07–30–2021 LETTING ITEM 036

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	*83	1
	ILLINOIS	CONTRACT NO. 74915		

* 83 + 5 = 88 TOTAL SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

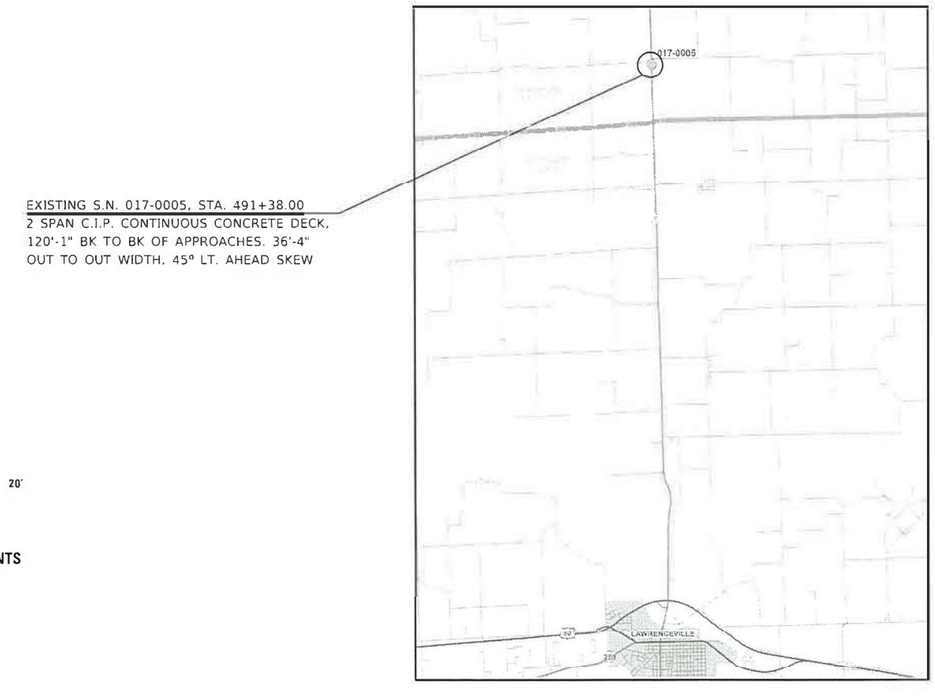
FAP ROUTE 332 (ILL 1)
SECTION 18B–1 PROJECT
NHPP–CV1G(902)
BRIDGE REPLACEMENT
CRAWFORD COUNTY

C–97–048–19

FOR INDEX OF SHEETS, SEE SHEET NO. 2

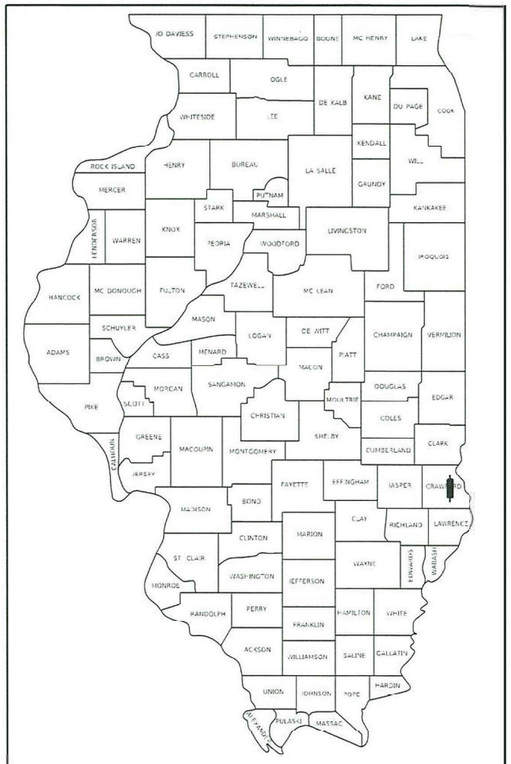
ADT = 3,850 (2017)

N



EXISTING S.N. 017-0005, STA. 491+38.00
2 SPAN C.I.P. CONTINUOUS CONCRETE DECK,
120'-1" BK TO BK OF APPROACHES. 36'-4"
OUT TO OUT WIDTH, 45° LT. AHEAD SKEW

D-97-032-19



LOCATION OF SECTION INDICATED THUS: –

100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

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 EXCAVATORS
1–800–892–0123
OR 811

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 13 20 20
Jeffrey P Myrick
REGIONAL ENGINEER

June 25, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

June 25, 2021
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PROJECT ENGINEER: TOM RONAN
PROJECT MANAGER: JEFF DAVISON

GROSS LENGTH = 700 FT. = 0.133 MILE
NET LENGTH = 700 FT. = 0.133 MILE

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 74915

REV. - MS

INDEX OF SHEETS

LIST OF STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
482011-03	HMA SHOULDER STRIPS/SHOULDERS WITH RESUFACING OR WIDENING AND RESURFACING PROJECTS
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-17	TRAFFIC BARRIER TERMINAL, TYPE 6
667101-02	PERMANENT SURVEY MARKERS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5m) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600mm) AWAY FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATION
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATION-DAY ONLY
701321-18	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
515001-04	NAME PLATE FOR BRIDGES
666001-01	ROW MARKERS
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS

GENERAL NOTES

THIS PROJECT IS LOCATED ON FAP 332 (IL 1) IN CRAWFORD COUNTY, ILLINOIS, APPROXIMATELY 1 MILE NORTH OF THE LAWERENCE COUNTY LINE. THE WORK INCLUDED IN SECTION 18B-1 CONSISTS OF RE-LOCATING TR 363, REMOVAL AND REPLACEMENT OF SN 017-0005, EARTHWORK, WIDENING OF IL 1 FOR CONSTRUCTION PUPOSES, PAVEMENT MARKING, PLUGGING AND ABANDONING SN 017-8612 AND ANY OTHER WORK NECESSARY TO COMPLETE THE PROJECT.

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

WHEN APPLYING SHORT TERM PAVEMENT MARKINGS, TEMPORARY TAPE SHALL BE USED ON THE SURFACE COURSE AND PAINT SHALL BE USED ON MILLED SURFACES.

THE ENGINEER WILL BE THE SOLE JUDGE OF THE CURING TIME OF THE VARIOUS BITUMINOUS AND HOT-MIX ASPHALT PAY ITEMS.

THE THICKNESS OF THE PAVEMENT REMOVAL SHOWN IN THE PLANS IS APPROXIMATELY 16½"

THE FOLLOWING MIXTURE REQUIRMENTS ARE APPLICABLE TO THIS PROJECT

APPLICATION	AC/PG	DESIGN AIR VOIDS	MIXTURE COMPOSITION	FRICTION AGGREGATE	QUALITY MANAGEMENT	PAY ITEM
HMA SURFACE COURSE, MIX "C", N70 (1 1/2" & 2")	PG 64-22	4.0% @ N=70	IL - 9.5	MIXTURE C	QC/QA	HMA SURFACE COURSE, 1 1/2", 2"
HMA BINDER COURSE, N70, IL 19.0 (4" MAX LIFT THICKNESS)	PG 64-22	4.0% @ N=70	IL - 19.0	N/A	QC/QA	HMA BINDER COURSE, 6"
HMA BINDER COURSE, N70, IL-9.5FG (1 1/4")	PG 64-22	4.0% @ N=70	IL - 9.5FG	N/A	QC/QA	HMA BINDER COURSE, 1 1/4"
HMA SURFACE COURSE, MIX "C", N70 (1 1/2")	PG 64-22	4.0% @ N=70	IL - 9.5	MIXTURE C	QC/QA	HMA BASE COURSE WIDENING, 10"
HMA BINDER COURSE, N70, IL 19.0	PG 64-22	4.0% @ N=70	IL - 19.0	N/A	QC/QA	

