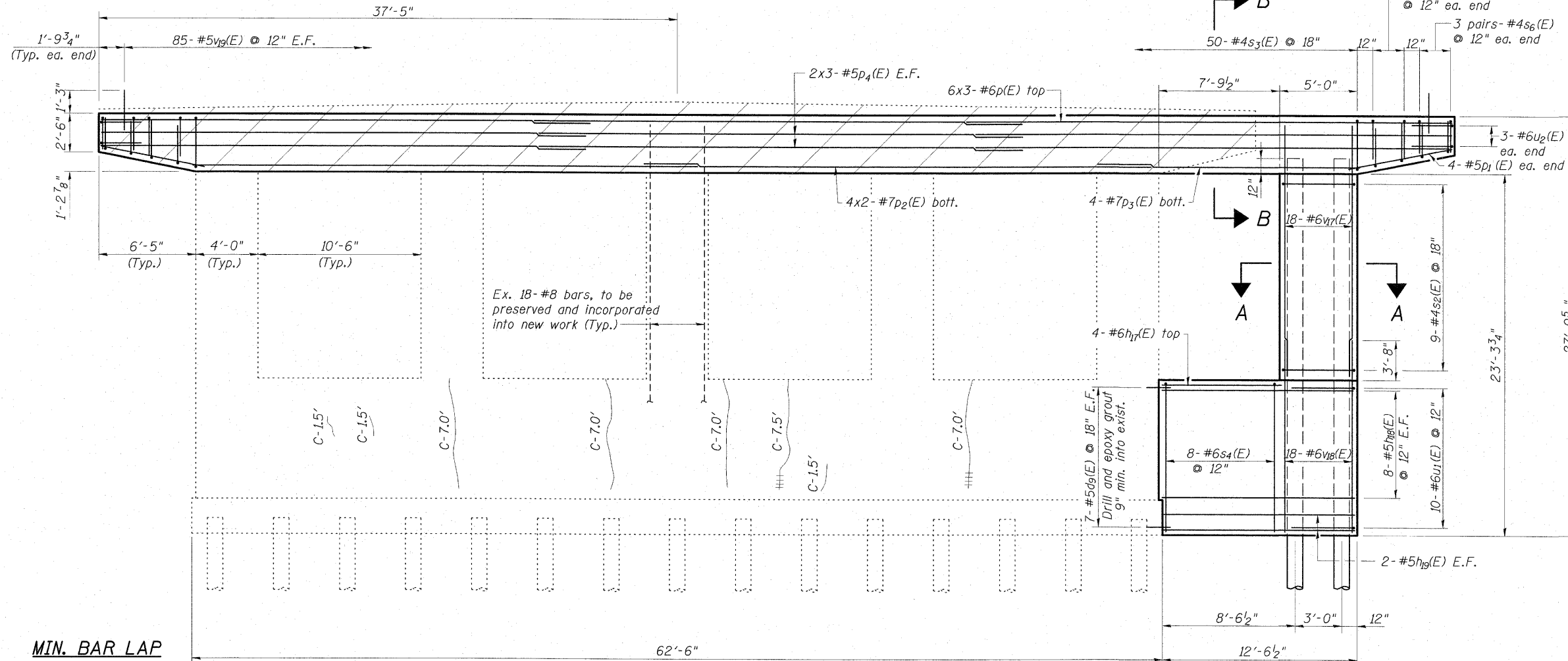
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION A-A



SECTION B-B



WEST ELEVATION

(See sheet 26 of 35 for Repairs to East Elevation)

MIN. BAR LAP

- #5 3'-0"
- #6 3'-7"
- #7 3'-5"

PILE DATA

Type: Metal Shell 12"φ x 0.25" wall
Nominal Required Bearing: 300 kips
Allowable Resistance Available: 100 kips
Estimated Length: 84'
No. Production Piles: 2
No. Test Piles: 0

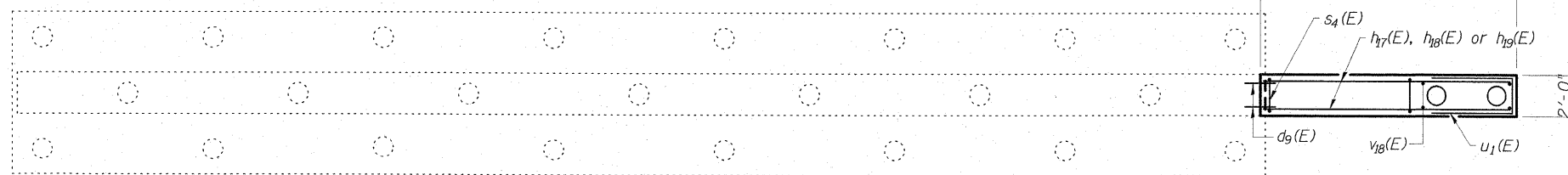
ESCA
CONSULTANTS, INC.

REPAIR LEGEND

Inspection Date: 03/03/09

C-6' Crack to be epoxy injected

FOOTING PLAN



NOTES

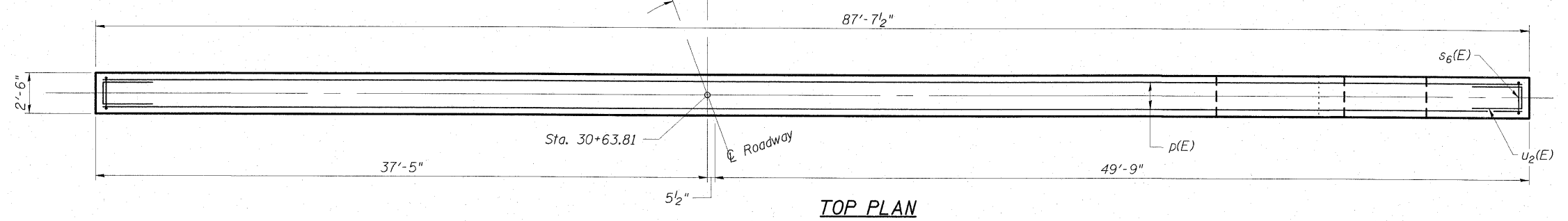
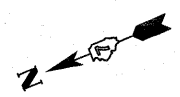
1. For Bill of Material and Bar Bending Details see sheet 26 of 35.
2. For pile details see sheet 31 of 35.
3. Bars indicated thus: 6x3-#6 etc. Indicates 6 lines of bars with 3 lengths per line.

PIER 1
STRUCTURE NO. 015-0064

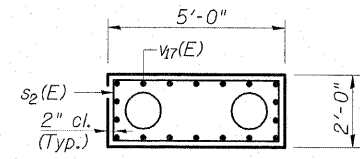
SHEET NO. 23 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	47
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74149					

0150064-7 4149-24-2-2.dgn 7/31/2009 12:37:21 PM H45

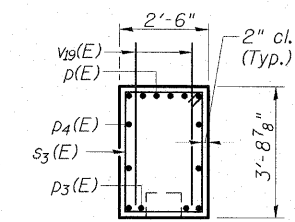
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



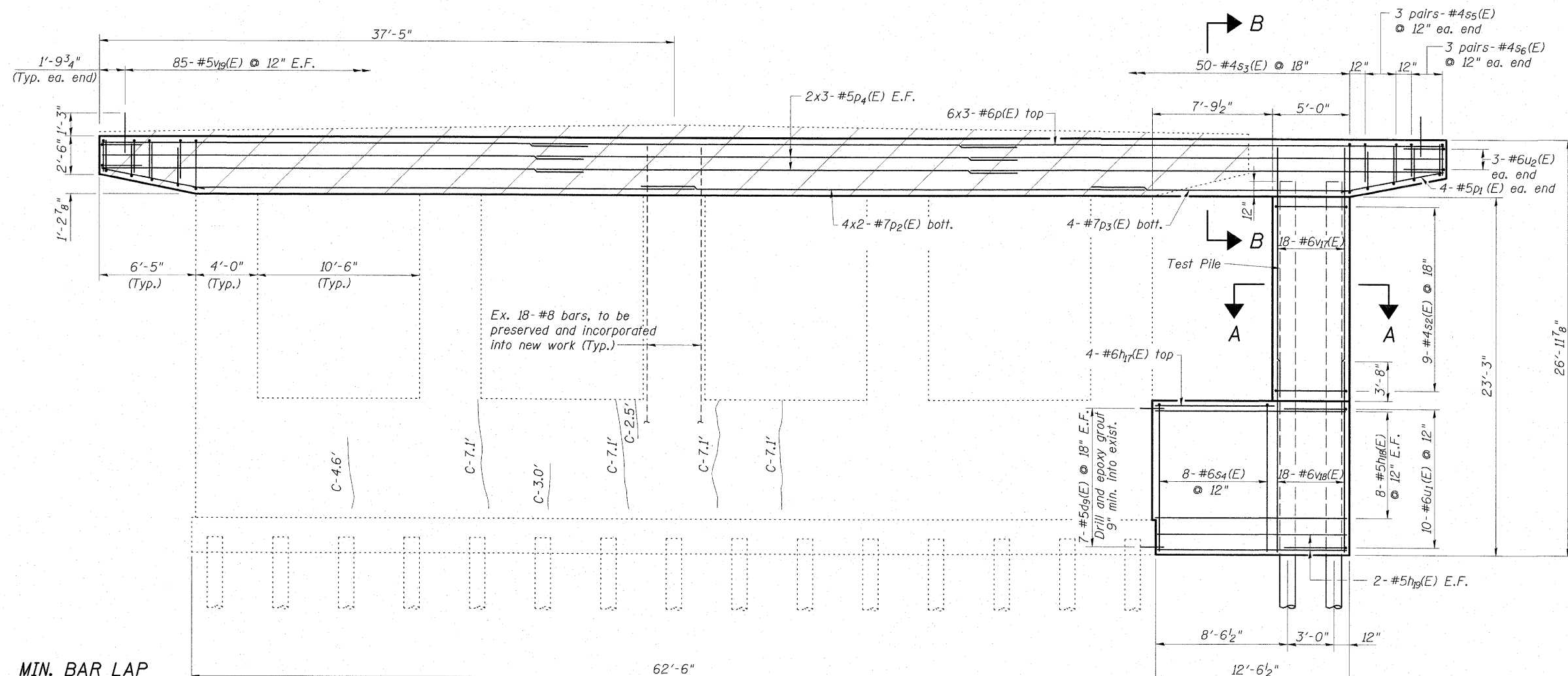
TOP PLAN



SECTION A-A



SECTION B-B



WEST ELEVATION

(See sheet 26 of 35 for Repairs to East Elevation)

MIN. BAR LAP

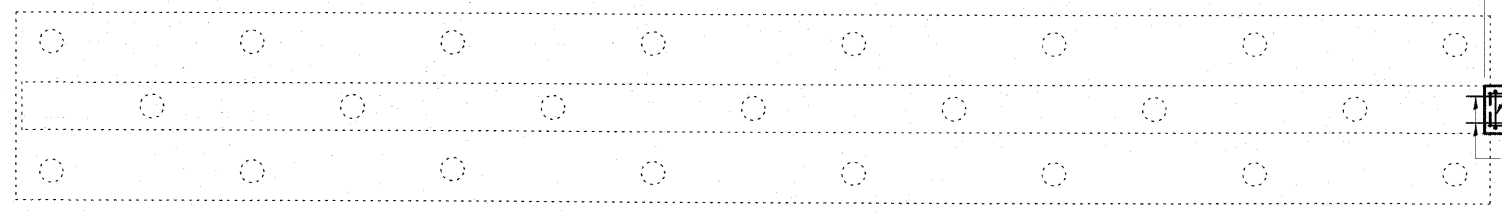
- #5 3'-0"
- #6 3'-7"
- #7 3'-5"

PILE DATA
Type: Metal Shell 12"φ x 0.25" wall
Nominal Required Bearing: 300 kips
Factored Resistance Available: 100 kips
Estimated Length: 84'
No. Production Piles: 1
No. Test Piles: 1

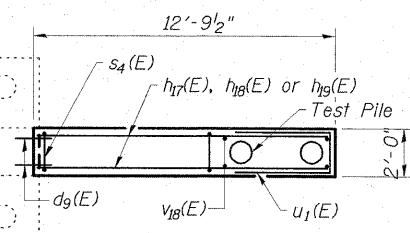
ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP/DAJ	11/08
DRAWN BY:	DWH/cj	11/08
CHECKED BY:	RDP	03/09
APPROVED BY:	RDP	08/09

REPAIR LEGEND
Inspection Date: 03/03/09
C-6' Crack to be epoxy injected



FOOTING PLAN



NOTES

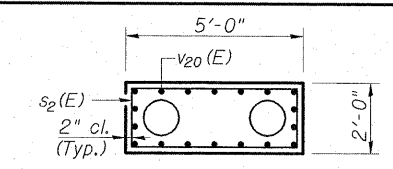
- For Bill of Material and Bar Bending Details see sheet 26 of 35.
- For pile details see sheet 31 of 35.
- Bars indicated thus: 6x3-#6 etc. Indicates 6 lines of bars with 3 lengths per line.

PIER 2
STRUCTURE NO. 015-0064

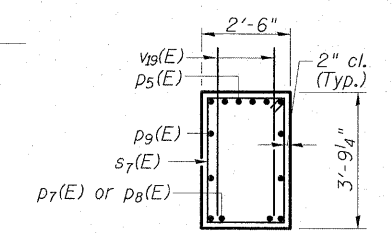
SHEET NO. 24 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	48
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74149					

0150064-74149-25-P-3.dgn 7/31/2009 12:37:27 PM HAS

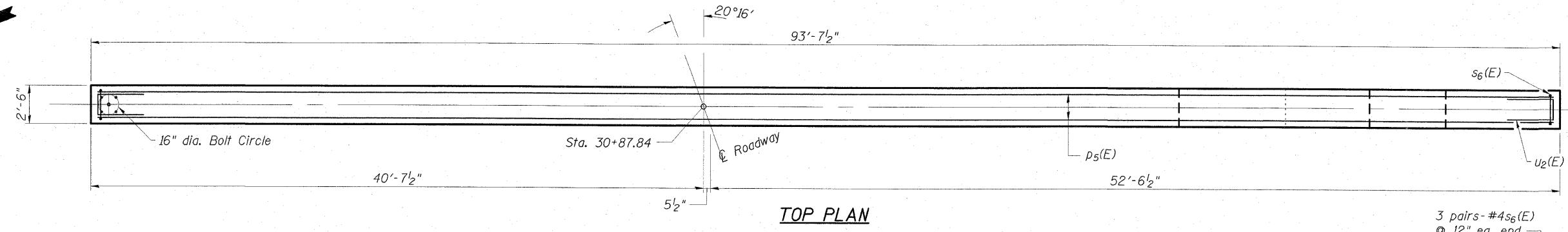
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



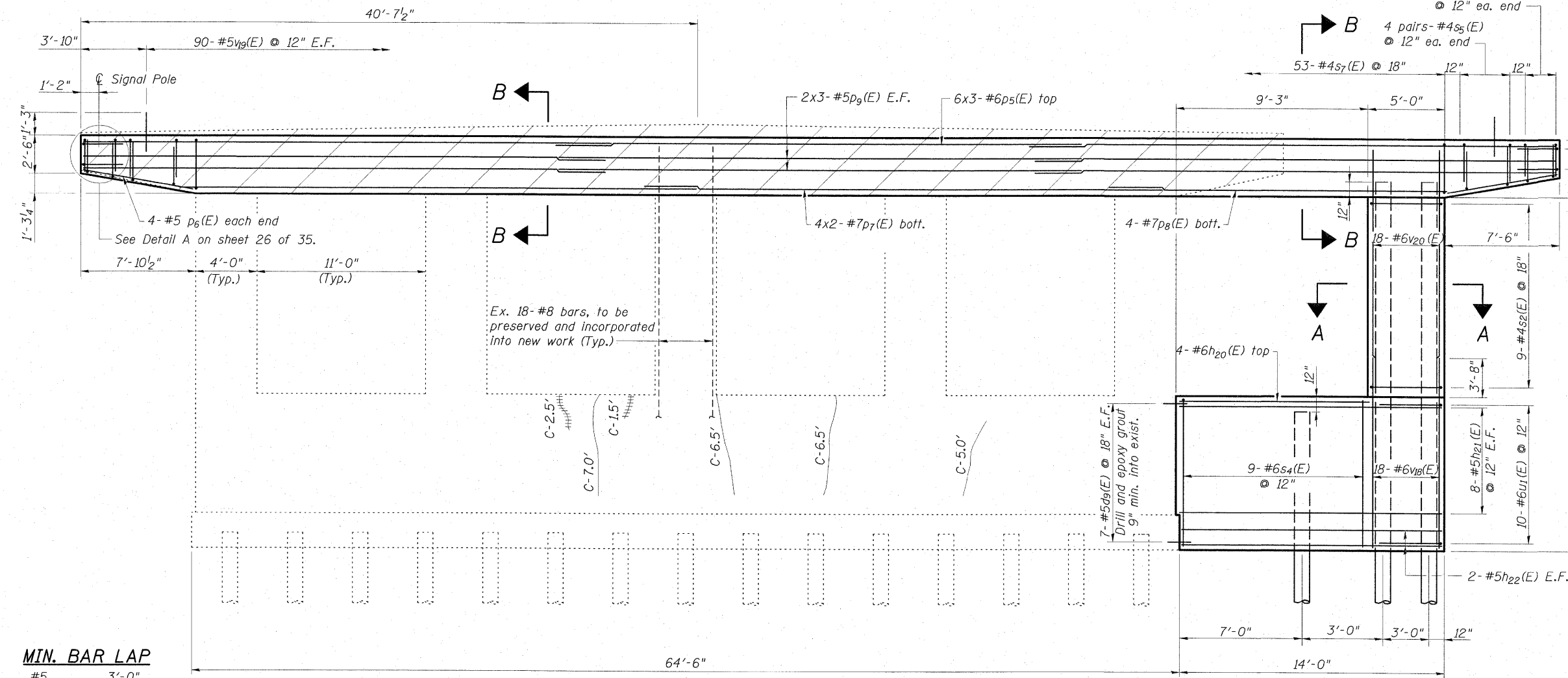
SECTION A-A



SECTION B-B



TOP PLAN



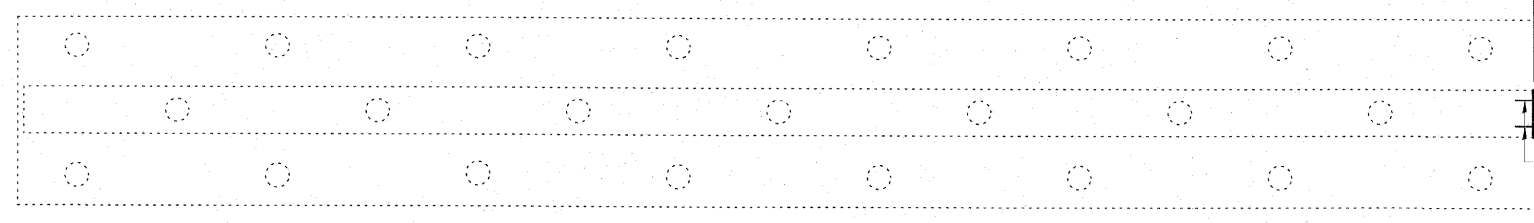
WEST ELEVATION
(See sheet 26 of 35 for Repairs to East Elevation)

MIN. BAR LAP

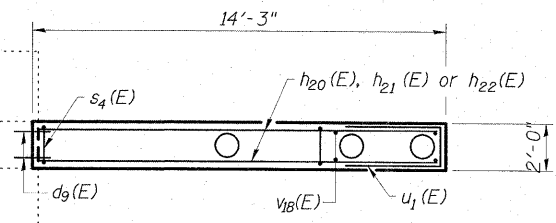
#5	3'-0"
#6	3'-7"
#7	3'-5"

PILE DATA
Type: Metal Shell 12"φ x 0.25" wall
Nominal Required Bearing: 300 kips
Allowable Resistance Available: 100 kips
Estimated Length: 2 @ 84'; 1 @ 69'
No. Production Piles: 3
No. Test Piles: 0

REPAIR LEGEND
Inspection Date: 03/03/09
C-6' Crack to be epoxy injected



FOOTING PLAN



- NOTES**
- For Bill of Material and Bar Bending Details see sheet 26 of 35.
 - For pile details see sheet 31 of 35.
 - Bars indicated thus: 6x3-#6 etc. Indicates 6 lines of bars with 3 lengths per line.

**PIER 3
STRUCTURE NO. 015-0064**

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP/DAJ	11/08
DRAWN BY:	DWH/cj	11/08
CHECKED BY:	RDP	03/09
APPROVED BY:	RDP	08/09

SHEET NO. 25 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	49
			CONTRACT NO. 74149		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**PIER 1
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d ₉ (E)	14	#5	3'-6"	—
h ₁₇ (E)	4	#6	7'-6"	—
h ₁₈ (E)	16	#5	12'-5"	—
h ₁₉ (E)	4	#5	12'-2"	—
p(E)	18	#6	31'-6"	—
p ₁ (E)	8	#5	6'-5"	—
p ₂ (E)	8	#7	32'-9"	—
p ₃ (E)	4	#7	16'-6"	—
p ₄ (E)	12	#5	31'-2"	—
s ₂ (E)	9	#4	13'-5"	□
s ₃ (E)	50	#4	11'-9"	□
s ₄ (E)	8	#6	21'-0"	□
s ₅ (E)	12	#4	7'-6"	□
s ₆ (E)	12	#4	6'-6"	□
u ₁ (E)	10	#6	9'-7"	□
u ₂ (E)	6	#6	8'-1"	□
v ₁₇ (E)	18	#6	16'-5"	—
v ₁₈ (E)	18	#6	13'-6"	—
v ₁₉ (E)	170	#5	4'-0"	—
Concrete Structures	Cu. Yd.		43.0	
Reinforcement Bars, Epoxy Coated	Pound		4900	
Structure Excavation	Cu. Yd.		10	
Furnishing Metal Shell Piles 12"x0.25"	Lin. Ft.		168	
Driving Piles	Lin. Ft.		168	
Concrete Removal	Cu. Yd.		29	
Epoxy Crack Injection	Foot		78	
Concrete Sealer	Sq. Ft.		45	

**PIER 2
BILL OF MATERIAL**

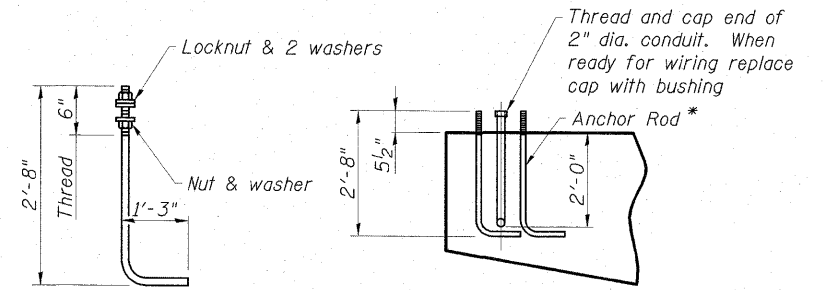
Bar	No.	Size	Length	Shape
d ₉ (E)	14	#5	3'-6"	—
h ₁₇ (E)	4	#6	7'-6"	—
h ₁₈ (E)	16	#5	12'-5"	—
h ₁₉ (E)	4	#5	12'-2"	—
p(E)	18	#6	31'-6"	—
p ₁ (E)	8	#5	6'-5"	—
p ₂ (E)	8	#7	32'-9"	—
p ₃ (E)	4	#7	16'-6"	—
p ₄ (E)	12	#5	31'-2"	—
s ₂ (E)	9	#4	13'-5"	□
s ₃ (E)	50	#4	11'-9"	□
s ₄ (E)	8	#6	21'-0"	□
s ₅ (E)	12	#4	7'-6"	□
s ₆ (E)	12	#4	6'-6"	□
u ₁ (E)	10	#6	9'-7"	□
u ₂ (E)	6	#6	8'-1"	□
v ₁₇ (E)	18	#6	16'-5"	—
v ₁₈ (E)	18	#6	13'-6"	—
v ₁₉ (E)	170	#5	4'-0"	—
Concrete Structures	Cu. Yd.		43.0	
Reinforcement Bars, Epoxy Coated	Pound		4900	
Structure Excavation	Cu. Yd.		10	
Test Pile Metal Shells	Each		1	
Furnishing Metal Shell Piles 12"x0.25"	Lin. Ft.		84	
Driving Piles	Lin. Ft.		84	
Concrete Removal	Cu. Yd.		29	
Epoxy Crack Injection	Foot		88	
Concrete Sealer	Sq. Ft.		45	

**PIER 3
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d ₉ (E)	14	#5	3'-6"	—
h ₂₀ (E)	4	#6	9'-0"	—
h ₂₁ (E)	16	#5	14'-0"	—
h ₂₂ (E)	4	#5	13'-10"	—
p ₅ (E)	18	#6	33'-6"	—
p ₆ (E)	8	#5	7'-8"	—
p ₇ (E)	8	#7	33'-9"	—
p ₈ (E)	4	#7	18'-0"	—
p ₉ (E)	12	#5	33'-2"	—
s ₂ (E)	9	#4	13'-5"	□
s ₄ (E)	9	#6	21'-0"	□
s ₅ (E)	16	#4	7'-6"	□
s ₆ (E)	12	#4	6'-6"	□
s ₇ (E)	53	#4	11'-11"	□
u ₁ (E)	10	#6	9'-7"	□
u ₂ (E)	6	#6	8'-1"	□
v ₁₈ (E)	18	#6	13'-6"	—
v ₁₉ (E)	180	#5	4'-0"	—
v ₂₀ (E)	18	#6	16'-2"	—
Concrete Structures	Cu. Yd.		46.0	
Reinforcement Bars, Epoxy Coated	Pound		5170	
Structure Excavation	Cu. Yd.		10	
Furnishing Metal Shell Piles 12"x0.25"	Lin. Ft.		237	
Driving Piles	Lin. Ft.		237	
Concrete Removal	Cu. Yd.		31	
Epoxy Crack Injection	Foot		58	
Concrete Sealer	Sq. Ft.		45	

NOTES

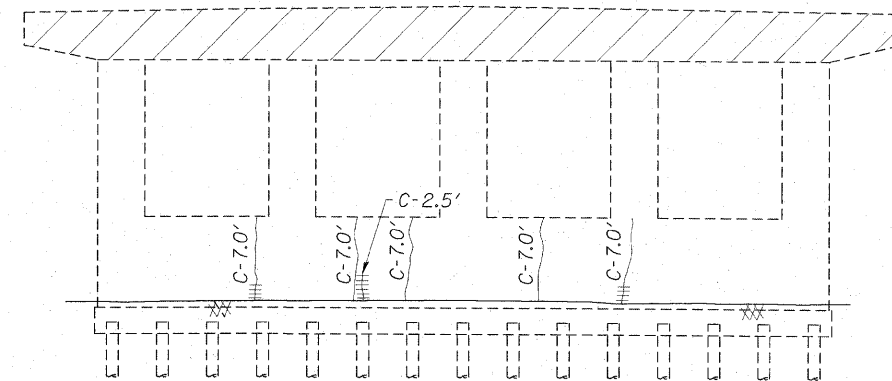
- Concrete Sealer shall be applied to both sides of the pier caps within 3'-0" each direction from the centerline of roadway.



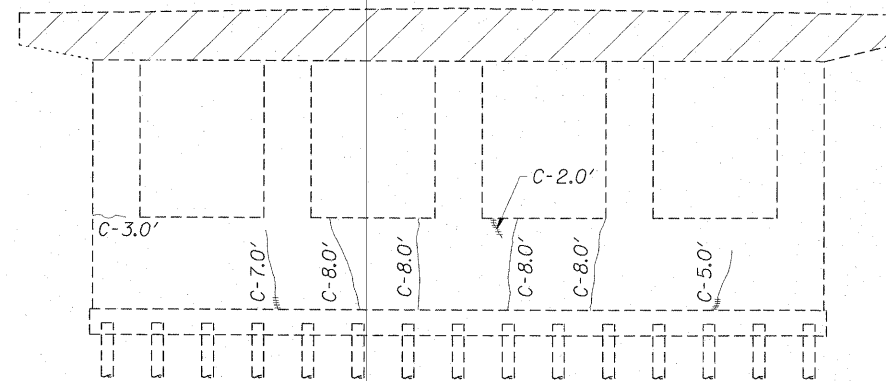
ANCHOR ROD*
Diameter to match existing signal pole.
(ASTM F 1554 Grade 105)

* Cost included with Concrete Structures

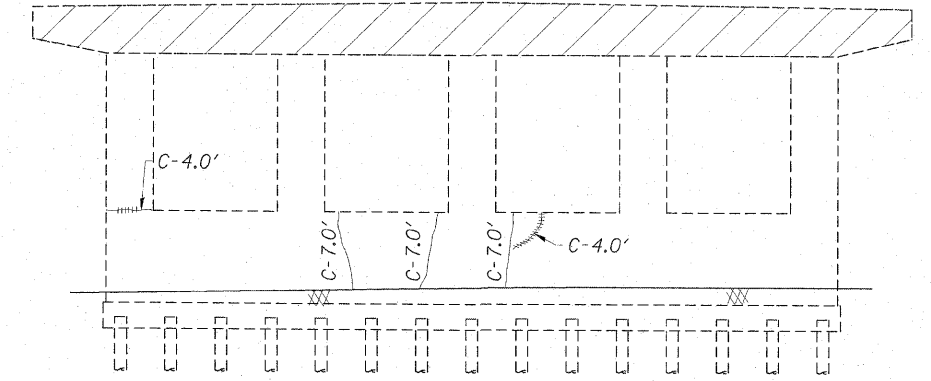
DETAIL A



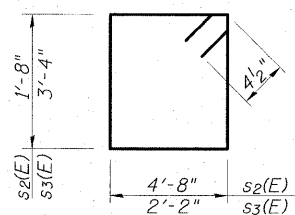
REPAIRS TO EAST ELEVATION PIER 1



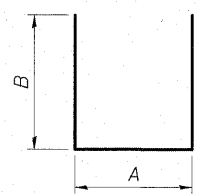
REPAIRS TO EAST ELEVATION PIER 2



REPAIRS TO EAST ELEVATION PIER 3



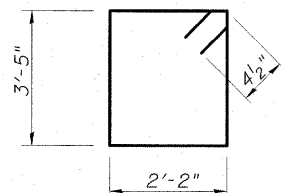
BARS s₂(E) & s₃(E)



**BARS s₄(E), s₅(E), s₆(E),
u₁(E) & u₂(E)**

BAR DIMENSIONS

Bar	A	B
s ₄ (E)	1'-8"	9'-8"
s ₅ (E)	2'-2"	2'-8"
s ₆ (E)	2'-2"	2'-2"
u ₁ (E)	1'-7"	4'-0"
u ₂ (E)	2'-1"	3'-0"



BARS s₇(E)

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CONSULTANTS, INC.

DESIGNED BY: RDP/DAJ 11/08
DRAWN BY: DWH/JPC 11/08
CHECKED BY: RDP 03/09
APPROVED BY: RDP 08/09

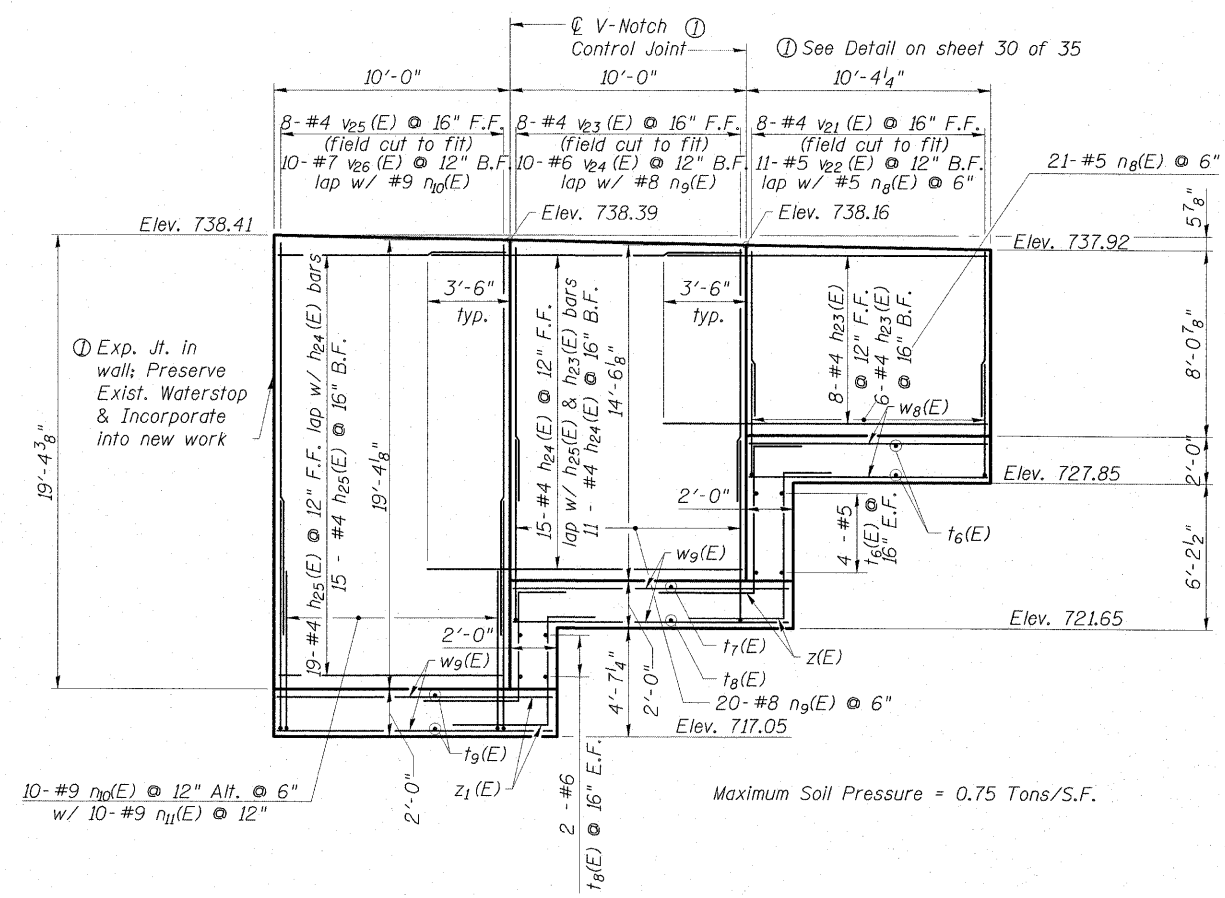
**PIER DETAILS
STRUCTURE NO. 015-0064**

SHEET NO. 26	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
35 SHEETS	325	(19VBR)BR	COLES	92	50
			CONTRACT NO. 74149		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

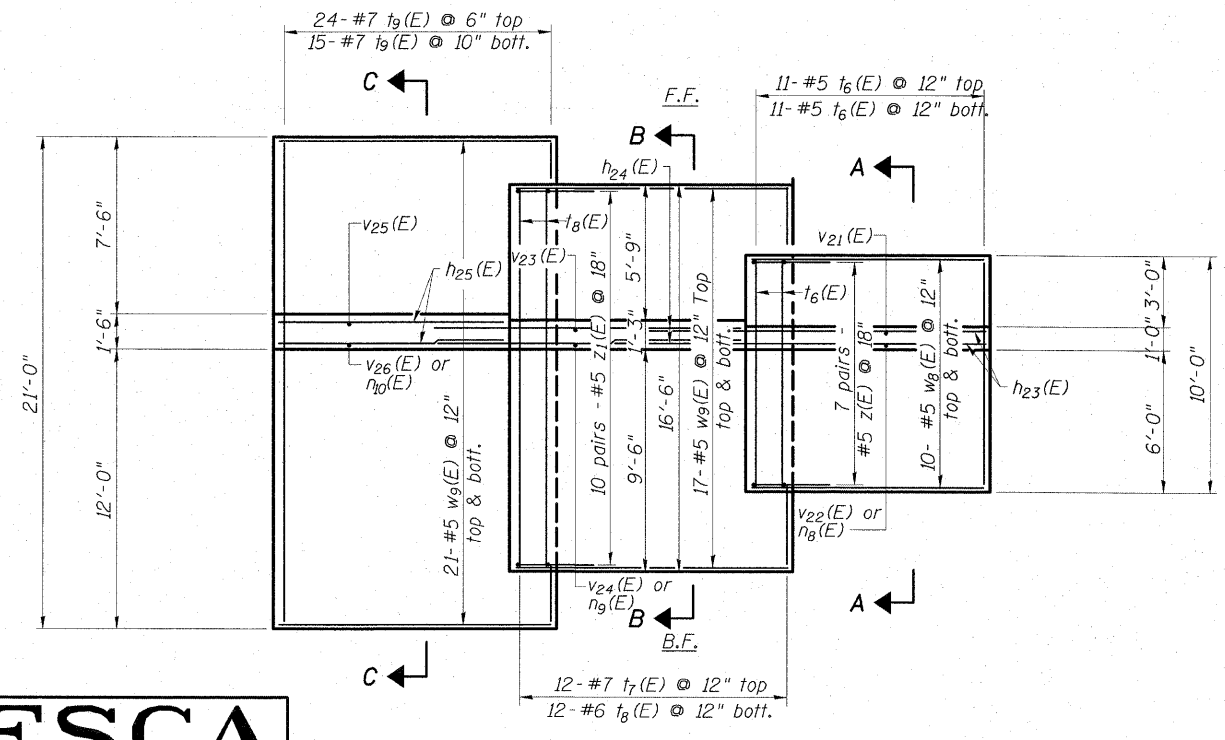
0150064-74149-27-NERetWall.dgn 7/31/2009 12:37:41 PM H45

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

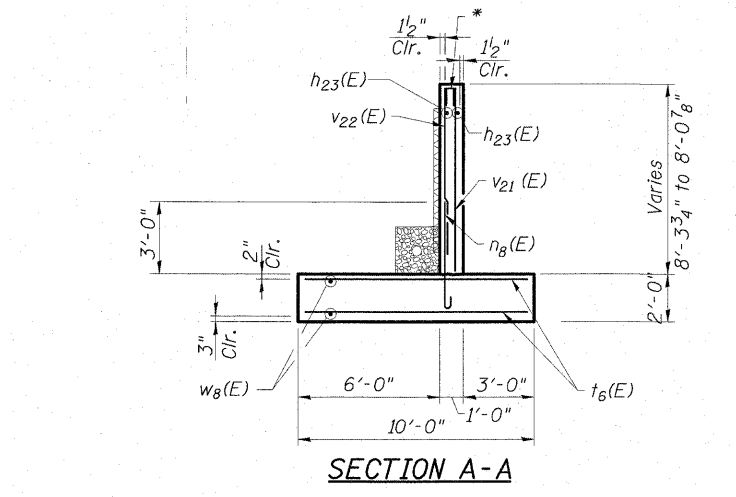
NE RETAINING WALL
BILL OF MATERIAL



ELEVATION

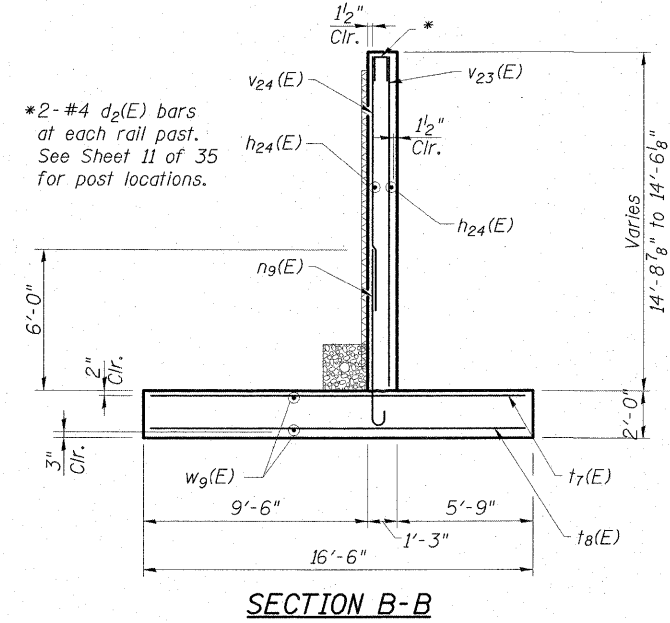


PLAN

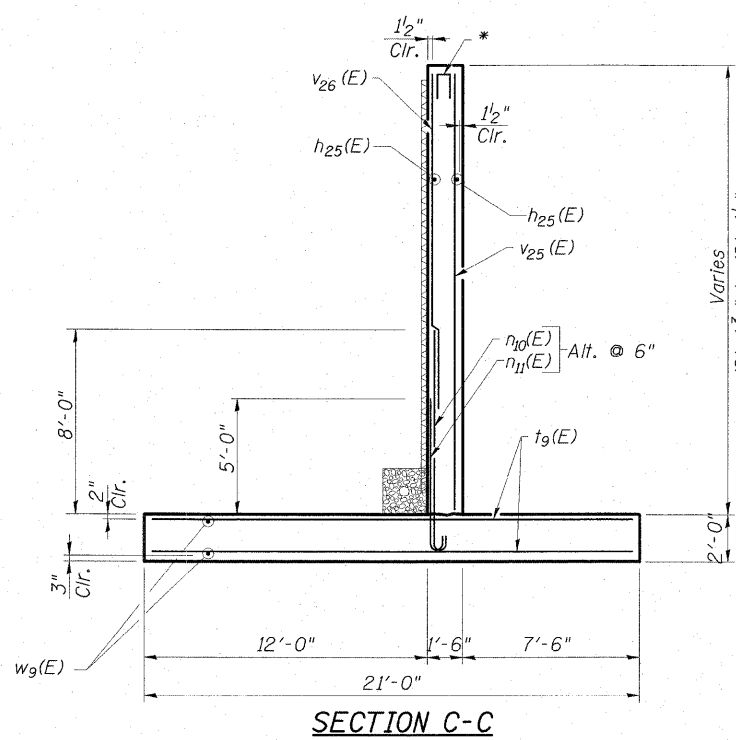


SECTION A-A

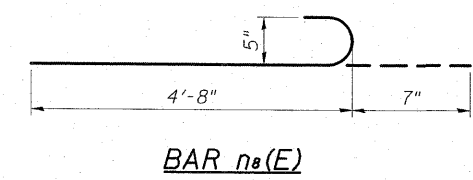
*2-#4 d2(E) bars at each rail past. See Sheet 11 of 35 for post locations.



