06-10-2016 LETTING ITEM 122

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	1
	ILLINOIS	CONTRACT NO. 74106		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

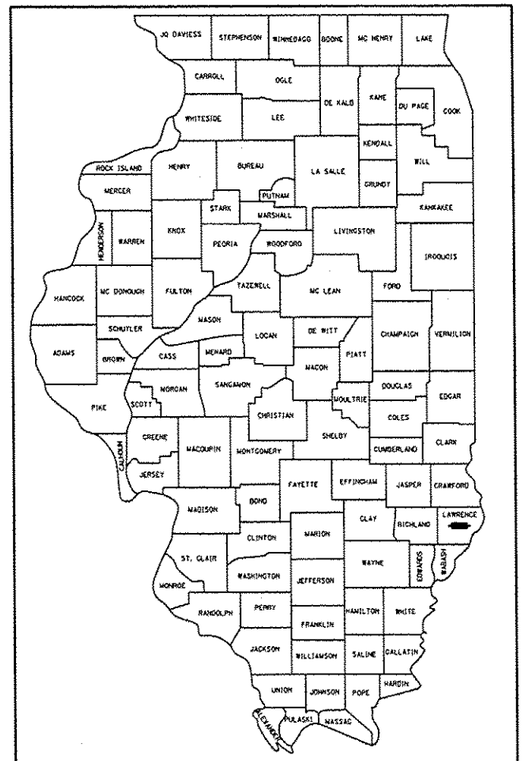
PROPOSED
HIGHWAY PLANS

F.A.S. ROUTE 1806 (IL. RTE. 250)
SECTION 2B-1
PROJECT ACRS-1806(001)
BRIDGE REPLACEMENT
LAWRENCE COUNTY
C-97-070-05

FOR INDEX OF SHEETS, SEE SHEET NO. 2

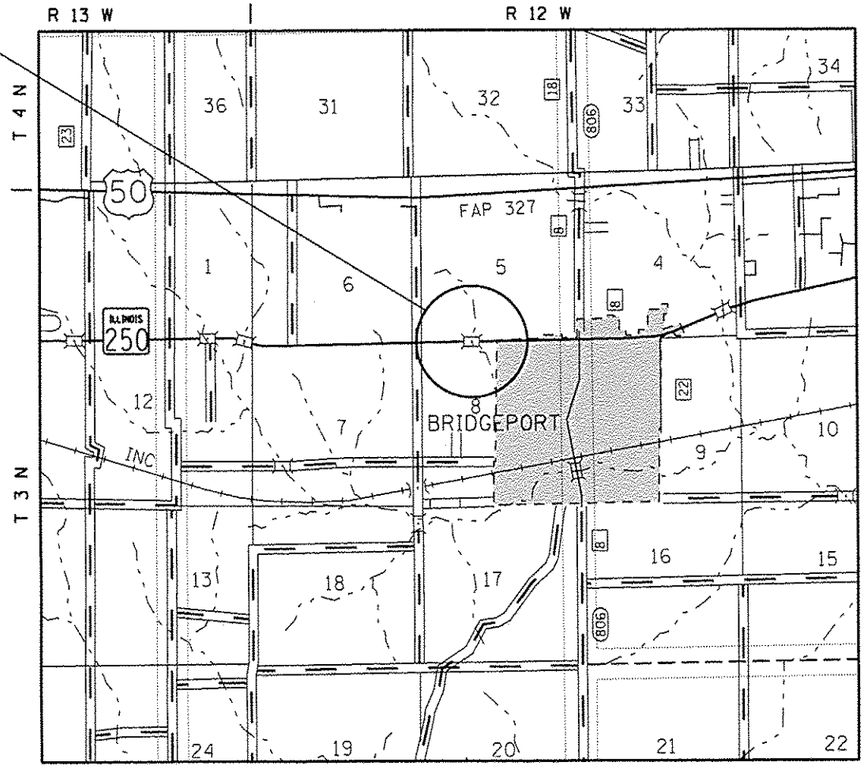
ADT = 2400 (2014)

D-97-035-05

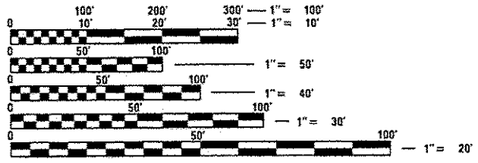


LOCATION OF SECTION INDICATED THUS:- ▬

F.A.S. RTE. 1806 (IL. RTE. 250)
SECTION 2B-1
LAWRENCE COUNTY
STRUCTURE 051-0065
STATION 235+10



GROSS LENGTH = 1128.05 FT. = 0.21 MILE
NET LENGTH = 1128.05 FT. = 0.21 MILE



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

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED DECEMBER 8 20 15

Roger L Driskell 6/20
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 6 20 16
Maureen M. Addis, P.E. by
ENGINEER OF DESIGN AND ENVIRONMENT

May 6 20 16
Omer Osman, P.E. by
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT ENGINEER: TOM RONAN
PROJECT MANAGER: JENNIFER SHULL
PHONE: (217)-342-8361

CONTRACT NO. 74106

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INDEX OF SHEETS

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THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED FOLLOWING SHEET NUMBER 59:

STD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
406201-01	MAILBOX TURNOUT
420401-12	BRIDGE APPROACH PAVEMENT CONNECTOR
515001-03	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
601101-02	CONCRETE HEADWALL FOR PIPE DRAINS
606201-03	TYPE B GUTTER (INLET, OUTLET & ENTRANCE)
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-14	TRAFFIC BARRIER TERMINAL, TYPE 6
666001-01	RIGHT OF WAY MARKERS
667101-02	PERMANENT SURVEY MARKERS
668001-01	US GEOLOGICAL SURVEY AND NATIONAL GEODETIC SURVEY BENCHMARKS, RESETTING METHOD
701001-02	OFF ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM EDGE OF PAVEMENT
701011-04	OFF ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS <=45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
701901-05	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
725001	OBJECT AND TERMINAL MARKERS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

REV.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

SCALE: N/A | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	28-1	LAWRENCE	59	2
		CONTRACT NO. 74106		
		ILLINOIS FED. AID PROJECT		

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED APRIL 1, 2016; AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THIS PROJECT IS LOCATED ON FAS ROUTE 1806 (ILLINOIS ROUTE 250) IN LAWRENCE COUNTY, APPROXIMATELY 0.7 MILES WEST OF BRIDGEPORT, AT EXISTING STRUCTURE NUMBER 051-0051. THE WORK INCLUDED IN SECTION 2B-1 CONSISTS OF REMOVING THE EXISTING SINGLE SPAN REINFORCED CONCRETE DECK SLAB STRUCTURE AND REPLACING IT WITH A SINGLE SPAN REINFORCED CONCRETE SLAB BRIDGE ON INTEGRAL ABUTMENTS, APPROACH PAVEMENTS, FLEXIBLE CONNECTORS, HOT-MIX ASPHALT RESURFACING, EARTHWORK, GUARDRAIL, PAVEMENT MARKING AND ANY OTHER WORK NECESSARY TO COMPLETE THE SECTION.

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

THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS AND MUST BE CONSIDERED APPROXIMATE. FIELD MARKINGS OF UTILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING A MINIMUM OF 96 HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING 800-892-0123. IN ADDITION, THE CONTRACTOR SHALL CONTACT REX ENERGY PROVIDING A MINIMUM OF 96 ADVANCE NOTICE. REX ENERGY CONTACT INFORMATION:

AJ STEWART
PRODUCTION ENGINEER, ILLINOIS REGION
P.O. BOX 318
BRIDGEPORT, ILLINOIS 62417
OFFICE 618-943-8700 EXT 124
CELL 618-317-1266
astewart@rexenergycorp.com

THE MATERIAL USED FOR AGGREGATE SHOULDERS AND AGGREGATE SURFACE COURSE, TYPE B SHALL BE CRUSHED STONE OR CRUSHED CONCRETE.

ALL EXCAVATION ABOVE THE BOTTOM OF THE RIPRAP EXCAVATION LINE SHALL BE INCLUDED IN THE COST OF STONE RIPRAP, CLASS A4 AND NO ADDITIONAL COMPENSATION WILL BE PERMITTED.

THE RESIDENT ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE CURING TIME FOR THE VARIOUS HOT-MIX ASPHALT LIFTS.

THE CONTRACTOR SHALL PROVIDE INTERNET ACCESSIBILITY TO THE HOT-MIX ASPHALT PLANT QUALITY CONTROL LAB SO THAT HOT-MIX ASPHALT PLANT REPORTS CAN BE E-MAILED TO THE DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL HOT-MIX ASPHALT ITEMS.

PAINT PAVEMENT MARKING-LINE 4" SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS, AS SHOWN IN THE PLANS, AND AS DIRECTED BY THE ENGINEER. THE TOTAL QUANTITY CALCULATED CONSISTS OF 2256 FEET OF WHITE AND 280 FEET OF YELLOW.

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 781 OF THE STANDARD SPECIFICATIONS. THE TOTAL QUANTITY OF RAISED REFLECTIVE PAVEMENT MARKERS CONSISTS OF 14 TWO-WAY AMBER MARKERS. THE TOTAL QUANTITY OF RAISED REFLECTIVE PAVEMENT MARKERS (BRIDGE) CONSISTS OF 1 TWO-WAY AMBER MARKERS.

SHORT TERM PAVEMENT MARKING SHALL BE APPLIED TO THE HOT-MIX ASPHALT SURFACE COURSE AS SPECIFIED IN SECTION 703 OF THE STANDARD SPECIFICATIONS. TEMPORARY TAPE SHALL BE USED ON THE SURFACE COURSE.

ALL WORK NECESSARY TO ATTACH THE 4" PIPE DRAINS TO THE ABUTMENT DRAIN PIPES, TRENCHING IN THE PIPE DRAINS AND INSTALLING THE PIPE INTO THE CONCRETE HEADWALLS IS INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR PIPE DRAINS 4". THE ESTIMATED QUANTITY OF 60' WAS CALCULATED BY TAKING THE DIFFERENCE BETWEEN THE STRUCTURE PIPE UNDERDRAIN ELEVATIONS AND THE TOE OF SLOPE ELEVATIONS FROM THE CROSS SECTIONS.

PERMANENT SURVEY MARKER, TYPE II SHALL BE CAST-IN-PLACE ACCORDING TO STANDARD 668001. THE PERMANENT SURVEY MARKER SHALL BE INSTALLED INSIDE ROW AS DIRECTED BY THE RESIDENT ENGINEER.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

BINDER COURSE-FULL DEPTH PAVEMENT (4", 2 3/4", AND 2 1/4" LIFTS)
APPLICATION: HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70
PG GRADE: PG 64-22
DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
MIXTURE COMPOSITION: IL-19.0
FRICTION AGGREGATE: N/A

BINDER COURSE-OUTSIDE FULL DEPTH PAVEMENT
APPLICATION: HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70
PG GRADE: PG 64-22
DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
MIXTURE COMPOSITION: IL-19.0
FRICTION AGGREGATE: N/A

SURFACE COURSE-FULL DEPTH PAVEMENT AND OTHER SURFACE
APPLICATION: HOT-MIX ASPHALT SURFACE COURSE, MIX "C" N70
PG GRADE: PG 64-22
DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
MIXTURE COMPOSITION: IL-9.5
FRICTION AGGREGATE: MIXTURE C

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)
APPLICATION: HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70
PG GRADE: PG 64-22
DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
MIXTURE COMPOSITION: IL-19.0
FRICTION AGGREGATE: N/A

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN THE CALCULATING PLAN QUANTITIES:

AGGREGATE SHOULDERS	2.05	TONS/CU YD
BITUMINOUS MATERIALS (PRIME COAT)	0.05	LBS/SQ FT (MILLED SURFACE)
	0.025	LBS/SQ FT (BETWEEN HMA LIFTS)
HOT-MIX ASPHALT	112	LBS./SQ. YD/INCH

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SCALE: N/A | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	3
		CONTRACT NO. 74106		
	ILLINOIS	FED. AID PROJECT		

80% FED
20% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011		
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	51	51		
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	45	45		
20200100	EARTH EXCAVATION	CU YD	495	495		
20400800	FURNISHED EXCAVATION	CU YD	355	355		
20600200	GRANULAR EMBANKMENT, SPECIAL	CU YD	104	104		
25000200	SEEDING, CLASS 2	ACRE	0.8	0.8		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	74	74		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	74	74		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	74	74		
25000700	AGRICULTURAL GROUND LIMESTONE	TON	1.6	1.6		
25100115	MULCH, METHOD 2	ACRE	0.8	0.8		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	82	82		
28000305	TEMPORARY DITCH CHECKS	FOOT	60	60		
28000400	PERIMETER EROSION BARRIER	FOOT	990	990		

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80% FED
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SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011		
28000500	INLET AND PIPE PROTECTION	EACH	2	2		
28100107	STONE RIPRAP, CLASS A4	SQ YD	381	381		
28200200	FILTER FABRIC	SQ YD	381	381		
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	120	120		
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	1893	1893		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1758	1758		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	897	897		
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	590	590		
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	269	269		
40701901	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 11"	SQ YD	421	421		
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SQ YD	84	84		
~~42001430~~	~~BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)~~	~~SQ YD~~	~~84~~	~~84~~		
44000100	PAVEMENT REMOVAL	SQ YD	234	234		
44000400	GUTTER REMOVAL	FOOT	1037	1037		
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	682	682		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N/A | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	4
		CONTRACT NO. 74106		
		ILLINOIS FED. AID PROJECT		

80% FED
20% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011		
50105220	PIPE CULVERT REMOVAL	FOOT	55	55		
50200100	STRUCTURE EXCAVATION	CU YD	165	165		
50300225	CONCRETE STRUCTURES	CU YD	54.7	54.7		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	83.5	83.5		
50300260	BRIDGE DECK GROOVING	SQ YD	400	400		
50300280	CONCRETE ENCASEMENT	CU YD	4.2	4.2		
50300300	PROTECTIVE COAT	SQ YD	510	510		
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	116.7	116.7		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	1		
50500505	STUD SHEAR CONNECTORS	EACH	738	738		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	51295	51295		
50800515	BAR SPLICERS	EACH	78	78		
51201600	FURNISHING STEEL PILES HP12X53	FOOT	457	457		
51202305	DRIVING PILES	FOOT	457	457		
51203600	TEST PILE STEEL HP12X53	EACH	2	2		

80% FED
20% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011		
51500100	NAME PLATES	EACH	1	1		
52100520	ANCHOR BOLTS, 1"	EACH	24	24		
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	4	4		
542A0229	PIPE CULVERTS, CLASS A, TYPE 1 24"	FOOT	205	205		
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	48	48		
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4	4		
60100905	PIPE DRAINS 4"	FOOT	80	80		
60600095	CLASS SI CONCRETE (OUTLET)	CU YD	21	21		
60602800	CONCRETE GUTTER, TYPE B	FOOT	826	826		
~~60900515~~	~~CONCRETE THRUST BLOCKS~~	~~EACH~~	~~4~~	~~4~~		
61000050	CONCRETE THRUST BLOCKS	EACH	4	4		
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	100	100		
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N/A | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	5
		CONTRACT NO. 74106		
		ILLINOIS FED. AID PROJECT		

80% FED
20% STATE

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011		
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4		
	63200310	GUARDRAIL REMOVAL	FOOT	388	388		
	66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	8	8		
	66700205	PERMANENT SURVEY MARKERS, TYPE I	EACH	2	2		
	66700305	PERMANENT SURVEY MARKERS, TYPE II	EACH	1	1		
*	66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	7	7		
*	66900450	SPECIAL WASTE PLANS AND REPORTS	LSUM	1	1		
*	66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1		
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6		
	67100100	MOBILIZATION	LSUM	1	1		
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1	1		
	70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	LSUM	1	1		

80% FED
20% STATE

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011		
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	112	112		
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	37	37		
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2536	2536		
	~~70301000~~	~~WORK ZONE PAVEMENT MARKING REMOVAL~~	~~SQ FT~~	~~37~~	~~37~~		
*	72501000	TERMINAL MARKER-DIRECT APPLIED	EACH	4	4		
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2536	2536		
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	14	14		
*	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	1	1		
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	8	8		
*	~~78200410~~	~~GUARDRAIL MARKERS, TYPE A~~	~~EACH~~	~~8~~	~~8~~		
*	~~78201000~~	~~TERMINAL MARKER - DIRECT APPLIED~~	~~EACH~~	~~4~~	~~4~~		
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	845	845		
	~~X2070304~~	~~POROUS GRANULAR EMBANKMENT, SPECIAL~~	~~CU YD~~	~~84.1~~	~~84.1~~		
	X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	1	1		
	X4024000	TEMPORARY ACCESS (FIELD ENTRANCE)	EACH	3	3		
	X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	1505	1505		
	X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	84.1	84.1		
	X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28	28		

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* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N/A | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	28-1	LAWRENCE	59	6
		CONTRACT NO. 74106		
		ILLINOIS FED. AID PROJECT		

80% FED
20% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011		
Z0004638	PAVEMENT BREAKING	SQ YD	477	477		
Z0016702	DETOUR SIGNING	LSUM	1	1		
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	139	139		
Z0049799	PROTECTING OR RESETTING SURVEY MARKERS	EACH	2	2		
Z0070202	SURVEY MARKER VAULT	EACH	2	2		

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

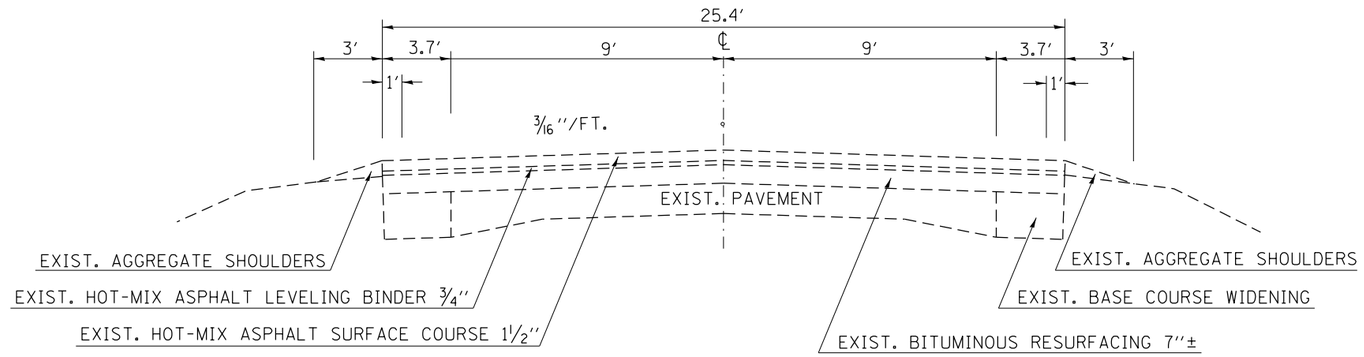
SUMMARY OF QUANTITIES

SCALE: N/A | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	7
		CONTRACT NO. 74106		
	ILLINOIS	FED. AID PROJECT		

EXISTING TYPICAL CROSS SECTION

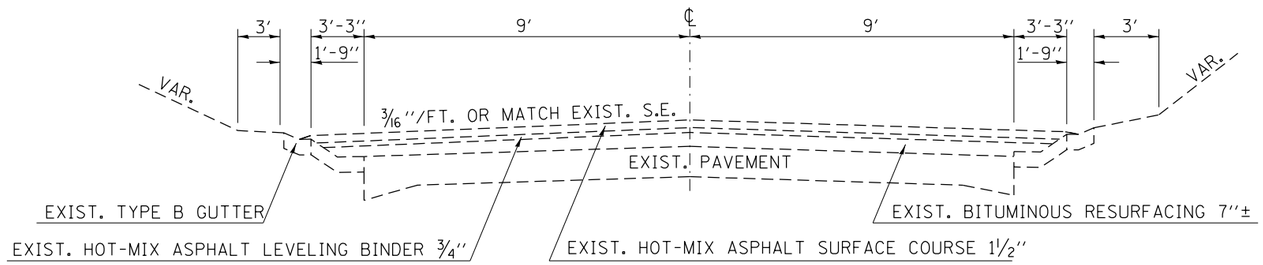
STA. 132+00 TO STA. 236+00



NOTE: NOT TO SCALE

EXISTING TYPICAL CROSS SECTION

STA. 236+00 TO STA. 256+34



NOTE: NOT TO SCALE

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		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ′ / in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/10/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

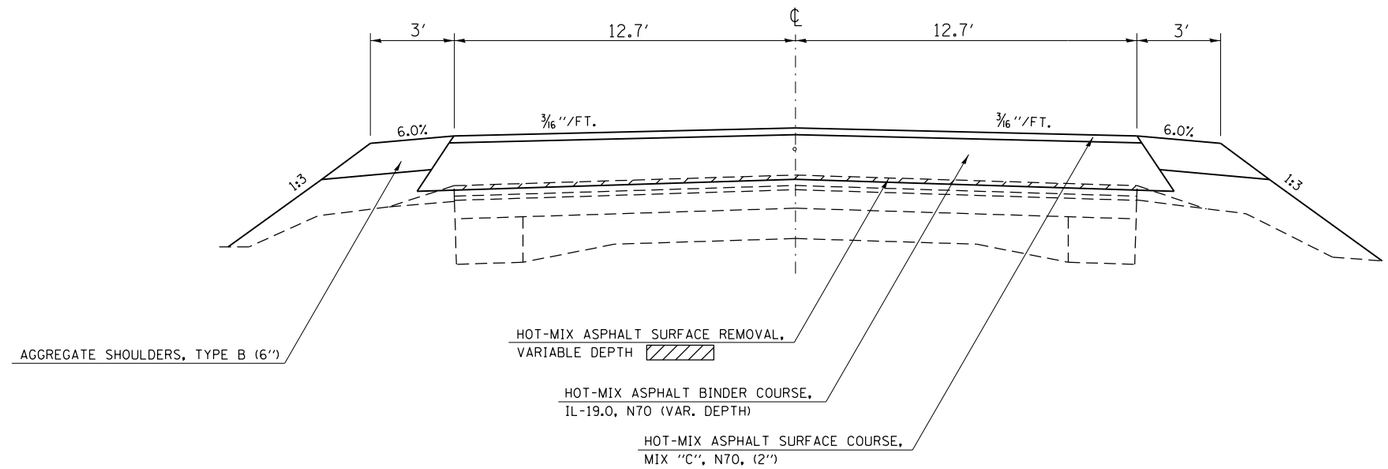
TYPICAL CROSS SECTIONS

SCALE: N/A | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	8
		CONTRACT NO. 74106		
		ILLINOIS FED. AID PROJECT		

PROPOSED TYPICAL CROSS SECTION

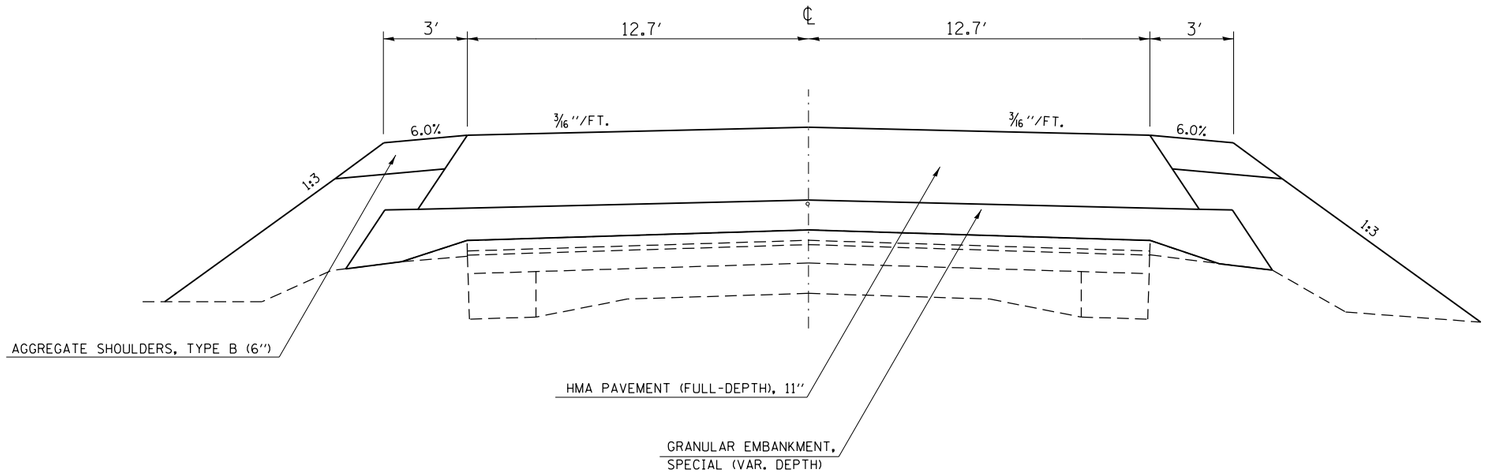
STA. 229+34.9 TO STA. 234+09.6



NOTE: NOT TO SCALE

PROPOSED TYPICAL CROSS SECTION

STA. 234+09.6 TO STA. 234+57.5



NOTE: NOT TO SCALE

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		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ′ / in.	CHECKED -	REVISED -
	PLOT DATE = 12/10/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

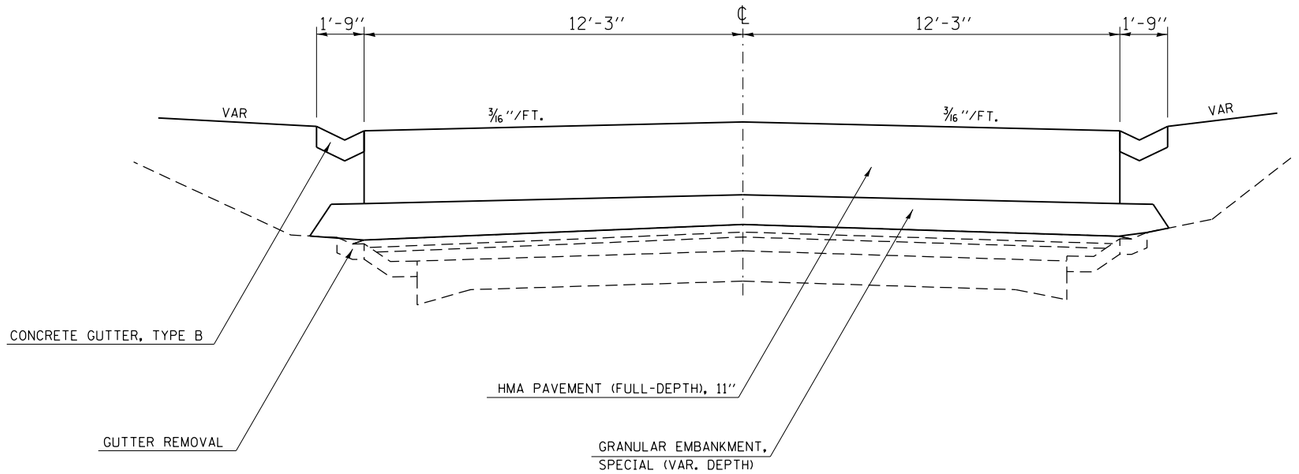
TYPICAL CROSS SECTIONS

SCALE: N/A | SHEET 2 OF 3 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	9
		CONTRACT NO. 74106		
		ILLINOIS FED. AID PROJECT		

PROPOSED TYPICAL CROSS SECTION

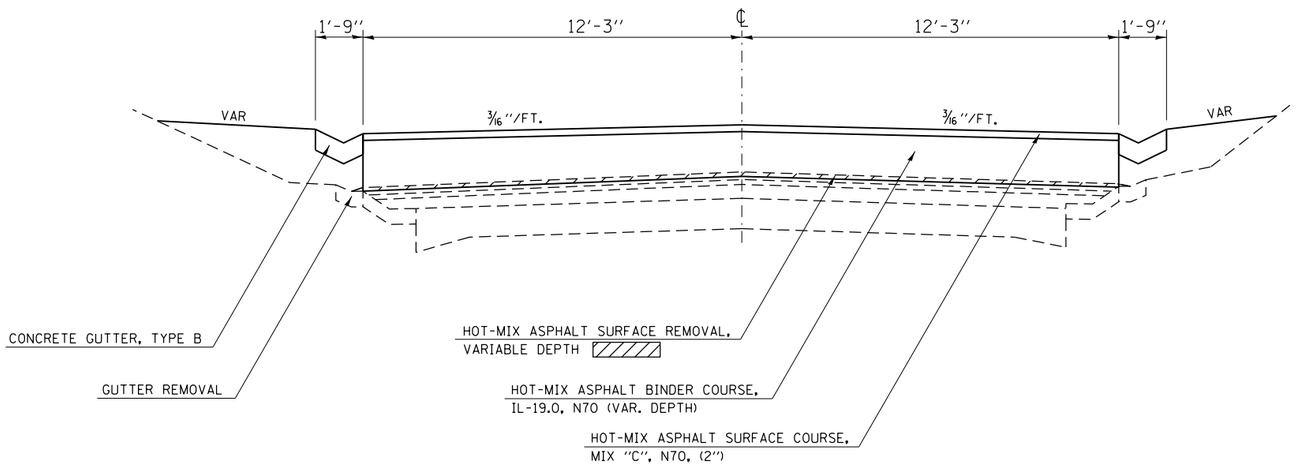
STA. 235+62.5 TO STA. 236+84.04



NOTE: NOT TO SCALE

PROPOSED TYPICAL CROSS SECTION

STA. 236+84.04 TO STA. 240+62.95



NOTE: NOT TO SCALE

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		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/10/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

SCALE: N/A | SHEET 3 OF 3 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	10
		CONTRACT NO. 74106		
	ILLINOIS	FED. AID PROJECT		

RESURFACING SCHEDULE

STATION TO STATION	LENGTH	PAVEMENT BREAKING	PAVEMENT REMOVAL	GRANULAR EMBANKMENT, SPECIAL	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 11"	BITUMINOUS MATERIALS (PRIME COAT)	BITUMINOUS MATERIALS (TACK COAT)	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	AGGREGATE SHOULDERS, TYPE B 6"	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	GUTTER REMOVAL	CONCRETE GUTTER, TYPE B	CLASS SI CONCRETE (OUTLET)
	FOOT	SQ YD	SQ YD	CU YD	SQ YD	POUND	POUND	TON	TON	SQ YD	SQ YD	SQ YD	SQ YD	FOOT	FOOT	CU YD
229+34.90 TO 230+56.90	122.0	0.0	0.0	0.0	0.0	0.0	154.5	0.0	38.5	0.0	81.3	0.0	343.4	0.0	0.0	0.0
230+56.90 TO 234+09.60	352.7	0.0	0.0	0.0	0.0	0.0	893.4	389.1	111.2	0.0	235.1	992.7	0.0	0.0	0.0	0.0
234+09.60 TO 234+47.50	37.9	106.7	0.0	20.9	106.7	480.0	0.0	0.0	0.0	0.0	25.3	0.0	0.0	0.0	0.0	0.0
234+47.50 TO 234+57.50	10.0	28.1	0.0	8.7	0.0	0.0	0.0	0.0	0.0	42.0	6.7	0.0	0.0	0.0	0.0	0.0
234+57.50 TO 235+62.50	105.0	0.0	233.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.5	0.0	3.4
235+62.50 TO 235+72.50	10.0	28.1	0.0	9.3	0.0	0.0	0.0	0.0	0.0	42.0	6.7	0.0	0.0	20.0	0.0	1.6
235+72.50 TO 236+84.04	111.5	313.9	0.0	64.6	313.9	1412.7	0.0	0.0	0.0	0.0	74.4	0.0	0.0	223.1	68.1	16.4
236+84.04 TO 238+66.10	182.1	0.0	0.0	0.0	0.0	0.0	461.2	200.9	57.4	0.0	121.4	512.4	0.0	364.1	364.1	0.0
238+66.10 TO 240+62.95	196.9	0.0	0.0	0.0	0.0	0.0	249.3	0.0	62.1	0.0	131.2	0.0	554.0	393.7	393.7	0.0
TOTALS		477.0	234.0	104.0	421.0	1893.0	1758.0	590.0	269.0	84.0	682.0	1505.0	897.0	1037.0	826.0	21.0