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

BITUMINOUS MATERIALS (PRIME COAT)	0.50 GAL/SQ.YD. (8.34 LB/GAL CONVERSION FACTOR)
BITUMINOUS MATERIALS (COVER AND SEAL COATS)	0.50 GAL/SQ.YD. (8.34 LB/GAL CONVERSION FACTOR)
COVER COAT AGGREGATE	25 LB/SQ.YD.
SEAL COAT AGGREGATE	25 LB/SQ.YD.
BITUMINOUS MATERIALS (TACK COAT)	0.05 LB/SQ.FT. & 0.025 LB/SQ.FT.
HOT-MIX ASPHALT	112 LB/INCH/SQ.YD.
AGGREGATE WEDGE SHOULDER	2.05 TON/CU.YD.
STONE RIPRAP, CLASS A4	0.60 TON/SQ.YD
STONE RIPRAP, CLASS A5	0.825 TON/SQ.YD

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX, STANDARDS AND GENERAL NOTES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	2
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

80% FED
20% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0010 017-0035		
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	439.7	439.7		
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	116.8	116.8		
20200100	EARTH EXCAVATION	CU YD	3220	3220		
20200600	EXCAVATING AND GRADING EXISTING SHOULDER	UNIT	10	10		
20300100	CHANNEL EXCAVATION	CU YD	2159	2159		
20400800	FURNISHED EXCAVATION	CU YD	2470	2470		
20700220	POROUS GRANULAR EMBANKMENT	CU YD	6.5	6.5		
* 25000200	SEEDING, CLASS 2	ACRE	1.9	1.9		
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	171	171		
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	171	171		
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	171	171		
* 25000700	AGRICULTURAL GROUND LIMESTONE	TON	4	4		
* 25100115	MULCH, METHOD 2	ACRE	1.9	1.9		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	570	570		
28000305	TEMPORARY DITCH CHECKS	FOOT	332	332		

80% FED
20% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0010 017-0035		
28000400	PERIMETER EROSION BARRIER	FOOT	877	877		
28100107	STONE RIPRAP, CLASS A4	SQ YD	437	437		
28100209	STONE RIPRAP, CLASS A5	TON	1296	1296		
28200200	FILTER FABRIC	SQ YD	962	962		
35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	111	111		
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	1893	1893		
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	543	543		
40300200	BITUMINOUS MATERIALS (PRIME COAT)	TON	4	4		
40300400	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	TON	4	4		
40300500	COVER COAT AGGREGATE	TON	25	25		
40300600	SEAL COAT AGGREGATE	TON	25	25		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1121	1121		
40600990	TEMPORARY RAMP	SQ YD	104	104		
40602970	HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N70	TON	85	85		

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	3
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

80% FED
20% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0010 017-0035		
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	37	37		
40604052	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70	TON	154	154		
42000060	WELDED WIRE REINFORCEMENT	SQ YD	224	224		
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	224	224		
44000100	PAVEMENT REMOVAL	SQ YD	382	382		
44004250	PAVED SHOULDER REMOVAL	SQ YD	430.5	430.5		
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	407	407		
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	44	44		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1		
50200100	STRUCTURE EXCAVATION	CU YD	314	314		
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1	1		
50201102	COFFERDAM (TYPE 1) (LOCATION - 2)	EACH	1	1		
50300100	FLOOR DRAINS	EACH	12	12		

80% FED
20% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0010 017-0035		
50300225	CONCRETE STRUCTURES	CU YD	373.8	373.8		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	189.9	189.9		
50300260	BRIDGE DECK GROOVING	SQ YD	761	761		
50300280	CONCRETE ENCASEMENT	CU YD	9	9		
50300300	PROTECTIVE COAT	SQ YD	954	954		
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	104.7	104.7		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	1		
50500505	STUD SHEAR CONNECTORS	EACH	3924	3924		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	116140	116140		
50800515	BAR SPLICERS	EACH	882	882		
51201600	FURNISHING STEEL PILES HP12X53	FOOT	1333	1333		
51201900	FURNISHING STEEL PILES HP14X89	FOOT	1370	1370		
51202305	DRIVING PILES	FOOT	2703	2703		
51203600	TEST PILE STEEL HP12X53	EACH	1	1		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	4
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

80% FED
20% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0010 017-0035		
51204650	PILE SHOES	EACH	46	46		
51500100	NAME PLATES	EACH	1	1		
52000110	PREFORMED JOINT STRIP SEAL	FOOT	106	106		
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12	12		
52100510	ANCHOR BOLTS, 3/4"	EACH	48	48		
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	1696	1696		
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2	2		
54001002	BOX CULVERT END SECTIONS, CULVERT NO. 2	EACH	2	2		
54010503	PRECAST CONCRETE BOX CULVERTS 5' X 3'	FOOT	46	46		
54010702	PRECAST CONCRETE BOX CULVERTS 7' X 2'	FOOT	30	30		
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	122.2	122.2		
58700300	CONCRETE SEALER	SQ FT	1140	1140		
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	97	97		
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	158	158		

80% FED
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SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0010 017-0035		
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT	FOOT	100	100		
	POSTS					
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL)	EACH	4	4		
	TANGENT					
63200310	GUARDRAIL REMOVAL	FOOT	300	300		
* 63301210	REMOVE AND REERECT STEEL PLATE BEAM	FOOT	188	188		
	GUARDRAIL, TYPE A					
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	13	13		
66700205	PERMANENT SURVEY MARKERS, TYPE I	EACH	1	1		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12		
67100100	MOBILIZATION	L SUM	1	1		
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD	EACH	1	1		
	701321					
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD	L SUM	1	1		
	701201					

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	5
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

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SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0010 017-0035		
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD	L SUM	1	1		
	701326					
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	8	8		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70107006	PAVEMENT MARKING BLACKOUT TAPE, 6"	FOOT	129	129		
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	42	42		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	140	140		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	23	23		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1523	1523		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	462.5	462.5		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	487.5	487.5		
70600240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2		
70600340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2		

80% FED
20% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0010 017-0035		
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1523	1523		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	6	6		
* 78200006	GUARDRAIL REFLECTORS, TYPE B	EACH	16	16		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	6	6		
* A2001017	TREE, ACER RUBRUM NORTHWOOD (NORTHWOOD RED MAPLE), 2" CALIPER, BALLED AND BURLAPPED	EACH	14	14		
* A2001716	TREE, ACER SACCHARUM (SUGAR MAPLE), 2" CALIPER, BALLED AND BURLAPPED	EACH	10	10		
* A2007116	TREE, QUERCUS RUBRA (RED OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10	10		
* B2001116	TREE, CERCIS CANADENSIS (EASTERN REDBUD), 2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	10	10		
* D2002972	EVERGREEN, PINUS STROBUS (EASTERN WHITE PINE), 6' HEIGHT, BALLED AND BURLAPPED	EACH	10	10		
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	256	256		
X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	30	30		

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	6
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

80% FED
20% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0010 017-0035		
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE	SQ YD	1664	1664		
	DEPTH					
X4404400	PAVEMENT REMOVAL (SPECIAL)	SQ YD	1466	1466		
X5012502	CONCRETE REMOVAL (SPECIAL)	CU YD	52.3	52.3		
X7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1		
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	508	508		
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	78	78		
Z0005010	HOT-MIX ASPHALT FOR PATCHING POTHOLES (COLD	TON	1	1		
	MIX)					
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	140	140		
Ø Z0076600	TRAINEES	HOUR	500	500		
Ø Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT				

Ø 0042

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SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