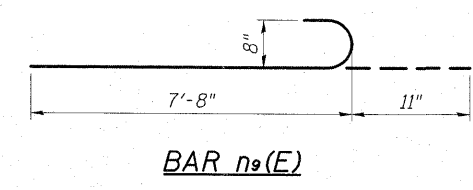
SECTION B-B



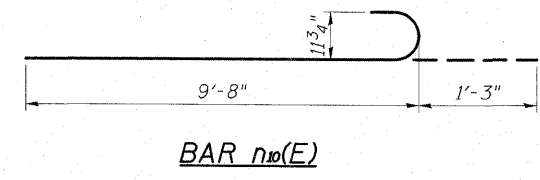
SECTION C-C



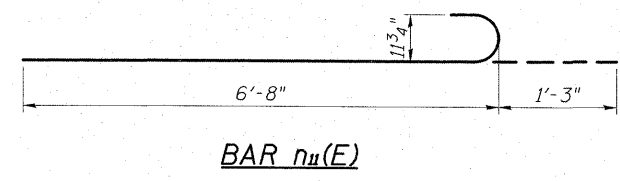
BAR n8(E)



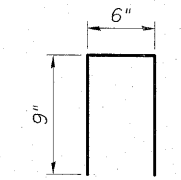
BAR n9(E)



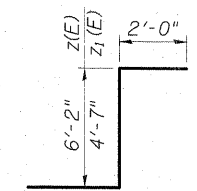
BAR n10(E)



BAR n11(E)



BAR d2(E)



BAR z(E) & z1(E)

Bar	No.	Size	Length	Shape
d2(E)	6	#4	2'-0"	□
h23(E)	14	#4	13'-8"	—
h24(E)	26	#4	13'-4"	—
h25(E)	34	#4	9'-8"	—
n8(E)	21	#5	5'-3"	U
n9(E)	20	#8	8'-7"	U
n10(E)	10	#9	10'-11"	U
n11(E)	10	#9	7'-11"	—
t6(E)	30	#5	9'-8"	—
t7(E)	12	#7	16'-2"	—
t8(E)	16	#6	16'-2"	—
t9(E)	39	#7	20'-8"	—
v21(E)	8	#4	7'-10"	—
v22(E)	11	#5	6'-10"	—
v23(E)	8	#4	14'-2"	—
v24(E)	10	#6	10'-6"	—
v25(E)	8	#4	19'-0"	—
v26(E)	10	#7	14'-0"	—
w8(E)	20	#5	10'-0"	—
w9(E)	76	#5	11'-8"	—
z(E)	14	#5	12'-2"	└
z1(E)	20	#5	10'-7"	└
Concrete Structures			Cu. Yd.	68.0
Reinforcement Bars, Epoxy Coated			Pound	6810
Structure Excavation			Cu. Yd.	235

MIN. BAR LAP

- #5 1'-8"
- #6 2'-0"
- #7 2'-9"

ESCA
CONSULTANTS, INC.

DESIGNED BY: RDP 11/08
DRAWN BY: DWH 11/08
CHECKED BY: MTD 03/09
APPROVED BY: RDP 08/09

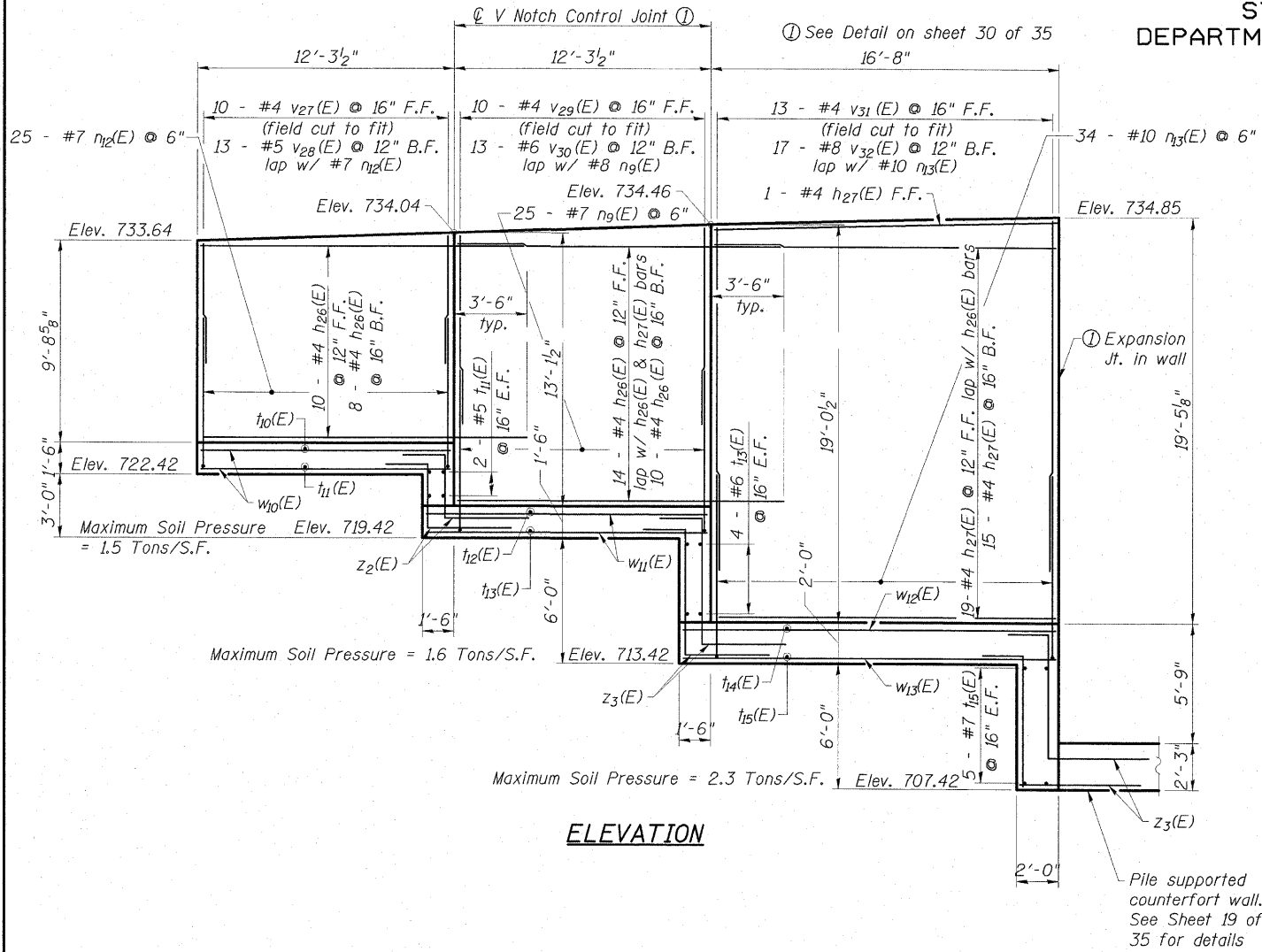
NE RETAINING WALL
STRUCTURE NO. 015-0064

SHEET NO. 27 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		(19VBR)BR	COLES	92	51
			CONTRACT NO. 74149		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

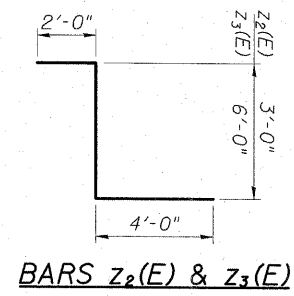
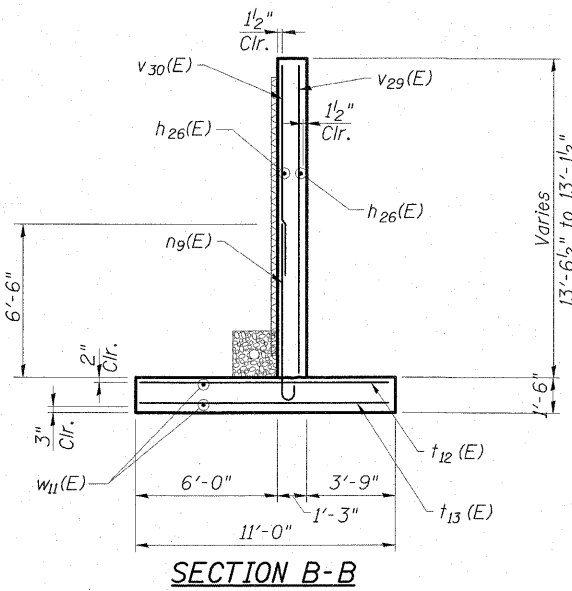
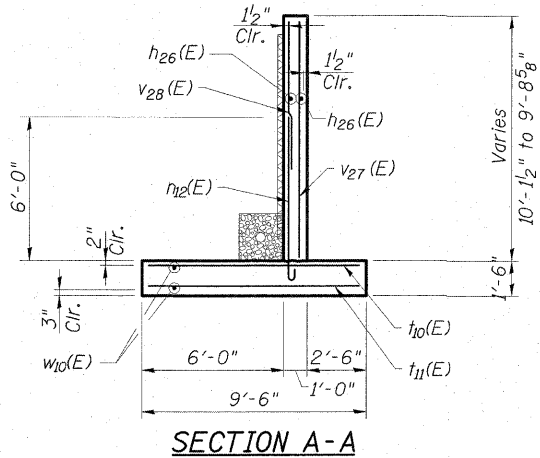
0150064-74149-28-SWRWall1.dgn 8/4/2009 6:21:25 AM H45

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SW RETAINING WALL
BILL OF MATERIAL



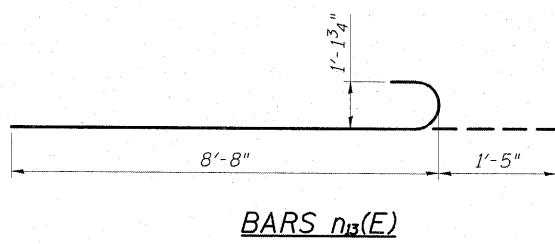
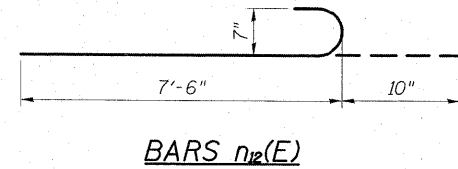
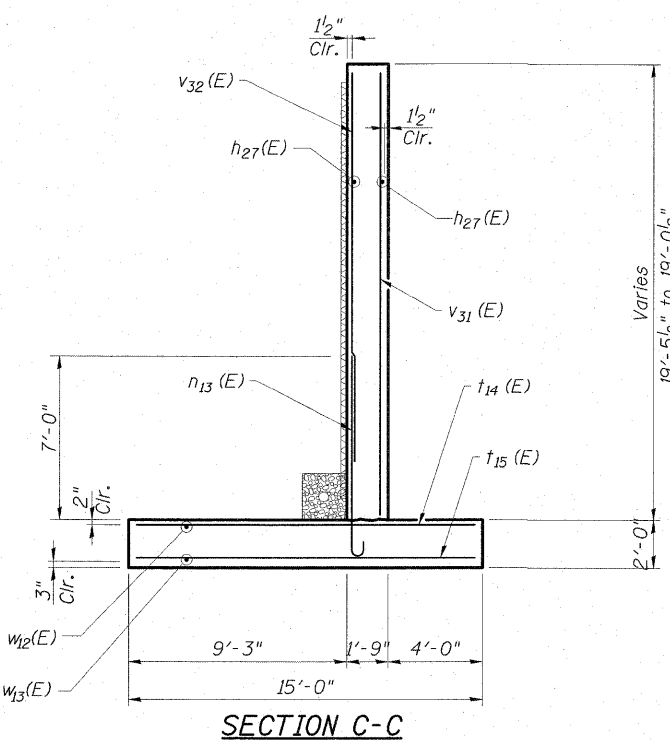
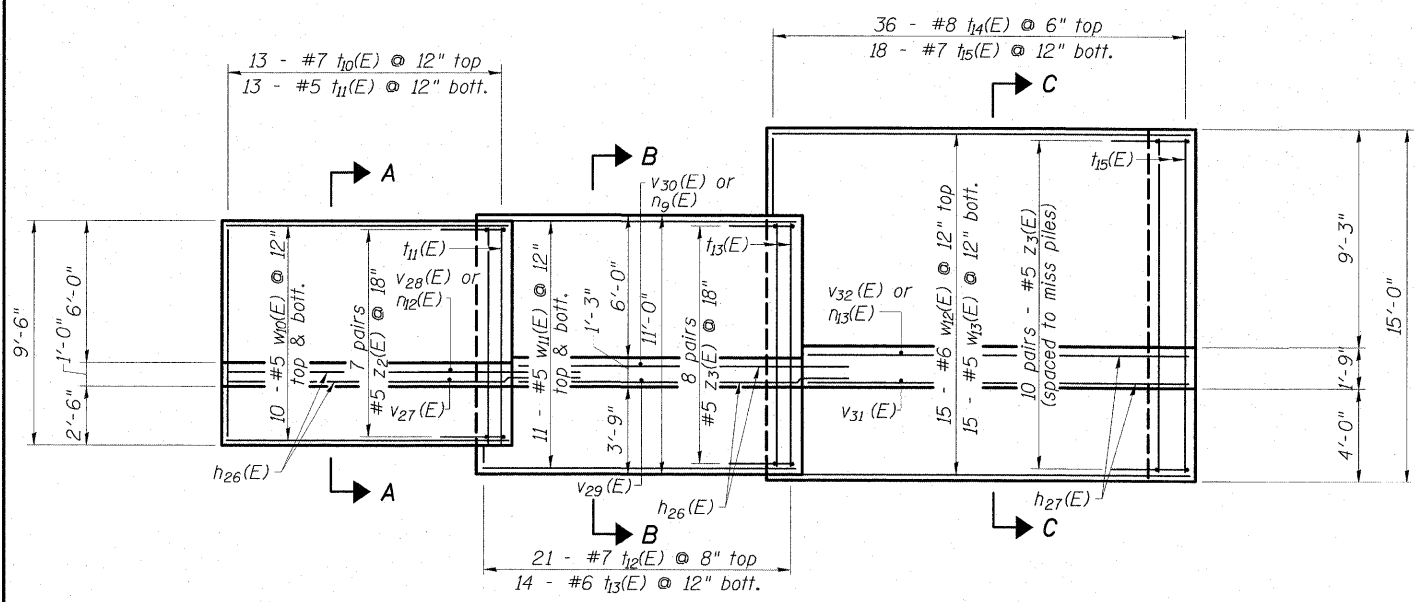
ELEVATION



Bar	No.	Size	Length	Shape
n ₂₆ (E)	42	#4	15'-7"	—
n ₂₇ (E)	35	#4	16'-4"	—
n ₉ (E)	25	#8	8'-7"	—
n ₁₂ (E)	25	#7	8'-4"	—
n ₁₃ (E)	34	#10	10'-1"	—
t ₁₀ (E)	13	#7	9'-2"	—
t ₁₁ (E)	17	#5	9'-2"	—
t ₁₂ (E)	21	#7	10'-8"	—
t ₁₃ (E)	22	#6	10'-8"	—
t ₁₄ (E)	36	#8	14'-8"	—
t ₁₅ (E)	28	#7	14'-8"	—
v ₂₇ (E)	10	#4	9'-10"	—
v ₂₈ (E)	13	#5	6'-0"	—
v ₂₉ (E)	10	#4	13'-3"	—
v ₃₀ (E)	13	#6	9'-0"	—
v ₃₁ (E)	13	#4	19'-2"	—
v ₃₂ (E)	17	#8	16'-0"	—
w ₁₀ (E)	20	#5	12'-0"	—
w ₁₁ (E)	22	#5	13'-6"	—
w ₁₂ (E)	15	#6	17'-10"	—
w ₁₃ (E)	15	#5	17'-10"	—
Z ₂ (E)	14	#5	9'-0"	┘
Z ₃ (E)	36	#5	12'-0"	┘
Concrete Structures		Cu. Yd.	77.9	
Reinforcement Bars, Epoxy Coated		Pound	9890	
Structure Excavation		Cu. Yd.	440	

MIN. BAR LAP

#5	1'-8"
#6	2'-0"
#8	3'-8"



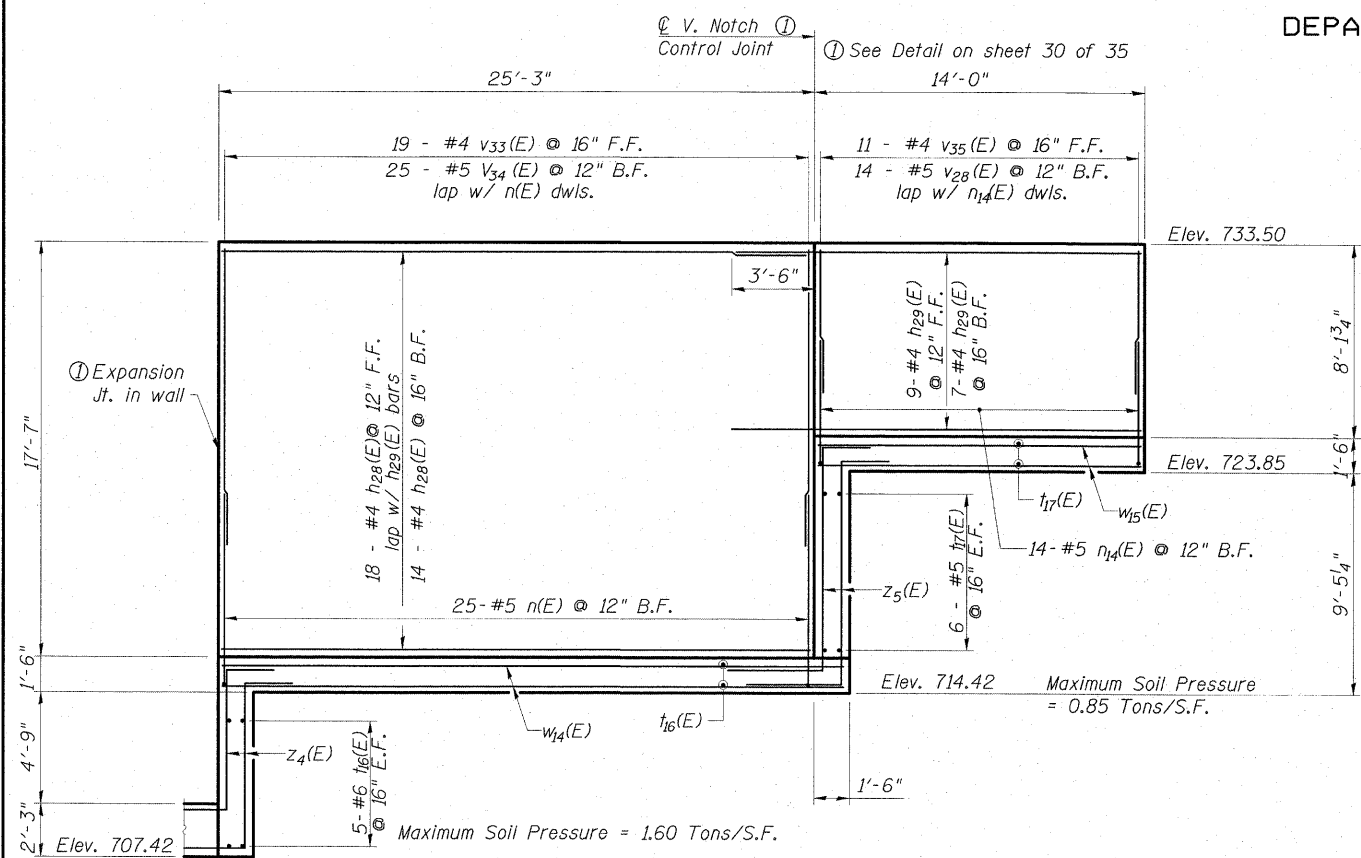
SW RETAINING WALL
STRUCTURE NO. 015-0064

ESCA
CONSULTANTS, INC.

DESIGNED BY: RDP 11/08
DRAWN BY: DWH 11/08
CHECKED BY: MTD 03/09
APPROVED BY: RDP 08/09

SHEET NO. 28 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	52
CONTRACT NO. 74149			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

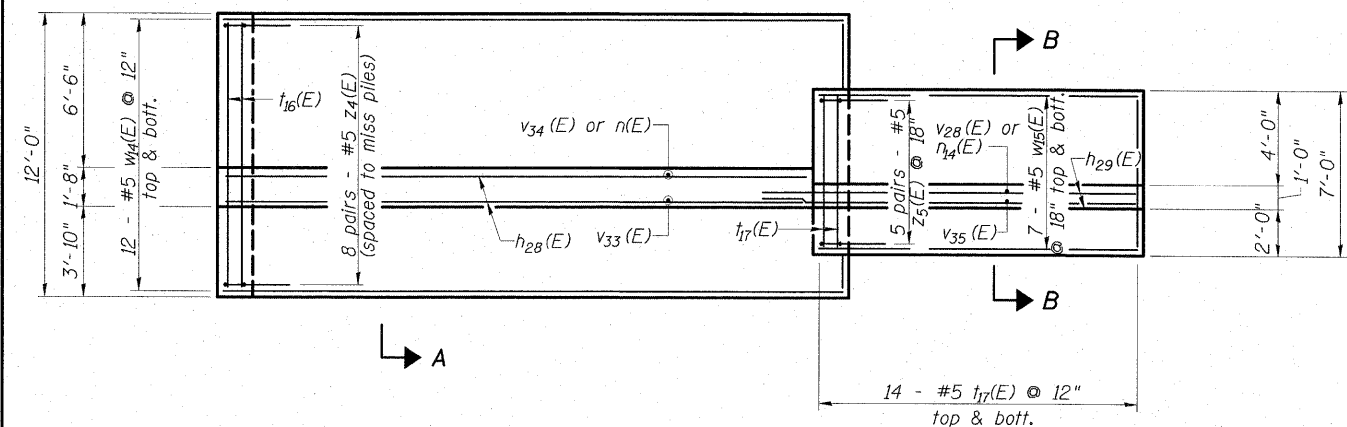
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



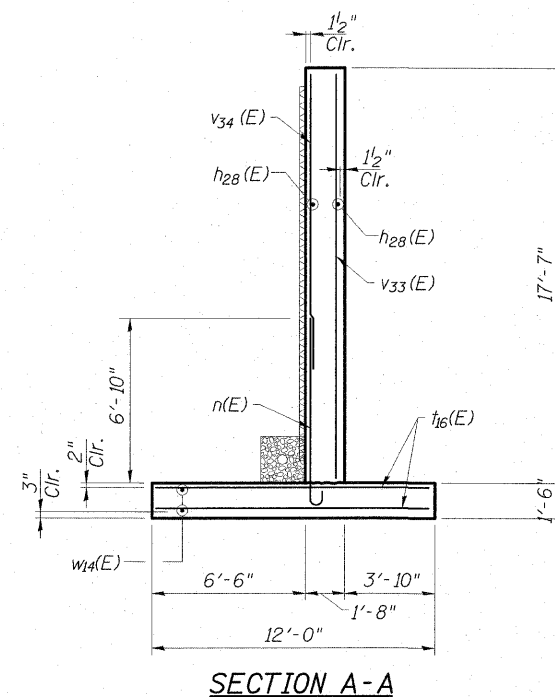
ELEVATION

Expansion Jt. in wall

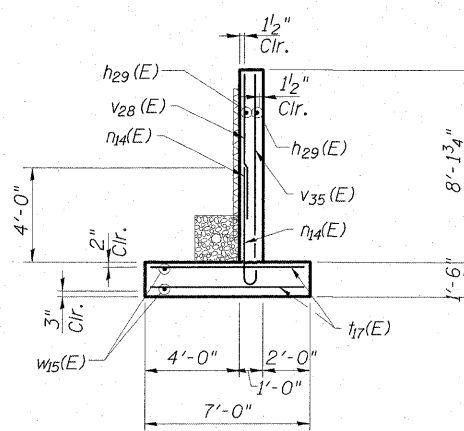
54 - #6 t16(E) @ 6" top
27 - #6 t16(E) @ 12" bott.



PLAN



SECTION A-A



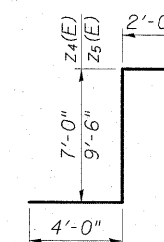
SECTION B-B

SE RETAINING WALL
BILL OF MATERIAL

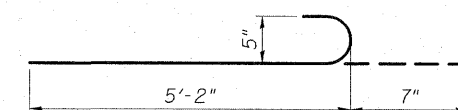
Bar	No.	Size	Length	Shape
h28(E)	32	#4	24'-11"	—
h29(E)	16	#4	17'-4"	—
n(E)	25	#5	8'-7"	—
n14(E)	14	#5	5'-9"	—
t16(E)	91	#6	11'-8"	—
t17(E)	40	#5	6'-8"	—
v28(E)	14	#5	5'-10"	—
v33(E)	19	#4	17'-4"	—
v34(E)	25	#5	12'-6"	—
v35(E)	11	#4	7'-11"	—
w14(E)	24	#5	26'-5"	—
w15(E)	14	#5	13'-8"	—
z4(E)	16	#5	13'-0"	J
z5(E)	10	#5	15'-6"	J
Concrete Structures			Cu. Yd.	62.7
Reinforcement Bars, Epoxy Coated			Pound	4830
Structure Excavation			Cu. Yd.	187

MIN. BAR LAP

#5 1'-8"



BARS z4(E) & z5(E)



BARS n14(E)

SE RETAINING WALL
STRUCTURE NO. 015-0064

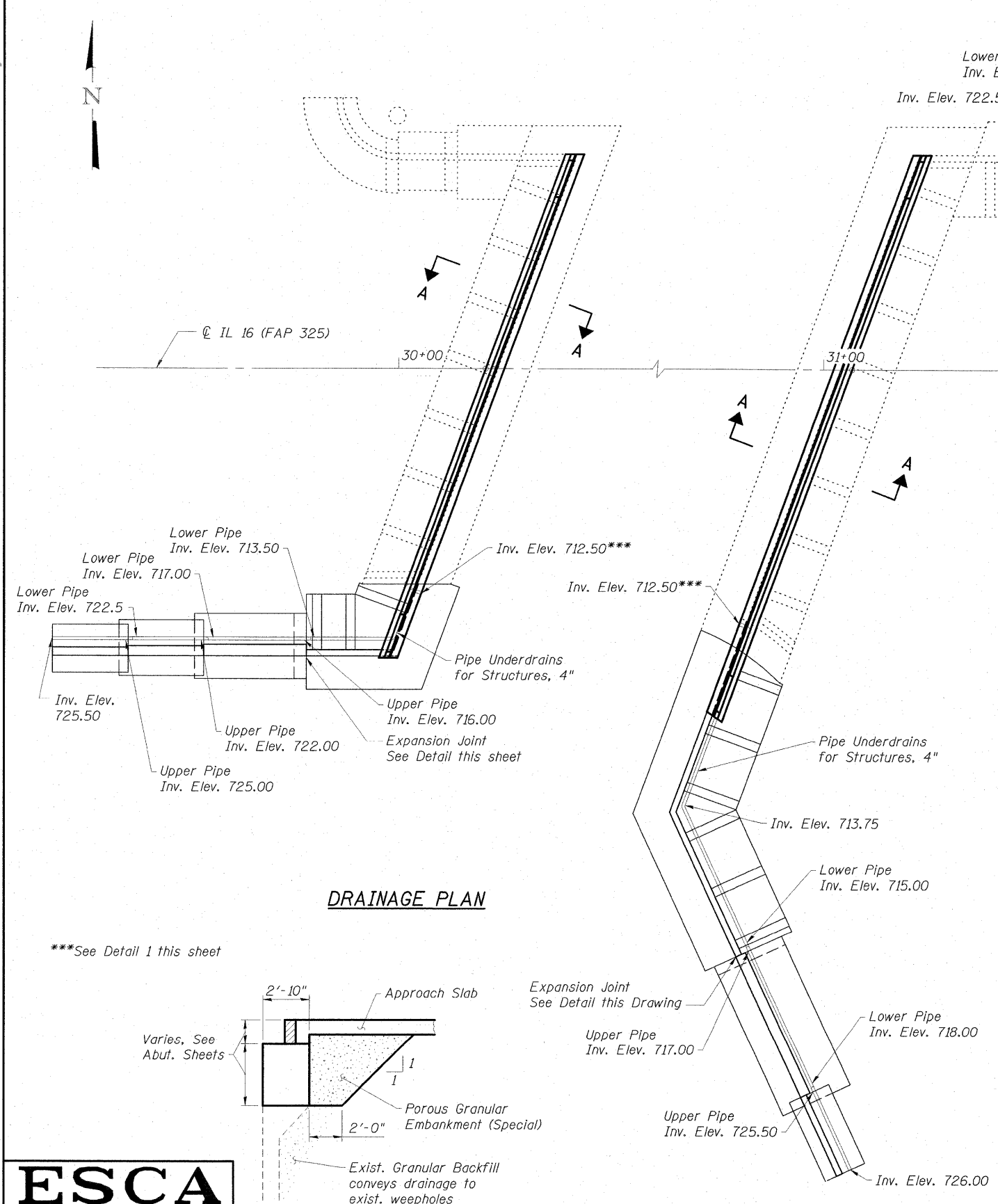
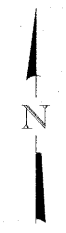
ESCA
CONSULTANTS, INC.

DESIGNED BY: RDP/DAJ 11/08
DRAWN BY: DWH 11/08
CHECKED BY: MTD 02/09
APPROVED BY: RDP 08/09

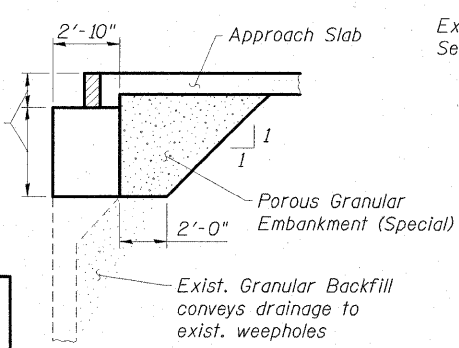
SHEET NO. 29 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		(19VBR)BR	COLES	92	53
			CONTRACT NO. 74149		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

01E0064-74149-30-Rev.01.dwg 7/31/2009 12:38:02 PM HAS

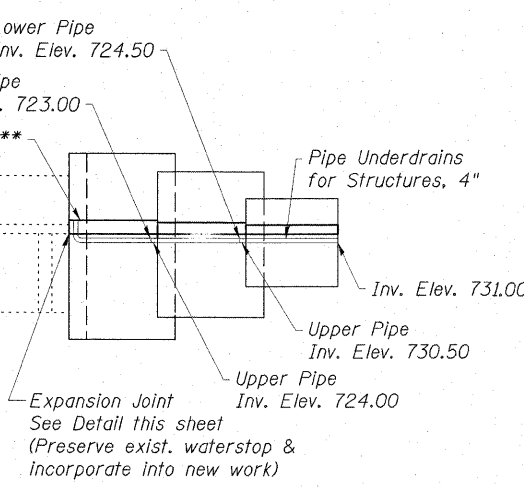
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DRAINAGE PLAN

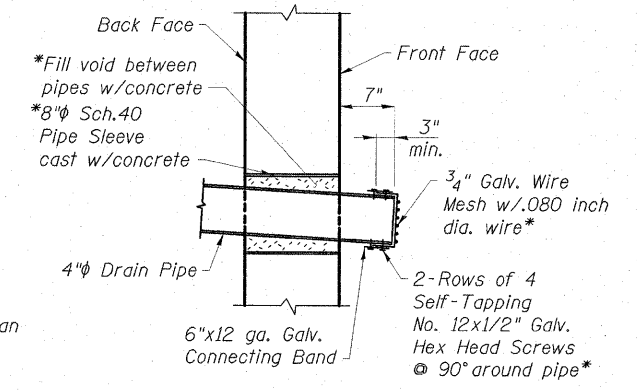


SECTION A-A



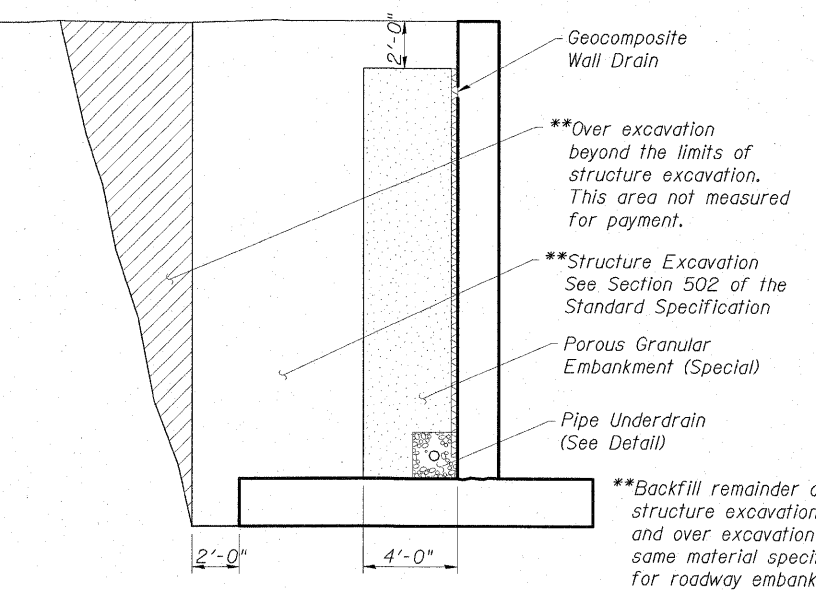
PIPE UNDERDRAIN DETAIL

*Included in the cost of "Pipe Underdrains for Structures, 4"

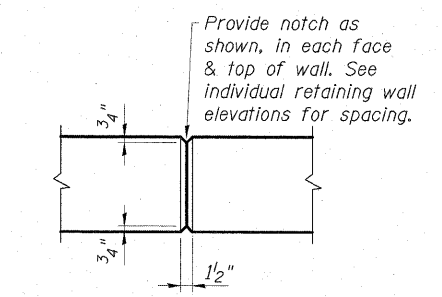


DETAIL 1

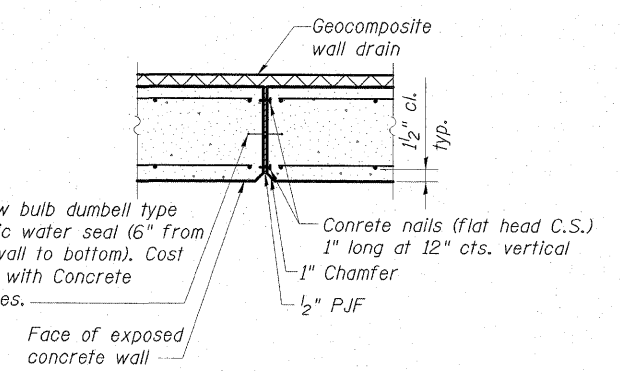
*Typical @ 3 locations (1 @ W. Abut. & 2 @ E. Abut.) Cost included with Pipe Underdrains for Structures, 4"



TYPICAL SECTION THRU RETAINING WALL

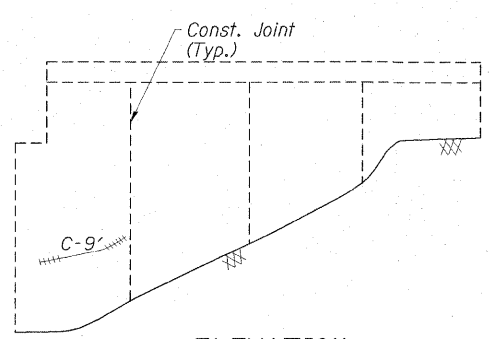


CONTROL JOINT DETAIL



EXPANSION JOINT DETAIL

(Required between Cantilever and Counterfort Walls)



ELEVATION NORTH WEST RETAINING WALL

REPAIR LEGEND
Inspection Date: 3/3/09

C-6' Crack to be epoxy injected

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Pipe Underdrains For Structures, 4"	Foot	215
Epoxy Crack Injection	Foot	9

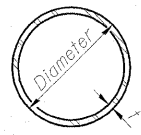
**RETAINING WALL DETAILS
STRUCTURE NO. 015-0064**

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
30	325	(19VBR)BR	COLES	92	54
CONTRACT NO. 74149					
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

ESCA
CONSULTANTS, INC.