PAVEMENT MARKING SCHEDULE

STATION TO STATION	LENGTH	PAINT PAVEMENT MARKING - LINE 4"	TEMPORARY PAVEMENT MARKING - LINE 4"	SHORT-TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)
	FOOT	FOOT	FOOT	FOOT	SQ FT	SQ FT	EACH	EACH
229+34.90 TO 234+87.50	552.6	1245.2	1245.2	56.0	18.7	415.1	7.0	0.0
234+87.50 TO 235+32.50	45.0	100.0	100.0	4.0	1.3	33.3	0.0	1.0
235+32.50 TO 240+62.95	530.5	1190.9	1190.9	52.0	17.3	397.0	7.0	0.0
TOTALS		2536.1	2536.1	112.0	37.3	845.4	14.0	1.0

GUARDRAIL SCHEDULE

LOCATION	GUARDRAIL REMOVAL	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6	GUARDRAIL REFLECTORS, TYPE A	TERMINAL MARKERS - DIRECT APPLIED
	FOOT	EACH	FOOT	EACH	EACH	EACH
SN 051-0065						
SOUTHEAST CORNER	100.0	1.0	0.0	1.0	2.0	1.0
NORTHEAST CORNER	100.0	1.0	50.0	1.0	2.0	1.0
BRIDGE						
SOUTHWEST CORNER	100.0	1.0	50.0	1.0	2.0	1.0
NORTHWEST CORNER	88.0	1.0	0.0	1.0	2.0	1.0
TOTALS=	388.0	4.0	100.0	4.0	8.0	4.0

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Default	PLOT DATE = 5/2/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: N/A | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	11
		CONTRACT NO. 74106		
	ILLINOIS FED. AID PROJECT			

SEEDING SCHEDULE

STATION TO STATION	SEEDING, CLASS 2	TEMPORARY EROSION CONTROL SEEDING	NITROGEN FERTILIZER NURTIENT	PHOSPHORUS FERTILIZER NURTIENT	POTASSIUM FERTILIZER NURTIENT	MULCH, METHOD 2	AGRICULTURAL GROUND LIMESTONE
	ACRE	POUND	POUND	POUND	POUND	ACRE	TON
IL 242							
229+50.0 TO 230+00.0	0.04	4.00	3.60	3.60	3.60	0.04	0.08
230+00.0 TO 230+50.0	0.06	6.00	5.40	5.40	5.40	0.06	0.12
230+50.0 TO 231+00.0	0.06	6.00	5.40	5.40	5.40	0.06	0.12
231+00.0 TO 231+50.0	0.05	5.00	4.50	4.50	4.50	0.05	0.10
231+50.0 TO 232+00.0	0.04	4.00	3.60	3.60	3.60	0.04	0.08
232+00.0 TO 232+50.0	0.04	4.00	3.60	3.60	3.60	0.04	0.08
232+50.0 TO 233+00.0	0.04	4.00	3.60	3.60	3.60	0.04	0.08
233+00.0 TO 233+50.0	0.04	4.00	3.60	3.60	3.60	0.04	0.08
233+50.0 TO 234+00.0	0.05	5.00	4.50	4.50	4.50	0.05	0.10
234+00.0 TO 234+50.0	0.06	6.00	5.40	5.40	5.40	0.06	0.12
234+50.0 TO 234+87.5	0.05	5.00	4.50	4.50	4.50	0.05	0.10
235+32.5 TO 236+00.0	0.06	6.00	5.40	5.40	5.40	0.06	0.12
236+00.0 TO 236+50.0	0.05	5.00	4.50	4.50	4.50	0.05	0.10
236+50.0 TO 237+00.0	0.03	3.00	2.70	2.70	2.70	0.03	0.06
237+00.0 TO 237+50.0	0.03	3.00	2.70	2.70	2.70	0.03	0.06
237+50.0 TO 238+00.0	0.02	2.00	1.80	1.80	1.80	0.02	0.04
238+00.0 TO 238+50.0	0.02	2.00	1.80	1.80	1.80	0.02	0.04
238+50.0 TO 239+00.0	0.02	2.00	1.80	1.80	1.80	0.02	0.04
239+00.0 TO 239+50.0	0.02	2.00	1.80	1.80	1.80	0.02	0.04
239+50.0 TO 240+00.0	0.02	2.00	1.80	1.80	1.80	0.02	0.04
240+00.0 TO 240+50.0	0.02	2.00	1.80	1.80	1.80	0.02	0.04
TOTAL =	0.8	82.0	74.0	74.0	74.0	0.8	1.6

EARTHWORK SCHEDULE

STATION TO STATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	EARTH FILL	EARTHWORK BALANCE, WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD
229+50.00 TO 230+00.00	28.5	21.4	4.7	16.7
230+00.00 TO 230+50.00	73.8	55.4	8.1	47.3
230+50.00 TO 231+00.00	74.1	55.5	7.2	48.4
231+00.00 TO 231+50.00	47.9	35.9	8.2	27.7
231+50.00 TO 232+00.00	31.7	23.8	12.0	11.8
232+00.00 TO 232+50.00	23.0	17.3	16.3	0.9
232+50.00 TO 233+00.00	29.2	21.9	18.8	3.1
233+00.00 TO 233+50.00	21.5	16.1	49.9	-33.8
233+50.00 TO 234+00.00	6.5	4.9	105.8	-100.9
234+00.00 TO 234+50.00	9.5	7.1	148.1	-141.0
234+50.00 TO 234+87.50	8.6	6.5	123.3	-116.8
BRIDGE	134.6	101.0	0.0	101.0
235+32.50 TO 236+00.0	0.0	0.0	100.9	-100.9
236+00.00 TO 236+50.0	0.0	0.0	64.1	-64.1
236+50.00 TO 237+00.0	2.1	1.5	34.5	-32.9
237+00.00 TO 237+50.0	2.1	1.5	13.2	-11.6
237+50.00 TO 238+00.0	0.0	0.0	6.8	-6.8
238+00.00 TO 238+50.0	0.0	0.0	1.9	-1.9
238+50.00 TO 239+00.0	0.0	0.0	0.7	-0.7
239+00.00 TO 239+50.0	0.3	0.3	0.6	-0.3
239+50.00 TO 240+00.0	0.7	0.5	0.5	0.0
240+00.00 TO 240+50.0	0.4	0.3	0.1	0.1
TOTALS =	495.0	371.0	726.0	-355.0

DRAINAGE SCHEDULE

LOCATION	PIPE CULVERT REMOVAL	PIPE CULVERTS, CLASS A, TYPE 1 24"	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	PIPE DRAINS, 4"	CONCRETE HEADWALLS FOR PIPE DRAINS	CONCRETE THRUST BLOCKS
	FOOT	FOOT	EACH	FOOT	EACH	EACH
RT 232+80 TO 234+55	30	175	2			
LT 233+16.91	25	30	2			
RT 234+87.5				20	1	1
LT 234+87.5				20	1	1
RT 235+32.5				20	1	1
LT 235+32.5				20	1	1
TOTALS	55	205	4	80	4	4

ROW MARKER SCHEDULE

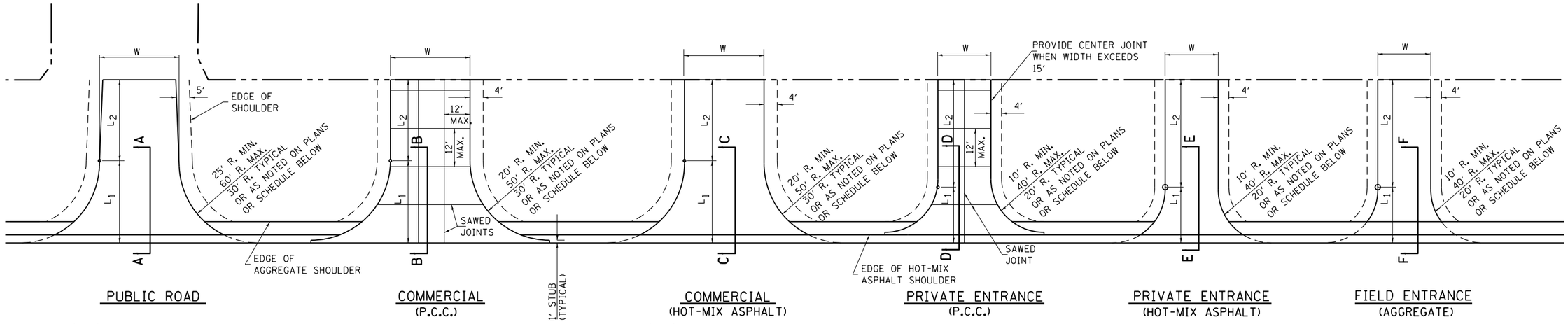
STATION	SIDE	O/S	FURNISHING AND ERECTING RIGHT OF WAY MARKERS
		(FEET)	(EACH)
227+49.75	LT	35.0	1
227+67.97	RT	36.2	1
230+00.00	LT	50.0	1
230+00.00	RT	50.0	1
234+50.00	LT	50.0	1
234+50.00	RT	50.0	1
238+00.00	LT	30.0	1
238+00.00	RT	30.0	1
		TOTAL =	8

SURVEY MARKER SCHEDULE

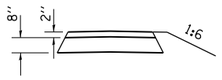
LOCATION	PERMANENT SURVEY MARKERS, TYPE I	PERMANENT SURVEY MARKERS, TYPE II	SURVEY MARKER VAULT	PORTECTING OR RESETTING SURVEY MARKERS
	EACH	EACH	EACH	EACH
230+00.00	1		1	1
240+00.00	1		1	1
TO BE DETERMINED		1		
TOTALS	2	1	2	2

BENCHMARKS

BM	STATION	OFFSET	ELEV	DESCRIPTION
509	235+00	17.5' RT.	460.389	CHISELED SQUARE ON THE SE WINGWALL OF BRIDGE ON IL 250 STR #051-0051
550	227+70	29' RT.	471.386	RR SPIKE IN S SIDE OF POWER POLE 29' N OF CENTERLINE OF IL 250 AND +/- 750' E OF STR #051-0051 18' W OF OIL FIELD ROAD
551	238+00	45' LT.	466.352	CHISELED "X" ON N BOLT OF FIRE HYDRANT 45' S OF CENTERLINE OF IL 250 AND 300' W OF STR #051-0051
552	242+90	29' RT.	479.299	RR SPIKE IN S SIDE OF POWER POLE 29' N OF CENTERLINE OF IL 250 AND +/- 800' W OF STR #051-0051



PUBLIC ROAD



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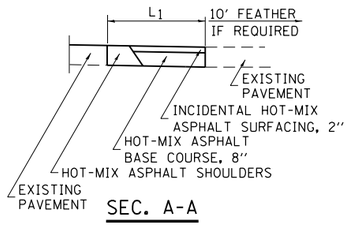
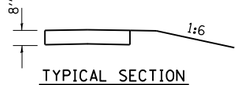


SEC. A-A

COMMERCIAL (P.C.C.)



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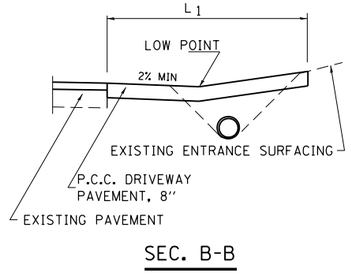
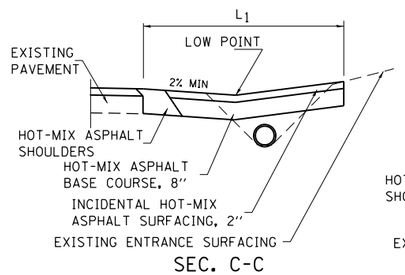


SEC. B-B

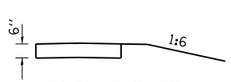
COMMERCIAL (HOT-MIX ASPHALT)

TYPICAL SECTION



SEC. C-C

PRIVATE ENTRANCE (P.C.C.)



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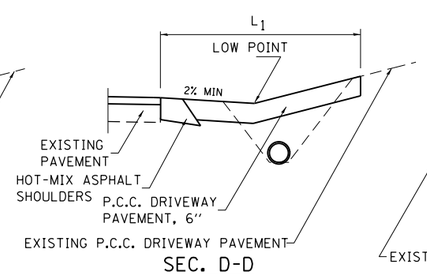
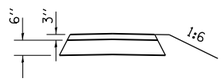
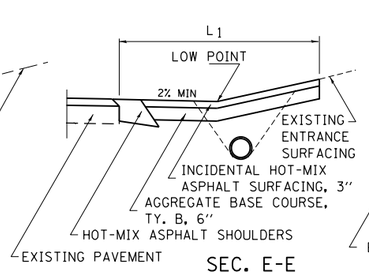


SEC. D-D

PRIVATE ENTRANCE (HOT-MIX ASPHALT)

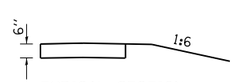


TYPICAL SECTION

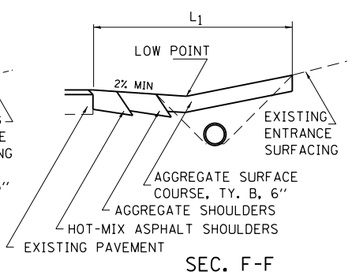


SEC. E-E

FIELD ENTRANCE (AGGREGATE)



TYPICAL SECTION



SEC. F-F

ENTRANCE SCHEDULE

TYPE	SIDE/ STATION	WIDTH	LENGTH L_1	LENGTH L_2	RADII	AGGREGATE BASE, COURSE. TY. B, 6" TON	HOT-MIX APSHALT BASE COURSE, 8" SQ. YD.	AGGREGATE SURFACE COURSE. TYPE B TON	INCIDENTAL HOT-MIX ASPHALT SURFACING TON	P.C.C. DRIVEWAY PAVEMENT 6" SQ. YD.	P.C.C. DRIVEWAY PAVEMENT 8" SQ. YD.	PCC PAVEMENT 8" SQ. YD.
CE	RT 233+04	35	20	27	10			51.4				
FE	LT 233+17	18	20	37	20			28.6				
FE	RT 236+66	18	14	9	20/10			18.9				
FE	LT 236+85	20	20	4	40/10			6.0				
MBT	LT 237+78							15.2				
	TOTALS							120.0				

ENTRANCE SCHEDULE

TYPE	SIDE/ STATION	WIDTH	LENGTH L_1	LENGTH L_2	RADII	AGGREGATE BASE, COURSE. TY. B, 6" TON	HOT-MIX APSHALT BASE COURSE, 8" SQ. YD.	AGGREGATE SURFACE COURSE. TYPE B TON	INCIDENTAL HOT-MIX ASPHALT SURFACING TON	P.C.C. DRIVEWAY PAVEMENT 6" SQ. YD.	P.C.C. DRIVEWAY PAVEMENT 8" SQ. YD.	PCC PAVEMENT 8" SQ. YD.

NOTES

L_1 = DISTANCE FROM EDGE OF PAVEMENT TO RADIUS POINT OR MAXIMUM DISTANCE OF 30'.
L_2 = DISTANCE FROM RADIUS POINT OR MAXIMUM DISTANCE OF 30' FROM EDGE OF PAVEMENT TO R.O.W. LINE
MATERIAL USED TO CONSTRUCT L_2 LENGTH SHALL BE THE SAME TYPE OF MATERIAL AS THE EXISTING ENTRANCE

THE THICKNESS OF THE HOT-MIX ASPHALT SHOULDERS THROUGH COMMERCIAL ENTRANCES (HOT-MIX ASPHALT) AND PUBLIC ROADS SHALL BE 10". THE COST OF THE EXTRA THICKNESS SHALL BE INCLUDED WITH THE HOT-MIX ASPHALT SHOULDERS PAY ITEM.

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

HOT-MIX ASPHALT SHOULDERS SHALL NOT BE CONSTRUCTED THROUGH PCC ENTRANCE OR PUBLIC ROAD APPROACH.

FE=FIELD ENTRANCE
PE=PRIVATE ENTRANCE
CE=COMMERCIAL ENTRANCE
PRA - PUBLIC ROAD APPROACH
MBT - MAILBOX TURNOUT

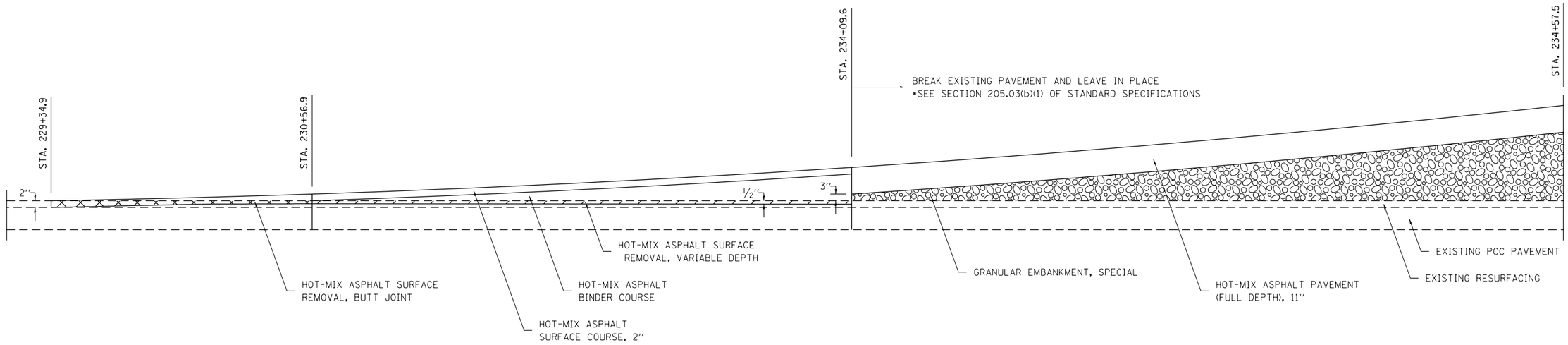
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 7\Projects\74106\Drawings\CADsheets\D774106-sht-sch.dgn	USER NAME = steffenmk	DESIGNED - ---	REVISED - 03-13-07
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -
	PLOT DATE = 12/10/2015	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

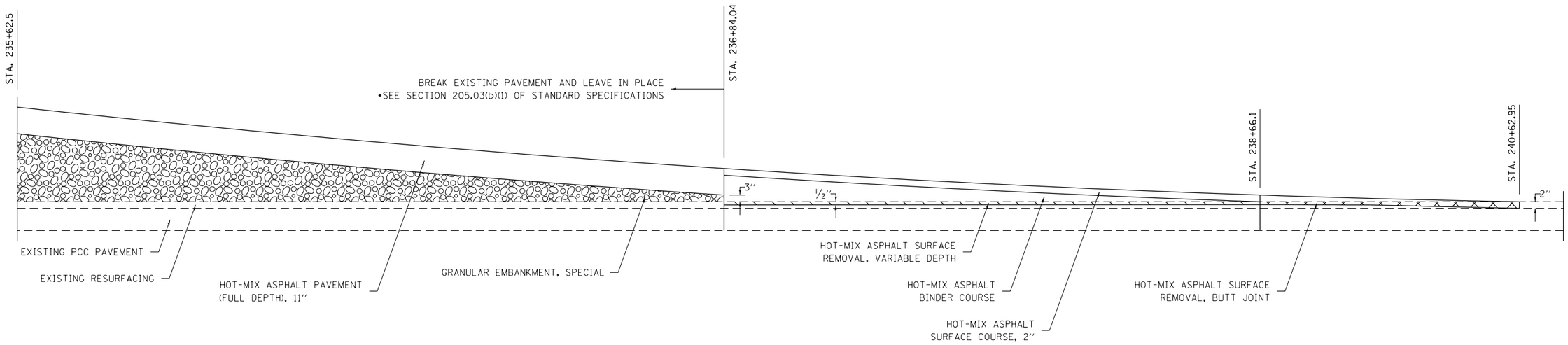
ENTRANCE SCHEDULE AND MAILBOX TURNOUT DETAILS WITH BASE COURSE WIDENING

SCALE: N/A | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	14
		CONTRACT NO. 74106		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



HMA PROFILE GRADE CHANGE DETAIL



HMA PROFILE GRADE CHANGE DETAIL

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	PLOT DATE = 12/10/2015	DATE -	REVISED -

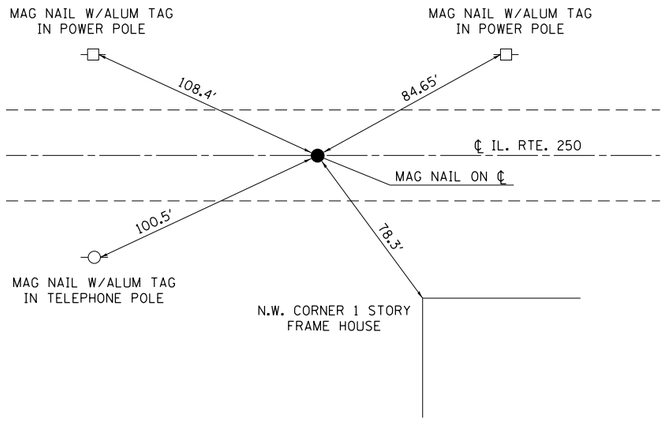
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HMA PROFILE GRADE CHANGE

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	15
		CONTRACT NO. 74106		
	ILLINOIS FED. AID PROJECT			

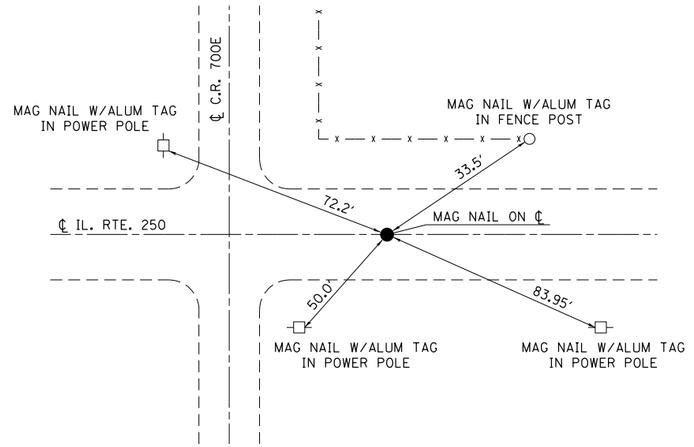
P.O.T. STA. 218+49.04



MAG NAILS SET EVERY 100' ON ℄ FROM STA. 225+00 TO STA. 246+00

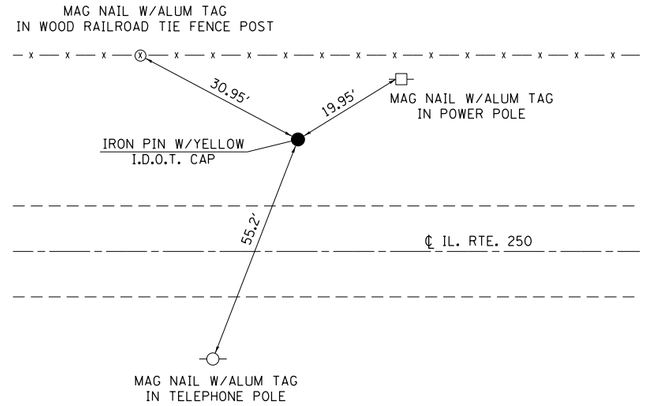
NOTE: NOT DRAWN TO SCALE

P.O.T. STA. 253+50.23



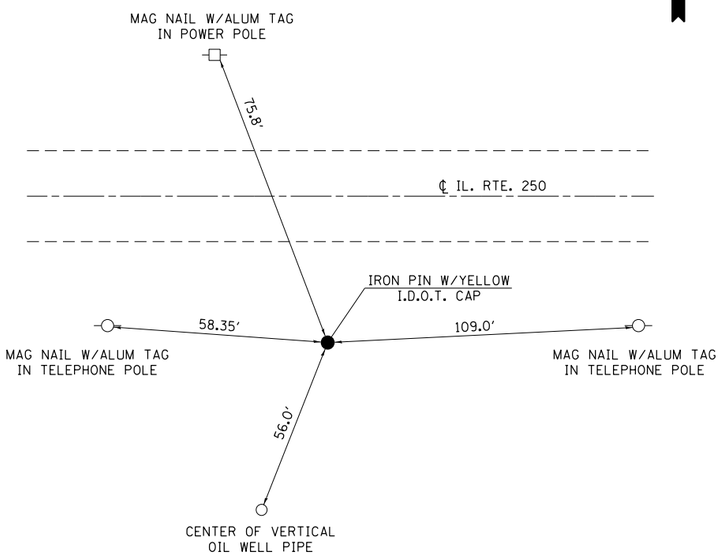
NOTE: NOT DRAWN TO SCALE

TRAV #450



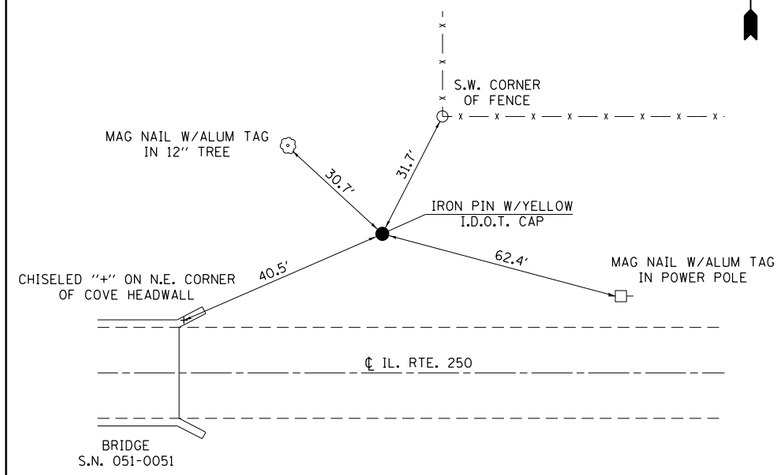
NOTE: NOT DRAWN TO SCALE

TRAV #451



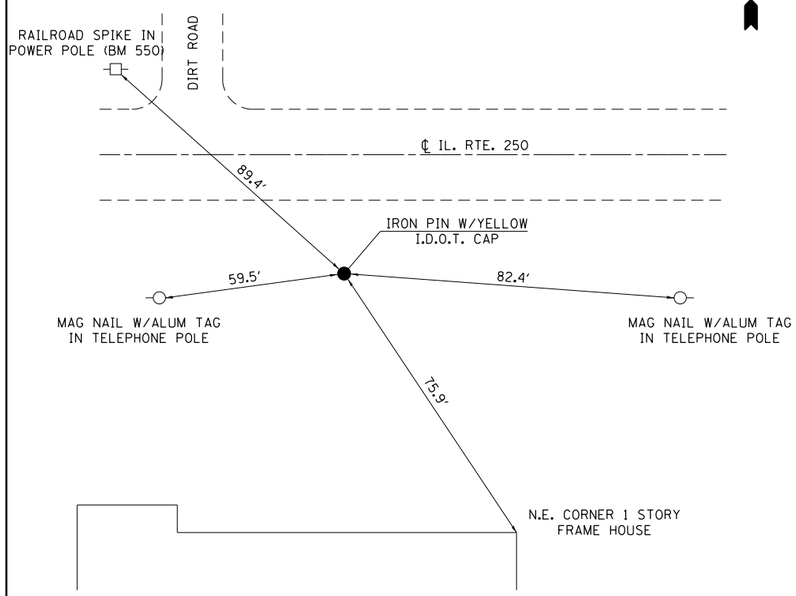
NOTE: NOT DRAWN TO SCALE

TRAV #452



NOTE: NOT DRAWN TO SCALE

TRAV #453



NOTE: NOT DRAWN TO SCALE

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Default	PLOT DATE = 12/10/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

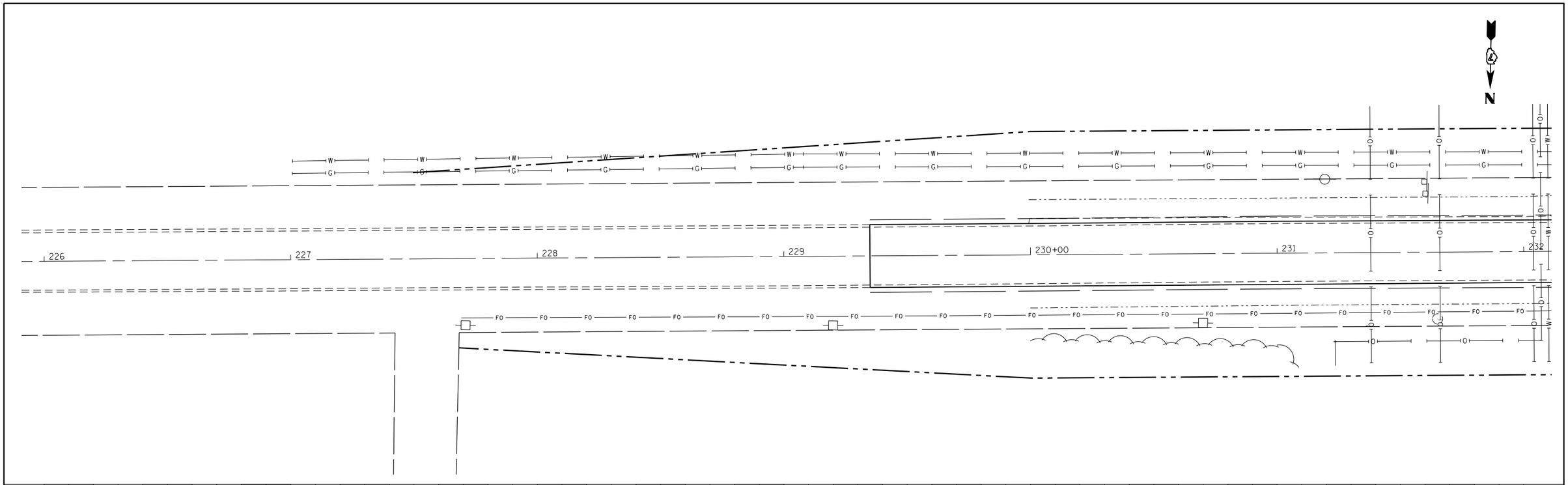
TIE POINTS

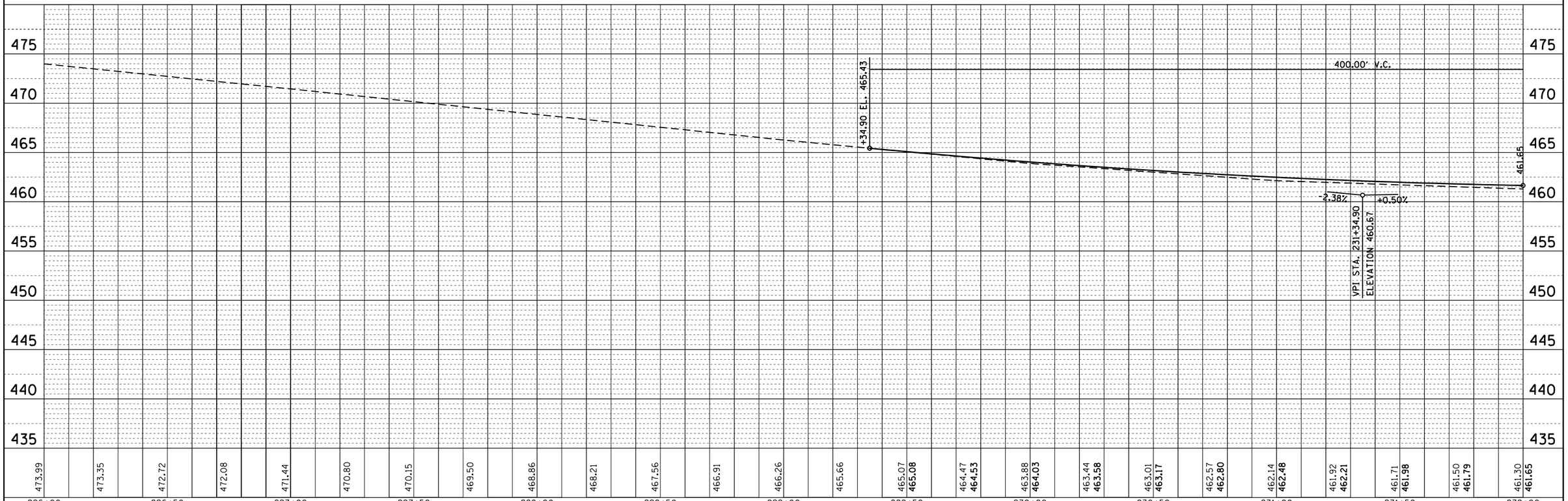
SCALE: N/A | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	16
		CONTRACT NO. 74106		
		ILLINOIS FED. AID PROJECT		

