

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
877	101B-1	WHITE	42	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 78084		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

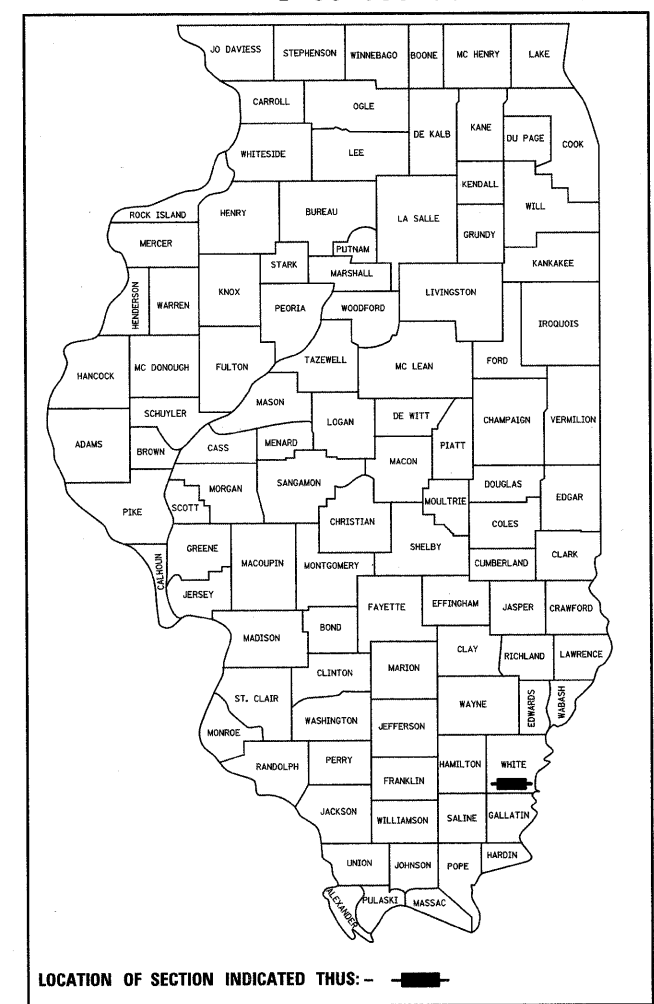
**PROPOSED
HIGHWAY PLANS**

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3

TRAFFIC DATA:
2007 ADT FOR FAP 877 (IL 141)
2,250 WITH 19.3% TRUCKS

FAP ROUTE 877 (IL 141)
SECTION 101B-1
PROJECT ESP-0877(013)
WHITE COUNTY
C-99-071-08

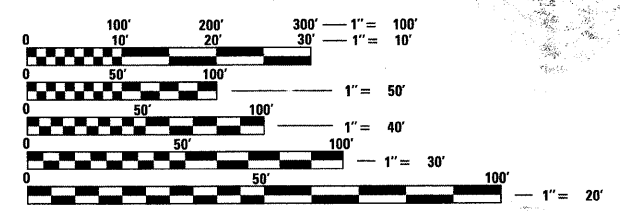
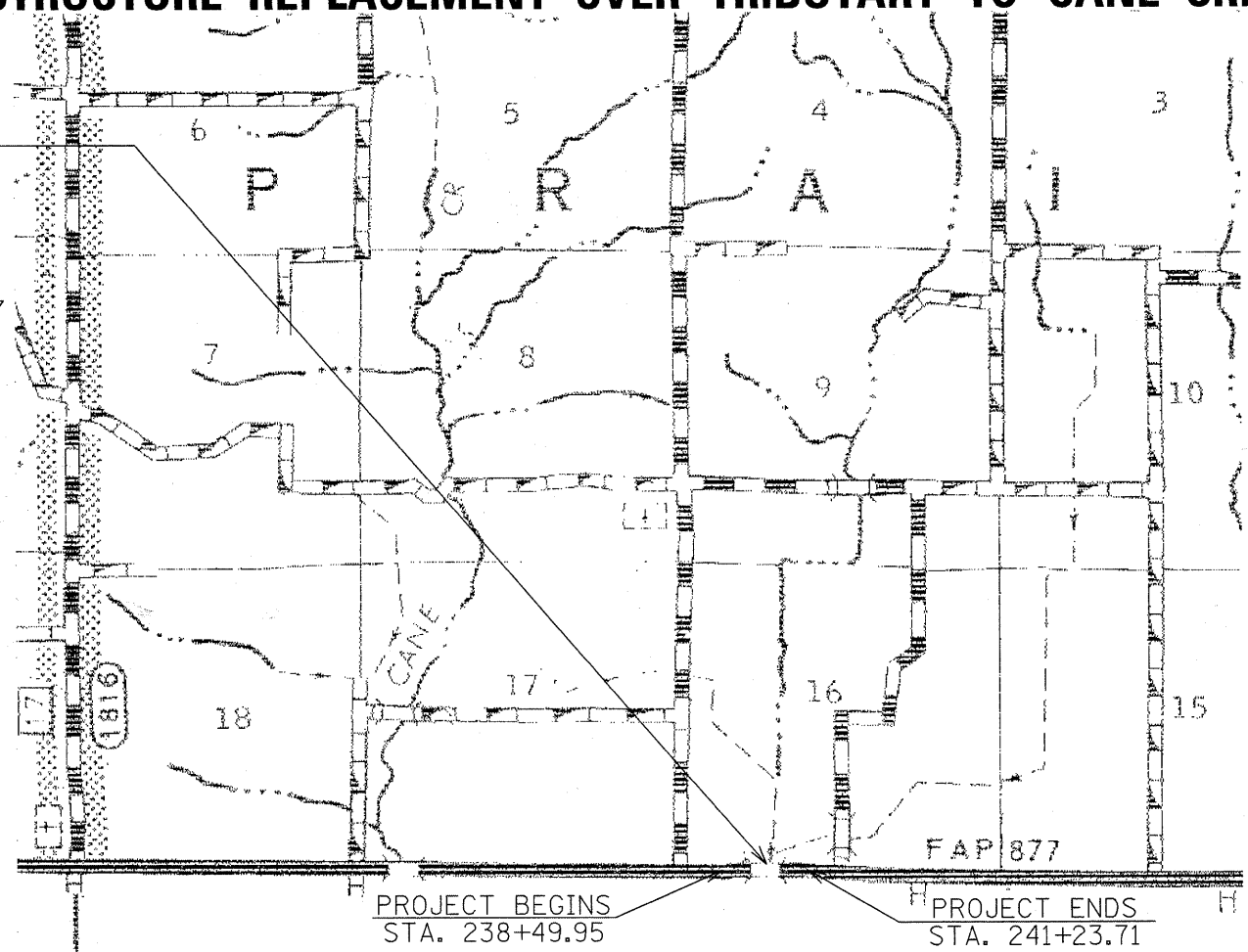
D-99-053-08



STRUCTURE REPLACEMENT OVER TRIBUTARY TO CANE CREEK

PROPOSED BRIDGE ON IL 141
OVER TRIBUTARY TO CANE CREEK
STRUCTURE NUMBER 097-0073
STRUCTURE @ STA. 239+85.00
SINGLE SPAN-STEEL BEAM BRIDGE
85'-0" BK TO BK ABUTS: 30° SKEW
EXIST. STRUCTURE NUMBER 097-0037

TOWNSHIPS: HERALDS PRAIRIE

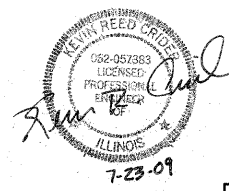


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

FAP RTE 877 (IL 141):
GROSS LENGTH OF PROJECT : 274 FT. = .05 MILES
SN 097-0073
ROADWAY LENGTH = 189 FT
BRIDGE LENGTH = 85 FT
NET LENGTH OF PROJECT = 274 FT

APPROX. SCALE
1" = 1500'



601 NORTH 4th STREET MURRAY, KENTUCKY 42071
500 SOUTH 17th STREET PADUCAH, KENTUCKY 42003
403 NORTH COURT STREET MARION, ILLINOIS 62959
PHONE - 270.753.7307 PHONE - 270.443.1655 PHONE - 618.997.9190
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 6 20 09

Mary C. Lorie
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 2, 20 09
Charles G. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT

October 2, 20 09
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

PROJECT ENGINEER DAVID PICHE (618) 549-2171

CONTRACT NO. 78084

GENERAL NOTES

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL EXISTING FIELD DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

THE THICKNESS OF BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL ASPHALT:	2.016 TONS/CU. YD.
ALL AGGREGATE:	2.05 TONS/CU. YD.
AGGREGATE PRIME COAT:	0.0015 TONS/SQ. YD.
BITUMINOUS MATERIALS (PRIME COAT):	0.09 GAL./SQ. YD.
RIPRAP (A3&A4):	1.50 TONS/CU. YD.

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. THE CONTRACTOR, HOWEVER, WILL BE PAID FOR THE ACTUAL QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK. EXISTING PLANS ARE AVAILABLE FOR REVIEW AT THE DISTRICT 9 OFFICE.

IN ADDITION TO THE REQUIREMENTS OF ARTICLE 107.16 THE CONTRACTOR SHALL PROTECT THE SURFACE OF ALL BRIDGE DECKS AND BRIDGE APPROACH PAVEMENTS IN A MANNER SATISFACTORY TO THE ENGINEER BEFORE ANY EQUIPMENT IS ALLOWED TO CROSS THE STRUCTURE. PROTECTION SHALL BE PROVIDED FOR ALL EQUIPMENT AS DEFINED IN ARTICLE 101.16 REGARDLESS IF TRACK MOUNTED OR WHEELED.

AT ALL LOCATIONS WHERE THE PROPOSED HOT-MIX ASPHALT OR CONCRETE PAVEMENT JOINS AN EXISTING HOT-MIX ASPHALT OR CONCRETE PAVEMENT, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF THIS JOINT WILL BE INCLUDED IN THE COST OF THE TYPE OF PAVEMENT BEING CONSTRUCTED.

QUANTITIES SHOWN IN THE PLANS FOR BRIDGE DECK GROOVING AND PROTECTIVE COAT INCLUDE THE BRIDGE, THE BRIDGE APPROACH PAVEMENTS, AND THE BRIDGE APPROACH PAVEMENT CONNECTORS (PCC).

PROTECTIVE COAT SHALL BE APPLIED TO THE BRIDGE, THE BRIDGE APPROACH PAVEMENT, AND THE BRIDGE APPROACH PAVEMENT CONNECTOR, IN ACCORDANCE WITH ARTICLE 503.19 OF THE STANDARD SPECIFICATION. THE SEASONAL EXCEPTION SHALL NOT APPLY. THE PROTECTIVE COAT SHALL BE APPLIED REGARDLESS OF THE CURING METHOD USED. THE RATE OF APPLICATION FOR EACH COAT ON SAW CUT GROOVED AREAS SHALL BE 25 SQUARE YARDS PER GALLON OF MIXTURE.

TREES SHALL BE PRESERVED THROUGHOUT THIS SECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. GENERALLY, TREES OUTSIDE THE CLEAR ZONE, AND WHICH DO NOT INTERFERE WITH CONSTRUCTION, SHALL NOT BE DISTURBED.

ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE LEFT IN PLACE UNTIL REMOVAL IS REQUIRED TO CONSTRUCT FINAL GRADE LINES.

THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION.

THE DISTRICT BUREAU OF OPERATIONS SHALL BE NOTIFIED AT LEAST 10 DAYS PRIOR TO PLACEMENT OF THE FINAL PAVEMENT MARKINGS. THE BUREAU OF OPERATIONS WILL THEN DETERMINE THE ACTUAL LIMITS TO BE STRIPED AS 'NO PASSING' ZONES.

THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 275 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.

THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.

VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THE STAGE II NEW BRIDGE PARAPET. THE BARRIER WALL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.

ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC. THE TEMPORARY TRAFFIC SIGNALS SHALL BE SET TO FLASH TO RED.

THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT AND SHOULDER SLOPES SHALL NOT EXCEED 8%.

ALL OBSTRUCTIONS WHICH ARE WITHIN THE CLEAR ZONE SHOWN ON THE TYPICAL SECTION AND ARE NOT SHIELDED BY THE PROPOSED GUARDRAIL, SHALL BE REMOVED BETWEEN STATION 236+26.96 AND STATION 243+43.53. TYPICAL OBSTRUCTIONS ARE HEADWALLS, FOUNDATIONS, ETC. WHICH PROJECT 100 mm (4 in.) OR MORE ABOVE THE GROUNDLINE; AND TREES WHICH WILL MATURE TO A DIAMETER OF 100 mm (4 in.) OR GREATER.

THE EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. AFTER THE CONSTRUCTION IS COMPLETED, THE CONTRACTOR WILL REPLACE THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

COMMITMENTS: NONE AS OF 8/14/08

STANDARDS

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
420001-07	PAVEMENT JOINTS
420401-07	BRIDGE APPROACH PAVEMENT CONNECTOR
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
542101-02	REINFORCED CONCRETE END SECTIONS FOR PIPE CULVERTS 15" THRU 36" DIA. AT RIGHT ANGLES WITH ROADWAY
630001-08	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1, (SPECIAL) GUARDRAIL TERMINALS
631031-07	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER & MOUNTING DETAILS
701001-02	OFF ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5 (15') AWAY
701006-03	OFF-ROAD OPERATIONS, 2L 2W, 4.5m (15') TO PAVEMENT EDGE
701011-02	OFF ROAD MOVING OPERATIONS 2L, 2W, DAY ONLY
701201-03	LANE CLOSURE, 2L 2W, DAY ONLY, ON-ROAD TO 600mm (24") OFF-ROAD, FOR SPEEDS > 45 MPH
701301-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701311-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701321-10	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-03	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45MPH
701901-01	TRAFFIC CONTROL DEVICES
704001-05	TEMPORARY CONCRETE BARRIER
780001-02	TYPICAL PAVEMENT MARKINGS
601101-01	

INDEX OF SHEETS

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13	EROSION CONTROL PLAN
14	RIGHT OF WAY
15	DETOUR SIGNING SHEET
16-32	STRUCTURE PLANS- SN 097-0073
33-34	DETAILS
35-42	CROSS SECTIONS

Location(s):	Hot-Mix Asphalt Surface Course and Binder Course
Mixture Use(s):	Hot-Mix Asphalt Surface Course, Mix C, N90
AC/PG:	PG64-22
RAP % (Max):	10
Design Air Voids:	4.0%, 90 Gyration Design
Mixture Composition: (Gradation Mixture)	IL-9.5 mm or IL 12.5 mm
Friction Aggregate:	C Surface

Location(s):	Base Course Widening
Mixture Use(s):	Hot-Mix Asphalt Binder Course, N90, IL-19.0
AC/PG:	PG64-22
RAP % (Max):	10
Design Air Voids:	4.0 %, 90 GYRATION DESIGN
Mixture Composition: (Gradation Mixture)	IL-19.0 mm
Friction Aggregate:	None

Location(s):	Hot-Mix Asphalt Shoulders
Mixture Use(s):	Hot-Mix Asphalt Shoulders
AC/PG:	PG58-22
RAP % (Max):	50
Design Air Voids:	2.0 %, 30 GYRATION DESIGN
Mixture Composition: (Gradation Mixture)	HMA Shoulders
Friction Aggregate:	None

Prepared By:	<i>Dennis W. Helle</i> DISTRICT STUDIES & PLANS ENGINEER
Examined By:	<i>Thomas Harris Emery</i> DISTRICT LAND ACQUISITION ENGINEER
Examined By:	<i>Carrie Nelson</i> DISTRICT PROGRAM DEVELOPMENT ENGINEER
Examined By:	<i>John W. ...</i> DISTRICT OPERATIONS ENGINEER
Examined By:	<i>John ...</i> DISTRICT CONSTRUCTION ENGINEER
Examined By:	<i>Bruce ...</i> DISTRICT MATERIALS ENGINEER
Examined By:	<i>John ...</i> DISTRICT PROJECT IMPLEMENTATION ENGINEER
Examined By:	<i>W. ...</i> ASSISTANT REGIONAL ENGINEER
Approved By:	<i>Meredith C. ...</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
DATE:	Aug 6 2009

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS; GENERAL NOTES; STANDARDS IL 141 OVER TRIBUTARY TO CANE CREEK			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
FILEL		DRAWN -	REVISED -		877	101B-1	WHITE	42	2				
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SUMMARY OF QUANTITIES

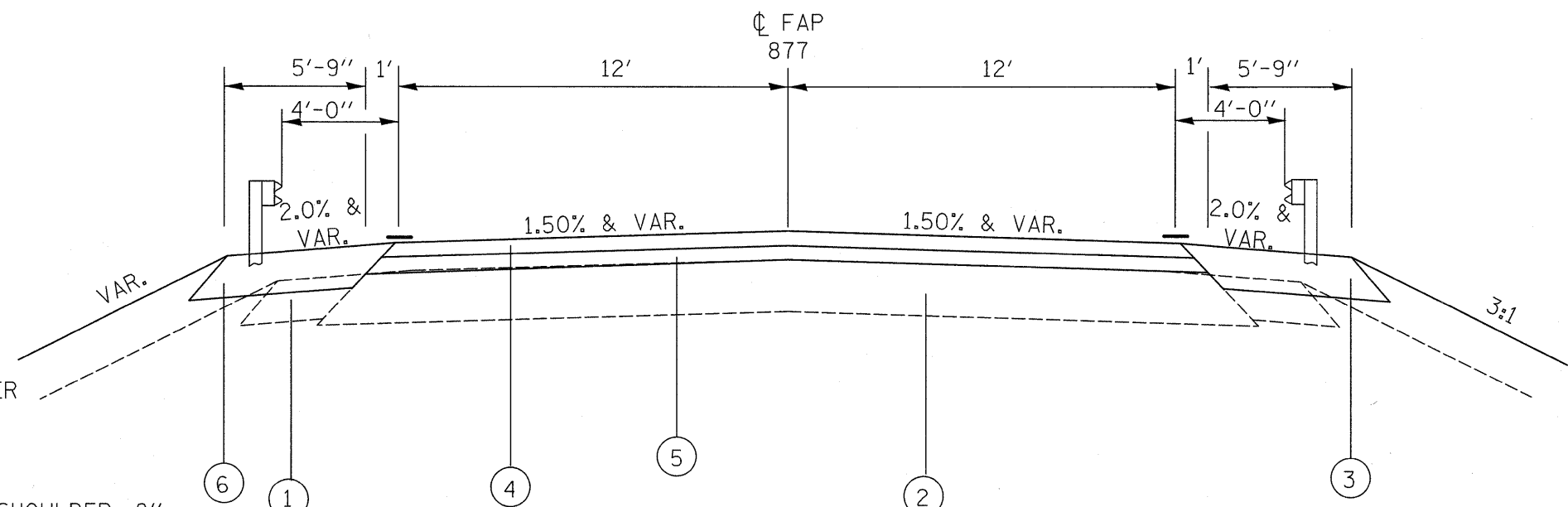
COUNTY:	WHITE
LOCATION:	TRIBUTARY OF CANE CREEK
ROUTE:	F.A.P. ROUTE 877 (IL 141)
FUNDING:	100% FEDERAL

CODE NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	550
20300100	CHANNEL EXCAVATION	CU YD	265
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	128
25000200	SEEDING, CLASS 2	ACRE	0.32
25000350	SEEDING, CLASS 7	ACRE	0.32
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	42
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	29
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	29
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.7
25100115	MULCH, METHOD 2	ACRE	0.32
25100630	EROSION CONTROL BLANKET	SQ YD	1549
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	128
28000300	TEMPORARY DITCH CHECKS	EACH	3
28000400	PERIMETER EROSION BARRIER	FOOT	975
28000500	AND INLET PIPE PROTECTION	EACH	1
28100105	STONE RIPRAP, CLASS A3	SQ YD	40
28100107	STONE RIPRAP, CLASS A4	SQ YD	889
28200200	FILTER FABRIC	SQ YD	929
35600716	HOT MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	84
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	175
40603090	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	9
40603320	HOT-MIX ASPHALT SURFACE COURSE, MIX 1C, N90	TON	30
40800010	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	27
40800030	AGGREGATE (PRIME COAT)	TON	1
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	119
44000100	PAVEMENT REMOVAL	SQ YD	445
44004250	PAVED SHOULDER REMOVAL	SQ YD	84
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	392
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SQ YD	188
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	277
50300100	FLOOR DRAINS	EACH	10
50300225	CONCRETE STRUCTURES	CU YD	48.5
50300255	CONCRETE SUPERSTRUCTURE	CU YD	187.7
50300260	BRIDGE DECK GROOVING	SQ YD	605
50300280	CONCRETE ENCASEMENT	CU YD	4.2

COUNTY:	WHITE
LOCATION:	TRIBUTARY OF CANE CREEK
ROUTE:	F.A.P. ROUTE 877 (IL 141)
FUNDING:	100% FEDERAL

CODE NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
50300300	PROTECTIVE COAT	SQ YD	739
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	1782
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	58240
50800515	BAR SPLICERS	EACH	822
51201610	FURNISHING STEEL PILES HP12X63	FOOT	325
51202305	DRIVING PILES	FOOT	325
51203610	TEST PILE STEEL HP12X63	EACH	2
51500100	NAME PLATES	EACH	1
52100520	ANCHOR BOLTS, 1"	EACH	24
542A0235	PIPE CULVERTS, CLASS A, TYPE 1 30"	FOOT	11
54215430	CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS 30"	EACH	2
54248510	CONCRETE COLLAR	CU YD	0.74
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	75
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	160
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	764
* 63000002	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6.75' POSTS	FOOT	500
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	2
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70106700	TEMPORARY RUMBLE STRIP	EACH	6
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	110
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	618
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	28
70400100	TEMPORARY CONCRETE BARRIER	FOOT	425
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	425
* 78001110	PAINT PAVEMENT MARKING-LINE 4"	FOOT	618
* 78200405	GUARDRAIL MARKERS	EACH	10
* 78200500	BARRIER WALL MARKERS	EACH	4

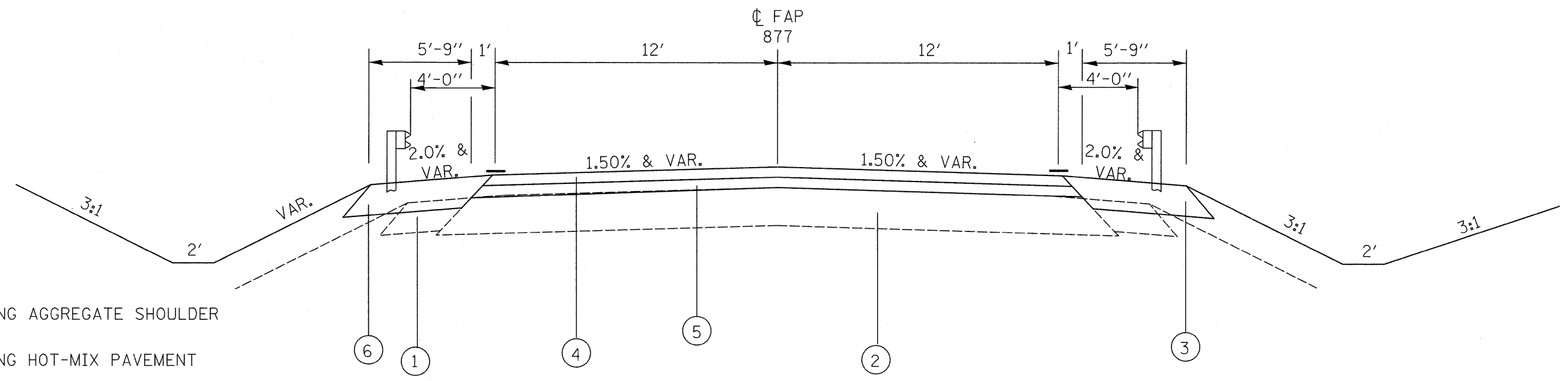
* Specialty Items



- ① EXISTING AGGREGATE SHOULDER
- ② EXISTING HOT-MIX PAVEMENT
- ③ PROPOSED HOT-MIX ASPHALT SHOULDER, 8"
- ④ HOT MIX ASPHALT SURFACE COURSE, 1 1/4"
- ⑤ HOT MIX ASPHALT BINDER COURSE, 1 1/2"
- ⑥ PROPOSED HOT-MIX ASPHALT SHOULDER, 10"

TO BE USED
STA. 238+49.95 TO 238+96.73

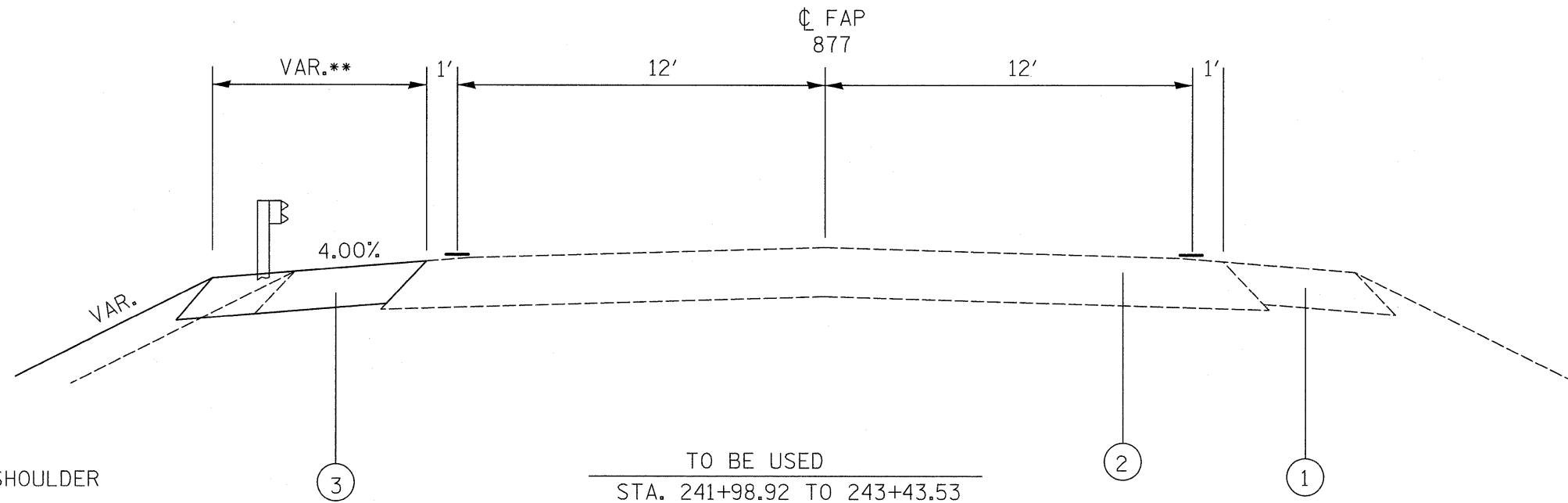
*EXISTING 13' PAVEMENT STRIPED 12' LANES



- ① EXISTING AGGREGATE SHOULDER
- ② EXISTING HOT-MIX PAVEMENT
- ③ PROPOSED HOT-MIX ASPHALT SHOULDER, 8"
- ④ HOT MIX ASPHALT SURFACE COURSE, 1 1/4"
- ⑤ HOT MIX ASPHALT BINDER COURSE, 1 1/2"
- ⑥ PROPOSED HOT-MIX ASPHALT SHOULDER, 10"

TO BE USED
STA. 240+73.31 TO 241+23.71

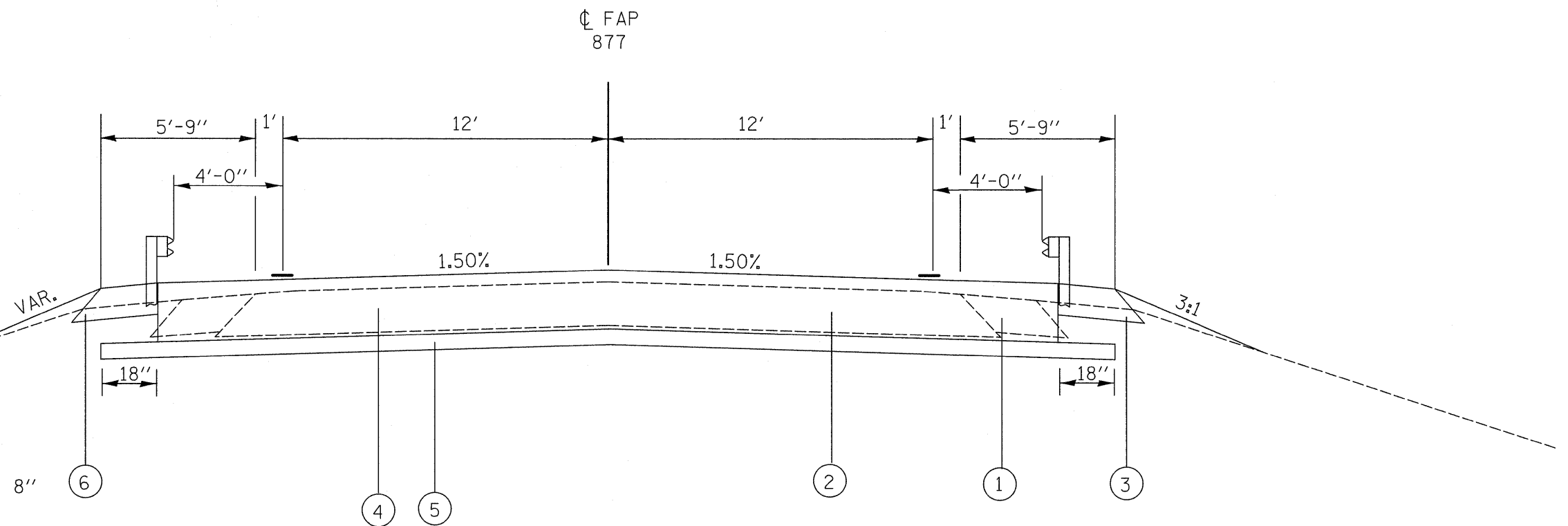
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		DATE -	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.			