DESIGNED BY: RDP 11/08
DRAWN BY: DWH 11/08
CHECKED BY: MTD 03/09
APPROVED BY: RDP 08/09

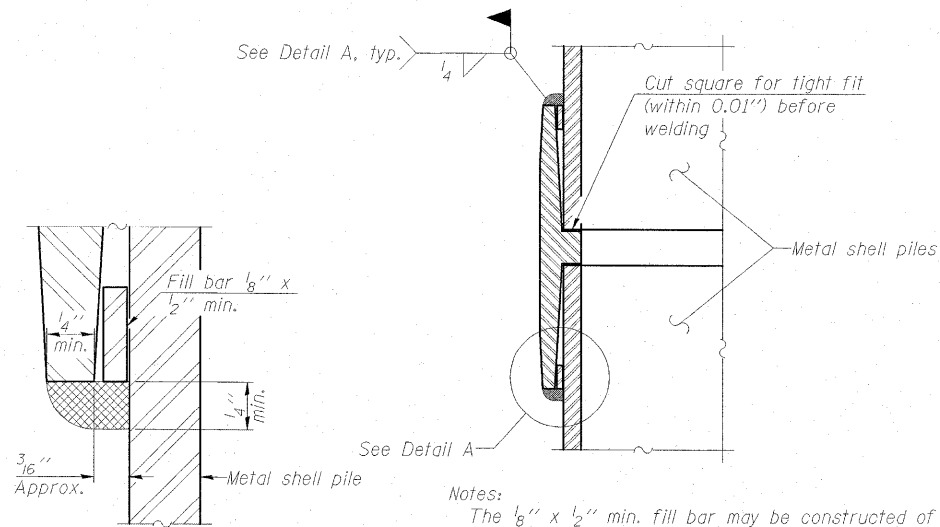
0150064-74149-31-P1.dwg 7/31/2009 12:38:08 PM HHS



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

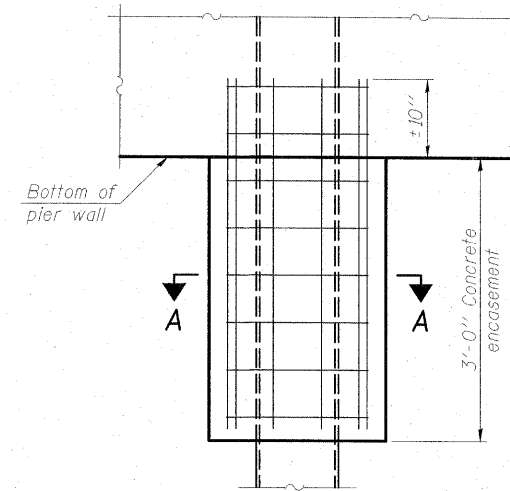
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



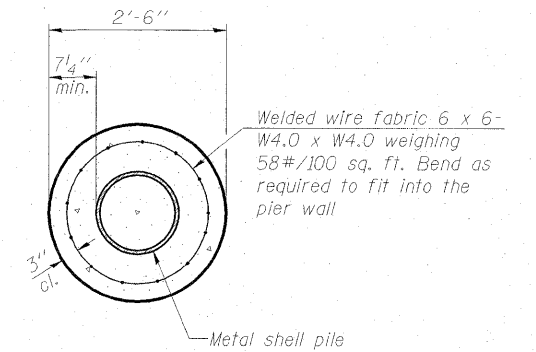
DETAIL A

Notes:
The $\frac{1}{8}'' \times \frac{1}{2}''$ min. fill bar may be constructed of 2 bars with a $\frac{1}{8}''$ max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



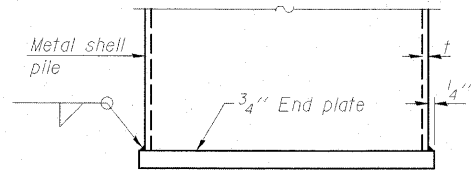
ELEVATION



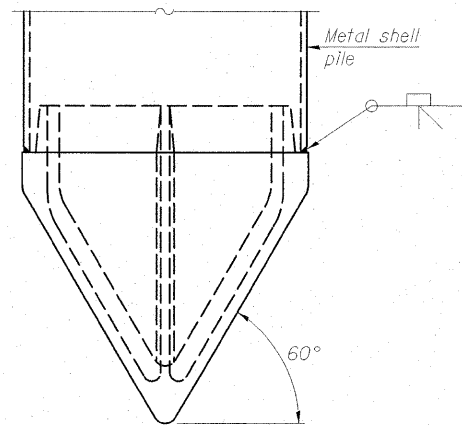
SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS



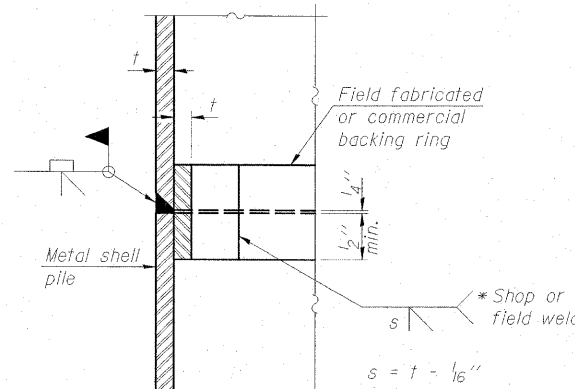
END PLATE ATTACHMENT



METAL SHELL PILE SHOE ATTACHMENT

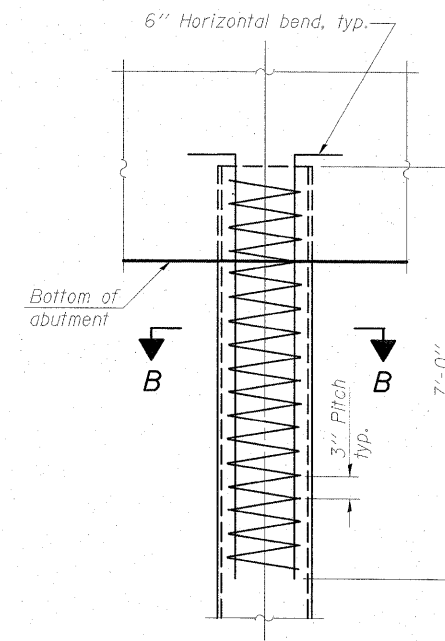
(See Note A)

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.

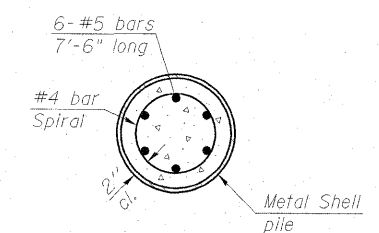


COMPLETE PENETRATION WELD SPLICE

* 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 B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

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

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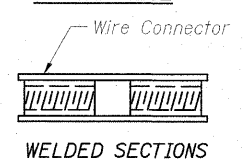
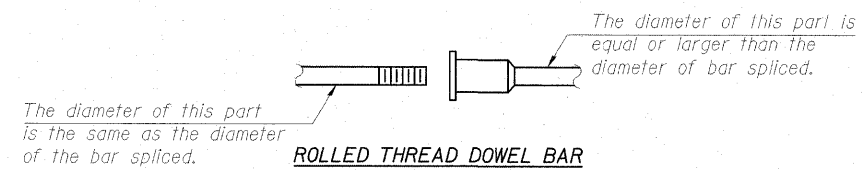
DESIGNED BY: DAJ 11/08
DRAWN BY: RJT 11/08
CHECKED BY: MTD 03/09
APPROVED BY: RDP 08/09

F-MS 10-1-08

METAL SHELL PILE DETAILS
STRUCTURE NO. 015-0064

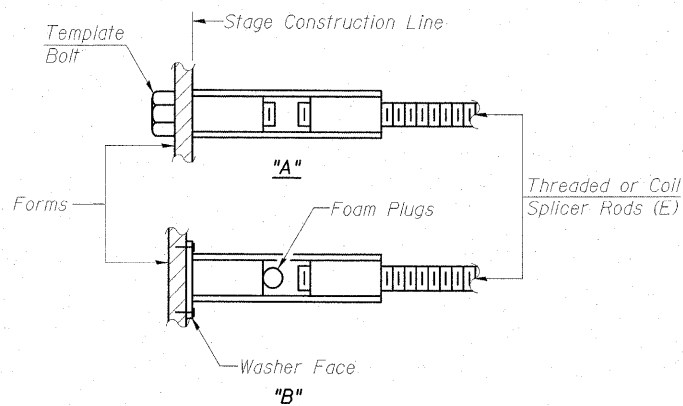
SHEET NO. 31 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	55
			CONTRACT NO. 74149		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BAR SPLICER ASSEMBLY ALTERNATIVES

**Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

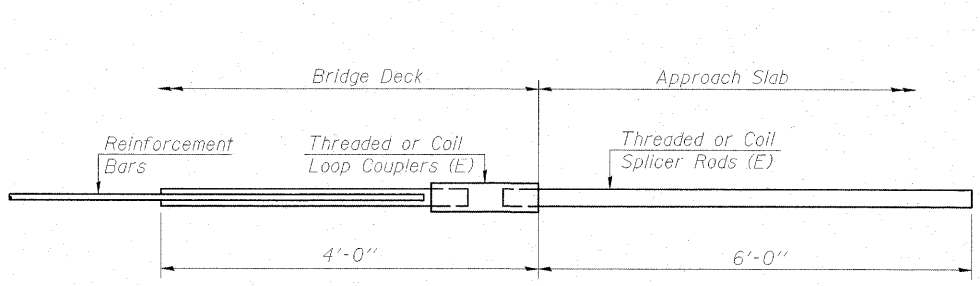
"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

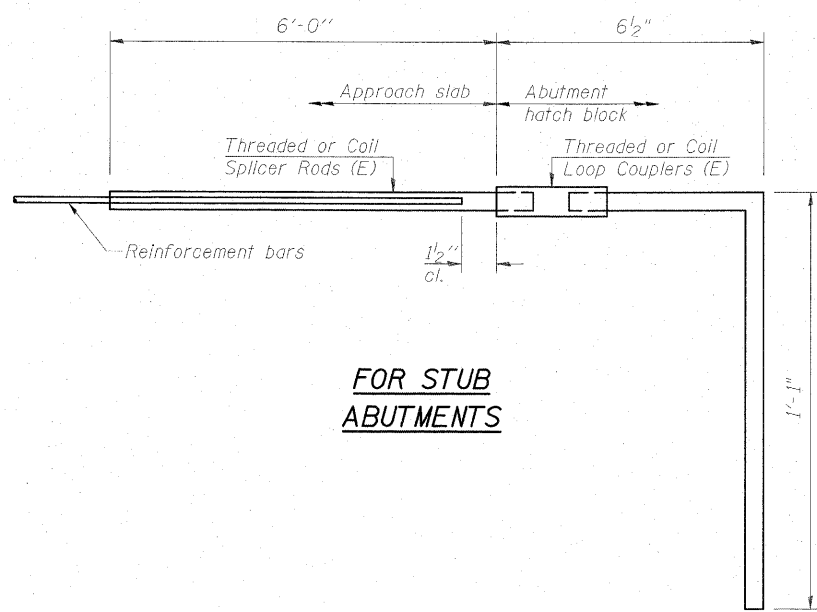
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



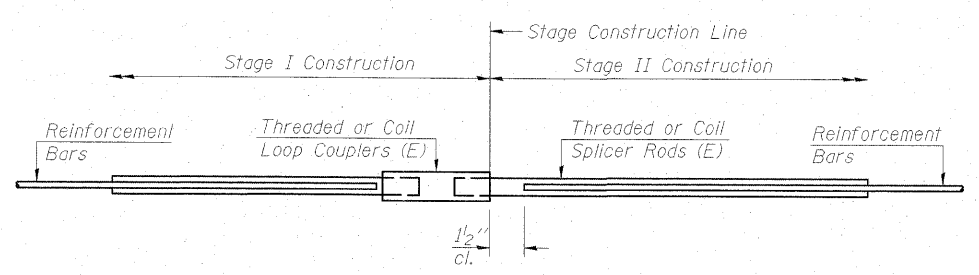
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	12.3 kips - tension
No. Required =	



FOR STUB ABUTMENTS

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	12.3 kips - tension
No. Required =	173



STANDARD

Bar Size	No. Assemblies Required	Location

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CONSULTANTS, INC.

DESIGNED BY: DAJ 11/08
 DRAWN BY: RJT 11/08
 CHECKED BY: MTD 03/09
 APPROVED BY: RDP 08/09

BSD-1 10-1-08

**BAR SPLICER DETAILS
STRUCTURE NO. 015-0064**

SHEET NO. 32 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	56
CONTRACT NO. 74149					
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FORM NO. 1-117 REV. 1-70

INDEX

Sh. 1 of 6 Sh.

BRIDGE FOUNDATION BORING LOG

PROJECT: RF-50 () BRIDGE: F.A. 17 OVER Date: 5/21/75
 ROUTE: F.A. 17 I.O.G. BR Bored By: KIRBY
 SEC: 19 VBR STA: 30 + 63.74 Checked By: T.G.B.
 COUNTY: COLES

Boring No.	Station	Offset	Elevation	N	Q _u / f _c / s	Surface Water El. at Completion	Groundwater El. at Completion	DRY	Elevation	N	Q _u / f _c / s	w (%)
1	30 + 99	19.3' E	712.1	0								
Ground Surface: FINE SAND BED												
			708.6	13					25	10	2.5	13
BLACK SAND & GRAVEL RAILROAD BALLAST MIXED WITH STIFF CLAY												
				10	2.6				13	13	2.3	12
				11	1.8		681.6		20	11	2.3	13
LIMIT OF BORING												
				10	1.4							
				11	2.9				25			
				10	2.3							
				12	1.6				40			
				12	2.1				45			

Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
 Q_u - Unconfined Compressive Strength - 1/ft
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value, P - Penetrometer

FORM NO. 1-117 REV. 1-70

Sh. 2 of 6 Sh.

BRIDGE FOUNDATION BORING LOG

PROJECT: RF-50 () BRIDGE: F.A. 17 OVER Date: 5/21/75
 ROUTE: F.A. 17 I.O.G. BR Bored By: KIRBY
 SEC: 19 VBR STA: 30 + 63.74 Checked By: T.G.B.
 COUNTY: COLES

Boring No.	Station	Offset	Elevation	N	Q _u / f _c / s	Surface Water El. at Completion	Groundwater El. at Completion	DRY	Elevation	N	Q _u / f _c / s	w (%)
2	30 + 96.5	67.7' E	711.9	0								
Ground Surface: CINDER & GRAVEL RAILROAD BALLAST												
			708.3	8					25	9	1.3	14
STIFF GRAY CLAY LOAM TILL												
				8	2.1				13			
				13	1.6				30			
				12	1.9							
				11	1.9				33			
				13	1.9							
				9	1.2				40			
				11	1.3				45			

Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
 Q_u - Unconfined Compressive Strength - 1/ft
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value, P - Penetrometer

FORM NO. 1-117 REV. 1-70

Sh. 3 of 6 Sh.

BRIDGE FOUNDATION BORING LOG

PROJECT: RF-50 () BRIDGE: F.A. 17 OVER Date: 5/21/75
 ROUTE: F.A. 17 I.O.G. BR Bored By: KIRBY
 SEC: 19 VBR STA: 30 + 63.74 Checked By: T.G.B.
 COUNTY: COLES

Boring No.	Station	Offset	Elevation	N	Q _u / f _c / s	Surface Water El. at Completion	Groundwater El. at Completion	DRY	Elevation	N	Q _u / f _c / s	w (%)
3	31 + 15	65.2' E	711.7	0								
Ground Surface: CINDER AND GRAVEL RAILROAD BALLAST												
			708.7	15					25	13	1.8	13
STIFF GRAY CLAY LOAM TILL												
				9	1.3				15			
				11	1.6				30			
				15	2.9							
				17					25			
				9	1.6							
				13	2.7				45			

Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
 Q_u - Unconfined Compressive Strength - 1/ft
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value, P - Penetrometer

FORM NO. 1-117 REV. 1-70

Sh. 4 of 6 Sh.

BRIDGE FOUNDATION BORING LOG

PROJECT: RF-50 () BRIDGE: F.A. 17 OVER Date: 5/21/75
 ROUTE: F.A. 17 I.O.G. BR Bored By: KIRBY
 SEC: 19 VBR STA: 30 + 63.75 Checked By: T.G.B.
 COUNTY: COLES

Boring No.	Station	Offset	Elevation	N	Q _u / f _c / s	Surface Water El. at Completion	Groundwater El. at Completion	DRY	Elevation	N	Q _u / f _c / s	w (%)
4	31 + 71	RE	712.6	0								
Ground Surface: ASPH. DRIVEWAY												
			709.1	15					25	12	1.5	16
STIFF GRAY CLAY LOAM TILL												
				13	3.3				18			
				10	2.2				30			
				11	2.1				25			
				11	2.2				13			
				10	2.1				45			

Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
 Q_u - Unconfined Compressive Strength - 1/ft
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value, P - Penetrometer

FORM NO. 1-117 REV. 1-70

Sh. 5 of 6 Sh.

BRIDGE FOUNDATION BORING LOG

PROJECT: RF-50 () BRIDGE: F.A. 17 OVER Date: 5/28/75
 ROUTE: F.A. 17 I.O.G. BR Bored By: KIRBY
 SEC: 19 VBR STA: 30 + 63.75 Checked By: T.G.B.
 COUNTY: COLES

Boring No.	Station	Offset	Elevation	N	Q _u / f _c / s	Surface Water El. at Completion	Groundwater El. at Completion	DRY	Elevation	N	Q _u / f _c / s	w (%)
5	30 + 50	61.5' E	711.4	0								
Ground Surface: CINDER AND GRAVEL RAILROAD BALLAST												
			707.4	8					25	13	1.9	13
STIFF GRAY CLAY LOAM TILL												
				8	1.4				13			
				23					10			
				11	2.9				13			
				13	2.3				40			
				9	1.4				45			

Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
 Q_u - Unconfined Compressive Strength - 1/ft
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value, P - Penetrometer

FORM NO. 1-117 REV. 1-70

Sh. 6 of 6 Sh.

BRIDGE FOUNDATION BORING LOG

PROJECT: RF-50 () BRIDGE: F.A. 17 OVER Date: 5/28/75
 ROUTE: F.A. 17 I.O.G. BR Bored By: KIRBY
 SEC: 19 VBR STA: 30 + 63.75 Checked By: T.G.B.
 COUNTY: COLES

Boring No.	Station	Offset	Elevation	N	Q _u / f _c / s	Surface Water El. at Completion	Groundwater El. at Completion	DRY	Elevation	N	Q _u / f _c / s	w (%)
6	30 + 09	55.2' E	711.9	0								
Ground Surface: CINDER AND GRAVEL RAILROAD BALLAST												
			709.4	17					25	22	2.9	11
VERY STIFF GRAY CLAY LOAM TILL												
			707.9	17					25	22	2.9	11
GRAY SANDY GRAVEL TO SANDY CLAY LOAM TILL												
			705.4	16								
				8	1.3				30	12	2.7	14
LIMIT OF BORING												
				8	1.3							
				12	1.9				25			
				9	1.9							
				19	5.9				45			

Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
 Q_u - Unconfined Compressive Strength - 1/ft
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value, P - Penetrometer

ESCA
CONSULTANTS, INC.

DESIGNED BY: MTD 03/09
 DRAWN BY: RJT 03/09
 CHECKED BY: MTD 03/09
 APPROVED BY: RDP 08/09

SOIL BORINGS
STRUCTURE NO. 015-0064

SHEET NO. 33 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	57
CONTRACT NO. 74149			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

0150054-74149-34-5a1B-gdgn 7/31/2009 12:38:31 PM HAS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX

BRIDGE FOUNDATION BORING LOG

FORM NO. B. O. 137 REV. 9-67

PROJECT: RP-50() BRIDGE: F.A. 17 OVER I.C.G. RR Date: 7-9-75
 ROUTE: F.A. 17 Bored By: BAKER
 SEC: 19 VBR Checked By: CHS
 COUNTY: COLES STA: 30+53.75

Elevation	N	Q _u / f ₁ / t	w (%)	Description	Elevation	N	Q _u / f ₁ / t	w (%)	Surface Water El.	
									Groundwater El. at Completion	After _____ Hours
735.0				AREN OR BRICK MIXED SOIL, ROCK, SCORP.						
729.1	6	1.0B	17	STIFF BROWN CLAY LOAM TO HARDY CLAY LOAM MIXED						
725.1	4	1.4B	12	STIFF BROWN CLAY LOAM TILL						
725.1	13	4.3B	13	HARD BROWN MOT. CLAY LOAM TILL						
722.6	15	8-15 / 4.5	17	HARD GRAY SILTY CLAY LOAM TO SILTY CLAY TILL						
720.6				SHOE OF ROCK						
715.1	21	3.4B	11	VERY STIFF GRAY SILTY CLAY LOAM TILL						
	15	2.7B	12							
	45	1.2B	13							

N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
 Q_u - Unconfined Compressive Strength - 1/4"
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value, P - Penetrometer

BRIDGE FOUNDATION BORING LOG

FORM NO. B. O. 137 REV. 9-67

PROJECT: RP-50() BRIDGE: F.A. 17 OVER I.C.G. RR Date: 7-9-75
 ROUTE: F.A. 17 Bored By: BAKER
 SEC: 19 VBR Checked By: CHS
 COUNTY: COLES STA: 30+53.75

Elevation	N	Q _u / f ₁ / t	w (%)	Description	Elevation	N	Q _u / f ₁ / t	w (%)
735.0								
729.1	13	1.9B	13	STIFF TO VERY STIFF GRAY CLAY LOAM TILL				
681.1	14	2.1B	13	LIMIT OF BORING				

N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
 Q_u - Unconfined Compressive Strength - 1/4"
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value, P - Penetrometer

BRIDGE FOUNDATION BORING LOG

FORM NO. B. O. 137 REV. 9-67

PROJECT: RP-50() BRIDGE: F.A. 17 OVER I.C.G. RR Date: 7-9-75
 ROUTE: F.A. 17 Bored By: BAKER
 SEC: 19 VBR Checked By: CHS
 COUNTY: COLES STA: 30+53.75

Elevation	N	Q _u / f ₁ / t	w (%)	Description	Elevation	N	Q _u / f ₁ / t	w (%)
733.8								
733.3				BROWN SILTY CLAY				
729.8								
725.3	7	1.2B	8.6	STIFF BROWN MOT. SILTY CLAY TO SILTY CLAY LOAM				
725.3								
722.3	15	1.5	15	STIFF BROWN SILTY CLAY LOAM TO HARDY CLAY LOAM WITH SAND AND GRAVEL LENS				
719.8	15	3.3B	11	VERY STIFF GRAY SILTY CLAY LOAM TILL				
719.8	14	3.7B	12					
712.3	13	2.3B	12	VERY STIFF GRAY CLAY LOAM TILL				
	11	2.5B	12					
	45							

N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
 Q_u - Unconfined Compressive Strength - 1/4"
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value, P - Penetrometer

BRIDGE FOUNDATION BORING LOG

FORM NO. B. O. 137 REV. 9-67

PROJECT: RP-50() BRIDGE: F.A. 17 OVER I.C.G. RR Date: 7-10-75
 ROUTE: F.A. 17 Bored By: BAKER
 SEC: 19 VBR Checked By: CHS
 COUNTY: COLES STA: 30+63.75

Elevation	N	Q _u / f ₁ / t	w (%)	Description	Elevation	N	Q _u / f ₁ / t	w (%)
732.3	13	1.6B	12	STIFF GRAY CLAY LOAM TILL				
683.3	12	1.6B	--	LIMIT OF BORING				

N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
 Q_u - Unconfined Compressive Strength - 1/4"
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value, P - Penetrometer

BRIDGE FOUNDATION BORING LOG

FORM NO. B. O. 137 REV. 9-67

PROJECT: RP-50() BRIDGE: F.A. 17 OVER I.C.G. RR Date: 7-10-75
 ROUTE: F.A. 17 Bored By: BAKER
 SEC: 19 VBR Checked By: CHS
 COUNTY: COLES STA: 30+63.75

Elevation	N	Q _u / f ₁ / t	w (%)	Description	Elevation	N	Q _u / f ₁ / t	w (%)
732.3								
727.8				STIFF MIXED CLAY LOAM				
727.8	10	8-13 / 3.2	12	VERY STIFF BROWN-DRY MOT. MIXED CLAY LOAM				
724.3								
718.3	9	1.7B	13	STIFF GRAY CLAY LOAM TILL				
718.3	10	1.5B	13					
715.8	10	2.5B	12	VERY STIFF GRAY CLAY LOAM TILL				
715.8								
710.8	8	1.2B	14	STIFF GRAY CLAY LOAM TILL				
	7	1.0B	14					
	45							

N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
 Q_u - Unconfined Compressive Strength - 1/4"
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value, P - Penetrometer

BRIDGE FOUNDATION BORING LOG

FORM NO. B. O. 137 REV. 9-67

PROJECT: RP-50() BRIDGE: F.A. 17 OVER I.C.G. RR Date: 7-10-75
 ROUTE: F.A. 17 Bored By: BAKER
 SEC: 19 VBR Checked By: CHS
 COUNTY: COLES STA: 30+63.75

Elevation	N	Q _u / f ₁ / t	w (%)	Description	Elevation	N	Q _u / f ₁ / t	w (%)
732.3								
727.8				STIFF GRAY CLAY LOAM TILL				
681.8	9	1.6B	13	LIMIT OF BORING				

N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
 Q_u - Unconfined Compressive Strength - 1/4"
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Bulge Failure, S - Shear Failure, E - Estimated Value, P - Penetrometer

ESCA
CONSULTANTS, INC.

DESIGNED BY: MTD 03/09
 DRAWN BY: RJT 03/09
 CHECKED BY: MTD 03/09
 APPROVED BY: RDP 08/09

SOIL BORINGS
STRUCTURE NO. 015-0064

SHEET NO. 34 35 SHEETS	F.A.P. RTE. 325	SECTION (19VBR)BR	COUNTY COLES	TOTAL SHEETS 92	SHEET NO. 58
	CONTRACT NO. 74149				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Five Materials

PROJECT BRIDGE RETAINING WALL Date 07/09/09 Sh. 1 of 2

ROUTE EA 91 & 87 FAILURE AT MATTOON Bored By Wioschief

SEC. 191BR & 1-11 STA. 113CS)RS & RS-1 Checked By T.G.B.

COUNTY Coles

Boring No. 1 Surf Wat El. _____
Sta 11+49 at Compl DRY
O/S 32' LT El. N Qu W AT Hrs El. N Qu

Soil Description	El.	N	Qu	W	AT	Hrs	El.	N	Qu
Ground Surface	739.9	0							
MEDIUM TO COARSE BROWN SAND BACKFILL	-5	0					-25	7	1.4
	-11						-30	8	1.2
	-10	4						7	1.2
724.9									
BROWN CLAY LOAM TILL	-12	3.3	13				-28	8	1.0
	-18	3.1	13						
719.9									
SAND LENS	-11	2.7	13				-18	7	1.2
GRAY SANDY CLAY LOAM TILL	-20	9	3.1	13					
	-18						-18	8	1.0
N-Std Penr Test: 2" DD Sampler, 140# Hammer Falling 30" (Type Fall, S-Buige B-Shear E-Estimated P-Penetrator)							-45	8	1.0

Project BRIDGE RETAINING WALL Sh. 2 of 2

Route EA 91 & 87

Sec. 191BR & 1-11

County Coles

Boring No. 1

Sta 11+49

O/S _____

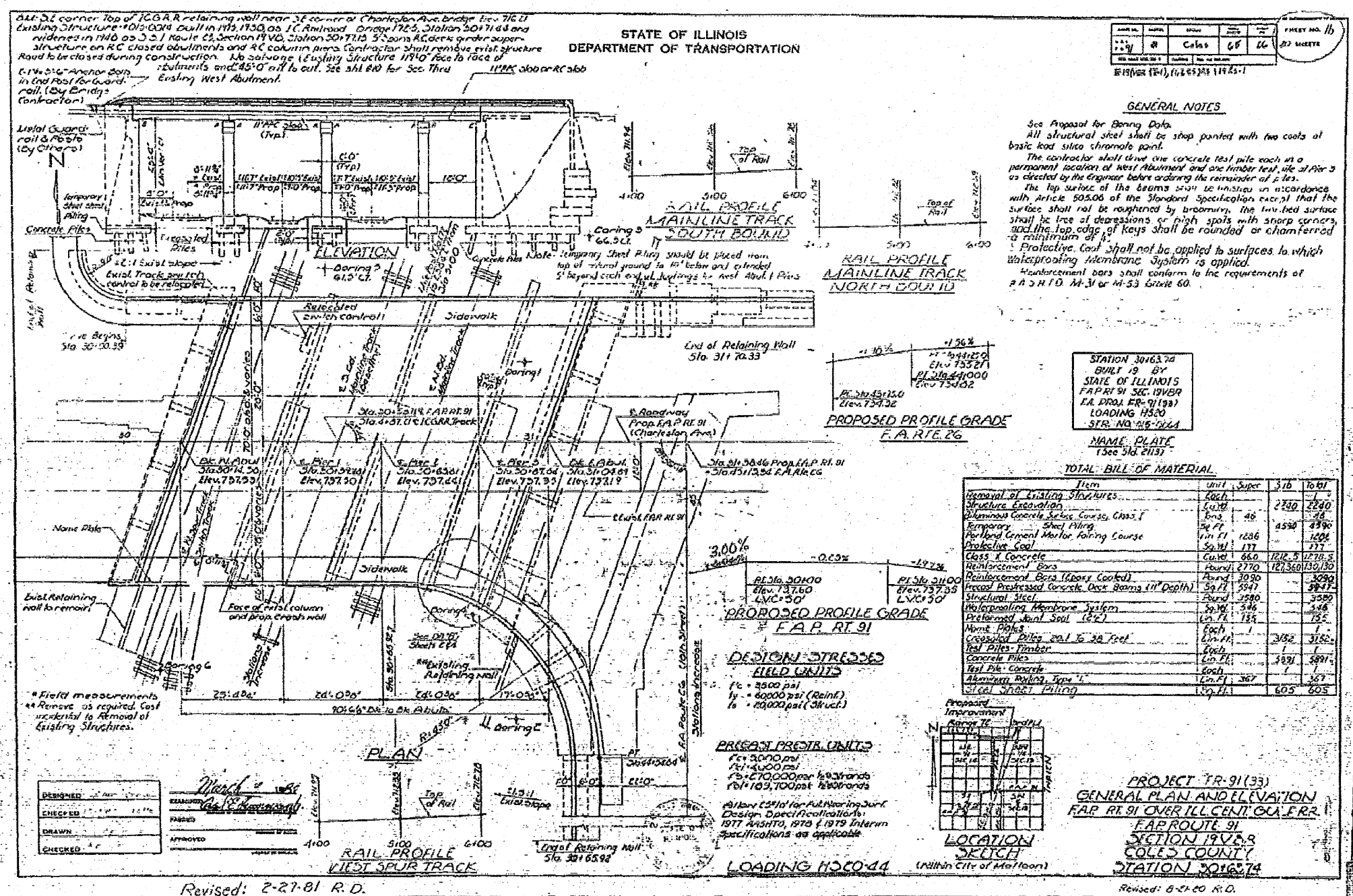
Soil Description	El.	N	Qu	W	AT	Hrs	El.	N	Qu
GRAY SANDY CLAY LOAM TILL	-50	7	1.4	13			-25		
LIMIT OF BORING	-59.9	12	2.5	13			-80		
	-60						-85		
	-65						-70		
	-70						-75		

ESCA
CONSULTANTS, INC.

DESIGNED BY:	MTD	03/09
DRAWN BY:	RJT	03/09
CHECKED BY:	MTD	03/09
APPROVED BY:	RDP	08/09

SOIL BORINGS
STRUCTURE NO. 015-0064

SHEET NO. 35 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	59
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 74149					



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NO.	DATE	BY	REVISION
1	7/31/2009	MTD	ISSUED FOR PERMIT

PROJECT NO. 116
SHEET NO. 116

GENERAL NOTES

See Proposal for Boring Data.
All structural steel shall be shop painted with two coats of basic lead silico chromate paint.
The contractor shall drive one concrete test pile each in a permanent location of West Abutment and one timber test pile at Pier 3 as directed by the Engineer before ordering the remainder of piles.
The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specifications except that the surface shall not be roughened by brooming, the finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered to a minimum of 1/4".
Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
Reinforcement bars shall conform to the requirements of A.S.T.M. A-31 or A-33 Grade 60.

STATION 30+63.74
SHEET 1-b
STATE OF ILLINOIS
F.A.P. RT. 91 SEC. 19VBR
E.A. DIST. FR. 9119A
LOADING H3CO-44
STR. NO. 015-064
NAME PLATE
(See 5th Ed. 113)

TOTAL BILL OF MATERIAL

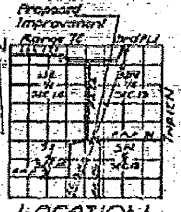
Item	Unit	Super	7/16	7/81
Removal of Existing Structures	Each		2290	2290
Structure Excavation	Cu Yd	48		
Minimum Concrete Slab Class. 1	Sq Ft	4530		4530
Temporary Sheet Piling	Sq Ft	1236		1236
Portland Cement Mortar, Fining Course	Sq Yd	177		177
Protective Coat	Sq Yd			
Class 4 Concrete	Cu Yd	660	1216.5	1278.5
Reinforcement Bars	Pounds	2770	121360	130130
Reinforcement Bars (Heavy Coated)	Pounds	3030		3030
Precast Prestressed Concrete Deck Beams (11' Depth)	Sq Ft	3547		3547
Structural Steel	Pounds	3580		3580
Waterproofing Membrane System	Sq Yd	546		546
Waterproofing Membrane Sealant (2:1)	Lbs	133		133
Work Piles	Each	1		1
Crossed Piling 20' to 30' Feet	Lin. Ft.		3152	3152
Test Piles-Timber	Each	1		1
Concrete Piles	Lin. Ft.		3831	3831
Test Pile Concrete	Each	1		1
Aluminum Piling, Type 1	Lin. Ft.	367		367
Steel Sheet Piling	Sq Ft		605	605

PROPOSED PROFILE GRADE
F.A.P. RT. 91

DESIGN STRESSES
FIELD UNITS
F_c = 3500 psi
F_y = 60000 psi (Reinf.)
F_s = 20000 psi (Struct.)

PRECAST PRESTR. UNITS
F_c = 3000 psi
F_y = 4000 psi
F_s = 17000 psi (Reinf.)
F_s = 10000 psi (Struct.)

Allow 125% for Full Working Surf.
Design Specifications: 1977 AASHTO, 1978 & 1979 Interim Specifications as applicable



PROJECT TR-91(33)
GENERAL PLAN AND ELEVATION
F.A.P. RT. 91 OVER ILL. CENT. CO. F.R.R.
F.A.P. ROUTE 91
SECTION 19VBR
COLES COUNTY
STATION 30+63.74
Revised: 8-21-80 R.D.