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

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





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	PLOT DATE = 12/10/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

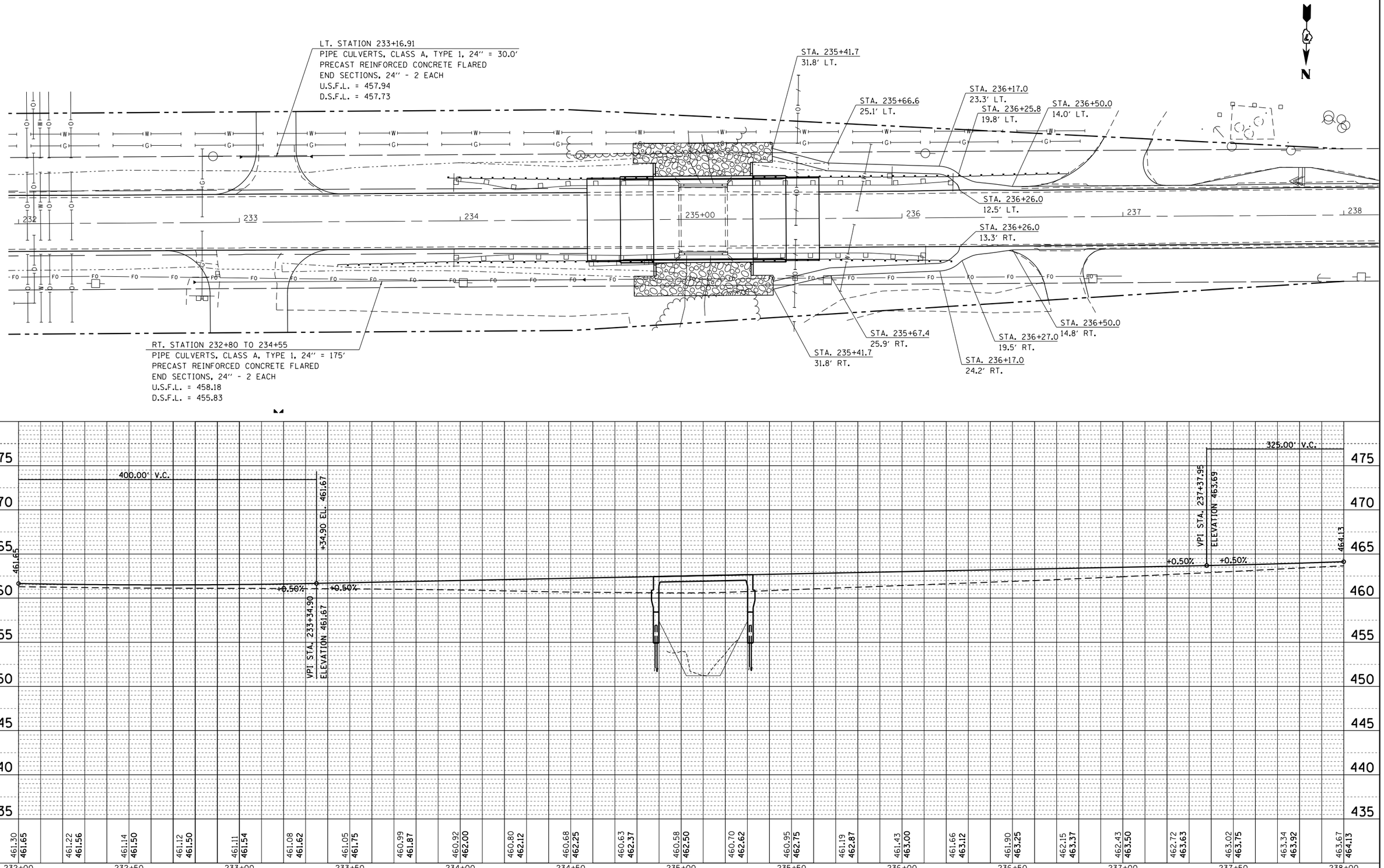
PLAN – PROFILE

SCALE: 20 | SHEET 1 OF 3 SHEETS | STA. 226+00 | TO STA. 232+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	17

CONTRACT NO. 74106

ILLINOIS FED. AID PROJECT



PLAN
SURVEYED
PLOTTED
DRAWING CHECKED
R.T. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
DRAWING CHECKED
BAR. NOTED
STRUCTURE NO'S CHKD
NOTE BOOK
NO.
BY
DATE

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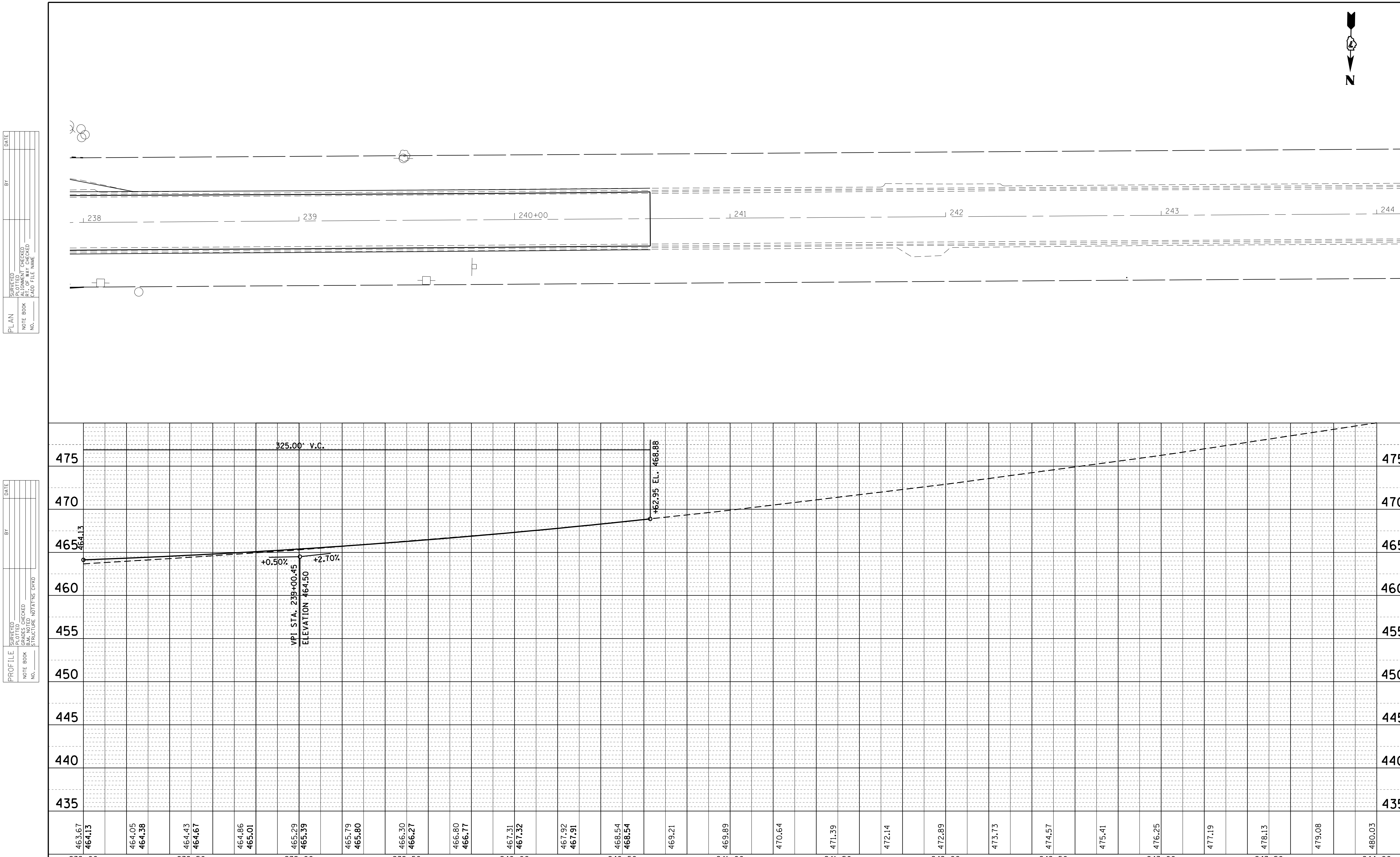
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/10/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN – PROFILE

SCALE: 20 | SHEET 2 OF 3 SHEETS | STA. 232+00 | TO STA. 238+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	18
		CONTRACT NO. 74106		
	ILLINOIS FED. AID PROJECT			



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USER NAME = steffenmk
PLOT SCALE = 40.0000 '/ in.
PLOT DATE = 12/10/2015

DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

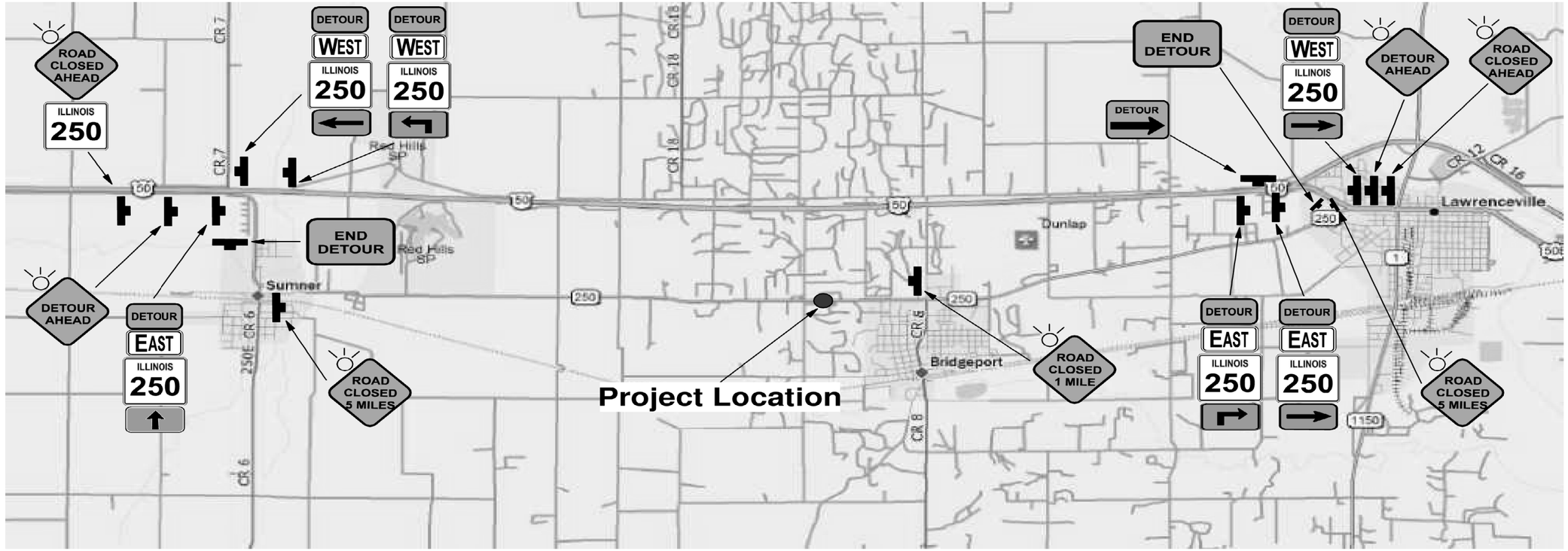
PLAN - PROFILE

SCALE: 20 | SHEET 3 OF 3 SHEETS | STA. 238+00 TO STA. 244+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	19

CONTRACT NO. 74106

ILLINOIS | FED. AID PROJECT



SIGN LEGEND

ROAD CLOSED AHEAD	W20-3-48	↑	M6-3(O)-3018	DETOUR	M4-8-2412
ROAD CLOSED 5 MILES	W20-3-48	→	M6-1R(O)-3018	END DETOUR	M4-8a(O)-3024
ROAD CLOSED 1 MILE	W20-3-48	←	M6-1L(O)-3018	EAST	M3-2-3015
DETOUR AHEAD	W20-2-48	↱	M5-1R(O)-3018	WEST	M3-4-3015
ILLINOIS 250	M1-1100-3024	↰	M5-1L(O)-3018		Flashing Lights

N

CN 74106

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 7\Projects\74106\Data\CADsheets\D774106-sht-details.dgn	USER NAME = steffenmk	DESIGNED -	REVISED -
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	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/10/2015	DATE -	REVISED -

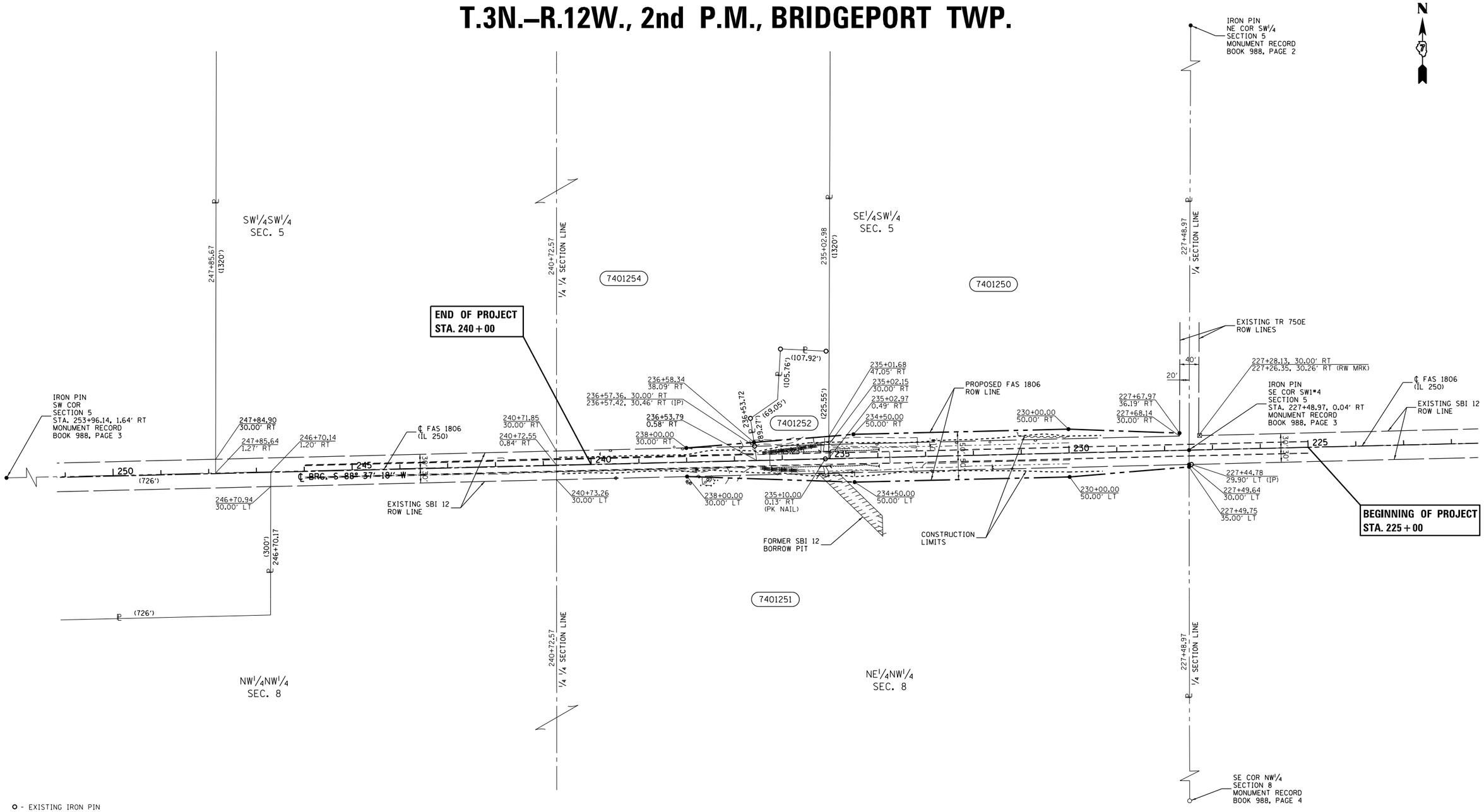
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING DETAIL

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	20
		CONTRACT NO. 74106		
	ILLINOIS	FED. AID PROJECT		

T.3N.–R.12W., 2nd P.M., BRIDGEPORT TWP.



- ○ - EXISTING IRON PIN
- ● - SET IRON PIN
- ▲ - EXISTING STONE
- ⊠ - EXISTING ROW MARKER
- (R) RECORDED DISTANCE

NOTE:

BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE DATUM OF 1983(97)

TEMPORARY EASEMENTS NEEDED FOR A WORK AREA

PARCEL	OWNER	AREA TAKEN ADD	AREA TAKEN EXIST	EASEMENT	AREA REM	INST	RECORDED MICRO FILM NO	RECORDED DATE	RECORDED BOOK	RECORDED PAGE	EXCESS AREA	EXCESS SOLD
7401250	CHARLES B. & LISA A. LEMERON, ET AL.	0.299 AC.	0.517 AC.		22.253 AC.							
7401251	REX ENERGY IV, LLC	0.359 AC.	1.350 AC.		69.488 AC.							
7401252	SHARLENE S. HOWARD	0.046 AC.	0.103 AC.		0.533 AC.							
7401254	LIFE ESTATE OF BEVERLY S. NEWELL	0.013 AC.	0.754 AC.		38.063 AC.							

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D774106-sht-rowplan.dgn		DRAWN - JMD	REVISED -
	PLOT SCALE = 200.0000 ' / in.	CHECKED - JMD	REVISED -
	PLOT DATE = 12/10/2015	DATE - 11/26/14	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

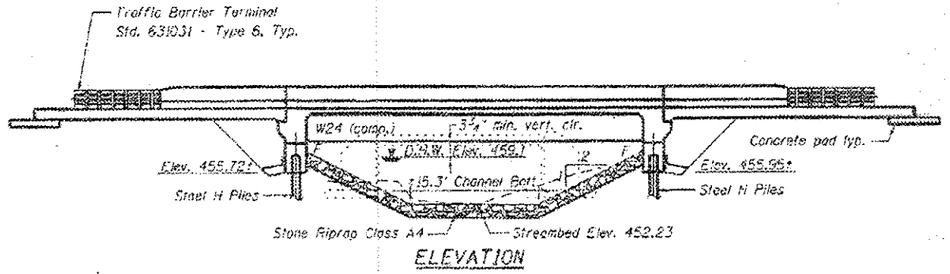
SCALE: 1" = 100' | SHEET NO. 1 OF 1 SHEET | STA. 223+00.00 TO STA. 250+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	21
		CONTRACT NO. 74106		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

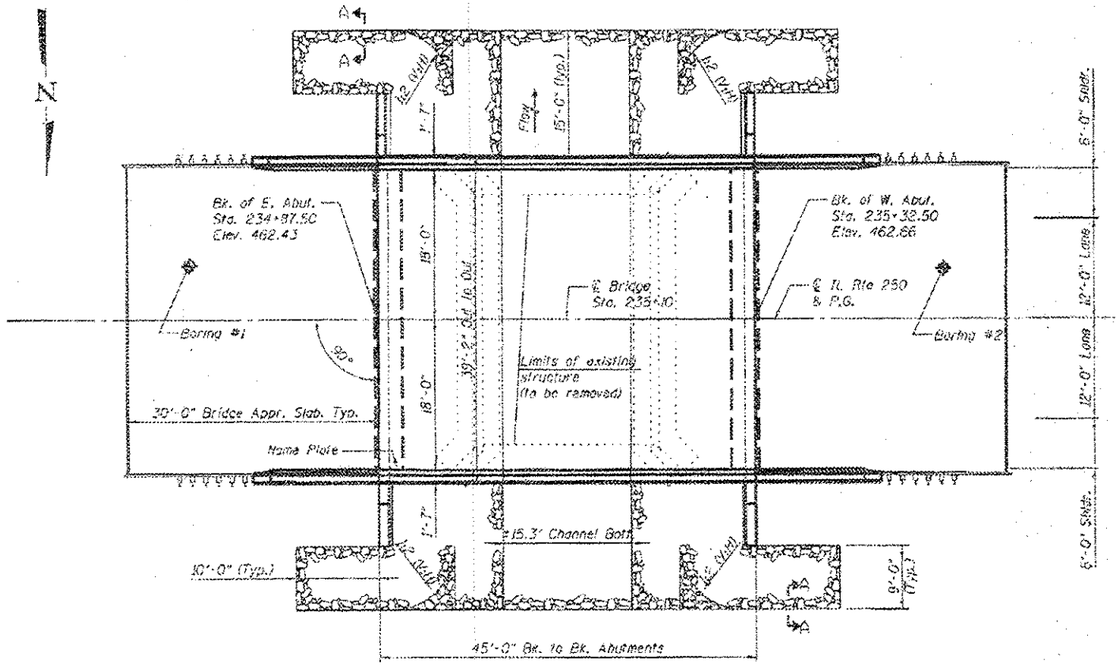
Bench Mark: B.M. 509-Chiseled square on southeast wing wall of S.N. 051-0051 Elev. 460.39

Existing Structure: S.N. 051-0051 was built in 1924 as a single span reinforced concrete deck slab structure on closed abutments with pile supported footings. It consists of a superstructure 20'-0" in length, "face to face of abutments", and provides a width of 32'-2" out to out. Road to be closed and traffic detoured during construction.

Salvage: None.



ELEVATION



PLAN

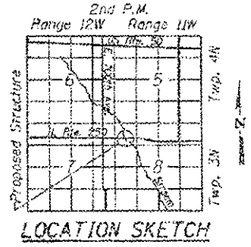
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	E. Abut.	W. Abut.
	452.72	452.95

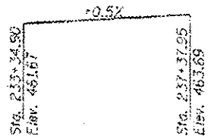
WATERWAY INFORMATION

Drainage Area = 1.0 sq. mi. Low Grade Elev. 461.58 @ Sta. 234+99.96

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater EL Exist.	Headwater EL Prop.
	10	630	106	170	459.4	0.5	0	458.9	458.4
Design	50	1072	117	198	459.1	1.8	0.6	460.9	459.7
Base	100	1279	117	206	459.3	1.8	1.0	461.1	460.3
Overtopping	35	1000	117	N/A	459.0	1.7	N/A	460.7	N/A
Max. Calc.	500	1801	117	211	459.8	1.9	1.2	461.7	461.5



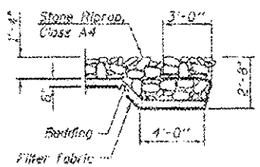
LOCATION SKETCH



PROFILE GRADE
(along ℄ IL Rte 250)

STATION 235+10
BUILT 20__ BY
STATE OF ILLINOIS
F.A.S. RT. 1806 SEC. 2B-1
LOADING HL-93
STRUCTURE NO. 051-0065

NAME PLATE
See Std. 515001



SECTION A-A

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.232g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.534g
Soil Site Class = D

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS

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

STATE OF ILLINOIS
MANHARLAL THARKAR
LICENSED STRUCTURAL ENGINEER
CHICAGO, IL

MANHARLAL THARKAR, S.E.
ILLINOIS STRUCTURAL NO. 081-005583
EXPIRES: NOVEMBER 30, 2010

APPROVED
For Structural Adequacy Only

Engineer of Bridges & Structures

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 250 OVER A STREAM
F.A.S. RT. 1806 SEC. 2B-1
LAWRENCE COUNTY
STATION 235+10
STRUCTURE NO. 051-0065

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F./M. S.
CHECKED	M. T.

FUHRMANN ENGINEERING INC.
2852 SOUTH 11TH STREET
SPRINGFIELD, IL 62703
(217) 529-5577

SHEET NO. 1
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	22
	SN 051-0065	CONTRACT NO. 74106		
	FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

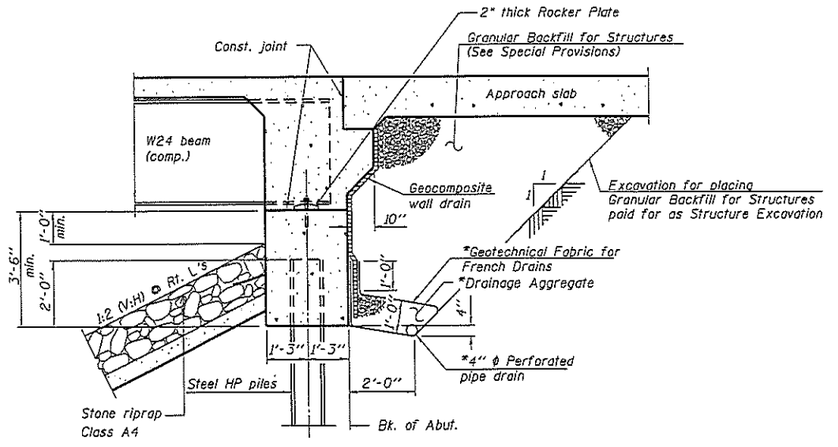
GENERAL NOTES

1. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts (in painted areas and ASTM A325 Type 3 in unpainted areas). Bolts $\frac{3}{4}$ in. ϕ, holes $\frac{13}{16}$ in. ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 21,940 Lbs.
3. All structural steel shall be AASHTO M 270 Grade 50W.
4. No field welding is permitted except as specified in the contract documents.
5. The embankment configuration show shall be the minimum that must be placed and compacted prior to construction of the abutments.
6. Reinforcement bars designated (E) shall be epoxy coated.
7. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 18 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
8. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
9. Slipforming of the parapets is not allowed.
10. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Granular Backfill for Structures	Cu. Yd.	--	84.1	84.1
Removal of Existing Structure	Each	1	--	1
Structure Excavation	Cu. Yd.	--	165	165
Protective Coat	Sq. Yd.	510	--	510
Stone Riprap Class A4	Sq. Yd.		381	381
Filter Fabric	Sq. Yd.		381	381
Bridge Deck Grooving	Sq. Yd.	400	--	400
Furnishing & Erecting Structural Steel	L. Sum	1	--	1
Furnishing Steel Piles HP 12x53	Foot	--	457	457
Driving Piles	Foot	--	457	457
Test Pile Steel HP 12x53	Each	--	2	2
Reinforcement Bars, Epoxy Coated	Pounds	45,825	5,470	51,295
Nome Plates	Each	--	1	1
Stud Shear Connectors	Each	738	--	738
Bar Splicers	Each	78	--	78
Concrete Structures	Cu. Yd.	--	54.7	54.7
Concrete Superstructure	Cu. Yd.	~~83.5~~	--	~~83.5~~
Concrete Encasement	Cu. Yd.	--	4.2	4.2
Pipe Underdrains for Structures 4"	Foot	--	139	139
Geocomposite Wall Drain	Sq. Yd.	--	48	48
Anchor Bolts, 1"	Each	--	24	24
Concrete Superstructure (Approach Slab)	Cu. Yd.	116.7	--	116.7



SECTION THRU INTEGRAL ABUTMENT

*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall outlet at the toe of slope. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

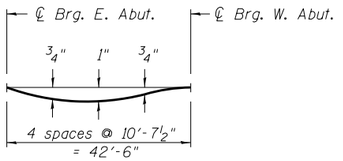
DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F.
CHECKED	M. T.

FUHRMANN ENGINEERING INC.
2852 SOUTH 11TH STREET
SPRINGFIELD, IL. 62703
(217) 529-5577

GENERAL NOTES
STRUCTURE NO. 051-0065

SHEET NO. 2	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
19 SHEETS	1806	2B-1	LAWRENCE	59	23
	SN 051-0065		CONTRACT NO. 74106		
	FED. ROAD DIST. NO. 5 ILLINDIS FED. AID PROJECT				

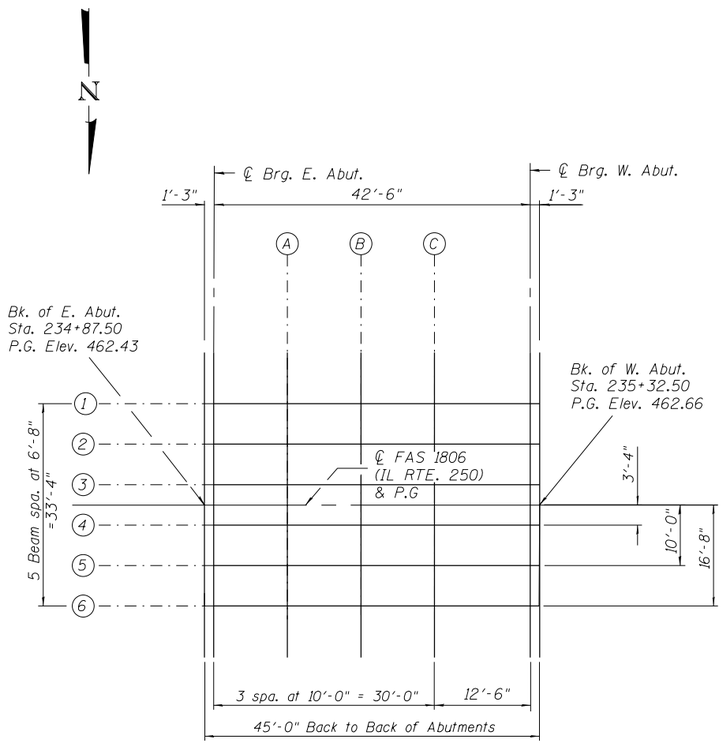
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



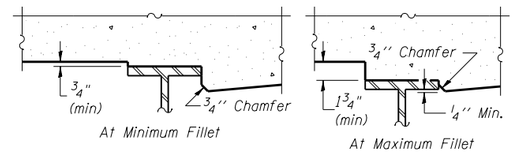
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 4 of 19.



PLAN



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 4 of 19, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

TOP OF SLAB ELEVATION PLAN
STRUCTURE NO. 051-0065

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F./M. S.
CHECKED	M. T.