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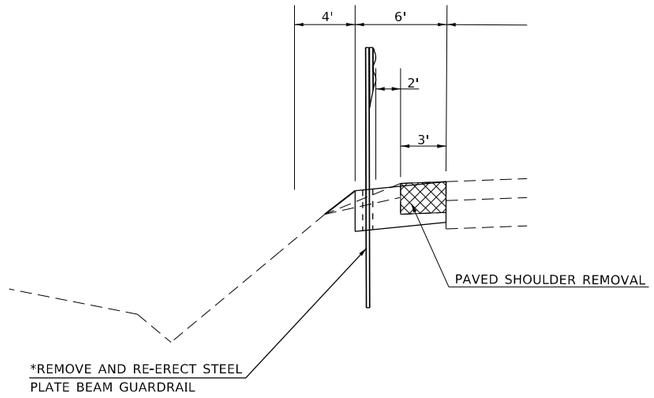
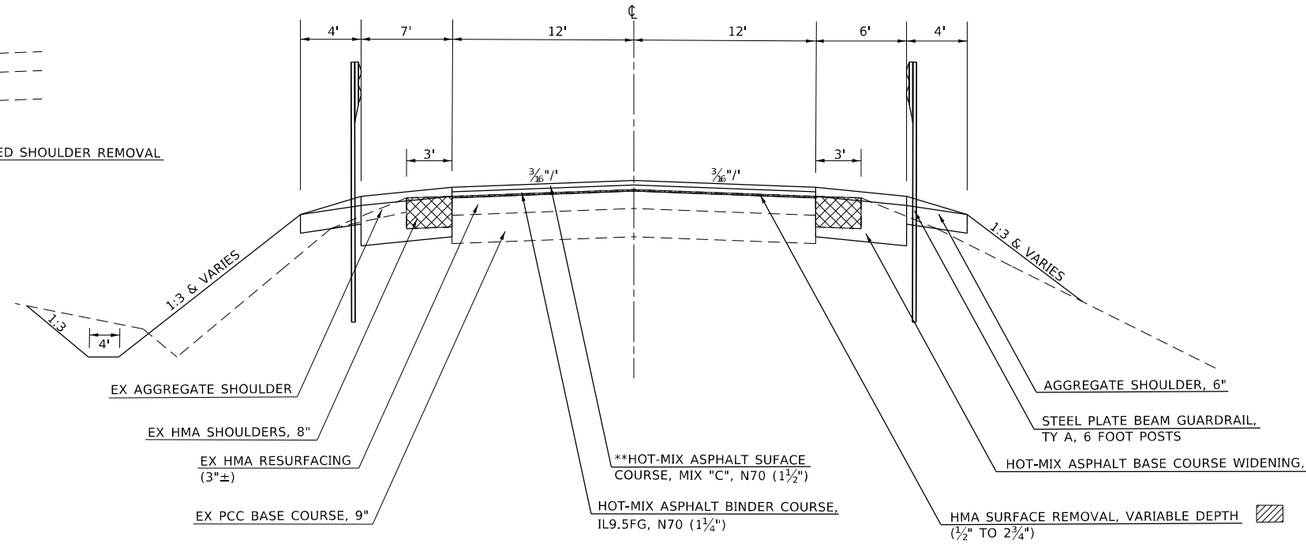
STAGE I (SB)



* EXISTING STEEL PLATE BEAM GUARDRAIL TO BE REMOVED AT THE LOCATIONS SHOWN IN THE PLANS WILL BE RE-ERECTED AFTER CONSTRUCTION OF THE BASE COURSE WIDENING. THE BASE COURSE WIDENING SHALL BE CORED FOR THE POSTS TO BE RE-INSTALLED. AFTER STAGE II REMOVAL OF THE GUARDRAIL, THE CORE HOLES SHALL BE FILLED WITH EPOXY GROUT.

TYPICAL CROSS SECTIONS

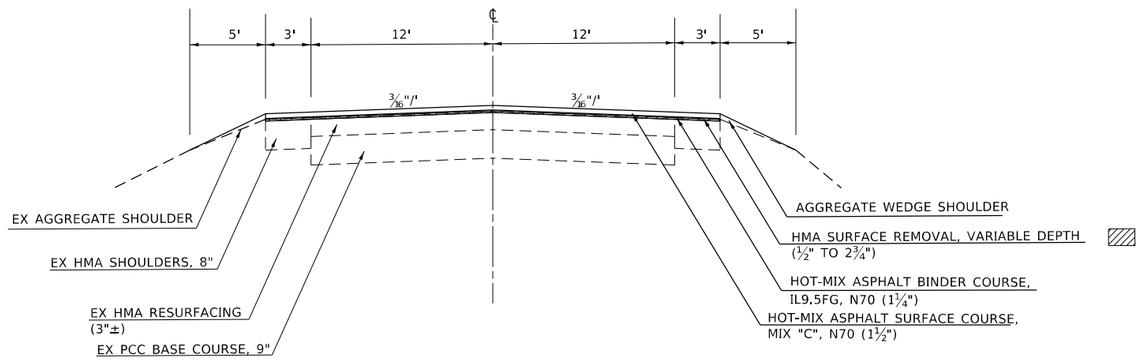
IL RTE 1
STA. 488+32.20 TO STA. 490+06.50
STA. 490+06.50 TO STA. 492+69.50 (PAVING OMISSION)
STA. 492+69.50 TO STA. 494+25.20



**NOTE: SHOULDER QUANTITIES FOR THE FINAL RESURFACING IN THE AREAS OF THE HMA BASE COURSE WIDENING ARE INCLUDED IN THE HMA SURFACE COURSE.

TYPICAL CROSS SECTIONS

IL RTE 1
STA. 488+00.00 TO STA. 488+33.20
STA. 494+25.20 TO STA. 495+00.00



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

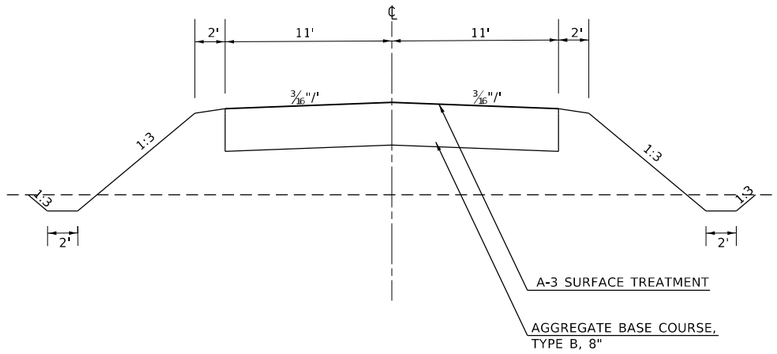
TYPICAL SECTIONS
IL Rte. 1

SCALE: NA | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	8
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

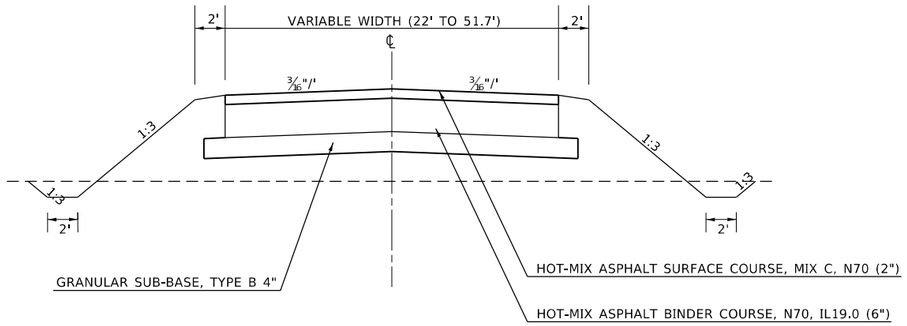
TYPICAL CROSS SECTIONS

T.R. 363
STA. 91+75.00 TO STA. 99+58.00



TYPICAL CROSS SECTIONS

T.R. 363
STA. 99+58.00 TO STA. 99+87.87



MODEL: $MODELNAME$
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

TYPICAL SECTIONS
T.R. 363

SCALE: NA | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	9
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