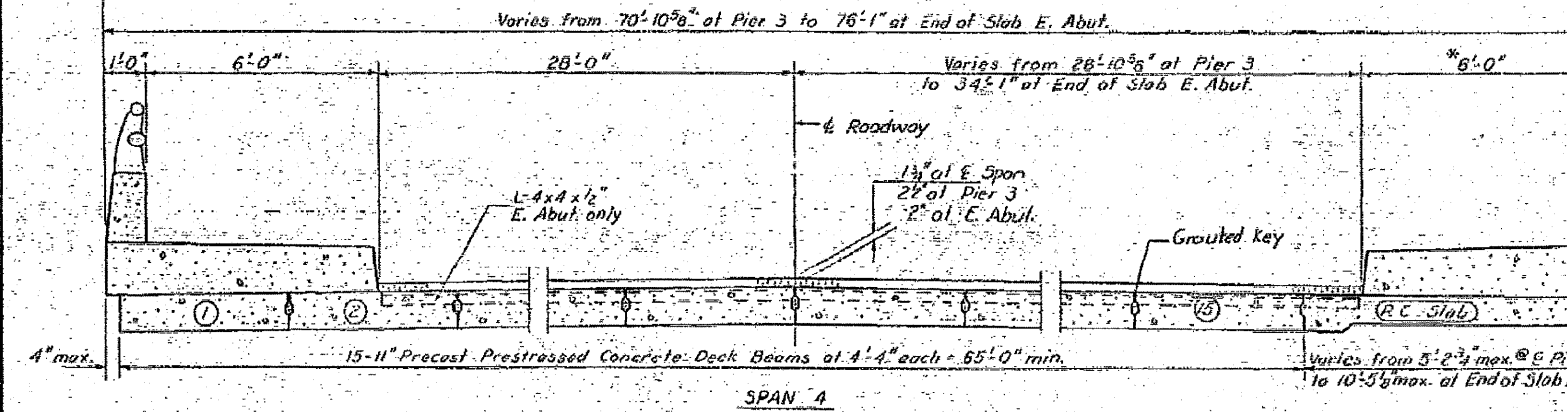
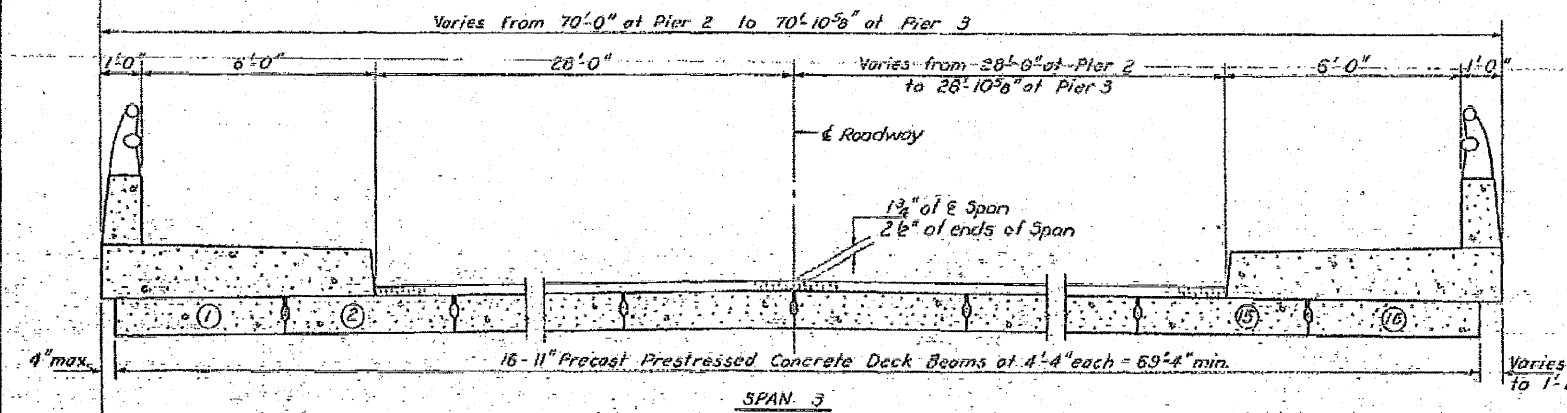
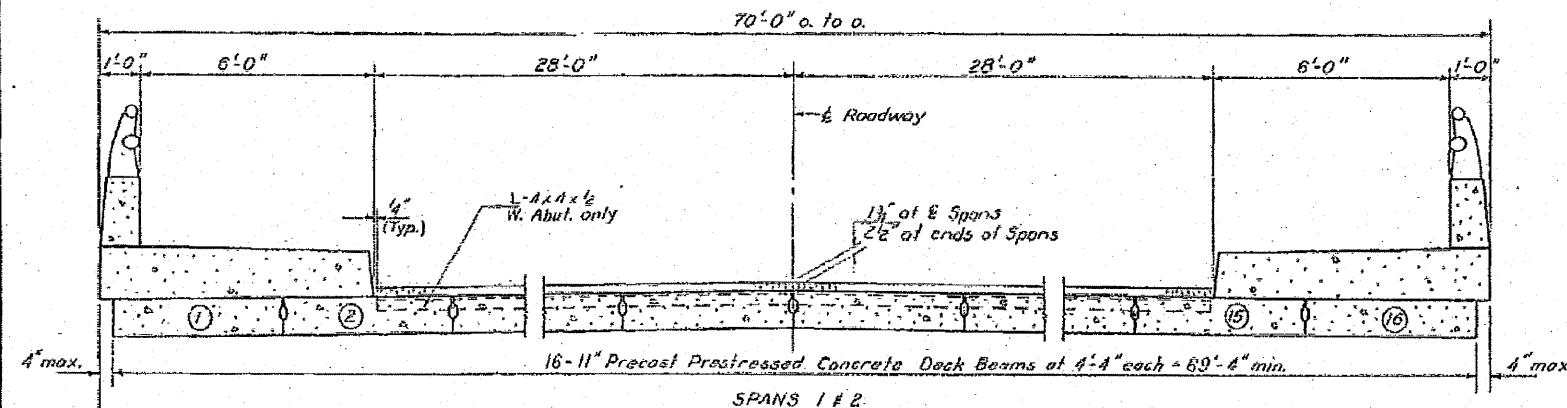
DESIGNED: MTD
CHECKED: RJT
DRAWN: MTD
APPROVED: MTD

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	DATE	SHEET NO.	TOTAL SHEETS
11	* Coles	65	21	20 SHEETS

SHEET NO. 2
20 SHEETS

* 19 (195R (I-1), (I-2 & 3) AS PER S-1

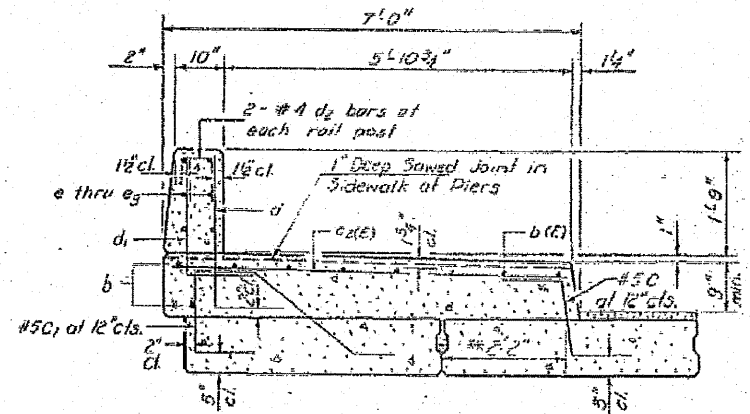


CROSS SECTIONS
(LOOKING EAST)

DESIGNED	Richard Brunette
CHECKED	Richard Brunette
DRAWN	R. P. Sumner 3/3
CHECKED	R.B.

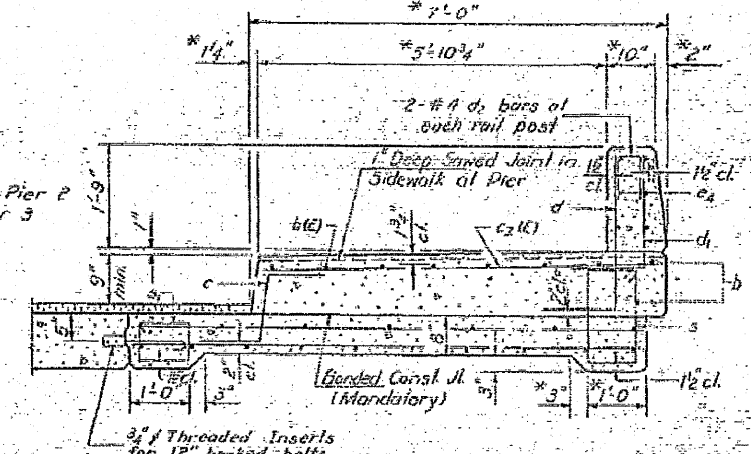
EXAMINED	Mark 3 10/80
PAGES	
APPROVED	

NOTE: Work this Sheet with Sheets 3, 4 & 5.



SECTION THRU SIDEWALK

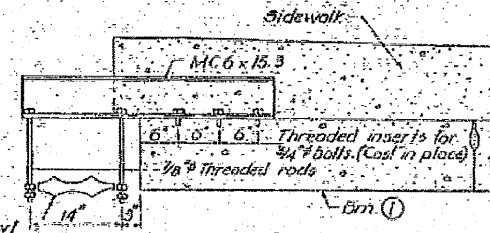
Typical except for South Sidewalk Spans 3 & 4.
* Span 3: 2'-2" for first 13'-0", then varies to 10" at end of beam.
Span 4: 10" at Pier 3, then varies to 3" at 2'-5" from Pier 3.
(Measured at outside edge of beam)



SECTION THRU SIDEWALK

South Sidewalk Span 4

* These Dimensions are Radial. All other dimensions are at Rt. L₂ to E. Roadway.



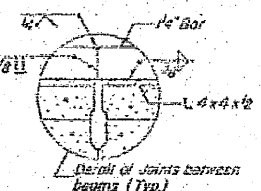
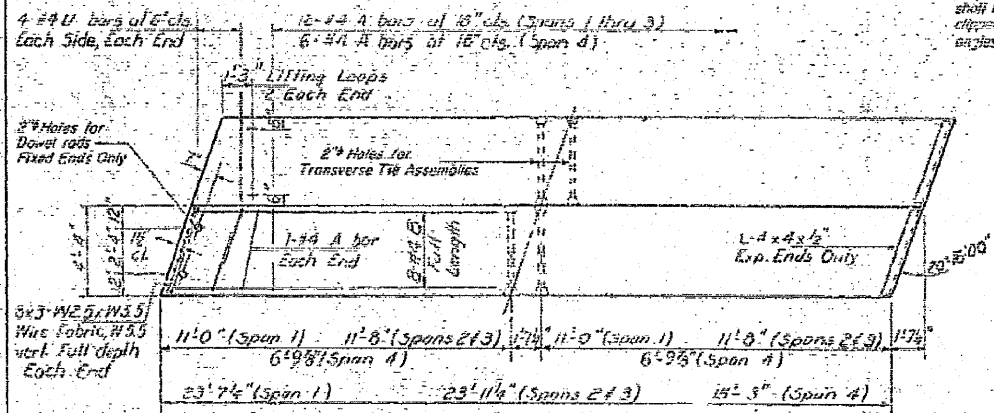
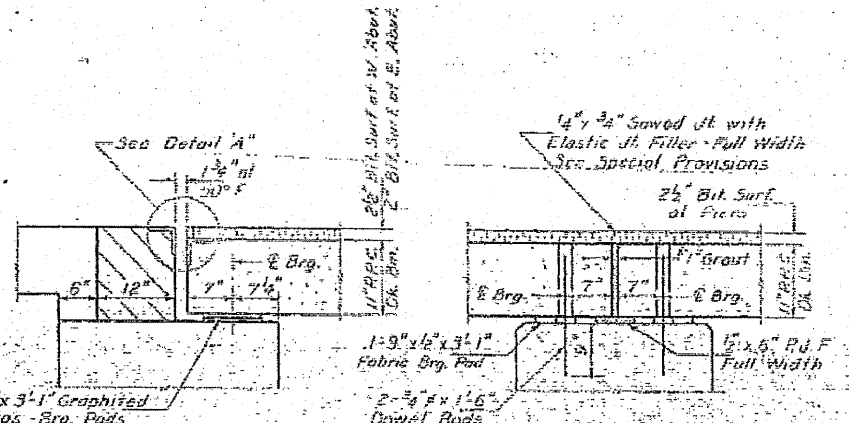
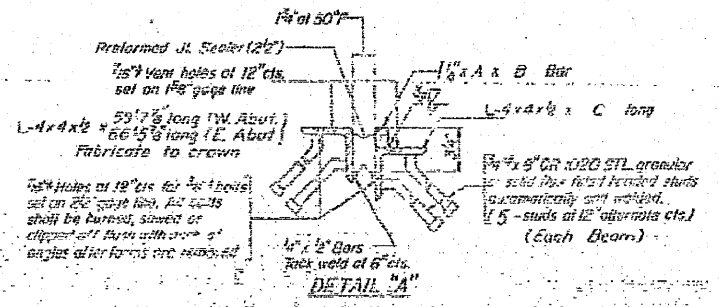
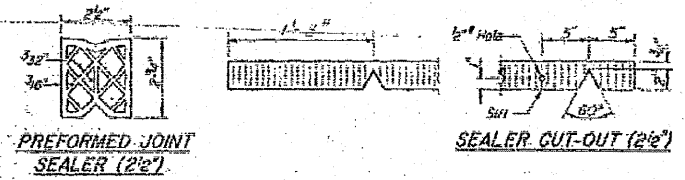
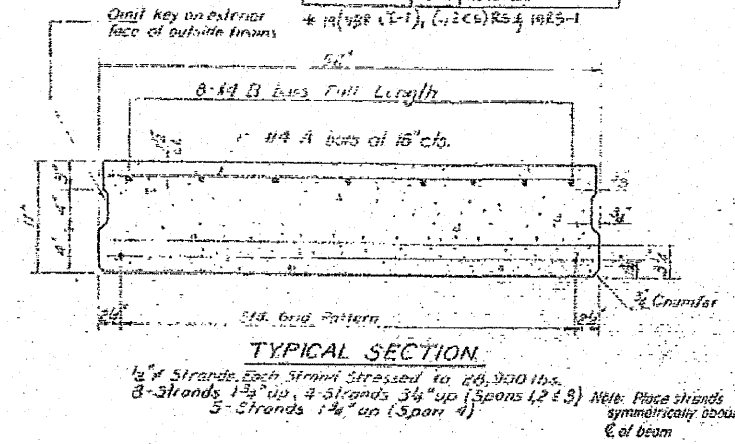
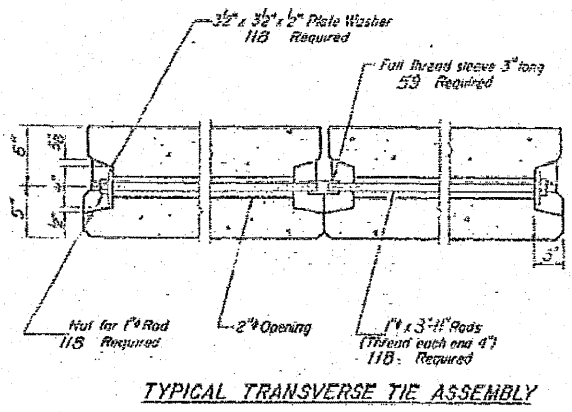
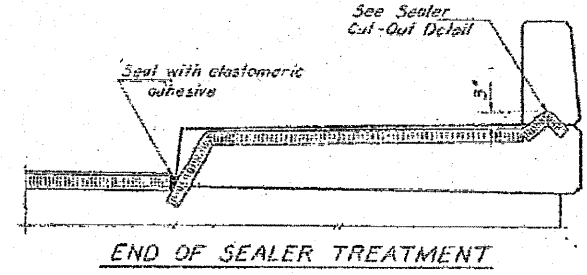
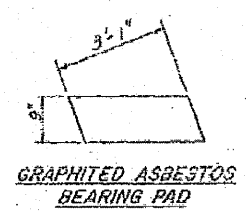
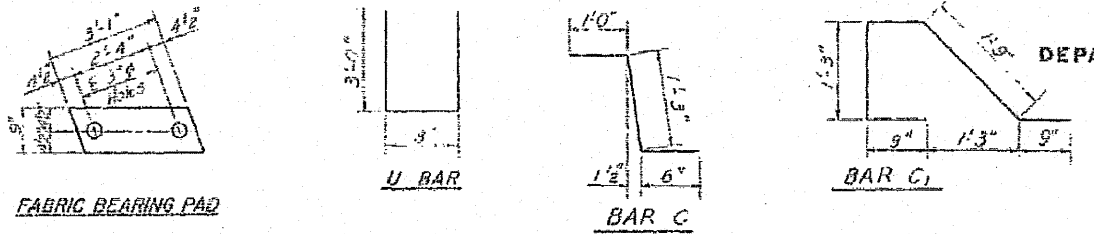
PIPE SUPPORT DETAIL

(Included in struct. sheet)
For Location see Sheet #5

SUPERSTRUCTURE
FAR RT. 91 SEC. 19VBR
COLES COUNTY
STA. 30+63.74

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Sheet No.	55	28	20 SHEETS
Project No.	* 19(VBR 1-1), (1-2C) RS 4 1983-1		



Note: Work This Shop With Sheets No. 2, 4 & 5

END PLAN

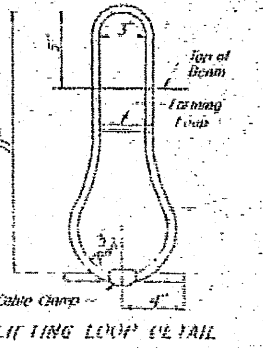
DESIGNED BY: Richard Brunette

CHECKED BY: R. P. Sumner

DATE: AUGUST 3, 2009

REVISIONS:

NO.	DESCRIPTION	DATE
1	As Shown	8/3/09



DIMENSIONS A, B, C

Beam Location	Beam	Beam B	Beam C	Beam 15	R.C. Slab
W. Abut.	A	2'-11 1/2"	4'-7 1/2"	2'-11 1/2"	
	B	2'-0 1/2"	4'-4 1/2"	2'-0 1/2"	
	C	2'-0 1/2"	4'-4 1/2"	2'-0 1/2"	
E. Abut.	A	2'-11 1/2"	4'-7 1/2"	2'-11 1/2"	
	B	2'-11 1/2"	4'-7 1/2"	2'-11 1/2"	
	C	2'-0 1/2"	4'-4 1/2"	2'-0 1/2"	

NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 7/16" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 1/2" diameter, G-25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 21,000 lbs. The 7/16" rods in the transverse tie assembly shall be fabricated in a way to avoid the thread set. Rods that receive transverse tie on outside shall be fitted with girth after transverse tie assembly is in place. Longitudinal shear keys shall be packed with a very dry mix of 2-1 sand and PC mortar. Any holes from both concrete, holes for the dowel anchors shall be drilled with the sub-structure and the anchor dowels shall be grouted in place. Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53, Grade 60.

Plans of construction and reinforcement shall show the location of bearing stiffeners, if any are used, and of grouting in precast concrete keys as included in and shown on the "Precast Concrete" sheets of this project.

BILL OF MATERIAL

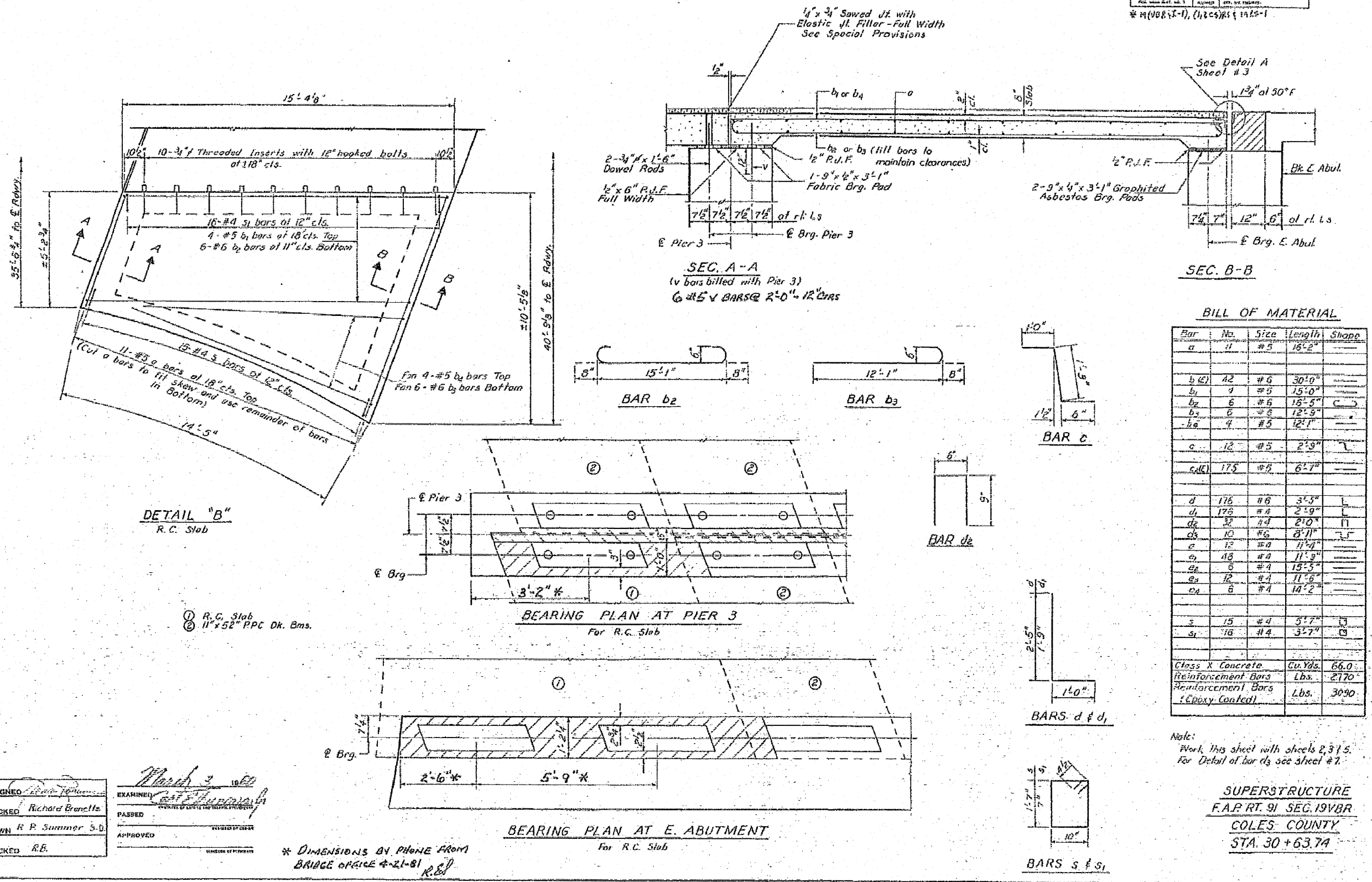
Bar	No.	Size	Length	Shape
Precast Prestressed Concrete Deck Slabs (11')			59.47'	

SUPERSTRUCTURE
F.A.P. RT. 91 SEC. 19VBR
COLES COUNTY
STA. 30+63.74

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	DATE	SHEET NO.	TOTAL SHEETS
91	19	COLES	65	29

SHEET NO. 4
20 SHEETS



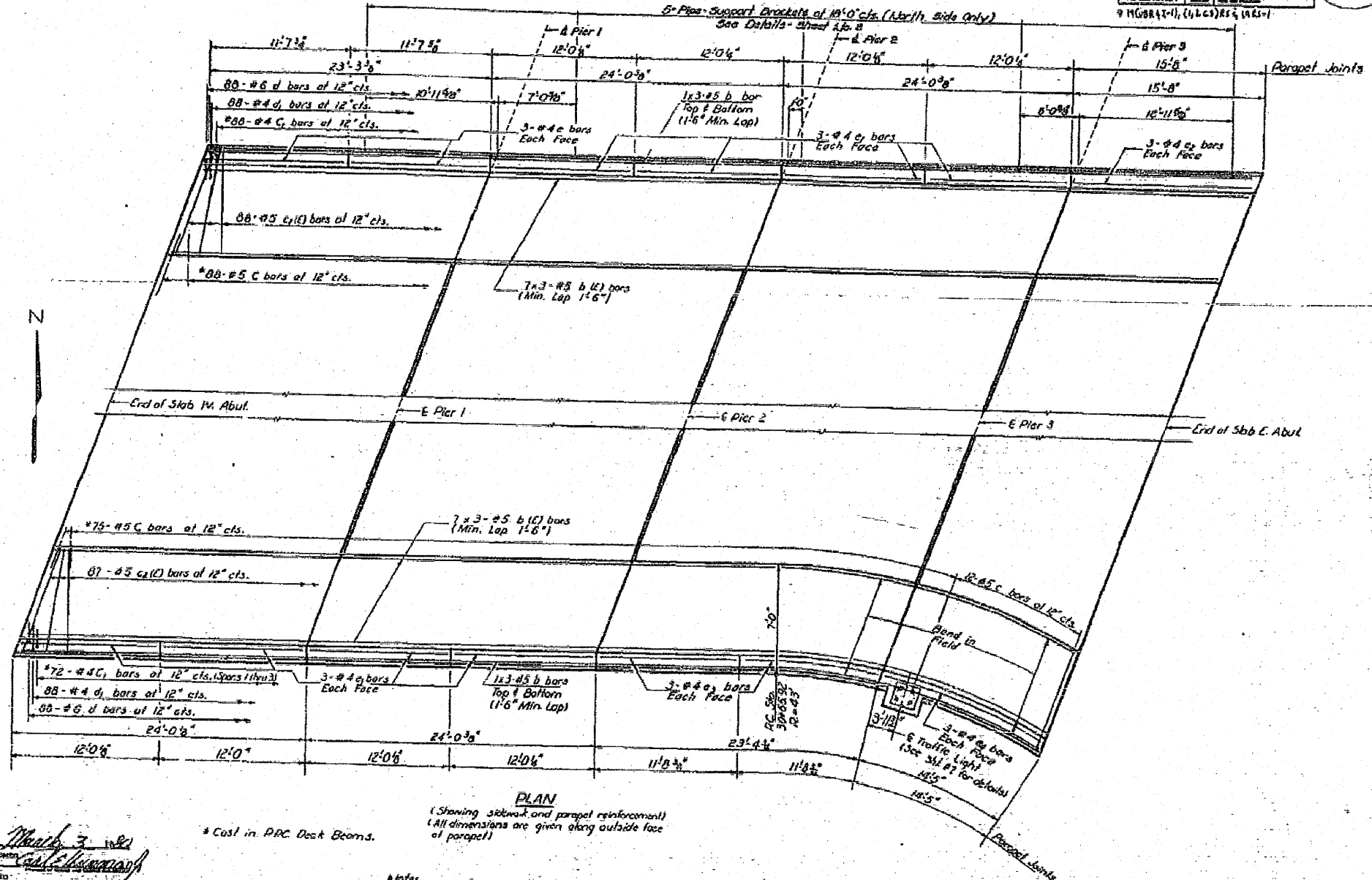
DESIGNED: [Signature]
CHECKED: Richard Brunetta
DRAWN: R. R. Summer S-B
CHECKED: R.B.

EXAMINED: [Signature]
PASSED:
APPROVED: [Signature]

* DIMENSIONS BY PHONE FROM
BRIDGE OFFICE 4-21-81
R.B.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE	NO.	BY	REVISION
11/11/09	1	MTD	ISSUED FOR PERMITS
11/11/09	2	MTD	REVISED PER COMMENTS
11/11/09	3	MTD	REVISED PER COMMENTS
11/11/09	4	MTD	REVISED PER COMMENTS
11/11/09	5	MTD	REVISED PER COMMENTS



PLAN

(Showing sidewalk and parapet reinforcement)
(All dimensions are given along outside face of parapet)

* Cast in PRC Deck Beams.

Notes
Work This Sheet With Sheets Nos. 5, 3, 4

DESIGNED	MTD	DATE	11/11/09
CHECKED	Richard Brunette	DATE	11/11/09
DESIGNED	R. P. Summer, J.B.	DATE	11/11/09
CHECKED	RB	DATE	11/11/09

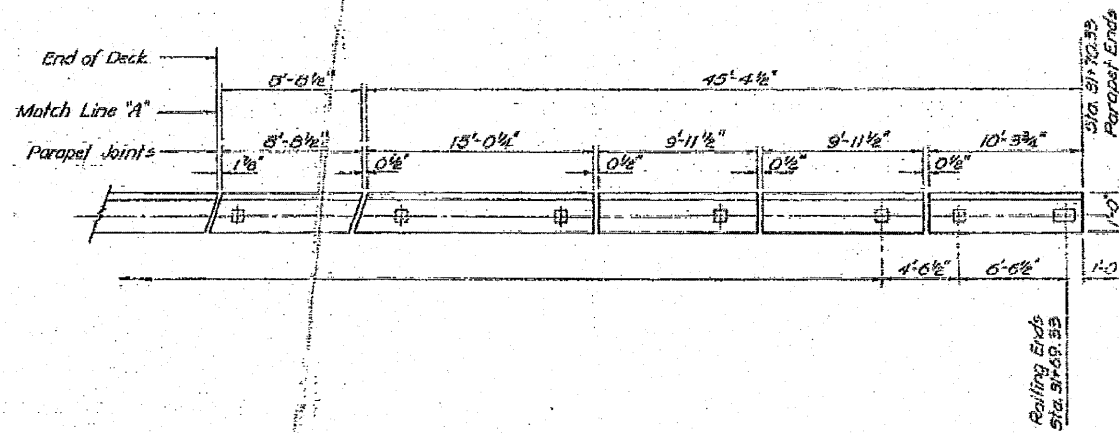
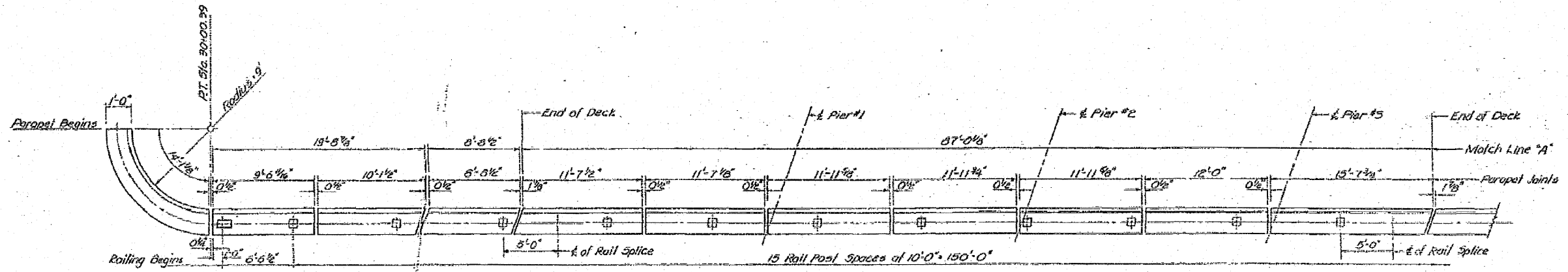
Revised: 2-27-01 R.D.

SUPERSTRUCTURE
RAP RISE SEC OVER
COLES COUNTY
STA 3016374

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ACCT. NO.	SECTION	POSTMILE	SHEET NO.	TOTAL SHEETS	SHEET NO.
19	19VBR	25	31	20	6

* 19 (VBR & X-1), (1, 2 & 5) 25 & 1985-1



Notes:
For Type 'L' Aluminum Railing & Rail Terminal Sections, See Sheet #8.
For Typical Parapet Joint Detail, See Sheet #7.
For Parapet Reinforcement and Dimensions, See Sheet #2.
For Detail of Rail Splice, See Sheet #5.

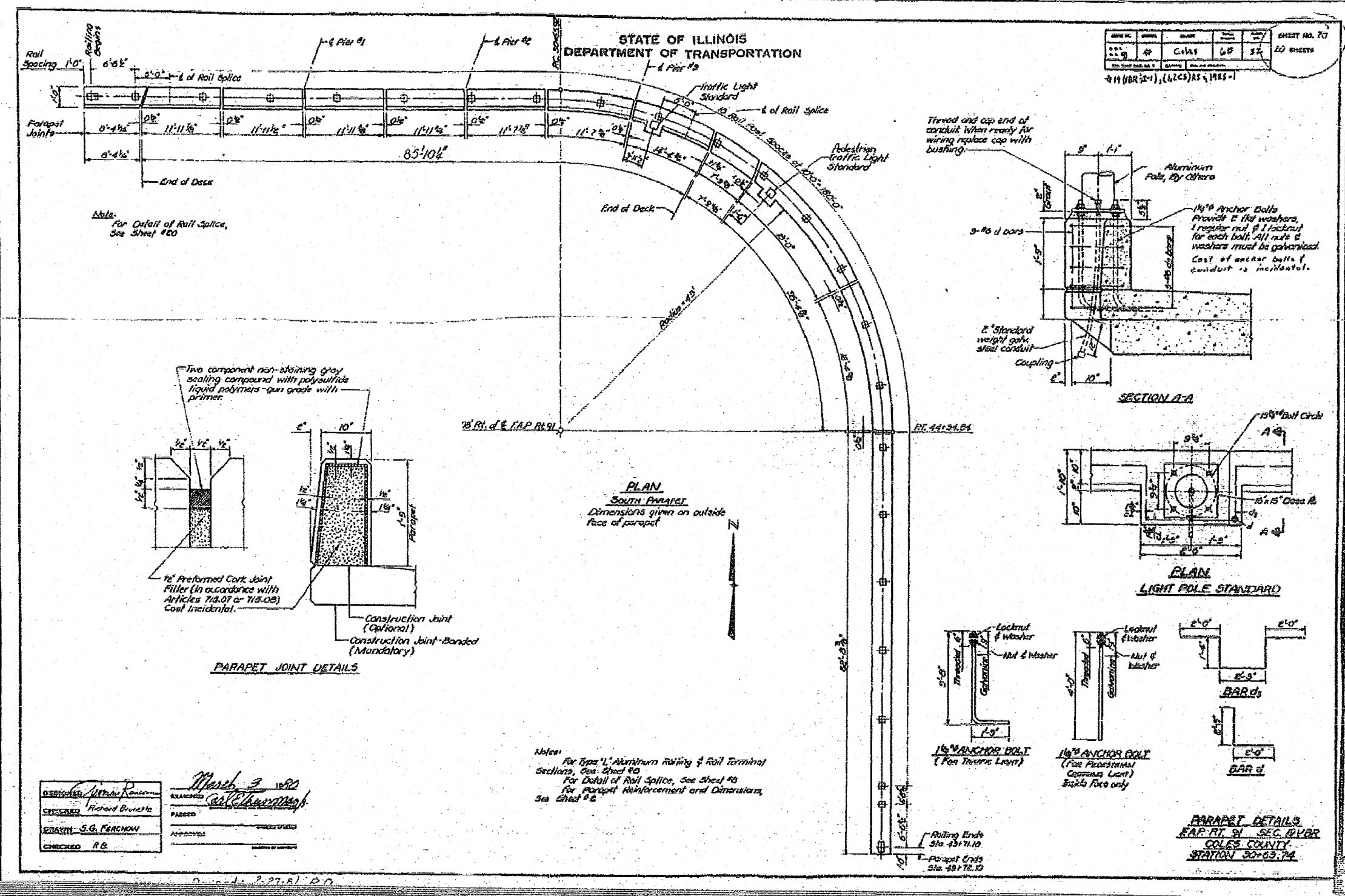
DESIGNED: *[Signature]*
CHECKED: Richard Brunette
DRAWN: S.G. FERCHOW
CHECKED: R.B.

EXAMINED: *[Signature]*
PASSED
APPROVED: *[Signature]*

March 3, 1980

PARAPET DETAILS
F.A.P. RT. 91 SEC. 19VBR
COLES COUNTY
STATION 30+63.74

SHEET 7-2



NO.	DATE	BY	REVISION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

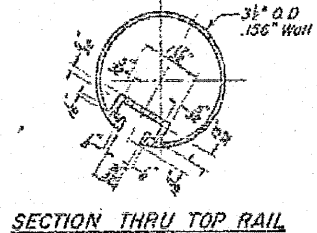
SHEET NO. 70
20 SHEETS

411 (BR 30-1), (LCS) AS 1, HRE-1

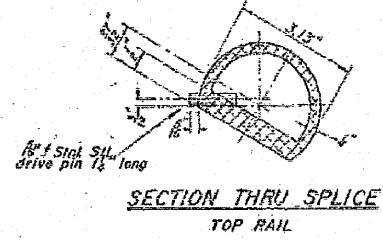
DESIGNED	MTD	DATE	March 3, 2009
DRAWN	RJT		
CHECKED	MTD		
APPROVED	S.G. PEACHON		
CHECKED	R.B.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

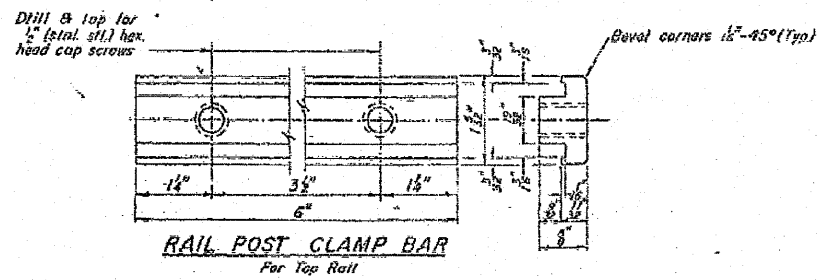
NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	SHEET NO. 8
					20 SHEETS
COLES 65 25 RAIL POST CLAMP BAR 1985-1					



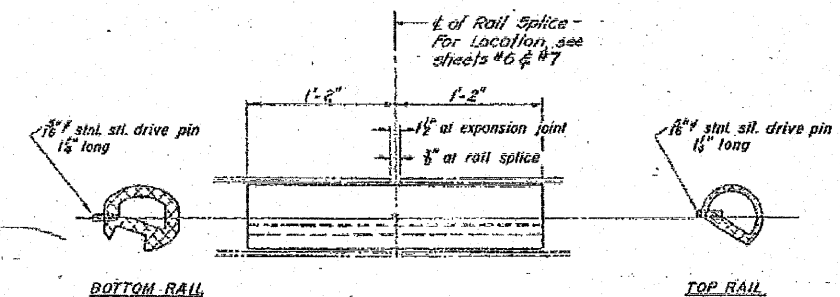
SECTION THRU TOP RAIL



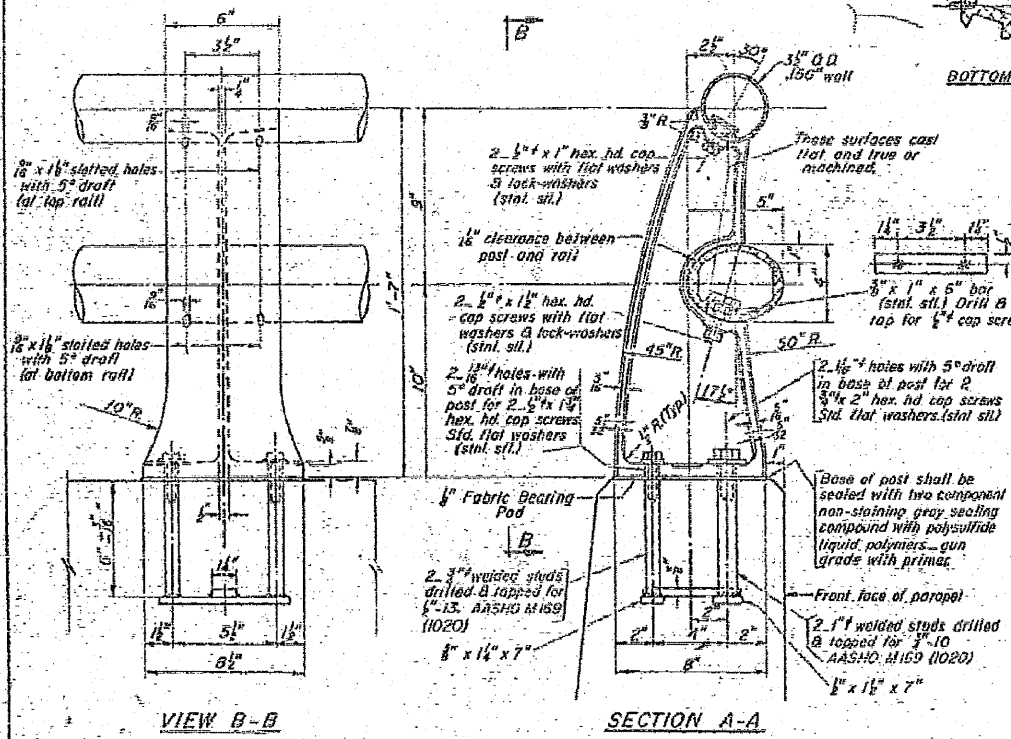
SECTION THRU SPLICE
TOP RAIL



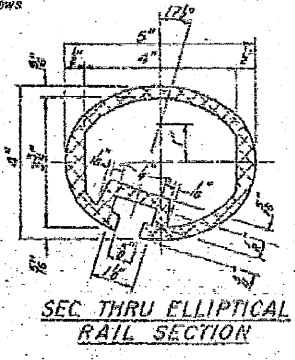
RAIL POST CLAMP BAR
For Top Rail



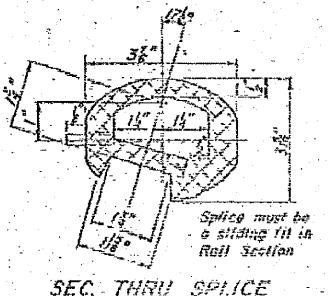
RAIL SPLICE



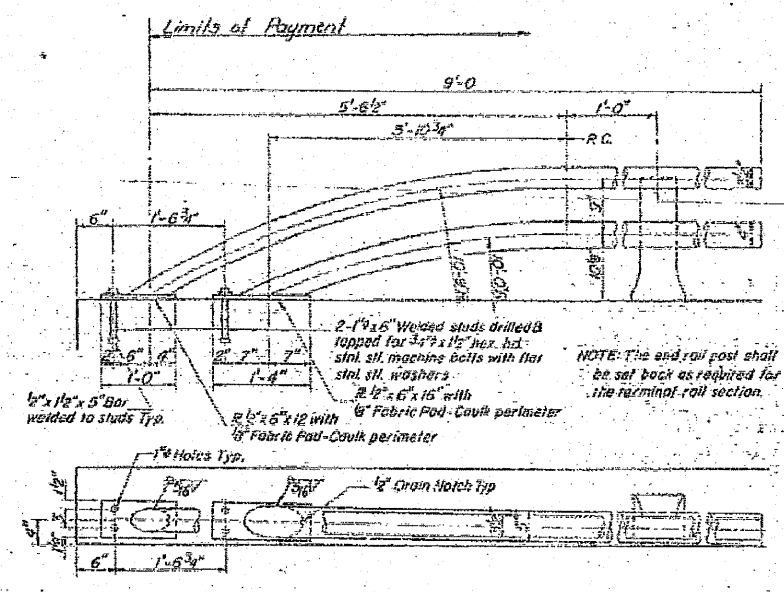
RAIL POST DETAILS



SEC THRU ELLIPTICAL
RAIL SECTION



SEC THRU SPLICE



RAIL TERMINAL SECTION

NOTES:
 All Posts shall be normal to parapet.
 All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.
 All joints in rail shall be spliced per detail.
 Provide 1-8" and 2-1/8" Aluminum Shimms for 25% of the Posts. Rail elements shall be parallel to grade - High spots shall be ground and low spots shimmed.
 Railing shall be in accordance with Section 509 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per linear foot for ALUMINUM RAILING, TYPE L.
 Aluminum alloy rail shall conform to ASTM B 221 alloy 6061-T6 or 6351-T5 with min. yield 35 ksi, min. tensile 58 ksi, and elongation of 10% in 2 inches.