FUHRMANN ENGINEERING INC.
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SHEET NO. 3
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	24
SN 051-0065		CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM #1 AND 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	234+87.50	16.67	462.15	462.15
℄ E. Abut.	234+88.75	16.67	462.15	462.15
A	234+98.75	16.67	462.20	462.25
B	235+08.75	16.67	462.25	462.33
C	235+18.75	16.67	462.30	462.36
℄ W. Abut.	235+31.25	16.67	462.37	462.37
Bk. W. Abut.	235+32.50	16.67	462.37	462.37

BEAM #2 AND 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	234+87.50	10.00	462.28	462.28
℄ E. Abut.	234+88.75	10.00	462.28	462.28
A	234+98.75	10.00	462.33	462.38
B	235+08.75	10.00	462.38	462.46
C	235+18.75	10.00	462.43	462.49
℄ W. Abut.	235+31.25	10.00	462.50	462.50
Bk. W. Abut.	235+32.50	10.00	462.50	462.50

BEAM #3 AND 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	234+87.50	3.33	462.38	462.38
℄ E. Abut.	234+88.75	3.33	462.39	462.39
A	234+98.75	3.33	462.44	462.49
B	235+08.75	3.33	462.49	462.57
C	235+18.75	3.33	462.54	462.60
℄ W. Abut.	235+31.25	3.33	462.60	462.60
Bk. W. Abut.	235+32.50	3.33	462.61	462.61

℄ ROADWAY AND P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	234+87.50	0.00	462.43	462.43
℄ E. Abut.	234+88.75	0.00	462.44	462.44
A	234+98.75	0.00	462.49	462.54
B	235+08.75	0.00	462.54	462.62
C	235+18.75	0.00	462.59	462.65
℄ W. Abut.	235+31.25	0.00	462.65	462.65
Bk. W. Abut.	235+32.50	0.00	462.66	462.66

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 051-0065

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F.
CHECKED	M. T.

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SHEET NO. 4
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	25
	SN 051-0065	CONTRACT NO. 74106		
	FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH EDGE OF SHOULDER

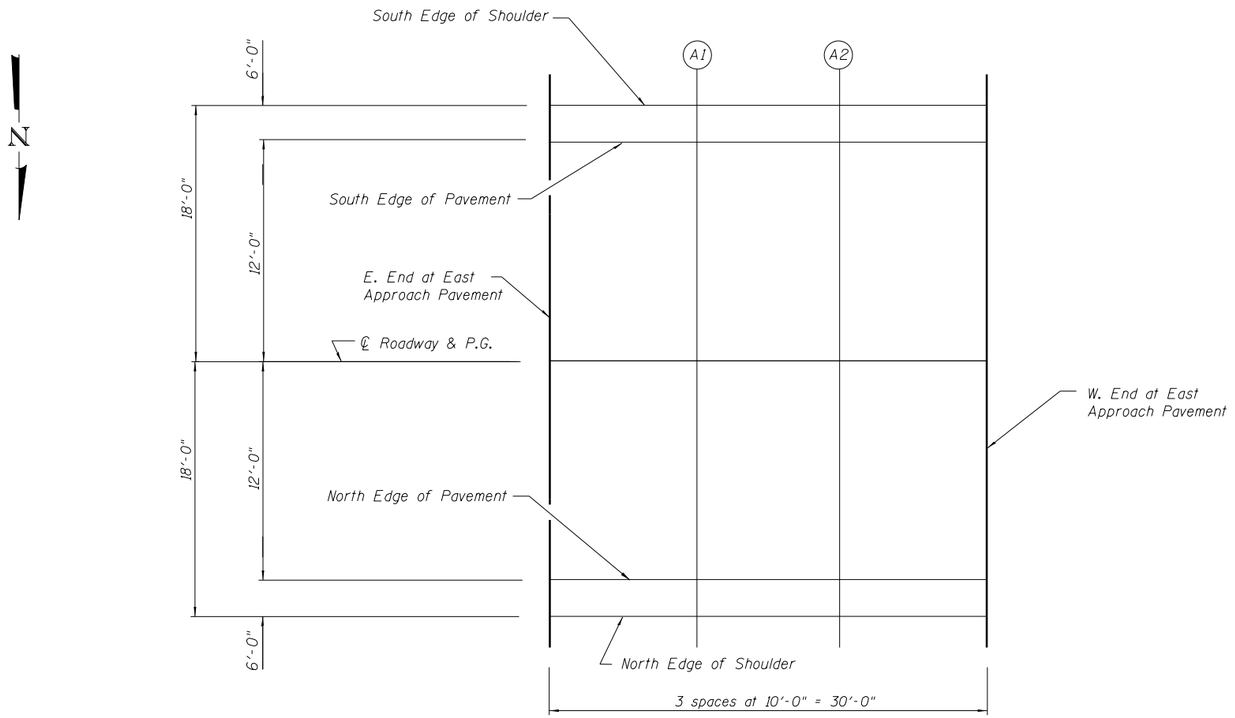
Location	Station	Offset	Theoretical Grade Elevations
E. End East Appr. Pav't.	234+57.50	-18.00	461.97
A1	234+67.50	-18.00	462.02
A2	234+77.50	-18.00	462.07
W. End East Appr. Pav't.	234+87.50	-18.00	462.12

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
E. End East Appr. Pav't.	234+57.50	-12.00	462.09
A1	234+67.50	-12.00	462.14
A2	234+77.50	-12.00	462.19
W. End East Appr. Pav't.	234+87.50	-12.00	462.24

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
E. End East Appr. Pav't.	234+57.50	0.00	462.28
A1	234+67.50	0.00	462.33
A2	234+77.50	0.00	462.38
W. End East Appr. Pav't.	234+87.50	0.00	462.43



PLAN
East Approach

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
E. End East Appr. Pav't.	234+57.50	12.00	462.09
A1	234+67.50	12.00	462.14
A2	234+77.50	12.00	462.19
W. End East Appr. Pav't.	234+87.50	12.00	462.24

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
E. End East Appr. Pav't.	234+57.50	18.00	461.97
A1	234+67.50	18.00	462.02
A2	234+77.50	18.00	462.07
W. End East Appr. Pav't.	234+87.50	18.00	462.12

TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 051-0065

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F.
CHECKED	M. T.

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SHEET NO. 5
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	26
	SN 051-0065	CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH EDGE OF SHOULDER

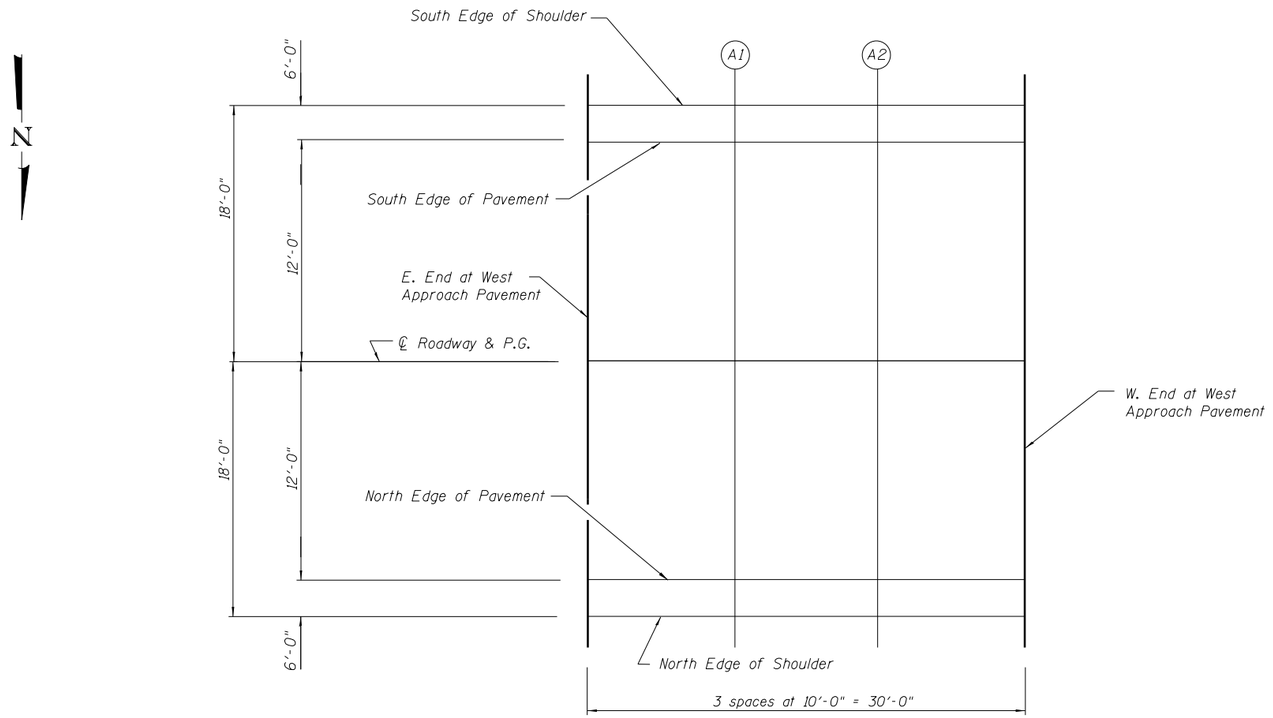
Location	Station	Offset	Theoretical Grade Elevations
E. End West Appr. Pav't.	235+32.50	-18.00	462.35
A1	235+42.50	-18.00	462.40
A2	235+52.50	-18.00	462.45
W. End West Appr. Pav't.	235+62.50	-18.00	462.50

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
E. End West Appr. Pav't.	235+32.50	-12.00	462.47
A1	235+42.50	-12.00	462.52
A2	235+52.50	-12.00	462.57
W. End West Appr. Pav't.	235+62.50	-12.00	462.62

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
E. End West Appr. Pav't.	235+32.50	0.00	462.66
A1	235+42.50	0.00	462.71
A2	235+52.50	0.00	462.76
W. End West Appr. Pav't.	235+62.50	0.00	462.81



PLAN
West Approach

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
E. End West Appr. Pav't.	235+32.50	12.00	462.47
A1	235+42.50	12.00	462.52
A2	235+52.50	12.00	462.57
W. End West Appr. Pav't.	235+62.50	12.00	462.62

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
E. End West Appr. Pav't.	235+32.50	18.00	462.35
A1	235+42.50	18.00	462.40
A2	235+52.50	18.00	462.45
W. End West Appr. Pav't.	235+62.50	18.00	462.50

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 051-0065

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F.
CHECKED	M. T.

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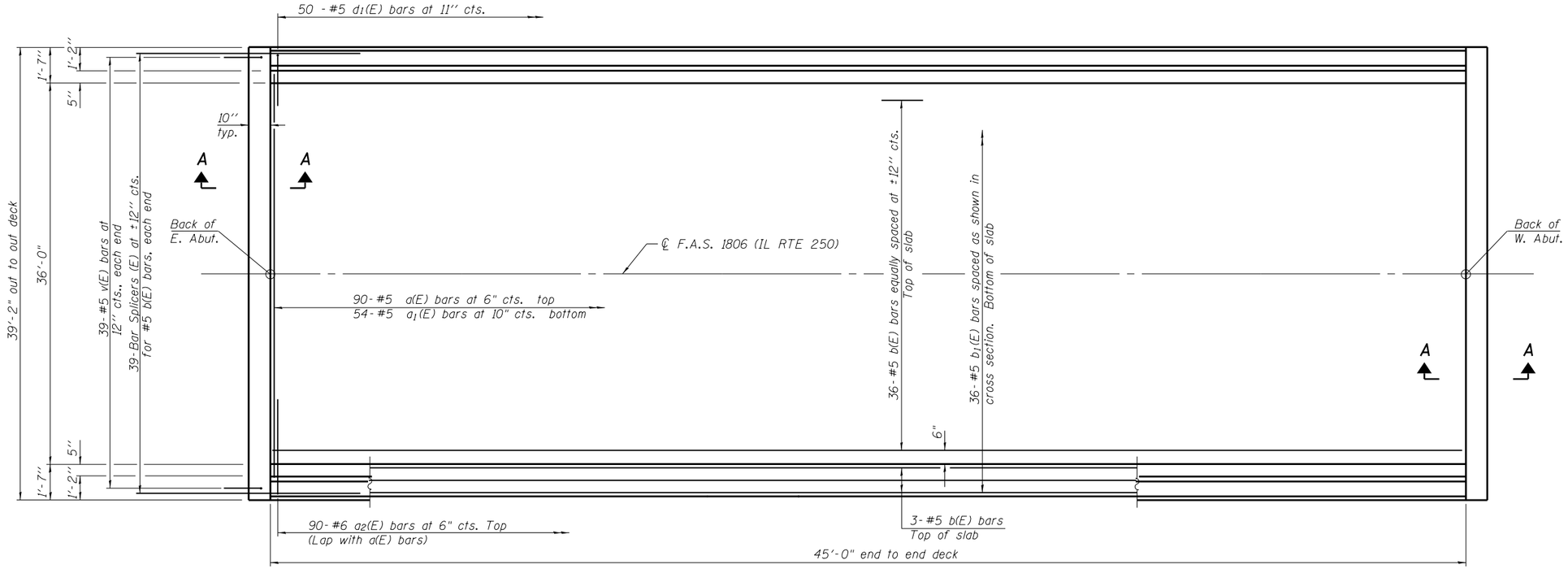
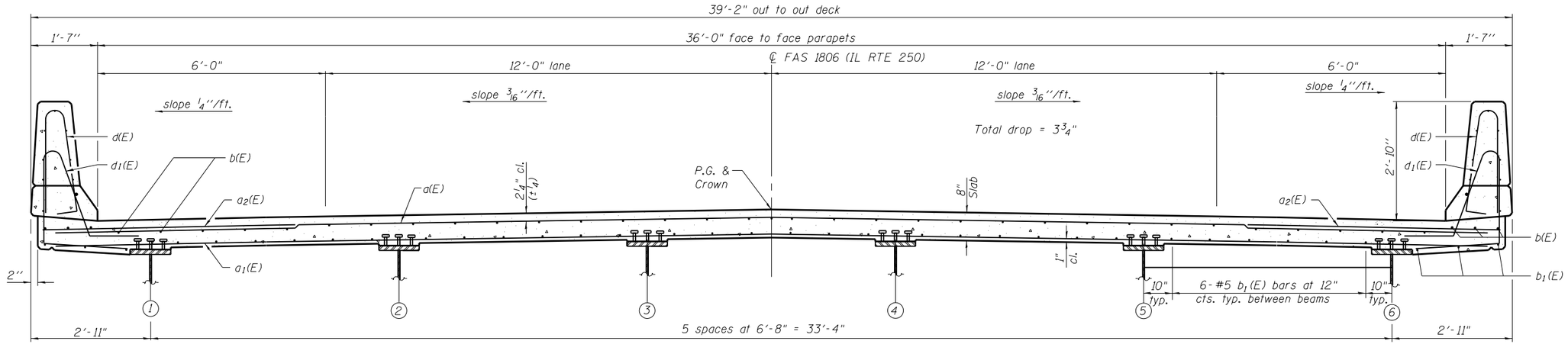
SHEET NO. 6
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	27
	SN 051-0065	CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5	ILLINOIS	FED. AID PROJECT		



PLAN



CROSS SECTION
(Looking West)

MINIMUM BAR LAP

#5 bar = 2'-2"
#6 bar = 2'-7"

Notes:
See Sheet 8 of 19 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3 - #5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 8 of 19 for parapet reinforcement.
See Sheet 9 of 19 for Section A - A.

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F./M. S.
CHECKED	M. T.

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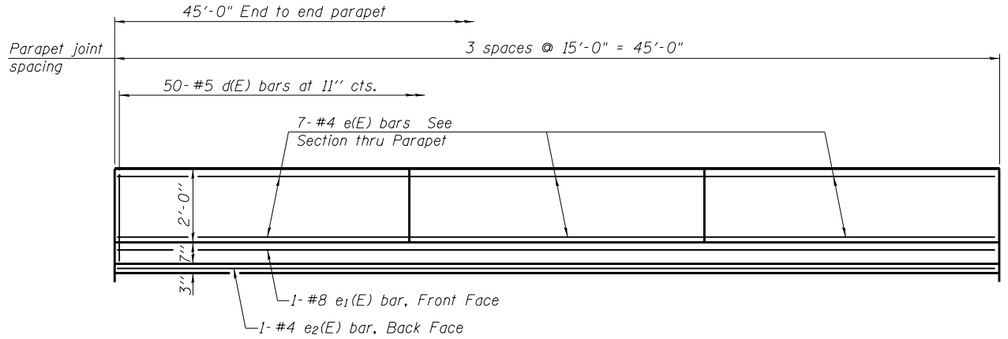
SPRINGFIELD, IL. 62703
(217) 529-5577

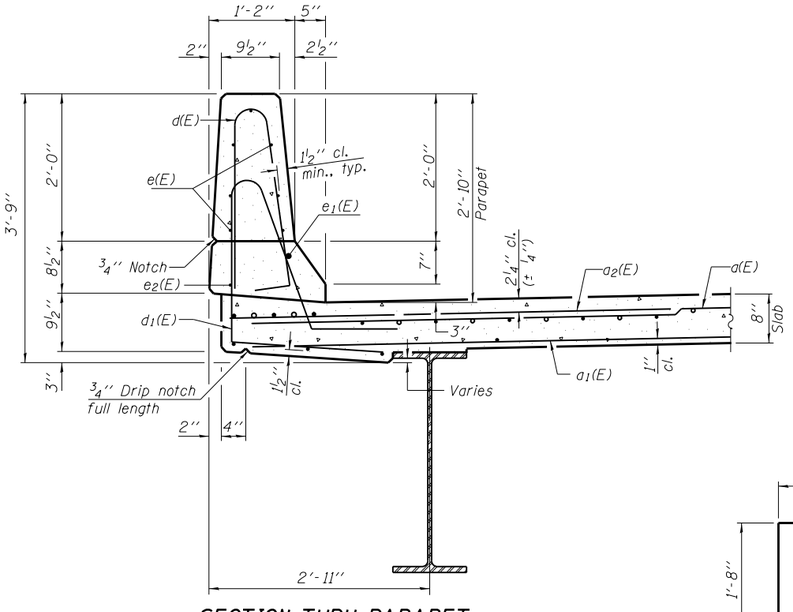
SHEET NO. 7
19 SHEETS

SUPERSTRUCTURE PLAN
STRUCTURE NO. 051-0065

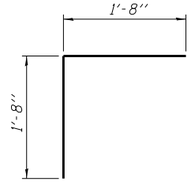
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	28
SN 051-0065		CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				



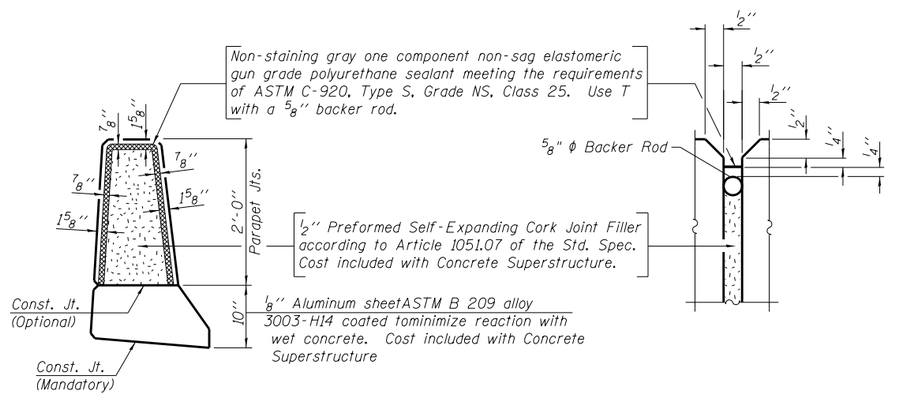
INSIDE ELEVATION OF PARAPET



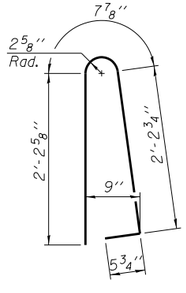
SECTION THRU PARAPET



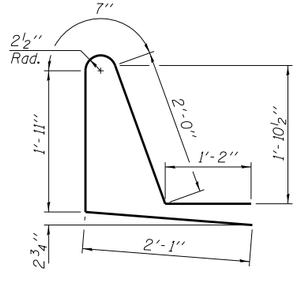
BAR v(E)



PARAPET JOINT DETAILS



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	90	#5	38'-4"	——
a_1(E)	54	#5	37'-8"	——
a_2(E)	180	#6	6'-0"	——
b(E)	42	#5	44'-8"	——
b_1(E)	36	#5	44'-8"	——
d(E)	100	#5	5'-7"	⌷
d_1(E)	100	#5	7'-9"	L
e(E)	42	#4	14'-8"	——
e_1(E)	2	#8	44'-8"	——
e_2(E)	2	#4	44'-8"	——
m(E)	4	#6	38'-0"	——
m_1(E)	6	#6	38'-9"	——
m_2(E)	24	#6	9'-5"	——
m_3(E)	10	#6	6'-4"	——
m_4(E)	4	#6	2'-5"	——
s(E)	82	#5	5'-5"	⊐
s_1(E)	82	#4	8'-0"	⊏
v(E)	78	#5	3'-4"	⌐
Reinforcement Bars, Epoxy Coated			Pound	15,280
Concrete Superstructure			Cu. Yds.	76.3

Bars indicated thus 1 x 4-#4 etc. indicates 1 line of bars with 4 lengths per line.

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F.
CHECKED	M. T.

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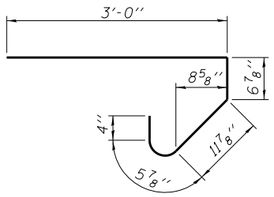
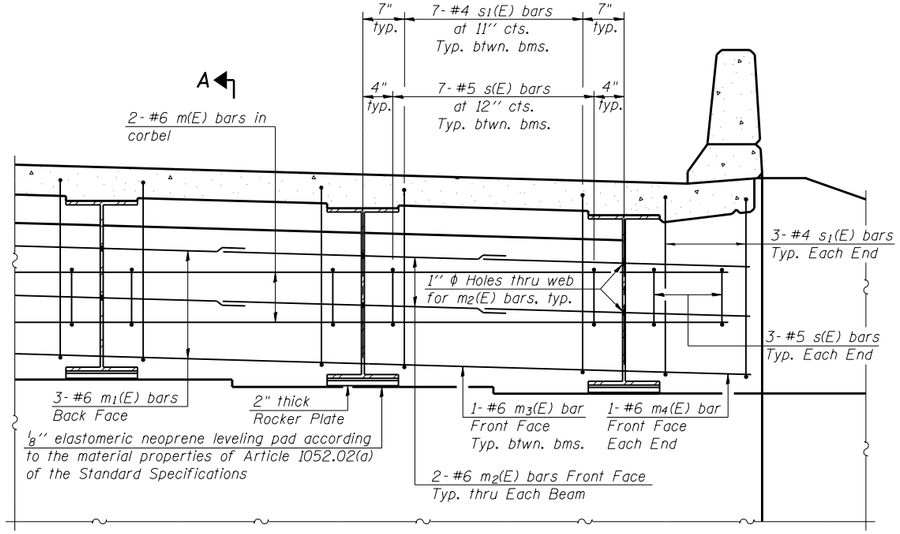
SHEET NO. 8
19 SHEETS

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 051-0065

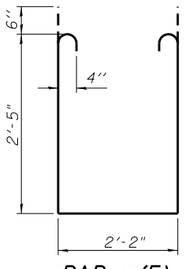
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	29
SN 051-0065		CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				



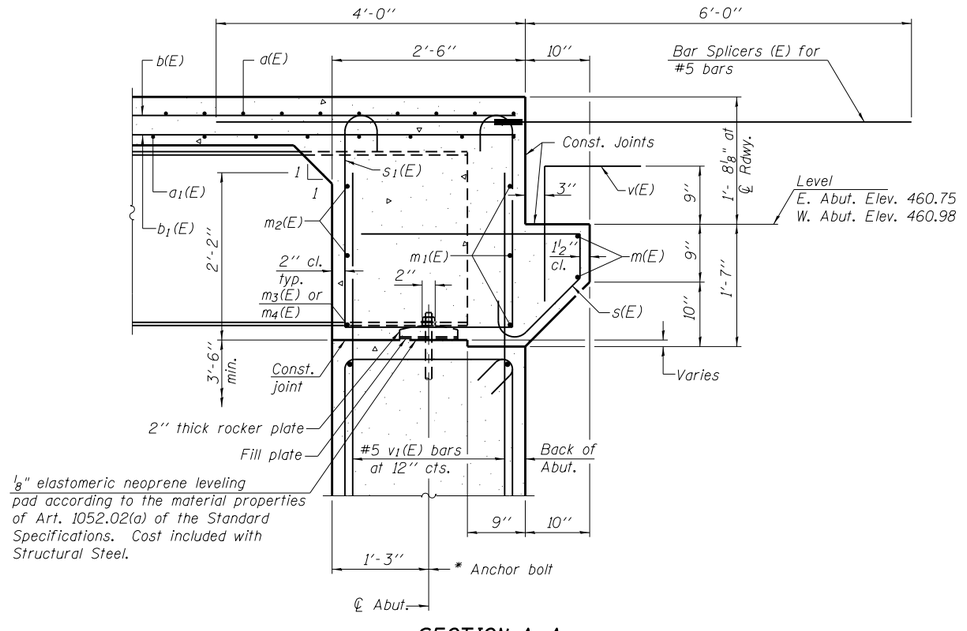
BAR s(E)



DIAPHRAGM ELEVATION AT ABUTMENT



BAR s1(E)



SECTION A-A

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 8 of 19.
Concrete in diaphragm is included with Concrete Superstructure on sheet 8 of 19.

MIN. BAR LAP

#6 bar = 2'-9"

INTEGRAL ABUTMENT
DIAPHRAGM DETAILS
STRUCTURE NO. 051-0065

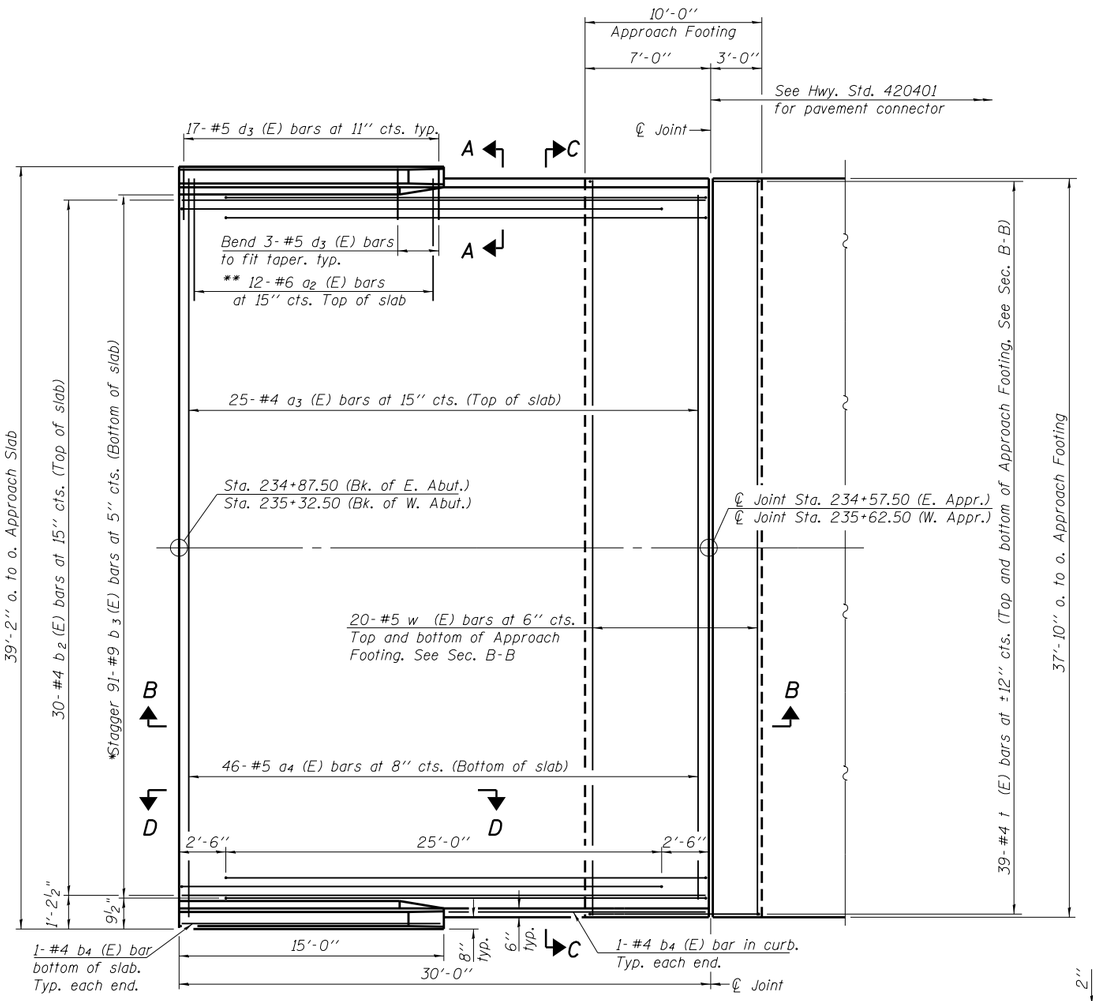
DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F./M. S.
CHECKED	M. T.

FUHRMANN ENGINEERING INC.
2852 SOUTH 11TH STREET
SPRINGFIELD, IL. 62703
(217) 529-5577

SHEET NO. 9
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	30
SN 051-0065		CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				

Notes:
See sheet 11 of 19 for Sections B-B & C-C .
a_3 (E), a_4 (E), and w (E) bar spacings measured parallel to ℄ Rdwy.

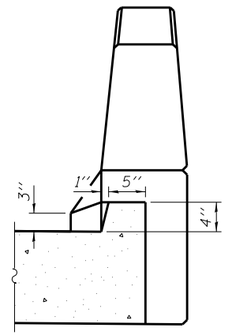


PLAN

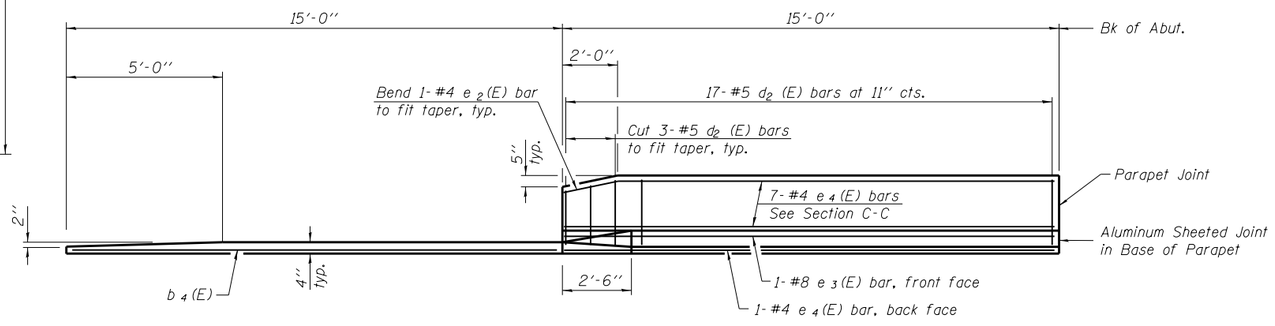
* Tilt #9 b_3 (E) bars as required to maintain clearance.
** Alternate with a_3 (E) bars, typ. ea. parapet.

East Approach N

West Approach N



VIEW A-A



VIEW D-D

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F./M. S.
CHECKED	M. T.