- ① EXISTING AGGREGATE SHOULDER
- ② EXISTING HOT-MIX PAVEMENT
- ③ PROPOSED HOT-MIX ASPHALT SHOULDER, 8"

**SEE HOT-MIX ASPHALT SHOULDER & GUARDRAIL SHEET FOR WIDTHS OF PROPOSED HOT-MIX ASPHALT SHOULDER

*EXISTING 13' PAVEMENT STRIPED 12' LANES



- ① EXISTING AGGREGATE SHOULDER
- ② EXISTING HOT-MIX PAVEMENT
- ③ PROPOSED HOT-MIX ASPHALT SHOULDER, 8"
- ④ PROPOSED BRIDGE APPROACH PAVEMENT CONNECTOR, (PCC), 15" & VAR,
- ⑤ PROPOSED STABILIZED SUB-BASE, 4"
- ⑥ PROPOSED HOT-MIX ASPHALT SHOULDER, 10"

TO BE USED
 STA. 238+96.73 TO 239+12.50
 STA. 240+57.50 TO 240+73.31

*EXISTING 13' PAVEMENT STRIPED 12' LANES

FILE NAME =	USER NAME = #USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = #DATE*	DATE -	REVISED -									

REMOVAL

LOCATION STATION TO STATION	PAVEMENT REMOVAL	PAVED SHOULDER REMOVAL	HOT-MIX ASPHALT SURFACE REMOVAL, BUTT JOINT
	SQ YD	SQ YD	SQ YD
STAGE 1			
STA 238+96.73 TO 239+73.18	102		
STA 240+07.09 TO 240+73.31	93		
STAGE 2			
STA LT 237+81.00 TO 239+23.56		45	
STA 238+96.73 TO 239+64.07	118		
STA 239+97.40 TO 240+73.31	132		
STA LT 240+37.27 TO 241+81.00		39	
POST STAGE 2			
STA 238+49.95 TO 238+79.95			87
STA 240+93.71 TO 241+23.71			88
PROJECT TOTAL	445	84	175

GUARDRAIL

LOCATION STATION TO STATION	STEEL PLATE BEAM GUARDRAIL, TYPE A 6.75 POSTS	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	TRAFFIC BARRIER TERMINAL TYPE 6	GUARDRAIL REMOVAL	TERMINAL MARKER DIRECT APPLIED
	FOOT	EACH	EACH	FOOT	EACH
STAGE 1					
STA LT 237+81		1			1
STA LT 238+31 TO 238+93	62.5				
STA LT 238+93			1		
STA LT 240+50			1		
STA LT 240+96 TO 242+83	187.5				
STA LT 242+83		1			1
STA LT 238+11 TO 239+65				154	
STA LT 240+31 TO 242+56				226	
STAGE 2					
STA RT 236+37		1			1
STA RT 236+87 TO 238+74	187.5		1		
STA RT 238+74					
STA RT 240+31			1		
STA RT 240+77 TO 241+39	62.5				
STA RT 241+39		1			1
STA RT 237+10 TO 239+40				231	
STA RT 240+04 TO 241+56				153	
PROJECT TOTAL	500	4	4	764	4

SEEDING AND FERTILIZING SCHEDULE

LOCATION STATION TO STATION	TEMPORARY EROSION CONTROL SEEDING	SEEDING, CLASS 2	SEEDING, CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURAL GROUND LIMESTONE	MULCH, METHOD 2
	POUND	ACRE	ACRE	POUND	POUND	POUND	TON	ACRE
FAP 887 (IL 141)								
STAGE 1								
LT. STA. 237+68 TO STA. 243+36	40	0.10	0.10	13	9	9	0.20	0.10
STAGE 2								
RT. STA. 236+25 TO STA. 242+01	88	0.22	0.22	29	20	20	0.50	0.22
PROJECT TOTAL	128	0.32	0.32	42	29	29	0.7	0.32

PAVEMENT MARKING SCHEDULE

LOCATION STATION TO STATION	TEMPORARY PAVEMENT MARKING LINE 4"		PAINT PAVEMENT MARKING LINE 4"		SHORT - TERM PAVEMENT MARKING
	WHITE	YELLOW	WHITE	YELLOW	
	FOOT	FOOT	FOOT	FOOT	
STA 238+49.95 TO 241+23.71	548	70	548	70	110
PROJECT TOTAL	618	618	618	618	110

CONCRETE BARRIER

LOCATION STATION TO STATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TL-3	RELOCATE IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TL-3
	FOOT	FOOT	EACH	EACH
STAGE 1				
STA 237+72.77 TO 241+97.28	425		2	
STAGE 2				
STA 237+72.94 TO 241+97.28		425		2
PROJECT TOTAL	425	425	2	2

EROSION CONTROL SCHEDULE

LOCATION STATION TO STATION	EROSION CONTROL BLANKET	PERIMETER EROSION BARRIER	TEMPORARY DITCH CHECKS	INLET PIPE PROTECTION
	SQ YD	FOOT	EACH	EACH
FAP 887 (IL 141)				
STAGE 1				
LT. STA. 237+68 TO STA. 243+36	484	461		
LT. STA. 240+68			1	
LT. STA. 241+17.66				1
STAGE 2				
RT. STA. 236+25 TO STA. 242+01	1065	514		
RT. STA. 240+68			1	
RT. STA. 239+20			1	
PROJECT TOTAL	1549	975	3	1

EARTHWORK

LOCATION STATION TO STATION	EARTH EXCAVATION CU YD	FOR INFORMATION ONLY			EARTHWORK BALANCE WASTE (+) SHORTAGE (-) CU YD
		AVERAGE SHRINKAGE FACTOR %	EARTH EXCAVATION (ADJUSTED) CU YD	EMBANKMENT CU YD	
STAGE 1					
LT. STA. 237+50 TO 243+50	60	41.7	25	74	-49
STAGE 2					
RT. STA. 236+00 TO 242+00	490	70.6	346	108	+238
PROJECT TOTAL	550				+189

PAVING SCHEDULE

LOCATION STATION TO STATION	HOT-MIX ASPHALT SURFACE COURSE MIX C, N90	HOT-MIX ASPHALT BINDER COURSE IL-19.0, N90	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	HOT-MIX ASPHALT SHOULDERS, 8"	HOT-MIX ASPHALT SHOULDERS, 10"	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	PROTECTIVE COAT	BRIDGE DECK GROOVING
	TON	TON	GALLON	TON	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.
PRE-STAGE 1										
STA LT 237+81.00 TO 239+23.56							45			
STA LT 240+37.27 TO 241+81.00							39			
STAGE 1										
STA LT 237+70 TO 239+37						104		37	37	37
STA LT 238+96.73 TO 239+22.27						84		19	19	19
STA LT 240+52 TO 241+87					109					
STA LT 240+58.08 TO 240+73.31										
STA LT 241+87 TO 243+44										
STAGE 2										
STA RT 236+27 TO 239+18					187			22	22	22
STA RT 238+96.73 TO 239+13.08					96			41	41	41
STA RT 240+33 TO 241+98										
STA RT 240+47.73 TO 240+73.31										
POST STAGE 2										
STA 238+49.95 TO 238+96.73	13	4	13	.5						
STA 240+73.30 TO 241+23.71	17	5	14	.5						
PROJECT TOTAL	30	9	27	1	392	188	84	119	119	119

* SEE BRIDGE BILL OF MATERIAL FOR ADDITIONAL QUANTITIES

FILE NAME =	USER NAME = #USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES IL 141 OVER TRIBUTARY TO CANE CREEK	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -			877	101B-1	WHITE	42	9	
		CHECKED -	REVISED -			SCALE: SHEET NO. OF SHEETS STA. TO STA.		CONTRACT NO. 78084			
		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

PROP. IL 141
 PI STA. = 232+00.00
 $\Delta = 1^\circ 47' 29''$ (RT)
 $D = 0^\circ 10' 16''$
 $R = 33,485.38'$
 $T = 523.50'$
 $L = 1,046.91'$
 $E = 4.09'$
 $e = N/A$
 $T.R. = N/A$
 $S.E. RUN = N/A$
 $P.C. STA. = 226+76.50$
 $P.T. STA. = 237+23.42$

EXISTING STRUCTURE (097-0037)
 43'-5 1/2" BK. TO BK. ABUTMENTS
 32'-6" CLEAR WIDTH
 30° SKEW
 STA. 239+85 (IL 141)

PROPOSED STRUCTURE (097-0073)
 85' SINGLE-SPAN STEEL BEAM BRIDGE
 30° SKEW
 STA. 239+85 (IL 141)

STA. 241+17.66
 EXISTING 2'x2' RCBC
 EXTEND WITH
 PIPE CULVERTS, CLASS A, TYPE 1, 30" 3 FT
 CAST-IN-PLACE REINFORCED CONCRETE
 END SECTIONS 30"
 28.7' LT. USFL = 384.10
 CONCRETE COLLAR, 0.37 CY

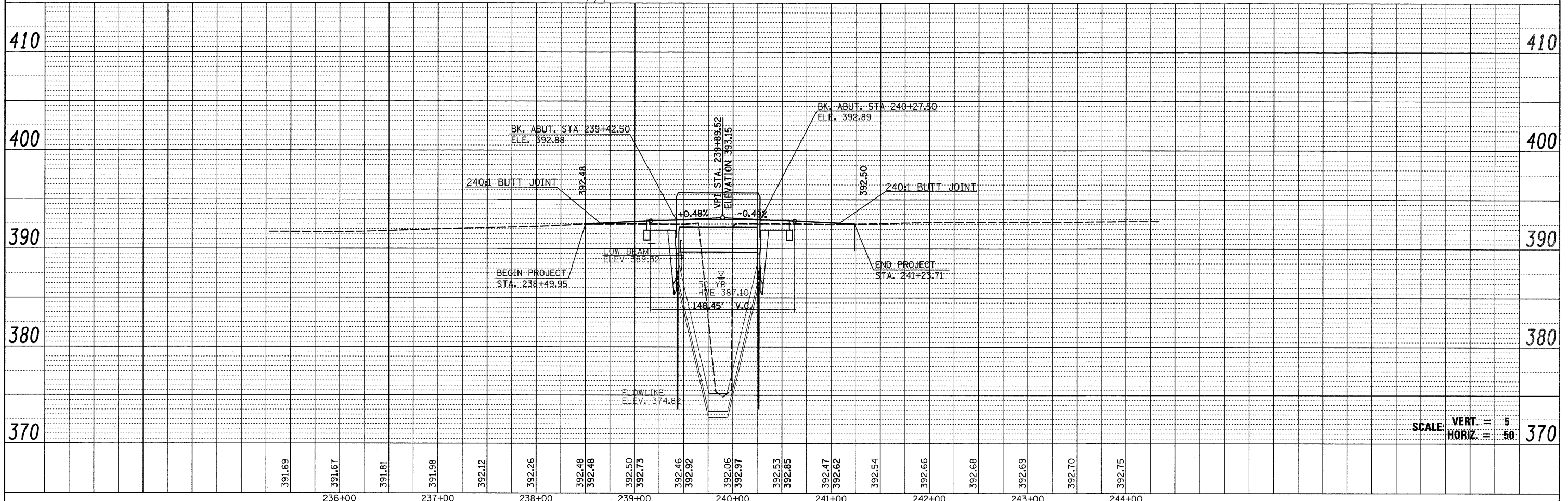
STA. 241+17.66
 EXISTING 2'x2' RCBC
 EXTEND WITH
 PIPE CULVERTS, CLASS A, TYPE 1, 30" 8 FT
 CAST-IN-PLACE REINFORCED CONCRETE FLARED END
 SECTIONS 30"
 34.4' RT. DSFL = 383.43
 CONCRETE COLLAR, 0.37 CY

*THE OFFSET FROM CENTERLINE OF THE EXISTING WATER LINE
 NORTH OF 141 IS AN APPROXIMATE MEASUREMENT

SCALE: 1" = 50'

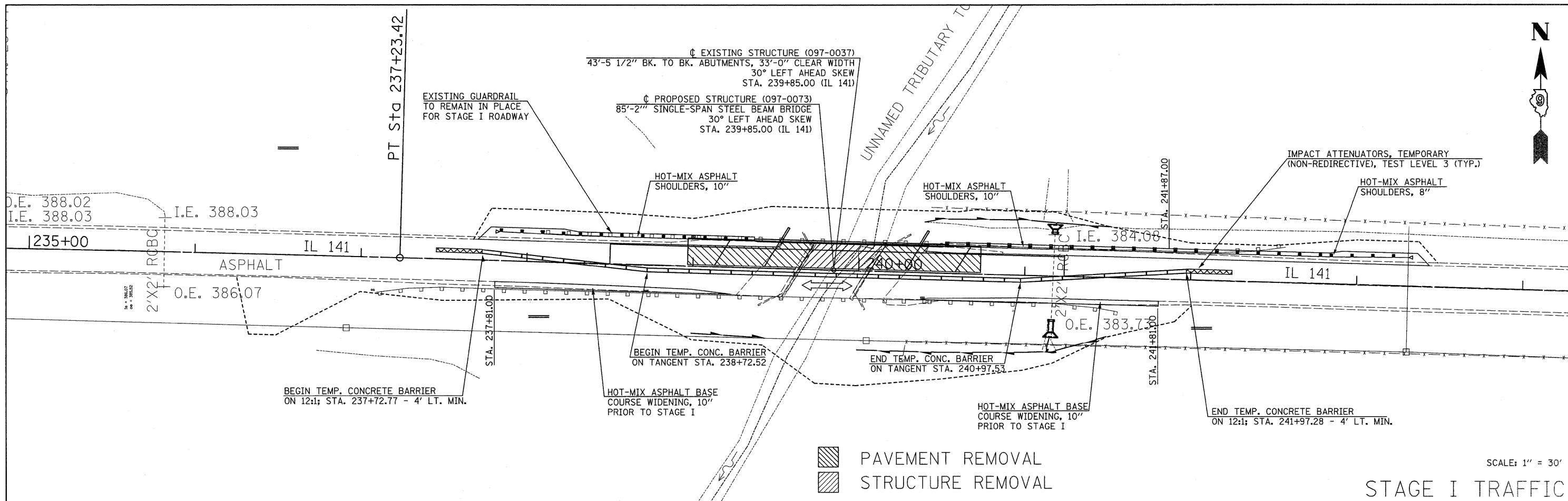
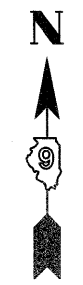
PLAN	DATE
SURVEYED	
ALIGNED	
CHECKED	
RT. OF WAY CHECKED	
CADD FILE NAME	

PROFILE	DATE
SURVEYED	
DESIGNED	
CHECKED	
BLANK NOTED	
STRUCTURE NOTATIONS CHFD	



SCALE: VERT. = 5
 HORIZ. = 50

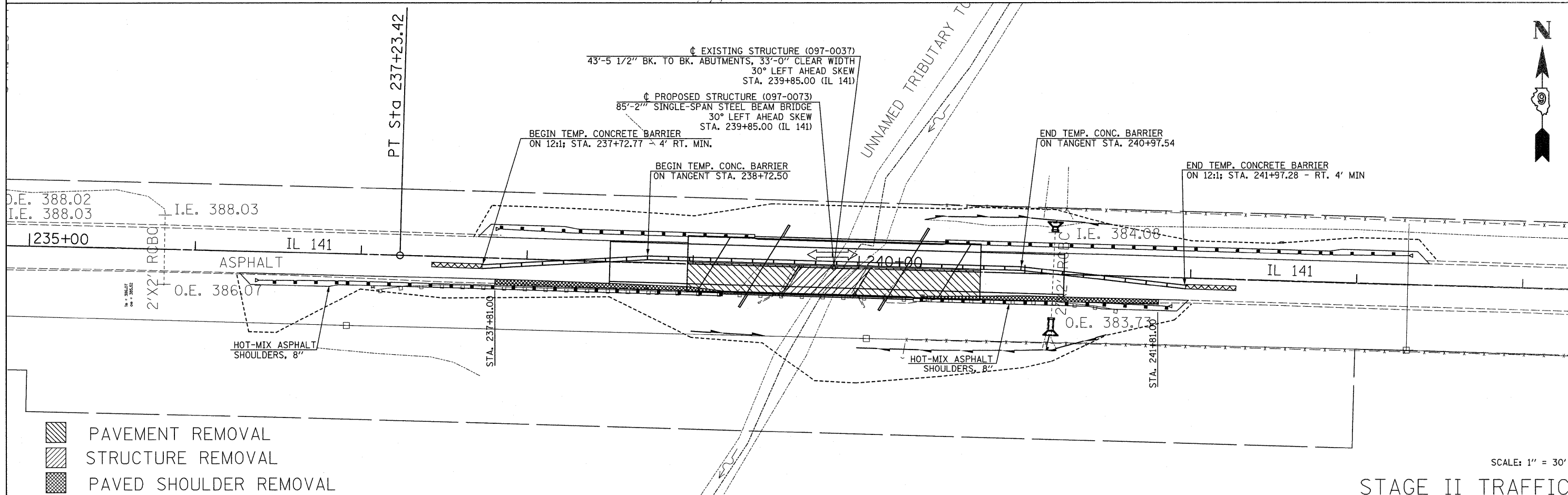
FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE IL 141 OVER TRIBUTARY TO CANE CREEK				F.A.P. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 10
#FILE#		DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA. 238+49.95 TO STA. 241+23.71	CONTRACT NO. 78084			
		CHECKED -	REVISED -							ILLINOIS FED. AID PROJECT			
		DATE -	REVISED -										



PAVEMENT REMOVAL
 STRUCTURE REMOVAL

SCALE: 1" = 30'

STAGE I TRAFFIC

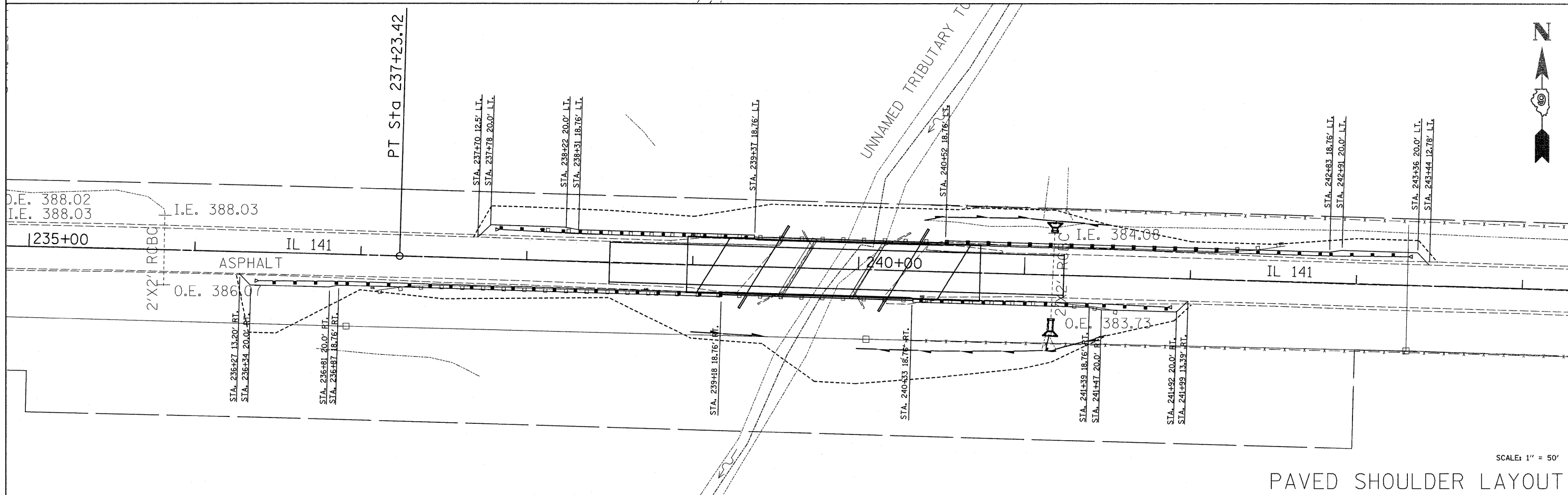
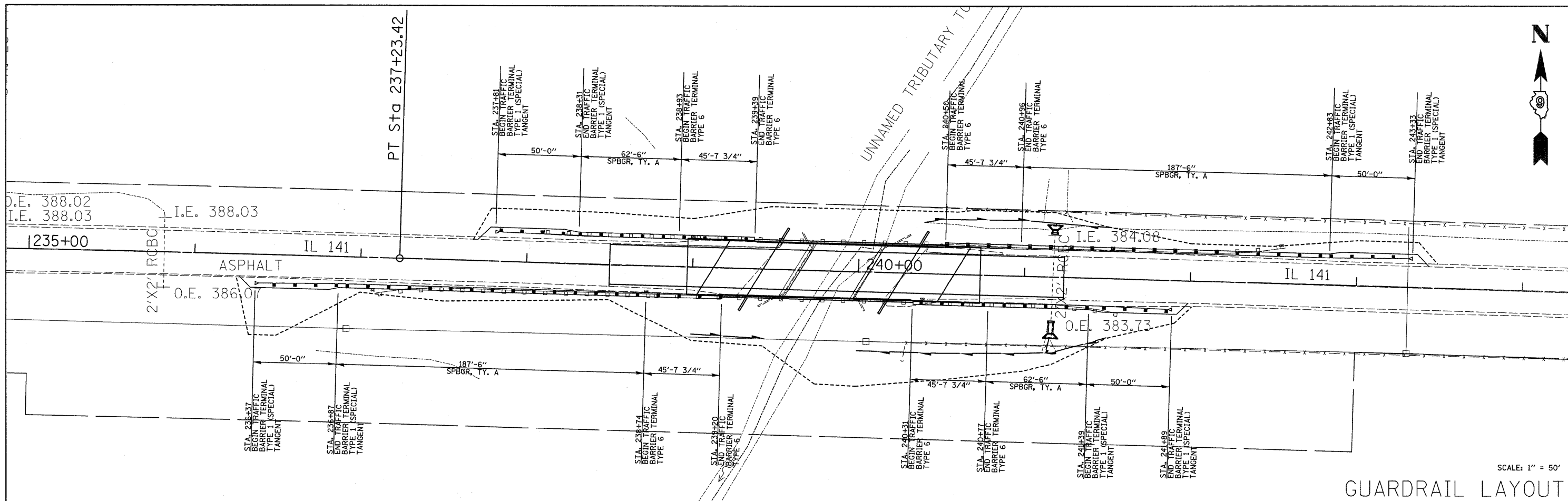


PAVEMENT REMOVAL
 STRUCTURE REMOVAL
 PAVED SHOULDER REMOVAL

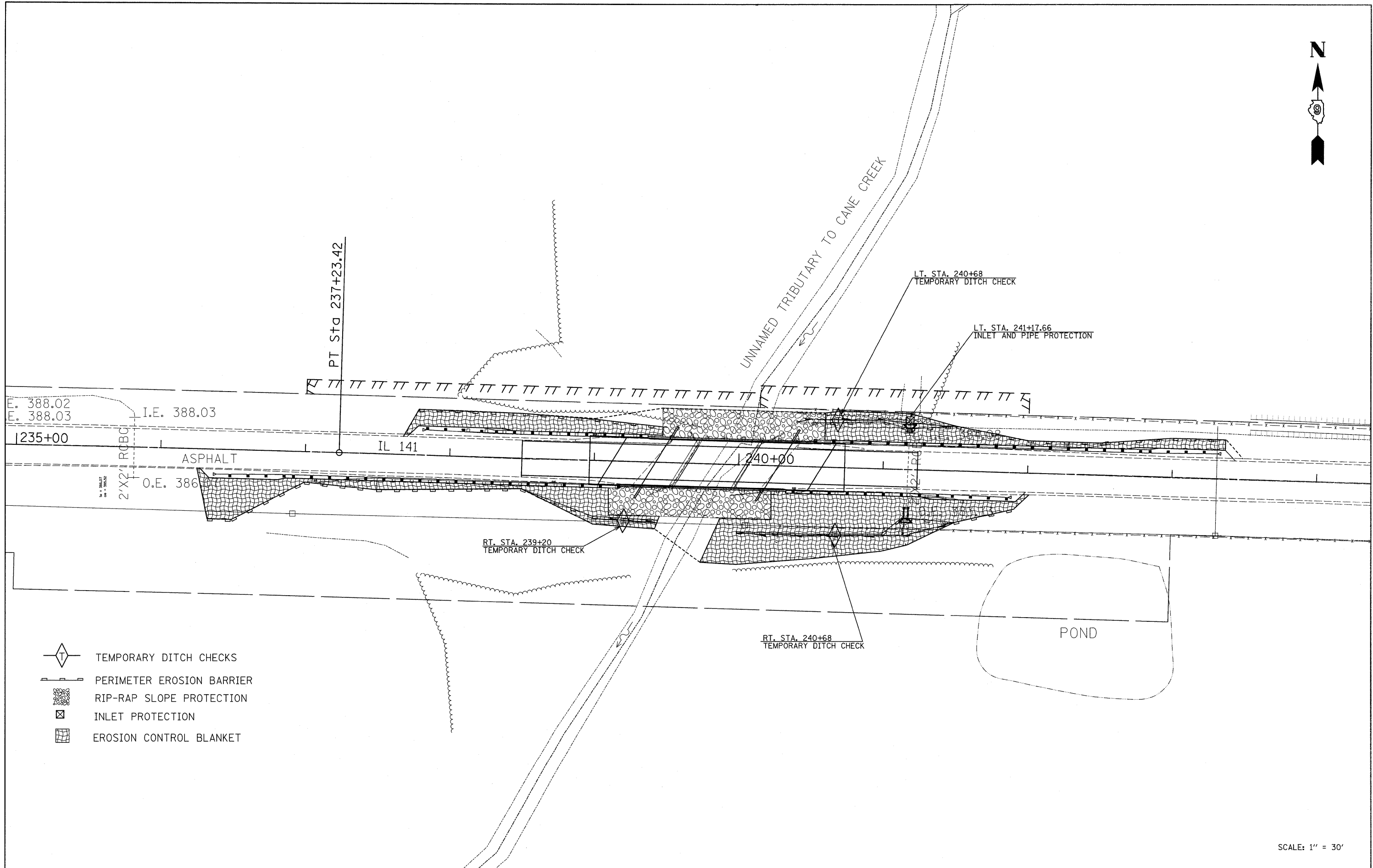
SCALE: 1" = 30'

STAGE II TRAFFIC

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION PLAN IL 141 OVER TRIBUTARY TO CANE CREEK			F.A. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 11
#FILE#		DRAWN -	REVISED -					CONTRACT NO. 78084				
		CHECKED -	REVISED -									
		DATE -	REVISED -									
				SCALE: SHEET NO. OF SHEETS STA. TO STA.			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVED SHOULDER & GUARDRAIL PLAN IL 141 OVER TRIBUTARY TO CANE CREEK			F.A. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 12
	PLOT SCALE = #SCALE#	DRAWN -	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 78084		
	PLOT DATE = #DATE#	CHECKED -	REVISED -							ILLINOIS FED. AID PROJECT		
		DATE -	REVISED -									

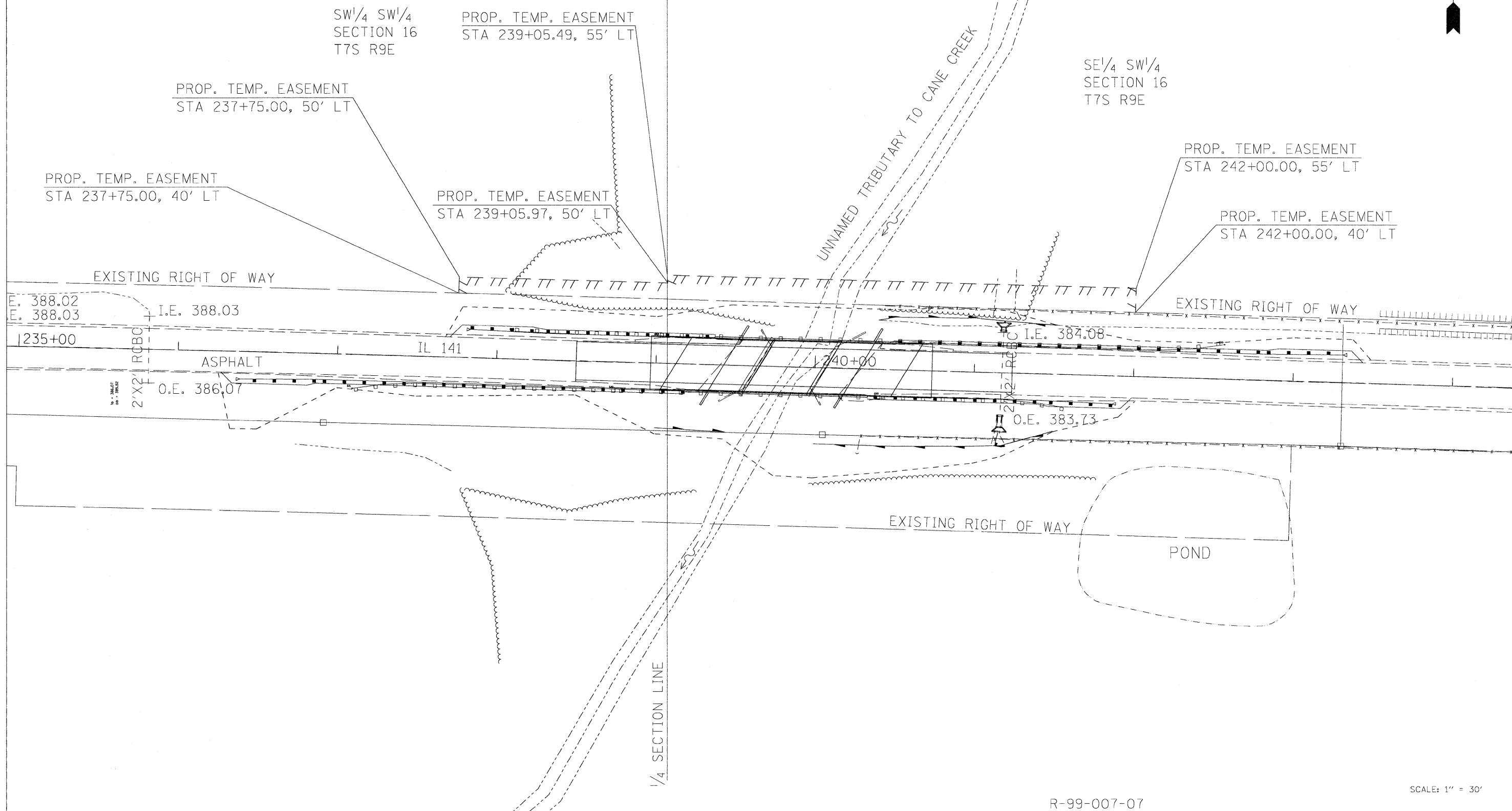
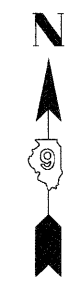


- TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- RIP-RAP SLOPE PROTECTION
- INLET PROTECTION
- EROSION CONTROL BLANKET

SCALE: 1" = 30'

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EROSION CONTROL PLAN IL 141 OVER TRIBUTARY TO CANE CREEK			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT SCALE = #SCALE#	CHECKED -	REVISED -		CONTRACT NO. 78084							
	PLOT DATE = #DATE#	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PARCEL NO.	NAME	PURPOSE	ACREAGE
72	CARL & MARY DOERNER	TEMP. EASE.	0.101 AC
74	HAROLD F. WEST	TEMP. EASE.	0.030 AC

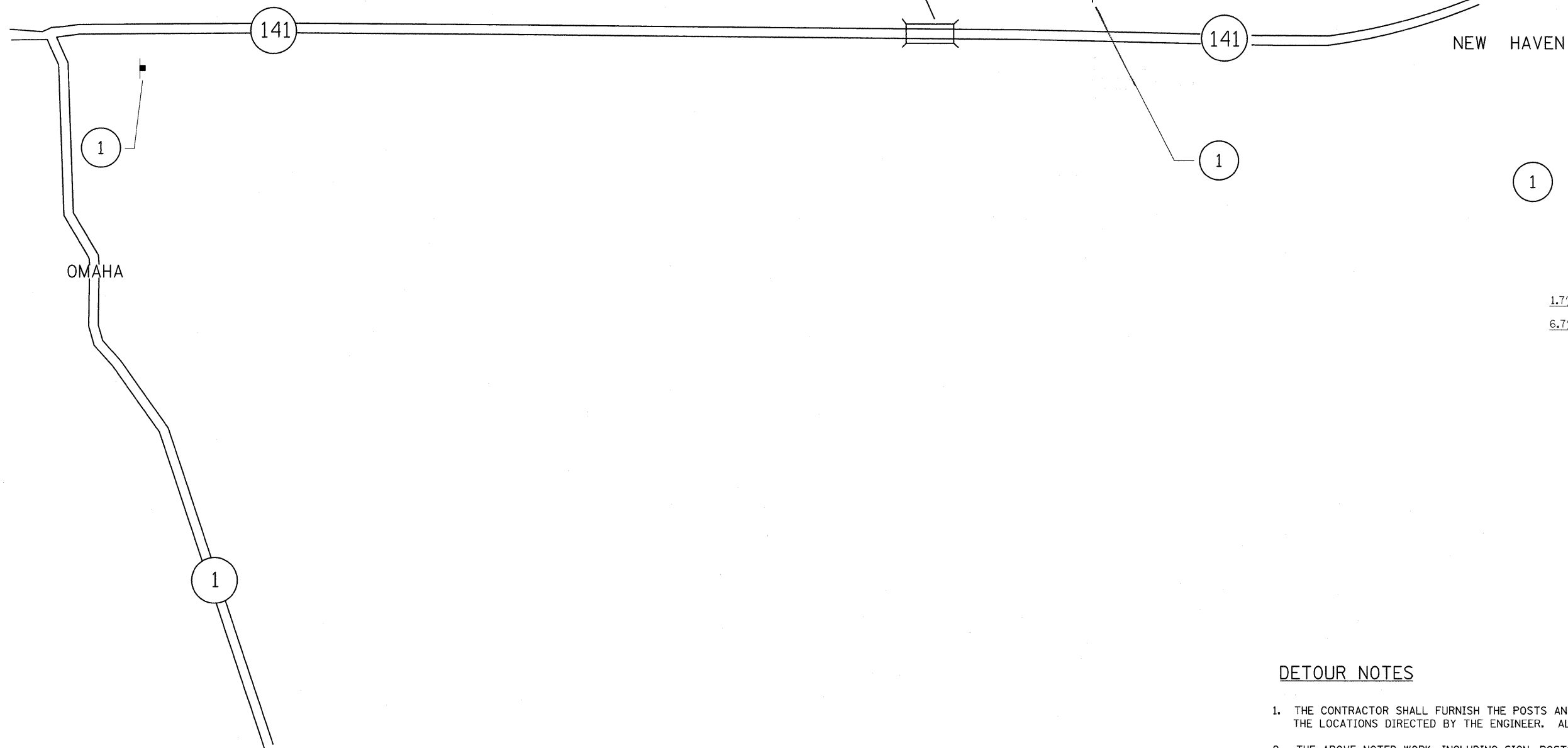


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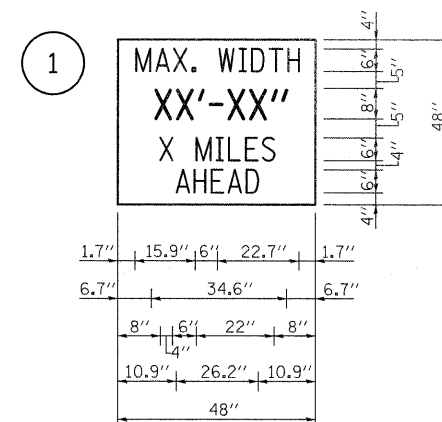
SCALE: 1" = 30'

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY PLAN IL 141 OVER TRIBUTARY TO CANE CREEK				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -		877	101B-1	WHITE	42	14				
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.				CONTRACT NO. 78084				
	PLOT DATE = #DATE#	DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								

PROPOSED BRIDGE IMPROVEMENTS



SIGN LEGEND



W12-I103

SERIES D ALPHABET. NO BORDER. BLACK ON WHITE.

DETOUR NOTES

1. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE POST MOUNTED
2. THE ABOVE NOTED WORK, INCLUDING SIGN, POSTS, HARDWARE AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, STD 701321 AND NO OTHER COMPENSATION WILL BE ALLOWED.
3. THE WIDTH SHOWN ON THE W12-I103 SIGN SHALL BE 10'-6" OR AS DIRECTED BY THE ENGINEER. THE "X" MILES AHEAD WILL BE DETERMINED BY THE ENGINEER.

DETOUR SIGNING PLAN

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WIDE LOAD DETOUR IL 141 OVER TRIBUTARY TO CANE CREEK			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -		877	101B-1	WHITE	42	15			
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 78084				
	PLOT DATE = #DATE#	DATE -	REVISED -		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT					

Bench Mark: Chiseled "□" on southeast wingwall of S.N. 097-0037 Elev. 390.48.

Existing Structure: S.N. 097-0037 was built in 1933 as part of SBI 141 Section 101 at Sta. 239+85.

In 1974 the bridge was widened and the superstructure was replaced with PPC deck beams. The structure is 32'-6" wide between railings and spans 43'-5 1/2" back to back abutments with a 30° skew. The substructure consists of closed abutments on timber piles. Structure is to be replaced utilizing stage construction to maintain one lane of traffic during construction.

No Salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

1. General Plan
2. General Notes & Details
3. Stage Construction Details
4. Temporary Concrete Barrier
5. Deck Elevations
6. Approach Slab Elevations
7. Superstructure
8. Superstructure Details
9. Bridge Approach Slab Details-1
10. Bridge Approach Slab Details-2
11. Concrete End Diaphragms
12. Framing Plan & Steel Details
13. West Abutment
14. East Abutment
15. Bar Splicer Assembly Details
16. Steel Pile Details
17. Soil Borings

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (Structural Steel, M270 Grade 50W)

LOADING HL-93

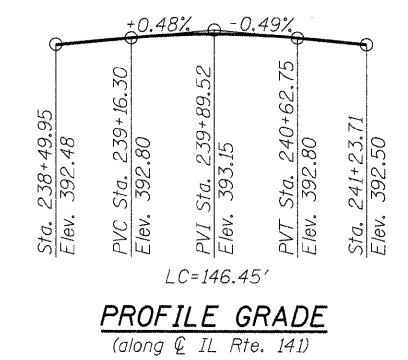
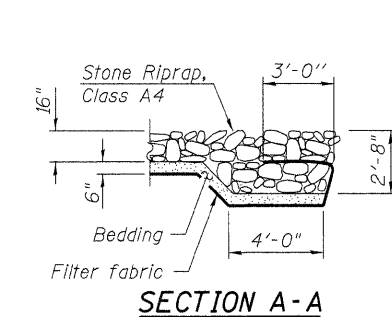
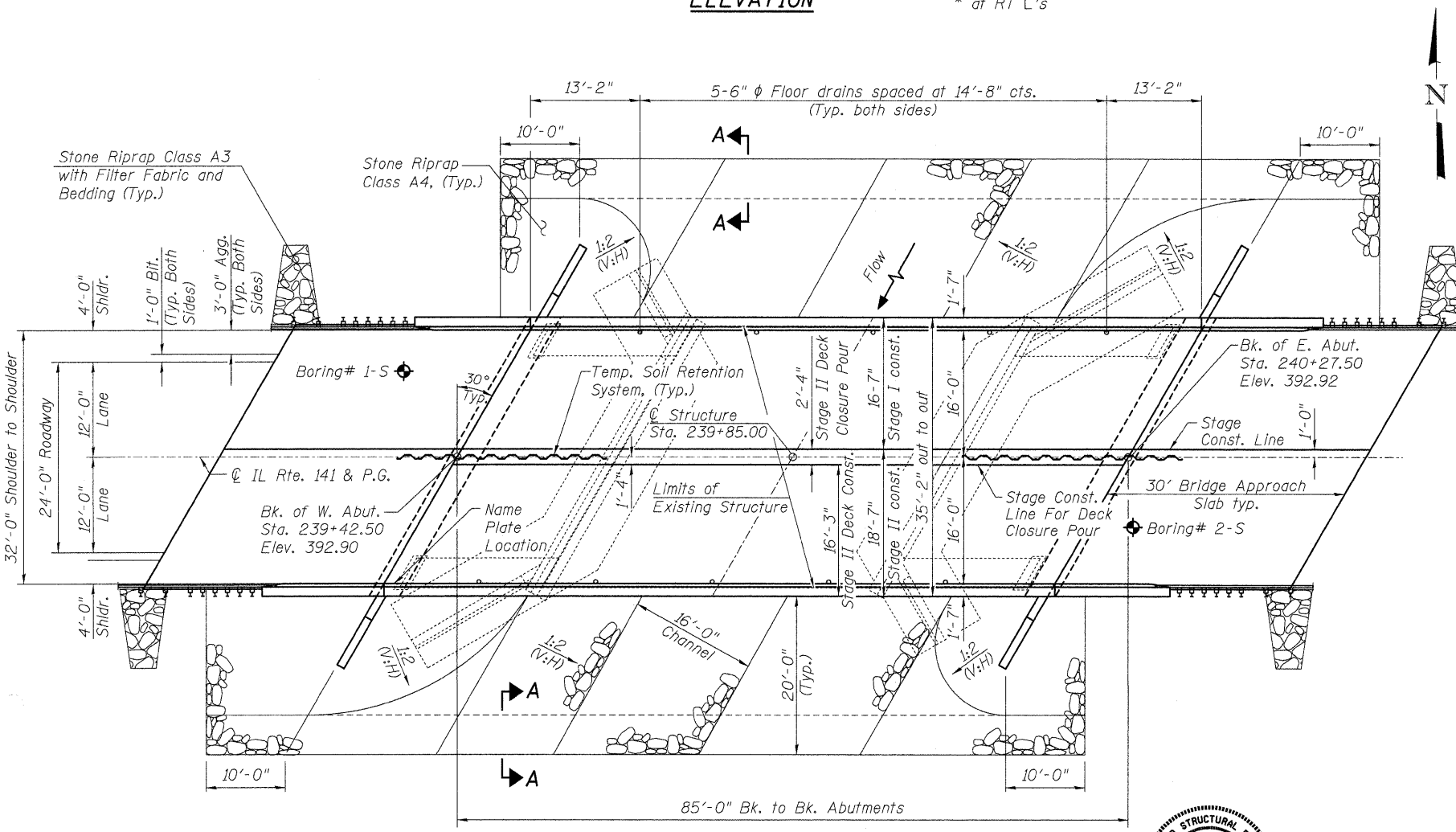
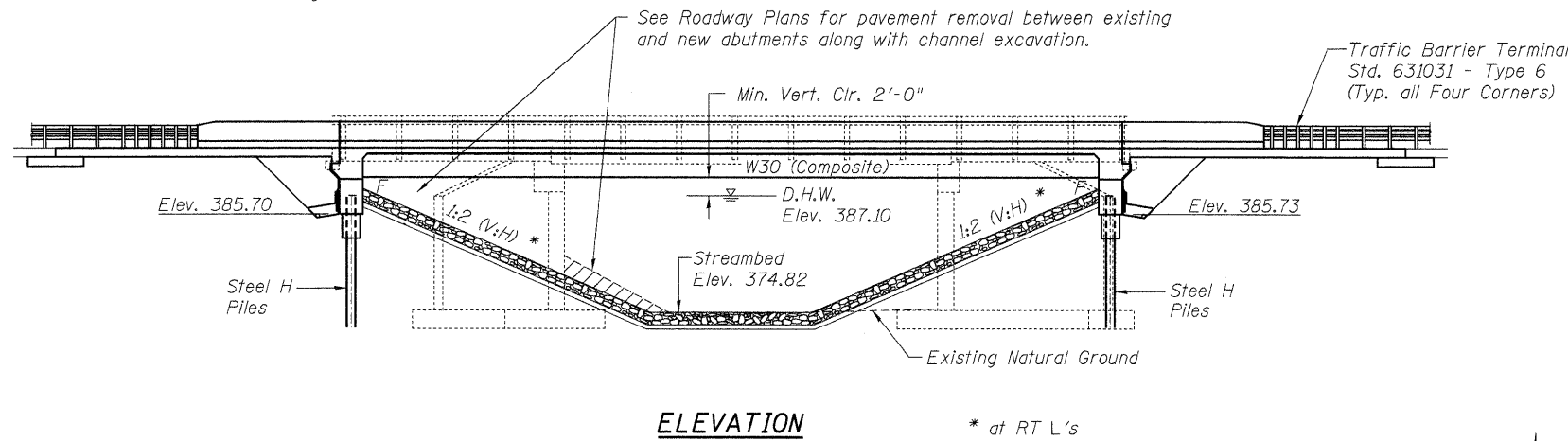
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications, with 2008 Interim

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.230g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.635g
 Soil Site Class = C



WATERWAY INFORMATION

Drainage Area = 4.59 sq. mi. Existing Low Grade Elev. 391.67 @ Sta. 236+00
 Proposed Low Grade Elev. 391.67 @ Sta. 236+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	1711	261	323	384.2	0.2	0.1	384.4	384.3
Base	50	2835	363	489	387.1	0.4	0.2	387.5	387.3
Base	100	3346	396	550	388.0	0.5	0.2	388.5	388.2
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	4686	425	574	388.8	0.9	0.3	389.7	389.1

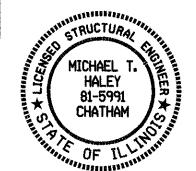
10 Year Velocity through Existing Bridge = 6.6 fps 10 Year Velocity through Proposed Bridge = 5.3 fps

DESIGN SCOUR ELEVATION TABLE

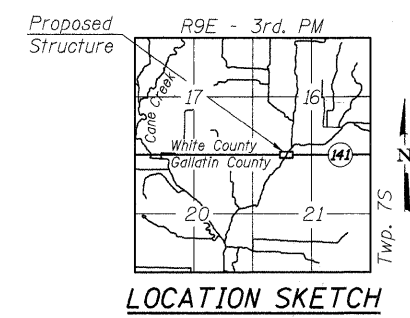
Design Scour Elevation (ft.)	E. Abut.	W. Abut.
	385.73	385.70

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (SE)
ENGINEER OF BRIDGES AND STRUCTURES



Michael S. Haley 7/24/09
 Michael T. Haley
 Licensed Structural Engineer
 State of Illinois No. 81-5991
 Expires 11/30/2010



GENERAL PLAN
 IL RTE. 141 OVER TRIBUTARY TO CANE CREEK
 F.A.P. RTE. 877 - SEC. 101B-1
 WHITE COUNTY
 STATION 239+85.00
 STRUCTURE NO. 097-0073

LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 1	F.A.P. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 16
	17 SHEETS	CONTRACT NO. 78084				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 3, mechanically galvanized bolts. Bolts 7/8 in. ϕ , holes 15/16 in. ϕ , unless otherwise noted.

Calculated weight of Structural Steel = 90,430 lbs (AASHTO M270, Grade 50W) 520 (AASHTO M270, Grade 36)

All structural steel shall be AASHTO M270 Grade 50W (except Temp. Bracing).

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

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

Reinforcement bars designated (E) shall be epoxy coated.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

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

Slipforming of the parapet is not allowed.

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

Current Ratings on File for Existing Structure

Inventory: HS 21.5
Operating: HS 35.9
Live Load Restrictions: No

Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.

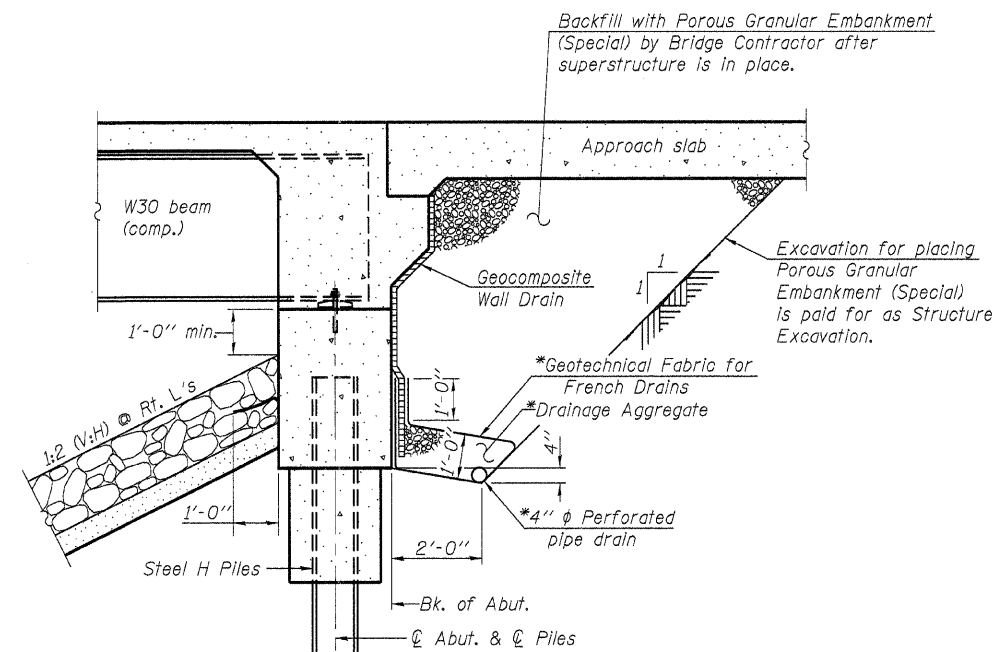
The Contractor is advised that the existing structure contains members that are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedures for the complete or partial removal, or replacement of the structure. An Existing Structure Information Package is available upon request as noted in the special provisions.

The Contractor shall submit Structural Assessment Report(s) as required for the Contractor's means and methods of construction. See Special Provisions.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.	-	128	128
Stone RipRap, Class A3	Sq. Yd.	-	40	40
Stone RipRap, Class A4	Sq. Yd.	-	889	889
Filter Fabric	Sq. Yd.	-	929	929
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu. Yd.	-	277	277
Floor Drains	Each	10	-	10
Concrete Structures	Cu. Yd.	-	48.5	48.5
Concrete Superstructure	Cu. Yd.	187.7	-	187.7
** Bridge Deck Grooving	Sq. Yd.	486	-	486
Concrete Encasement	Cu. Yd.	-	4.2	4.2
** Protective Coat	Sq. Yd.	620	-	620
Furnishing and Erecting Structural Steel	Lump Sum	1	-	1
Stud Shear Connectors	Each	1782	-	1782
Reinforcement Bars, Epoxy Coated	Pound	51980	6260	58240
Bar Splicers	Each	722	100	822
Furnishing Steel Piles HP12X63	Foot	-	325	325
Driving Piles	Foot	-	325	325
Test Pile Steel HP12x63	Each	-	2	2
Name Plates	Each	1	-	1
Anchor Bolts, 1"	Each	-	24	24
Geocomposite Wall Drain	Sq. Yd.	-	75	75
Pipe Underdrains for Structures 4"	Foot	-	160	160
Asbestos Bearing Pad Removal	Each	22	-	22
Temporary Soil Retention System	Sq. Ft.	-	551	551

**Includes Approach Slab



SECTION THRU ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.

Note:

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601.01).

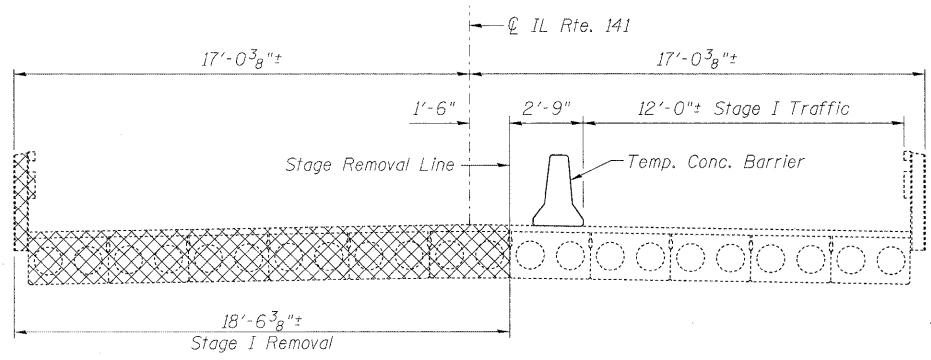
STATION 239+85.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 877 SEC. 101B-1
LOADING HL-93
STRUCTURE NO. 097-0073

NAME PLATE
See Std. 515001

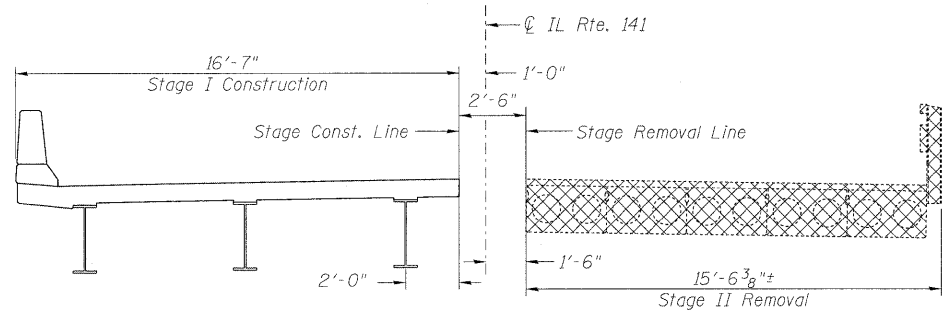
GENERAL NOTES AND DETAILS
STRUCTURE NO. 097-0073

LIN ENGINEERING, LTD. Consulting Engineers Chattian, Illinois	SHEET NO. 2 17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		877	101B-1	WHITE	42	17
		CONTRACT NO. 78084				
		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

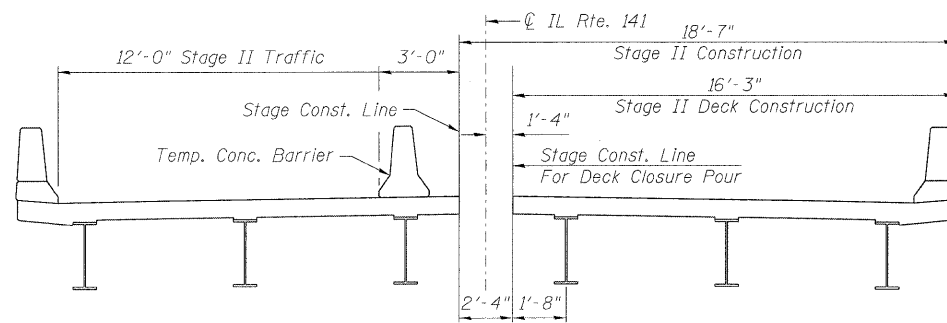
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



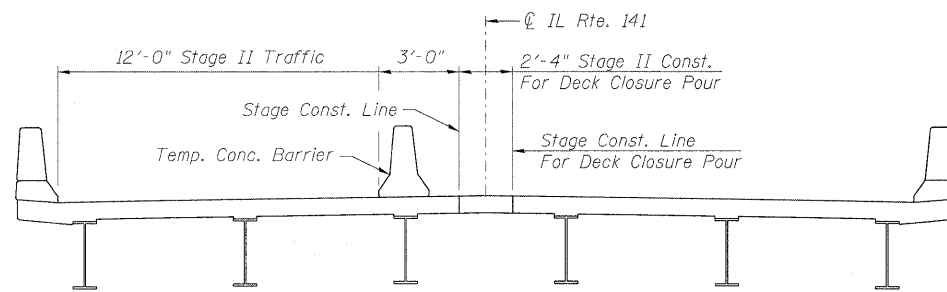
STAGE I REMOVAL & TRAFFIC



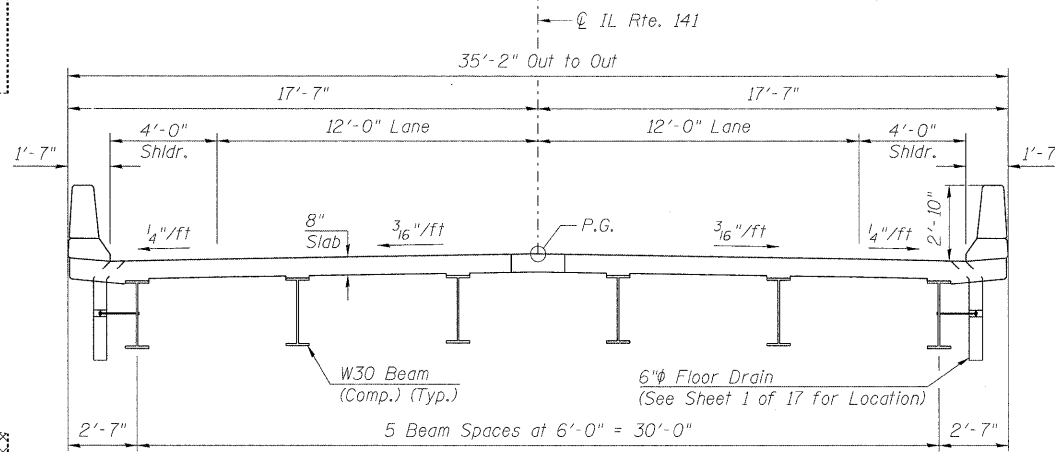
STAGE I CONSTRUCTION & STAGE II REMOVAL



STAGE II CONSTRUCTION & TRAFFIC

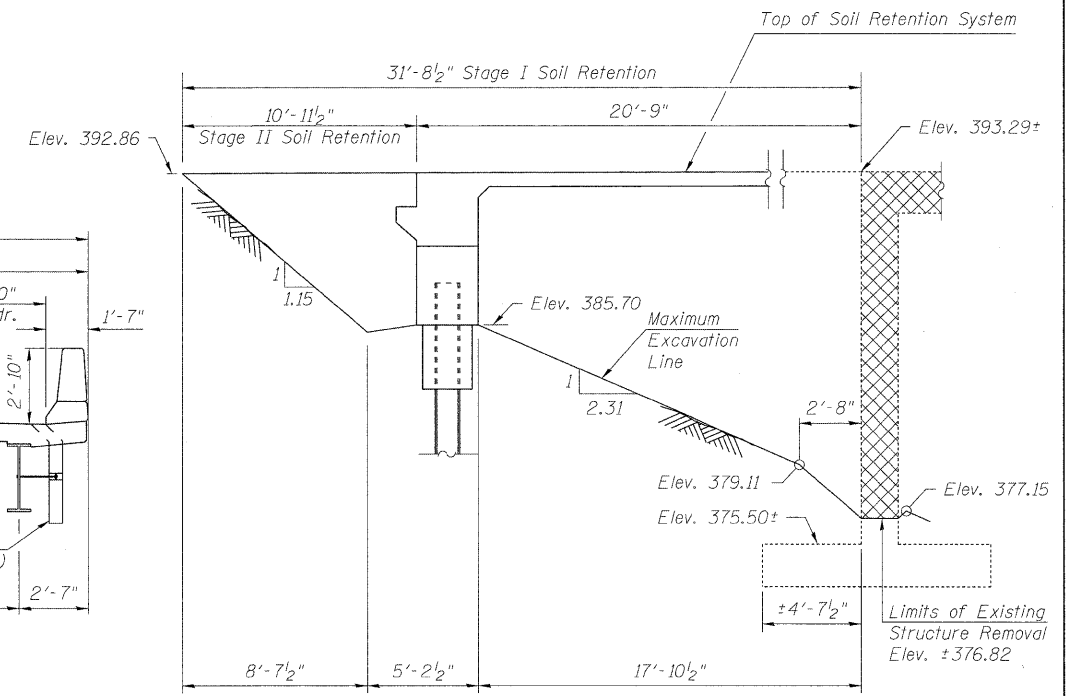


STAGE II CONSTRUCTION & TRAFFIC
FOR DECK CLOSURE POUR



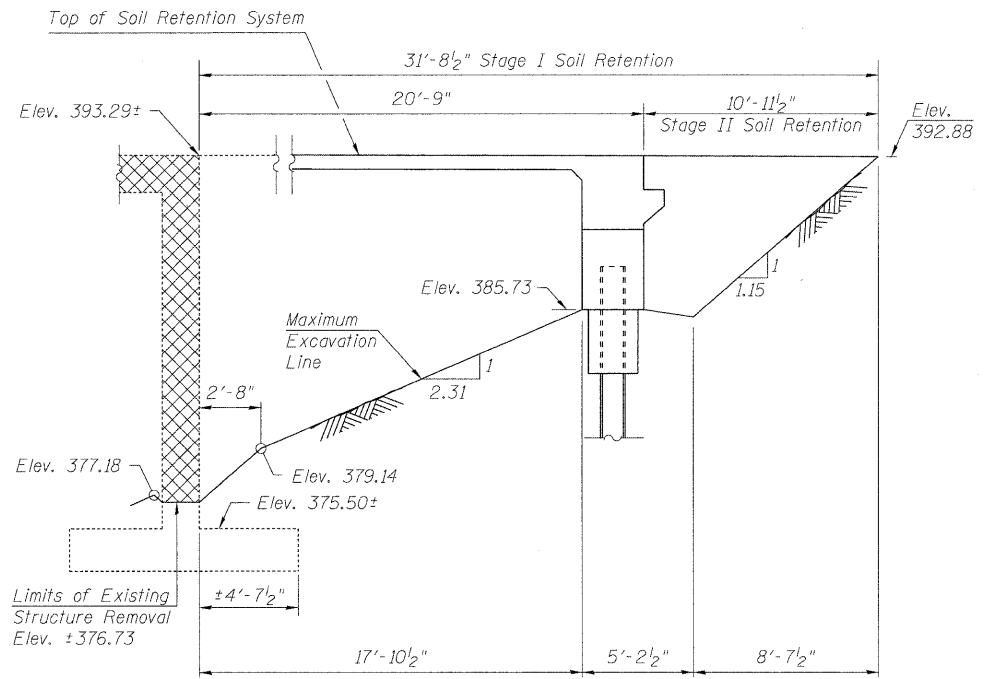
PROPOSED CROSS-SECTION

- Notes:
1. Cross Hatched areas indicate removal of existing structure.
 2. Location of Stage Removal & Construction lines is also applicable to abutments.
 3. See roadway plans for quantity of Temporary Concrete Barrier.
 4. See sheet 4 of 17 for details of Temporary Concrete Barrier.
 5. All cross sections are Looking East.
 6. Removal of existing bridge railing and bituminous wearing surface is included with Removal of Existing Structure.
 7. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.