BILL of MATERIALS

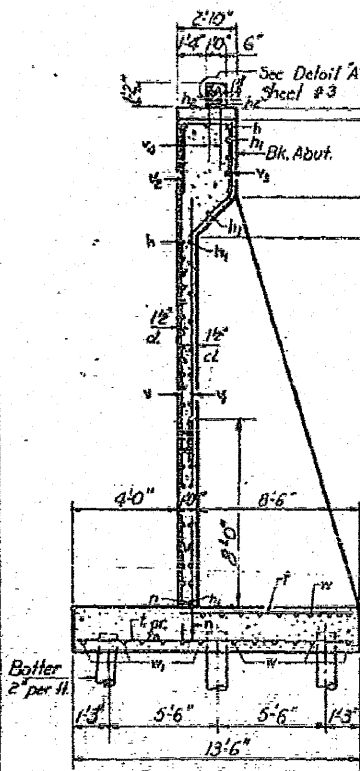
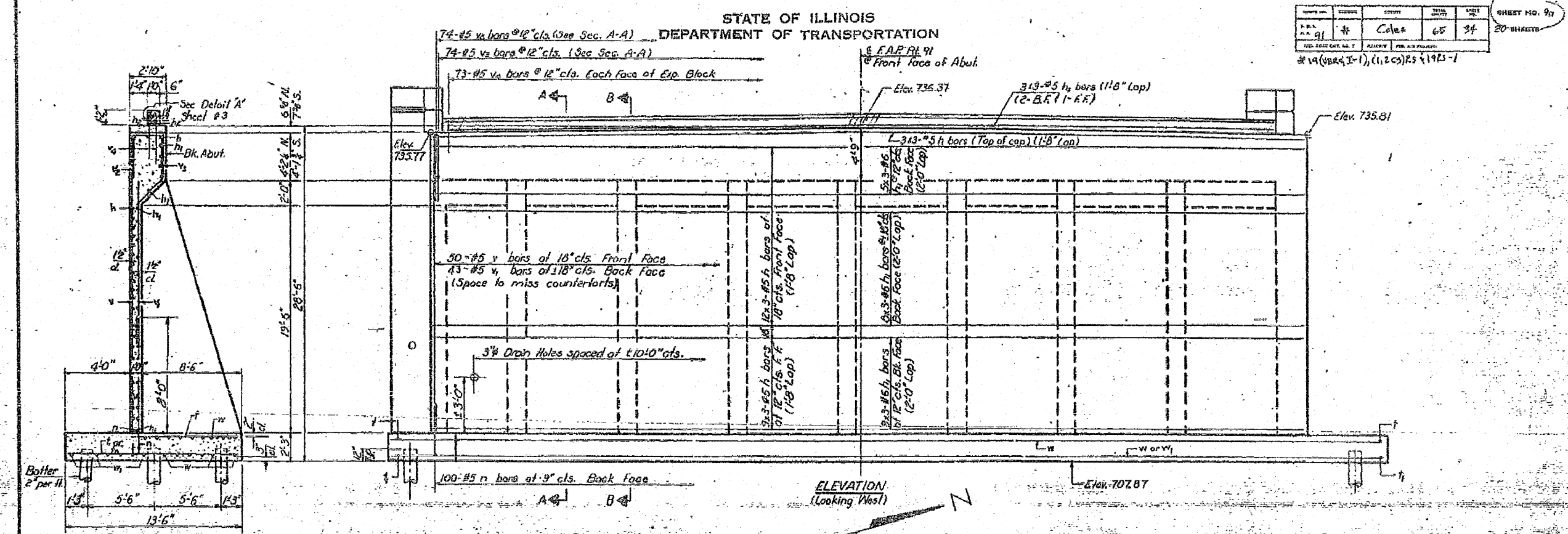
Item	Unit	Quantity
ALUMINUM RAILING, TYPE L	L/ln. R.	367

TYPE L
 ALUMINUM RAILING
 F.A.P. RT. 91 SEC. 19VBR
 COLES COUNTY
 STATION 30+63.74

DESIGNED: *[Signature]*
 CHECKED: *[Signature]*
 DRAWN: S.G. FRENCH
 DATE: March 3, 1980
 EXAMINED: *[Signature]*
 APPROVED: *[Signature]*

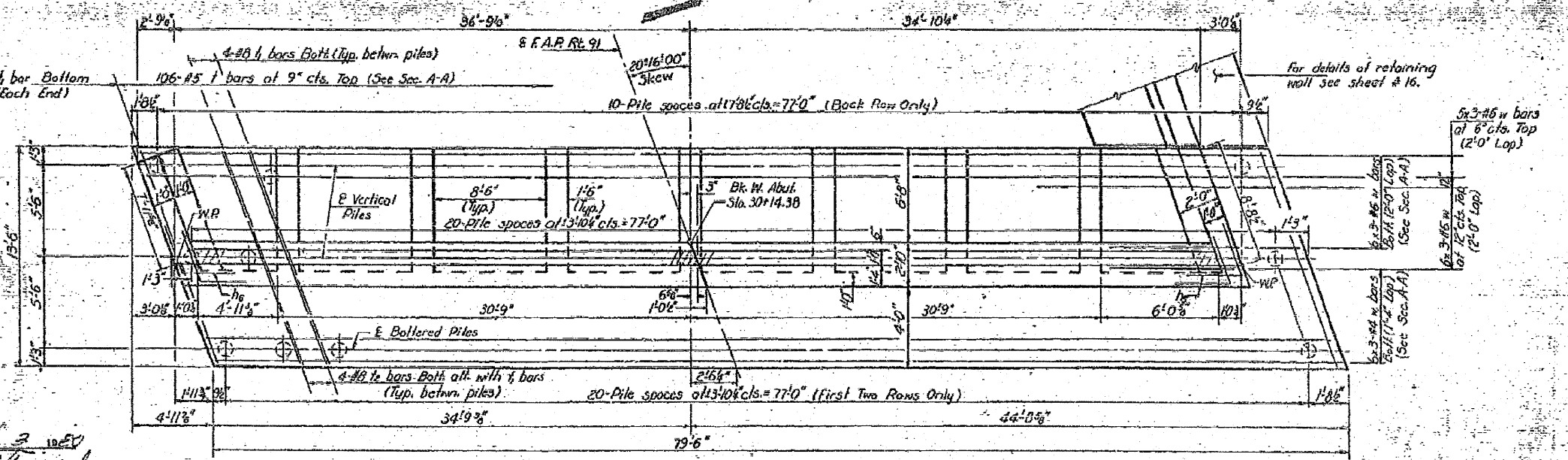
R-20 4-15-77

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 9-a
20-08AETS					
DATE	SCALE	PROJECT	# 19 (VBR&I-1), (1,2CS) R5 4193-1		
9/1					
9/1					



SECTION A-A

PILE DATA
 Type: Concrete
 Capacity: 45 Tons
 Est. Length: 52'
 No. Required: 52 + 1 test pile driven in a permanent location



PLAN

DESIGNED: [Signature]
 CHECKED: Richard Brunette
 DRAWN: A. Joly
 CHECKED: R.B.

EXAMINED: [Signature]
 PASSED: [Signature]
 APPROVED: [Signature]

Notes:
 For remainder of abutment details and Bill of Material see sheet # 10.
 Hatched area to be poured after beams are in place. Quantity of Class X Concrete billed with superstructure.
 Bars indicated thus 5x3 etc. indicates 5 lines of bars with 3 lengths per line.

WEST ABUTMENT
 E.A.P.R.T. 91 SEC. 19 VBR
 COLES COUNTY
 STA. 30+63.74

Revised: 8-21-80 R.D.

SHEET NO. 10 a	NO. SHEETS	65	35
20 SHEETS			

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

End Post shall be poured after bridge parapet is in place. Form top surface to match parapet grade.

VIEW C-C
WING WALL ELEVATION
SECTION B-B
SECTION D-D
BAR d₃
BAR v₂ and d₂
BAR v₃
BAR h₁
BARS v₈ & v₉

SEC. THRU EXIST. W. ABUT.
(For Information Only)

**WEST ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d ₃	4	#4	2'-1"	F
h ₁	72	#3	25'-11"	
h ₁	66	#6	26'-2"	
h ₂	9	#5	25'-2"	
h ₃	77	#5	6'-5"	
h ₄	70	#5	11'-3"	
h ₅	52	#5	1'-0"	
h ₆	52	#5	1'-0"	
h ₇	52	#5	9'-10"	
h ₈	52	#5	9'-1"	
h ₉	12	#5	8'-8"	
h ₁₀	12	#5	7'-8"	
h ₁	100	#5	5'-5"	
h ₁	34	#10	9'-4"	
v ₁	106	#5	10'-0"	
v ₂	82	#8	14'-7"	
v ₃	80	#8	3'-9"	
v ₄	58	#5	25'-6"	
v ₁	43	#5	20'-6"	
v ₂	14	#5	8'-7"	
v ₃	74	#5	6'-2"	
v ₄	146	#5	3'-8"	
v ₅	21	#10	27'-10"	
v ₆	14	#10	18'-0"	
v ₇	42	#5	31'-8"	
v ₈	18	#5	29'-4"	
v ₉	52	#8	9'-8"	
v ₁₀	18	#6	12'-6"	
w	51	#6	27'-10"	
w	18	#4	27'-4"	
Class X Concrete	Cu yd		256.9	
Reinforcement Bars	Pound		29,200	
Concrete Piles	Lm Ft.		2736	
Test Piles Concrete	Each		1	

*** Changed from original length

**WEST ABUTMENT
DETAILS
E.A.P. RES. SEC. 19 VER.
COLES COUNTY
STA. 30+63.74**

Revised: 8-21-80 R.D.

DESIGNED: *Richard Brunetta* March 3, 1980
 CHECKED: Richard Brunetta
 DRAWN: R. Daly
 CHECKED: R.B.

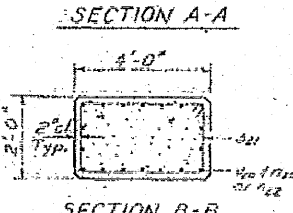
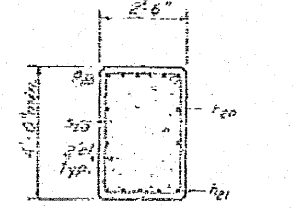
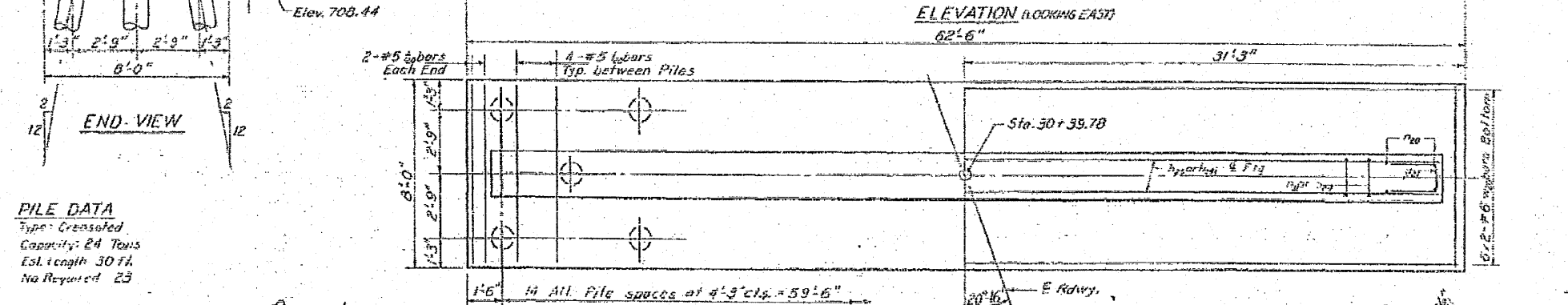
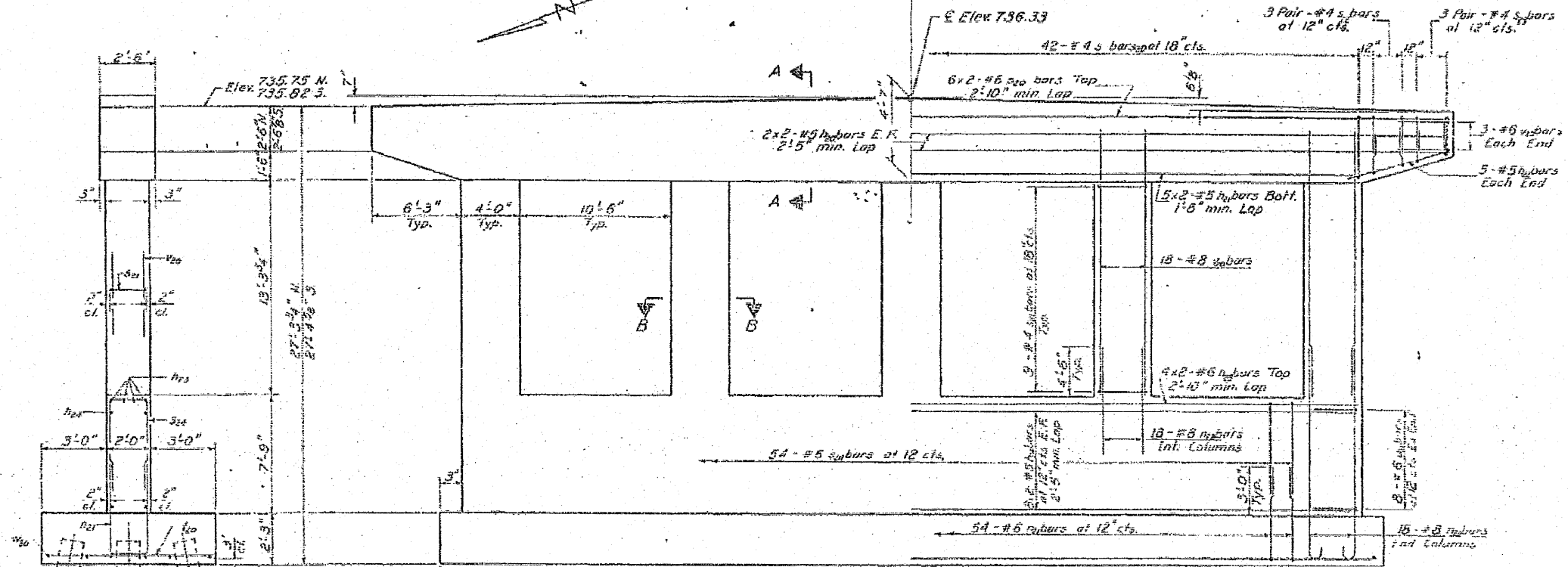
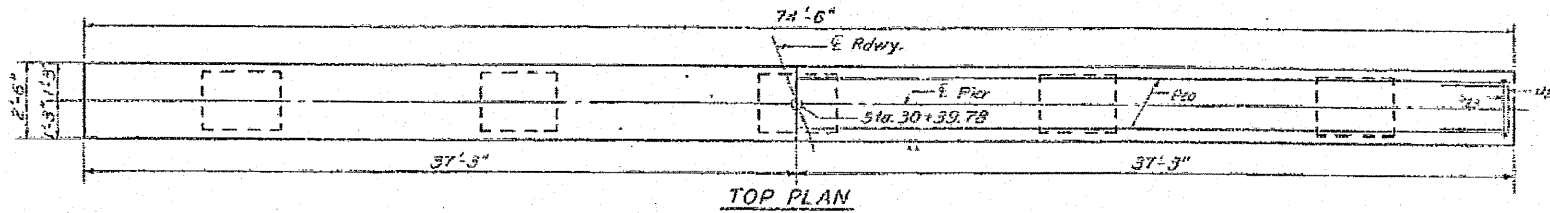
EXAMINED: *Case E. Thompson*
 PASSED:
 APPROVED:
 SUPERVISOR OF PROJECTS

All edges shall have standard 1/4" chamfers except as noted.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NO.	REV.	DATE	BY	DESCRIPTION	SHEET NO.	TOTAL SHEETS
1					20	20

20 SHEETS



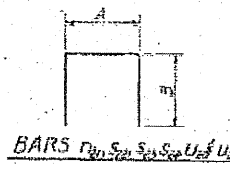
PILE DATA
Type: Crenelated
Capacity: 24 Tons
Est. length 30 ft.
No. Required 23

DESIGNED: *[Signature]*
CHECKED: Richard Brantle
DRAWN: R. P. Sumner
CHECKED: R.G.
EXAMINED: *[Signature]*
APPROVED: *[Signature]*
DATE: March 3, 1980

BILL OF MATERIAL

Bar	No.	Size	Length	Notes
F20	3	#5	38'-1"	
F21	10	#5	31'-9"	
F22	10	#5	6'-6"	
F23	2	#5	32'-0"	
F24	22	#5	32'-0"	
F25	36	#5	13'-0"	
F26	54	#5	11'-0"	
F27	54	#5	7'-2"	
F28	12	#6	35'-7"	
S26	22	#4	12'-5"	
S27	45	#4	11'-5"	
S28	12	#4	7'-6"	
S29	18	#4	6'-10"	
S30	54	#4	14'-8"	
S31	60	#5	7'-9"	
U20	6	#6	8'-1"	
U21	16	#6	7'-7"	
U22	90	#5	16'-9"	
U23	12	#6	32'-0"	

CLASS A CONCRETE 14,100 120-1
REINFORCEMENT STEEL 115 13600
CRENELATED PILES 23 6.97
TOTAL 15.04



A & B DIMENSIONS

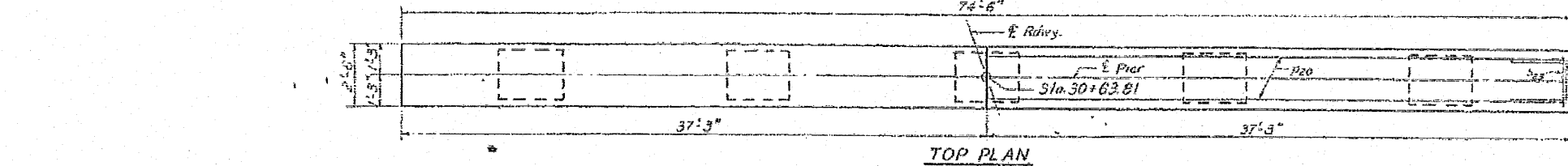
Bar	A	B
F20	1'-0"	1'-0"
F21	2'-0"	2'-0"
F22	2'-0"	2'-0"
F23	2'-0"	2'-0"
F24	2'-0"	2'-0"
F25	2'-0"	2'-0"
F26	2'-0"	2'-0"
F27	2'-0"	2'-0"

PIER 1
E.A.P. RT. 91 SEC 19VBR
COLES COUNTY
STA. 30+63.74

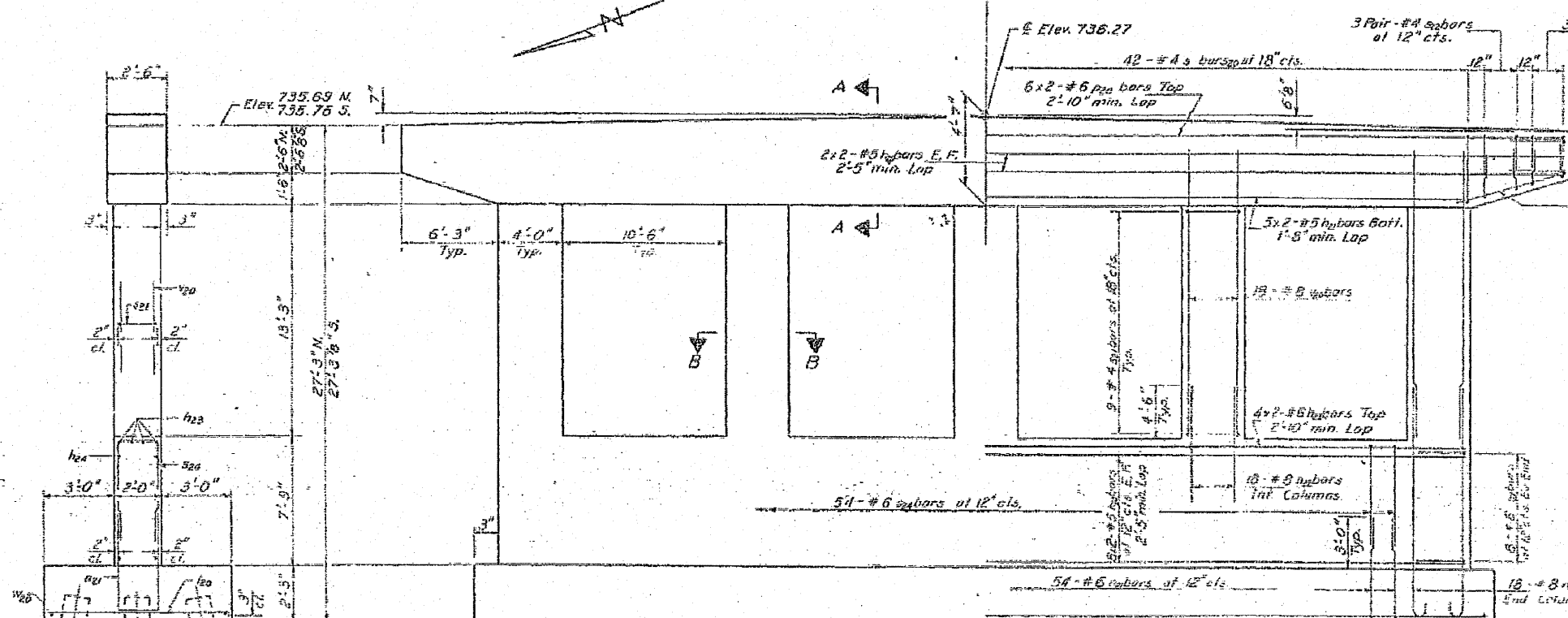
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

NO.	REV.	DATE	BY	DESCRIPTION
1				
2				
3				
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16				
17				
18				
19				
20				

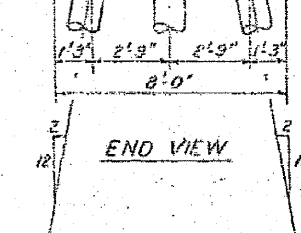
All sizes shall have standard 1/4 chamfers except as noted



TOP PLAN



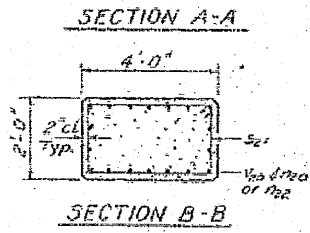
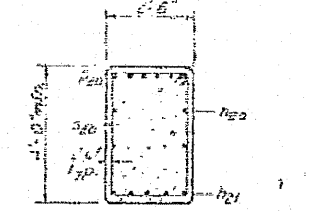
ELEVATION (LOOKING EAST)



END VIEW

PILE DATA
Type - Cressed
Capacity - 24 Tons
Est. Length 30 ft.
No. Required - 23

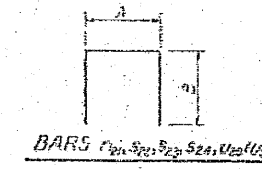
DESIGNED	EXAMINED
CHECKED	PASSED
DRAWN	APPROVED
CHECKED	



BILL OF MATERIAL

NO.	SIZE	QTY.	REMARKS
122	8	4	32'-4"
123	10	4	31'-9"
124	10	4	31'-6"
125	8	4	32'-4"
126	32	4	32'-4"
127	36	4	15'-2"
128	54	4	11'-8"
129	54	4	7'-2"
130	12	4	38'-7"
131	42	4	7'-2"
132	45	4	11'-2"
133	48	4	7'-6"
134	12	4	6'-10"
135	34	4	14'-8"
136	30	4	7'-8"
137	6	4	8'-1"
138	16	4	7'-7"
139	30	4	16'-3"
140	12	4	32'-4"

Class A Concrete, Cn. 40, 100.1
Reinforcing Bars, Lbs. 13660
Cressed Piles 201 to 100 ft. 690
30 Feet



A/B DIMENSIONS

Bar	A	B
122	7'-8"	1'-6"
123	7'-8"	1'-6"
124	7'-8"	1'-6"
125	7'-8"	1'-6"
126	7'-8"	1'-6"
127	7'-8"	1'-6"
128	7'-8"	1'-6"
129	7'-8"	1'-6"
130	7'-8"	1'-6"
131	7'-8"	1'-6"
132	7'-8"	1'-6"
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134	7'-8"	1'-6"
135	7'-8"	1'-6"
136	7'-8"	1'-6"
137	7'-8"	1'-6"
138	7'-8"	1'-6"
139	7'-8"	1'-6"
140	7'-8"	1'-6"

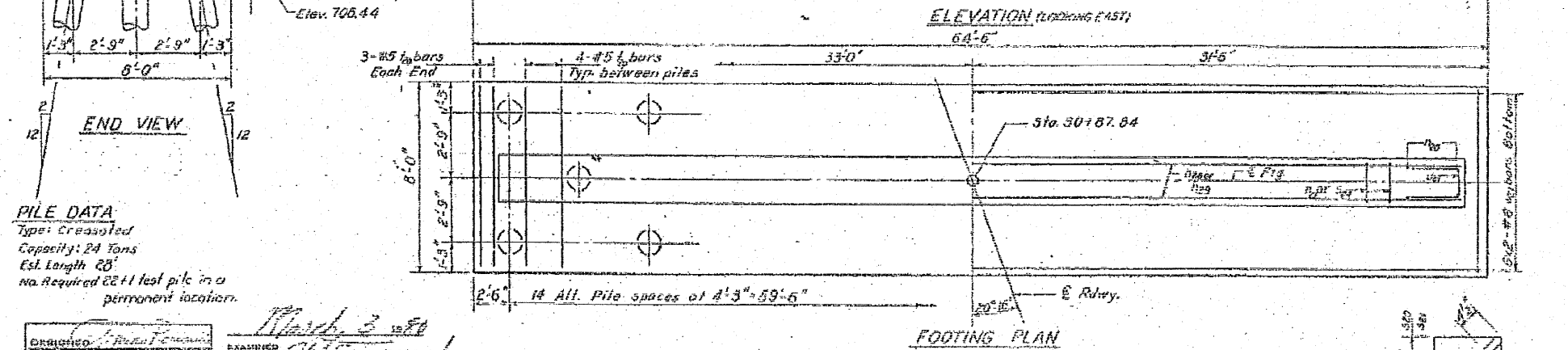
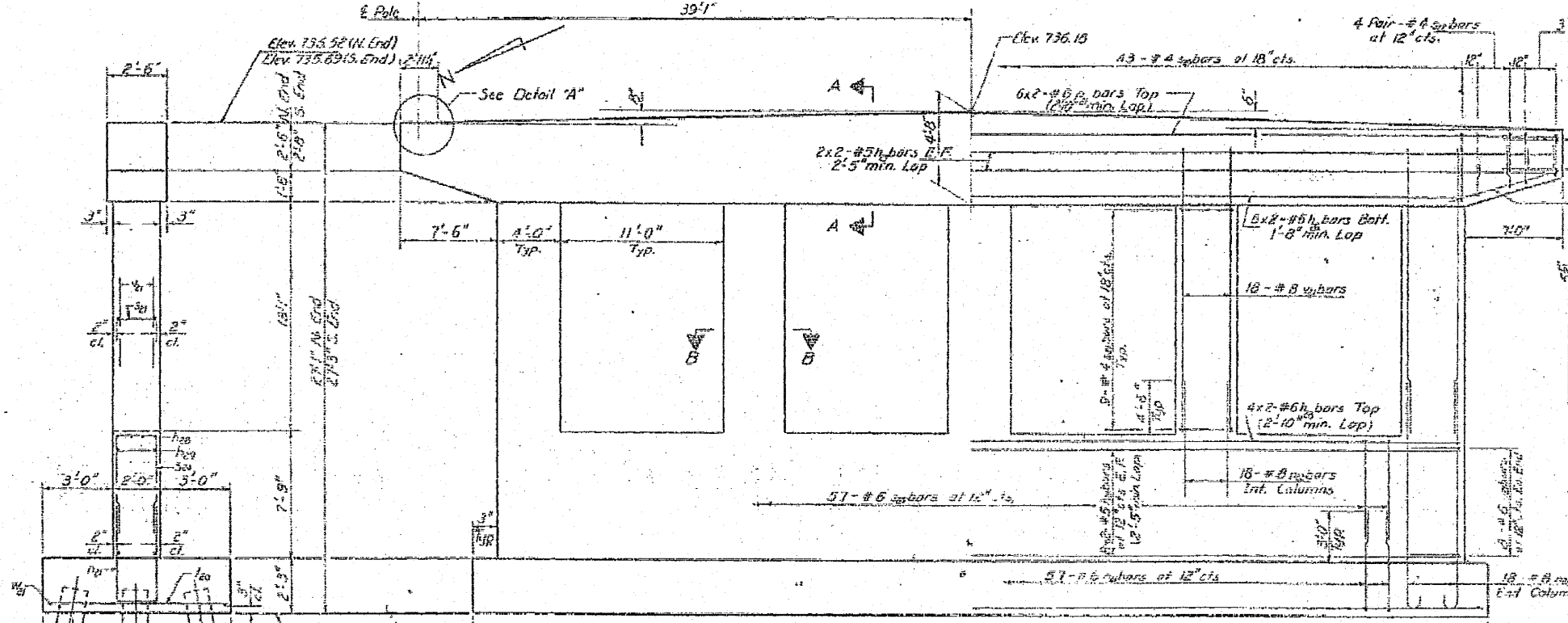
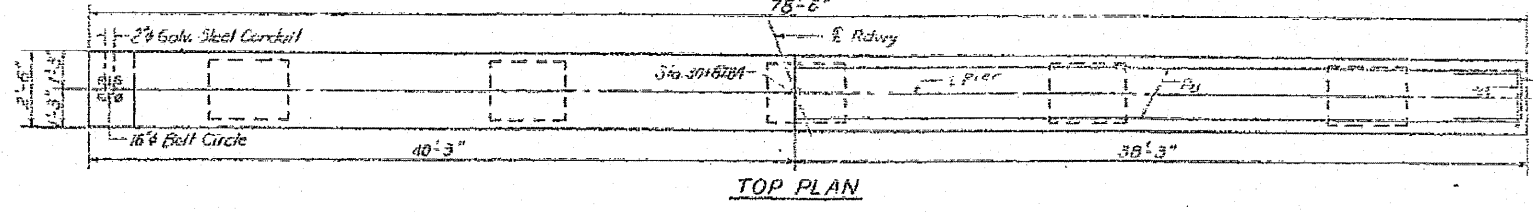
PIER 2
F.A.P. RT91 SEC. 19VBR
COLES COUNTY
STA. 30+63.74

NOTES:
All edges shall have standard 4" chamfers except as noted.
Bars indicated thus 6x2-#6 etc. indicates 6 lines of bars with 2 lengths per line.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

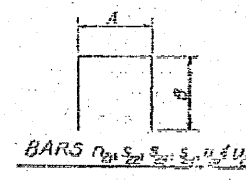
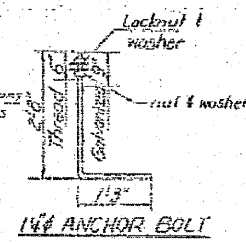
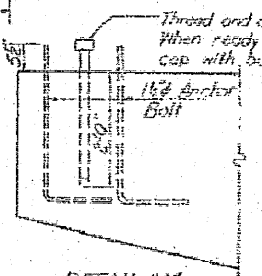
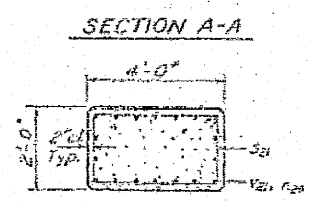
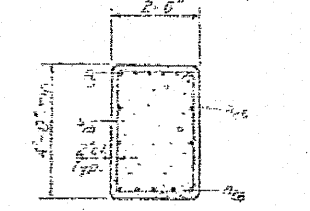
NO.	REV.	DATE	BY	CHKD.
1				

COLES L5 38 80 SHEETS



FILE DATA
Type: Created
Capacity: 24 Tons
Est. Length: 28'
No. Required: 22 (1 test pile in a permanent location)

DESIGNED: [Signature]
CHECKED: [Signature]
DRAWN: R. D. [Signature]
CHECKED: R.B.
EXAMINED: [Signature]
PASSED: [Signature]
APPROVED: [Signature]



A & B DIMENSIONS

Bar	3	4
Bar	1.2	1.0
Bar	2.2	2.0
Bar	2.2	2.0
Bar	1.0	1.0
Bar	2.7	3.0
Bar	1.7	3.0

BILL OF MATERIAL

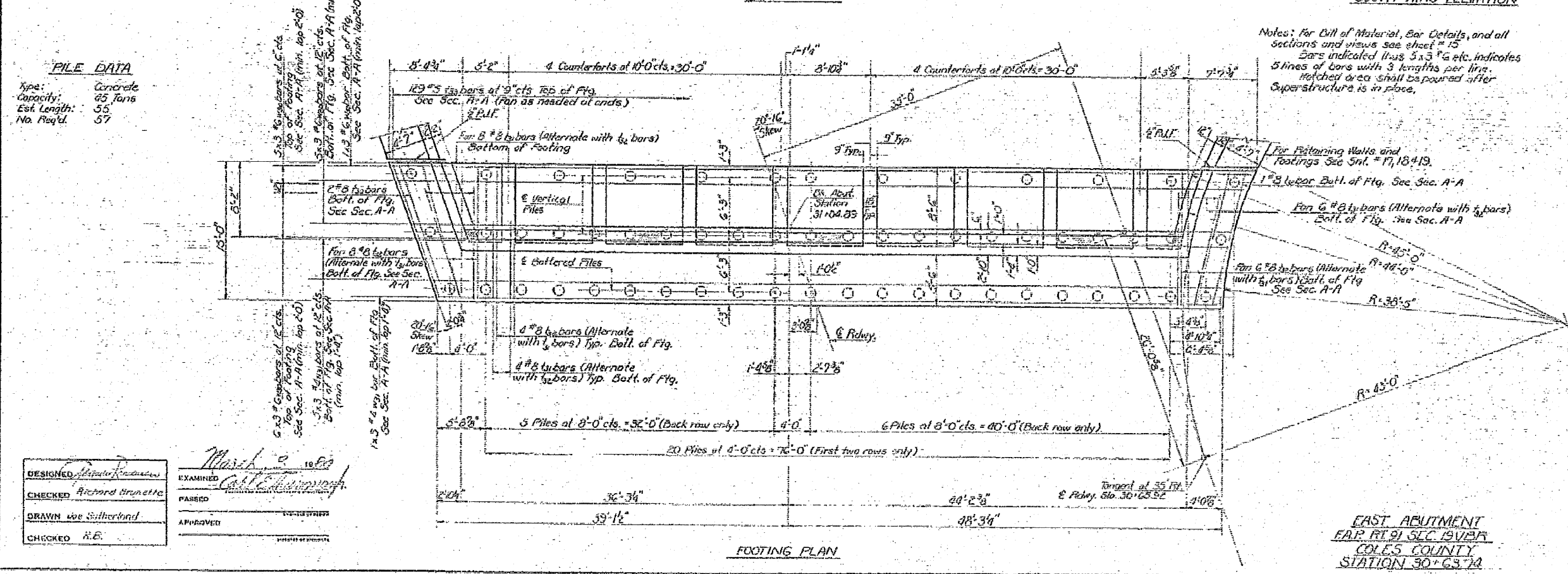
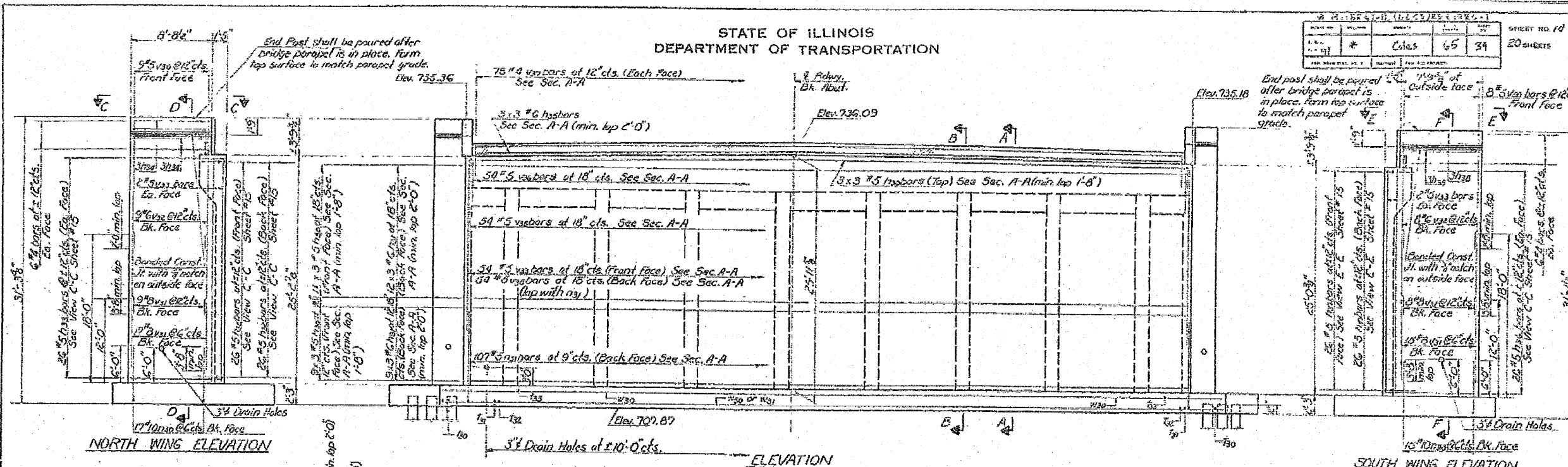
Qty	Size	Length	Weight
10	#5	40'-0"	
10	#5	32'-0"	
10	#5	7'-0"	
8	#6	33'-0"	
32	#5	33'-0"	
38	#8	15'-0"	
57	#6	11'-0"	
24	#8	7'-0"	
12	#8	40'-0"	
43	#8	12'-0"	
25	#8	11'-0"	
16	#8	7'-0"	
12	#8	6'-0"	
57	#6	14'-0"	
62	#5	71'-0"	
6	#6	81'-0"	
16	#6	71'-0"	
90	#8	16'-0"	
72	#6	33'-0"	