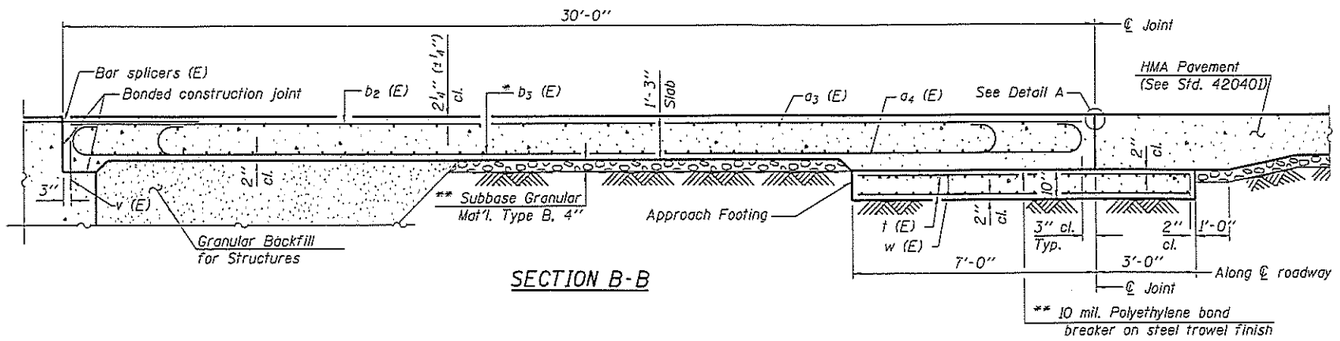
FUHRMANN ENGINEERING INC.
2852 SOUTH 11TH STREET
SPRINGFIELD, IL. 62703
(217) 529-5577

BRIDGE APPROACH SLAB PLAN
STRUCTURE NO. 051-0065

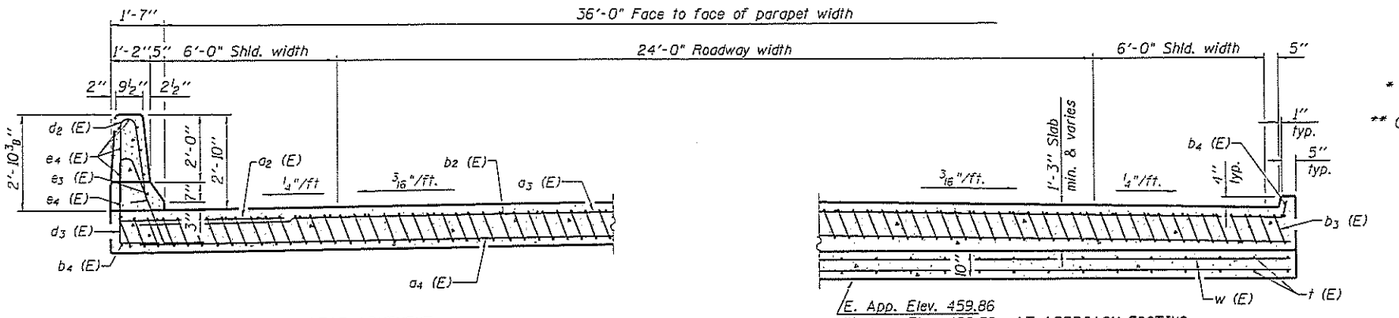
SHEET NO. 10
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	31
SN 051-0065		CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				

Notes:
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v (E) bar details, see sheet 8 of 19.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 16 of 19.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 19.
For additional parapet details, see sheet 8 of 19.



SECTION B-B



NEAR ABUTMENT

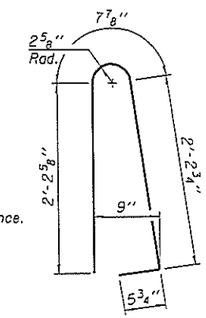
AT APPROACH FOOTING

SECTION C-C

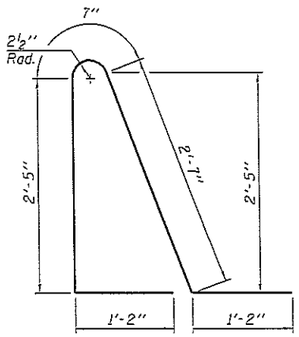
(See Plan for dimensions not shown)

* Tilt #9 b3 (E) bars as required to maintain clearance.

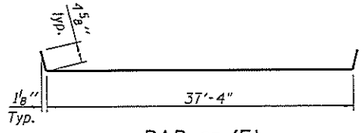
** Cost included with Concrete Superstructure.



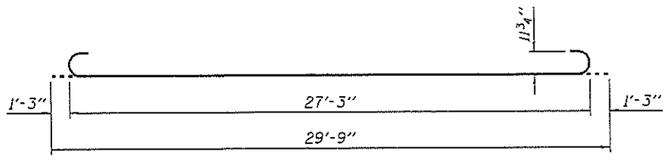
BAR d2 (E)



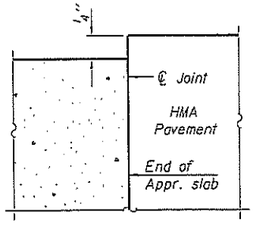
BAR d3 (E)



BAR a3 (E)



BAR b2 (E)



FLEXIBLE PAVEMENT

DETAIL A

APPROACH SLABS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2 (E)	48	#6	6'-0"	
a3 (E)	50	#4	38'-1"	
a4 (E)	92	#5	37'-6"	
b2 (E)	60	#4	29'-8"	
b3 (E)	182	#9	29'-9"	
b4 (E)	8	#4	14'-8"	
d2 (E)	68	#5	5'-7"	
d3 (E)	68	#5	7'-11"	
e3 (E)	4	#8	14'-8"	
e4 (E)	32	#4	14'-8"	
t (E)	156	#4	9'-8"	
w (E)	80	#5	37'-6"	
Concrete Superstructure			Cu. Yd.	7.2
Concrete Structures			Cu. Yd.	23.5
Reinforcement Bars, Epoxy Coated			Pound	30,545
Concrete Superstructure (Approach Slab)			Cu. Yd.	116.7

BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 051-0065

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F./M. S.
CHECKED	M. T.

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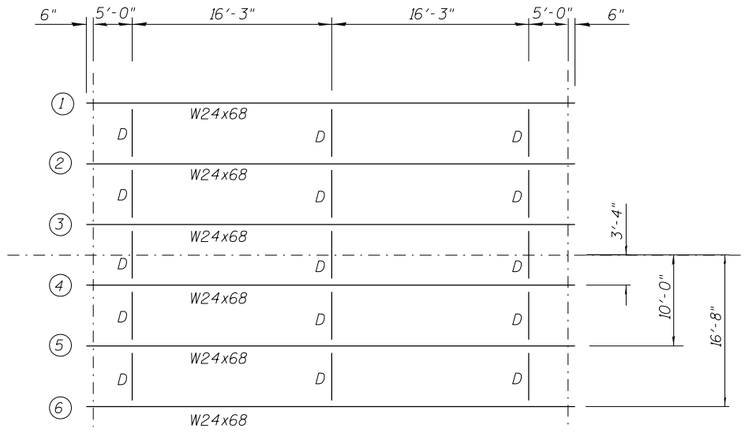
2852 SOUTH 11TH STREET
SPRINGFIELD, IL. 62703
(217) 529-5577

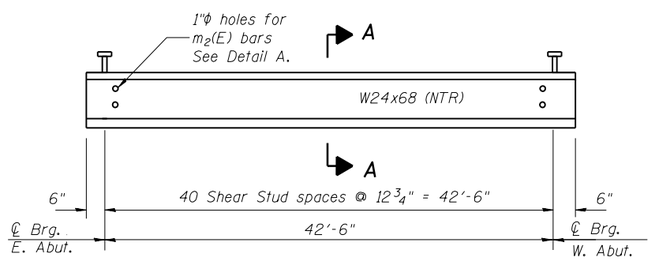
SHEET NO. 11
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	32
SN 051-0065		CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				

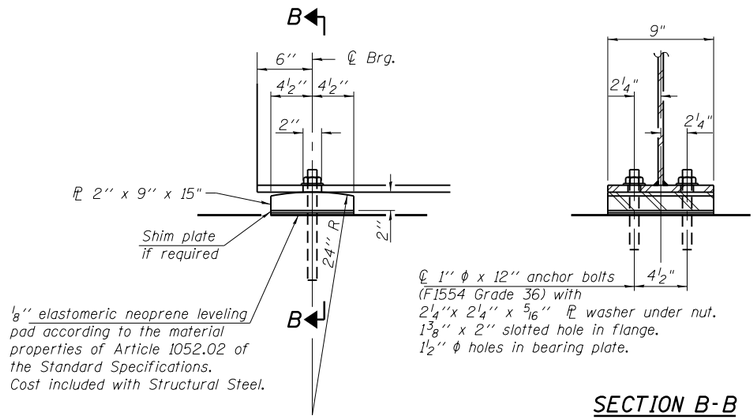
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING DIAPHRAGM



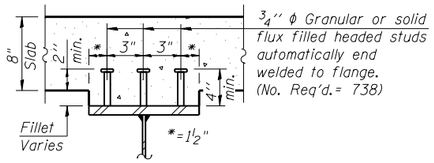
BEAM ELEVATION



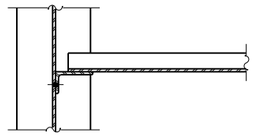
ELEVATION AT ABUTMENT

SECTION B-B

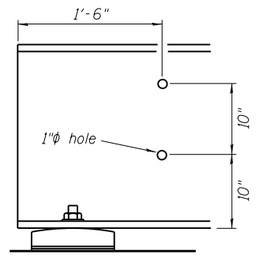
FIXED BEARING AT ABUTMENT



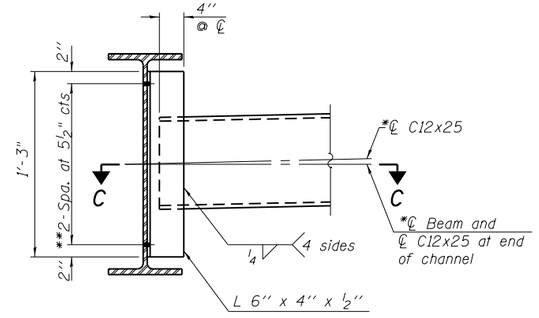
SECTION A-A



SECTION C-C



DETAIL A



INTERIOR DIAPHRAGM D

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. Grade 36 (Fy=36ksi).
The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
All bearing plates shall be AASHTO M270, Grade 50W.

Notes:

Two hardened washers required for each set of oversized holes.

*Alternate channel C12x30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.

The alternate, if utilized, shall be provided at no additional cost to the Department.

**¾" ϕ HS bolts, 15/16" ϕ holes

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

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

INTERIOR BEAM MOMENT TABLE		.5 Span
I_s	(in^4)	1830
$I_c(n)$	(in^4)	6540
$I_c(3n)$	(in^4)	4963
S_s	(in^3)	154
$S_c(n)$	(in^3)	263
$S_c(3n)$	(in^3)	238
DC1	(k/')	0.750
M_{DC1}	('k)	169
DC2	(k/')	0.150
M_{DC2}	('k)	34
DW	(k/')	0.334
M_{DW}	('k)	75
M_{L+IM}	('k)	444
M_u (Strength I)	('k)	1143
* $\phi_f M_n$	('k)	1440
f_s DC1	(ksi)	13.2
f_s DC2	(ksi)	1.6
f_s DW	(ksi)	3.8
f_s 1.3(L+IM)	(ksi)	26.3
f_s (Service II)	(ksi)	44.9
f_s (Total)(Strength I)	(ksi)	---
V_f	(k)	17.38

* Compact sections

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

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

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

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

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

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

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

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

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

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

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

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\ M_{L+IM}$

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

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

INTERIOR BEAM REACTION TABLE		Abut.
R_{DC1}	(k)	16.7
R_{DC2}	(k)	3.2
R_{DW}	(k)	7.1
R_{L+IM}	(k)	63.5
R_{Total}	(k)	90.5

Note: Unfactored Loads.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Anchor Bolts, 1"	Each	24

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F./M. S.
CHECKED	M. T.

FUHRMANN ENGINEERING INC.
2852 SOUTH 11TH STREET
SPRINGFIELD, IL. 62703
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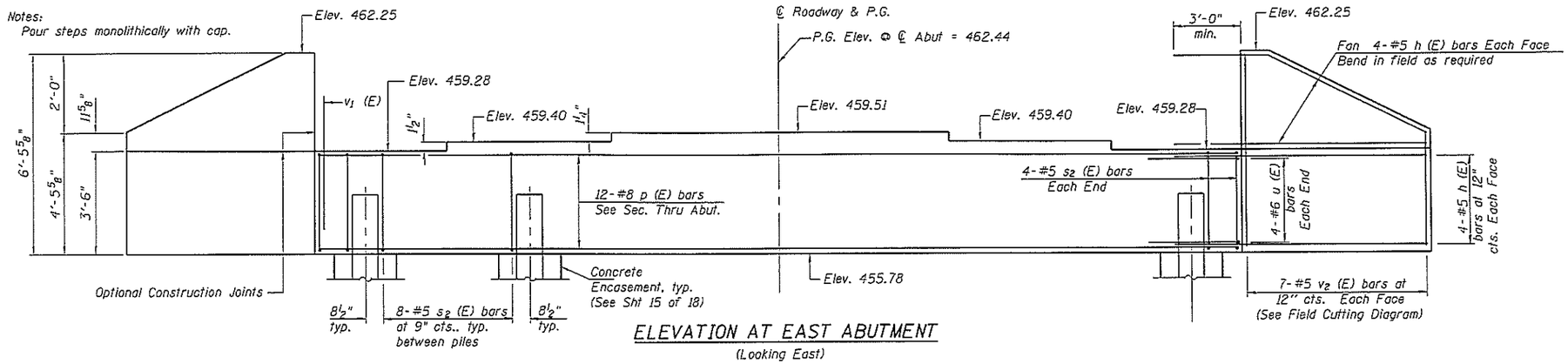
SHEET NO. 12
19 SHEETS

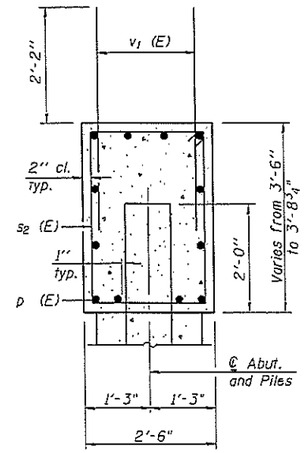
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	33
	SN 051-0065	CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				

FRAMING PLAN & FIXED BEARING DETAILS STRUCTURE NO. 051-0065

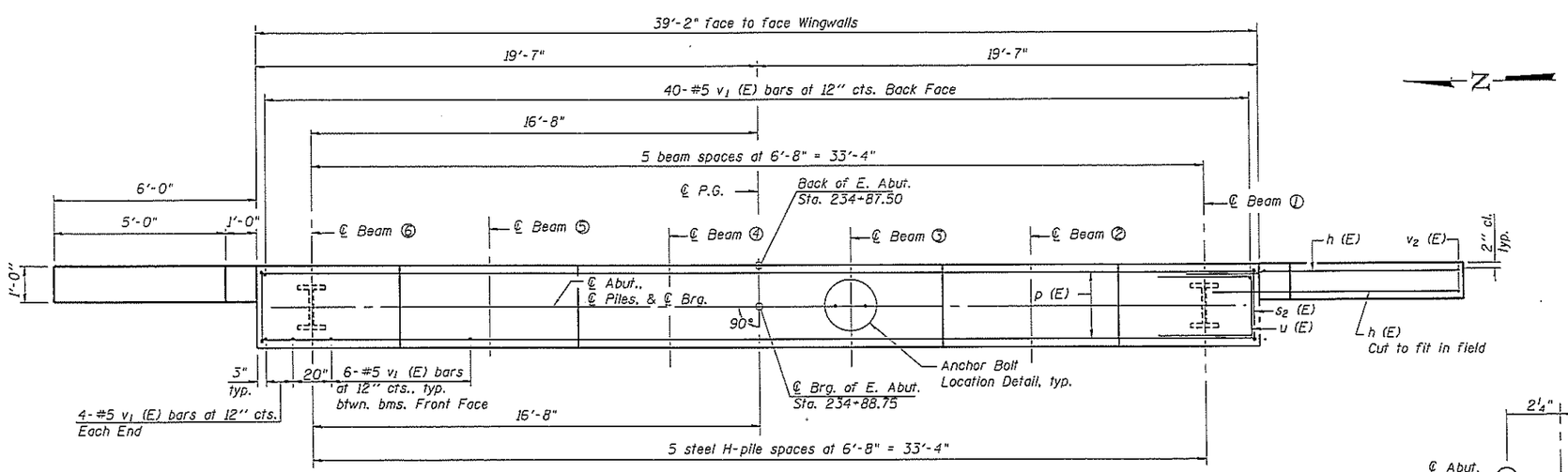


ELEVATION AT EAST ABUTMENT

(Looking East)



SEC. THRU ABUT.



PLAN

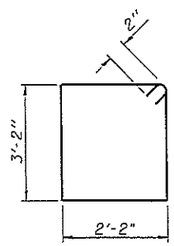
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h (E)	32	#5	10'-0"	
p (E)	12	#8	38'-10"	
s2 (E)	48	#5	11'-0"	
u (E)	8	#6	8'-1"	
v1 (E)	78	#5	4'-4"	
v2 (E)	14	#5	10'-5"	
Structure Excavation		Cu. Yd.	82.5	
Concrete Structures		Cu. Yd.	15.7	
Reinforcement Bars, Epoxy Coated		Pound	2,735	
Furnishing Steel Piles HP12x53		Foot	254	
Driving Piles		Foot	254	
Test Pile Steel HP12x53		Each	1	
Concrete Encasement		Cu. Yd.	2.1	

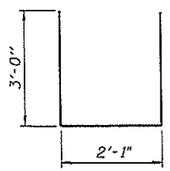
For details of Bar Splicers, see sheet 16 of 19.
For details of piles and Concrete Encasement, see sheet 15 of 19.
Space reinforcement bars to miss anchor bolts.

E. ABUT. PILE DATA

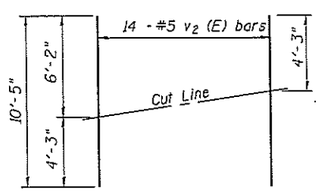
Type: HP 12x53
Nominal Required Bearing: 419 kips
Factored Resistance Available: 209 kips
Est. Length: 50.75'
No. Production Piles: 5
No. Test Piles: 1



BAR s2 (E)

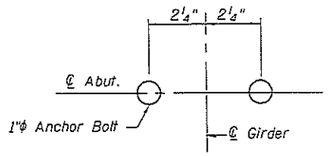


BAR u (E)



FIELD CUTTING DIAGRAM

Order v2 (E) full length. Cut as shown and use remainder of bars in opposite face.



ANCHOR BOLT LOCATION DETAIL

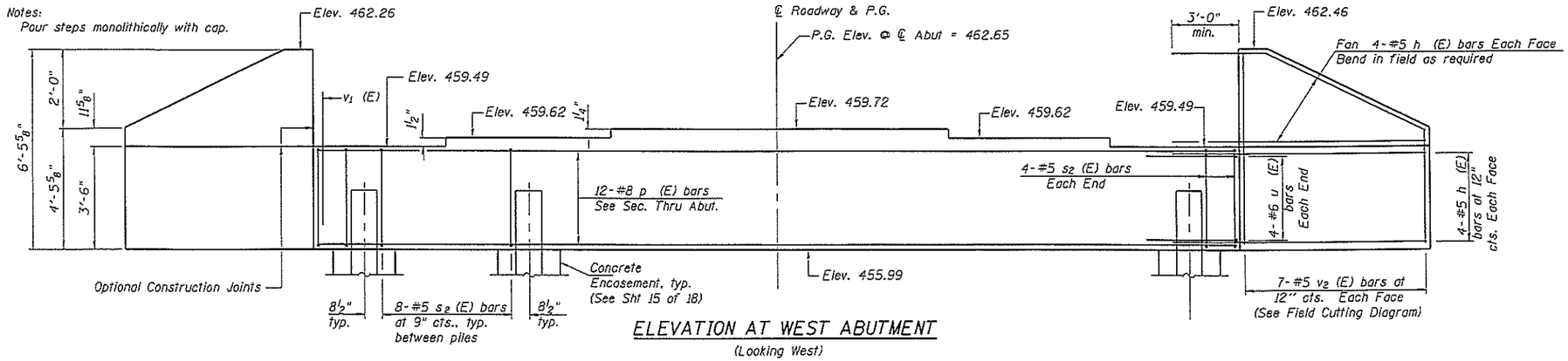
DESIGNED M. T.
CHECKED T. F.
DRAWN T. F./M. S.
CHECKED M. T.

FUHRMANN ENGINEERING INC.
2852 SOUTH 11TH STREET
SPRINGFIELD, IL. 62703
(217) 529-5577

SHEET NO. 13
19 SHEETS

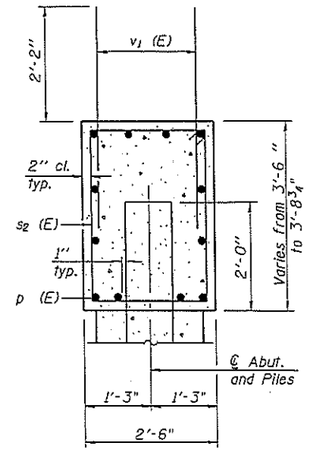
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	34
SN 051-0065		CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				

EAST ABUTMENT
STRUCTURE NO. 051-0065

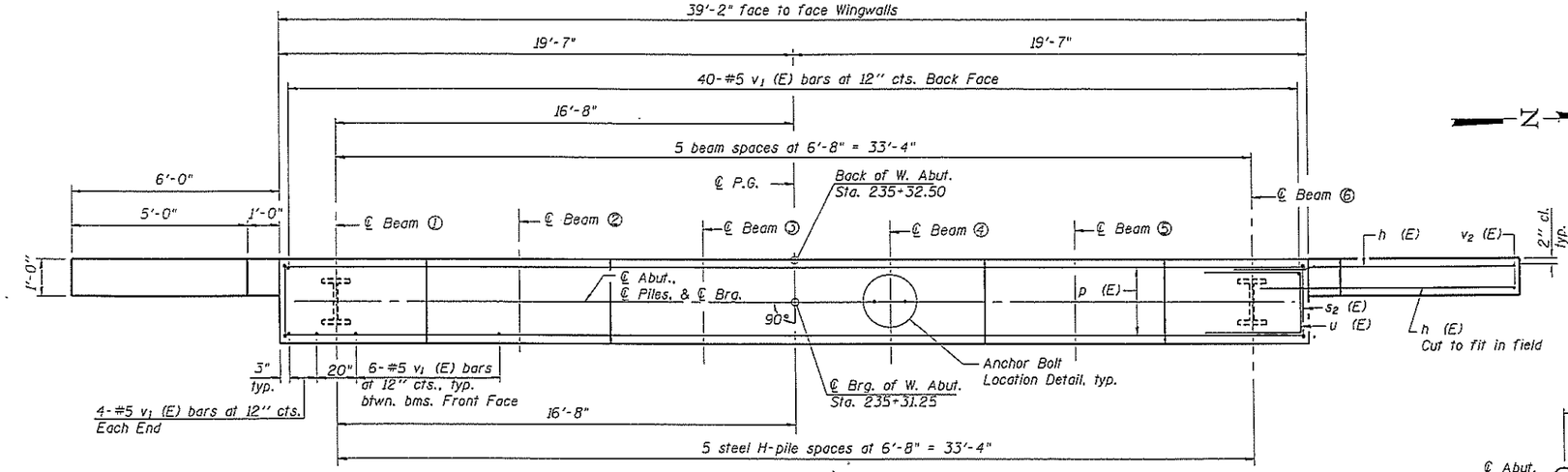


ELEVATION AT WEST ABUTMENT

(Looking West)



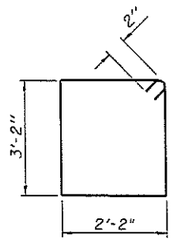
SEC. THRU ABUT.



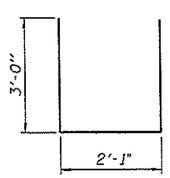
PLAN

W. ABUT. PILE DATA

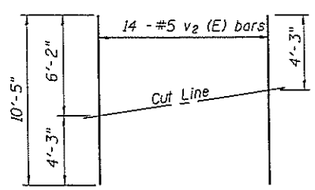
Type: HP 12x53
Nominal Required Bearing: 419 kips
Factored Resistance Available: 209 kips
Est. Length: 40.5'
No. Production Piles: 5
No. Test Piles: 1



BAR s2 (E)

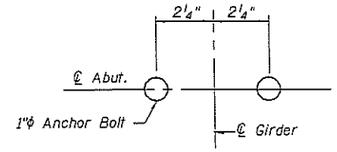


BAR u (E)



FIELD CUTTING DIAGRAM

Order v2 (E) full length. Cut as shown and use remainder of bars in opposite face.



ANCHOR BOLT LOCATION DETAIL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h (E)	32	#5	10'-0"	
p (E)	12	#8	38'-10"	
s2 (E)	48	#5	11'-0"	
u (E)	8	#6	8'-1"	
v1 (E)	78	#5	4'-4"	
v2 (E)	14	#5	10'-5"	
Structure Excavation		Cu. Yd.	82.5	
Concrete Structures		Cu. Yd.	15.7	
Reinforcement Bars, Epoxy Coated		Pound	2,735	
Furnishing Steel Piles HP12x53		Foot	203	
Driving Piles		Foot	203	
Test Pile Steel HP12x53		Each	1	
Concrete Encasement		Cu. Yd.	2.1	

For details of Bar Splicers, see sheet 16 of 19.
For details of piles and Concrete Encasement, see sheet 15 of 19.
Space reinforcement bars to miss anchor bolts.

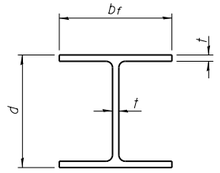
DESIGNED M. T.
CHECKED T. F.
DRAWN T. F./M. S.
CHECKED M. T.

FUHRMANN ENGINEERING INC.
2852 SOUTH 11TH STREET
SPRINGFIELD, IL. 62703
(217) 529-5577

SHEET NO. 14
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	35
SN 051-0065		CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				

WEST ABUTMENT
STRUCTURE NO. 051-0065



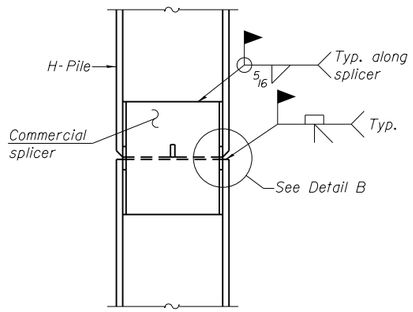
STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4''	14 7/8''	13/16''	30''
x102	14''	14 3/4''	11/16''	30''
x89	13 7/8''	14 3/4''	5/8''	30''
x73	13 5/8''	14 5/8''	1/2''	30''
HP 12x84	12 1/4''	12 1/4''	11/16''	24''
x74	12 1/8''	12 1/4''	5/8''	24''
x63	12''	12 1/8''	1/2''	24''
x53	11 3/4''	12''	7/16''	24''
HP 10x57	10''	10 1/4''	9/16''	24''
x42	9 3/4''	10 1/8''	7/16''	24''
HP 8x36	8''	8 1/8''	7/16''	18''

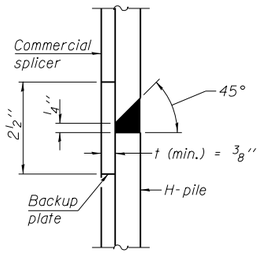
ELEVATION

DETAIL A

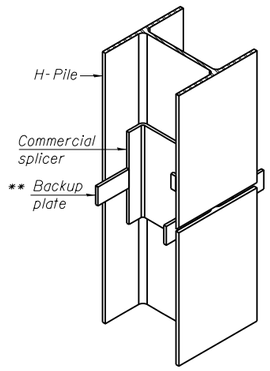
H-PILE SHOE ATTACHMENT



ELEVATION

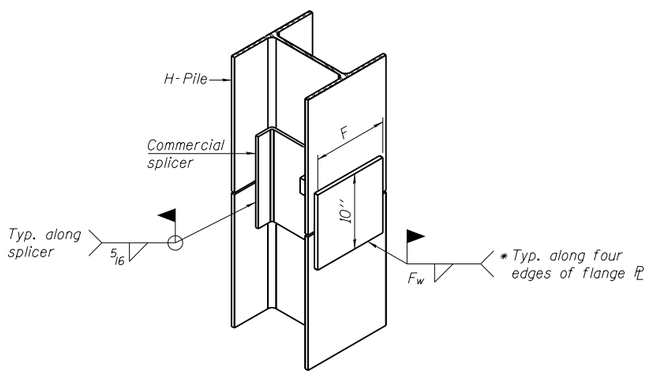


DETAIL "B"



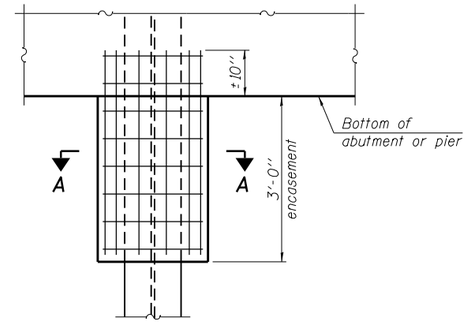
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

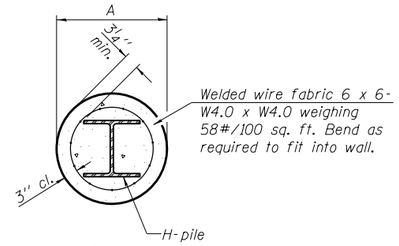


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE



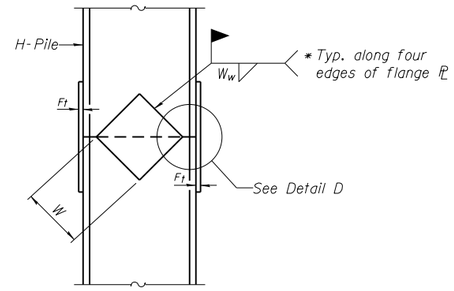
ELEVATION



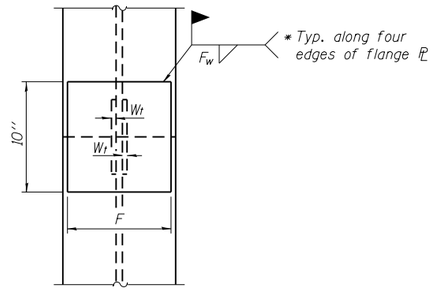
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

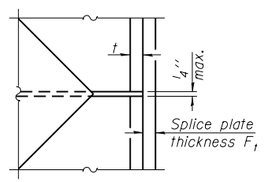
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

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

WELDED PLATE FIELD SPLICE

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

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

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

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

HP PILE DETAILS
STRUCTURE NO. 051-0065

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F./M. S.
CHECKED	M. T.

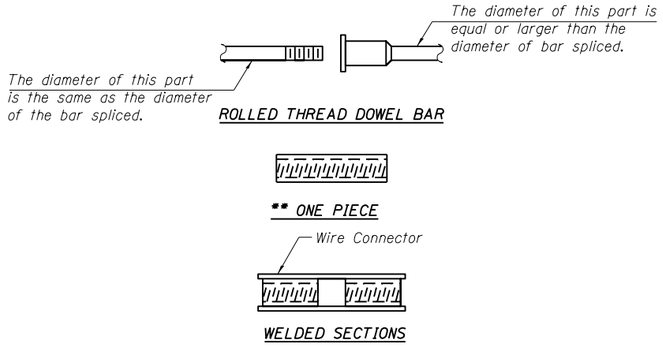
F-HP

11-1-09

FUHRMANN ENGINEERING INC.
2852 SOUTH 11TH STREET
SPRINGFIELD, IL. 62703
(217) 529-5577

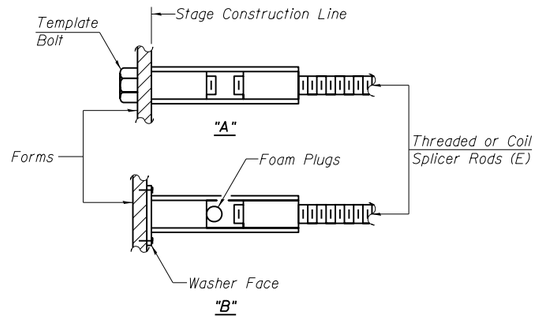
SHEET NO. 15
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	36
	SN 051-0065	CONTRACT NO. 74106		
	FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT			



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.