PAVING SCHEDULE

STATION	TO	STATION	LENGTH	PAVEMENT WIDTH	SHOULDER WIDTH	AREA	HOT-MIX ASPHALT SURFACE REMOVAL (VARIABLE DEPTH)	BITUMINOUS MATERIALS (TACK COAT)	HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N70	HOT-MIX ASPHALT SURFACE COURSE, MIX C, N70	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	BITUMINOUS MATERIALS (PRIME COAT)	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	COVER COAT AGGREGATE	SEAL COAT AGGREGATE
			FEET	FEET	FEET	SQ FT	SQ YD	POUND	TON	TON	TON	TON	TON	TON	TON
FAP 332 (IL RTE 1)															
488+00.00	TO	488+21.49	21.5	29.5	0.0	634.0	70.4	47.5	4.9	5.9					
488+21.49	TO	488+24.18	2.7	29.5	0.0	79.4	10.1	6.0	0.6	0.8					
488+24.18	TO	488+33.21	9.0	26.8	4.5	282.6	32.9	21.2	1.9	2.8					
488+33.21	TO	488+72.84	39.6	24.0	6.0	1,188.9	132.1	89.2	7.4	14.7					
488+72.84	TO	490+06.50	133.7	24.0	12.0	4,811.8	534.6	360.9	24.9	45.1					
490+06.50	TO	490+34.50	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PAVING OMISSION				
490+34.50	TO	492+41.50	207.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
492+41.50	TO	492+69.50	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
492+69.50	TO	494+24.82	155.3	24.0	12.0	5,591.5	621.3	419.4	29.0	53.6					
494+24.82	TO	494+42.53	17.7	24.0	10.5	611.0	67.9	45.8	3.3	5.7					
494+42.53	TO	494+63.47	20.9	27.0	4.5	659.6	73.3	49.5	4.4	6.2					
494+63.47	TO	495+00.00	36.5	29.9	0.0	1,092.2	121.4	81.9	8.5	10.2					
T.R. 363															
91+50.00	##	92+50.00	100.0	17.5'-22.0'	NA	1,975.0						0.5	0.5	2.7	2.7
91+55.00	TO	93+03.16	148.2	22.0	NA	2,926.2						0.7	0.7	4.1	4.1
93+03.16	TO	94+65.87	162.7	22.0	NA	3,213.5						0.7	0.7	4.5	4.5
94+65.87	TO	95+00.00	34.1	22.0	NA	674.1						0.2	0.2	0.9	0.9
95+00.00	TO	97+42.92	242.9	22.0	NA	4,797.7						1.1	1.1	6.7	6.7
97+42.92	TO	99+00.00	157.1	22.0	NA	3,102.3						0.7	0.7	4.3	4.3
99+00.00	TO	99+47.00	47.0	22.0	NA	928.3						0.2	0.2	1.3	1.3
99+47.00	TO	99+58.00	11.0	22.0	NA	217.3						0.1	0.1	0.3	0.3
99+58.00	TO	99+87.87	29.9	VAR	NA	998.0				9.3	37.3				
PROJECT TOTALS =							1,664	1,121	85	154	37	4	4	25	25

POROUS GRANULAR EMBANKMENT

LOCATION						(CU YD)
		DEPTH	HEIGHT	LENGTH	END SECT.	
CULVERT 1	STA 95+00	0.5'	2'	29.5'	6'	2.6
CULVERT 2	STA 99+47	0.5'	2'	46'	6'	3.85
PROJECT TOTAL =						6.5

MEMNBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES

LOC.	LENGTH	WIDTH	SY YD
CULVERT 1	30.0	9	30

MODEL: $MODELNAME$
FILE NAME: $FILE$

USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE -	REVISED -	

SCHEDULE OF QUANTITIES

SCALE: NA | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	10
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKING SCHEDULE

STATION	TO	STATION	LENGTH	SHORT-TERM PAVEMENT MARKING (YELLOW SKIP-DASH)	SHORT-TERM PAVEMENT MARKING REMOVAL	TEMPORARY PAVEMENT MARKING LINE-4" (YELLOW SKIP-DASH)	TEMPORARY PAVEMENT MARKING LINE-4" (WHITE)	PAINT PAVEMENT MARKING LINE-4" (YELLOW SKIP-DASH)	PAINT PAVEMENT MARKING LINE-4" (WHITE)	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	RAISED REFLECTIVE PAVEMENT MARKERS (BI-DIRECT AMBER)	TEMPORARY PAVEMENT MARKING REMOVAL
			FEET	FOOT	SQ FT	FOOT	FOOT	FOOT	FOOT	EACH	EACH	SQ FT
FAP 332 (IL 1)												
488+00.00	TO	495+00.00	700.0	140.0	23	175	1,348	175.0	1,348	6	6	508
PROJECT TOTALS =				140.0	23	175	1,348	175.0	1,348	6	6	508

PAVEMENT MARKING REMOVAL-WATER BLASTING

LOCATION			LENGTH FT.	4" LINE SQ FT.	TOTAL SQ FT
LT. SIDE					
488+90.52	TO	493+86.68	496.2	165.4	165.4
RT. SIDE					
488+71.50	TO	490+06.50	135.0	45.0	45.0
492+69.50	TO	494+05.88	136.4	45.5	45.5
PROJECT TOTAL =					255.9

TREE REMOVAL (OVER 15 UNITS DIAMETER)

LOCATION		DIAMETER (UNIT)
TREE REMOVAL AREA #1	1	15.20
	1	31.30
	1	21.80
TREE REMOVAL AREA #3	1	29.50
	1	19.00
PROJECT TOT	5	116.80

TREE REMOVAL (6-15 UNITS DIAMETER)

LOCATION		DIAMETER (UNITS)		LOCATION		DIAMETER (UNITS)
TREE REMOVAL AREA #1				TREE REMOVAL AREA #2		
	1	7.30			1	8.40
	1	7.40			1	10.40
	1	6.40			1	6.20
	1	6.10			1	10.80
	1	8.10			1	8.80
	1	8.10			1	13.20
	1	8.60			1	10.60
	1	7.10			1	14.00
	1	7.80			1	9.50
	1	6.10			1	8.00
	1	9.40			1	7.30
	1	7.20			TOTAL=	107.20
	1	7.80		LOCATION		
	1	8.20		TREE REMOVAL AREA #3		
	1	6.20			1	10.60
	1	6.70			1	7.40
	1	10.90			1	11.60
	1	8.20			1	11.50
	1	14.50			1	11.00
	1	6.30			1	10.30
	1	11.50			1	8.30
	1	6.40			1	9.00
	TOTAL=	176.30			1	10.60
					1	8.10
					1	6.80
					1	6.20
					1	6.40
					1	10.70
					1	14.20
					1	13.50
					TOTAL=	156.2
					PROJECT TOTAL=	439.70

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION CU YD	EARTH EX 25% ADJ. CU YD	EMBANKMENT CU YD	EARTHWORK BALANCE WASTE(+)/SHORTAGE(-) CU YD
T.R. 363				
STA. 91+50.00 TO STA. 99+87.87	1019 (1)	764 (1)	2277	+1019/-2277 (1)
IL 1				
STA. 488+00 TO STA.495+00	2201.0	1651	193	+1458
SUGAR CREEK (CHANNEL EX)				
STA. 1+00 TO STA. 3+75	2159 (2)	1619 (2)	0	+2159 (2)
TOTAL	3220	2415	2470	+2477/-2277

NOTES: (1) DUE TO PRE-STAGE CONSTRUCTION, NONE OF THE EARTH EXCAVATION CAN BE UTILIZED FOR THE EMBANKMENT FOR THE RELOCATED TR 363

(2) CHANNEL EXCAVATION IS SHOWN FOR INFORMATION PURPOSED ONLY, THE QUANTITY FOR CHANNEL EX. IS CONSIDERED UNSUITABLE FOR EMBANKMENT

FURNISHING AND ERECTING ROW MARKERS

LOCATION	O/S	QUANTITY (EACH)
TR 363 (E. 100TH AVE.)		
STA. 91+45.00	LT. 20.0 FT.	1
STA. 91+45.00	RT. 20.0 FT.	1
STA. 91+45.00	LT. 25.0 FT.	1
STA. 91+45.00	RT. 25.0 FT.	1
STA. 93+03.16	RT. 25.0 FT.	1
STA. 93+80.00	RT. 28.0 FT.	1
STA. 94+65.87	RT. 36.0 FT.	1
STA. 97+42.92	RT. 30.0 FT.	1
STA. 97+95.00	RT. 35.0 FT.	1
STA. 98+47.00	RT. 45.0 FT.	1
STA. 99+00.00	RT. 45.0 FT.	1
FAP 332 (IL 1)		
STA. 488+05.00	LT. 70.0 FT.	1
STA. 493+60.70	LT. 150.0 FT.	1
	PROJECT TOTAL	13