TEMPORARY SOIL RETENTION SYSTEM AT WEST ABUT.

(Dimensions measured along Stage Construction Line)



TEMPORARY SOIL RETENTION SYSTEM AT EAST ABUT.

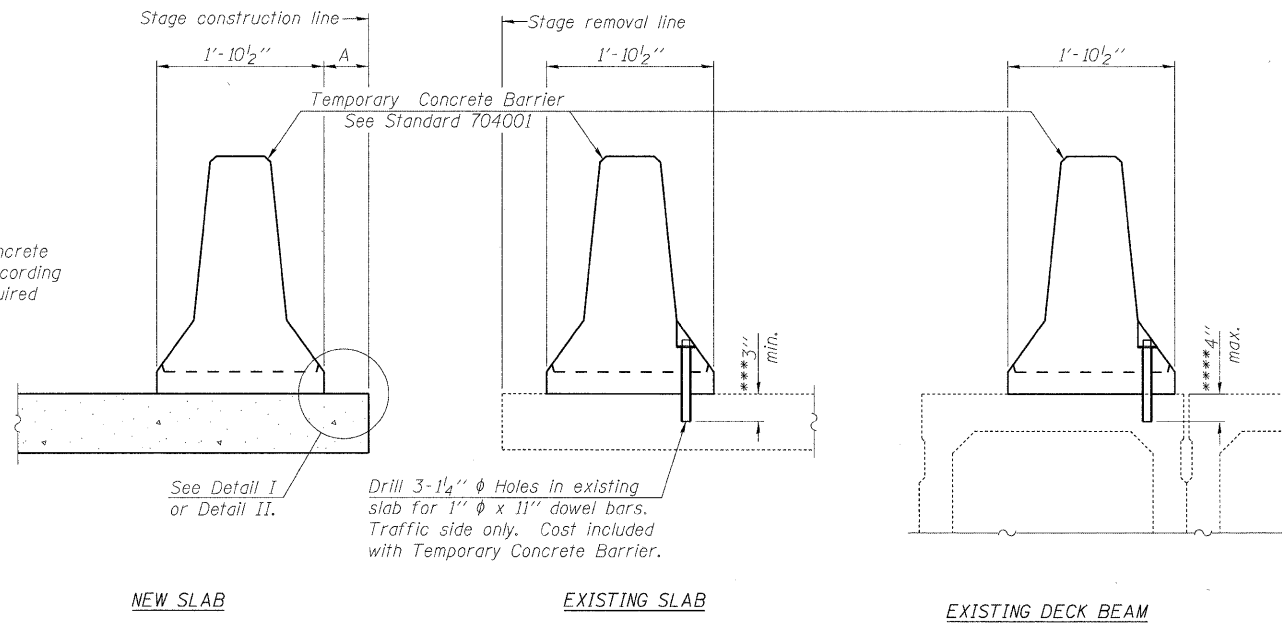
(Dimensions measured along Stage Construction Line)

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 097-0073

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 3	F.A.P. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 18
	17 SHEETS	CONTRACT NO. 78084				
Designed By: SSL Checked By: ESH Date: 3/2009 Files: 097-0073.dgn		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



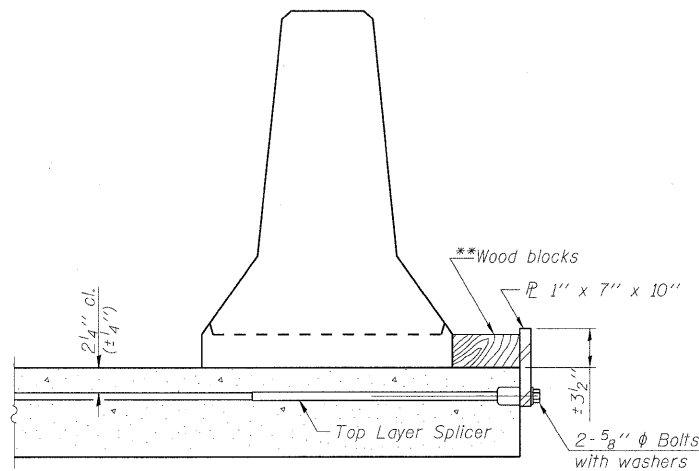
SECTIONS THRU SLAB OR DECK BEAM

NOTES

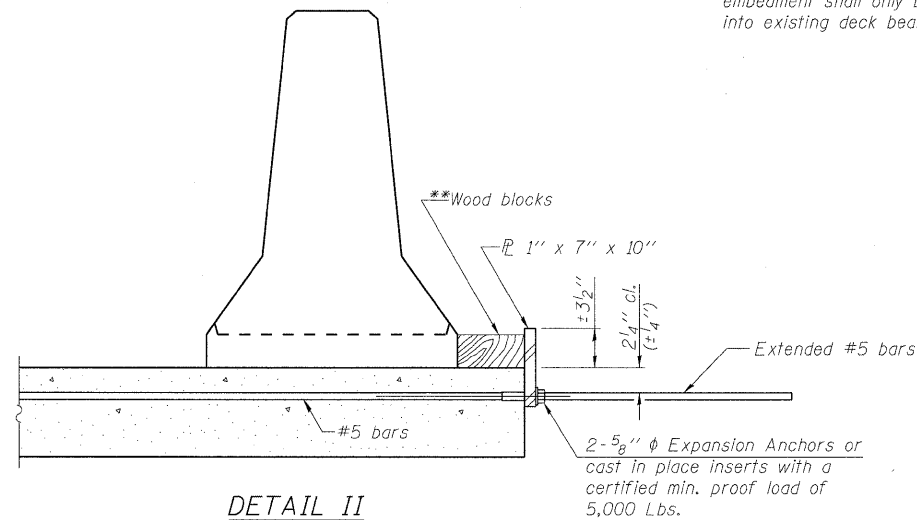
- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{R} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.
- Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{R} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

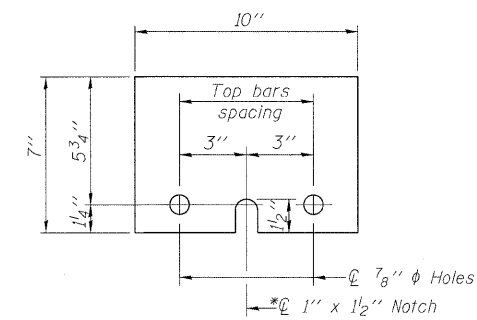
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{R} 1" x 7" x 10"

* Required only with Detail II

**Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

TEMPORARY CONCRETE BARRIER
STRUCTURE NO. 097-0073

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 4	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	17 SHEETS		101B-1	WHITE	42	19	
		CONTRACT NO. 78084					
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 1

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	239+51.16	-15.00	392.68	392.68
☉ Brg. W. Abut.	239+52.61	-15.00	392.68	392.68
C	239+62.61	-15.00	392.70	392.81
D	239+72.61	-15.00	392.72	392.91
E	239+82.61	-15.00	392.72	392.97
F	239+92.61	-15.00	392.72	393.00
G	240+02.61	-15.00	392.72	392.98
H	240+12.61	-15.00	392.71	392.91
I	240+22.61	-15.00	392.69	392.81
☉ Brg. E. Abut.	240+34.71	-15.00	392.65	392.65
Bk. of E. Abut.	240+36.16	-15.00	392.65	392.65

BEAM 2

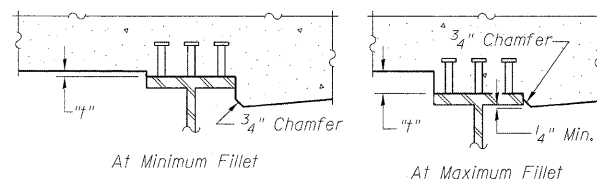
Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	239+47.70	-9.00	392.78	392.78
☉ Brg. W. Abut.	239+49.14	-9.00	392.78	392.78
C	239+59.14	-9.00	392.80	392.91
D	239+69.14	-9.00	392.82	393.01
E	239+79.14	-9.00	392.83	393.08
F	239+89.14	-9.00	392.83	393.11
G	239+99.14	-9.00	392.83	393.09
H	240+09.14	-9.00	392.82	393.03
I	240+19.14	-9.00	392.80	392.93
☉ Brg. E. Abut.	240+31.25	-9.00	392.77	392.77
Bk. of E. Abut.	240+32.70	-9.00	392.77	392.77

BEAM 3

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	239+44.23	-3.00	392.86	392.86
☉ Brg. W. Abut.	239+45.68	-3.00	392.87	392.87
C	239+55.68	-3.00	392.89	393.00
D	239+65.68	-3.00	392.91	393.10
E	239+75.68	-3.00	392.92	393.17
F	239+85.68	-3.00	392.93	393.20
G	239+95.68	-3.00	392.93	393.18
H	240+05.68	-3.00	392.92	393.12
I	240+15.68	-3.00	392.90	393.03
☉ Brg. E. Abut.	240+27.78	-3.00	392.88	392.88
Bk. of E. Abut.	240+29.23	-3.00	392.87	392.87

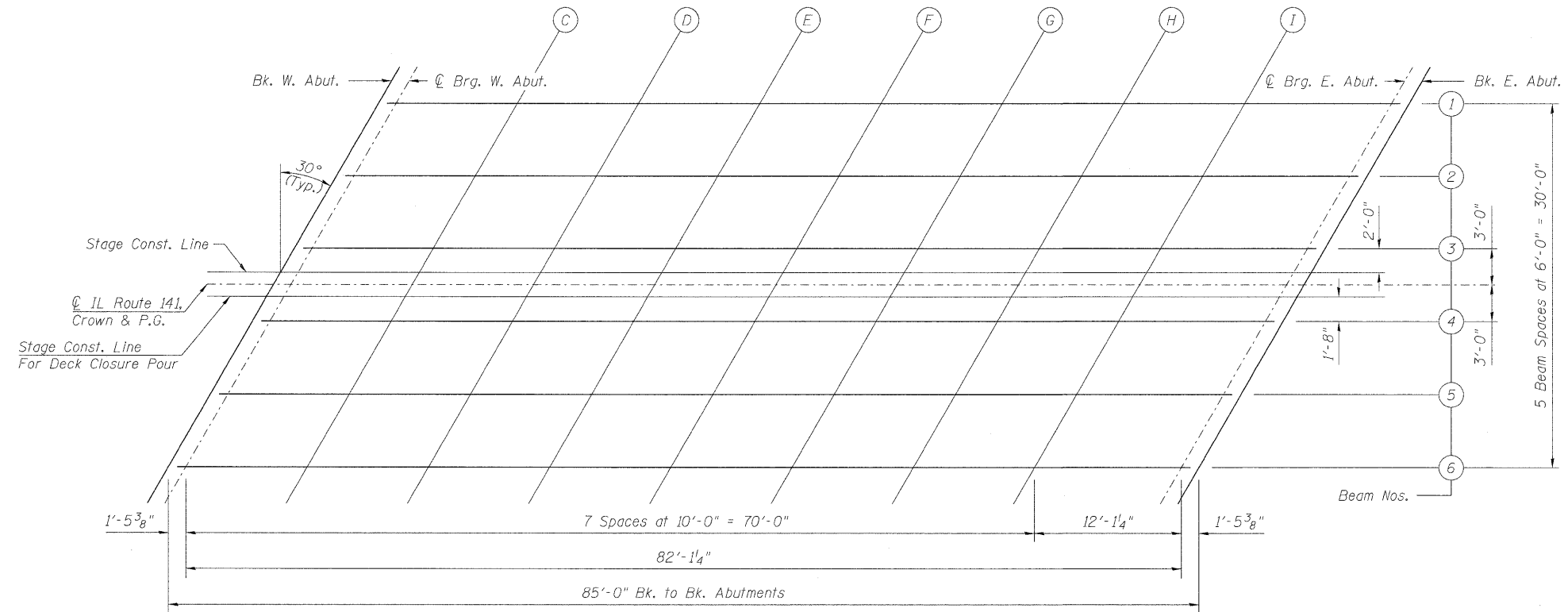
STAGE CONSTRUCTION LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	239+43.08	-1.00	392.89	392.89
☉ Brg. W. Abut.	239+44.53	-1.00	392.89	392.89
C	239+54.53	-1.00	392.92	393.03
D	239+64.53	-1.00	392.94	393.13
E	239+74.53	-1.00	392.95	393.20
F	239+84.53	-1.00	392.96	393.23
G	239+94.53	-1.00	392.96	393.22
H	240+04.53	-1.00	392.95	393.16
I	240+14.53	-1.00	392.94	393.06
☉ Brg. E. Abut.	240+26.63	-1.00	392.91	392.91
Bk. of E. Abut.	240+28.08	-1.00	392.91	392.91



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

FILLET HEIGHTS



PLAN

☉ ROADWAY, CROWN & P.G.

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	239+42.50	0.00	392.90	392.90
☉ Brg. W. Abut.	239+43.95	0.00	392.91	392.91
C	239+53.95	0.00	392.93	393.04
D	239+63.95	0.00	392.95	393.14
E	239+73.95	0.00	392.97	393.22
F	239+83.95	0.00	392.97	393.25
G	239+93.95	0.00	392.97	393.23
H	240+03.95	0.00	392.97	393.17
I	240+13.95	0.00	392.95	393.08
☉ Brg. E. Abut.	240+26.05	0.00	392.93	392.93
Bk. of E. Abut.	240+27.50	0.00	392.92	392.92

STAGE CONSTRUCTION LINE FOR DECK CLOSURE POUR

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	239+41.73	1.33	392.88	392.88
☉ Brg. W. Abut.	239+43.18	1.33	392.88	392.88
C	239+53.18	1.33	392.91	393.02
D	239+63.18	1.33	392.93	393.12
E	239+73.18	1.33	392.95	393.20
F	239+83.18	1.33	392.95	393.23
G	239+93.18	1.33	392.95	393.21
H	240+03.18	1.33	392.95	393.15
I	240+13.18	1.33	392.93	393.06
☉ Brg. E. Abut.	240+25.28	1.33	392.91	392.91
Bk. of E. Abut.	240+26.73	1.33	392.91	392.91

BEAM 4

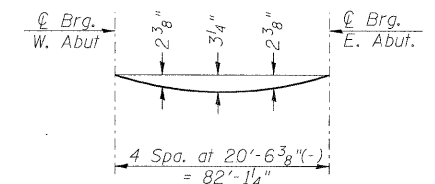
Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	239+40.77	3.00	392.85	392.85
☉ Brg. W. Abut.	239+42.22	3.00	392.86	392.86
C	239+52.22	3.00	392.88	392.99
D	239+62.22	3.00	392.90	393.09
E	239+72.22	3.00	392.92	393.17
F	239+82.22	3.00	392.93	393.20
G	239+92.22	3.00	392.93	393.19
H	240+02.22	3.00	392.92	393.13
I	240+12.22	3.00	392.91	393.04
☉ Brg. E. Abut.	240+24.32	3.00	392.89	392.89
Bk. of E. Abut.	240+25.77	3.00	392.88	392.88

BEAM 5

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	239+37.30	9.00	392.75	392.75
☉ Brg. W. Abut.	239+38.75	9.00	392.75	392.75
C	239+48.75	9.00	392.78	392.89
D	239+58.75	9.00	392.80	392.99
E	239+68.75	9.00	392.82	393.07
F	239+78.75	9.00	392.83	393.10
G	239+88.75	9.00	392.83	393.09
H	239+98.75	9.00	392.83	393.04
I	240+08.75	9.00	392.82	392.95
☉ Brg. E. Abut.	240+20.86	9.00	392.80	392.80
Bk. of E. Abut.	240+22.30	9.00	392.80	392.80

BEAM 6

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	239+33.84	15.00	392.62	392.62
☉ Brg. W. Abut.	239+35.29	15.00	392.63	392.63
C	239+45.29	15.00	392.66	392.77
D	239+55.29	15.00	392.69	392.88
E	239+65.29	15.00	392.71	392.96
F	239+75.29	15.00	392.72	392.99
G	239+85.29	15.00	392.72	392.98
H	239+95.29	15.00	392.72	392.93
I	240+05.29	15.00	392.71	392.84
☉ Brg. E. Abut.	240+17.39	15.00	392.70	392.70
Bk. of E. Abut.	240+18.84	15.00	392.69	392.69



DEAD LOAD DEFLECTION DIAGRAM

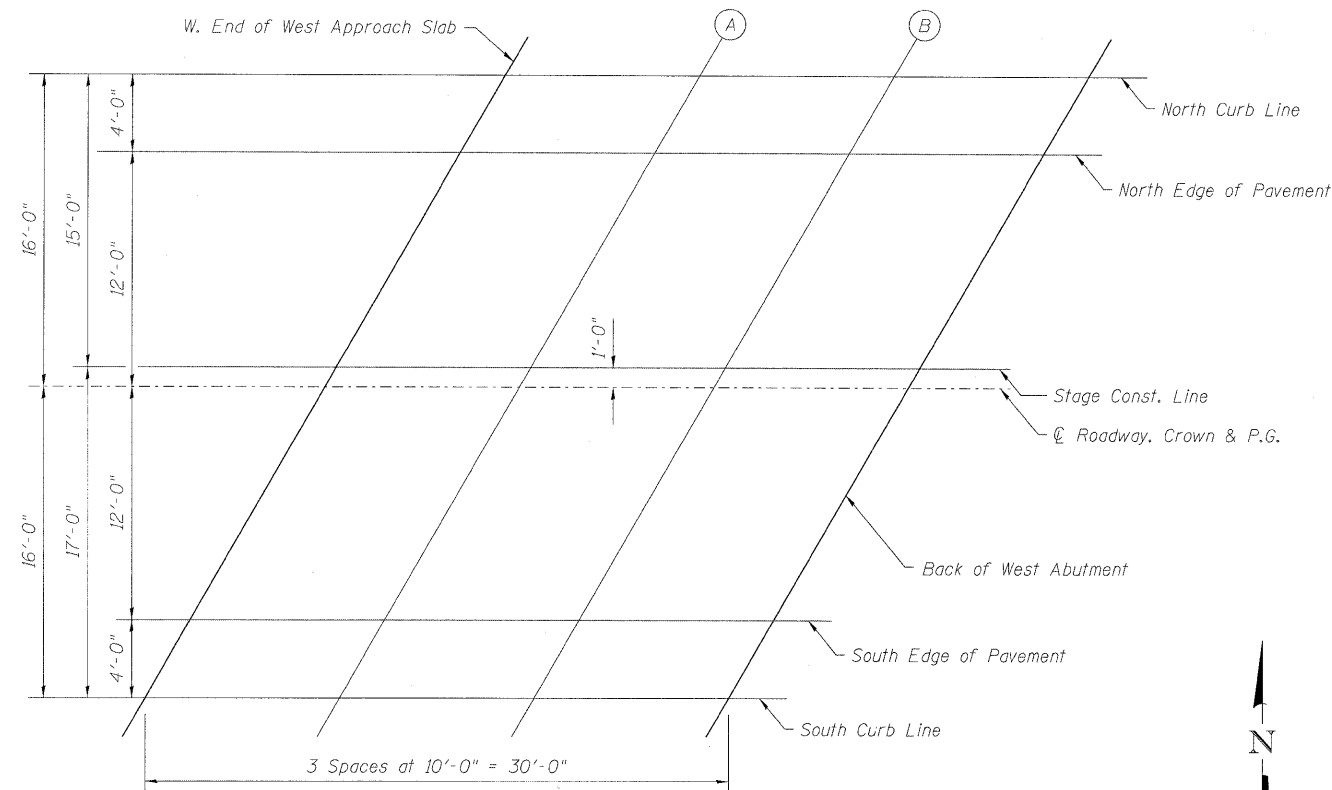
(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted For Dead Load Deflection" as shown on this sheet.

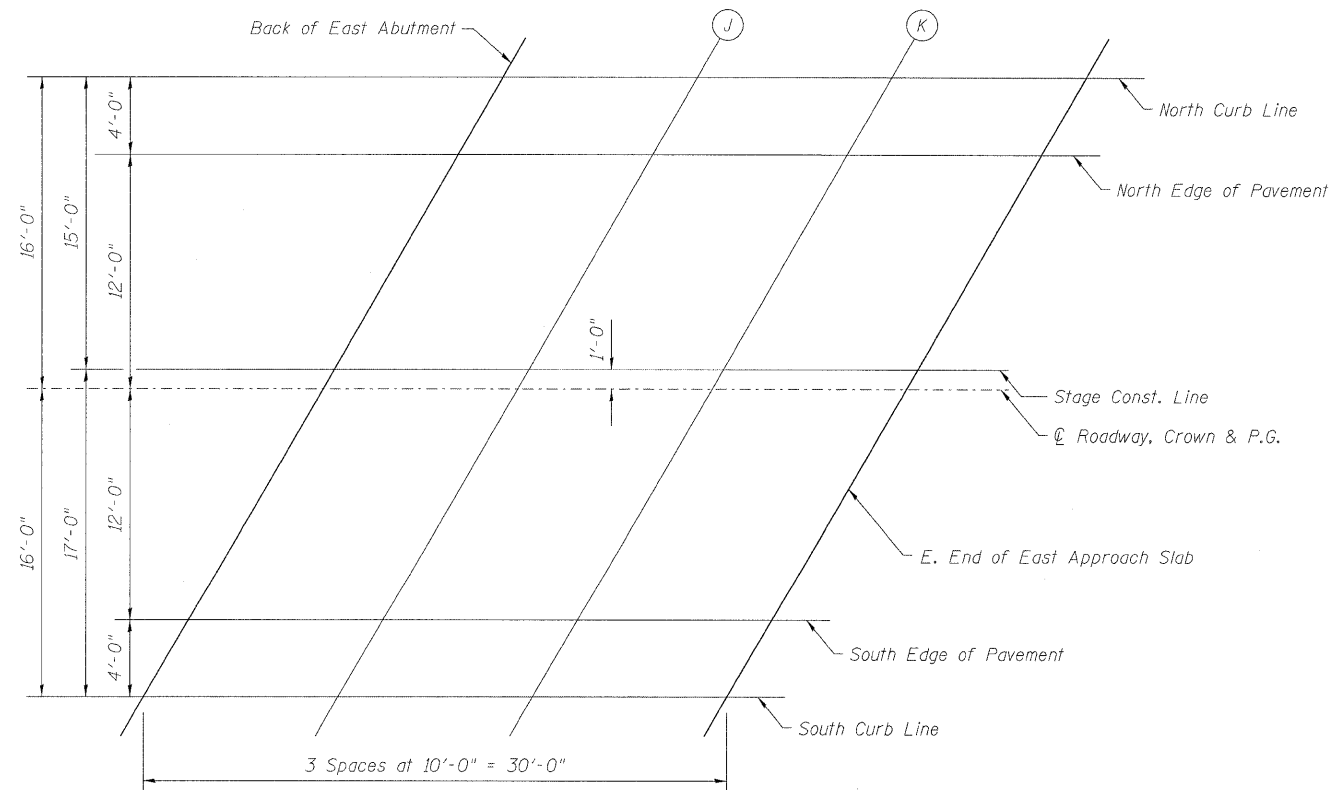
**DECK ELEVATIONS
STRUCTURE NO. 097-0073**

LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 5	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	17 SHEETS	877	101B-1	WHITE	42	20	
		CONTRACT NO. 78084					
		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN - WEST APPROACH



PLAN - EAST APPROACH

NORTH CURB LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations
End W. Appr. Slab	239+21.74	-16.00	392.55
A	239+31.74	-16.00	392.60
B	239+41.74	-16.00	392.63
Bk. W. Abut.	239+51.74	-16.00	392.66
Bk. E. Abut.	240+36.74	-16.00	392.63
J	240+46.74	-16.00	392.59
K	240+56.74	-16.00	392.55
End E. Appr. Slab	240+66.74	-16.00	392.51

ROADWAY, CROWN & P.G.

Location	Station	Offset (ft)	Theoretical Grade Elevations
End W. Appr. Slab	239+12.50	0.00	392.78
A	239+22.50	0.00	392.83
B	239+32.50	0.00	392.87
Bk. W. Abut.	239+42.50	0.00	392.90
Bk. E. Abut.	240+27.50	0.00	392.92
J	240+37.50	0.00	392.90
K	240+47.50	0.00	392.86
End E. Appr. Slab	240+57.50	0.00	392.82

NORTH EDGE OF PAVEMENT

Location	Station	Offset (ft)	Theoretical Grade Elevations
End W. Appr. Slab	239+19.43	-12.00	392.63
A	239+29.43	-12.00	392.67
B	239+39.43	-12.00	392.71
Bk. W. Abut.	239+49.43	-12.00	392.74
Bk. E. Abut.	240+34.43	-12.00	392.72
J	240+44.43	-12.00	392.68
K	240+54.43	-12.00	392.64
End E. Appr. Slab	240+64.43	-12.00	392.60

SOUTH EDGE OF PAVEMENT

Location	Station	Offset (ft)	Theoretical Grade Elevations
End W. Appr. Slab	239+05.57	12.00	392.56
A	239+15.57	12.00	392.61
B	239+25.57	12.00	392.65
Bk. W. Abut.	239+35.57	12.00	392.69
Bk. E. Abut.	240+20.57	12.00	392.75
J	240+30.57	12.00	392.73
K	240+40.57	12.00	392.70
End E. Appr. Slab	240+50.57	12.00	392.66

STAGE CONSTRUCTION LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations
End W. Appr. Slab	239+13.08	-1.00	392.77
A	239+23.08	-1.00	392.82
B	239+33.08	-1.00	392.86
Bk. W. Abut.	239+43.08	-1.00	392.89
Bk. E. Abut.	240+28.08	-1.00	392.91
J	240+38.08	-1.00	392.88
K	240+48.08	-1.00	392.84
End E. Appr. Slab	240+58.08	-1.00	392.80

SOUTH CURB LINE

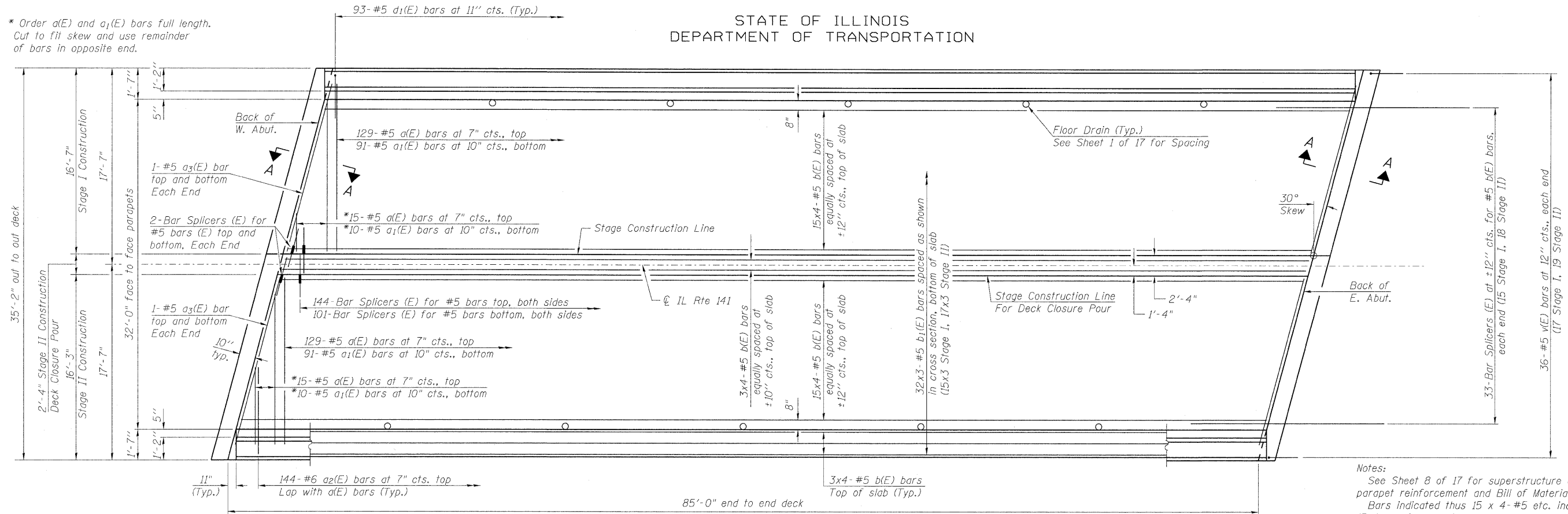
Location	Station	Offset (ft)	Theoretical Grade Elevations
End W. Appr. Slab	239+03.26	16.00	392.47
A	239+13.26	16.00	392.51
B	239+23.26	16.00	392.56
Bk. W. Abut.	239+33.26	16.00	392.60
Bk. E. Abut.	240+18.26	16.00	392.67
J	240+28.26	16.00	392.65
K	240+38.26	16.00	392.62
End E. Appr. Slab	240+48.26	16.00	392.59

APPROACH SLAB ELEVATIONS
STRUCTURE NO. 097-0073

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 6 17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		877	101B-1	WHITE	42	21
		CONTRACT NO. 78084				
		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

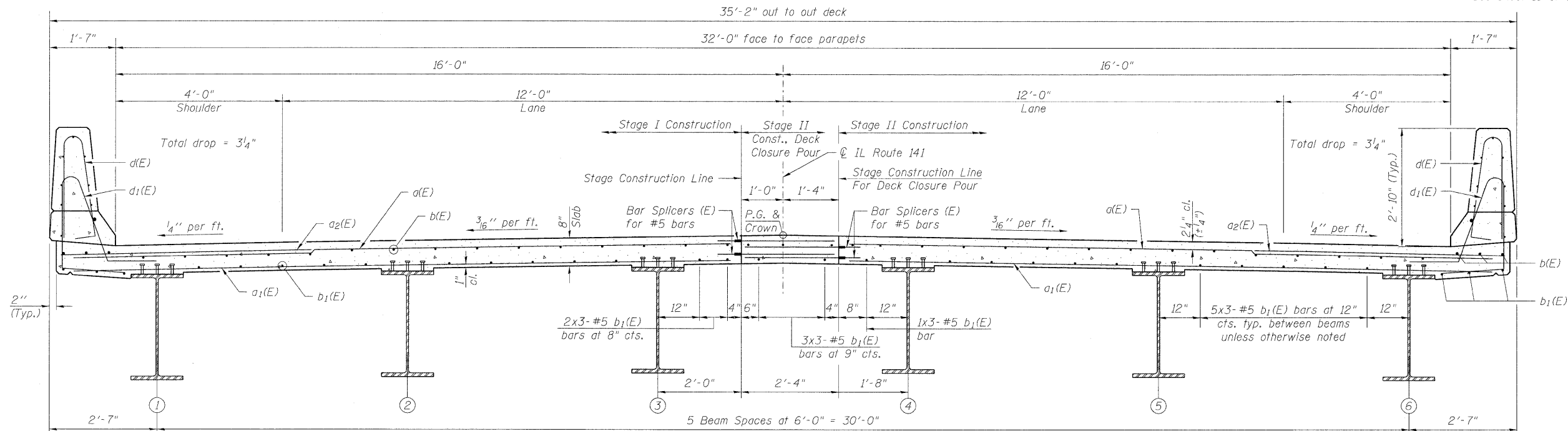
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* Order d(E) and a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



PLAN

Notes:
See Sheet 8 of 17 for superstructure details,
parapet reinforcement and Bill of Material.
Bars indicated thus 15 x 4-#5 etc. indicates
15 lines of bars with 4 lengths per line.
See Sheet 11 of 17 for section A-A.
See sheet 15 of 17 for Bar Splicer Details.