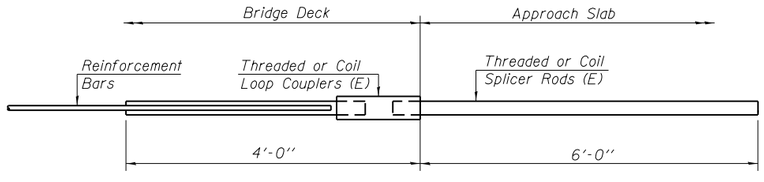
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

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 x fy x A_t,

② Minimum *Pull-out Strength (Tension in kips) = 0.66 x fy x A_t,

Where fy = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

BAR SPLICER ASSEMBLIES			
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

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 78

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F./M. S.
CHECKED	M. T.

FUHRMANN ENGINEERING INC.
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(217) 529-5577

BAR SPLICER ASSEMBLY DETAILS
STRUCTURE NO. 051-0065

SHEET NO. 16
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	37
SN 051-0065		CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				

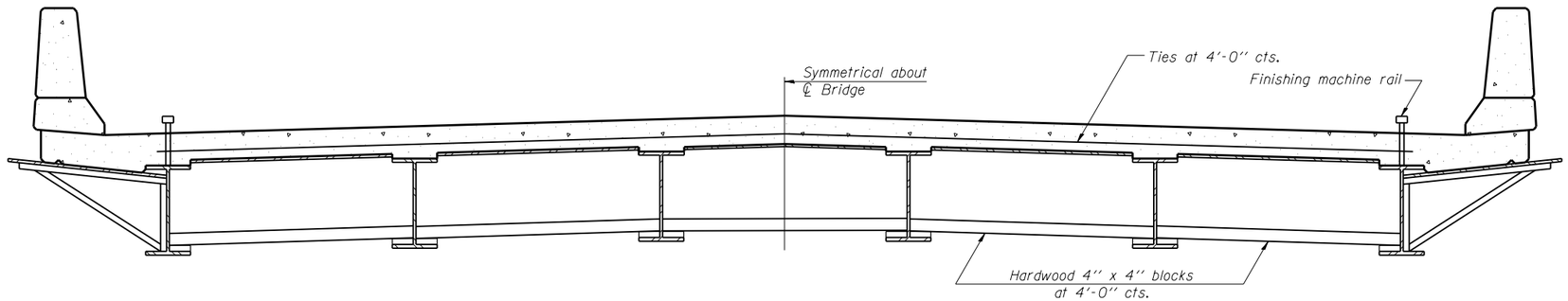
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

When cantilever forming brackets are used, the work shall be done according to Article 503.06 (b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



FORM BRACES FOR STANDARD CONSTRUCTION

CANTILEVER FORMING BRACKETS FOR SUPERSTRUCTURES WITH W27 BEAMS AND SMALLER STRUCTURE NO. 051-0065

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F.
CHECKED	M. T.

FUHRMANN ENGINEERING INC.
2852 SOUTH 11TH STREET
SPRINGFIELD, IL. 62703
(217) 529-5577

SHEET NO. 17

19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	38
SN 051-0065		CONTRACT NO. 74106		
FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/28/08

ROUTE FAS 1806 DESCRIPTION IL 250 over Un-named stream LOGGED BY E. Sandschafer

SECTION 2B-1 LOCATION Sec 5 - SW 1/4, Sec 8 - NW 1/4, SEC., TWP. 3 N, RNG. 12 W, 3 PM

COUNTY Lawrence DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 051-0051
Station 235+10

BORING NO. 1 East
Station 234+65
Offset 6.50ft Lt
Ground Surface Elev. 460.51 ft

Surface Water Elev. Dry ft
Stream Bed Elev. 452.19 ft

Groundwater Elev.:
First Encounter 433.0 ft
Upon Completion 415.5 ft
After 168 Hrs. 452.0 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
459.71			
2 3/8" asphalt on 7 1/2" concrete pavement.			
458.51			
Gray, CLAY.			
	15		
	22	1.6	17
	37	S	
456.01			
-5	4		
Soft, very damp, gray, SILTY LOAM.	2	0.3	27
	1	B	
453.51			
Medium, damp, brown/gray, SANDY LOAM.	5		
	5	0.9	18
	10	B	
451.01			
-10	4		
Medium, damp, red marbled gray, SANDY CLAY LOAM.	7	0.7	18
	5	B	
448.51			
	4		
Stiff, damp, blue, CLAY.	5	1.9	25
	6	B	
446.01			
-15	0		
Medium to stiff, damp, gray, SILTY LOAM. *With Wood fragments.*	2	0.6	50
	2	B	
	0		
	2	1.0	47
	2	B	
440.51 -20	0		
Soft, very damp, gray, SILTY LOAM.	1	0.4	27
	1	B	
	0		
	2	0.3	18
	2	B	
435.51 -25	0		
Stiff, damp, gray, CLAY LOAM TILL.	2	1.0	16
	3	B	
	2		
	4	2.2	16
	5	B	
-30	3		
	4	2.0	16
	7	B	
	4		
	5	1.9	25
	6	B	
-35	3		
	5	1.7	17
	7	B	
420.51 -40	2		

Latitude W 87 deg 46.276 min. Longitude N 39 deg 42.974 min. Map Datum WGS 84

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 10/28/08

ROUTE FAS 1806 DESCRIPTION IL 250 over Un-named stream LOGGED BY E. Sandschafer

SECTION 2B-1 LOCATION Sec 5 - SW 1/4, Sec 8 - NW 1/4, SEC., TWP. 3 N, RNG. 12 W, 3 PM

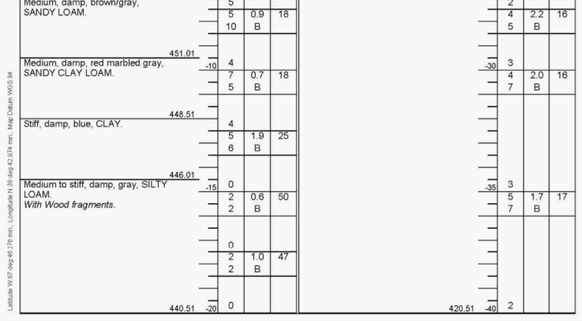
COUNTY Lawrence DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 051-0051
Station 235+10

BORING NO. 1 East
Station 234+65
Offset 6.50ft Lt
Ground Surface Elev. 460.51 ft

Surface Water Elev. Dry ft
Stream Bed Elev. 452.19 ft

Groundwater Elev.:
First Encounter 433.0 ft
Upon Completion 415.5 ft
After 168 Hrs. 452.0 ft



Latitude W 87 deg 46.276 min. Longitude N 39 deg 42.974 min. Map Datum WGS 84

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/28/08

ROUTE FAS 1806 DESCRIPTION IL 250 over Un-named stream LOGGED BY E. Sandschafer

SECTION 2B-1 LOCATION Sec 5 - SW 1/4, Sec 8 - NW 1/4, SEC., TWP. 3 N, RNG. 12 W, 3 PM

COUNTY Lawrence DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 051-0051
Station 235+10

BORING NO. 1 East
Station 234+65
Offset 6.50ft Lt
Ground Surface Elev. 460.51 ft

Surface Water Elev. Dry ft
Stream Bed Elev. 452.19 ft

Groundwater Elev.:
First Encounter 433.0 ft
Upon Completion 415.5 ft
After 168 Hrs. 452.0 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff, damp, gray, CLAY LOAM TILL.	3	1.5	18
	6	B	
416.01			
-45	3		
Very stiff, damp, gray, SILTY CLAY TILL.	7	3.2	19
	11	S	
411.01			
-50	41		
Very dense, moist, gray, SILTY CLAY SHALE	50/3"	9	
410.21	50/1"		
Extent of exploration.			
-55			
-60			

Benchmark: BM 509 chiseled square on SE wingwall of existing structure, Sta 235+00, 17.5' Rt = 460.39' elevation. Provided by Program Development.

Latitude W 87 deg 46.276 min. Longitude N 39 deg 42.974 min. Map Datum WGS 84

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

DESIGNED M. T.
CHECKED T. F.
DRAWN T. F.
CHECKED M. T.

FUHRMANN ENGINEERING INC.
2852 SOUTH 11TH STREET
SPRINGFIELD, IL. 62703
(217) 529-5577

BORINGS
STRUCTURE NO. 051-0065

SHEET NO. 18
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	39
	SN 051-0065	CONTRACT NO. 74106		
	FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 3

Date 10/27/08

ROUTE FAS 1806 DESCRIPTION IL 250 over Un-named stream LOGGED BY E. Sandschafer

SECTION 2B-1 LOCATION Sec 5 - SW 1/4, Sec 8 - NW 1/4, **SEC.**, **TWP.** 3 N, **RNG.** 12 W, 3 **PM**

COUNTY Lawrence DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 051-0051
Station 235+10

BORING NO. 2 West
Station 235+55
Offset 6.00ft Lt
Ground Surface Elev. 460.93 ft

Surface Water Elev. Dry ft
Stream Bed Elev. 452.19 ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion Washed ft
After 24 Hrs. 455.2 ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
5" asphalt on 10" concrete pavement.	459.63				
Stiff, damp, gray, SANDY CLAY LOAM.			17		
			28	1.5	16
			16	S	
		-5	3		
			2	1.5	20
	455.13		1	B	
Very soft, wet, gray, SILTY LOAM muck.	453.93				
Stiff, damp, gray, SANDY CLAY LOAM.			3		
			4	1.1	21
	451.43		5	B	
Soft, very damp, gray, SILTY LOAM.	450.73	-10	2		
Stiff, damp, red marbled gray, SANDY CLAY LOAM TILL.			2	0.8	23
			3	B	
			2		
			4	1.6	20
			5	B	
		-15	1		
			4	1.1	18
	443.93		4	B	
Very stiff, damp, brown marbled gray, CLAY LOAM TILL.			5		
			8	3.2	14
			13	BS	
	440.93	-20	4		

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff, damp, gray, CLAY LOAM TILL.			6	3.6	14
			10	B	
			3		
			4	1.2	15
			6	B	
		-25	3		
	435.33		6	2.1	15
Gray, SANDY LOAM.	435.13		9	B	
Stiff, damp, gray, CLAY LOAM TILL.			3		
			5	1.9	16
			7	B	
		-30	3		
			5	1.4	17
			7	B	
		-35	3		
			5	1.6	26
			11	B	
	421.43	-40	40		

Latitude W 87 deg 46.279 min, Longitude N 38 deg 42.976 min, Map Datum WGS 84

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

ROCK CORE LOG

Page 3 of 3

Date 10/27/08

ROUTE FAS 1806 DESCRIPTION IL 250 over Un-named stream LOGGED BY E. Sandschafer

SECTION 2B-1 LOCATION Sec 5 - SW 1/4, Sec 8 - NW 1/4, **SEC.**, **TWP.** 3 N, **RNG.** 12 W, 3 **PM**

COUNTY Lawrence CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 051-0051
Station 235+10

BORING NO. 2 West
Station 235+55
Offset 6.00ft Lt
Ground Surface Elev. 460.93 ft

CORING BARREL TYPE & SIZE NW, conv dbl bbl, split inner

Core Diameter 2.06 in
Top of Rock Elev. 421.43 ft
Begin Core Elev. 420.53 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray, slightly to moderately weathered, SANDY CLAY SHALE.	420.53		B2C1	77	75	1.3	
Rock core B2C1 from 43.4' to 43.9' depth Qu = 7.9 tsf.		-45					
			B2C2	100	100	1.1	
Rock core B2C2 from 49.9' to 50.4' depth Qu = 14.2 tsf.	410.53	-50					
Extent of exporation.							
Benchmark: BM 509 chiseled square on SE wingwall of existing structure, Sta 235+00, 17.5' Rt = 460.39' elevation. Provided by Program Development.		-55					
		-60					

Color pictures of the cores Available on request
Cores will be stored for examination until 10/27/09
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Field Rock Core Log a.xls

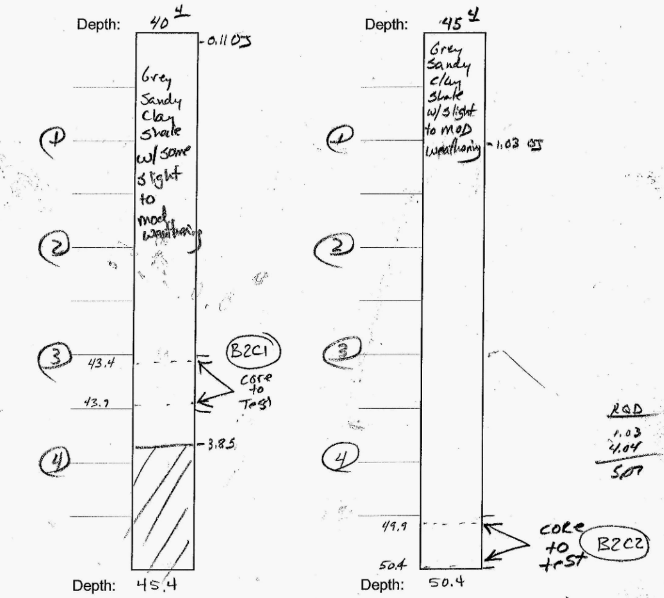
Field Rock Core Log

Date: 10-27-08

Structure #: 051-0051 Boring #: B2 W Abut

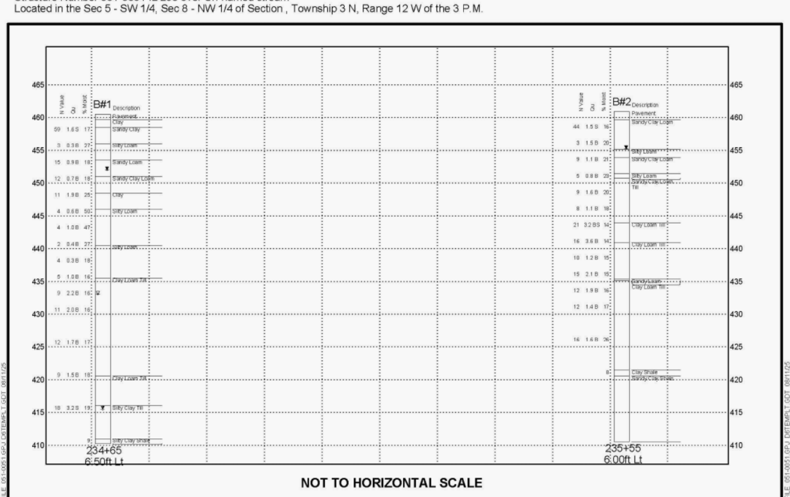
Rock Core #: 1 Rock Core #: 2

Depth: 40' Depth: 45'



Depth: 45.4 Depth: 50.4
Core Time: 6:20 (1.3 min/ft) Core Time: 5:32 (1.1 min/ft)
Recovery: 77% Recovery: 100%
RQD: 74.6% RQD: 100%
Logged By: Eric Sandschafer

Structure Number 051-0051 IL 250 over Un-named stream
Located in the Sec 5 - SW 1/4, Sec 8 - NW 1/4 of Section , Township 3 N, Range 12 W of the 3 P.M.



NOT TO HORIZONTAL SCALE

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

VARIATIONS IN SUBSURFACE CONDITIONS MAY EXIST BETWEEN BORINGS

SUBSURFACE DATA PROFILE
Route: FAS 1806
Section: 2B-1
County: Lawrence

SUBSURFACE DATA PROFILE 051-0051.GPJ D6TEMPLT.GDT 08/11/25

DESIGNED	M. T.
CHECKED	T. F.
DRAWN	T. F.
CHECKED	M. T.

FUHRMANN ENGINEERING INC.
2852 SOUTH 11TH STREET
SPRINGFIELD, IL. 62703
(217) 529-5577

BORINGS
STRUCTURE NO. 051-0065

SHEET NO. 19	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
19 SHEETS	1806	2B-1	LAWRENCE	59	40
	SN 051-0065		CONTRACT NO. 74106		
	FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				

EROSION CONTROL GENERAL NOTES

EROSION CONTROL MEASURES AT THE START OF CONSTRUCTION:

1. THE AREAS OF EXCAVATION AND EMBANKMENT PLACEMENT SHALL BE MANAGED FOR THE PURPOSES OF CONTROLLING EROSION WITHIN THE IMPROVEMENT AREA, REDUCING WATER FLOW BY TEMPORARY DIVERSION, MINIMIZING SILTATION AT THE RIGHT-OF-WAY LINE, AND ESTABLISHING VEGETATIVE COVER WHICH WILL BECOME PERMANENT VEGETATION AND ACT AS AN EROSION CONTROL BARRIER. WORK AT THE START OF CONSTRUCTION SHALL CONSIST OF THE FOLLOWING:

   (a) AREAS OF EXISTING VEGETATION (WOODS AND GRASSLANDS) OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE IDENTIFIED FOR PRESERVING AND SHALL BE PROTECTED FROM MOWING, BRUSH CUTTING, TREE REMOVAL, AND OTHER ACTIVITIES THAT WOULD BE DETRIMENTAL TO THEIR MAINTENANCE AND DEVELOPMENT.

   (b) DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.

   (c) BARE AND SPARSELY VEGETATED GROUND IN HIGHLY ERODIBLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE START OF CONSTRUCTION WHEN NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN CALENDAR DAYS.

EROSION CONTROL MEASURES DURING CONSTRUCTION:

1. DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED FROM DAMAGING EFFECTS OF CONSTRUCTION. THE CONTRACTOR SHALL NOT USE THIS AREA FOR PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.

   (a) WITHIN THE CONSTRUCTION ZONE, CRITICAL AREAS WHICH HAVE A HIGH FLOW OF WATER, AS DETERMINED BY THE ENGINEER, SHALL REMAIN UNDISTURBED UNTIL CONTINUOUS OPERATIONS CAN ENSURE TIMELY COMPLETION OF WORK IN THESE AREAS TO MINIMIZE SOIL EROSION.

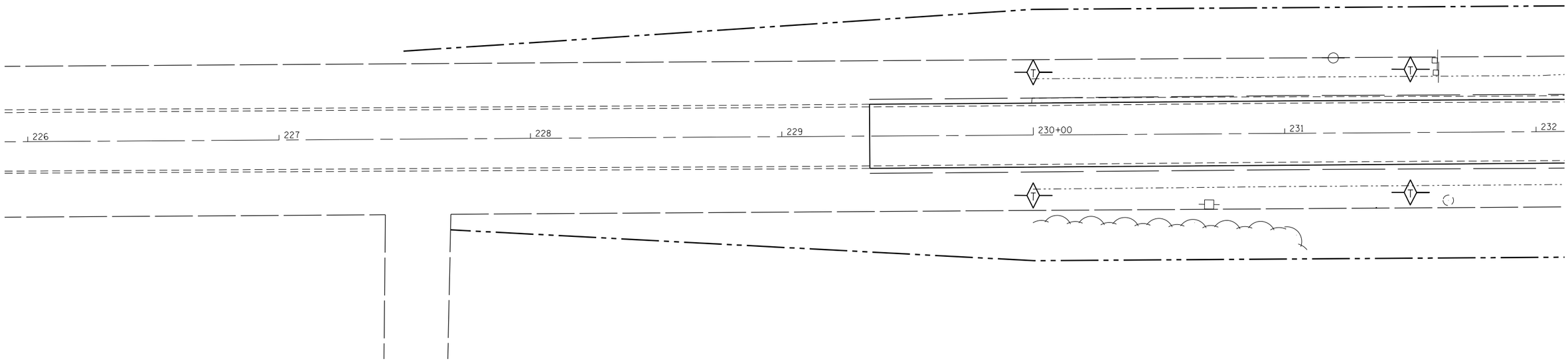
   (b) EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN CALENDAR DAYS.

EROSION CONTROL MEASURES AFTER FINAL GRADING:

1. EXCAVATION AND EMBANKMENT AREAS SHALL BE PERMANENTLY SEEDED WHEN FINAL GRADED.

   (a) TEMPORARY EROSION CONTROL SYSTEMS SHALL REMAIN IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY WITH ALL PROPOSED TURF AREAS SEEDED AND A PROPER STAND ESTABLISHED.

N



LEGEND

- TEMPORARY DITCH CHECKS
- INLET AND PIPE PROTECTION
- PERIMETER EROSION BARRIER

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 7\Projects\74106\Drawings\CAD\sheets\D774106-sht-erosioncntrl.dgn	USER NAME = steffenmk	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/10/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

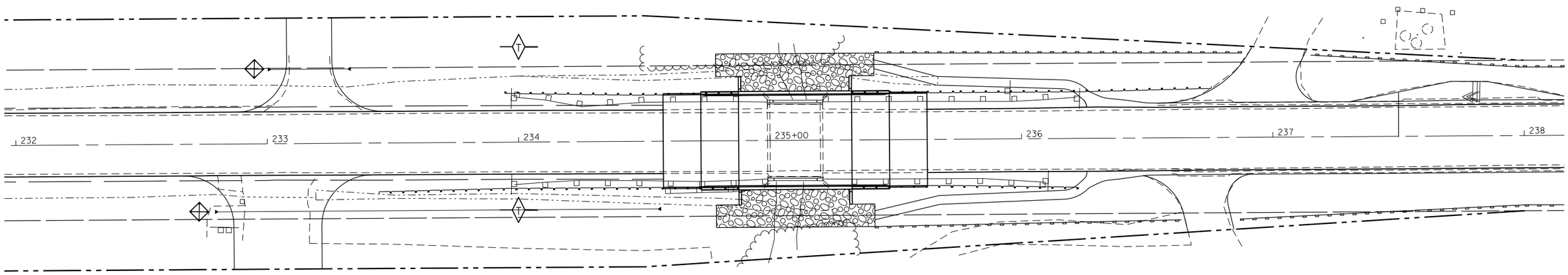
EROSION CONTROL

SCALE: 20 | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	41

CONTRACT NO. 74106

ILLINOIS | FED. AID PROJECT



LEGEND

- TEMPORARY DITCH CHECKS
- INLET AND PIPE PROTECTION
- PERIMETER EROSION BARRIER

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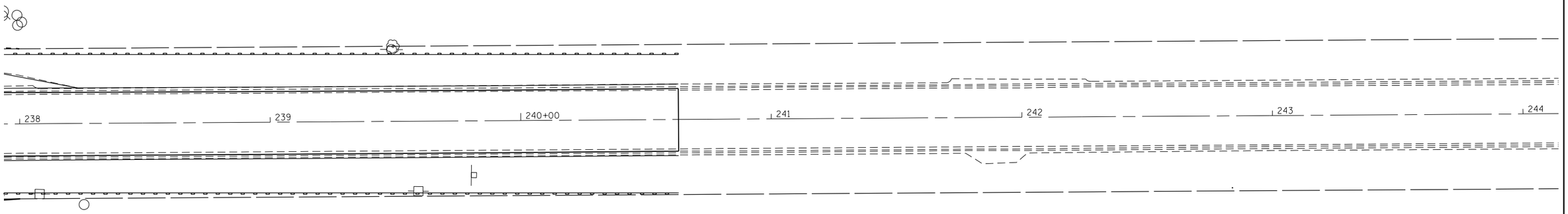
		DRAWN -	REVISED -
Default	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/10/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL

SCALE: 20 | SHEET 2 OF 3 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	42
		CONTRACT NO. 74106		
		ILLINOIS FED. AID PROJECT		



LEGEND

- TEMPORARY DITCH CHECKS
- INLET AND PIPE PROTECTION
- PERIMETER EROSION BARRIER

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		DRAWN -	REVISED -
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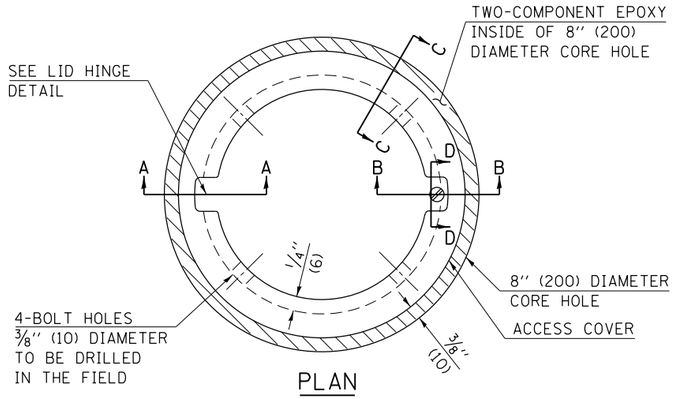
	PLOT DATE = 12/10/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL

SCALE: 20 | SHEET 3 OF 3 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	43
		CONTRACT NO. 74106		
		ILLINOIS FED. AID PROJECT		



PLAN

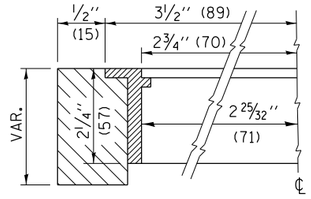
LEGEND

- ALUMINUM CASTING
- 5" (125) OR 6" (150) P.V.C. PIPE
- TWO-COMPONENT EPOXY

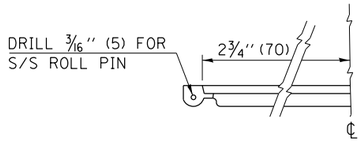
T = THICKNESS OF PAVEMENT STRUCTURE

H = THE THICKNESS OF THE SUB-BASE GRANULAR + 1" (25)

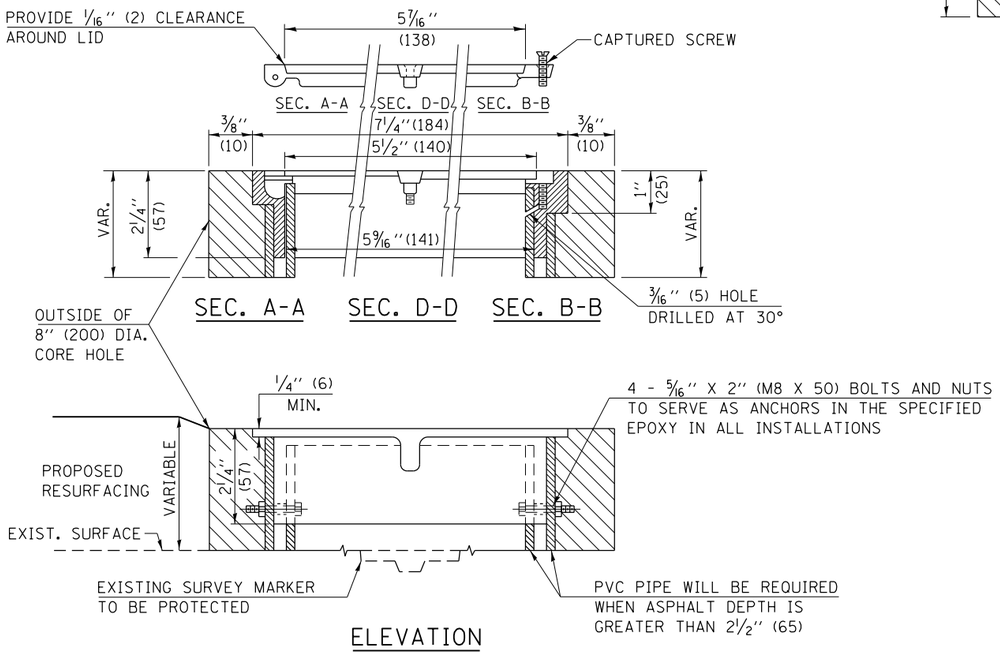
BILL OF MATERIAL
ALUMINUM CASTING OF THE DIMENSIONS AND SPECIFICATIONS SHOWN OR OTHER SUBJECT TO ENGINEER'S APPROVAL OF SHOP DRAWINGS, 4 EACH - 5/16" X 2" (M8 X 50) BOLTS WITH NUTS, EPOXY, 5" OR 6" (125 mm OR 150 mm) DIAMETER P.V.C. PIPE, SCHEDULE 40 (WHEN REQUIRED).