REV. - MS

USER NAME = steffenmk	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 7/30/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: NA | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	11
		CONTRACT NO. 74915		
		ILLINOIS FED. AID PROJECT		

EXCAVATE AND GRADE EXISTING SHOULDER

LOCATION			LENGTH (FEET)	WIDTH RT (FEET)	WIDTH LT (FEET)	QUANTITY (UNIT)	
488+00.00	TO	488+21.49	21.49	-	-	-	
488+21.49	TO	488+33.21	11.72	4'-6'	-	0.1	BEGIN WIDENING RT.
488+33.21	TO	488+40.52	7.31	6	4'-6'	0.1	BEGIN WIDENING LT.
488+40.52	TO	488+50.00	9.48	6	6	0.2	
488+50.00	TO	488+52.65	2.65	6	6	0.1	
488+52.65	TO	488+72.84	20.19	6	6	0.4	END WIDENING RT.
488+72.84	TO	490+06.50	133.66	6	6	2.7	
490+06.50	TO	490+34.50	28.00	-	6	0.3	
490+34.50	TO	490+64.50	30.00	-	6	0.3	
490+64.50	TO	490+77.91	13.41	-	6	0.1	
490+77.91	TO	490+92.54	14.63	-	6	0.1	END WIDENING LT.
490+92.54	TO	491+97.59	105.05	-	-	1.1	
491+97.59	TO	492+11.50	13.91	-	-	0.1	
492+11.50	TO	492+12.33	0.83	-	6	0.0	BEGIN WIDENING LT.
492+12.33	TO	492+41.50	29.17	-	6	0.3	
492+41.50	TO	492+69.50	28.00	-	6	0.3	
492+69.50	TO	494+24.82	155.32	6	6	3.1	BEGIN WIDENING RT.
494+24.82	TO	494+42.53	17.71	6	4'-6'	0.4	END WIDENING LT.
494+42.53	TO	494+63.47	20.94	4'-6'	-	0.2	END WIDENING RT.
494+63.47	TO	495+00.00	36.53	-	-	-	
				SHEET TOTAL =		10	

AGGREGATE WEDGE SHOULDER, TYPE B

LOCATION			LENGTH (FEET)	AGG SHLDR WIDTH (FEET)	AGG SHLD DEPTH (INCHES)	AREA (CU YD)	QUANTITY (TON)
488+00.00	TO	490+06.50	206.5	8.0	2.0	10.2	20.9
492+69.50	TO	495+00.00	230.5	8.0	2.0	11.4	23.3
						PROJECT TOTAL =	44.0

REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL, TYPE A

LOCATION				LENGTH (FOOT)	QUANTITY (FOOT)
490+66.32	TO	490+92.21	LT.	25.9	25.9
492+13.79	TO	493+75.53	LT.	161.7	161.7
				PROJECT TOAL =	187.6

AGGREGATE SHOULDER, TYPE B 6"

LOCATION			LENGTH (FEET)	AGG RT SHLDR WIDTH (FEET)	AGG LT SHLDR WIDTH (FEET)	QUANTITY (SQ YDS)
488+00.00	TO	488+21.49	21.49	0	0	0.0
488+21.49	TO	488+33.21	11.72	4	0	5.2
488+33.21	TO	488+40.52	7.31	4	0	6.5
488+40.52	TO	488+50.00	9.48	4	0	8.4
488+50.00	TO	488+52.65	2.65	4	0	2.4
488+52.65	TO	488+72.84	20.19	4	4	17.9
488+72.84	TO	490+06.50	133.66	4	4	118.8
490+06.50	TO	490+31.52	25.02	4	4	22.2
490+31.52	TO	490+34.50	2.98	0	4	1.3
490+34.50	TO	490+64.50	30.00	0	4	13.3
490+64.50	TO	490+67.50	3.00	0	4	1.3
490+67.50	TO	490+77.91	10.41	0	4	4.6
490+77.91	TO	490+86.90	8.99	0	4	4.0
490+86.90	TO	490+92.54	5.64	0	0	0.0
490+92.54	TO	491+97.59	105.05	0	0	0.0
491+97.59	TO	492+08.50	10.91	0	0	0.0
492+08.50	TO	492+11.50	3.00	4	0	1.3
492+11.50	TO	492+12.33	0.83	4	0	0.4
492+12.33	TO	492+41.50	29.17	4	0	13.0
492+41.50	TO	492+44.50	3.00	4	0	1.3
492+44.50	TO	492+69.50	25.00	4	4	22.2
492+69.50	TO	494+24.82	155.32	4	4	138.1
494+24.82	TO	494+42.53	17.71	4	4	15.7
494+42.53	TO	494+63.47	20.94	4	0	9.3
494+63.47	TO	495+00.00	36.53	0	0	0.0
					PROJECT TOTAL =	407

GUARDRAIL REMOVAL

LOCATION				LENGTH (FOOT)	QUANTITY (FOOT)
488+98.97	TO	490+62.40	RT.	163.4	163.4
490+66.32	TO	490+92.21	LT.	25.9	25.9
491+83.55	TO	492+95.85	RT.	112.3	112.3
492+13.79	TO	493+75.53	LT.	161.7	161.7
				PROJECT TOAL =	299.9

TRAFFIC BARRIER TERMINAL, TYPE 6

LOCATION				QUANTITY (EACH)
489+94.60	TO	490+34.00	RT.	1.0
489+30.60	TO	490+70.00	LT.	1.0
492+06.00	TO	492+45.40	RT.	1.0
492+42.00	TO	492+81.40	LT.	1.0
			PROJECT TOTAL=	4.0

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

LOCATION				QUANTITY (EACH)
489+94.60	TO	490+44.60	RT.	1.0
489+80.60	TO	490+30.60	LT.	1.0
492+45.40	TO	492+95.40	RT.	1.0
492+81.40	TO	493+31.40	LT.	1.0
			PROJECT TOTAL=	4.0

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6' POSTS

LOCATION				QUANTITY (FOOT)
489+44.60	TO	489+94.60	RT.	50.0
492+81.40	TO	493+31.40	LT.	50.0
			PROJECT TOAL	100.0

MODEL: Default
FILE NAME: pw:\\dunnroom.dot.illinois.gov:PWIDOTDocuments\IDOT Offices\District 7\Projects\74915\CAD\data\CAD\sheets\D774915-sht-sched.dgn

USER NAME = steffenmk	DESIGNED -	REVISED -	**STATE OF ILLINOIS**
	DRAWN -	REVISED -	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

SCHEDULE OF QUANTITIES

SCALE: NA | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	12
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

SEEDING SCHEDULE

LOCATION	QUANTITY (SQ. FT.)	SEEDING, CLASS 2 QUANTITY (ACRE)	NITROGEN FERTILIZER NUTRIEN QUANTITY (POUND)	PHOSPHOROUS FERTILIZER NUTRIENT QUANTITY (POUND)	POTASSIUM FERTILIZER NUTRIENT QUANTITY (POUND)	AGRICULTURAL GROUND LIMESTONE QUANTITY (TON)	MULCH, METHOD 2 QUANTITY (ACRE)	TEMPORARY EROSION CONTROL SEEDING QUANTITY (POUND)
AREA 1	16,030.87	0.37	33.12	33.12	33.12	0.74	0.37	110.41
AREA 2	13,663.13	0.31	28.23	28.23	28.23	0.63	0.31	94.10
AREA 3	44,660.63	1.03	92.27	92.27	92.27	2.05	1.03	307.58
AREA 4	557.93	0.01	1.15	1.15	1.15	0.03	0.01	3.84
AREA 5	1,227.90	0.03	2.54	2.54	2.54	0.06	0.03	8.46
AREA 6	4,243.02	0.10	8.77	8.77	8.77	0.19	0.10	29.22
AREA 7	2,194.02	0.05	4.53	4.53	4.53	0.10	0.05	15.11
PRIOJECT TOTAL=		1.90	171	171	171	4	1.90	570

NOTE: SEEDING AREAS ARE SHOWN IN THE PLANS

GUARDRAIL REFLECTORS, TYPE B

LOCATION		CRYSTAL (BI-DIRECT) (EACH)	TOTAL QUANTITY (EACH)
IL 1			
SW	QUADRANT	4	4
NW	QUADRANT	4	4
NE	QUADRANT	4	4
SE	QUADRANT	4	4
TOTAL =			16