Class X Concrete: Cu. Yds. 129.2
Reinforcement Bars: Lbs. 13890
Concrete Pile: 211.5 cu. yds. 616
Total Pile: 211.5 cu. yds. 616

PIER 3
F.A.P. RT. 91 SEC. 19VBR
COLES COUNTY
STA 30+63.74

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROJECT NO.	DATE	BY	REVISED	SHEET NO. 14
015-0064	11/25/09	MTD		20 SHEETS
NO. OF SHEETS	COLORS	65	34	



FILE DATA

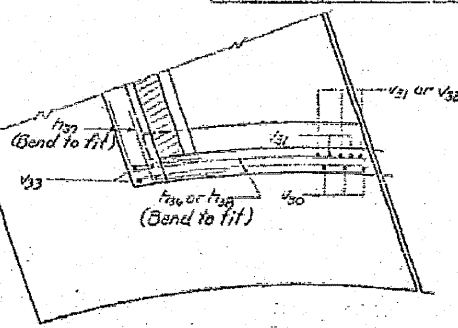
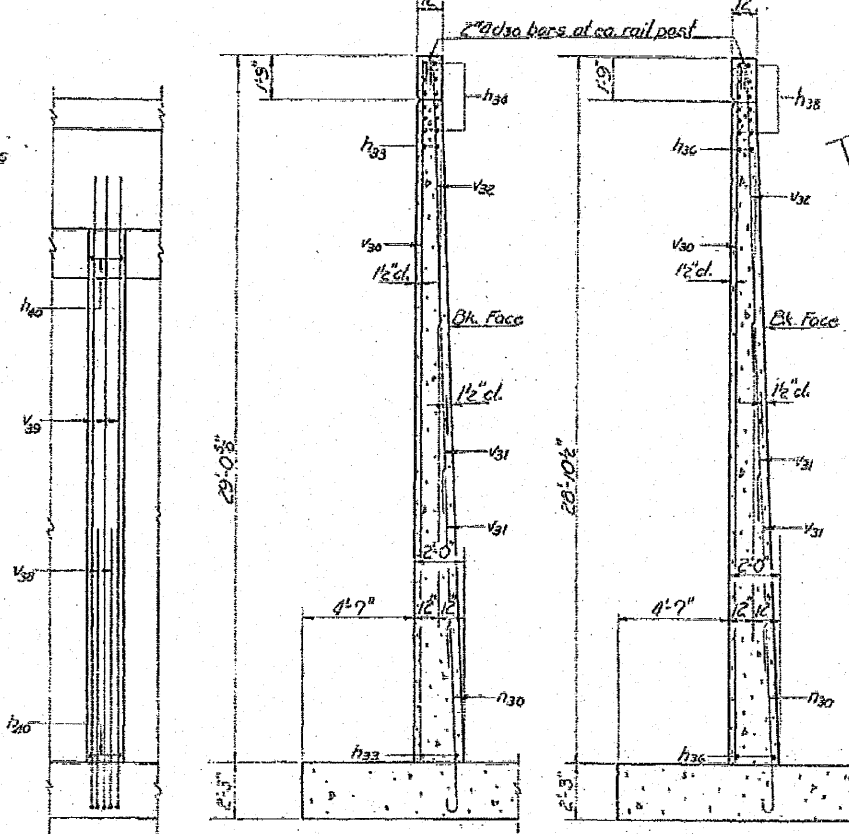
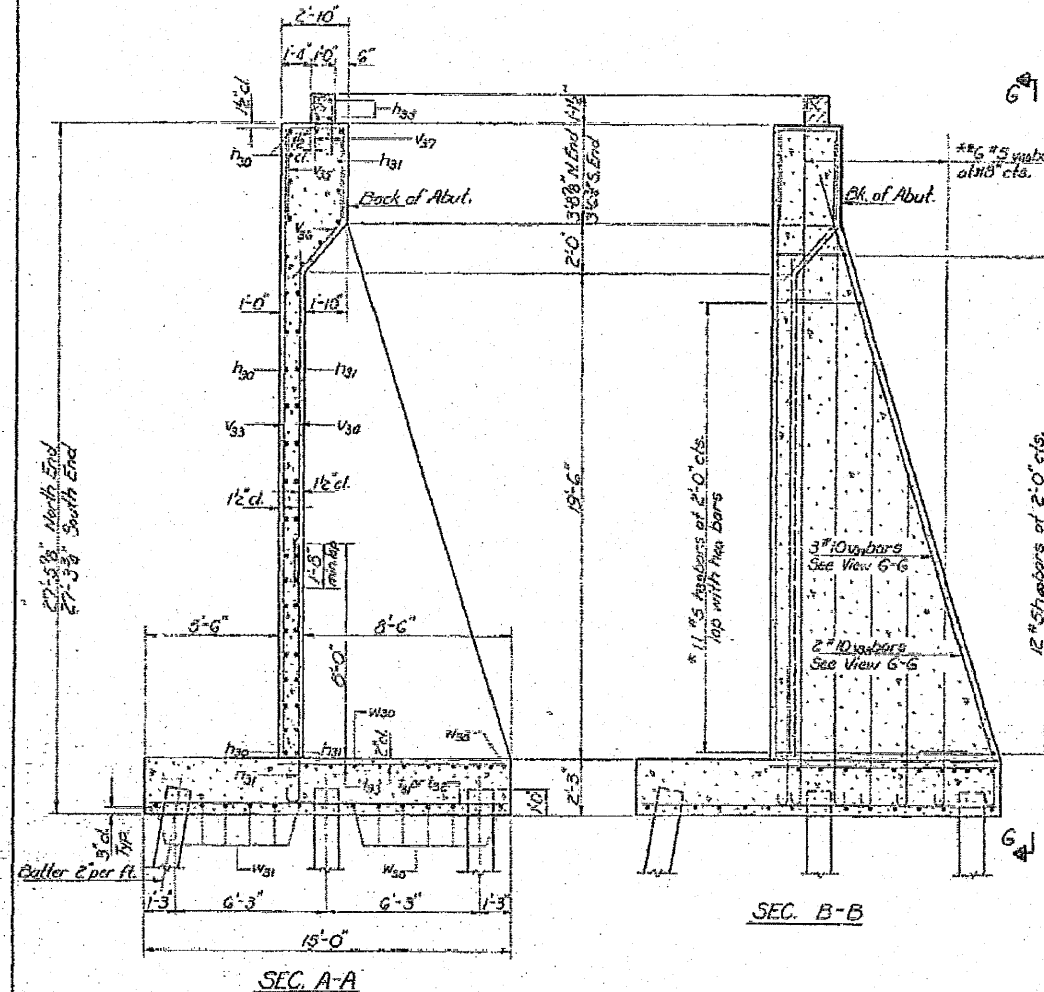
Type:	Concrete
Capacity:	85 Tons
Est. Length:	55'
No. Reqd.:	57

DESIGNED	Richard Brunette	EXAMINED	Richard Brunette
CHECKED	Richard Brunette	PASSED	Richard Brunette
DRAWN	Lee Sutherland	APPROVED	Richard Brunette
CHECKED	R.E.		

March 18, 2009

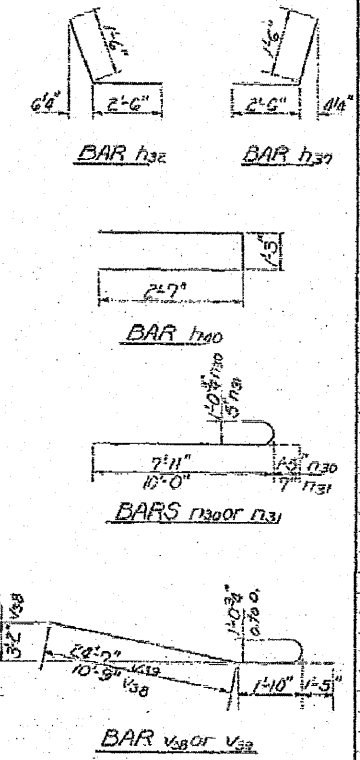
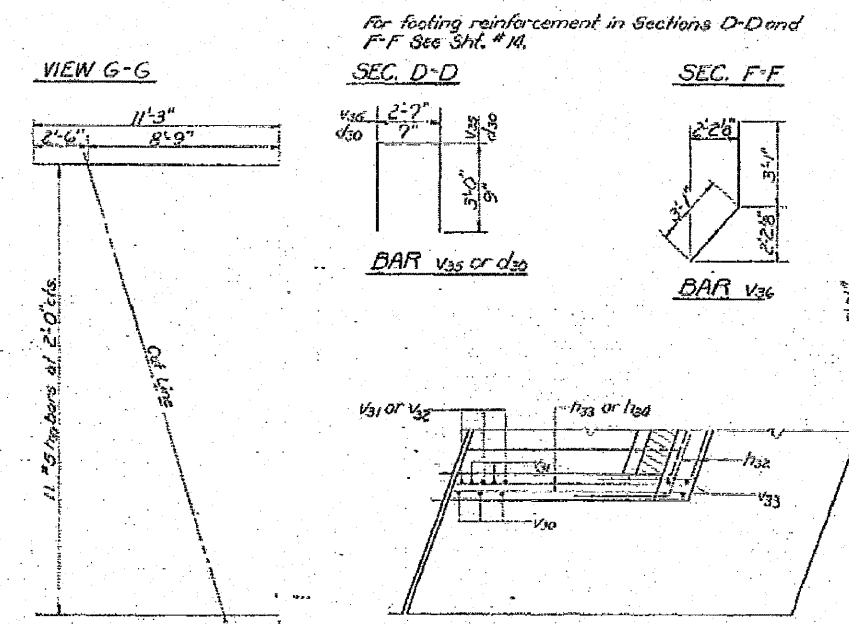
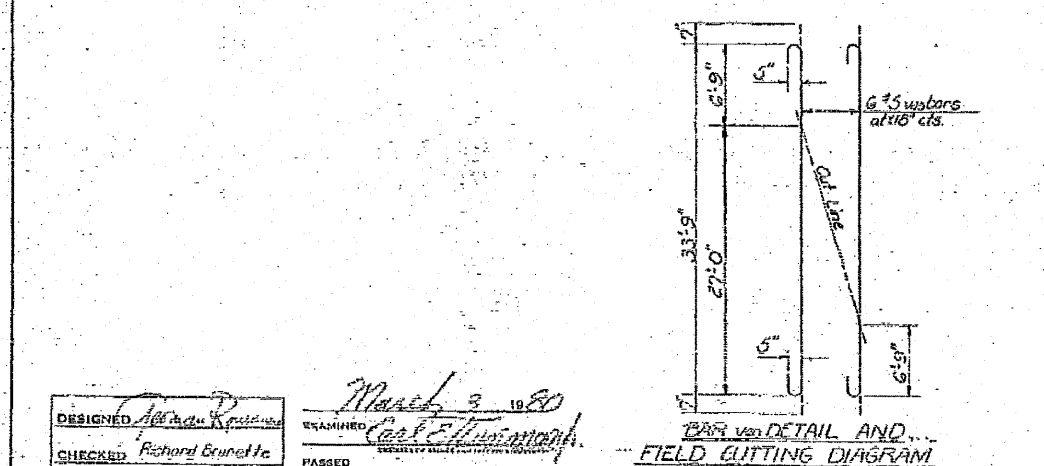
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE: 8/1/09	REVISION: * Coles 66 40	SHEET NO. 15
BY: R.J.T.	DATE: 8/1/09	20 SHEETS



BILL OF MATERIAL

Bar No	Size	Length	Shape
h30	#5	27'-10"	
h31	#5	23'-0"	
h32	#5	4'-0"	
h33	#5	5'-10"	
h34	#8	8'-5"	
h35	#6	27'-5"	
h36	#5	6'-11"	
h37	#5	4'-0"	
h38	#4	7'-6"	
h39	#5	11'-5"	
h40	#5	6'-5"	
h41	#5	9'-8"	
h42	#5	10'-7"	
h43	#8	15'-8"	
h44	#8	8'-0"	
h45	#8	8'-5"	
h46	#5	9'-5"	
h47	#5	23'-7"	
h48	#8	9'-8"	
h49	#6	12'-6"	
h50	#5	22'-11"	
h51	#5	17'-2"	
h52	#5	8'-7"	
h53	#5	6'-2"	
h54	#4	2'-8"	
h55	#10	11'-0"	
h56	#10	27'-10"	
h57	#5	34'-11"	
h58	#6	33'-5"	
h59	#4	31'-3"	
h60	#4	2'-11"	



DESIGNED: *Richard Brunette*
 CHECKED: *Richard Brunette*
 DRAWN: *Joe Sutherland*
 CHECKED: *R.B.*

REVISIONS:
 1. *March 3, 2009*
 2. *Carl E. Williams*

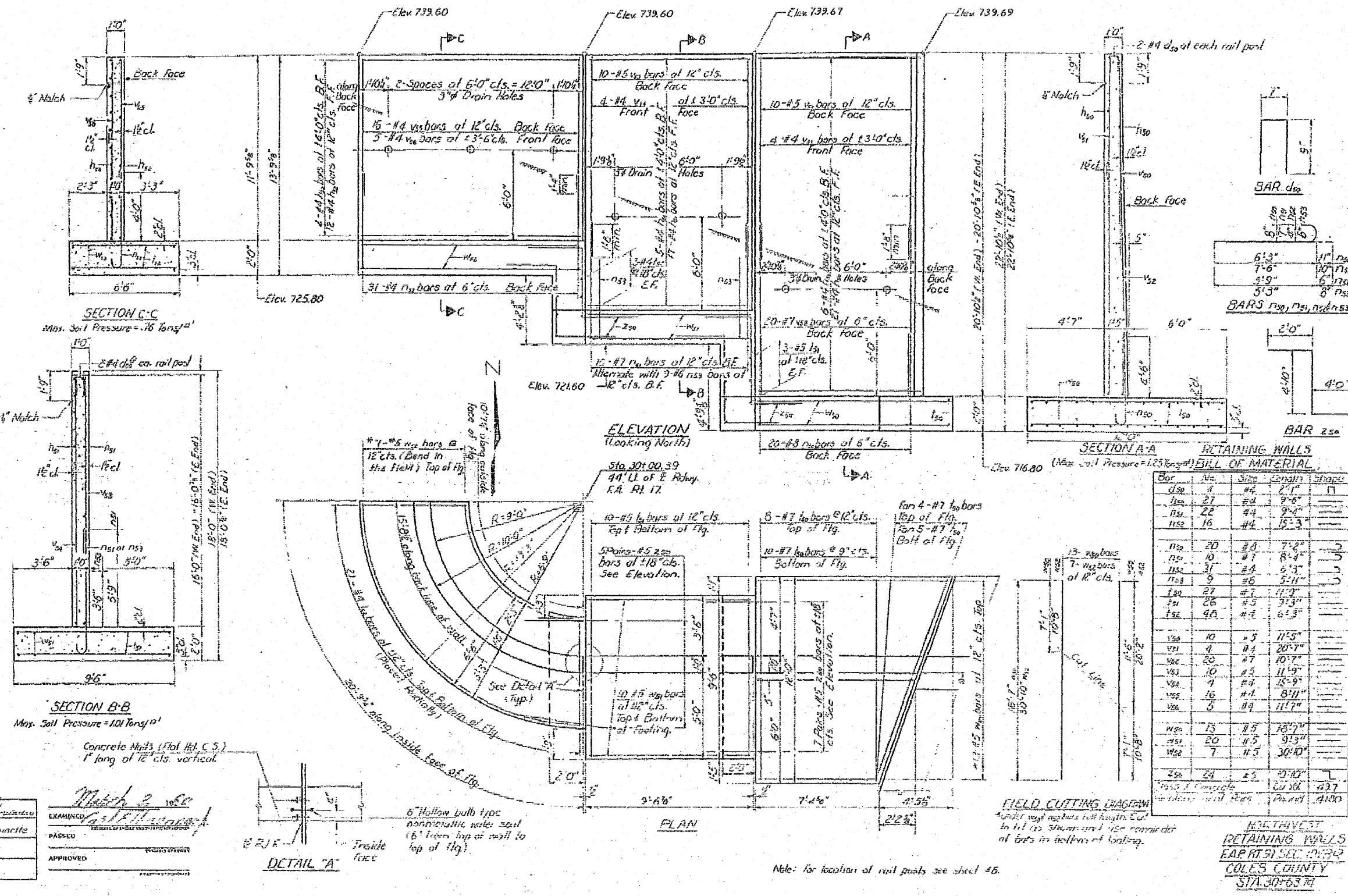
BAR DETAIL AND FIELD CUTTING DIAGRAM
 * Order h30 bars full length, cut to fit as shown and use remainder of bars in other face.

FIELD CUTTING DIAGRAM
 * Order h30 bars full length, cut to fit as shown and use remainder of bars in other face.

EAST ABUTMENT DETAILS
 F.A.P. RT. 91 SEC. 19VBR
 COLES COUNTY
 STATION 30+63.74

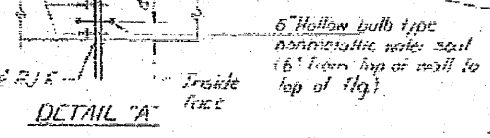
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROJECT NO.	DATE	SCALE	SHEET NO.
19-01-01	7/31/2009	AS SHOWN	16



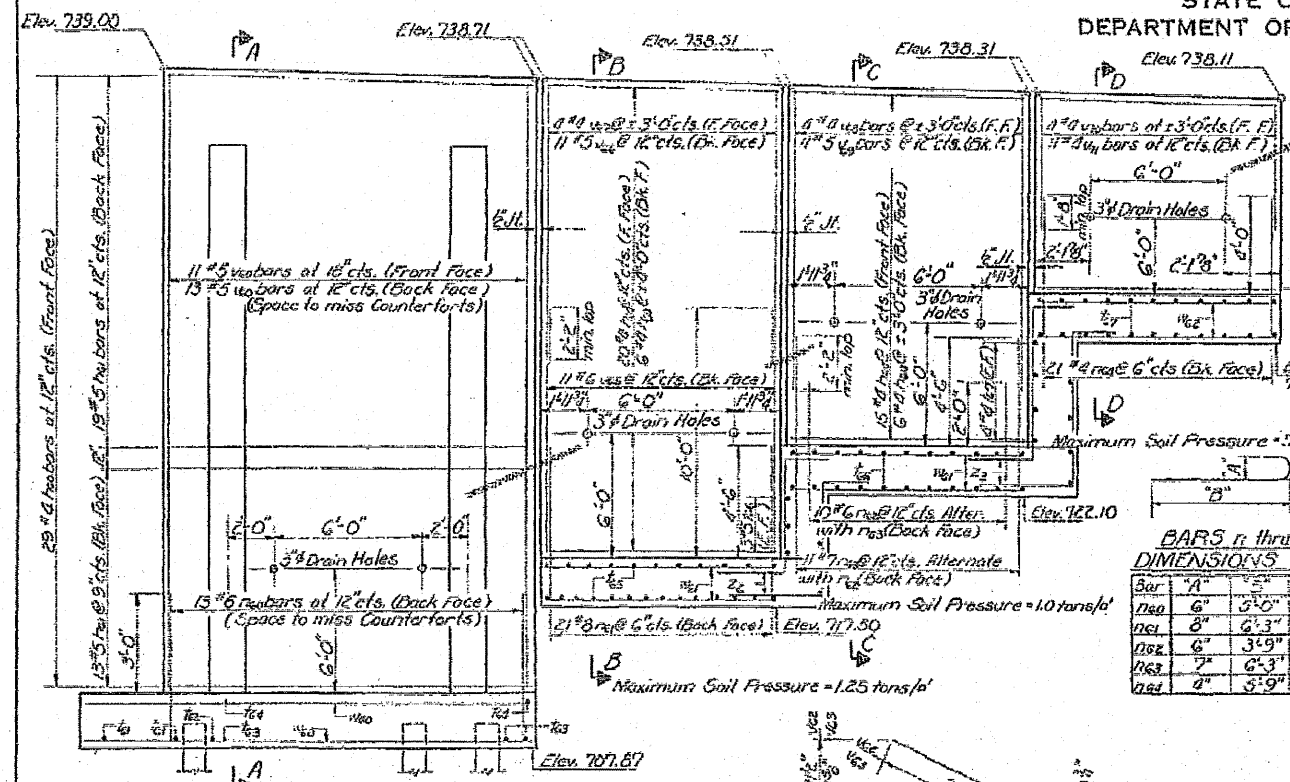
DESIGNED: [Signature]
 CHECKED: Richard Cunniff
 DRAWN: R. Dohy
 CHECKED: R.B.

EXAMINED: [Signature]
 PASSED: [Signature]
 APPROVED: [Signature]



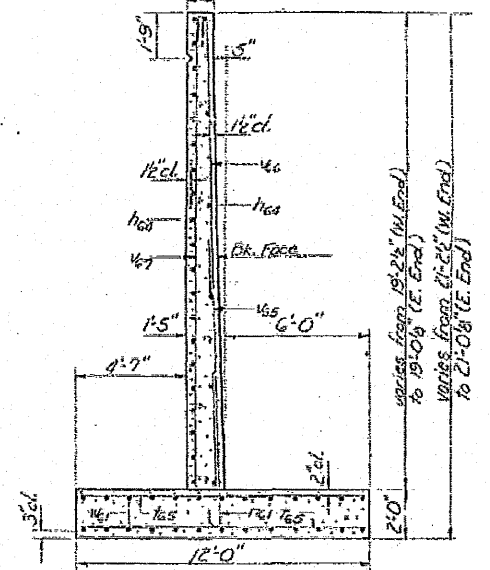
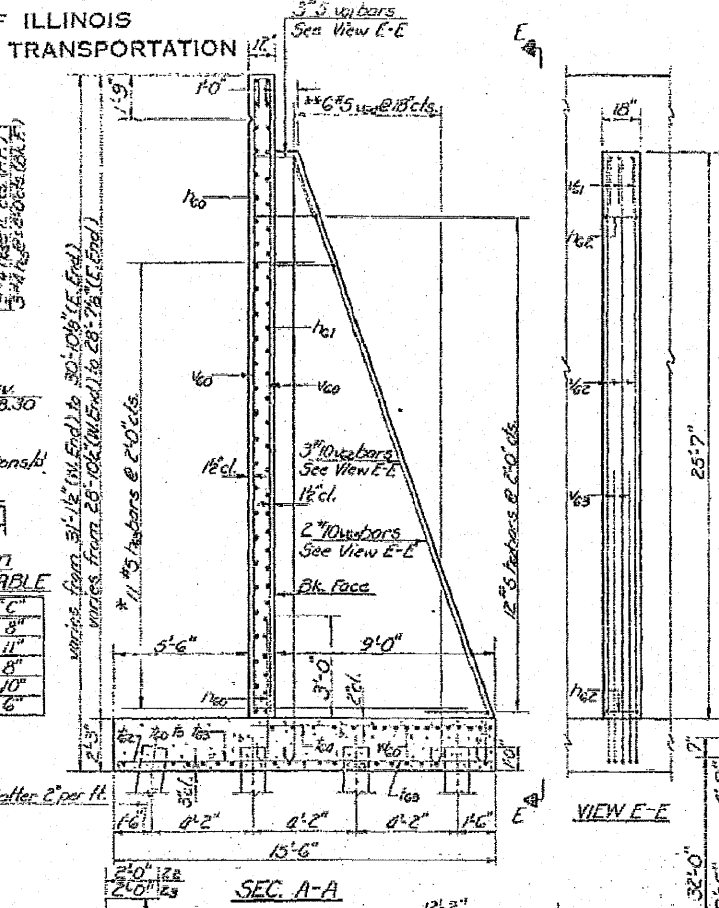
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	11265	DATE	10/25/09
SHEET NO.	17	TOTAL SHEETS	20
CONTRACT NO.	45	SECTION	42



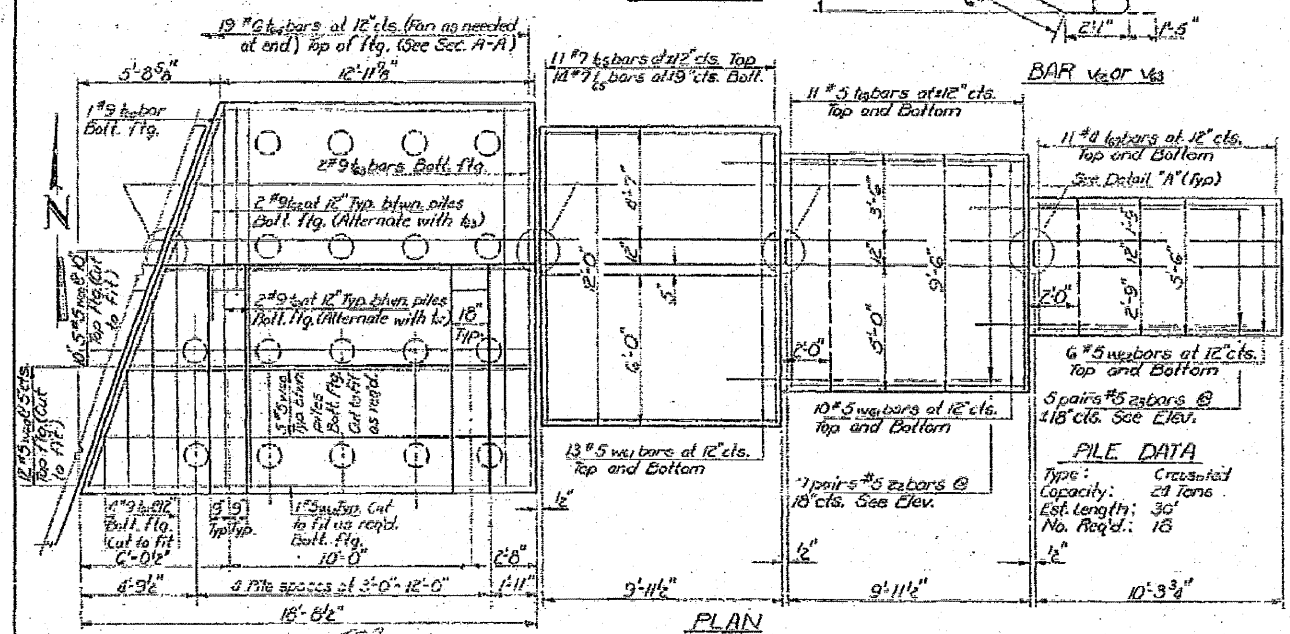
BARS n thru 17

Bar	A	B	C
Dia	6"	5.0"	8"
Dist	8"	6.3"	11"
Dist	6"	3.9"	8"
Dist	7"	6.3"	10"
Dist	8"	3.9"	6"



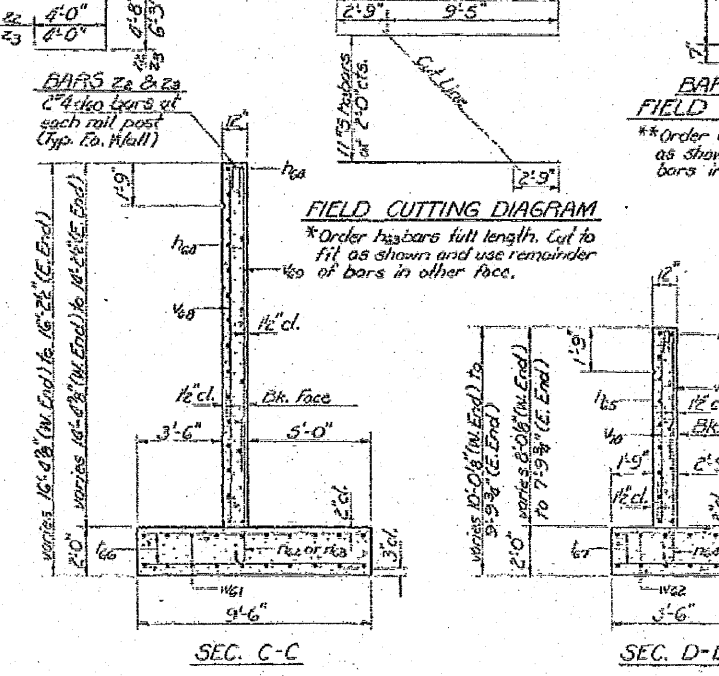
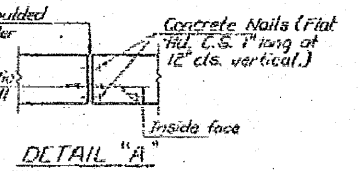
SECTION B-B BILL OF MATERIAL

Bar	No	Size	Length	Splice
clao	20	#4	2'-1"	
thead	23	#4	18'-10"	
thead	32	#5	15'-0"	
thead	24	#5	6'-3"	
thead	22	#5	12'-8"	
thead	27	#4	9'-8"	
thead	12	#4	10'-0"	
thead	15	#6	3'-8"	
thead	21	#8	7'-2"	
thead	10	#6	2'-5"	
thead	11	#7	7'-1"	
thead	21	#4	6'-3"	
thead	1	#9	16'-3"	
thead	4	#9	10'-0"	
thead	3	#9	8'-0"	
thead	10	#9	15'-3"	
thead	19	#6	10'-0"	
thead	25	#7	11'-9"	
thead	28	#5	3'-5"	
thead	30	#5	3'-5"	
thead	28	#5	18'-1"	
thead	6	#5	3'-11"	
thead	6	#10	30'-2"	
thead	4	#10	18'-0"	
thead	12	#5	33'-2"	
thead	11	#6	9'-11"	
thead	11	#5	11'-3"	
thead	12	#4	18'-3"	
thead	4	#8	18'-0"	
thead	11	#5	11'-9"	
thead	4	#8	9'-6"	
thead	11	#5	11'-9"	
thead	4	#8	9'-6"	
thead	11	#5	11'-9"	
thead	4	#8	9'-6"	
thead	12	#5	10'-0"	
thead	12	#5	10'-0"	
thead	10	#5	10'-8"	
thead	10	#5	10'-3"	
thead	10	#5	10'-3"	
thead	10	#5	10'-3"	



PILE DATA

Type: Cross-hatched
Capacity: 24 Tons
Est. Length: 36'
No. Req'd: 18



BAR #4 DETAIL AND FIELD CUTTING DIAGRAM

**Order walbars full length. Cut to fit as shown and use remainder of bars in other face.

BAR #5 DETAIL AND FIELD CUTTING DIAGRAM

**Order walbars full length. Cut to fit as shown and use remainder of bars in other face.

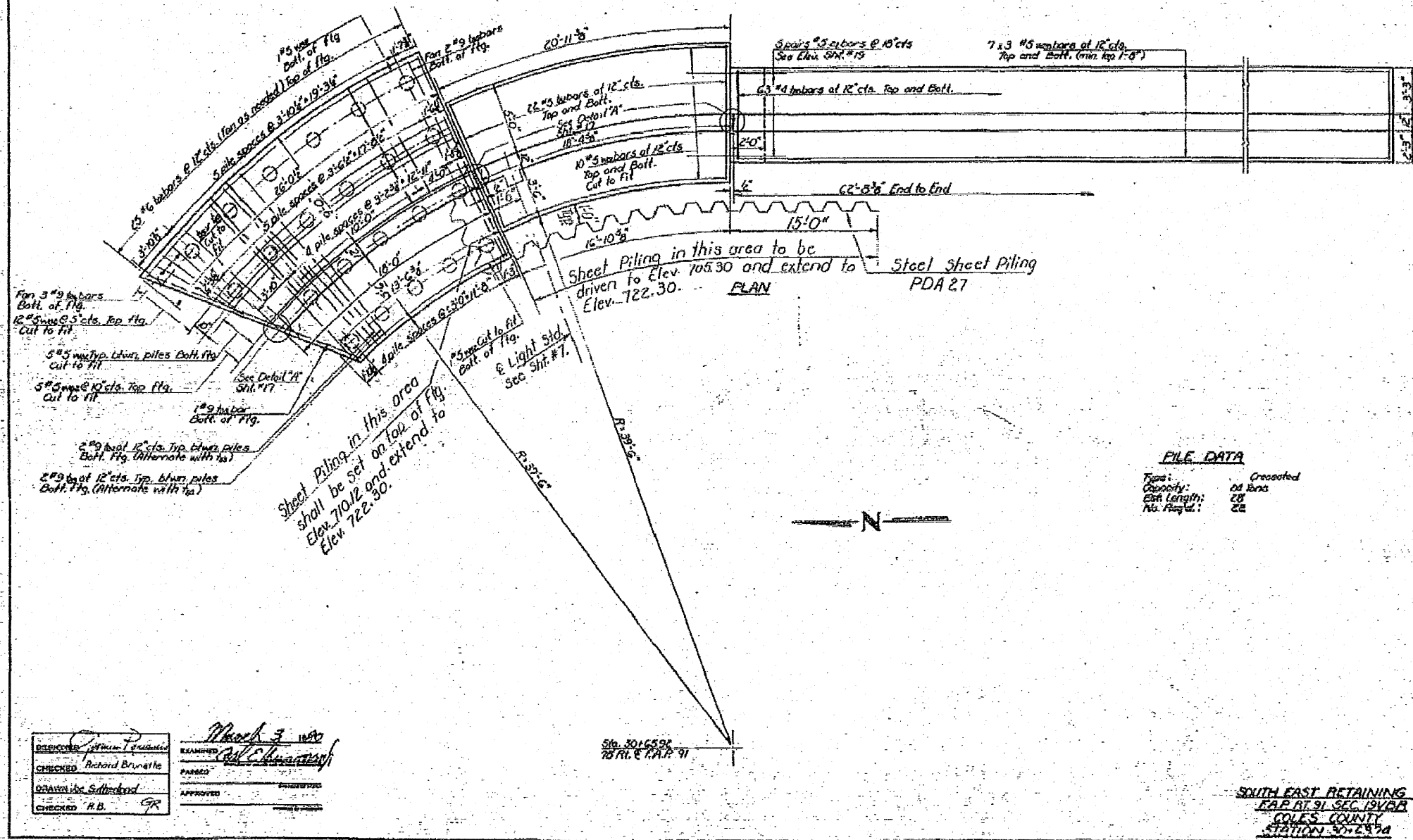
NORTH EAST RETAINING WALL
EAP RT. 91 SEC. 19VBR
COLES COUNTY
STATION 30+63.74

DESIGNED: *[Signature]*
CHECKED: Richard Brunette
DRAWN: Joe Sutherland
CHECKED: R.E.
EXAMINED: *[Signature]*
PAGES: 1
APPROVED: *[Signature]*
DATE: AUGUST 3, 2009

SHEET 18-2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	DATE	SCALE	SHEET NO.	TOTAL SHEETS
1919BR(2-1), (1,2,3) AS 1919RS-1	6/5/09	AS SHOWN	180	20



FILE DATA

Type:	Created
Quantity:	as shown
Est. Length:	28
No. Piles:	22

DESIGNED: <i>Richard Brunette</i>	REVISIONS: <i>March 3, 2009</i>
CHECKED: <i>Richard Brunette</i>	APPROVED: <i>[Signature]</i>
DRAWN: <i>[Signature]</i>	
CHECKED: <i>R.B.</i>	

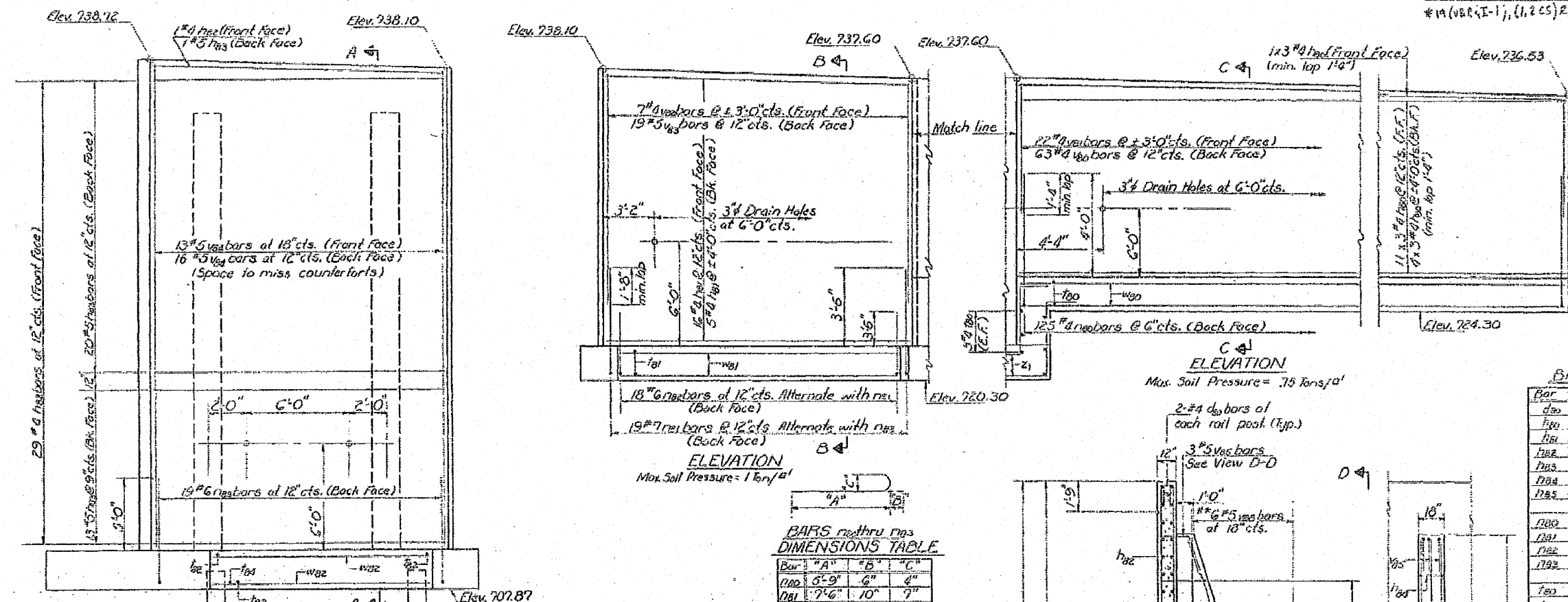
Revised: 2-27-01 R.O.