SECTION C-C

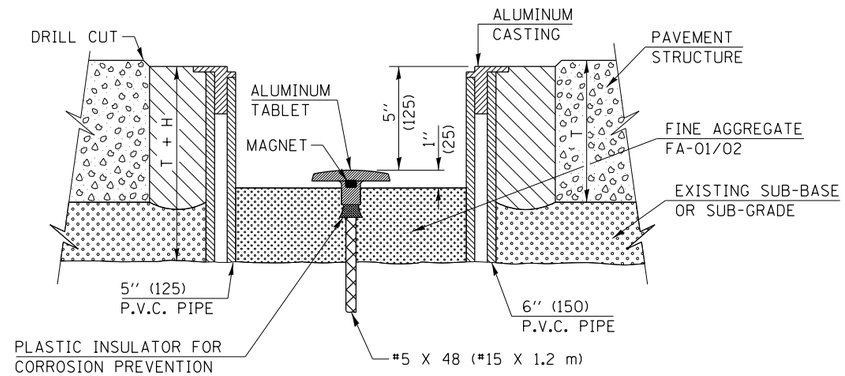


LID HINGE DETAIL



ELEVATION

EXISTING SURVEY MARKER



ELEVATION

PROPOSED SURVEY MARKER

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. Z0070202

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		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/10/2015	DATE -	REVISED -

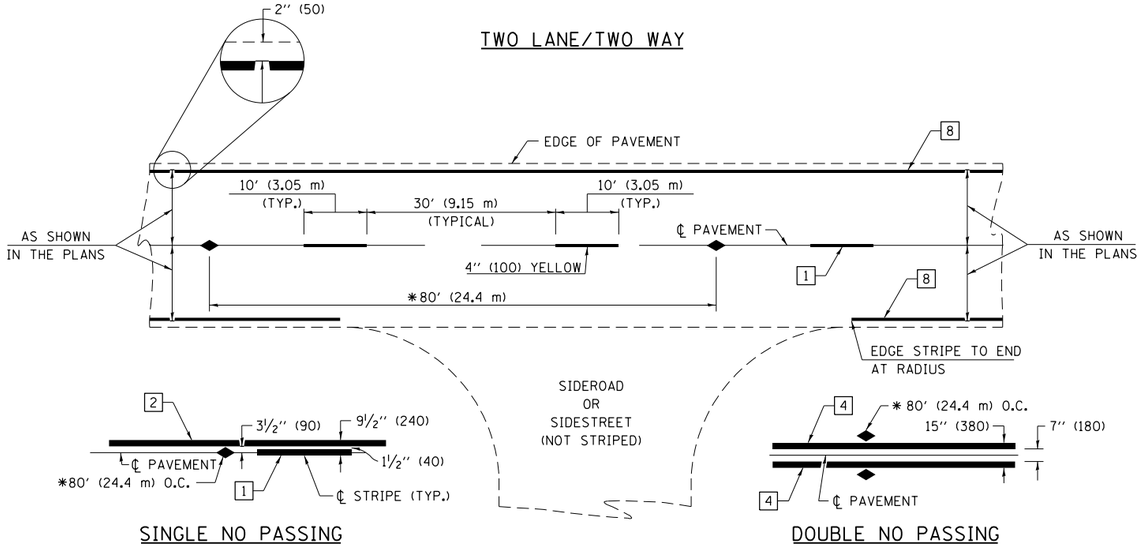
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SURVEY MARKER VAULT

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	44
		CONTRACT NO. 74106		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TWO LANE/TWO WAY



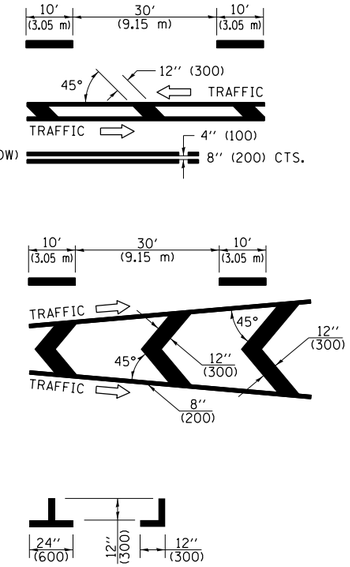
SINGLE NO PASSING

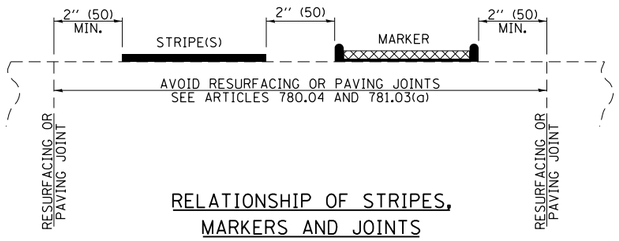
DOUBLE NO PASSING

* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

PAVEMENT MARKING LEGEND

1. 4" (100) SKIP-DASH (YELLOW)
2. 4" (100) SOLID (YELLOW)
3. 12" (300) DIAGONAL (YELLOW)
4. 4" (100) DOUBLE YELLOW (NARROW)
5. 12" (300) SOLID WHITE
6. RESERVED
7. 6" (150) SKIP-DASH (WHITE)
8. 4" (100) SOLID (WHITE)
9. 12" (300) DIAGONAL (WHITE)
10. 6" (150) SOLID (WHITE)
11. 24" (600) STOP BAR (WHITE)
12. 8" (200) SOLID (WHITE)
13. 4" (100) PARKING WHITE



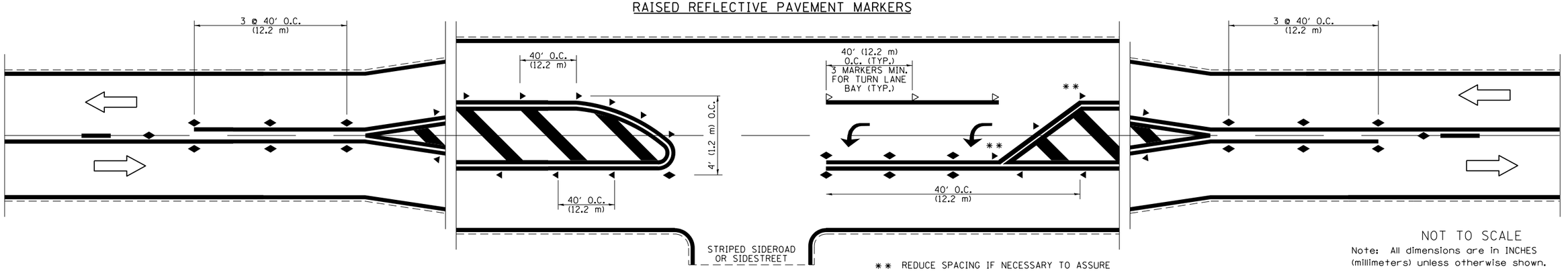


RELATIONSHIP OF STRIPES, MARKERS AND JOINTS

TYPICAL PAVEMENT MARKERS LEGEND

- TWO-WAY AMBER MARKER
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER

RAISED REFLECTIVE PAVEMENT MARKERS



** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 78000001

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	PLOT DATE = 12/10/2015	DATE -	REVISED -

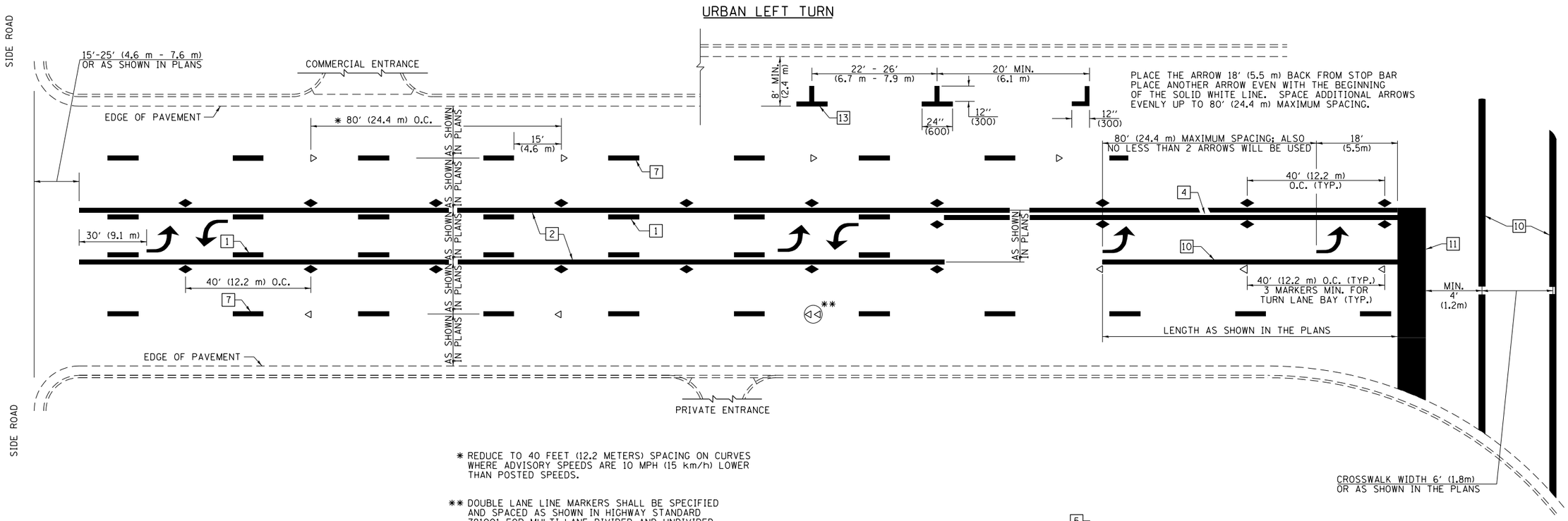
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: N/A | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	45
		CONTRACT NO. 74106		
		ILLINOIS	FED. AID PROJECT	

URBAN LEFT TURN

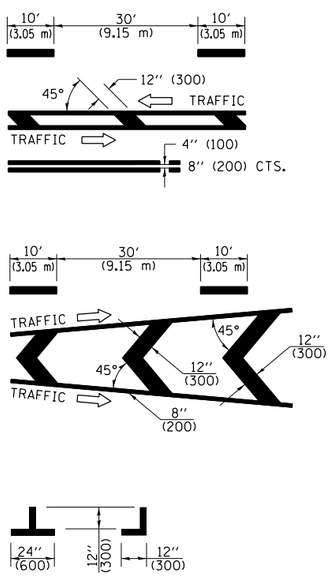


* REDUCE TO 40 FEET (12.2 METERS) SPACING ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

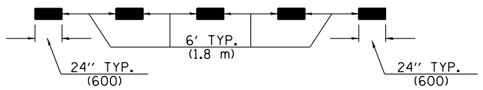
PAVEMENT MARKING LEGEND

1. 4" (100) SKIP-DASH (YELLOW)
2. 4" (100) SOLID (YELLOW)
3. 12" (300) DIAGONAL (YELLOW)
4. 4" (100) DOUBLE YELLOW (NARROW)
5. 12" (300) SOLID WHITE
6. RESERVED
7. 6" (150) SKIP-DASH (WHITE)
8. 4" (100) SOLID (WHITE)
9. 12" (300) DIAGONAL (WHITE)
10. 6" (150) SOLID (WHITE)
11. 24" (600) STOP BAR (WHITE)
12. 8" (200) SOLID (WHITE)
13. 4" (100) PARKING WHITE

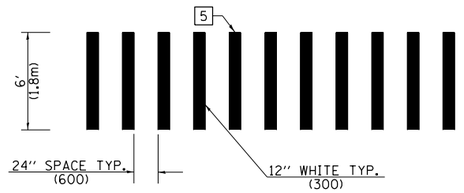


GENERAL NOTES

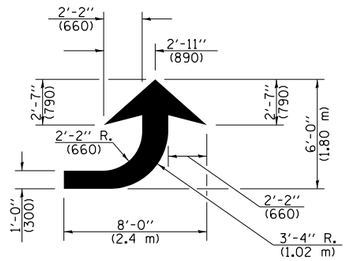
1. TURN ARROW PAIRS SHALL BE PLACED AT 250'(75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE. USE A MINIMUM OF TWO PAIRS PER BLOCK.
2. THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
3. THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER.
4. USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)
5. LANE LINE EXTENSIONS SHALL BE THE SAME COLOR AND WIDTH AS THE LANE LINE BEING EXTENDED.



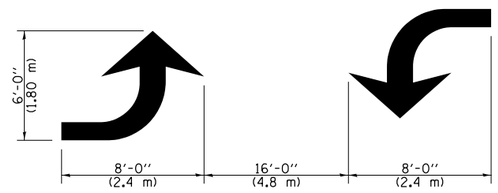
LANE LINE EXTENSIONS



CROSSWALK DETAIL
(DECATUR CITY LIMITS ONLY)



LEFT ARROW
REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ. FT. (1.47 m^2)
(WHITE)



TYPICAL DOUBLE
TURN ARROWS (WHITE)

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 78000001

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	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/10/2015	DATE -	REVISED -

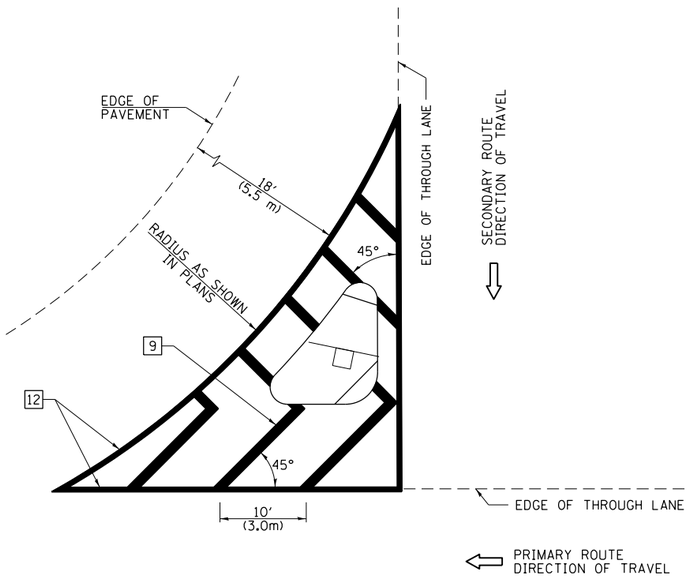
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: N/A | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	46
		CONTRACT NO. 74106		
	ILLINOIS FED. AID PROJECT			

ISLAND

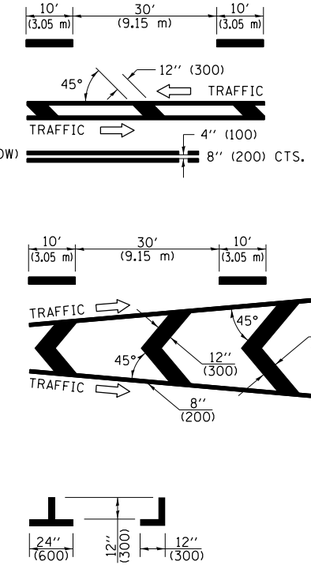


GENERAL NOTES

1. RAISED AND CORRUGATED MEDIANS SHALL BE OUTLINED WITH [2] IF PRESENT.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
5. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING:

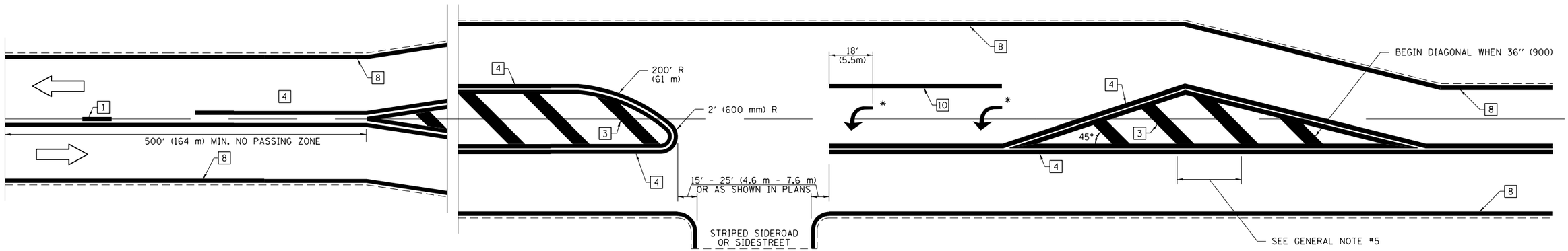
< 30 MPH	(< 50 km/h)	15′ (4.5 m)
30-45 MPH	(50-75 km/h	20′ (6.0 m)
> 45 MPH	(> 75 km/h	30′ (9.0 m)

PAVEMENT MARKING LEGEND



[1] 4″ (100) SKIP-DASH (YELLOW)
[2] 4″ (100) SOLID (YELLOW)
[3] 12″ (300) DIAGONAL (YELLOW)
[4] 4″ (100) DOUBLE YELLOW (NARROW)
[5] 12″ (300) SOLID WHITE
[6] RESERVED
[7] 6″ (150) SKIP-DASH (WHITE)
[8] 4″ (100) SOLID (WHITE)
[9] 12″ (300) DIAGONAL (WHITE)
[10] 6″ (150) SOLID (WHITE)
[11] 24″ (600) STOP BAR (WHITE)
[12] 8″ (200) SOLID (WHITE)
[13] 4″ (100) PARKING WHITE

RURAL LEFT TURN STRIPING



* PLACE AN ARROW 18′ (5.5 m) BACK FROM STOP BAR. PLACE ANOTHER ARROW EVEN WITH THE BEGINNING OF THE SOLID WHITE LINE. SPACE ADDITIONAL ARROWS EVENLY UP TO 80′ (24.4 m) MAXIMUM SPACING. USE MINIMUM OF 2 ARROWS.

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 78000001

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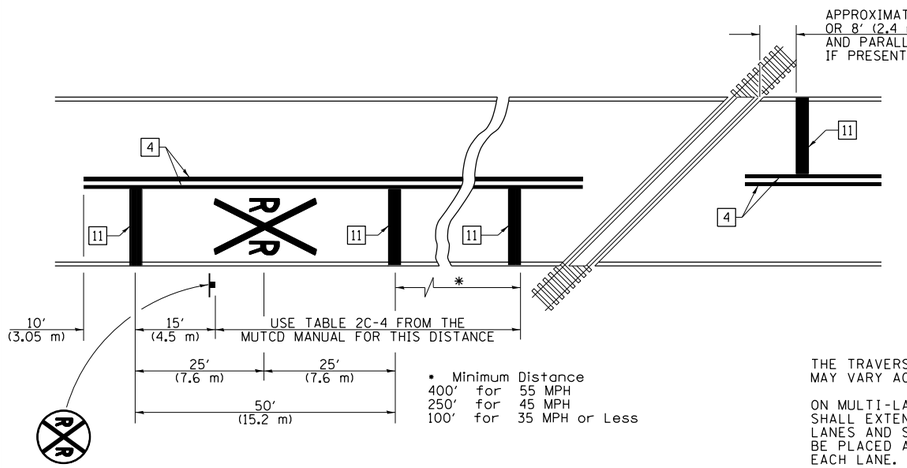
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

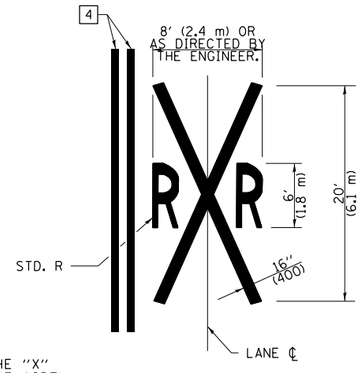
PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: N/A | SHEET NO. 3 OF 4 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	47
		CONTRACT NO. 74106		
	ILLINOIS FED. AID PROJECT			

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING



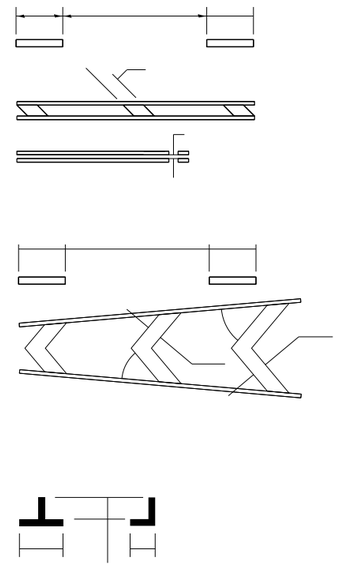


NOTES

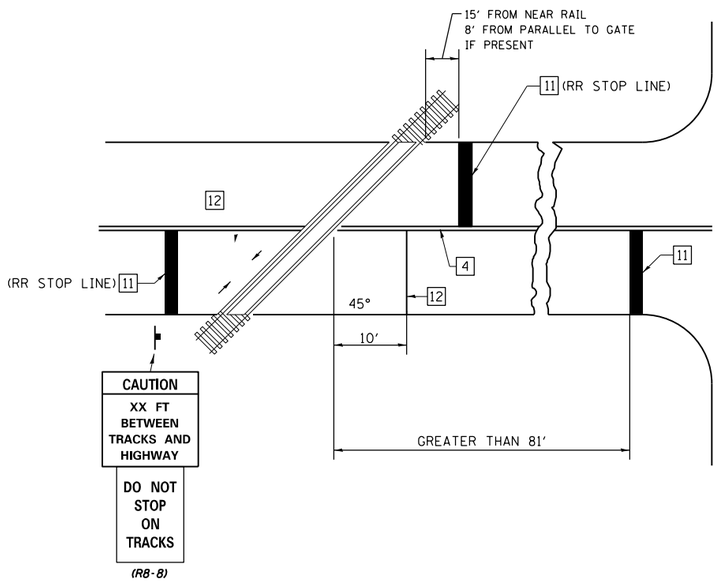
THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

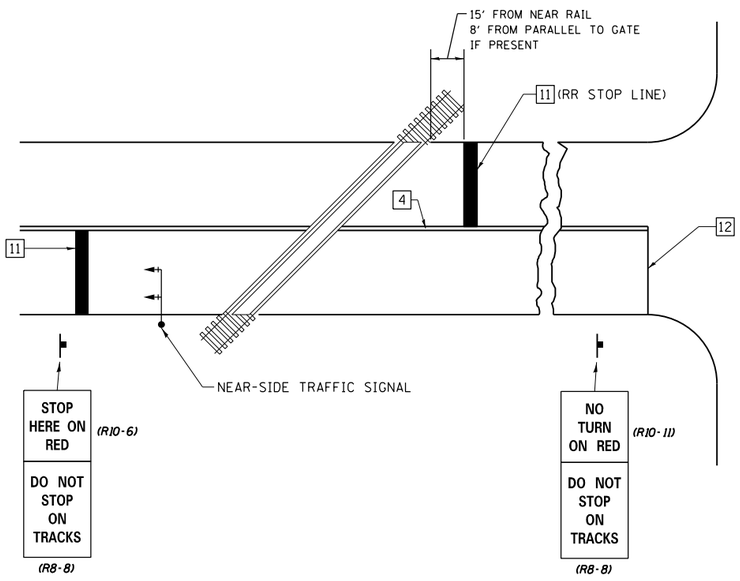
WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.



RAILROAD CROSSING WITH INTERCONNECT ONLY



RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING

GENERAL NOTES

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 78000001

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	PLOT DATE = 12/10/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: N/A | SHEET NO. 4 OF 4 SHEETS | STA. | TO STA.

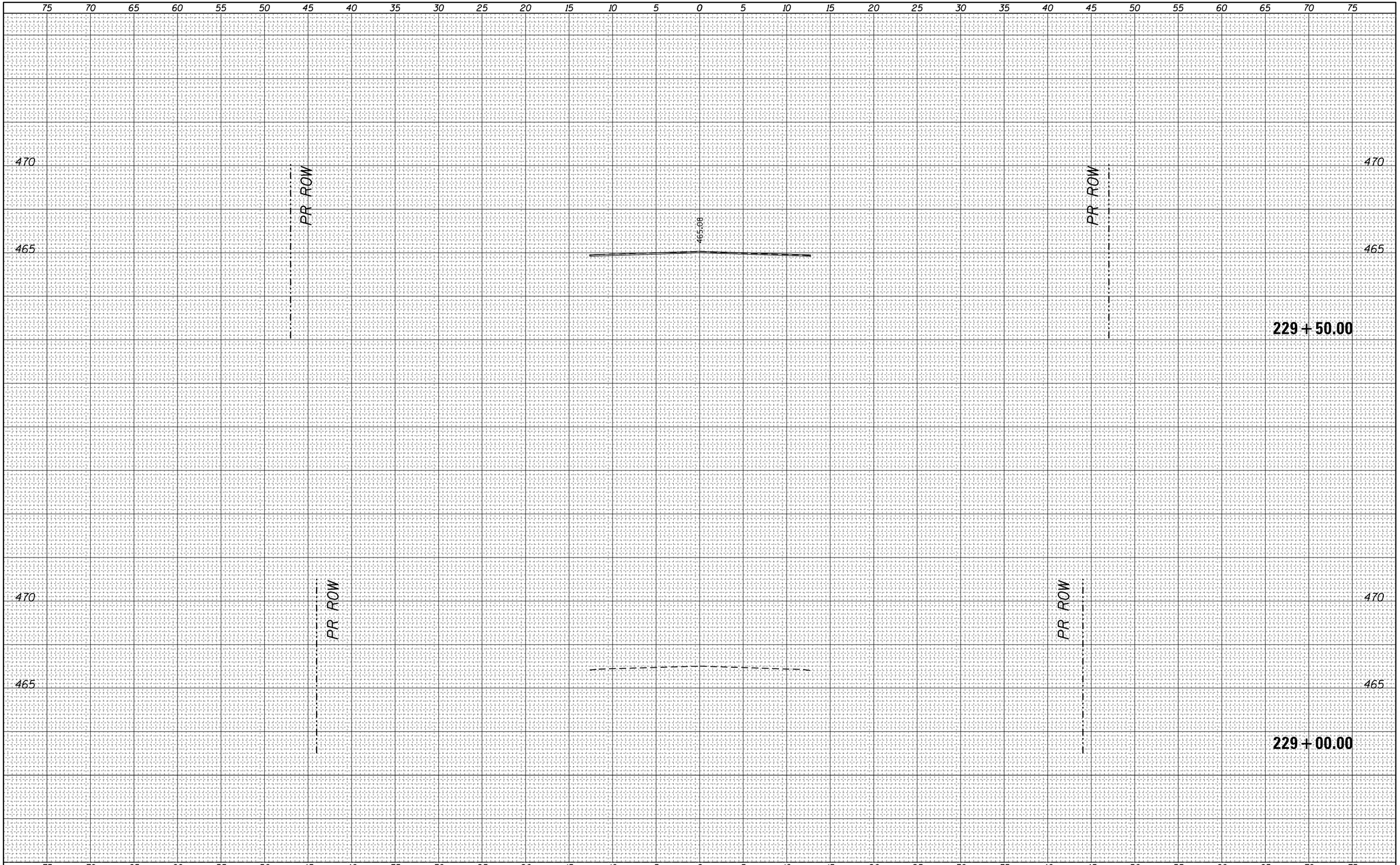
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	48
		CONTRACT NO. 74106		
		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE

ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE



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		DRAWN	REVISED -
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Default	PLOT DATE = 12/10/2015	DATE -	REVISED -

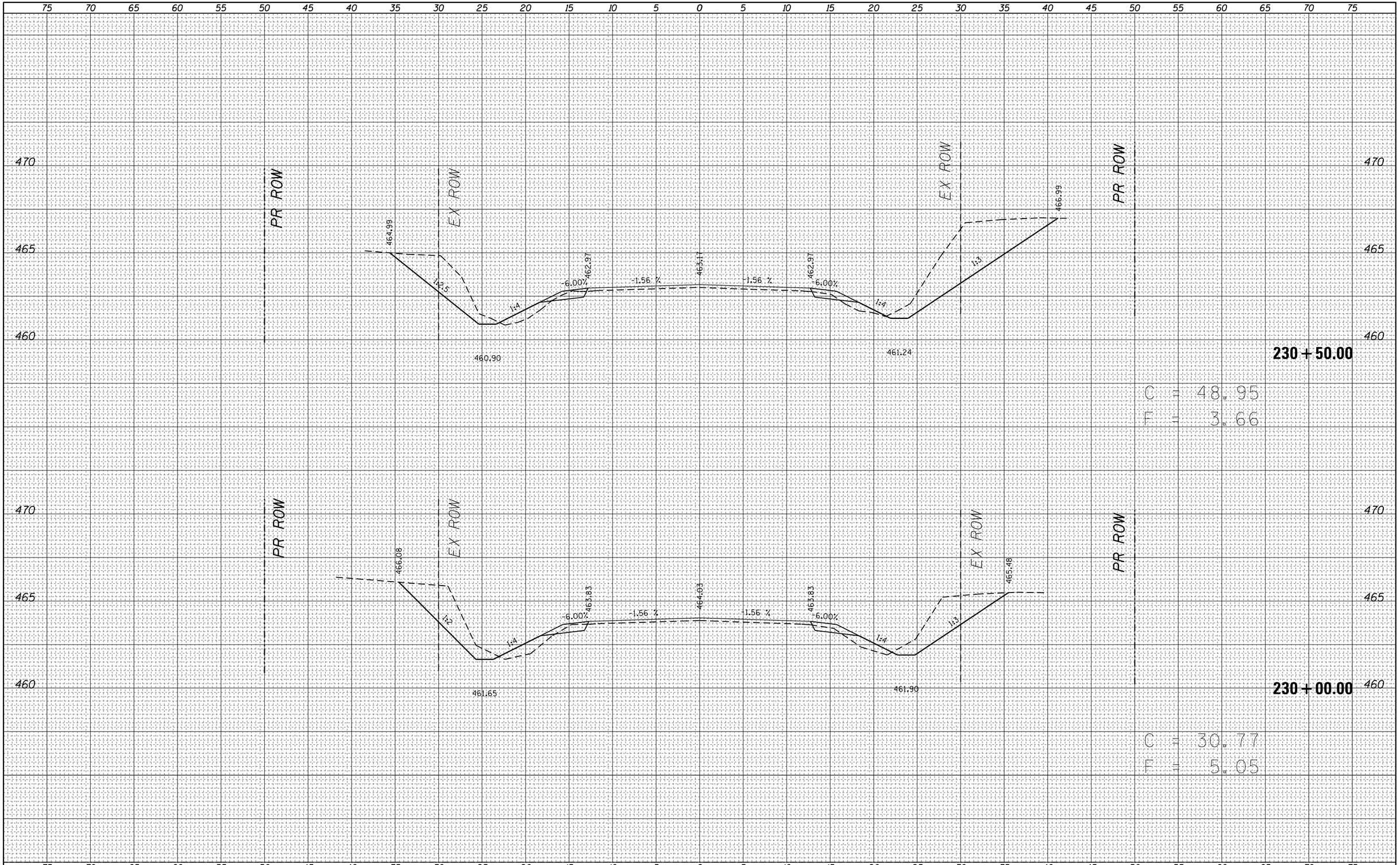
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINLINE CROSS SECTIONS

SCALE: 5 | SHEET 1 OF 11 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	49
		CONTRACT NO. 74106		
	ILLINOIS	FED. AID PROJECT		

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



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

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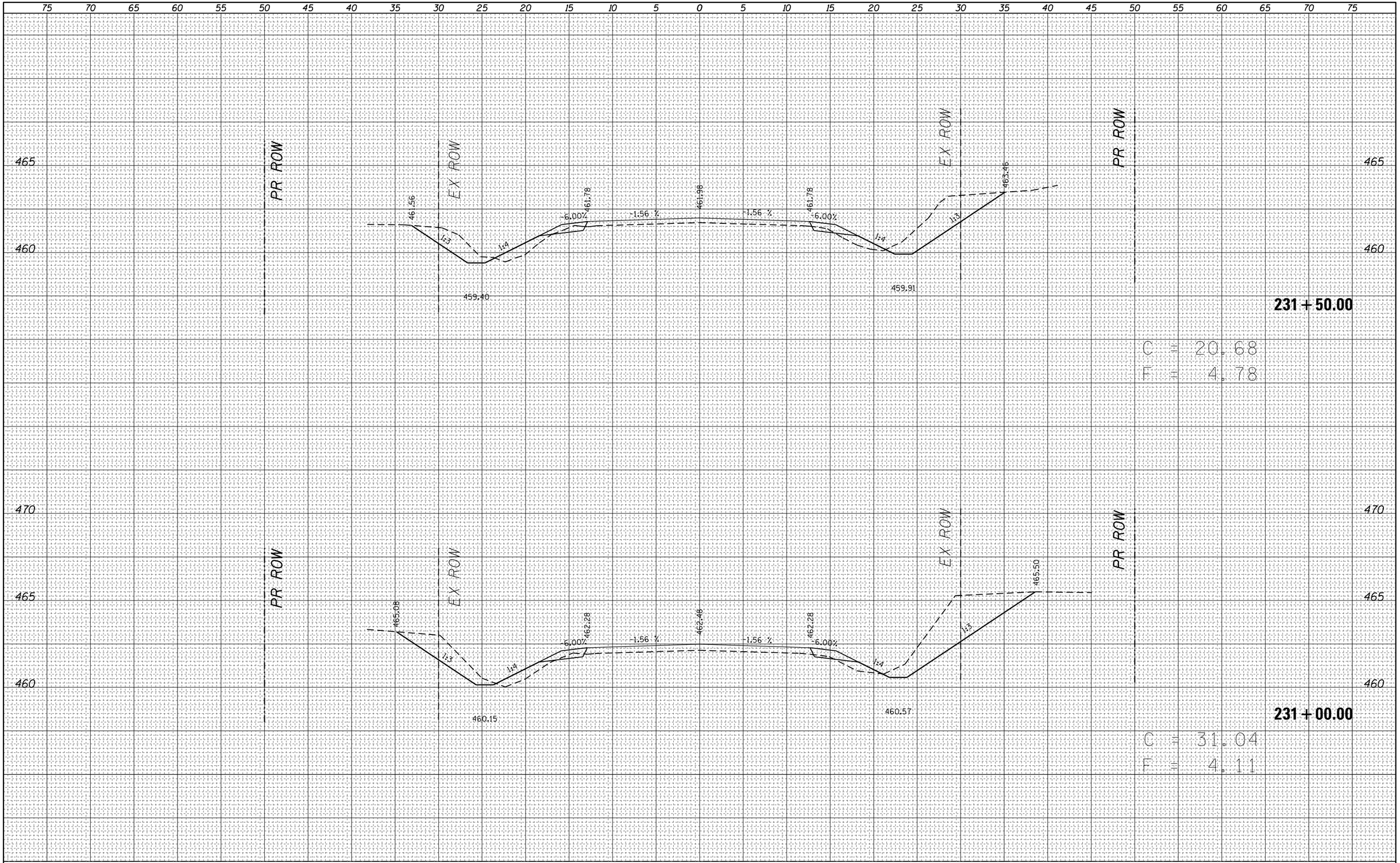
Default	PLOT DATE = 12/10/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINLINE CROSS SECTIONS

SCALE: 5 | SHEET 2 OF 11 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	50
		CONTRACT NO. 74106		
	ILLINOIS FED. AID PROJECT			



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

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

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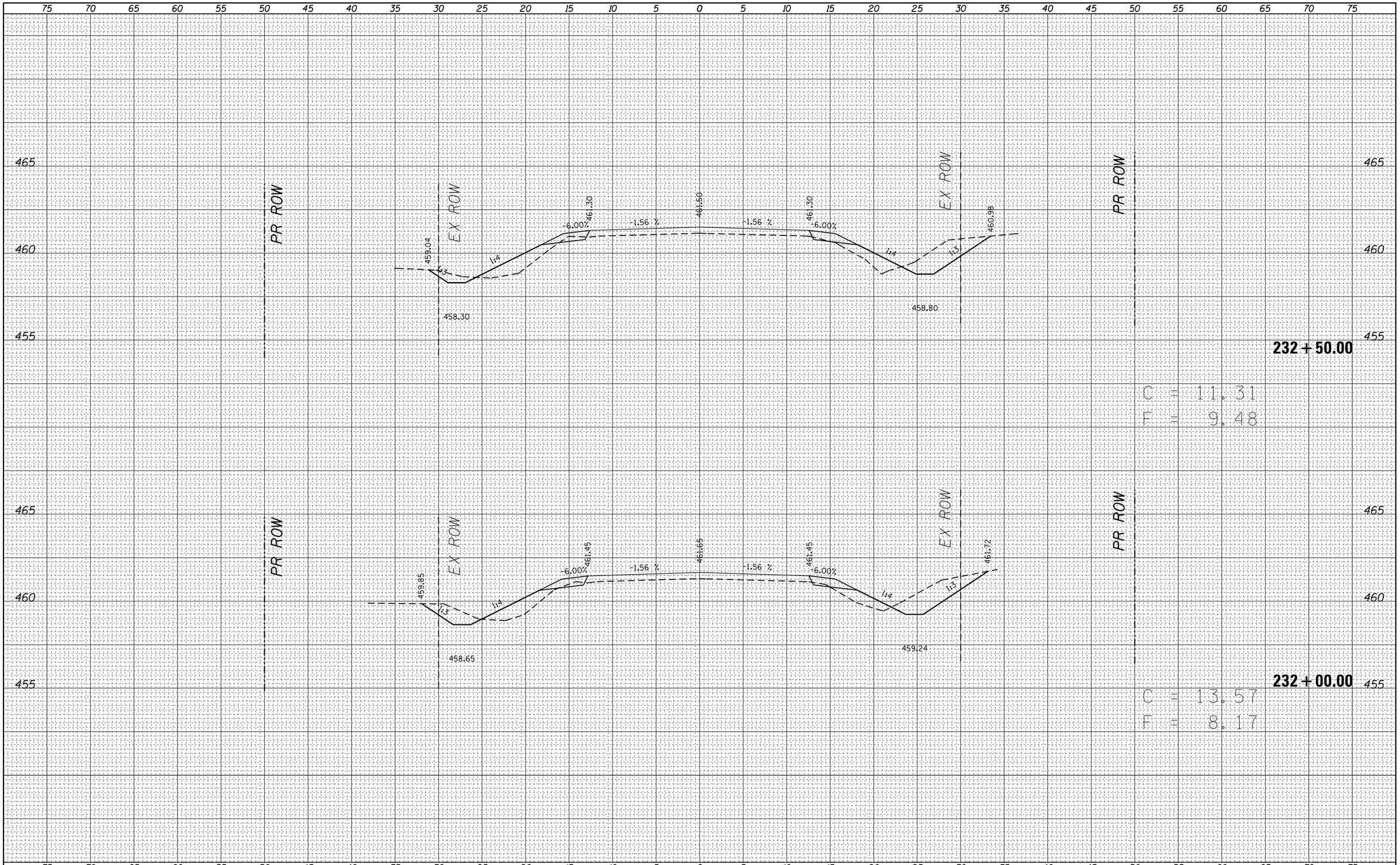
Default	PLOT DATE = 12/10/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINLINE CROSS SECTIONS

SCALE: 5 | SHEET 3 OF 11 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	51
		CONTRACT NO. 74106		
	ILLINOIS FED. AID PROJECT			



FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINLINE CROSS SECTIONS

SCALE: 5 | SHEET 4 OF 11 SHEETS | STA. | TO STA.