TEMPORARY CONCRETE BARRIER

LOCATION			LENGTH (FOOT)	
STAGE I				
489+44.55	TO	489+81.25	37.5	4.7/1 TAPER
489+81.25	TO	492+94.25	312.5	
492+94.25	TO	494+06.60	112.5	12/1 TAPER
PROJECT TOTAL=			462.5	

IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL III

LOCATION		QUANTITY (EACH)
STAGE I		
0+00.00	RT. 4'	1
494+06.60	RT. 6'	1
PROJECT TOTAL =		2

IMPACT ATTENUATOR, RELOCATE (NON-REDIRECTIVE), TEST LEVEL III

LOCATION		QUANTITY (EACH)
STAGE II		
489+32.43	LT. 4'	1
494+18.90	LT. 6'	1
PROJECT TOTAL =		2

TEMPORARY DITCH CHECKS

LOCATION			QUANTITY (EACH)	QUANTITY (FOOT)	
TR 363					
91+50.00		RT. & LT.	2	29.4	
91+80.00		RT. & LT.	2	29.4	
92+55.00		RT. & LT.	2	29.4	
93+80.00		RT. & LT.	2	29.4	
94+00.00		LT.	1	15.7	
94+90.00		RT. & LT.	2	29.4	
95+10.00		RT. & LT.	2	29.4	
96+60.00		RT. & LT.	2	29.4	
99+25.00		RT. & LT.	2	29.4	
7'X2' CULVERT DITCH TO SUGAR CK.			2	33.4	50' SPACING
5'X3' CULVERT DITCH TO SUGAR CK.			2	33.4	150' SPACING
ILL 1					
491+80.40		Rt.	1	14.70	
PROJECT TOTAL=				332.4	

PERIMETER EROSION BARRIER

LOCATION				QUANTITY (FOOT)
TR 363				
91+50.00	TO	93+50.00	LT.	216.2
93+50.00	TO	93+75.00	LT.	37.4
93+75.00	TO	94+00.00	LT.	39.4
94+00.00	TO	94+50.00	LT.	89.1
94+50.00	TO	94+82.40	LT.	53.3
94+82.40 (TR 363 = 492+10.49 (IL 1)				
ILL 1				
492+10.49	TO	491+53.50	LT.	62.7
491+53.50	TO	490+84.10	LT.	72.8
488+02.40	TO	489+88.90	RT.	186.6
489+88.90	TO	490+49.60	RT.	94.1
490+49.60	TO	490+51.20	RT.	25.0
PROJECT TOTAL =				876.5

RELOCATE TEMPORARY CONCRETE BARRIER

LOCATION			LENGTH (FOOT)	
STAGE I				
489+32.43	TO	489+81.25	50.0	5.8/1 TAPER
489+81.25	TO	492+94.25	312.5	
492+94.25	TO	494+18.90	125.0	12/1 TAPER
PROJECT TOTAL=			487.5	

GEOCOMPASITE WALL DRAIN

LOC.	LENGTH	WIDTH	SY YD
CULVERT 1	30.0	9	30
Abutment			67
TOTAL			97

MODEL: $MODELNAME$
FILE NAME: $FILEL$

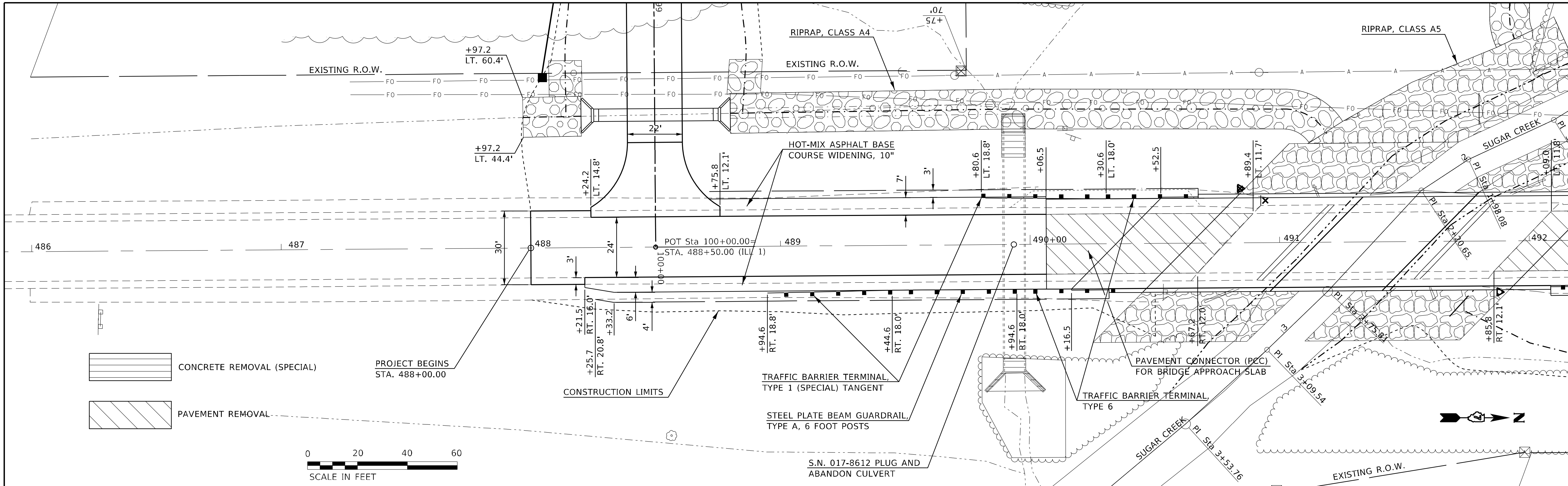
USER NAME = $USER$	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE -	REVISED -	

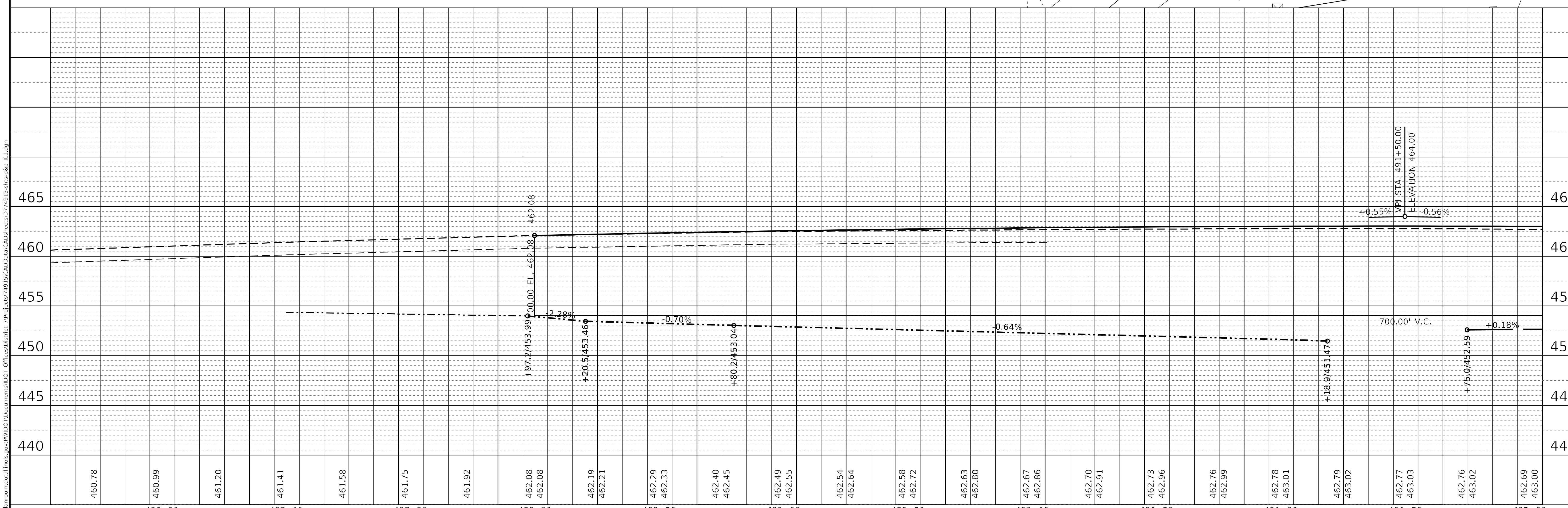
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: NA | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	13
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	