CROSS SECTION
(Looking East)

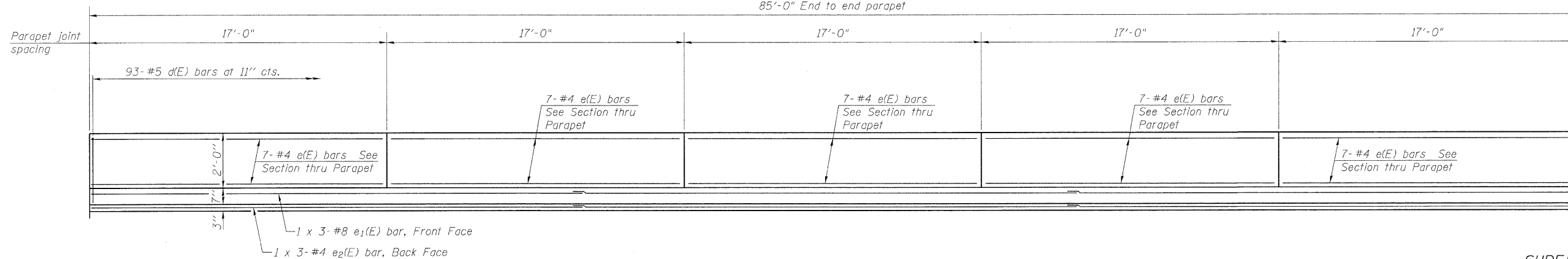
MIN. BAR LAP
#5 bar = 1'-8"

SUPERSTRUCTURE
STRUCTURE NO. 097-0073

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 7	F.A.P. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 22
	17 SHEETS	CONTRACT NO. 78084				
<small>Designed By: SBL Checked By: ESH Drawn By: SBL Date: 3/2009 File: 097-0073.dgn</small>		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

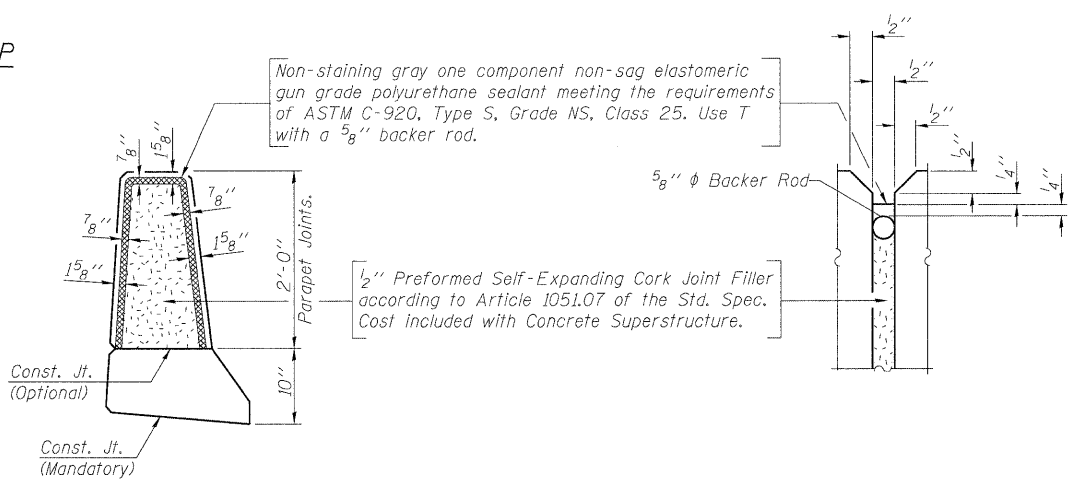
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

85'-0" End to end parapet



INSIDE ELEVATION OF PARAPET

Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 5/8" backer rod.



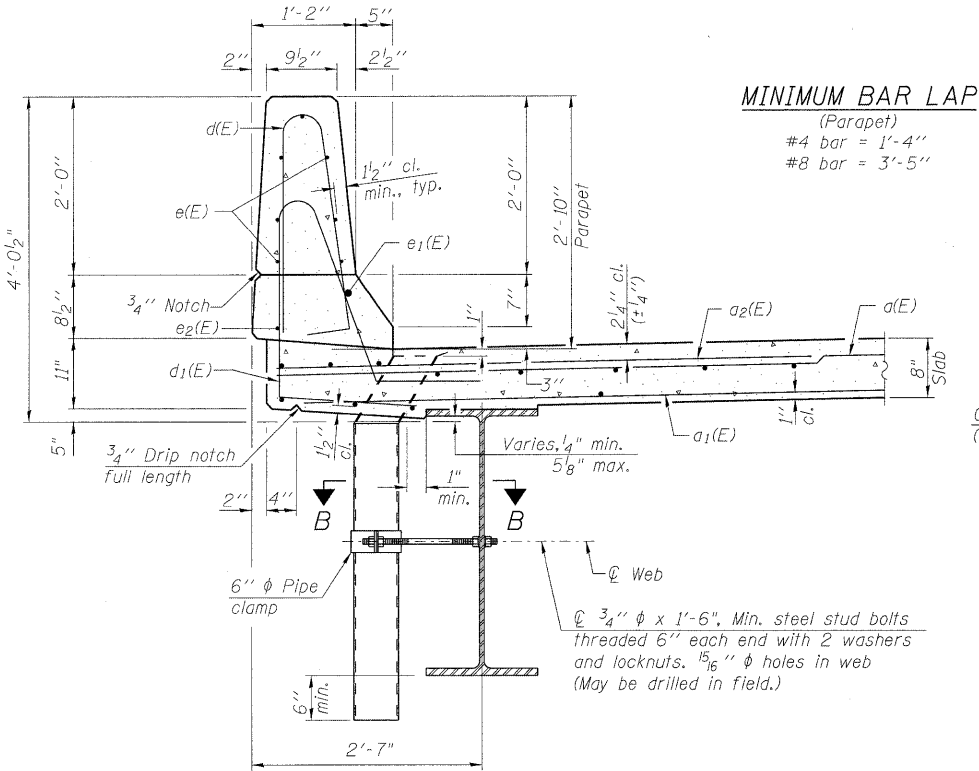
PARAPET JOINT DETAILS

Notes:
Floor drains need not be painted.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
Floor Drains shall be located clear of all diaphragms.

SUPERSTRUCTURE
BILL OF MATERIAL

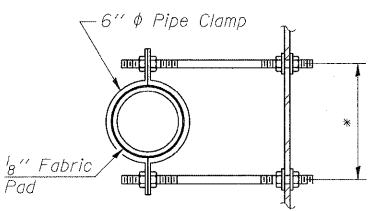
Bar	No.	Size	Length	Shape
a(E)	288	#5	15'-11"	—
a1(E)	202	#5	15'-7"	—
a2(E)	288	#6	6'-0"	—
a3(E)	8	#5	18'-5"	—
b(E)	156	#5	22'-6"	—
b1(E)	96	#5	29'-5"	—
d(E)	186	#5	5'-7"	—
d1(E)	186	#5	7'-3"	—
e(E)	70	#4	16'-8"	—
e1(E)	6	#8	30'-7"	—
e2(E)	6	#4	29'-2"	—
m(E)	10	#6	21'-2"	—
m1(E)	10	#6	18'-11"	—
m2(E)	12	#6	8'-11"	—
m3(E)	12	#6	8'-2"	—
m4(E)	8	#6	5'-3"	—
m5(E)	4	#6	2'-0"	—
m6(E)	2	#6	3'-8"	—
m7(E)	2	#6	1'-4"	—
s(E)	76	#5	6'-7"	—
s1(E)	64	#4	9'-6"	—
v(E)	72	#5	3'-4"	—
Reinforcement Bars, Epoxy Coated	Pound	23480		
Concrete Superstructure	Cu. Yds.	120.4		
Floor Drains	Each	10		

Bars indicated thus 1 x 3- #8 etc. indicates 1 line of bars with 3 lengths per line.

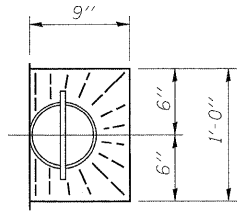


SECTION THRU PARAPET

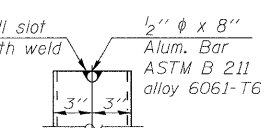
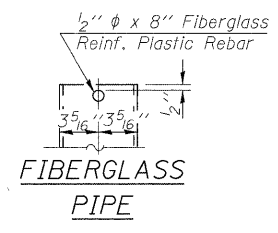
MINIMUM BAR LAP
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



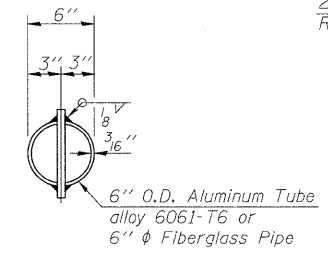
SECTION B-B
*Dimension as required by Pipe Clamp



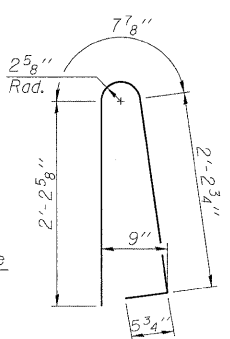
TOP PLAN



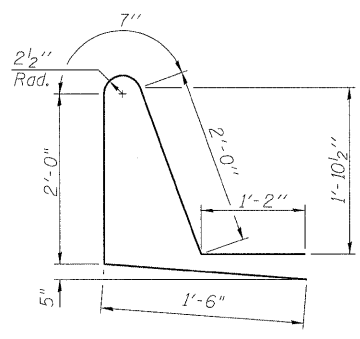
ALUMINUM TUBE



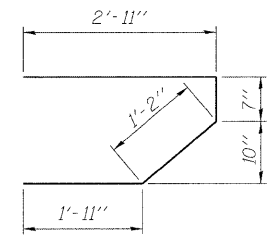
TOP PLAN
(Showing Aluminum Tube)



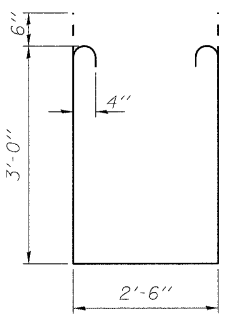
BAR d(E)



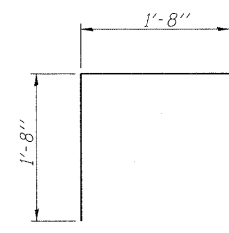
BAR d1(E)



BAR s(E)



BAR s1(E)

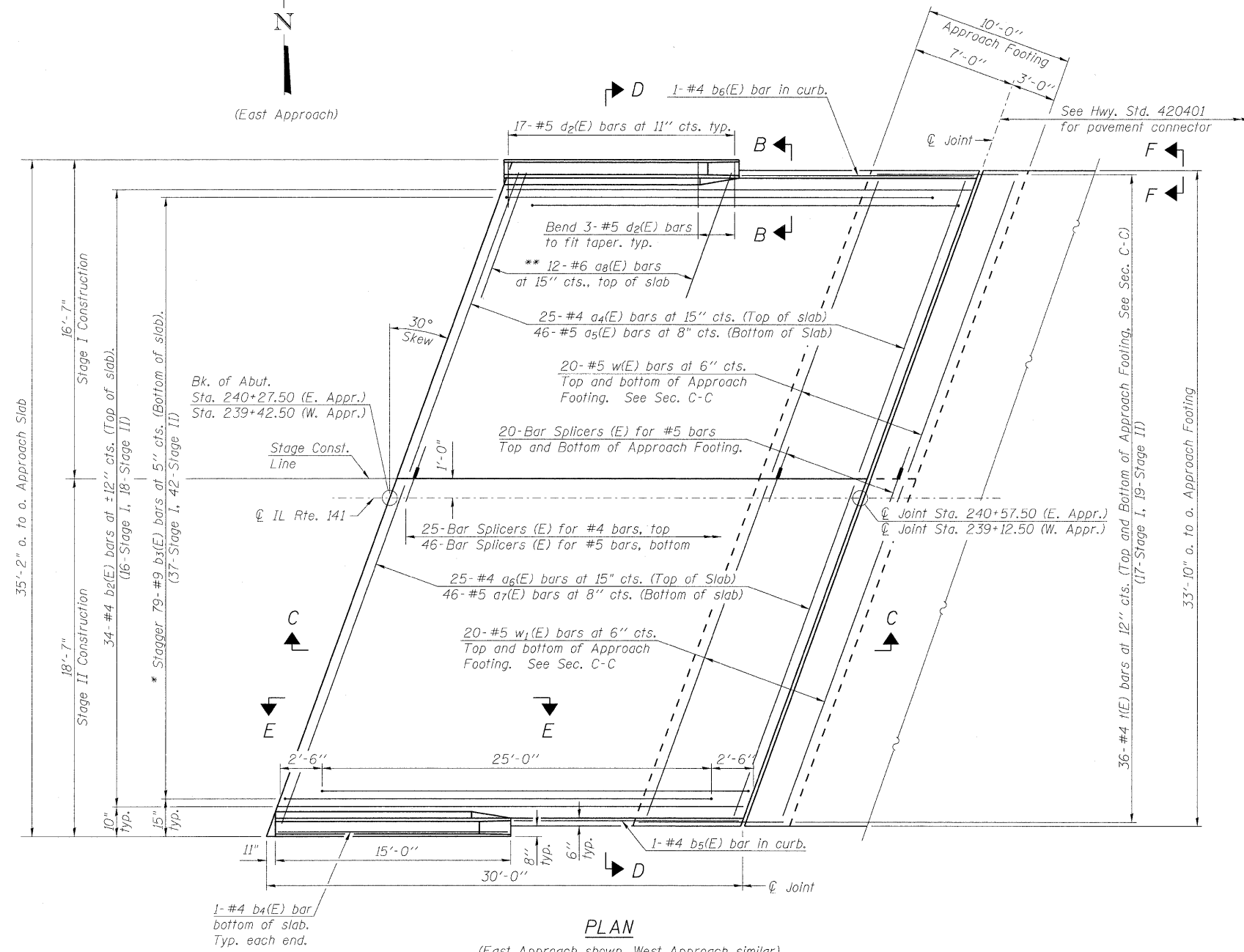


BAR v(E)

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 097-0073

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 8	F.A.P. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 23
	17 SHEETS	CONTRACT NO. 78084			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

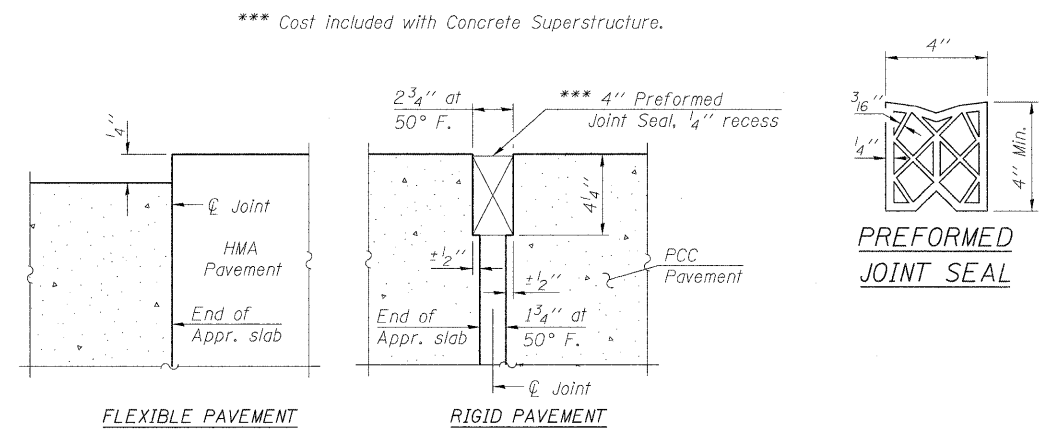
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



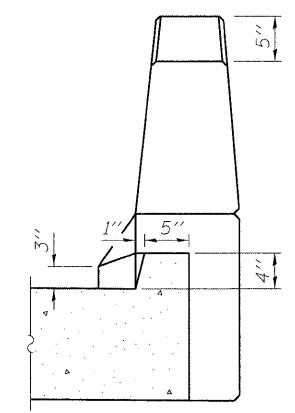
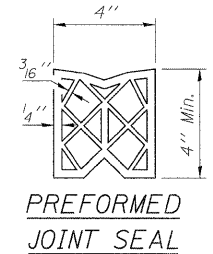
PLAN

(East Approach shown, West Approach similar)
 * Tilt #9 b3(E) bars as required to maintain clearance.
 ** Alternate with a4(E) and a6(E) bars, typ. each parapet.

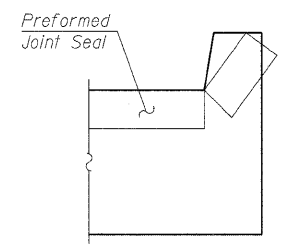
Notes:
 See sheet 10 of 17 for Sections C-C & D-D and View E-E.
 a4(E), a5(E), a6(E), a7(E), w(E) and w1(E) bar spacings measured parallel to ϕ Rdwy.



DETAIL A



VIEW B-B



VIEW F-F

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.

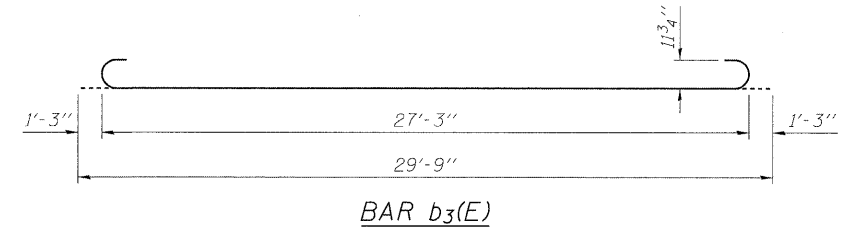
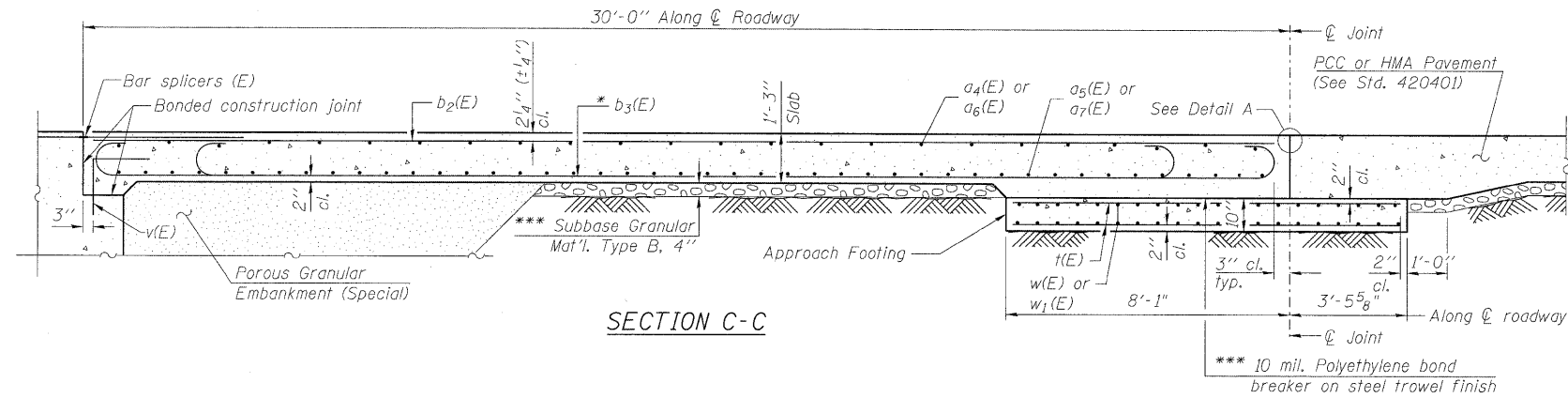
*** Cost included with Concrete Superstructure.

BRIDGE APPROACH SLAB DETAILS-1
 STRUCTURE NO. 097-0073

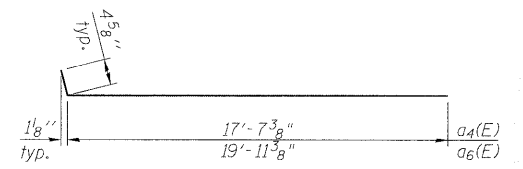
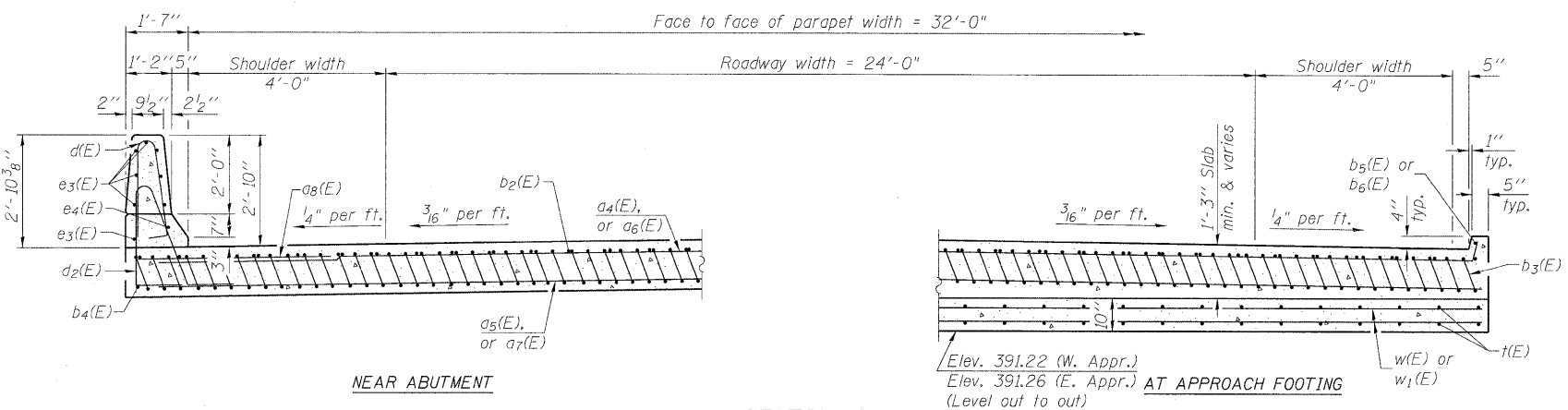
<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p> <p>Designed By: SSL Checked By: ESH Date: 3/2009</p>	SHEET NO. 9	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	17 SHEETS	877	101B-1	WHITE	42	24
	CONTRACT NO. 78084					
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See sheet 9 of 17 for Detail A and View B-B.
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 17.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 15 of 17.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 17.

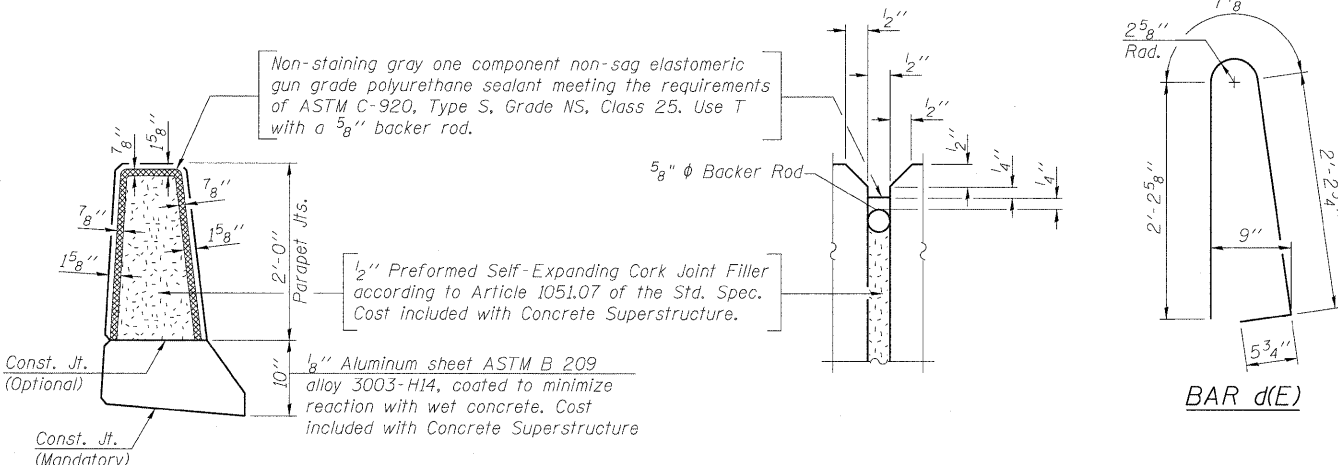
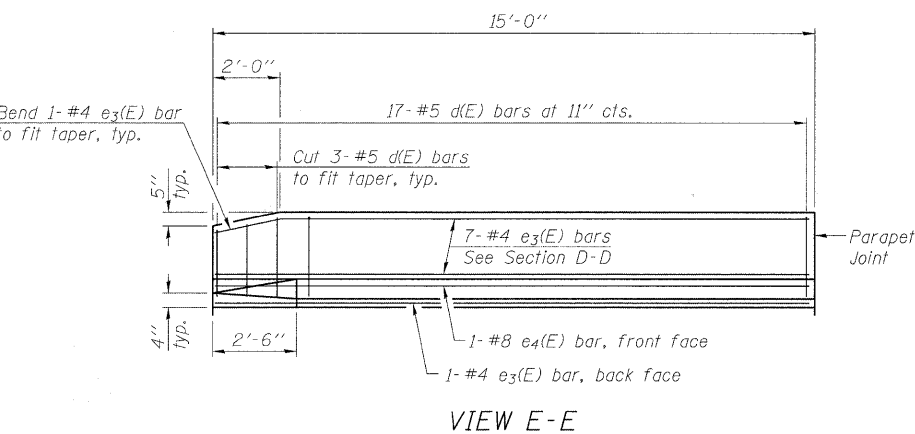


* Tilt #9 b3(E) bars as required to maintain clearance.
*** Cost included with Concrete Superstructure.



TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a4(E)	50	#4	18'-0"	U
a5(E)	92	#5	18'-0"	U
a6(E)	50	#4	20'-4"	U
a7(E)	92	#5	20'-4"	U
a8(E)	48	#6	6'-0"	U
b2(E)	68	#4	29'-8"	U
b3(E)	158	#9	29'-9"	U
b4(E)	4	#4	14'-8"	U
b5(E)	2	#4	13'-10"	U
b6(E)	2	#4	15'-8"	U
d(E)	68	#5	5'-7"	U
d2(E)	68	#5	7'-11"	U
e3(E)	32	#4	14'-8"	U
e4(E)	4	#8	14'-8"	U
t(E)	144	#4	11'-2"	U
w(E)	80	#5	18'-0"	U
w1(E)	80	#5	20'-4"	U
Concrete Superstructure		Cu. Yd.	67.3	
Concrete Structures		Cu. Yd.	12.1	
Reinforcement Bars, Epoxy Coated		Pound	28500	



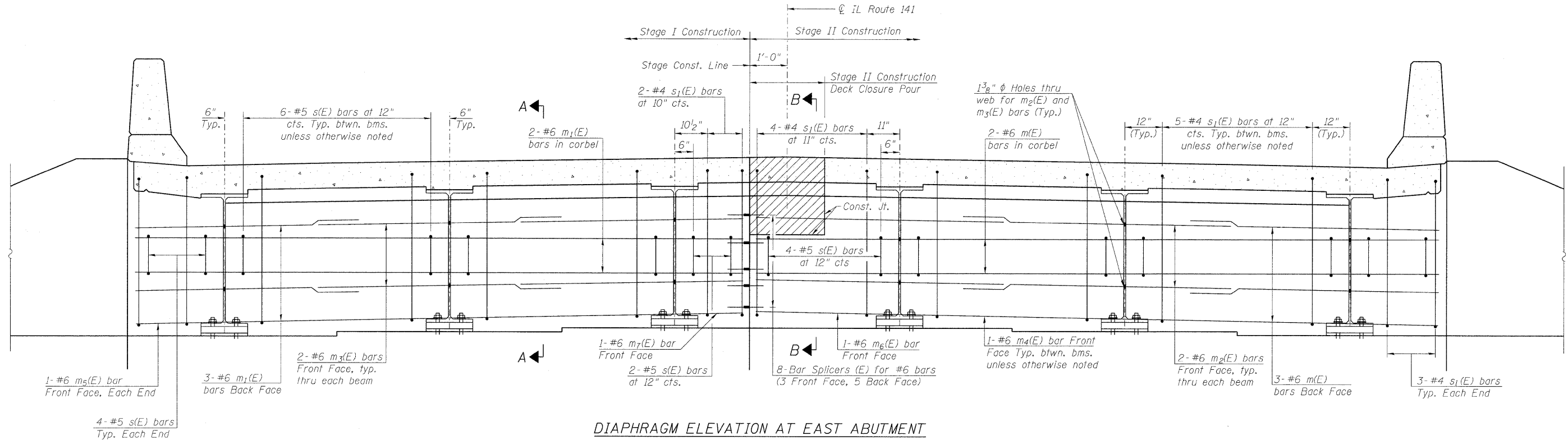
BAR d2(E)

BAR d(E)

BRIDGE APPROACH SLAB DETAILS-2
STRUCTURE NO. 097-0073

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 10	F.A.P. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 25
	17 SHEETS	CONTRACT NO. 78084				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

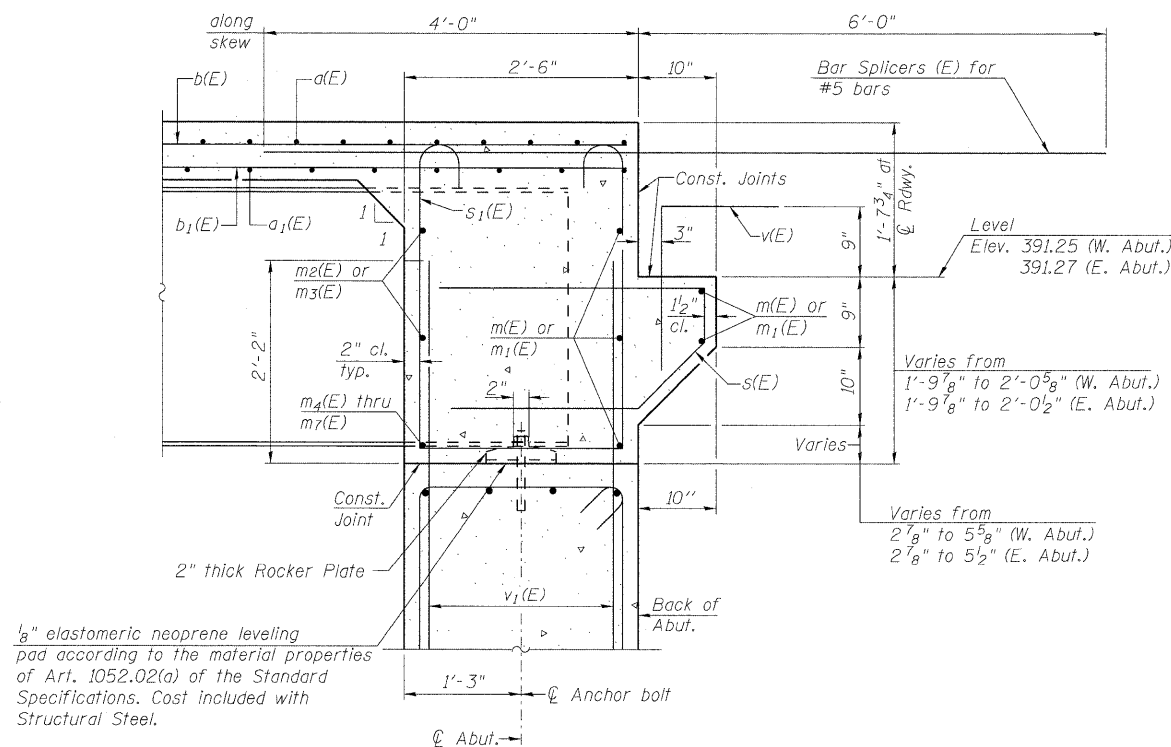


DIAPHRAGM ELEVATION AT EAST ABUTMENT

(Looking East)
(All horizontal dimensions at right angles to CL IL Rte 141)
(West Abutment mirrored about CL IL Rte 141)

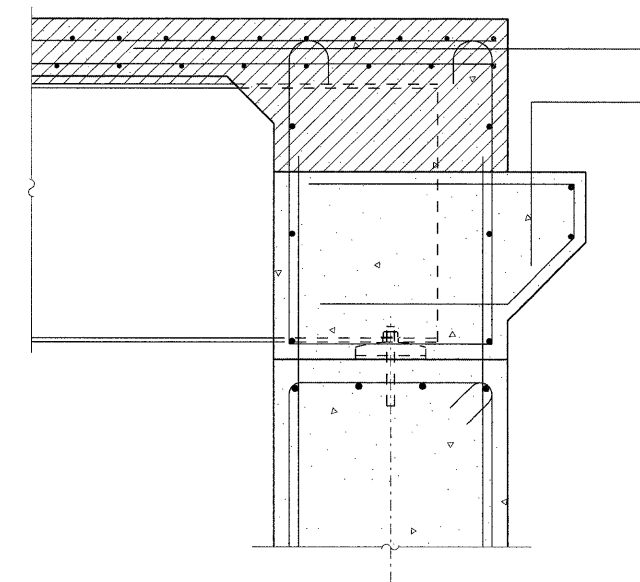
Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 8 of 17.
Concrete in diaphragm is included with Concrete Superstructure on sheet 8 of 17.
For details of bars s(E) & s₁(E) see sheet 8 of 17.
The s(E) and s₁(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
For location of holes thru web, see sheet 12 of 17.
Hatched area indicates block out to be poured during Stage II Construction Deck Closure Pour.

MIN. BAR LAP
#6 bar = 2'-9"



SECTION A-A

Dimensions at right angles to abutment, except as shown.

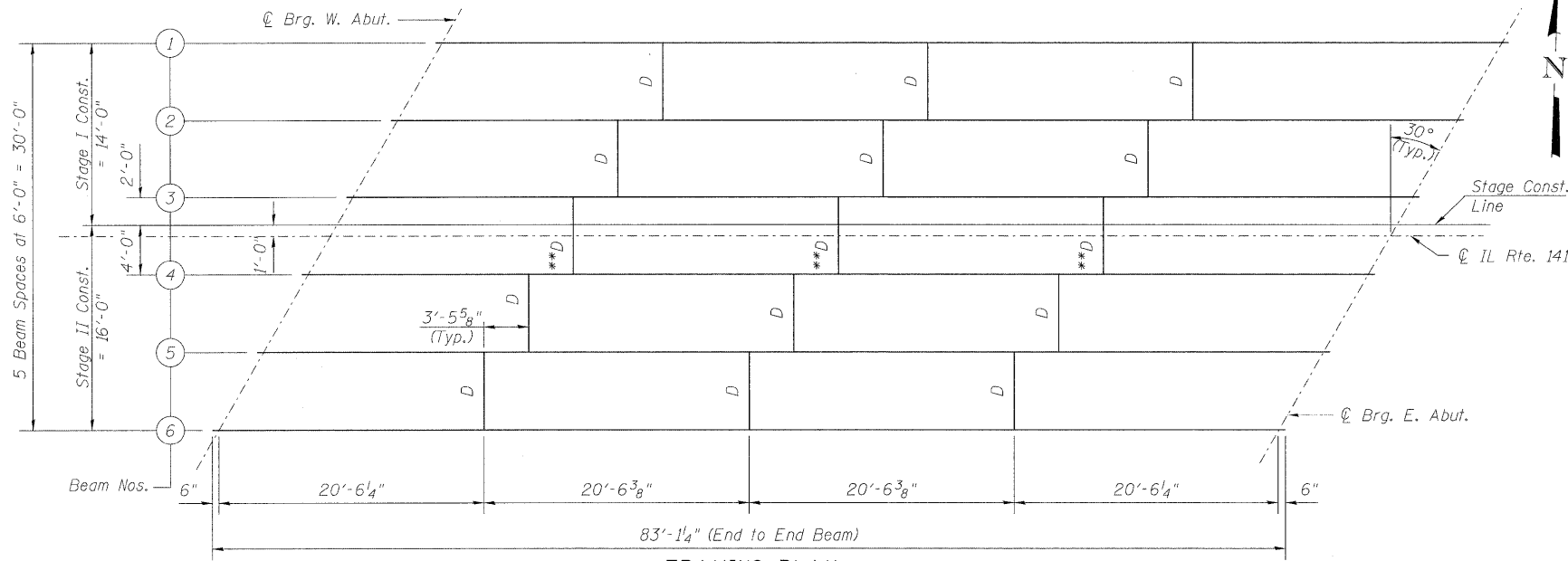


SECTION B-B

CONCRETE END DIAPHRAGMS
STRUCTURE NO. 097-0073

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p> <p>Designed By: SSL Checked By: ESH Drawn By: SSL Date: 3/2009 File: 097-0073.dgn</p>	SHEET NO. 11	F.A.P. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 26
	17 SHEETS	CONTRACT NO. 78084				
		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
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INTERIOR BEAM MOMENT TABLE		
0.5 Span		
I_s	(in ⁴)	8230
$I_c(n)$	(in ⁴)	23068
$I_c(3n)$	(in ⁴)	16026
S_s	(in ³)	541
$S_c(n)$	(in ³)	830
$S_c(3n)$	(in ³)	733
DC1	(k/')	0.838
MDC1	(k)	706
DC2	(k/')	0.150
MDC2	(k)	126
DW	(k/')	0.267
MDW	(k)	225
$M_L + IM$	(k)	1139
M_u (Strength I)	(k)	3371
$\phi_r M_n$	(k)	3692
f_s DC1	(ksi)	15.66
f_s DC2	(ksi)	2.06
f_s DW	(ksi)	3.68
f_s 1.3(L+IM)	(ksi)	21.41
f_s (Service II)	(ksi)	42.81
Vr	(k)	25.8

INTERIOR BEAM REACTION TABLE		
Abut.		
RDC1	(k)	35.2
RDC2	(k)	6.2
RDW	(k)	11.0
$R_L + IM$	(k)	83.1
RTotal	(k)	135.5

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 (in⁴ and in³).

$I_c(n), S_c(n)$: 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 (in⁴ and in³).

$I_c(3n), S_c(3n)$: 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 (in⁴ and in³).

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

MDC1: 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.).

MDC2: 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.).

MDW: 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.).

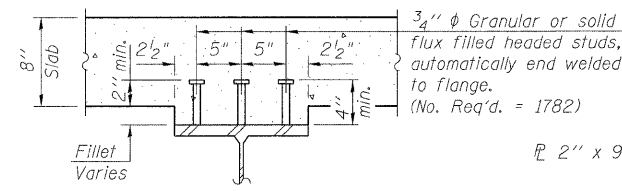
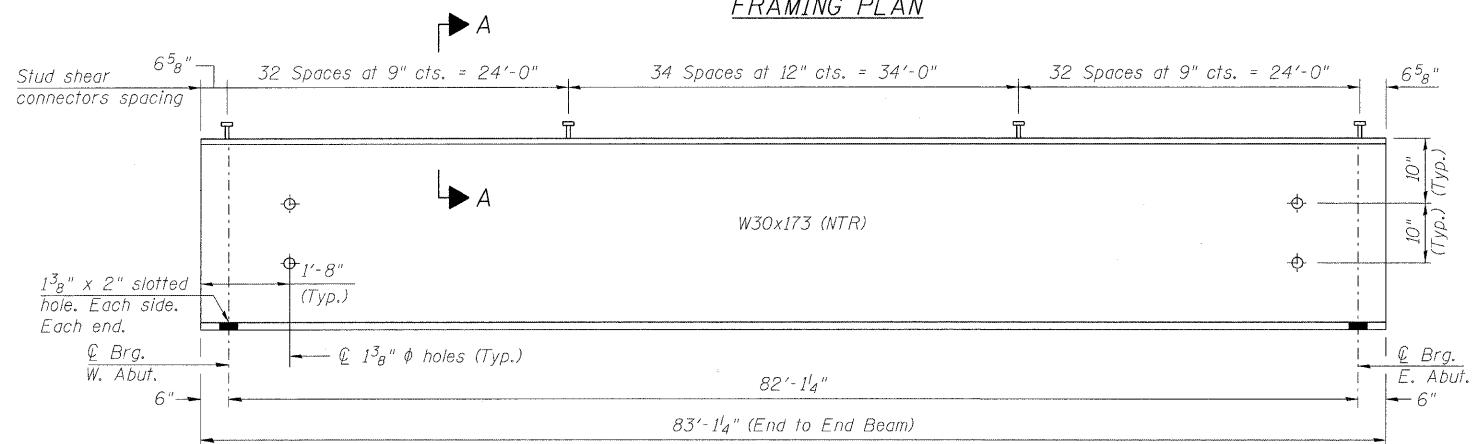
$1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 M_L + IM$

$\phi_r M_n$: 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).

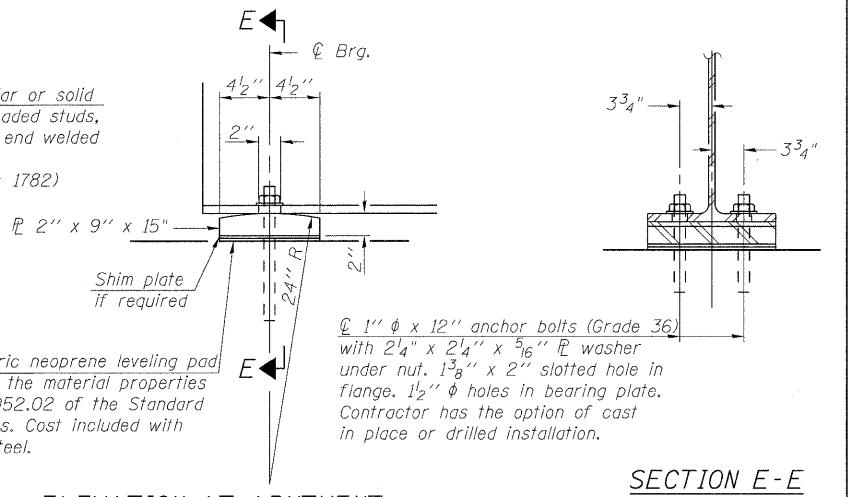
$MDC1 + MDC2 + MDW + 1.3 M_L + IM$

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



SHIM PLATES

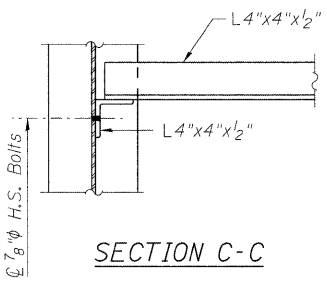
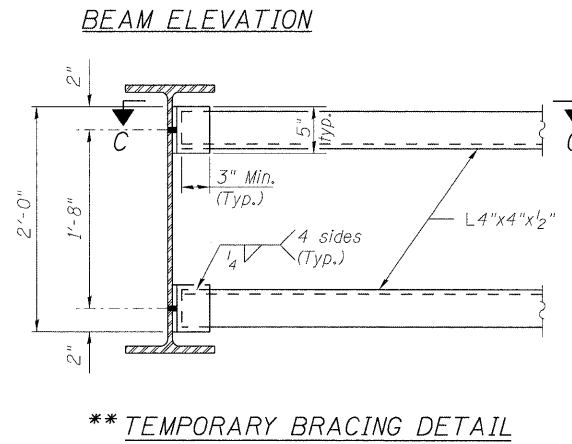
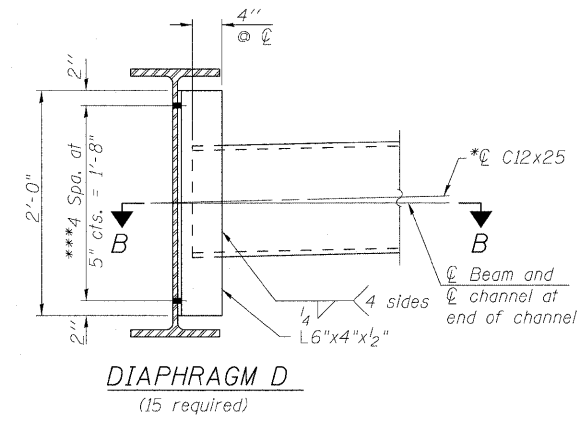
	Beam 3	Beam 4
West Abut.	8"	-
East Abut.	-	8"



FIXED BEARING

NOTES:

- All beams shall be W30x173 AASHTO M270 Grade 50W (NTR). All diaphragms and connecting angles shall be AASHTO M270 Grade 50W. All bearing plates shall be AASHTO M270 Grade 50W.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted.
- Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- Structural steel for temporary bracing shall be AASHTO M270 Grade 36 and is not required to be painted. Cost included with Structural Steel.

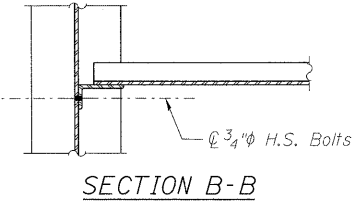


SECTION C-C

Notes:
Two hardened washers required for each set of oversized holes.
* C12x30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on C12x25. The alternate, if utilized, shall be provided at no additional cost to the Department.
** Temporary Bracing shall be provided during Stage II Construction and replaced with diaphragm after pouring Deck Closure Pour.
*** 3/4" phi H.S. Bolts, 1 5/16" phi Holes.

TOP OF BEAM ELEVATIONS
(For Fabrication Only)

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
☉ Brg. W. Abut.	391.97	392.07	392.15	392.14	392.04	391.91
☉ Brg. E. Abut.	391.94	392.06	392.16	392.17	392.08	391.98

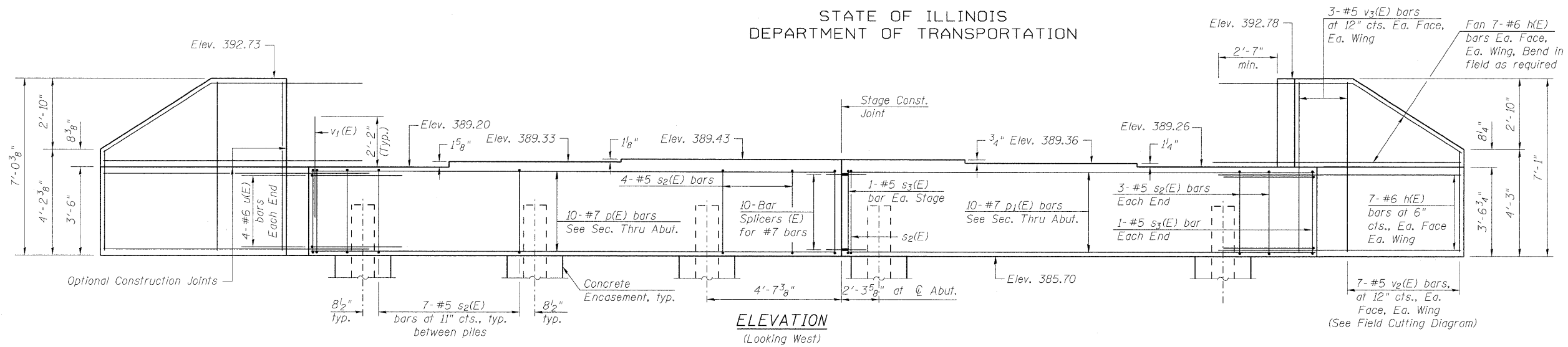


SECTION B-B

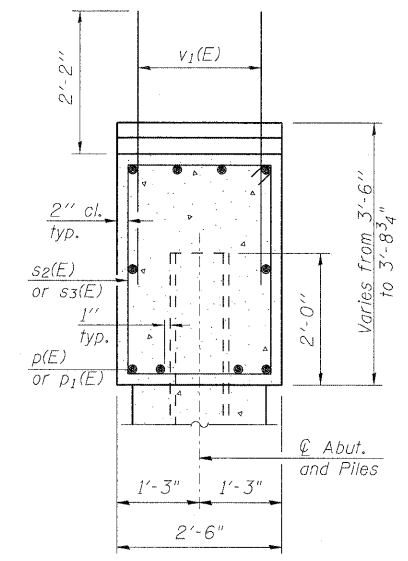
FRAMING PLAN & STEEL DETAILS
STRUCTURE NO. 097-0073

	SHEET NO. 12	F.A.P. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 27
	17 SHEETS	CONTRACT NO. 78084				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT						

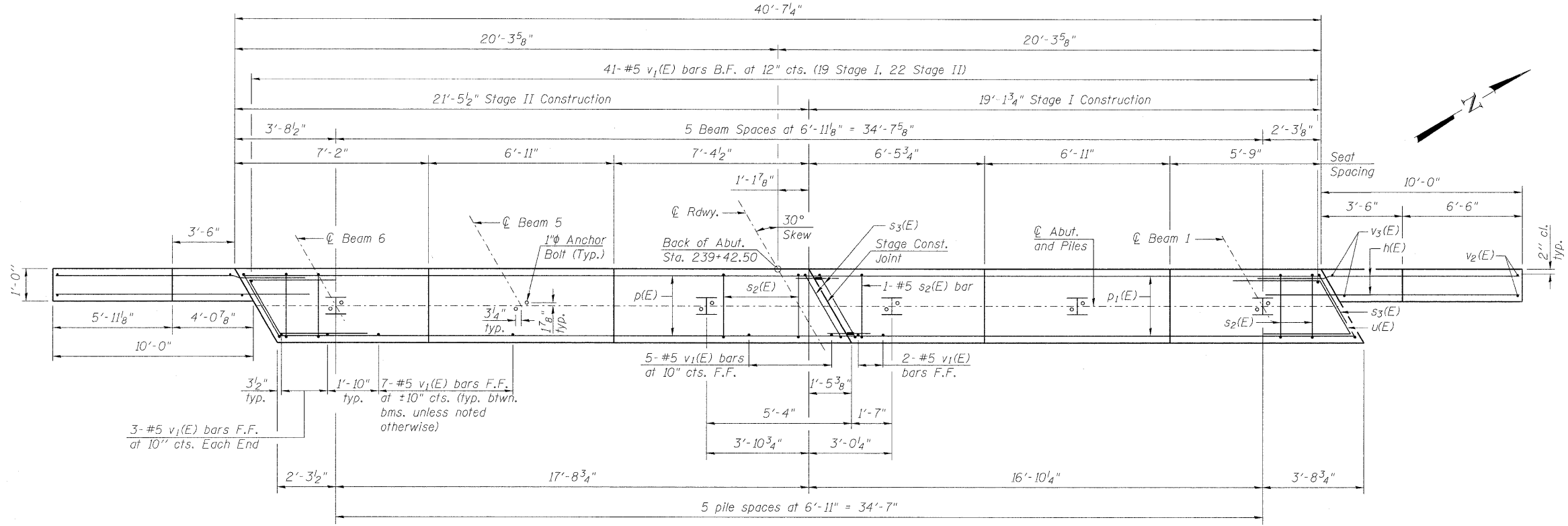
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION
(Looking West)



SEC. THRU ABUT.
(Dimensions at Rt. L.s)

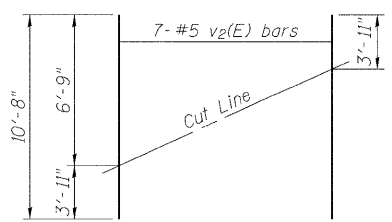


PLAN

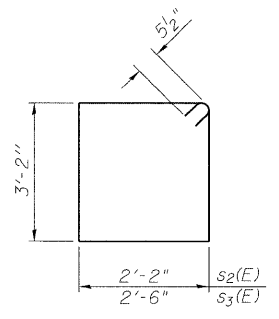
PILE DATA

Type: Steel HP 12x63
Nominal Required Bearing: 497 kips
Factored Resistance Available: 249 kips
Est. Length: 38'
No. Production Piles: 5
No. Test Piles: 1

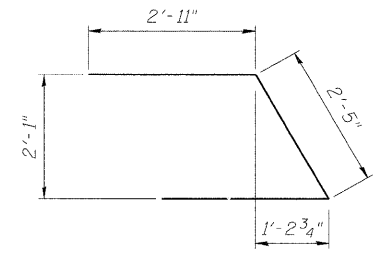
Notes:
Pour steps monolithically with cap.
Space reinforcement in cap to miss Anchor Bolts.



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



BARS s2(E) & s3(E)



BAR u(E)

BILL OF MATERIAL

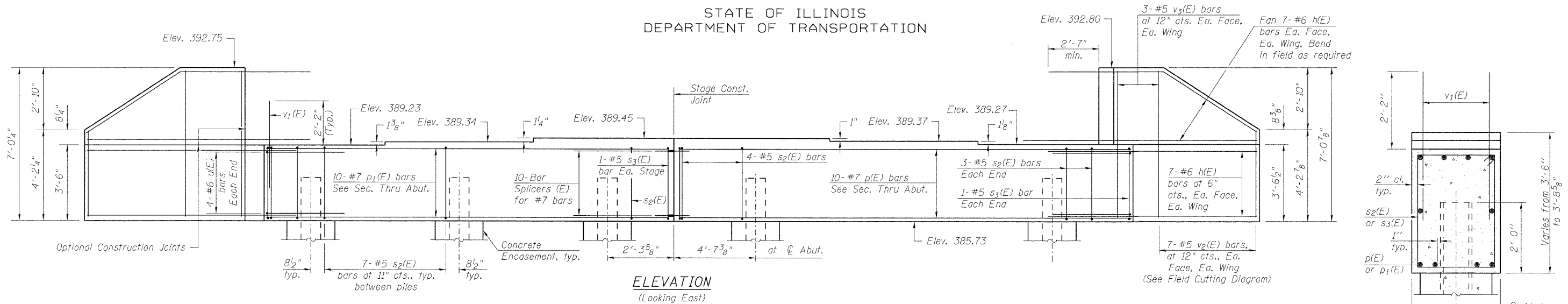
Bar No.	Size	Length	Shape
h(E)	56 #6	12'-10"	
p(E)	10 #7	21'-2"	
p1(E)	10 #7	18'-10"	
s2(E)	39 #5	11'-7"	□
s3(E)	4 #5	12'-3"	□
u(E)	8 #6	8'-3"	└
v1(E)	82 #5	4'-4"	
v2(E)	14 #5	10'-8"	
v3(E)	12 #5	6'-9"	
Structure Excavation	Cu. Yd.	138.5	
Concrete Structures	Cu. Yd.	18.2	
Reinforcement Bars, Epoxy Coated	Pound	3130	
Furnishing Steel Piles, HP 12x63	Foot	190	
Test Pile Steel, HP 12x63	Each	1	
Driving Piles	Foot	190	
Concrete Encasement	Cu. Yd.	2.1	
Anchor Bolts, 1"	Each	12	

For details of Bar Splicers, see sheet 15 of 17.
For details of piles and Concrete Encasement, see sheet 16 of 17.
For details of Integral Abutment Bearing, see sheet 12 of 17.
For drainage details, see Section Thru Integral Abutment on sheet 2 of 17.

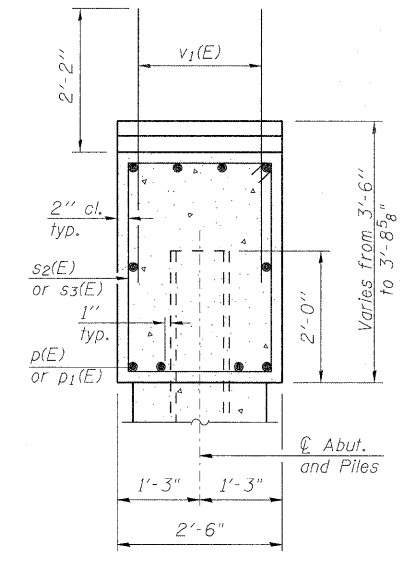
**WEST ABUTMENT
STRUCTURE NO. 097-0073**

LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois Designed By: SDL Checked By: ESH Drawn By: SDL Date: 3/2009 File: 097-0073.dgn	SHEET NO. 13	F.A.P. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 28
	17 SHEETS	CONTRACT NO. 78084				
		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

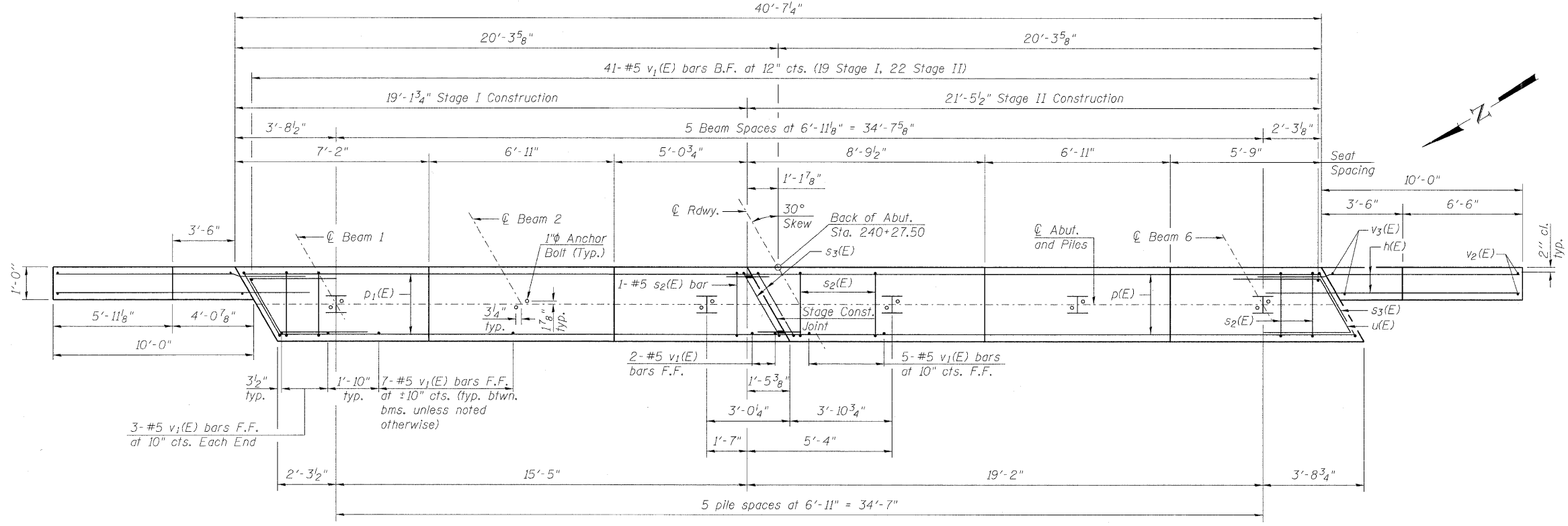
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION
(Looking East)



SEC. THRU ABUT.
(Dimensions at Rt. Ls)



PLAN

BILL OF MATERIAL

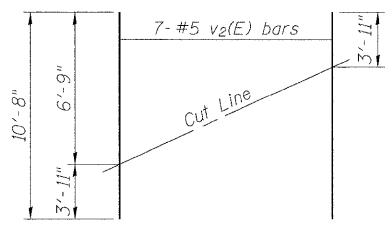
Bar	No.	Size	Length	Shape
h(E)	56	#6	12'-10"	
p(E)	10	#7	21'-2"	
p1(E)	10	#7	18'-10"	
s2(E)	39	#5	11'-7"	□
s3(E)	4	#5	12'-3"	□
u(E)	8	#6	8'-3"	∩
v1(E)	82	#5	4'-4"	
v2(E)	14	#5	10'-8"	
v3(E)	12	#5	6'-9"	
Structure Excavation		Cu. Yd.	138.5	
Concrete Structures		Cu. Yd.	18.2	
Reinforcement Bars, Epoxy Coated		Pound	3130	
Furnishing Steel Piles, HP 12x63		Foot	135	
Test Pile Steel, HP 12x63		Each	1	
Driving Piles		Foot	135	
Concrete Encasement		Cu. Yd.	2.1	
Anchor Bolts, 1"		Each	12	

For details of Bar Splicers, see sheet 15 of 17.
For details of piles and Concrete Encasement, see sheet 16 of 17.
For details of Integral Abutment Bearing, see sheet 12 of 17.
For drainage details, see Section Thru Integral Abutment on sheet 2 of 17.