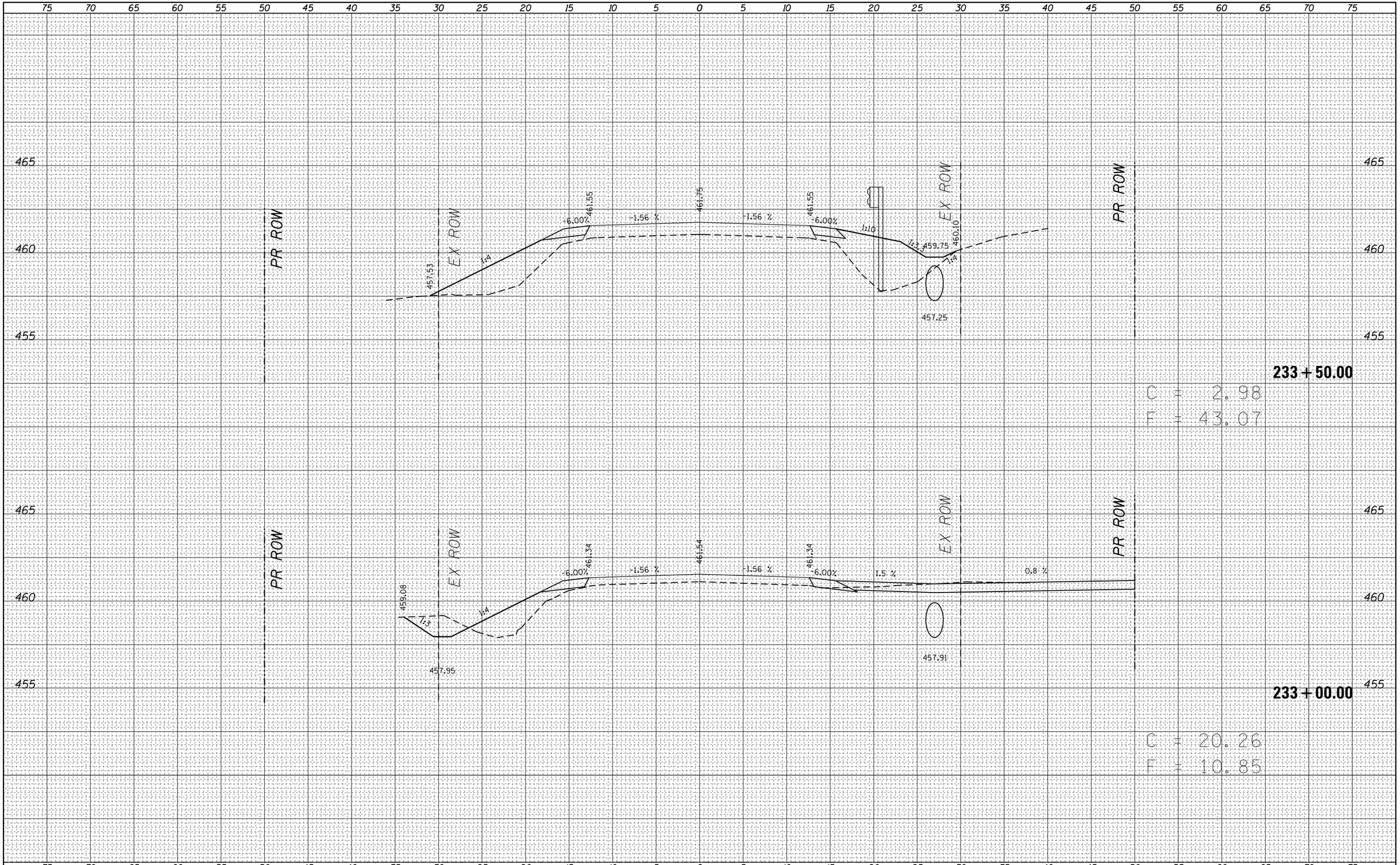
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	52
		CONTRACT NO. 74106		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

BY	DATE

ORIGINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

BY	DATE



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Default	PLOT DATE = 12/10/2015	DATE -	REVISED -

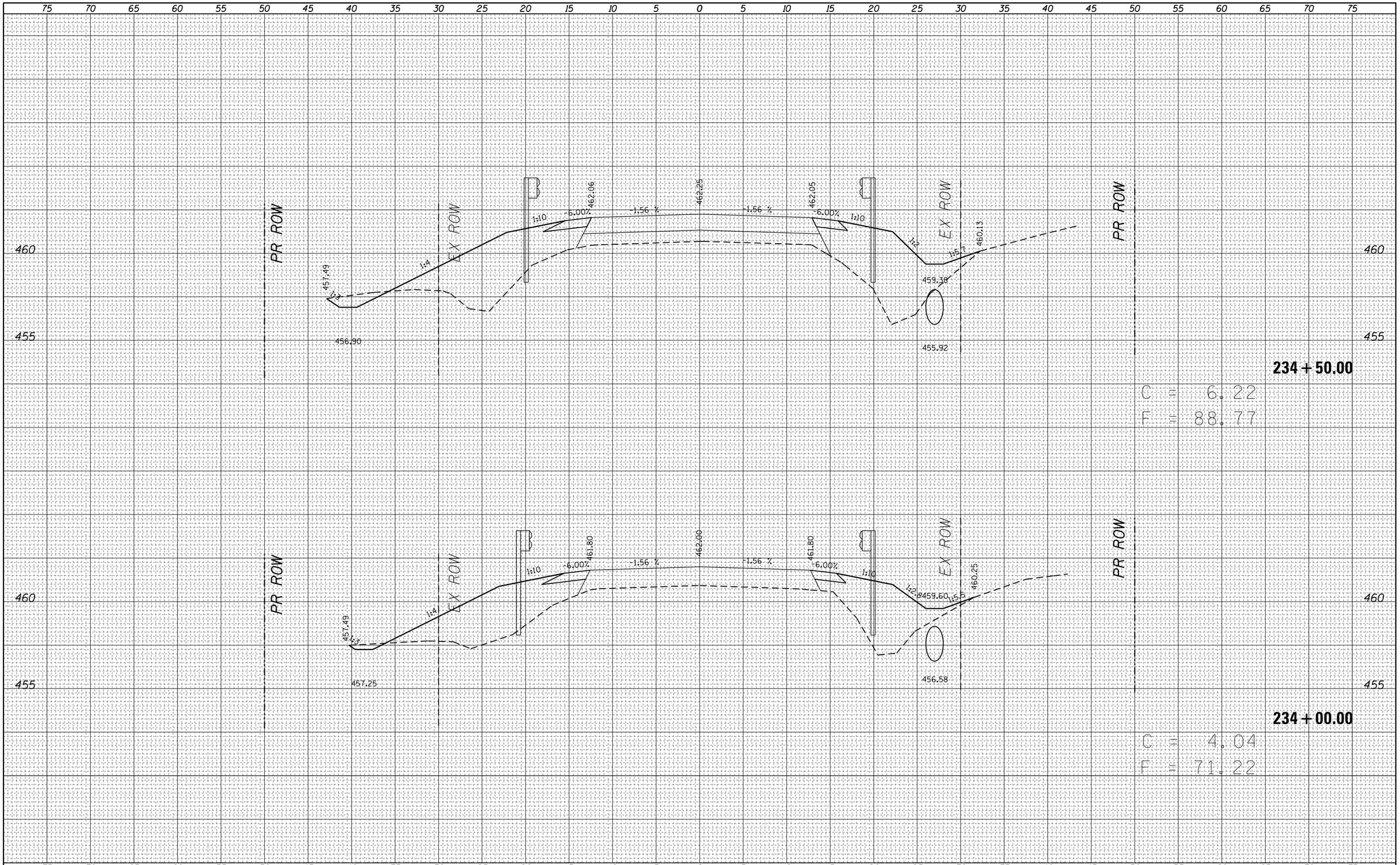
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINLINE CROSS SECTIONS

SCALE: 5 | SHEET 5 OF 11 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	53
		CONTRACT NO. 74106		
	ILLINOIS FED. AID PROJECT			

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



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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINLINE CROSS SECTIONS

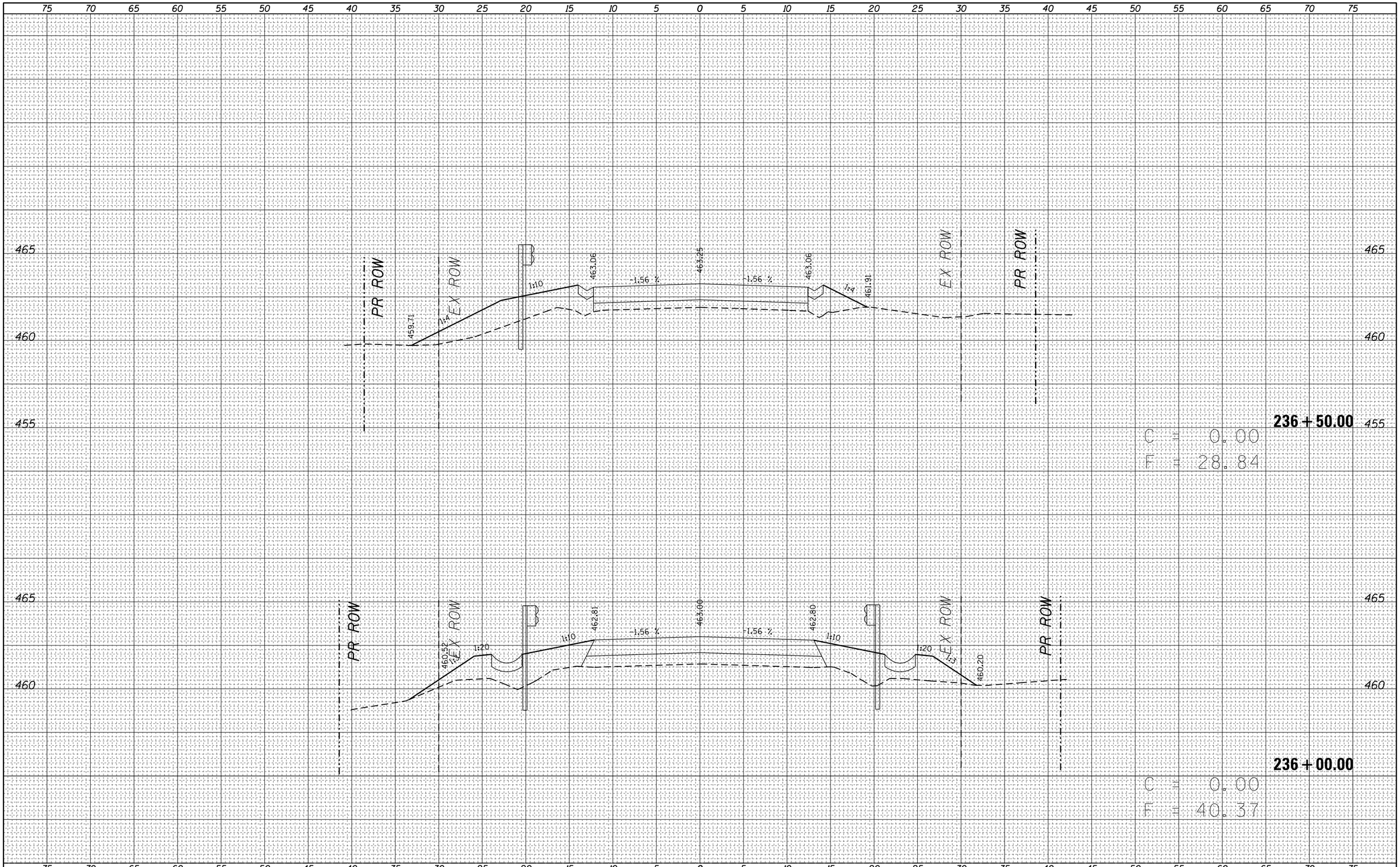
SCALE: 5 | SHEET 6 OF 11 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	54

CONTRACT NO. 74106

ILLINOIS FED. AID PROJECT

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



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

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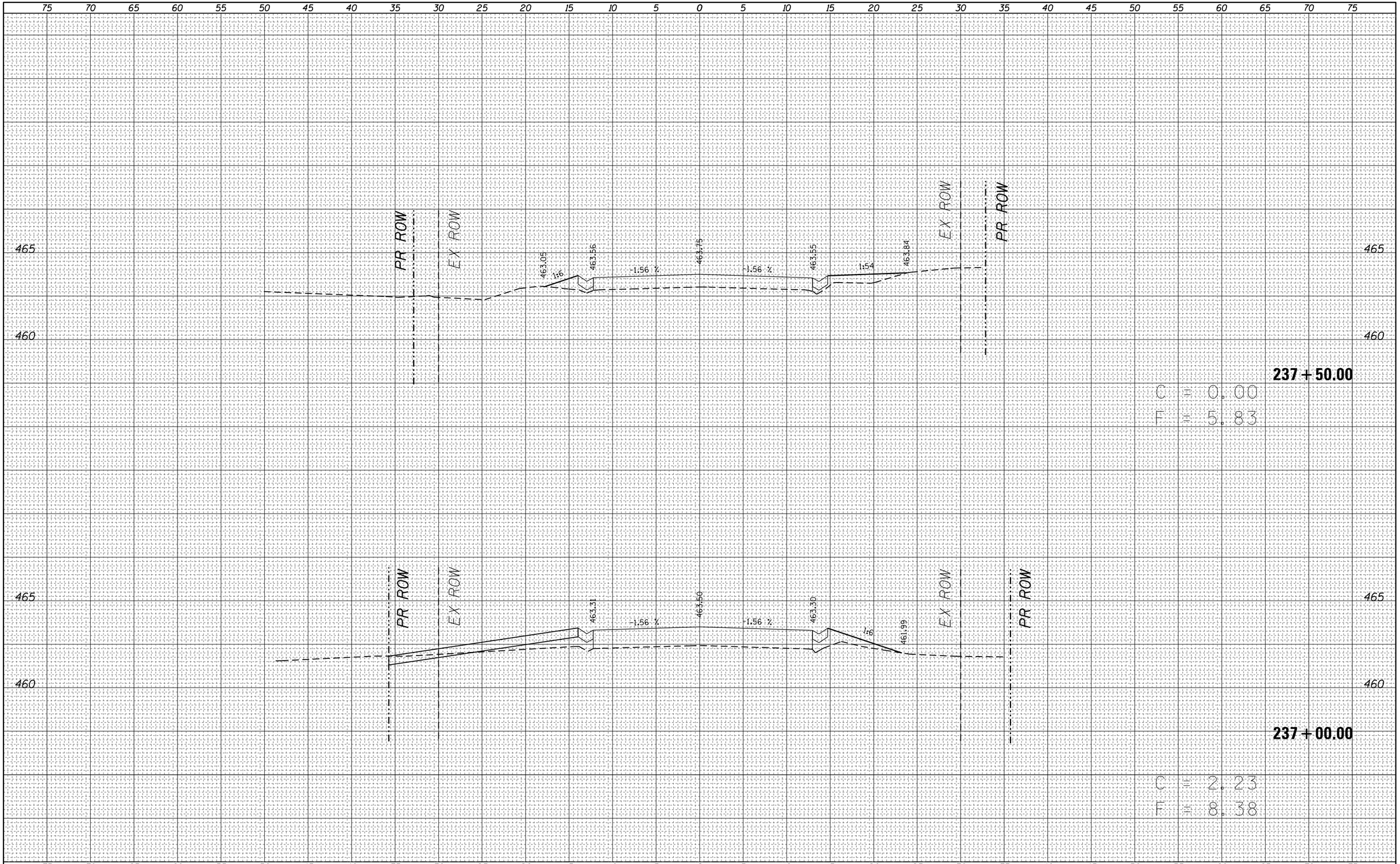
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINLINE CROSS SECTIONS

SCALE: 5 | SHEET 7 OF 11 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	55
		CONTRACT NO. 74106		
		ILLINOIS FED. AID PROJECT		

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



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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

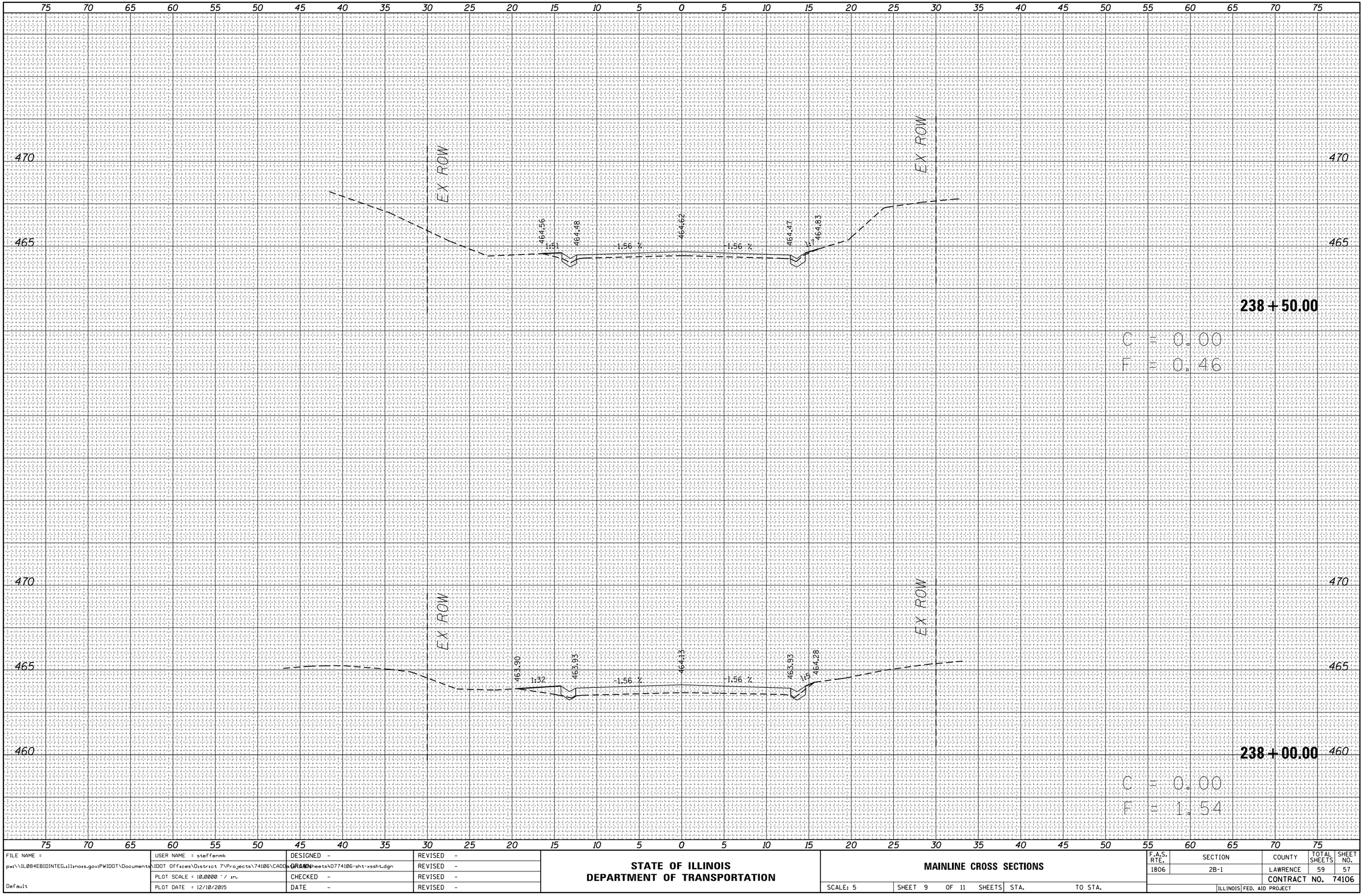
MAINLINE CROSS SECTIONS

SCALE: 5 | SHEET 8 OF 11 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	56
		CONTRACT NO. 74106		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE



ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
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AREAS CHECKED		

BY	DATE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

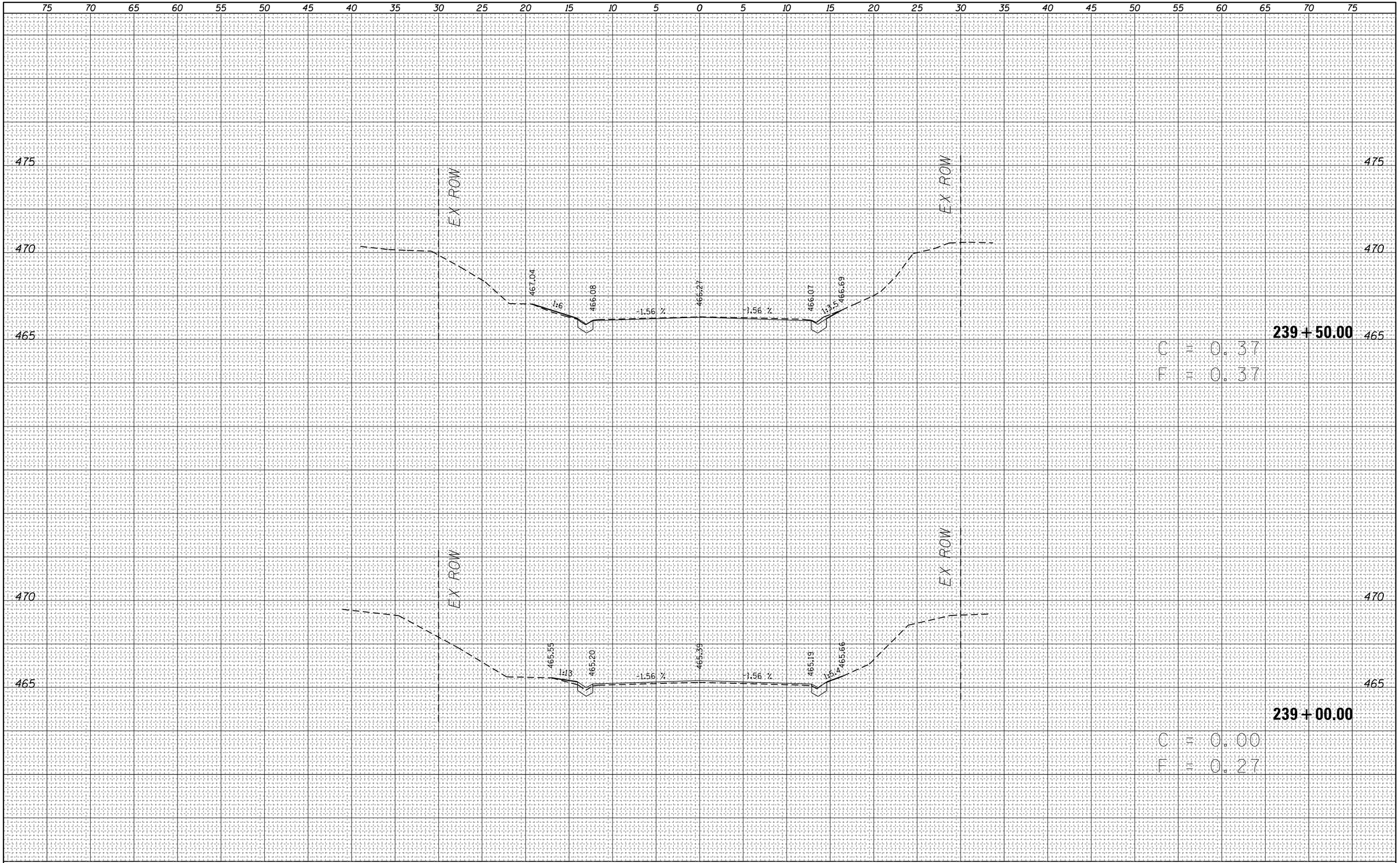
MAINLINE CROSS SECTIONS

SCALE: 5 | SHEET 9 OF 11 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	57
		CONTRACT NO. 74106		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

BY	DATE



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

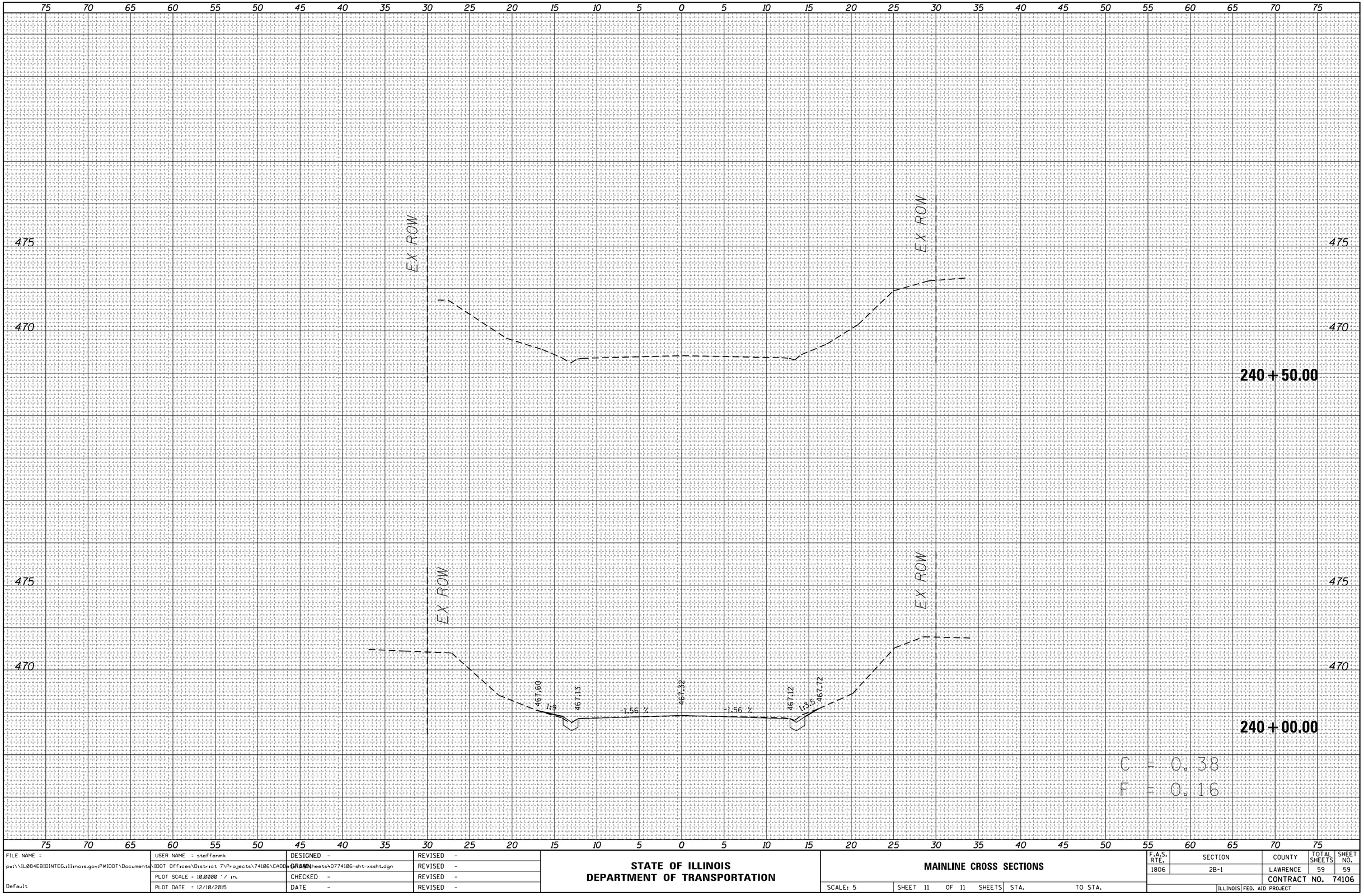
MAINLINE CROSS SECTIONS

SCALE: 5 | SHEET 10 OF 11 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	58
		CONTRACT NO. 74106		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINLINE CROSS SECTIONS

SCALE: 5 | SHEET 11 OF 11 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1806	2B-1	LAWRENCE	59	59
		CONTRACT NO. 74106		
	ILLINOIS	FED. AID PROJECT		