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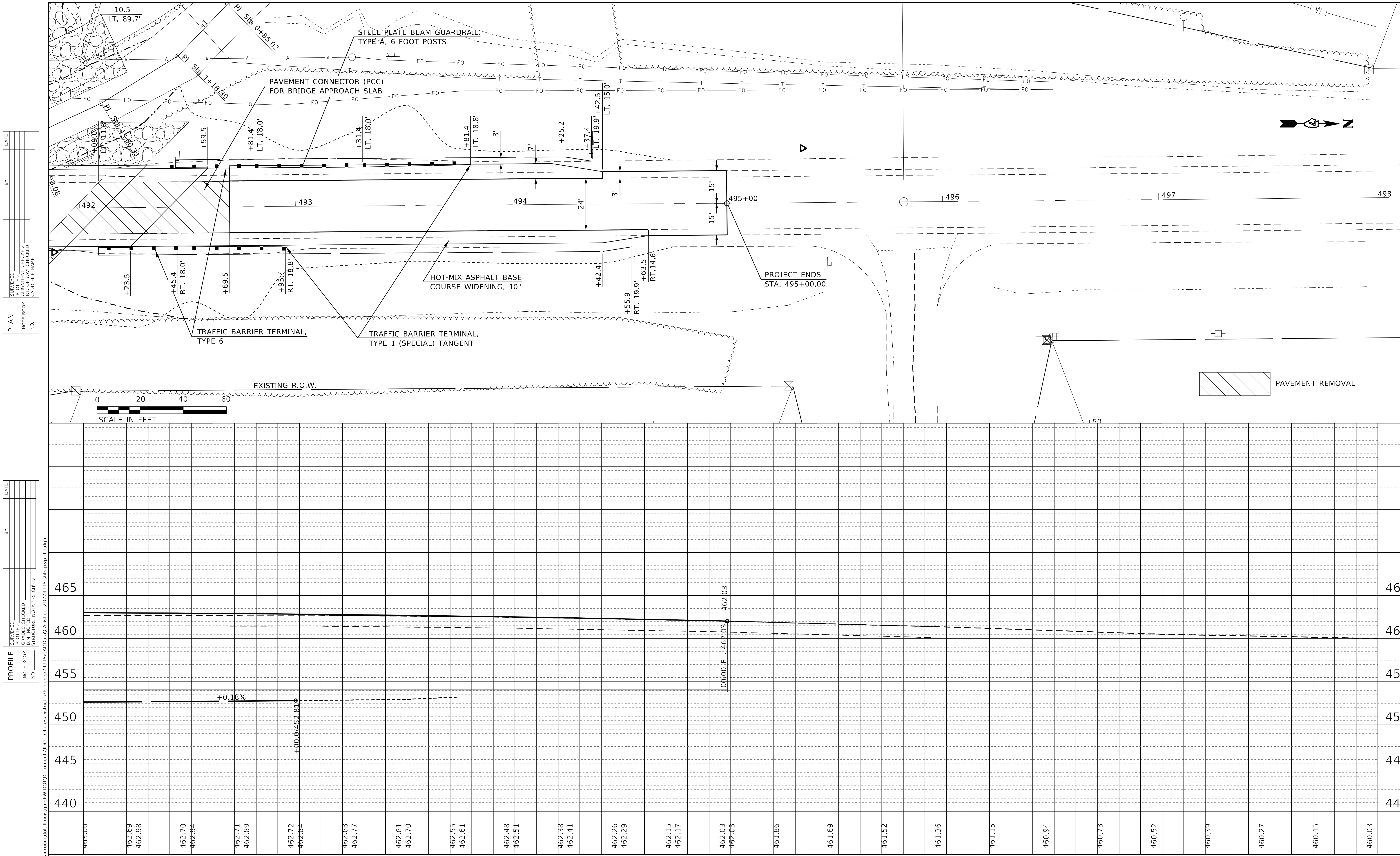
	DRAWN -	REVISED -		
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -		
PLOT DATE = 7/30/2020	DATE -	REVISED -		SCALE: 20H:5V SHEET 1 OF 2 SHEETS STA. 486+00.00 TO STA. 492+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	14
CONTRACT NO. 74915				
ILLINOIS FED. AID PROJECT				



USER NAME = steffenmk	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE 1
PLAN AND PROFILE

SCALE: 20 H:5V | SHEET 2 OF 2 SHEETS | STA. 492+00.00 TO STA. 498+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	15

CONTRACT NO. 74915

ILLINOIS FED. AID PROJECT

N

0 20 40 60
SCALE IN FEET

POT Sta 91+20.00 (E. 100TH AVE.)=
STA. 493+16.60/LT. 488.50' (ILL 1)

BEGIN REALIGNMENT TR 363
STA. 91+50.00

CONSTRUCTION LIMITS

+00.0
+45.0
LT. 25.0'

+80.0

75'
TRANSITION

PROPOSED R.O.W.

7.8'

+45.0
LT. 20.0'

17.4'

92

+45.0
RT. 20.0'

PROPOSED R.O.W.

+00.0

11.6'

+45.0
LT. 25.0'

+80.0

+03.16
RT. 25.0'

W

PROP. CURVE TR_1
PI STA. = 94+08.95
Δ = 93° 13' 23" (RT)
D = 57° 17' 45"
R = 100.00'
T = 105.79'
L = 162.70'
E = 45.57'
e = ____
T.R. = ____
S.E. RUN = ____
P.C. STA. = 93+03.16
P.T. STA. = 94+65.87

+80.00
RT. 28.0'

PROPOSED R.O.W.

+90.0

+65.87
RT. 36.0'

PI Sta 93+03.16 (E. 100TH AVE.)=
STA. 493+26.89/LT. 305.6' (ILL1)

+75.0

PROPOSED R.O.W.

PI Sta 94+08.95

+10.0

94

96

CULVERT #1, STA. 95+00.00 PRECAST
CONCRETE BOX CULVERTS 7'X2', 29.5'
U.S.F.L. = 452.36
D.S.F.L. = 451.94

95+00

BOX CULVERT END SECTIONS,
CULVERT NO. 1, 2 EA.

+10.0

CONSTRUCTION LIMITS

EXISTING R.O.W.

+00
150'

EXISTING R.O.W.

+60.70
LT. 150.0'
(IL 1)

PROPOSED R.O.W.

SUGAR CREEK

STONE RIPRAP,
CLASS A5

+82.4
LT. 110.3'

PT Sta 94+65.87 (E. 100TH AVE.)=
STA. 492+27.05/LT. 200.0' (ILL 1)

STONE RIPRAP,
CLASS A4

EXISTING R.O.W.

DITCH OUTLET
+98.2/LT. 119.0'
ELEV.=499.70

494

493

492

491

SUGAR CREEK

+00
85'

EXISTING R.O.W.

PAVEMENT REMOVAL (SPECIAL)

USER NAME = steffenmk	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 7/30/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 363
PLAN SHEET

SCALE: 20 | SHEET 1 OF 2 SHEETS | STA. 91+20.00 | TO STA. 96+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	188-1	CRAWFORD	83	16
		CONTRACT NO. 74915		
		ILLINOIS FED. AID PROJECT		

MODEL: Default
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N

0 20 40 60

SCALE IN FEET

22'

CONSTRUCTION LIMITS

PROPOSED R.O.W.

STONE RIPRAP, CLASS A4

EXISTING R.O.W.

+75 150'

+75 70'

PC Sta 97+42.92 (E. 100TH AVE.)= STA. 489+50.00/LT. 200.0'(ILL 1)

+42.92 RT. 30.0'

CONSTRUCTION LIMITS

+25.0

+95.00 RT. 35.0'

PROPOSED R.O.W.