PILE DATA

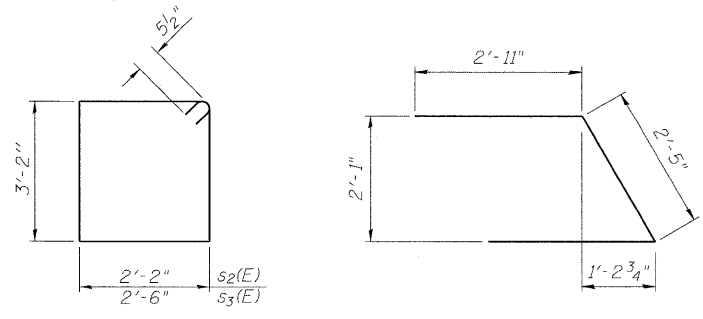
Type: Steel HP 12x63
Nominal Required Bearing: 497 kips
Factored Resistance Available: 249 kips
Est. Length: 27'
No. Production Piles: 5
No. Test Piles: 1

Notes:
Pour steps monolithically with cap.
Space reinforcement in cap to miss Anchor Bolts.



FIELD CUTTING DIAGRAM

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



BARS s2(E) & s3(E)

BAR u(E)

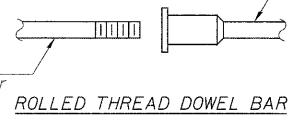
LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois <small>Designed By: SGL, Checked By: ESH, Drawn By: SGL, Date: 3/2009, File: 097-0073.dgn</small>	SHEET NO. 14	F.A.P. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 29
	17 SHEETS	CONTRACT NO. 78084			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

**EAST ABUTMENT
STRUCTURE NO. 097-0073**

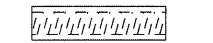
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

The diameter of this part is the same as the diameter of the bar spliced.

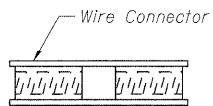
The diameter of this part is equal or larger than the diameter of bar spliced.



ROLLED THREAD DOWEL BAR



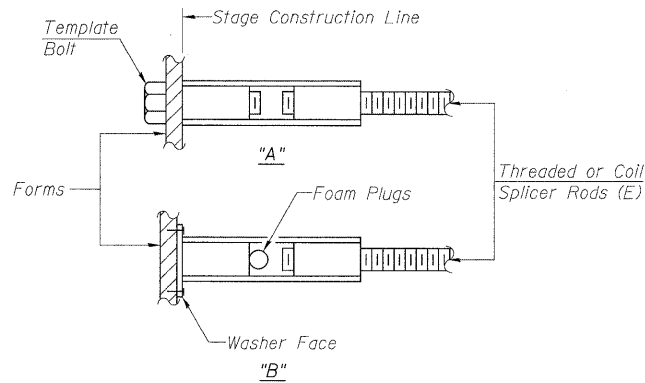
** ONE PIECE



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

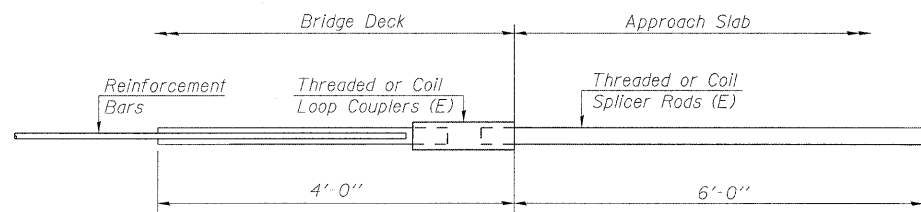
"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

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:

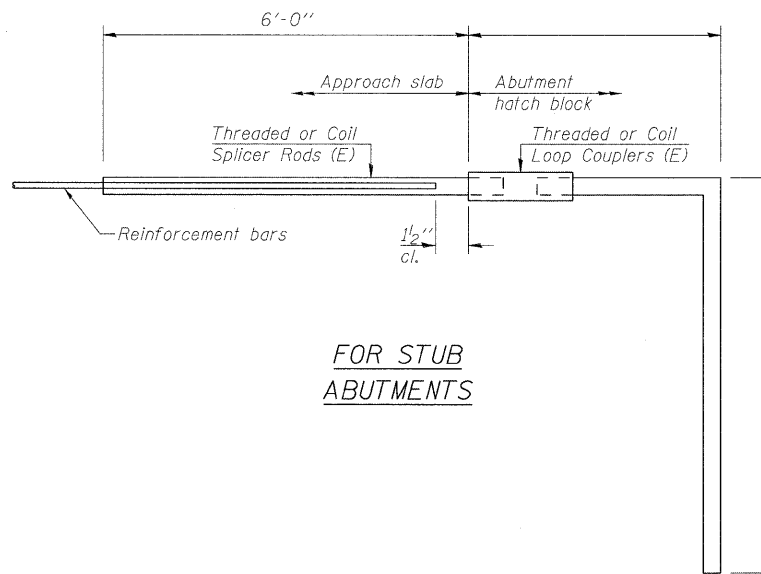
- ① Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_t$
(Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



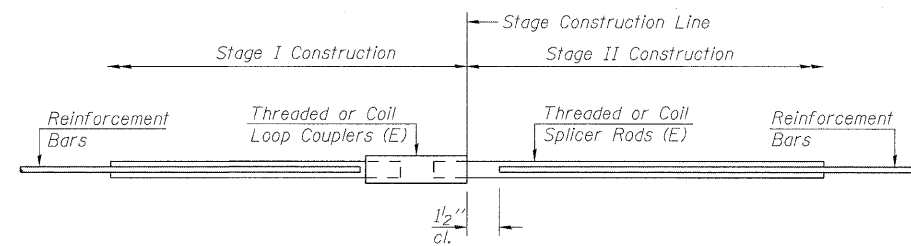
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 66



FOR STUB ABUTMENTS

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



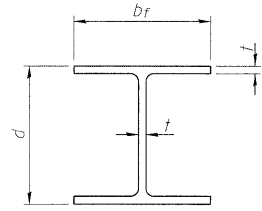
STANDARD

Bar Size	No. Assemblies Required	Location
#4	50	Approaches
#5	172	Approaches
#5	498	Deck
#6	16	Diaphragms
#7	20	Abutments

BAR SPLICER ASSEMBLY DETAILS
STRUCTURE NO. 097-0073

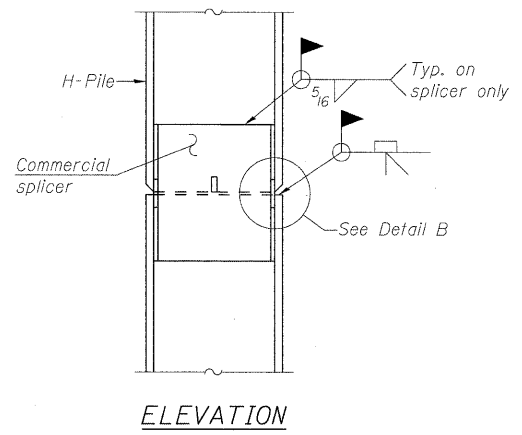
<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 15 17 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		877	101B-1	WHITE	42	30
		CONTRACT NO. 78084				
		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

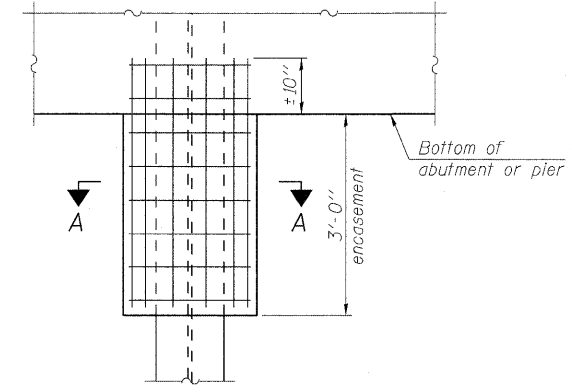


STEEL PILE TABLE

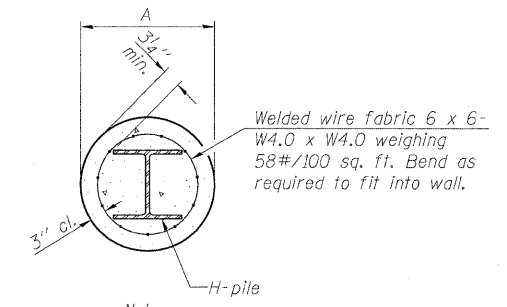
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/2"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11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

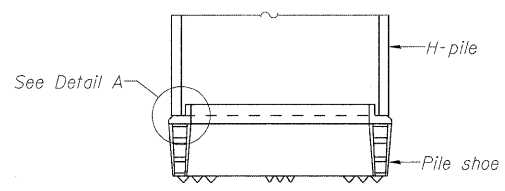


ELEVATION

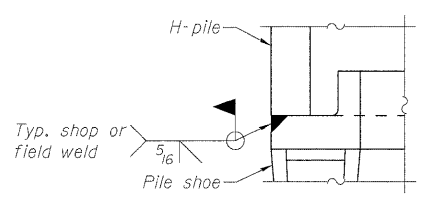


SECTION A-A

PILE ENCASEMENT

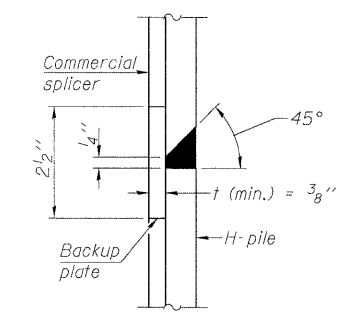


ELEVATION

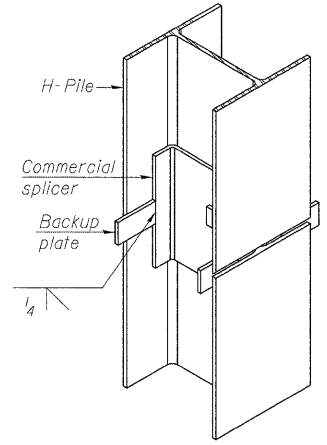


DETAIL A

H-PILE SHOE ATTACHMENT

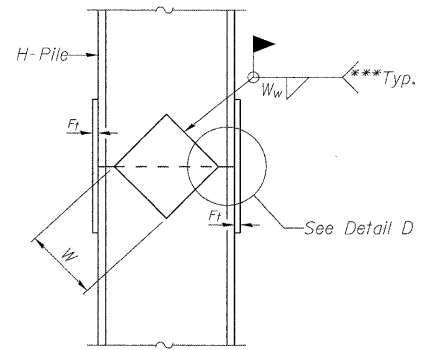


DETAIL "B"

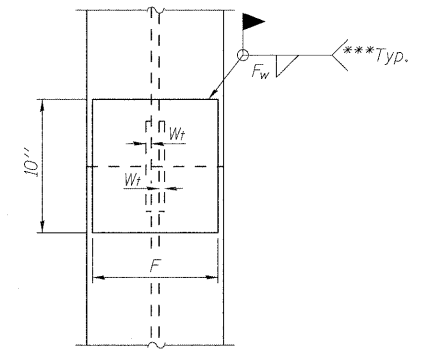


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

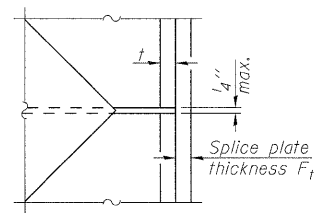


ELEVATION



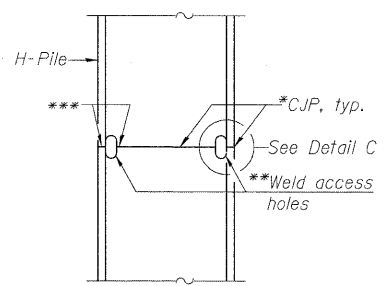
END VIEW

Designation	F	Ft	Fw	W	Wt	Ww
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"	1/16"	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"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	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"

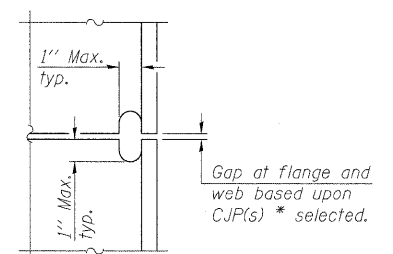


DETAIL D

WELDED PLATE FIELD SPLICE



ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE

- * Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- ** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- *** Interrupt welds 1/4" from end of each pile.

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

LIN ENGINEERING, LTD.
Consulting Engineers
Chatham, Illinois

Designed By: SSL
Checked By: ESH
Date: 3/2009
Files: 097-0073.dgn

SHEET NO. 16
17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
877	101B-1	WHITE	42	31
CONTRACT NO. 78084				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

STEEL PILE DETAILS
STRUCTURE NO. 097-0073

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation
Boring Log

FAP 877 (IL 141) Over Trib Cane Creek
Route: FAP 877 (IL 141) Structure Number: 097-0037 Date: 10/3/2007
Section 101-BR-3 Bored By: RM
County: White Location: T7S, R9E, Sec 16 Checked By: RM

Boring No 1-S	D E P T H	B L O W S	Qu tsf	W%	Surf Wat Elev: 375.0	D E P T H	B L O W S	Qu tsf	W%	Ground Water Elevation when Drilling 362.5	At Completion	At: Hrs:
Asphalt, Concrete and soil					375.0		2	0.9B	33			
					365.5		3					
Medium, moist to very moist, brown mottled grey, Silty Clay to Silty Clay Loam A-6		1					1					
		2	0.8B	23			2	0.7B	24			
		2					1					
					388.0							
Stiff, moist, grey mottled brown, Silty Clay Loam A-4	5.0	2				30.0	1					
		4	1.7S	18			1	0.9B	22			
		5					2					
					360.5							
		1					1					
		3	1.1S	20			1	0.7B	23			
		4					2					
					380.5							
		1				35.0	1					
		3	1.2B	22			2	0.8B	22			
		4					2					
					380.5							
Medium to stiff, very moist, grey mottled brown, Silty Clay A-6		1			355.0		8					
		2	1.0B	23			22					
		3					48					
					353.0							
		1				40.0	100/2"					
		2	0.7B	26								
		3										
		1										
		2	0.9B	27								
		2										
					373.0							
Stiff, very moist, grey mottled brown, Clay to Silty Clay A7-6	20.0	1				45.0	100/3"					
		2	1.6B	28								
		2										
					370.5							
Medium, very moist, grey mottled brown, Clay to Silty Clay A7-6		1										
		2	0.7B	30								
		2										
					368.0							
	25.0	1				342.5	50.0	100/3"				

N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials


Bridge Foundation
Boring Log

FAP 877 (IL 141) Over Trib Cane Creek
Route: FAP 877 (IL 141) Structure Number: 097-0037 Date: 10/3/2007
Section 101-BR-3 Bored By: RM
County: White Location: T7S, R9E, Sec 16 Checked By: RM

Boring No 2-S	D E P T H	B L O W S	Qu tsf	W%	Surf Wat Elev: 375.0	D E P T H	B L O W S	Qu tsf	W%	Ground Water Elevation when Drilling 367.5	At Completion	At: Hrs:
Asphalt, Concrete and Aggregate					375.0							
					365.5							
Stiff to medium, moist to very moist, grey, Silty Clay Loam A-6		2					13		15			
		5	1.1S	16			13					
		5										
					380.0							
		3					4					
		5					7	4.1S	20			
					380.0		6					
		3					30.0					
		3	0.9S	23								
		3										
					380.0							
		3	1.1S	21								
		3										
					357.5	35.0	100/2"					
		3	1.1S	22								
		3										
					380.5							
Medium, very moist, grey mottled brown, Silty Clay A-6		1										
		2	0.9B	23								
		3										
					378.0							
Stiff, very moist, grey mottled brown, Silty Clay A-6	15.0	1										
		2	1.5B	25								
		3										
					373.0							
		1										
		2	1.4B	25								
		2										
					370.5							
Medium, very moist, brown mottled grey, Silty Clay A-6	20.0	1										
		2	0.7B	26								
		2										
					370.5							
Medium, very moist, brown mottled grey, Sandy Clay Loam A-4		2										
		5	0.8S	18								
		11										
					367.5	25.0	10					

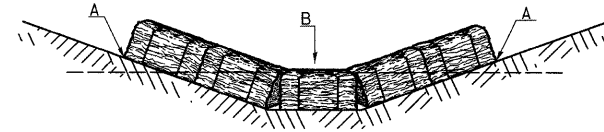
N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

SOIL BORINGS
STRUCTURE NO. 097-0073

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 17	F.A.P. RTE. 877	SECTION 101B-1	COUNTY WHITE	TOTAL SHEETS 42	SHEET NO. 32
	17 SHEETS	CONTRACT NO. 78084				
	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

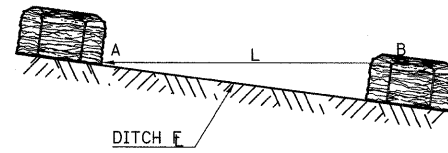
TEMPORARY DITCH CHECKS

PLACEMENT OF TEMPORARY STRAW BALE DITCH CHECK IN DRAINAGEWAY



POINTS A SHOULD BE HIGHER THAN POINT B

SPACING BETWEEN TEMPORARY DITCH CHECKS

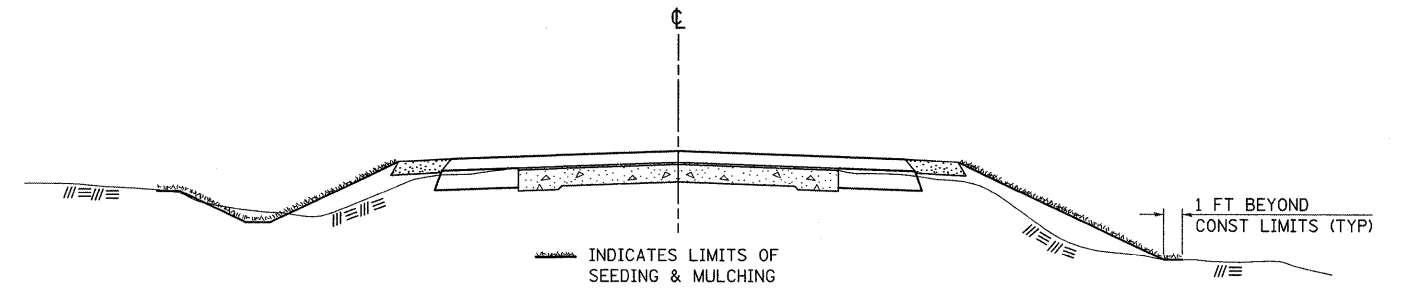


L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION
 B = THE LOW POINT IN CENTER OF CHECK

REVISIONS	
DRAWN	9-01-99
REVISED	10-5-01
REVISED	
REVISED	

STD. 9-108

SEEDING & MULCHING



GENERAL NOTES

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED AND MULCHED UPON COMPLETION OF ALL GRADING OPERATIONS.

FERTILIZER NUTRIENTS AND LIMESTONE SHALL BE APPLIED TO ALL SEEDED AREAS.

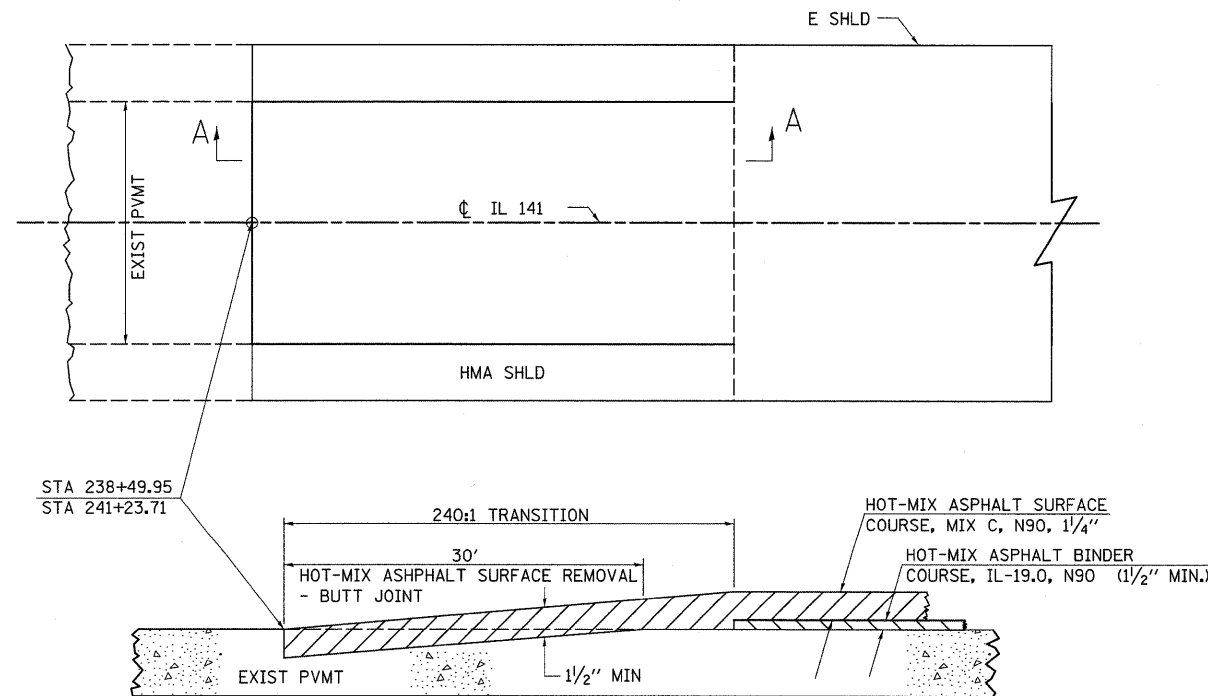
THE RATES OF APPLICATION OF FERTILIZER, MULCH AND LIMESTONE SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS.

SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
REVISED	6-3-99
REVISED	

STD. 9-12

BUTT JOINT



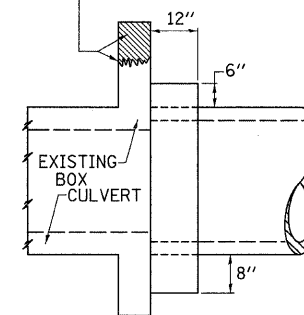
SECTION A-A

REVISIONS	
DRAWN	10-17-90
REVISED	
REVISED	
REVISED	

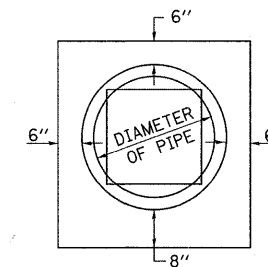
STD. 9-86

DETAILS OF CONCRETE COLLAR

REMOVE PORTION OF EXIST HEADWALL DOWN TO 12" BELOW FINISHED GRADE.



SIDE VIEW



END VIEW

TABULATION

DIAMETER OF PIPE	CL SI CONC CU YDS EST
12"	0.16
15"	0.19
18"	0.21
24"	0.29
30"	0.37
36"	0.44
42"	0.53
48"	0.62
54"	0.71
60"	0.81
72"	1.03

THE CONCRETE COLLAR SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CONCRETE COLLAR, AS SHOWN ON THE PLANS, WHICH PRICE SHALL INCLUDE THE REMOVAL OF SUCH PORTIONS OF THE EXISTING HEADWALLS AS MAY BE REQUIRED.

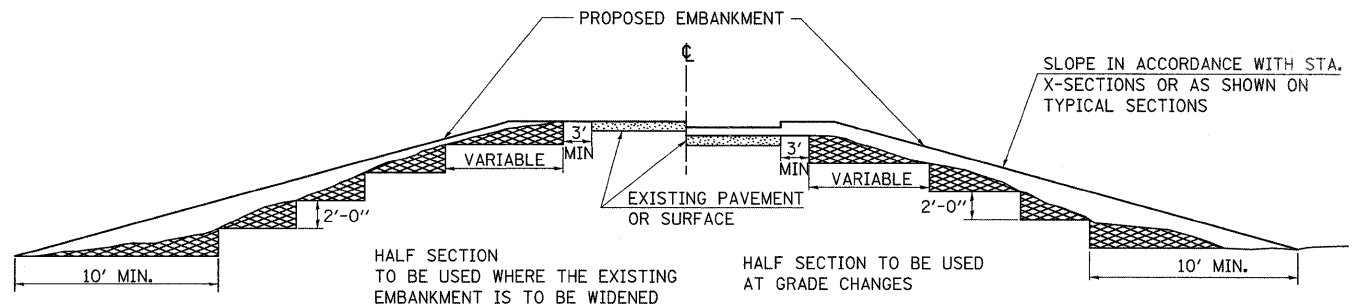
CLASS SI CONCRETE SHALL BE USED THROUGHOUT.


REVISIONS	
REDRAWN	2-15-89
REVISED	8-19-94
REVISED	
REVISED	

STD. 9-19

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS IL 141 OVER TRIBUTARY TO CANE CREEK			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*FILE#		DRAWN -	REVISED -		877	101B-1	WHITE	42	33			
PLOT SCALE = #SCALE#		CHECKED -	REVISED -		CONTRACT NO. 78084							
PLOT DATE = #DATE#		DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
				SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.			

**TYPICAL CROSS SECTION SHOWING
STEP CONSTRUCTION ON EXISTING FILL**



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

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
CHECKED	6-3-89
REVISED	

STD. 9-16

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

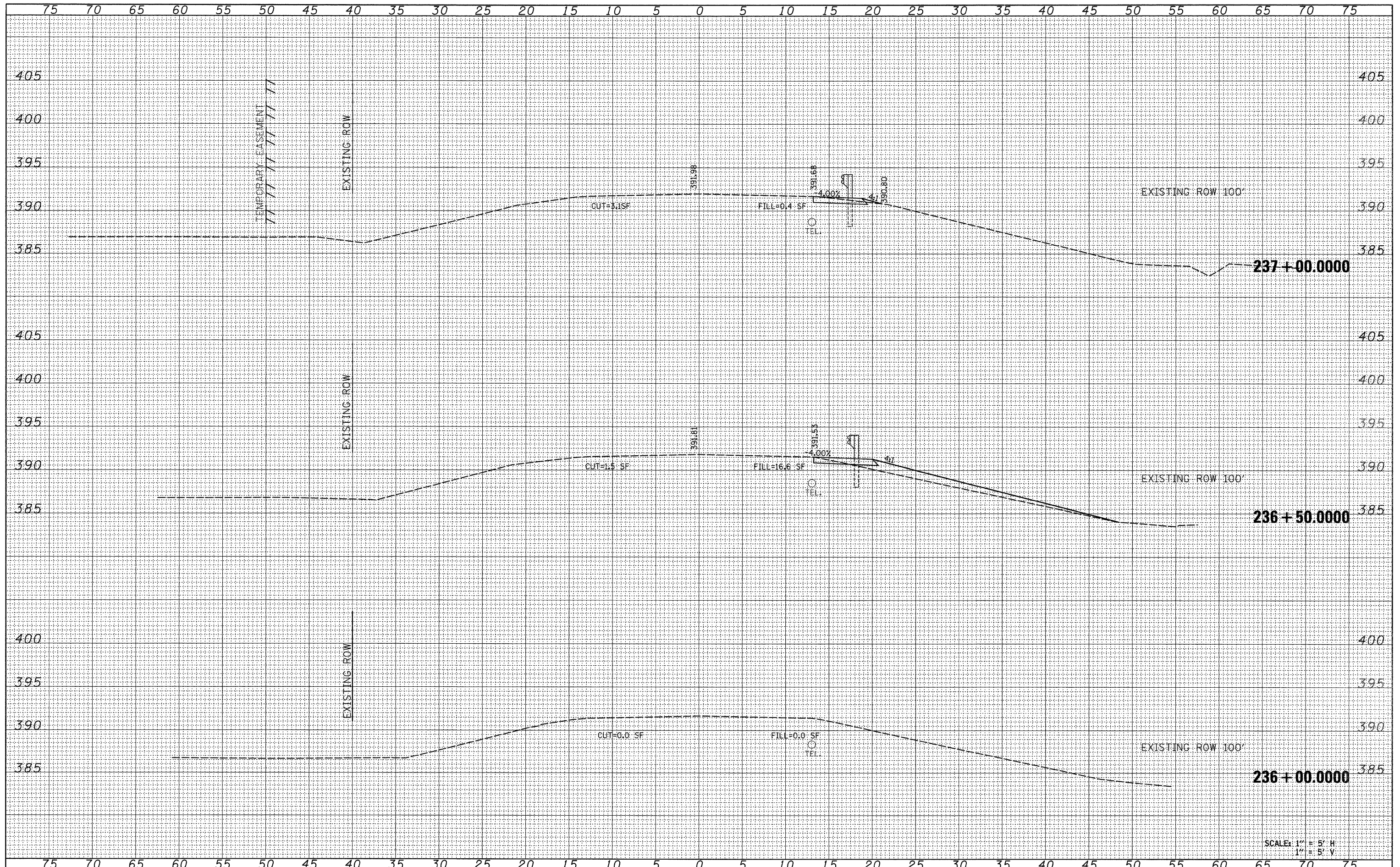
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAILS			
IL 141 OVER TRIBUTARY TO CANE CREEK			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
877	101B-1	WHITE	42	34
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78084	

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

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



SCALE: 1" = 5' H.
1" = 5' V.