SOUTH EAST RETAINING WALL
EAP RT. 91 SEC. 19VBR
COLES COUNTY
STATION 30+25.74

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	EVENT	DATE	SHEET	SHEET NO. 19 OF 20 SHEETS
11-11-09	#	Class	65	44	

*19 (VBR-E-1), (1, 2 CS) ES & 14CS-1

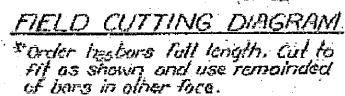
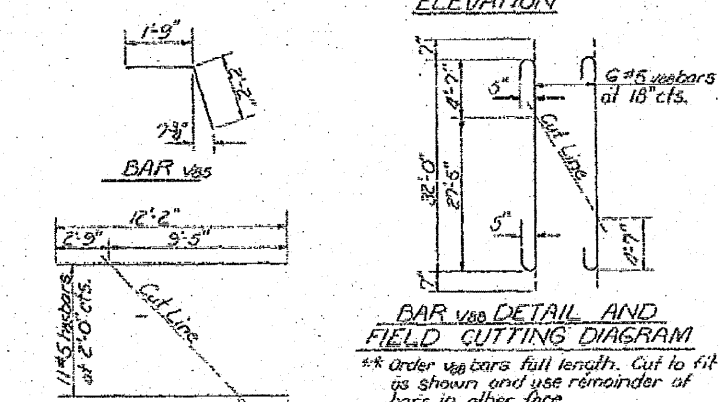


BARS THROUGH DIMENSIONS TABLE

Bar	A	B	C
1100	6'-9"	6"	6"
1101	7'-6"	10"	7"
1102	5'-3"	8"	6"
1103	9'-0"	8"	6"

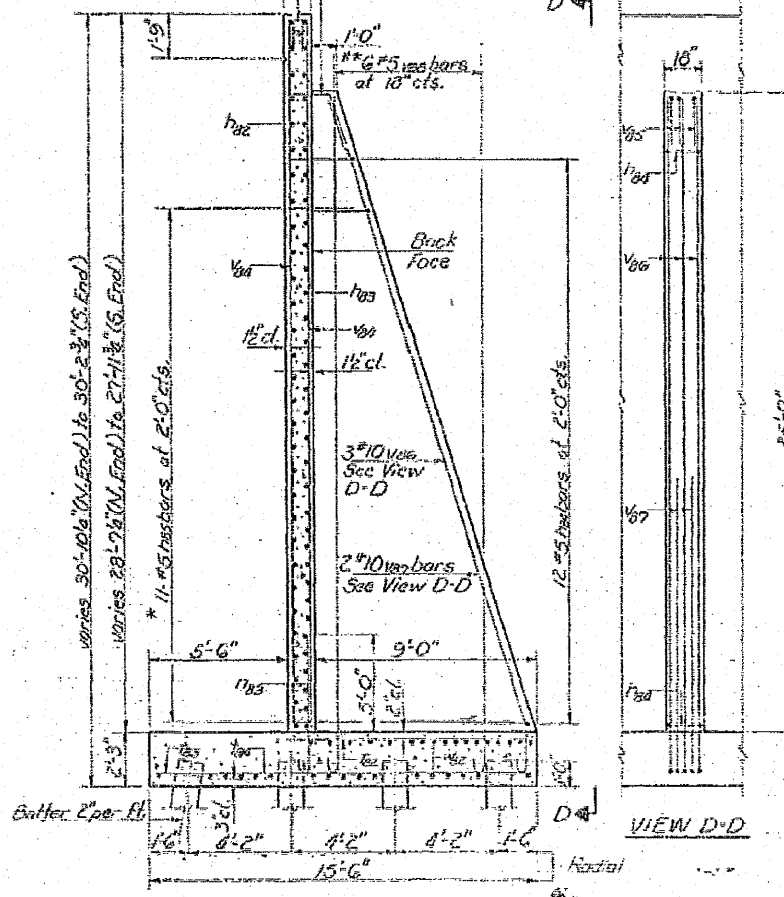
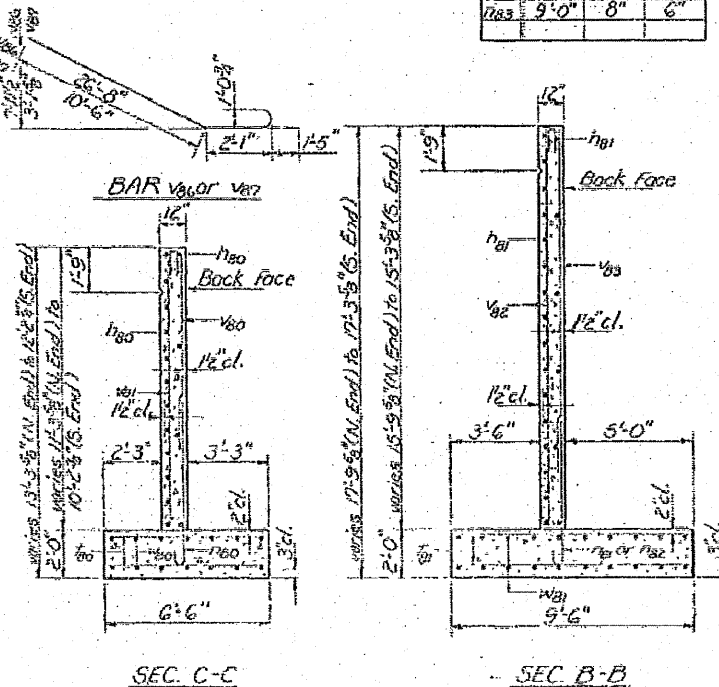
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
1100	24	#4	2'-1"	U
1101	40	#4	2'-9"	U
1102	27	#4	18'-1"	U
1103	30	#4	11'-9"	U
1104	34	#5	17'-9"	U
1105	24	#5	6'-3"	U
1106	22	#5	12'-2"	U
1107	125	#4	6'-3"	U
1108	12	#7	8'-9"	U
1109	18	#6	9'-11"	U
1110	19	#6	7'-8"	U
1111	132	#4	6'-3"	U
1112	44	#5	9'-3"	U
1113	25	#6	10'-0"	U
1114	10	#9	8'-0"	U
1115	12	#9	15'-3"	U
1116	1	#9	6'-9"	U
1117	3	#9	6'-8"	U
1118	63	#4	8'-6"	U
1119	22	#4	10'-0"	U
1120	7	#6	15'-1"	U
1121	19	#5	11'-6"	U
1122	29	#5	27'-9"	U
1123	6	#5	3'-11"	U
1124	6	#10	30'-2"	U
1125	4	#10	18'-0"	U
1126	12	#5	33'-2"	U
1127	02	#5	21'-11"	U
1128	20	#5	20'-7"	U
1129	32	#5	25'-9"	U
1130	10	#5	10'-0"	U



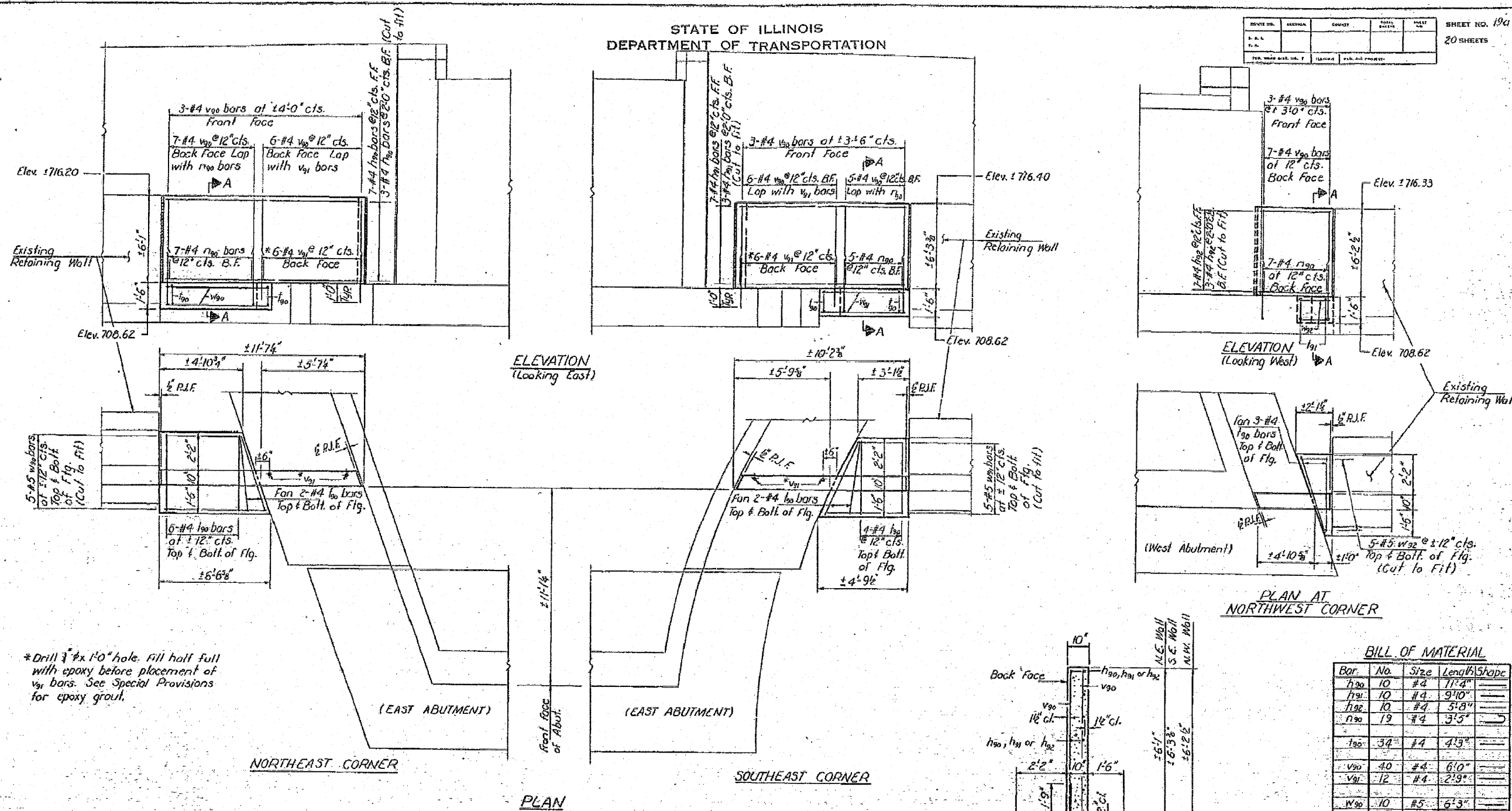
DESIGNED: MTD
 CHECKED: Richard Brunetta
 DRAWN: Joe Sutherland
 CHECKED: R.B.

EXAMINED: [Signature]
 PASSED: [Signature]
 APPROVED: [Signature]



SOUTH EAST RETAINING WALL DETAILS
 F.A.P. FILE NO. SEC. 19 VBR
 COLES COUNTY
 STATION 30+63.74

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



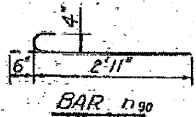
*Drill 3/4" x 1'-0" hole. Fill half full with epoxy before placement of v_{91} bars. See Special Provisions for epoxy grout.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
v_{90}	10	#4	11'-4"	
v_{91}	10	#4	9'-10"	
v_{92}	10	#4	5'-8"	
v_{90}	19	#4	3'-5"	
v_{90}	34	#4	4'-3"	
v_{90}	40	#4	6'-0"	
v_{91}	12	#4	2'-9"	
v_{90}	10	#5	6'-3"	
v_{91}	10	#5	4'-9"	
v_{92}	10	#5	1'-10"	
Class X Concrete			Cu. Yd.	8.0
Reinforcement Bars			Pound	630

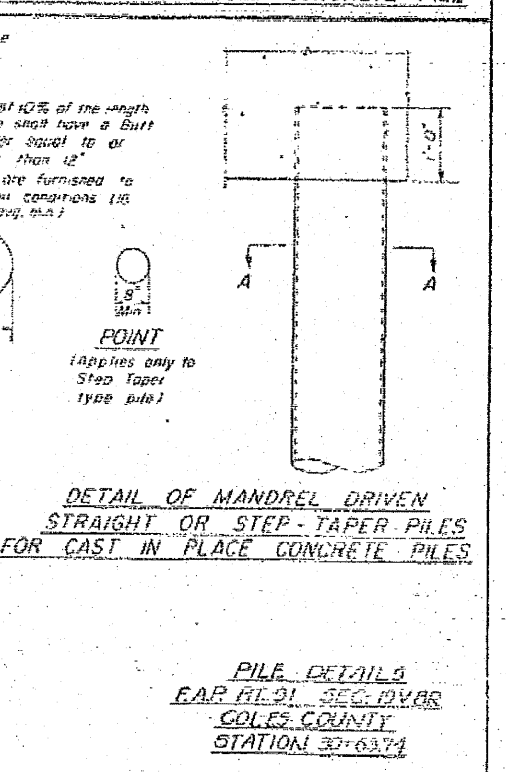
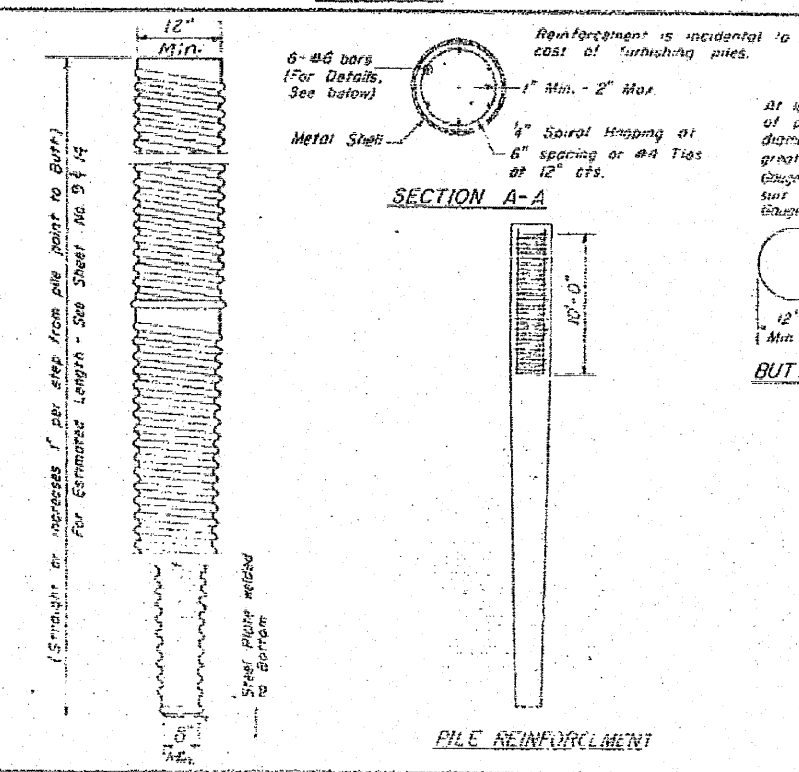
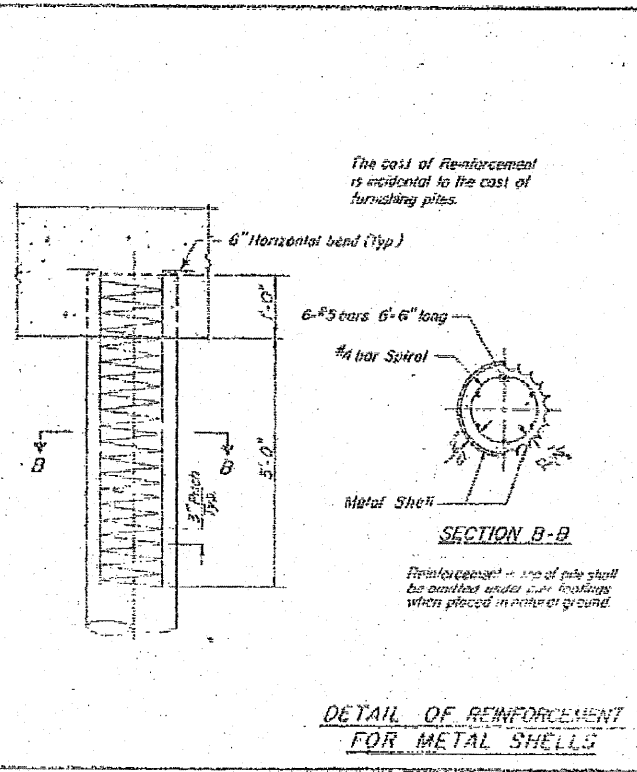
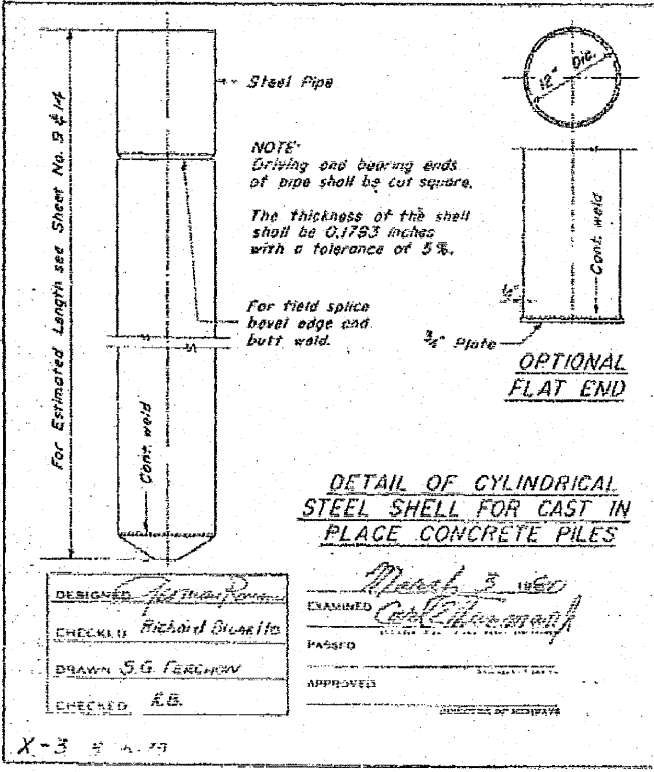
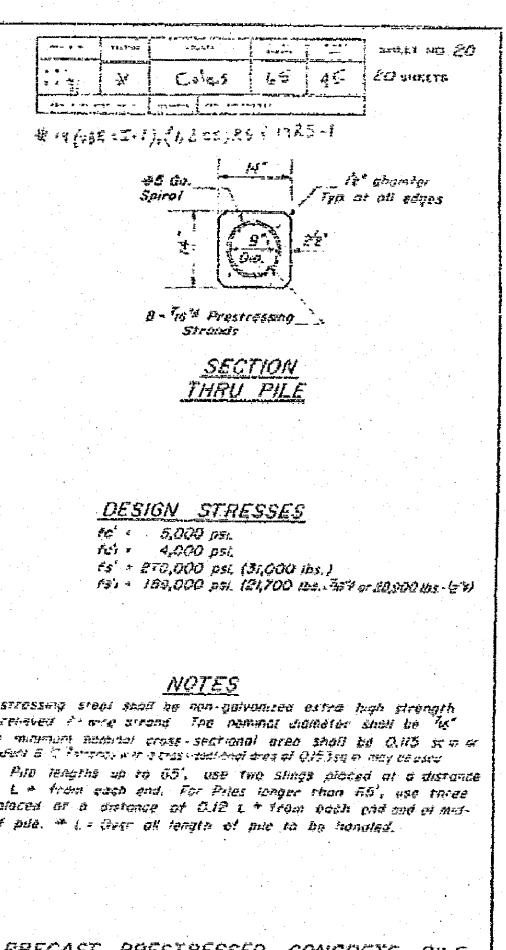
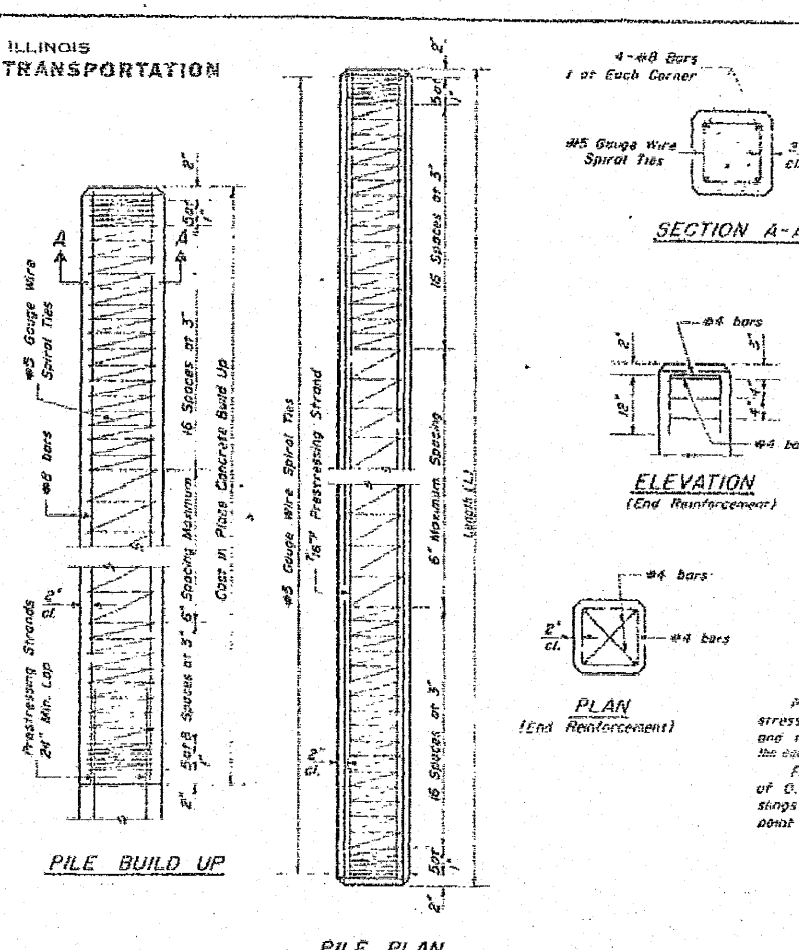
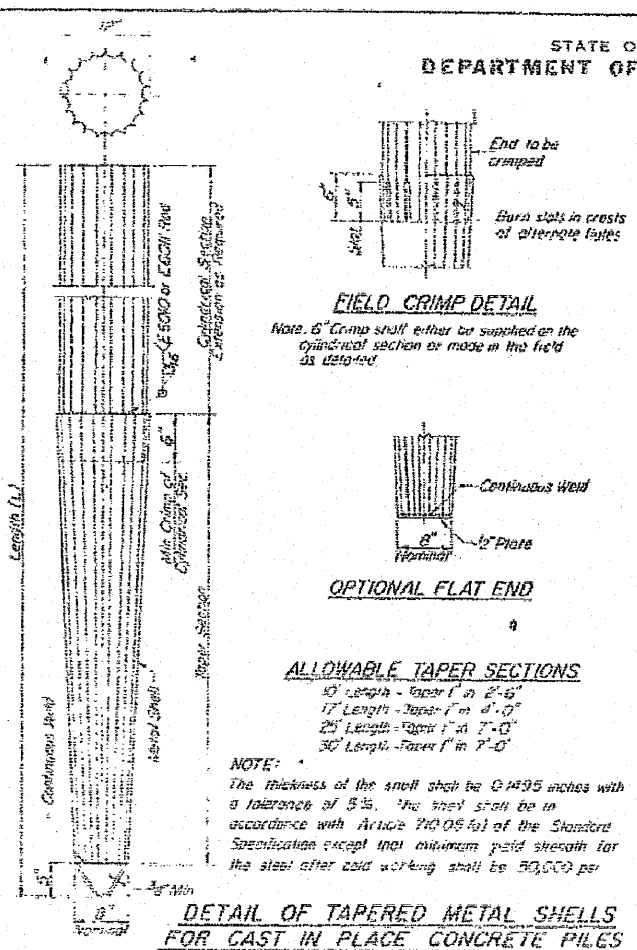
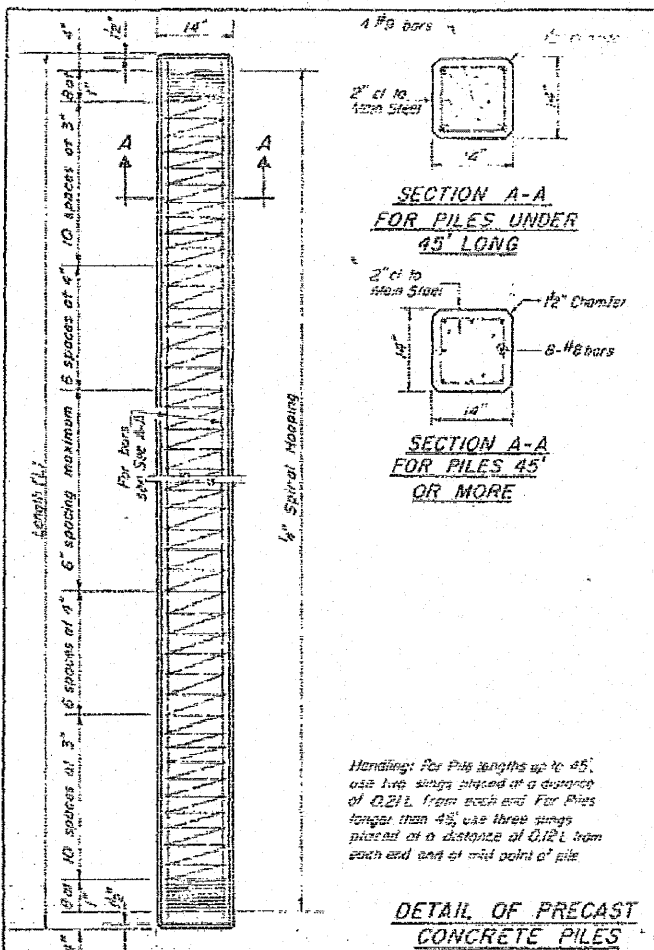
DESIGNED: *[Signature]*
 CHECKED: Rick Brunette
 DRAWN: R. Doly
 CHECKED: R.L. *[Signature]*

EXAMINED: _____
 PASSED: _____
 APPROVED: _____



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROJECT NO.	DATE	SCALE	SHEET NO.	TOTAL SHEETS
74149	8/3/09	AS SHOWN	21	80



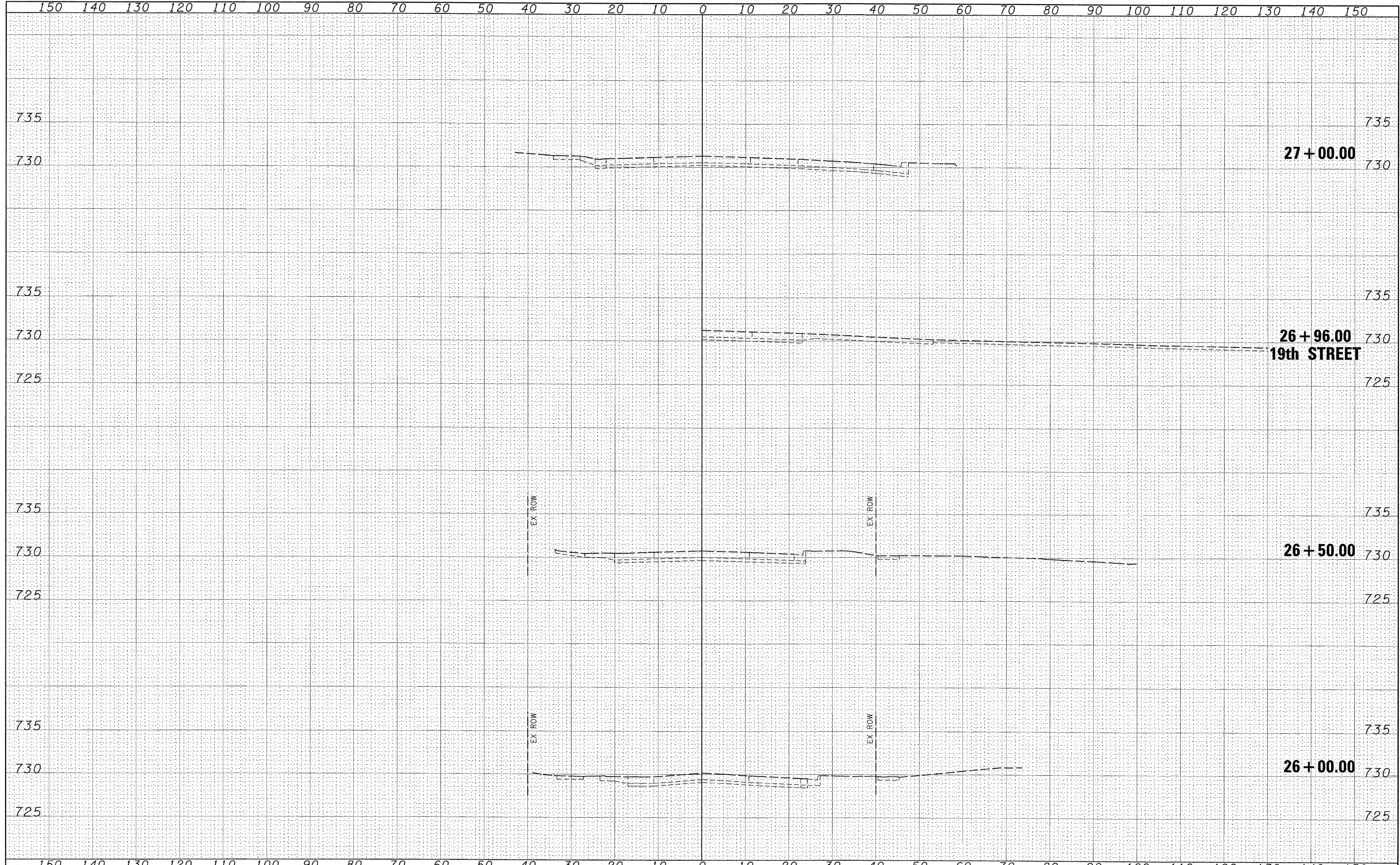
DESIGNED: [Signature]
CHECKED: Richard Silvestro
DRAWN: S.G. FERCHON
CHECKED: R.B.

EXAMINED: [Signature]
PASSED: [Signature]
APPROVED: [Signature]



DATE	BY
DATE	BY
DATE	BY
DATE	BY

DATE	BY
DATE	BY
DATE	BY
DATE	BY



FILE NAME = D774149-SHT-Xsht101.dgn
 SCALES: (HORIZ) 1"=10', (VERT) 1"=5'

USER NAME = HAS	DESIGNED - DAJ	REVISED -
PLOT SCALE = 10,0000' / IN.	DRAWN - JPC	REVISED -
PLOT DATE = 7/31/2009 2:23:57 PM	CHECKED - MTD	REVISED -
	DATE - AUGUST 3, 2009	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

IL ROUTE 16 CROSS SECTIONS

SCALE: AS SHOWN SHEET NO. 1 OF 9 SHEETS STA. 26+00.00 TO STA. 27+00.00

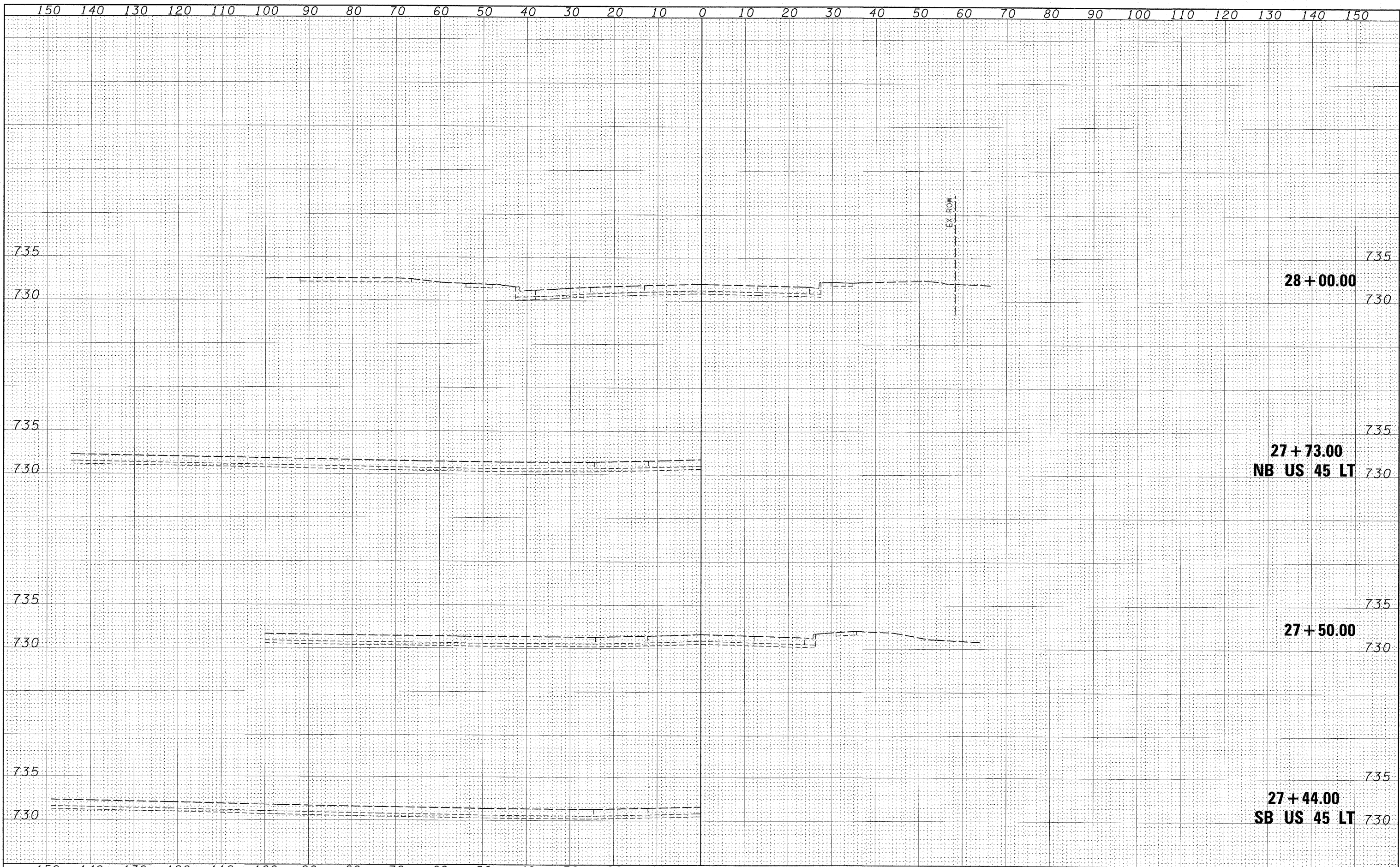
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	(19VBR)BR	COLES	92	81
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 74149



FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	AREAS CHECKED	



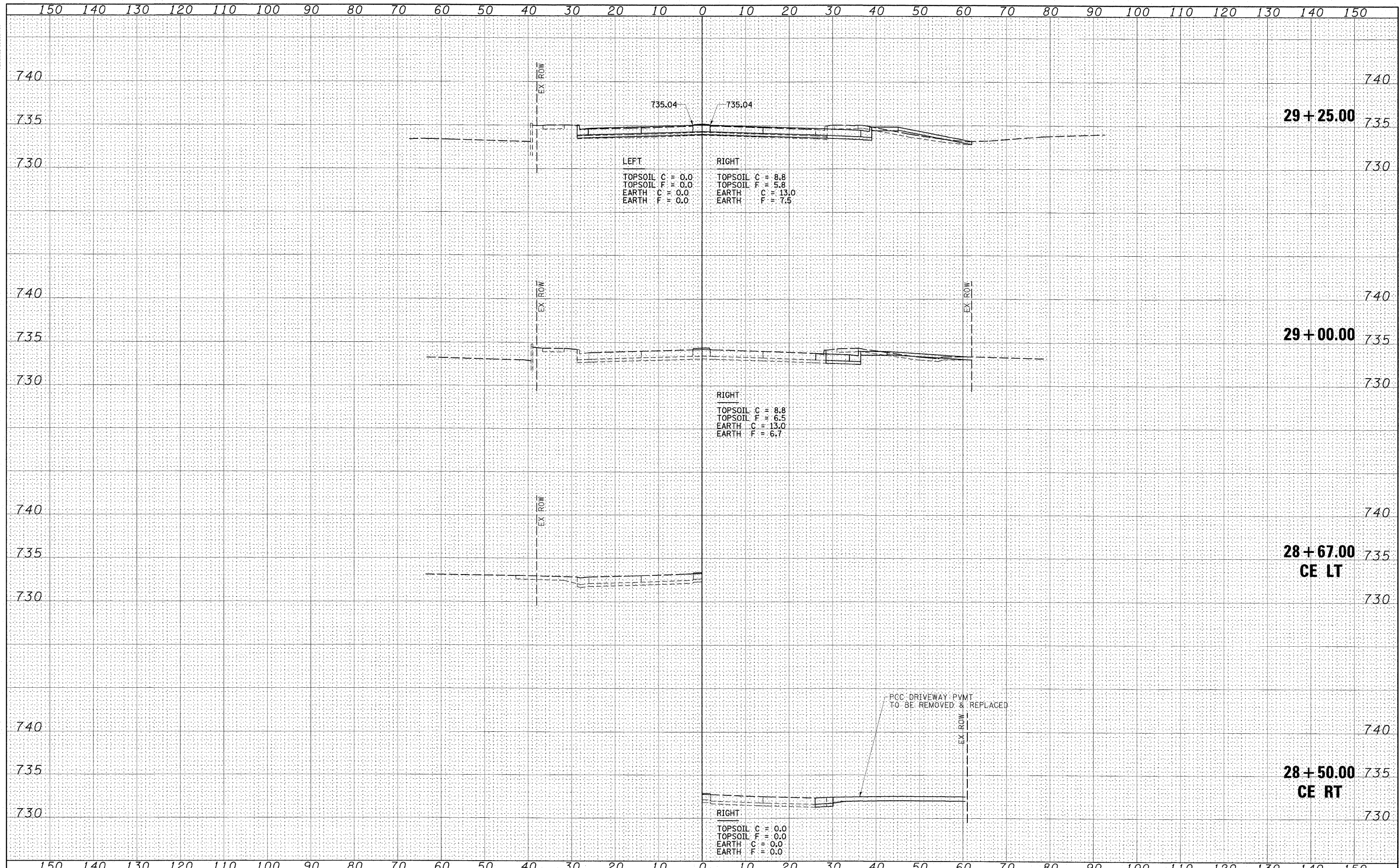
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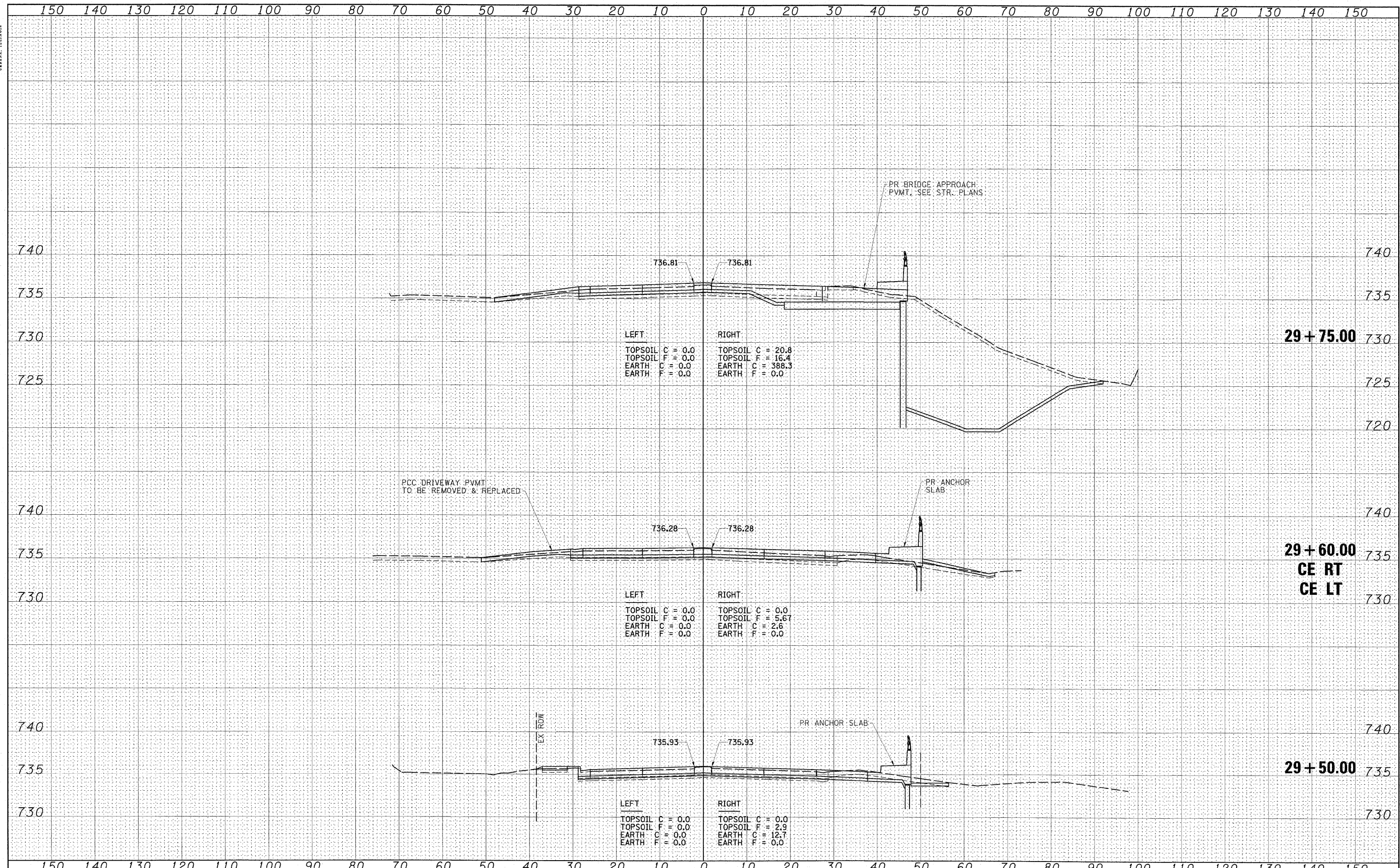
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PLOT SCALE = 10.0000' / IN.	DRAWN - JPC	REVISED -
PLOT DATE = 7/31/2009 2:24:17 PM	CHECKED - MTD	REVISED -
	DATE - AUGUST 3, 2009	REVISED -

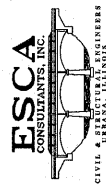
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 16 CROSS SECTIONS
 SCALE: AS SHOWN SHEET NO. 2 OF 9 SHEETS STA. 27+44.00 TO STA. 28+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	(19VBR)BR	COLES	92	82
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

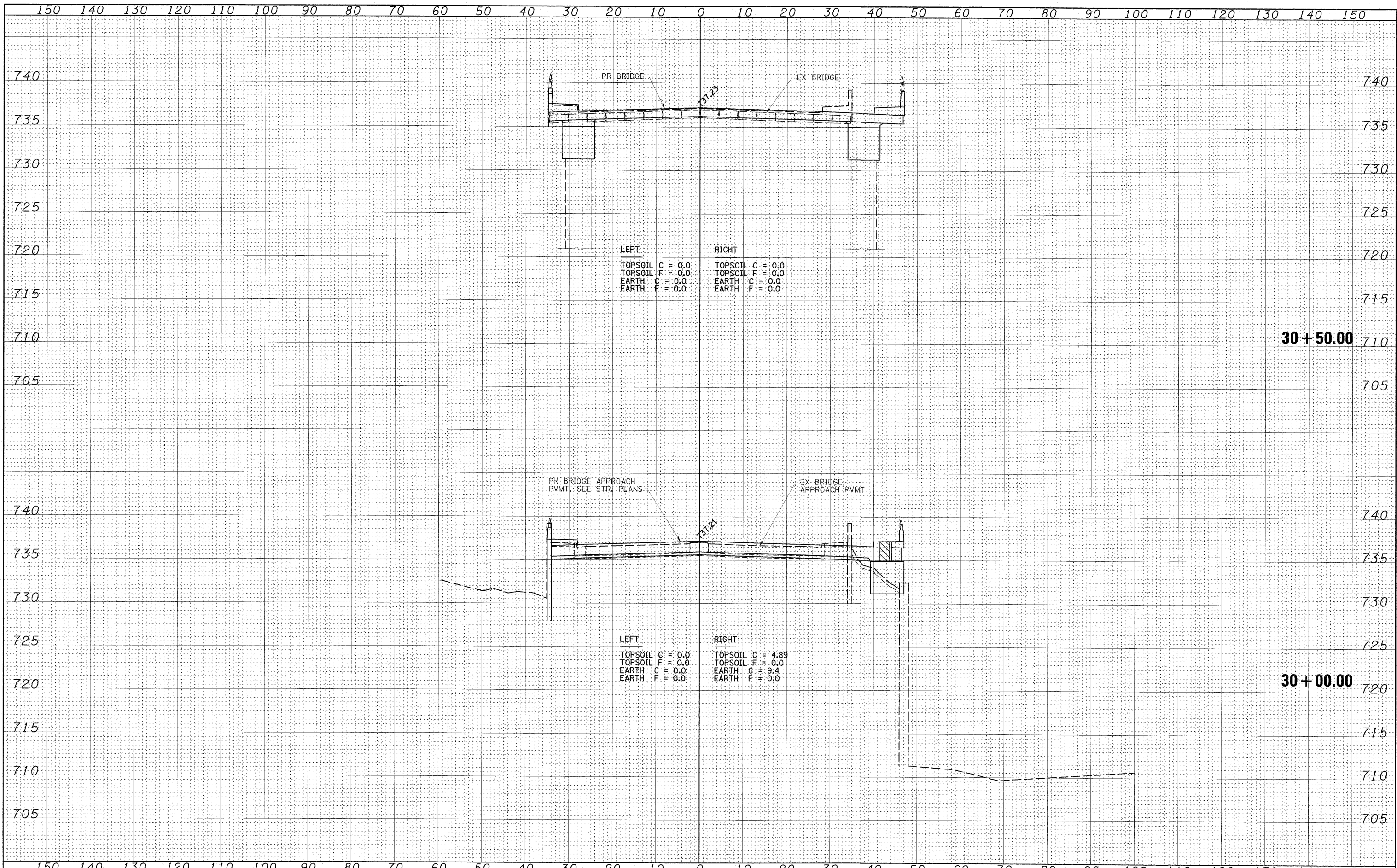






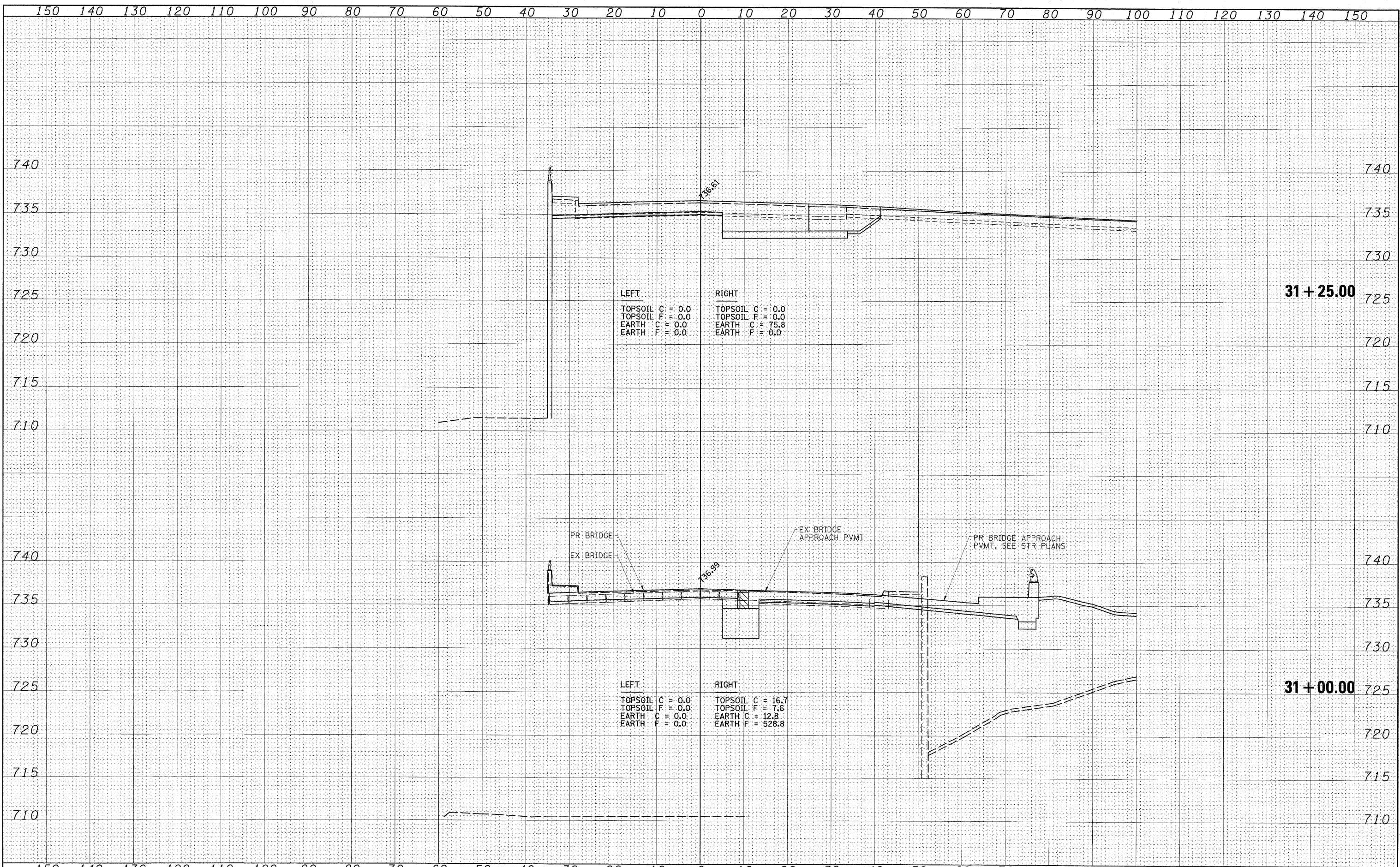
DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



DATE	
BY	
SURVEYED	
PLOTTED	
TEMA LAY	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMA LAY	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME = D774149-SHT-Xsht01.dgn
 SCALES: (HORIZ) 1"=10', (VERT) 1"=5'

USER NAME = HAS	DESIGNED - DAJ	REVISED -
	DRAWN - JPC/HAS	REVISED -
	CHECKED - MTD	REVISED -
PLOT DATE = 7/31/2009 2:25:28 PM	DATE - AUGUST 3, 2009	REVISED -

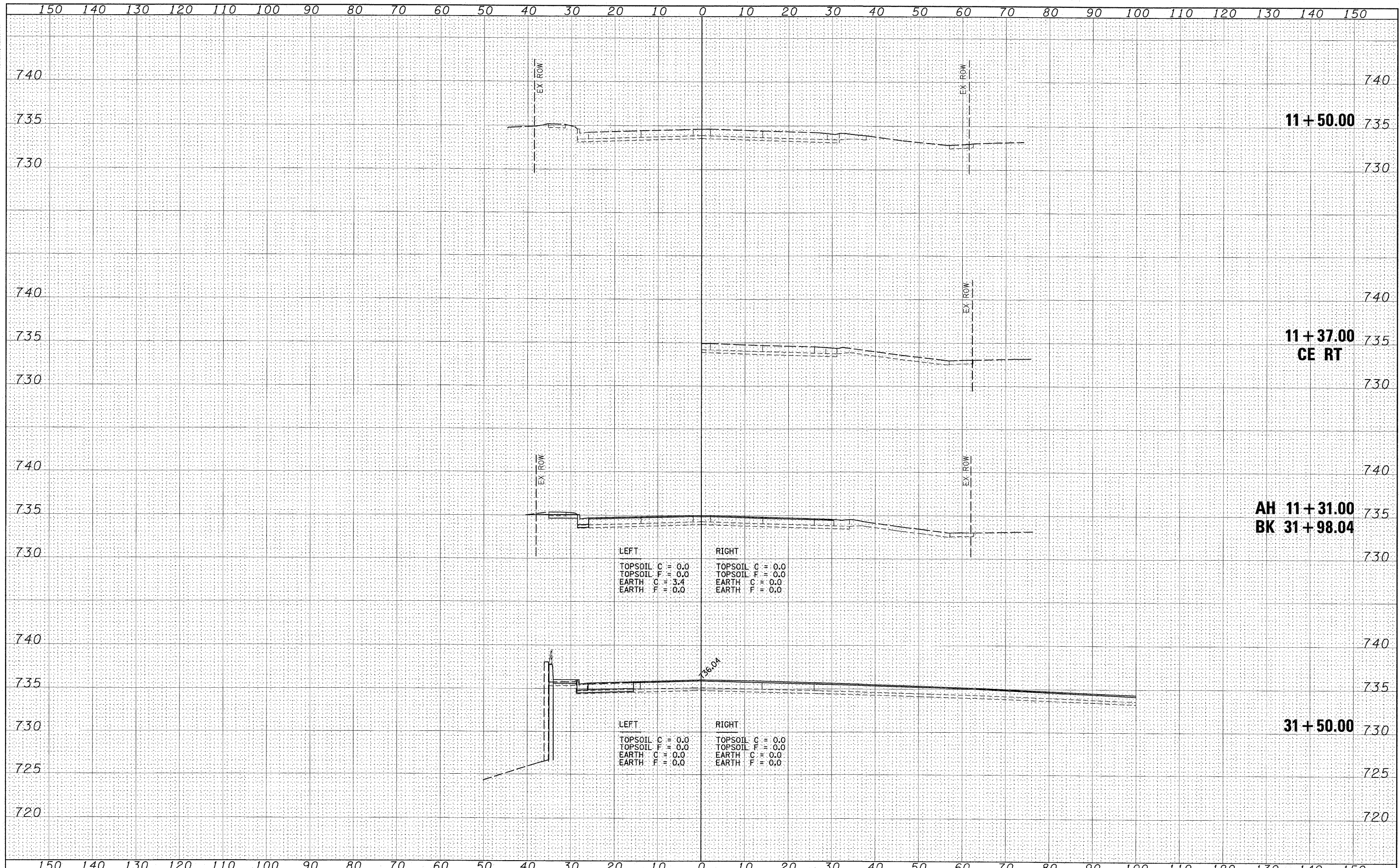
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 16 CROSS SECTIONS
 SCALE: AS SHOWN SHEET NO. 6 OF 9 SHEETS STA. 31+00.00 TO STA. 31+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	(19VBR)BR	COLES	92	86
CONTRACT NO. 74149				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	
PLANNED	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
TEMPORARY	
NOTE BOOK	
AREAS CHECKED	
NO.	



LEFT	RIGHT
TOPSOIL C = 0.0	TOPSOIL C = 0.0
TOPSOIL F = 0.0	TOPSOIL F = 0.0
EARTH C = 3.4	EARTH C = 0.0
EARTH F = 0.0	EARTH F = 0.0

LEFT	RIGHT
TOPSOIL C = 0.0	TOPSOIL C = 0.0
TOPSOIL F = 0.0	TOPSOIL F = 0.0
EARTH C = 0.0	EARTH C = 0.0
EARTH F = 0.0	EARTH F = 0.0

FILE NAME = D774149-SHT-Xsht01.dgn
 SCALES: (HORIZ) 1"=10', (VERT) 1"=5'

USER NAME = HAS
 DESIGNED - DAJ
 DRAWN - JPC
 CHECKED - MTD
 DATE - AUGUST 3, 2009

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

IL ROUTE 16 CROSS SECTIONS

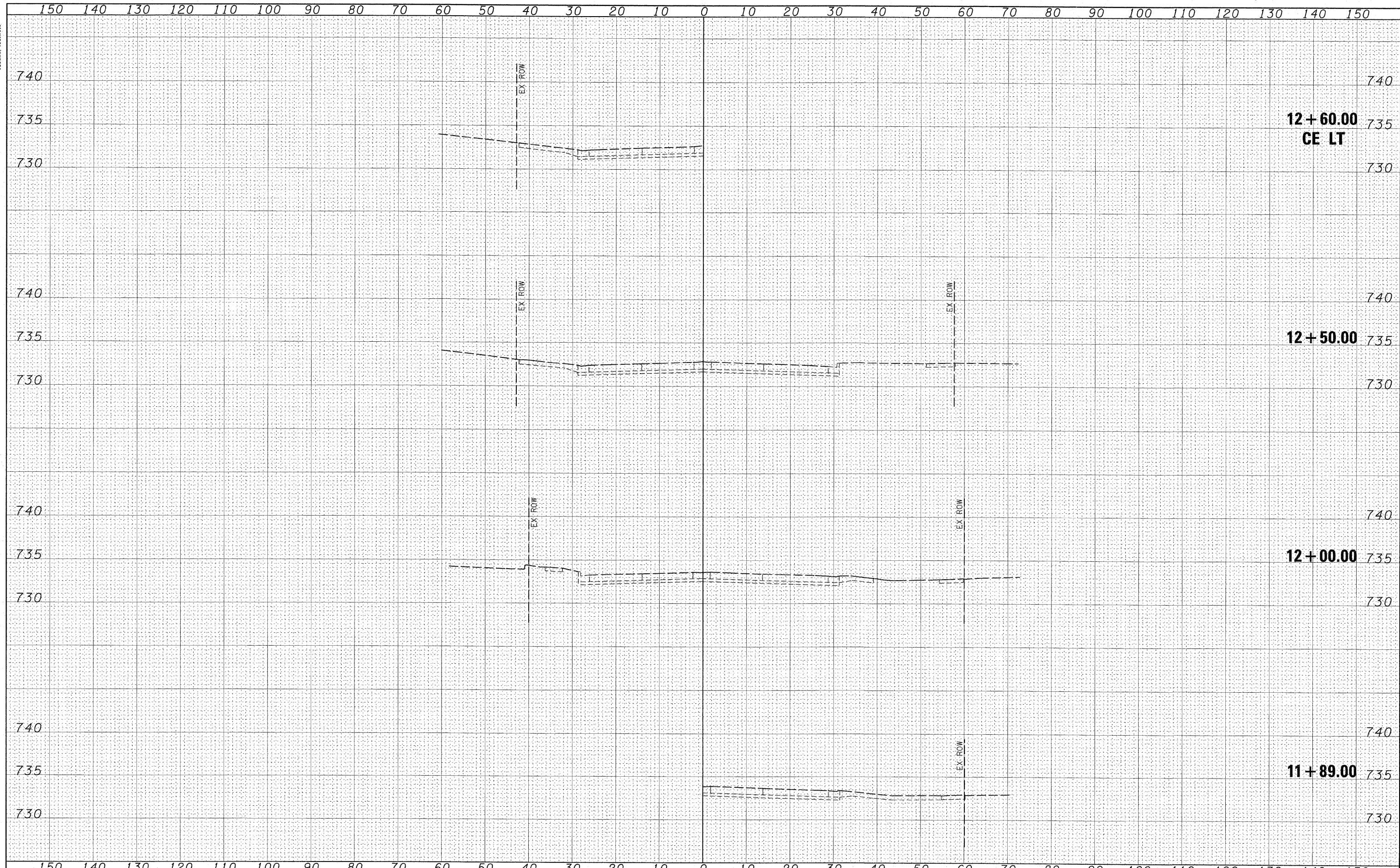
SCALE: AS SHOWN SHEET NO. 7 OF 9 SHEETS STA. 31+50.00 TO STA. 11+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	(19VBR)BR	COLES	92	87
CONTRACT NO. 74149				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	DATE	
	AREAS CHECKED	

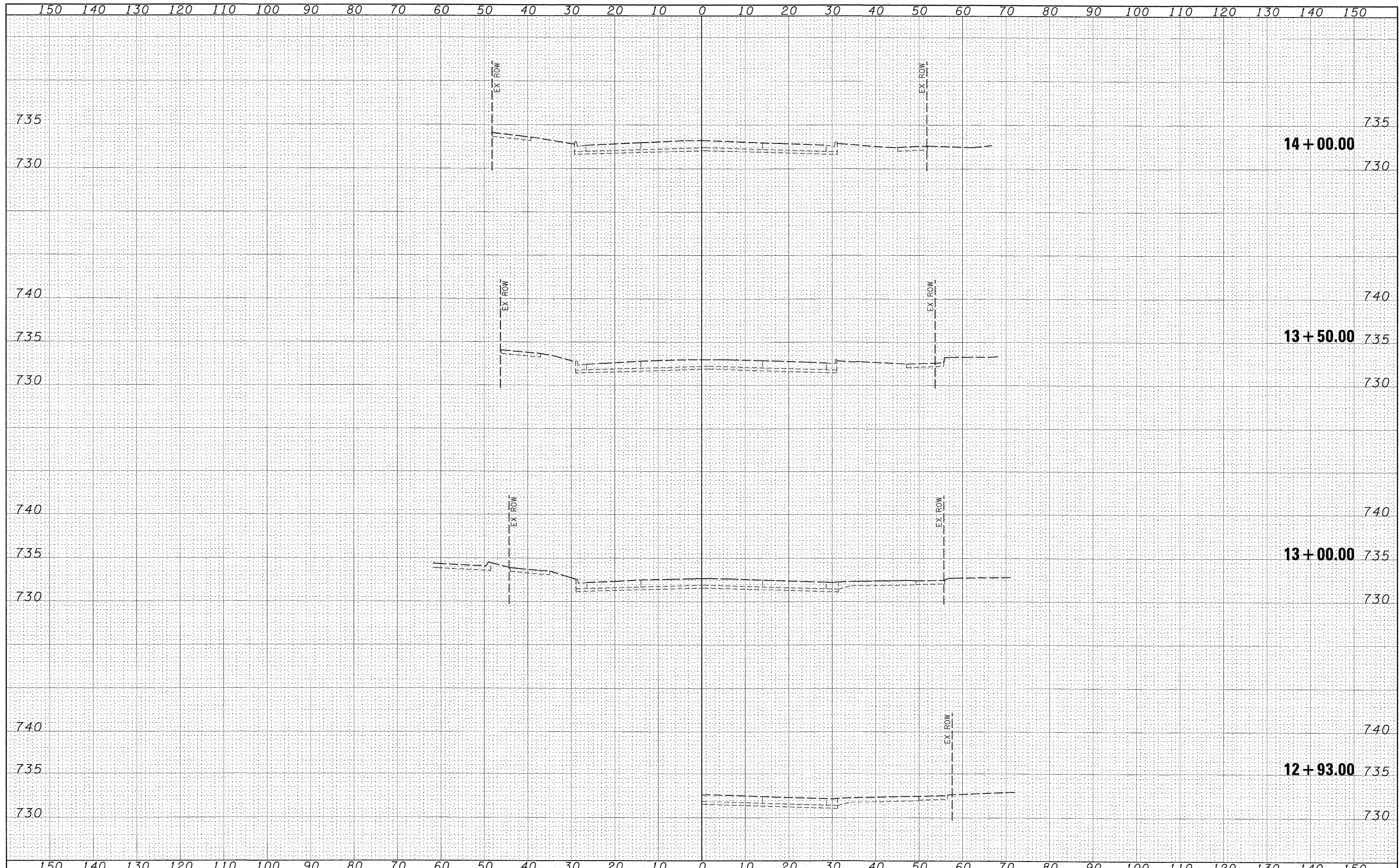
ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	DATE	
	AREAS CHECKED	



FILE NAME = D774149-SHT-Xsht01.dgn	USER NAME = HAS	DESIGNED - MTD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL ROUTE 16 CROSS SECTIONS				F.A.P. RTE. 325	SECTION (19VBR)BR	COUNTY COLES	TOTAL SHEETS 92	SHEET NO. 88
SCALE: (HORIZ) 1"=10', (VERT) 1"=5'	PLT SCALE = 10.0000' / IN.	DRAWN - RJT	REVISED -		SCALE: AS SHOWN	SHEET NO. 8 OF 9 SHEETS	STA. 11+89.00	TO STA. 12+60.00	CONTRACT NO. 74149				
	PLT DATE = 7/31/2009 2:26:49 PM	CHECKED - MTD	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								
		DATE - AUGUST 3, 2009	REVISED -										

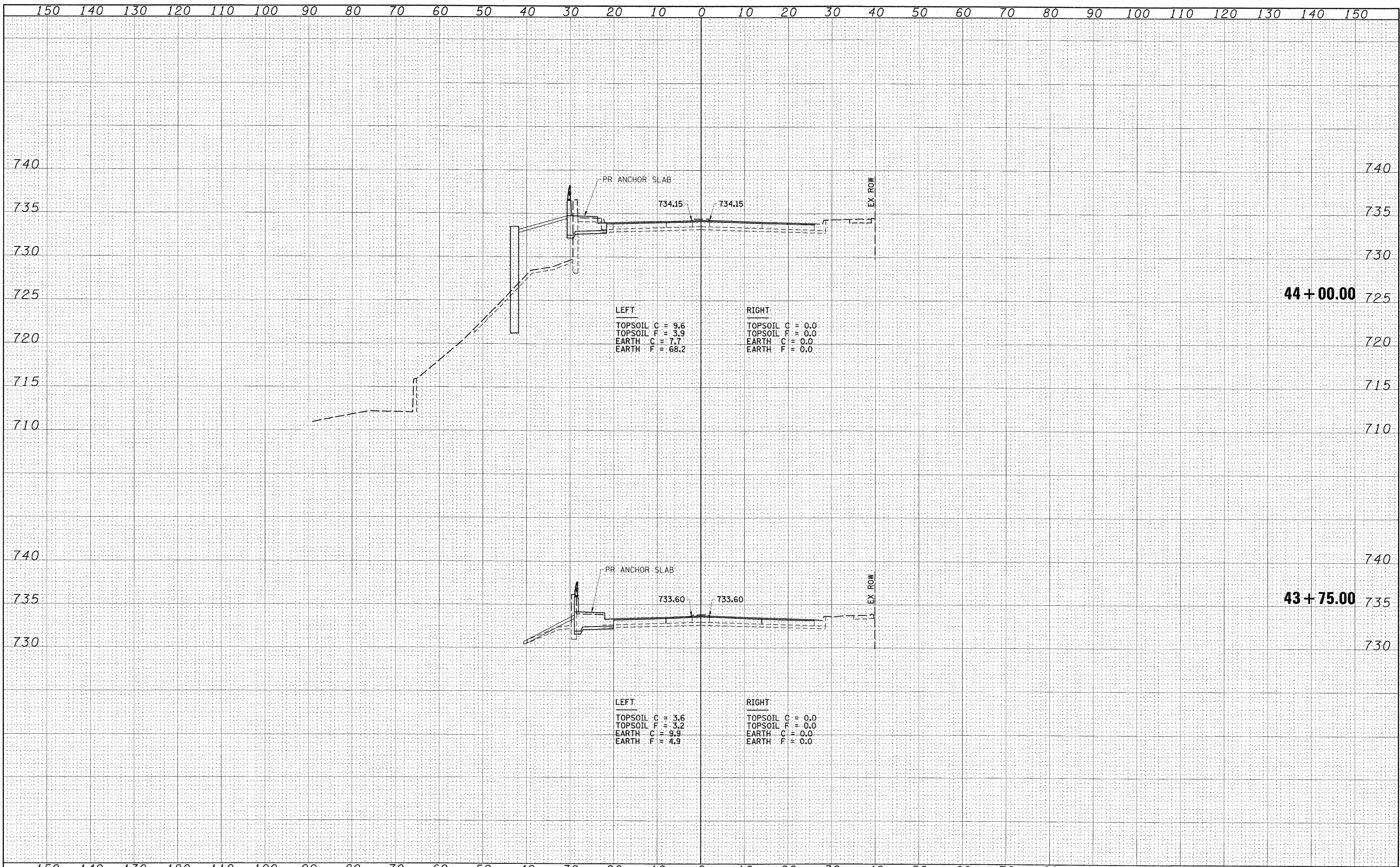
FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	AREAS CHECKED	



FINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

ORIGINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME = D774149-SHT-Xsht02.dgn
 USER NAME = HAS
 PLOT SCALE = 10.0000' / IN.
 PLOT DATE = 7/31/2009 2:26:26 PM

DESIGNED - DAJ	REVISED -
DRAWN - KAH	REVISED -
CHECKED - MTD	REVISED -
DATE - AUGUST 3, 2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

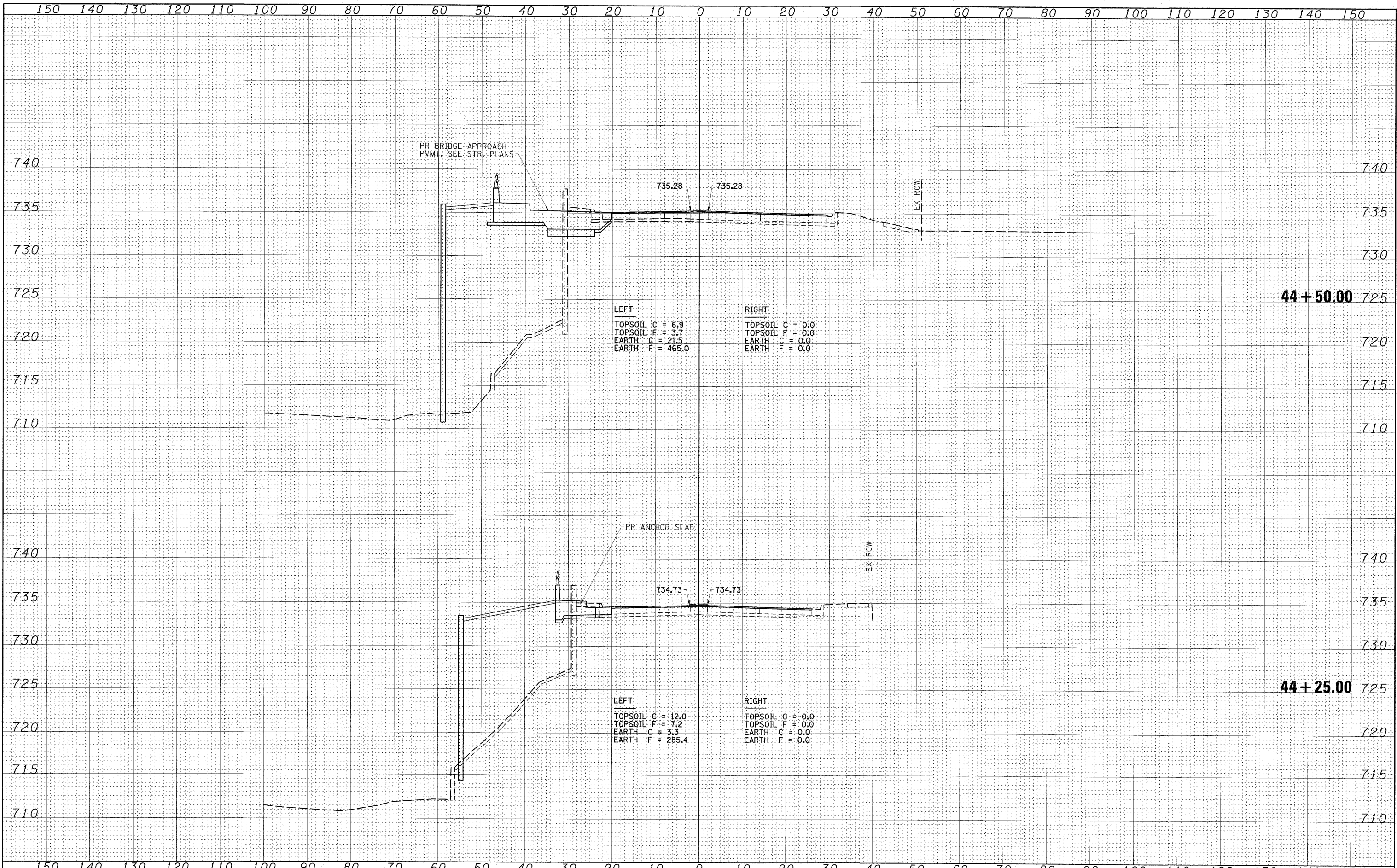
US ROUTE 45 CROSS SECTIONS

SCALE: AS SHOWN SHEET NO. 1 OF 3 SHEETS STA. 43+75.00 TO STA. 44+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	(19VBR)BR	COLES	92	90
CONTRACT NO. 74149				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

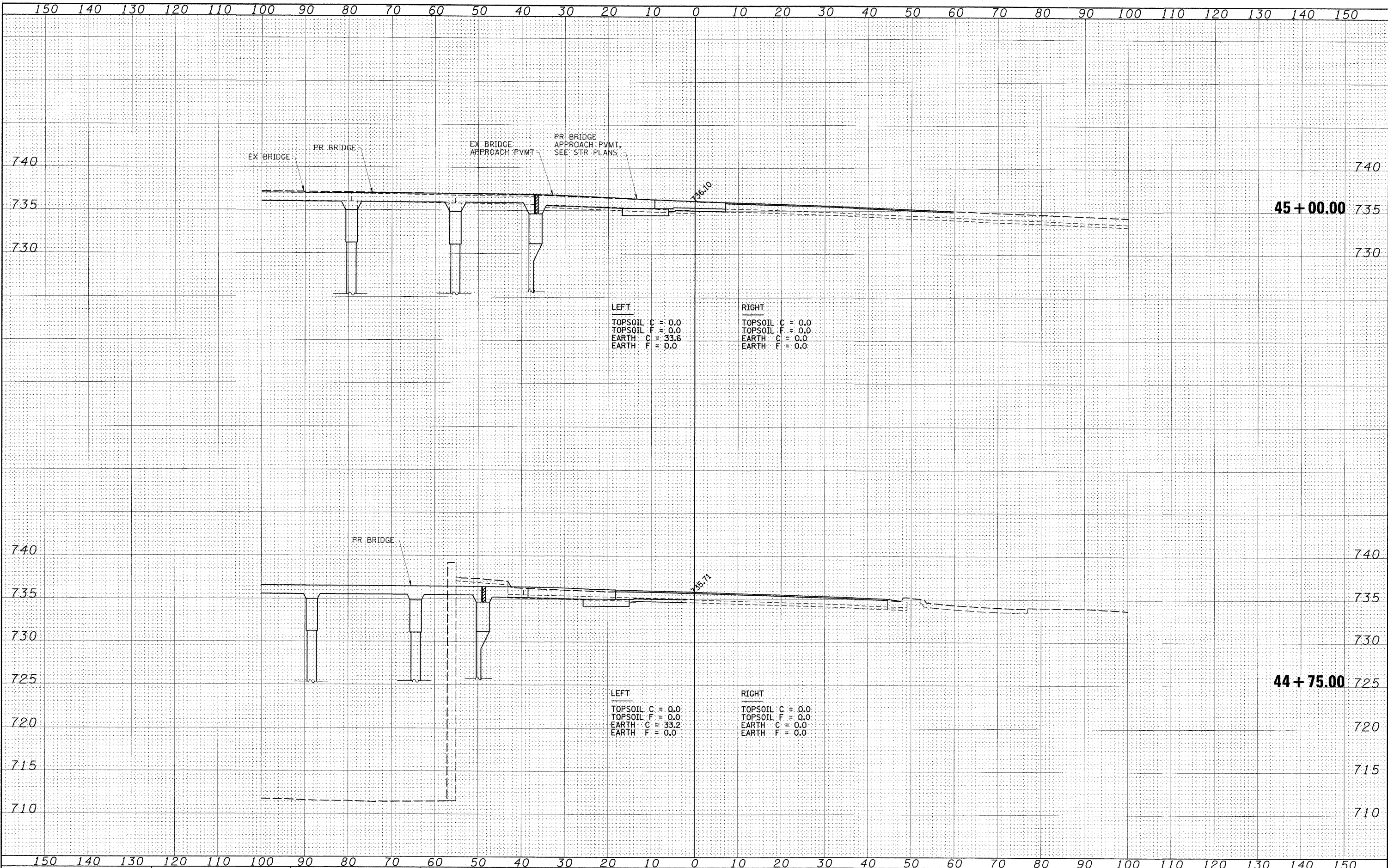
DATE	
BY	
FINAL SURVEY	
SURVEYED	
PLOTTED	
NOTE BOOK	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
NOTE BOOK	
NO.	



DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
NO.	
FINAL SURVEY	
NOTED SURVEY	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	

DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
NO.	
ORIGINAL SURVEY	
NOTED SURVEY	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	



LEFT
TOPSOIL C = 0.0
TOPSOIL F = 0.0
EARTH C = 33.6
EARTH F = 0.0

RIGHT
TOPSOIL C = 0.0
TOPSOIL F = 0.0
EARTH C = 0.0
EARTH F = 0.0

LEFT
TOPSOIL C = 0.0
TOPSOIL F = 0.0
EARTH C = 33.2
EARTH F = 0.0

RIGHT
TOPSOIL C = 0.0
TOPSOIL F = 0.0
EARTH C = 0.0
EARTH F = 0.0

FILE NAME = D774149-SHT-Xsht02.dgn

USER NAME = RJT
PLOT SCALE = 10.0733' / IN.
PLOT DATE = 8/4/2009 10:42:11 AM

DESIGNED - DAJ
DRAWN - HAS/KAH
CHECKED - MTD
DATE - AUGUST 3, 2009

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

US ROUTE 45 CROSS SECTIONS

SCALE: AS SHOWN SHEET NO. 3 OF 3 SHEETS STA. 44+75.00 TO STA. 45+00.00

F.A.P. RTE. 325	SECTION (19VBR)BR	COUNTY COLES	TOTAL SHEETS 92	SHEET NO. 92
CONTRACT NO. 74149				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				