FILE NAME =
FILE#

USER NAME = *USER*	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = *SCALE*	CHECKED -	REVISED -
PLOT DATE = *DATE*	DATE -	REVISED -

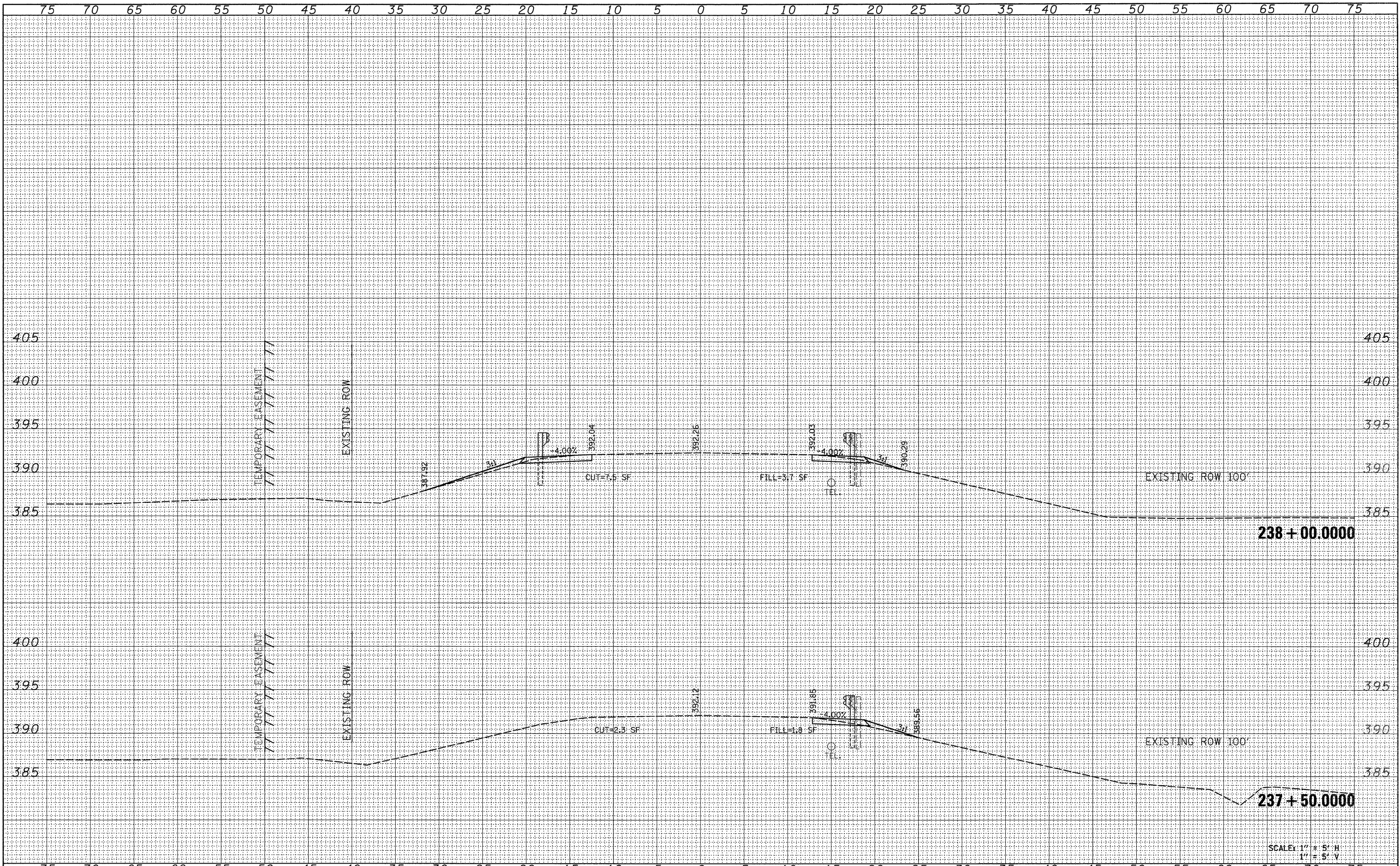
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS			
IL 141 OVER TRIBUTARY TO CANE CREEK			
SCALE:	SHEET NO.	OF SHEETS	STA. 236+00.0000 TO STA. 237+00.0000

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
877	101B-1	WHITE	42	35
CONTRACT NO. 78084				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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

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



SCALE: 1" = 5' H
1" = 5' V

FILE NAME =
#FILE#

USER NAME = *USER*
DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISIED -
REVISIED -
REVISIED -
REVISIED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

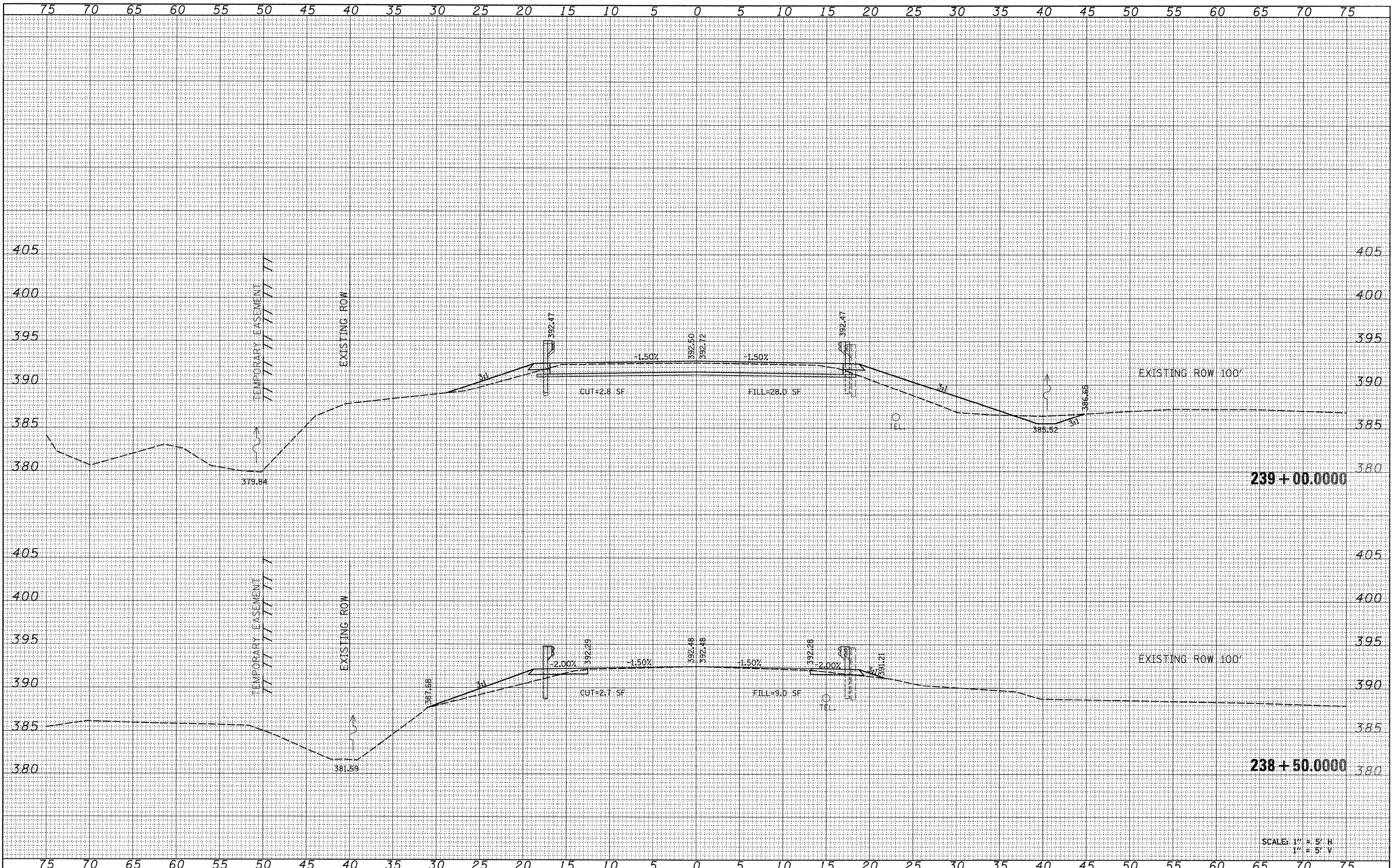
CROSS SECTIONS
IL 141 OVER TRIBUTARY TO CANE CREEK
SCALE: SHEET NO. OF SHEETS STA. 237+50.0000 TO STA. 238+00.0000

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
877	101B-1	WHITE	42	36
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 78084

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

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



FILE NAME =
 \$FILEL*

USER NAME = \$USER*
 DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

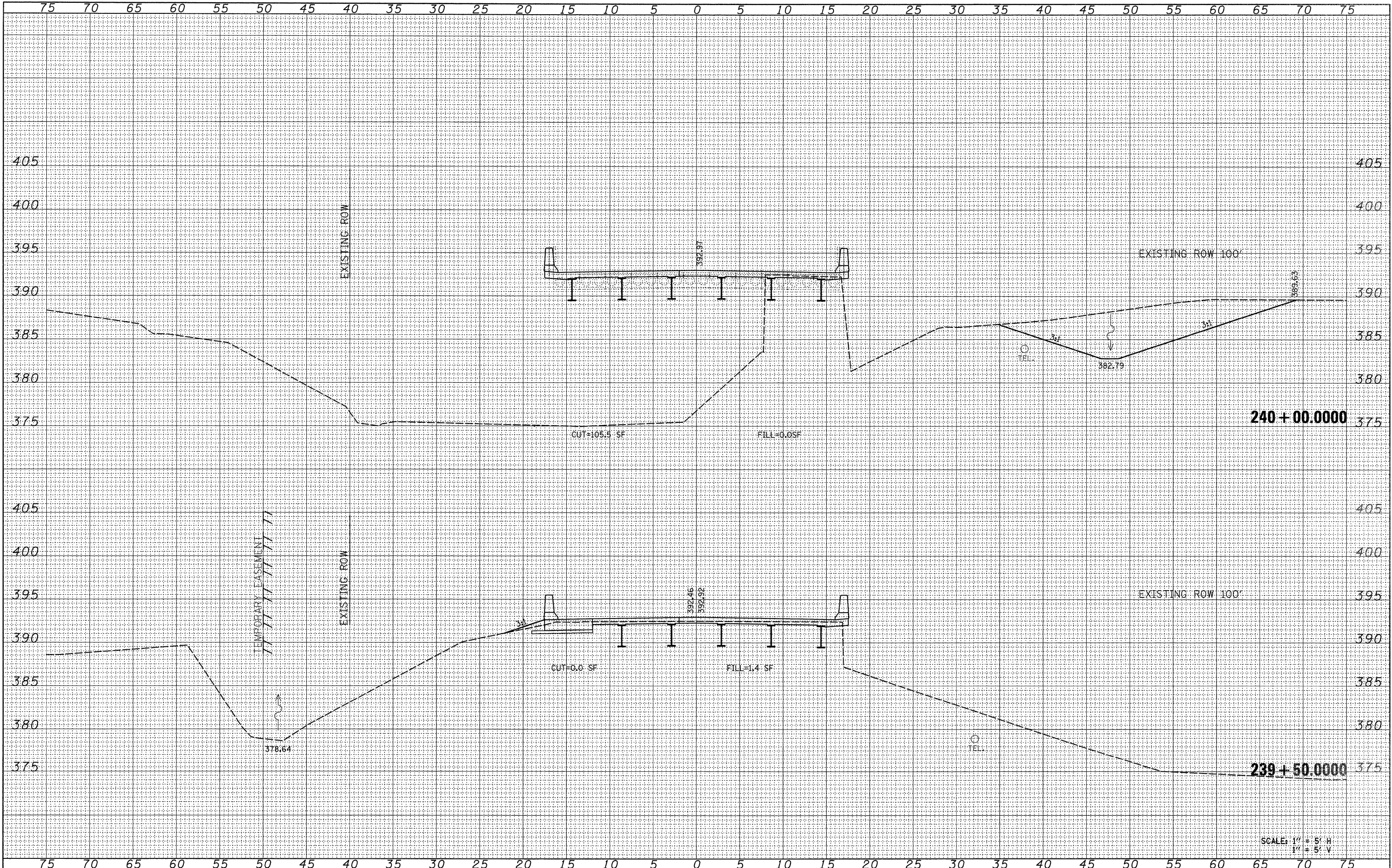
**CROSS SECTIONS
 IL 141 OVER TRIBUTARY TO CANE CREEK**

SCALE: SHEET NO. OF SHEETS STA. 238+50.0000 TO STA. 239+00.0000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
877	101B-1	WHITE	42	37
WHITE/GALLATIN			CONTRACT NO. 78084	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



240 + 00.0000

239 + 50.0000

SCALE: 1" = 5' H
1" = 5' V

FILE NAME =	
FILE#	

USER NAME = *USER*	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = *SCALE*	CHECKED -	REVISED -
PLOT DATE = *DATE*	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

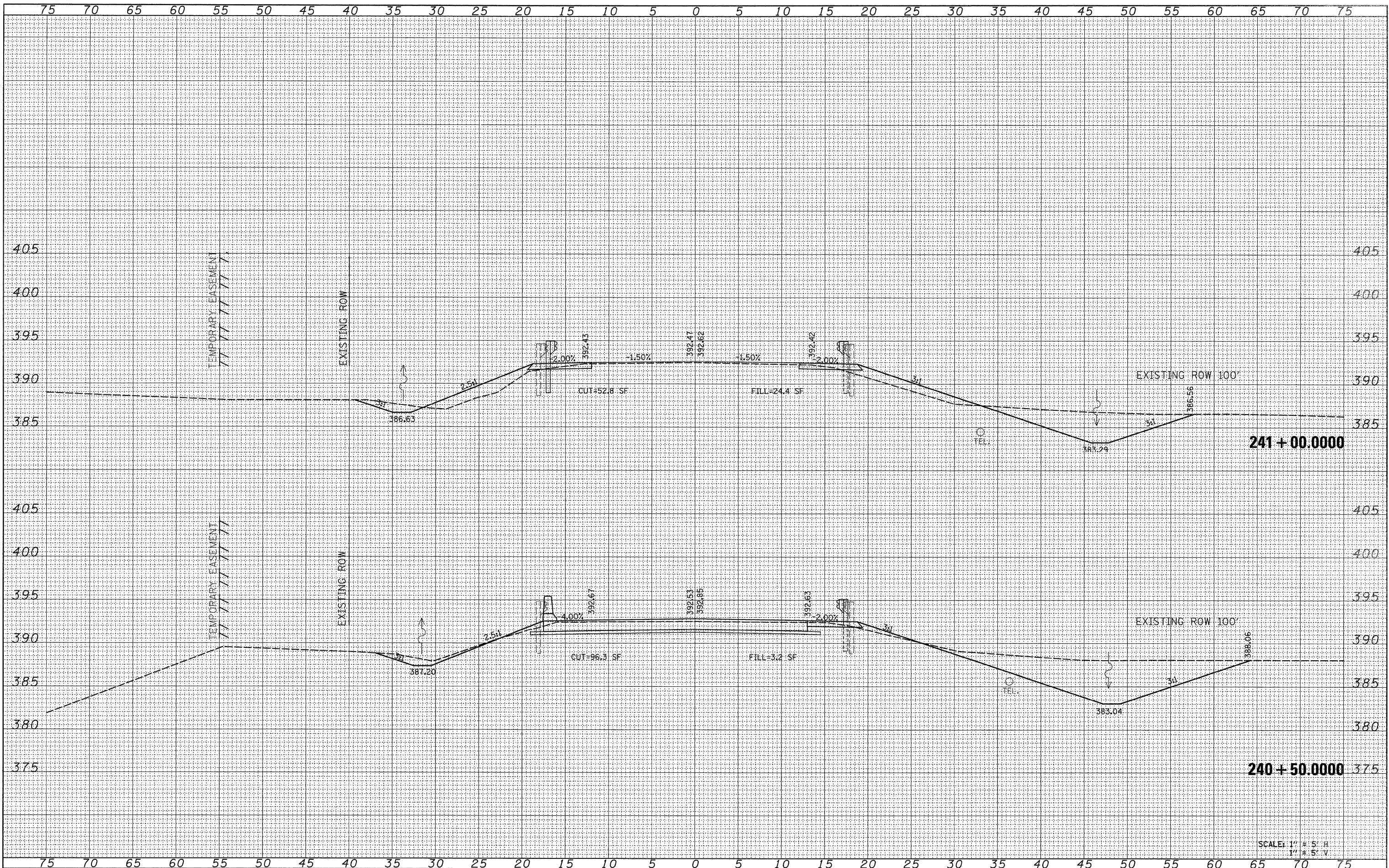
CROSS SECTIONS
IL 141 OVER TRIBUTARY TO CANE CREEK

SCALE:	SHEET NO.	OF	SHEETS	STA. 239+50.0000 TO STA. 240+00.0000
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
877	101B-1	WHITE	42	38
WHITE/GALLATIN		CONTRACT NO.	78084	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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

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

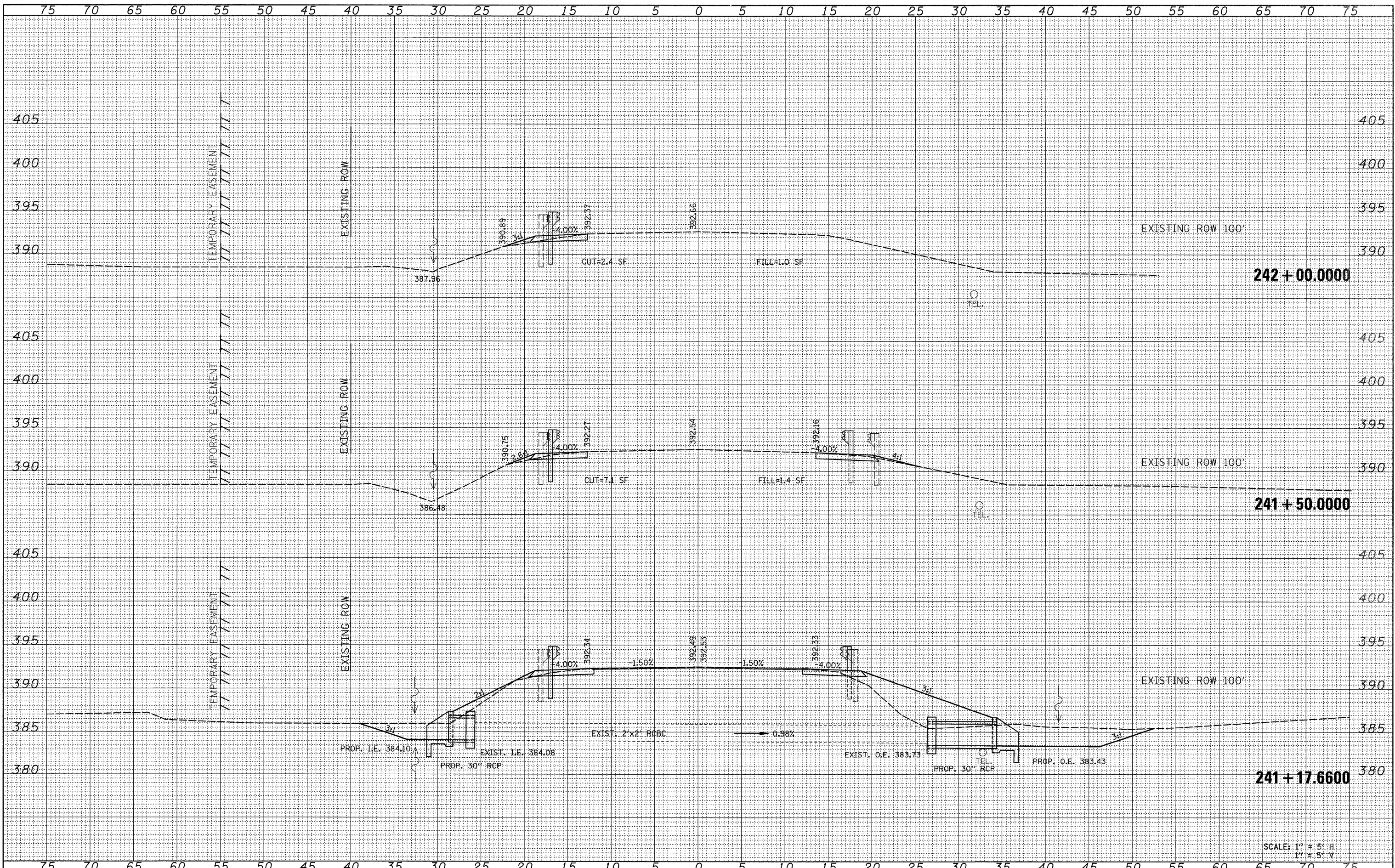


SCALE: 1" = 5' H
1" = 5' V

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS IL 141 OVER TRIBUTARY TO CANE CREEK			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE#		DRAWN -	REVISED -		877	101B-1	WHITE	42	39			
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -		WHITE/GALLATIN			CONTRACT NO. 78084				
	PLOT DATE = #DATE#	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. 240+50.0000 TO STA. 241+00.0000	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

BY	DATE
SURVEYED	
PLOTTED	
IN DATE	
AREAS CHECKED	
AREAS	
NO.	

BY	DATE
SURVEYED	
PLOTTED	
IN DATE	
AREAS CHECKED	
AREAS	
NO.	

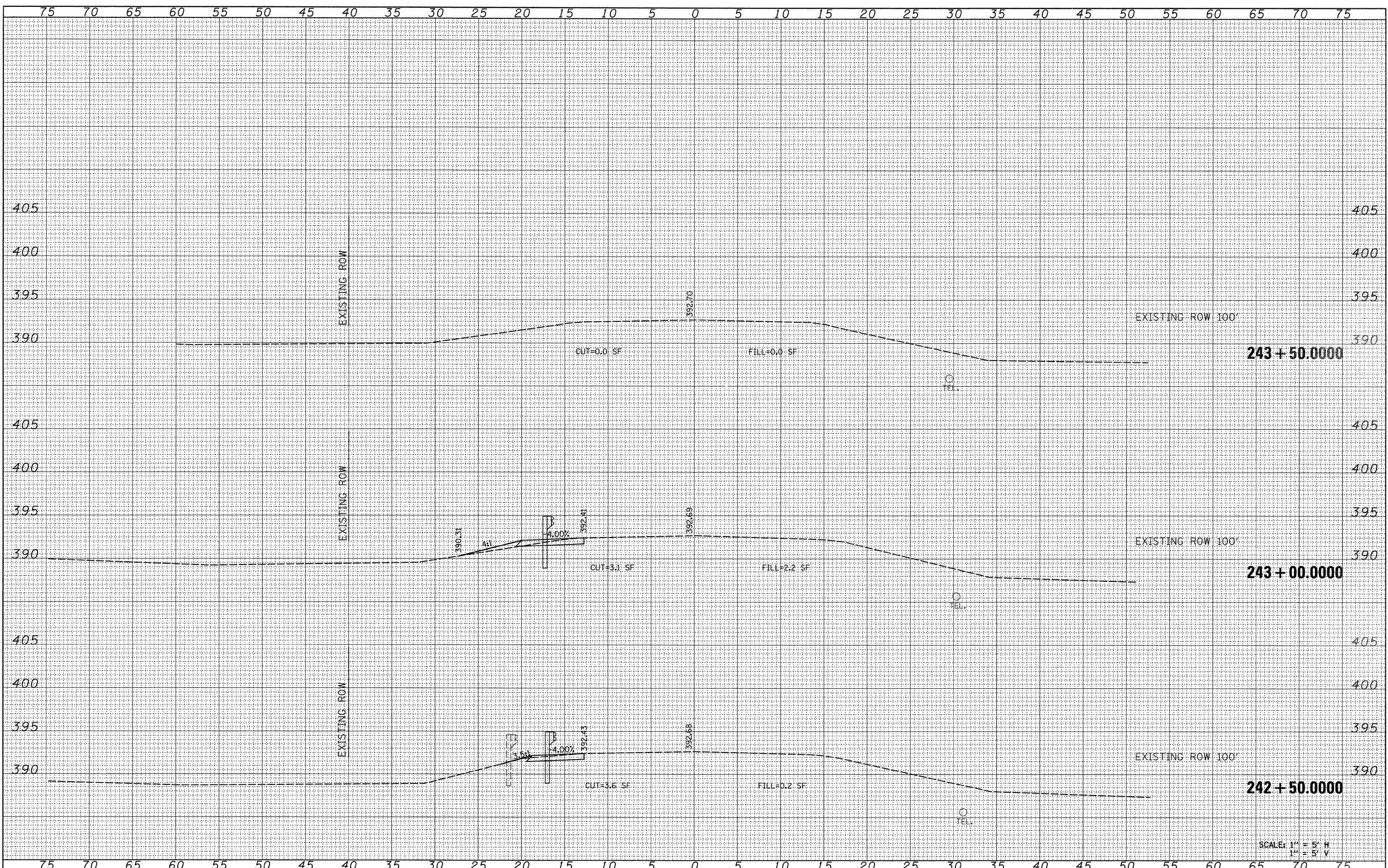


SCALE: 1" = 5' H
1" = 5' V

FILE NAME =	USER NAME = *USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS IL 141 OVER TRIBUTARY TO CANE CREEK			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
FILE#		DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	877	101B-1	WHITE	42	40
		CHECKED -	REVISED -		STA. 241+17.6600 TO STA. 242+00.0000				WHITE/GALLATIN	CONTRACT NO. 78084			
		DATE -	REVISED -					FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT				

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

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



SCALE: 1" = 5' H
1" = 5' V

FILE NAME =
FILEL

USER NAME = *USER*	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = *SCALE*	CHECKED -	REVISED -
PLOT DATE = *DATE*	DATE -	REVISED -

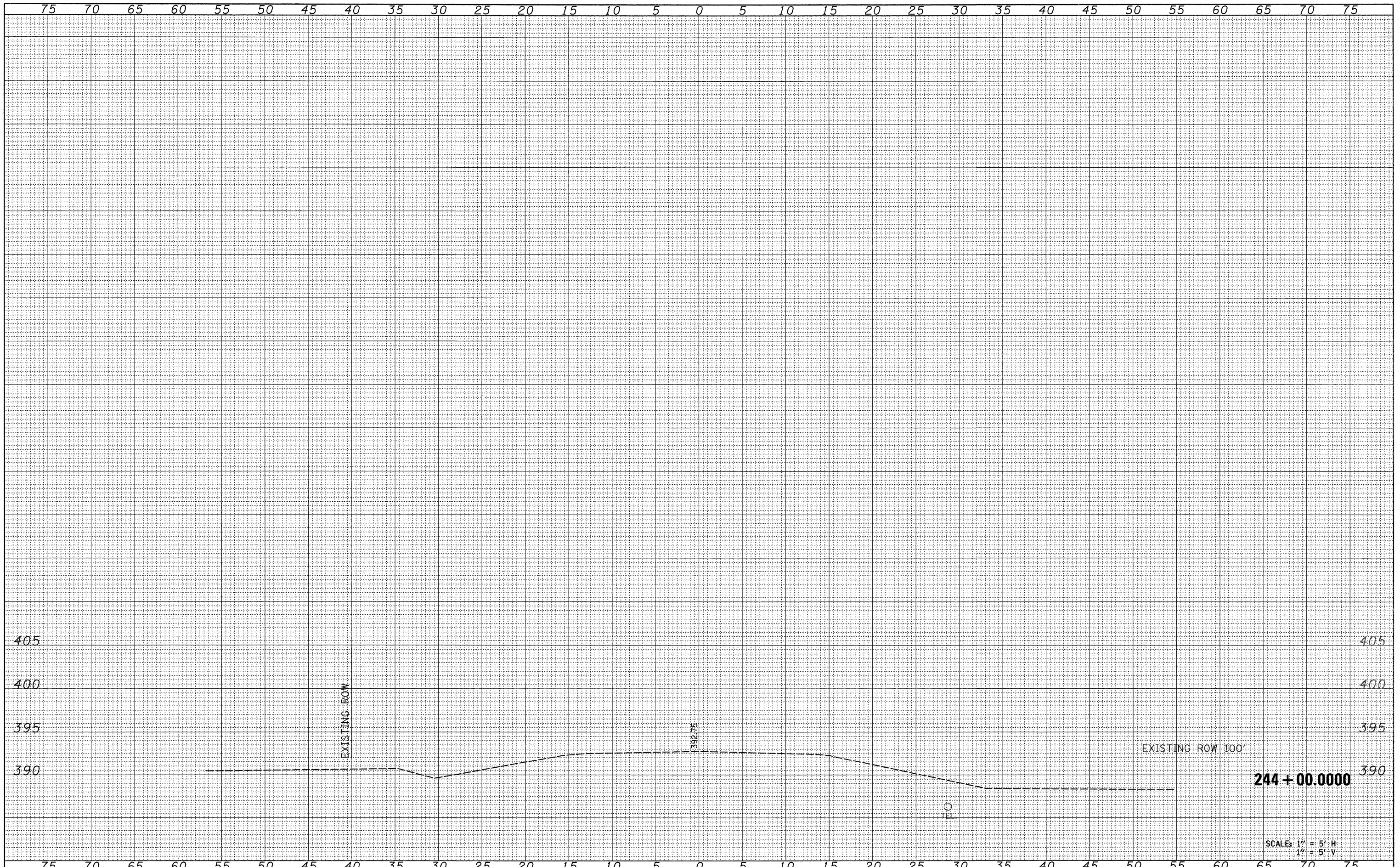
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS			
IL 141 OVER TRIBUTARY TO CANE CREEK			
SCALE:	SHEET NO.	OF	SHEETS
			STA. 242+50.0000 TO STA. 243+50.0000

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
877	101B-1	WHITE	42	41
WHITE/GALLATIN		CONTRACT NO. 78084		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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

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



SCALE: 1" = 5' H
1" = 5' V

FILE NAME =	USER NAME = #USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS IL 141 OVER TRIBUTARY TO CANE CREEK				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -		877	101B-1	WHITE	42	42				
PLOT SCALE = #SCALE*		CHECKED -	REVISED -		WHITE/GALLATIN	CONTRACT NO. 78084							
PLOT DATE = #DATE*		DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								
					SCALE:	SHEET NO.	OF	SHEETS	STA. 244+00.0000 TO STA. 244+00.0000				