PT Sta 99+00.00

PI Sta 98+42.92

PROPOSED R.O.W.

PROP. CURVE TR_2
PI STA. = 98+42.92
Δ = 90° 00' 00" (LT)
D = 57° 17' 45"
R = 100.00'
T = 100.00'
L = 157.08'
E = 41.42'
e = ____
T.R. = ____
S.E. RUN = ____
P.C. STA. = 97+42.92
P.T. STA. = 99+00.00

+47.00 RT. 45.0'

+25.0

CULVERT #2, STA. 99+47.00 PRECAST CONCRETE BOX CULVERTS 5'X3', 46'
U.S.F.L = 453.41
D.S.F.L. = 453.09

+05.00 LT. 70.0' (IL 1)

BOX CULVERT END SECTIONS, CULVERT NO. 2, 2 EA.

EXISTING R.O.W.

+58.0

R 30'

R 30'

POT Sta 100+00.00= STA. 488+50.00 (ILL 1)

51.7'

100+00

+47.0 RT. 52.8'

POI TR 363 WITH EOP IL 1
STA. 99+87.87

EXISTING R.O.W.

EXISTING R.O.W.

490+00

489

488

487

+00 100'

PAVEMENT REMOVAL (SPECIAL)

MODEL: Default
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	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

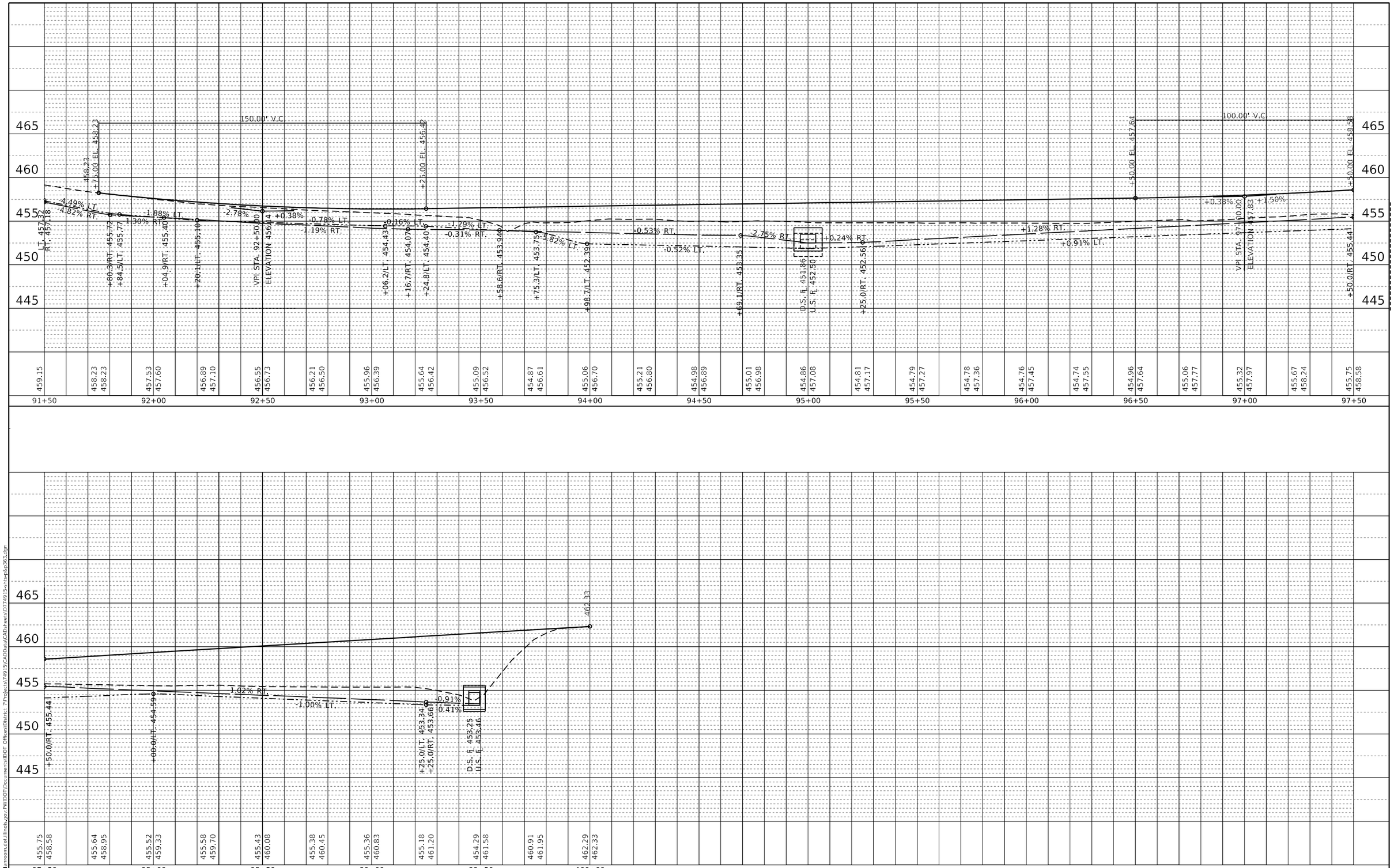
T.R. 363
PLAN SHEET

SCALE: 20 | SHEET 2 OF 2 SHEETS | STA. 96+00.00 | TO STA. 100+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	17
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

PLAN

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



PROFILE

SURVEYED	BY
PLOTTED	
ALIGNMENT CHECKED	
GRADE CHECKED	
BM. NOTED	
STRUCTURE NOTATIONS DYNED	
NOTE BOOK	DATE
NO.	

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	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 7/30/2020	DATE -	REVISED -

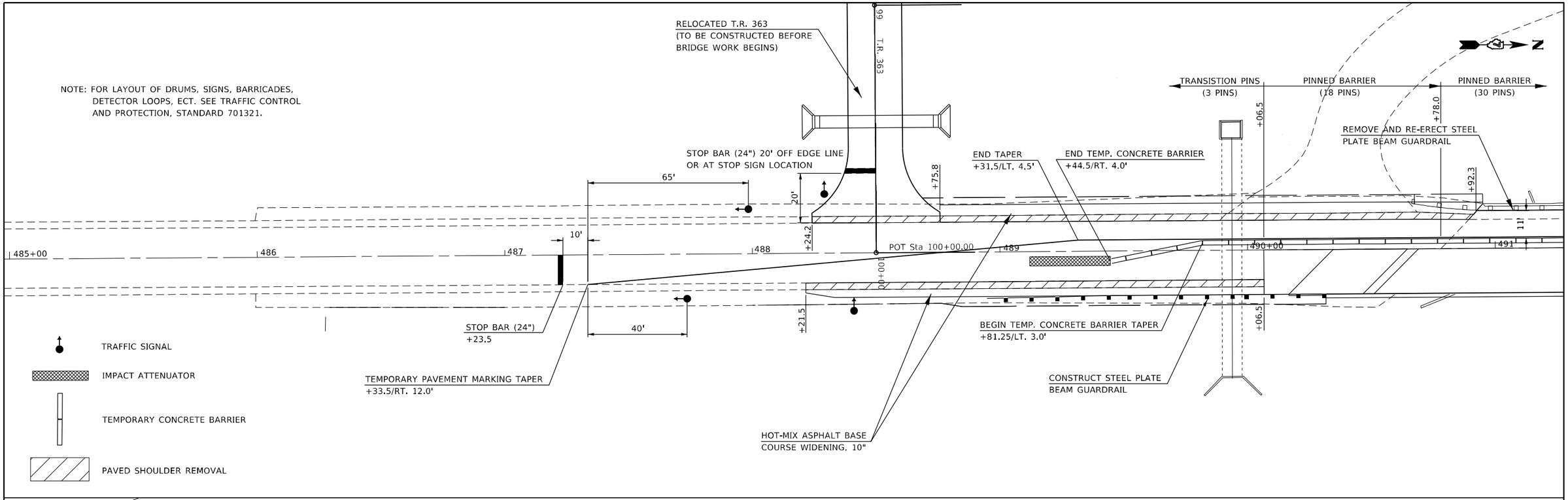
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

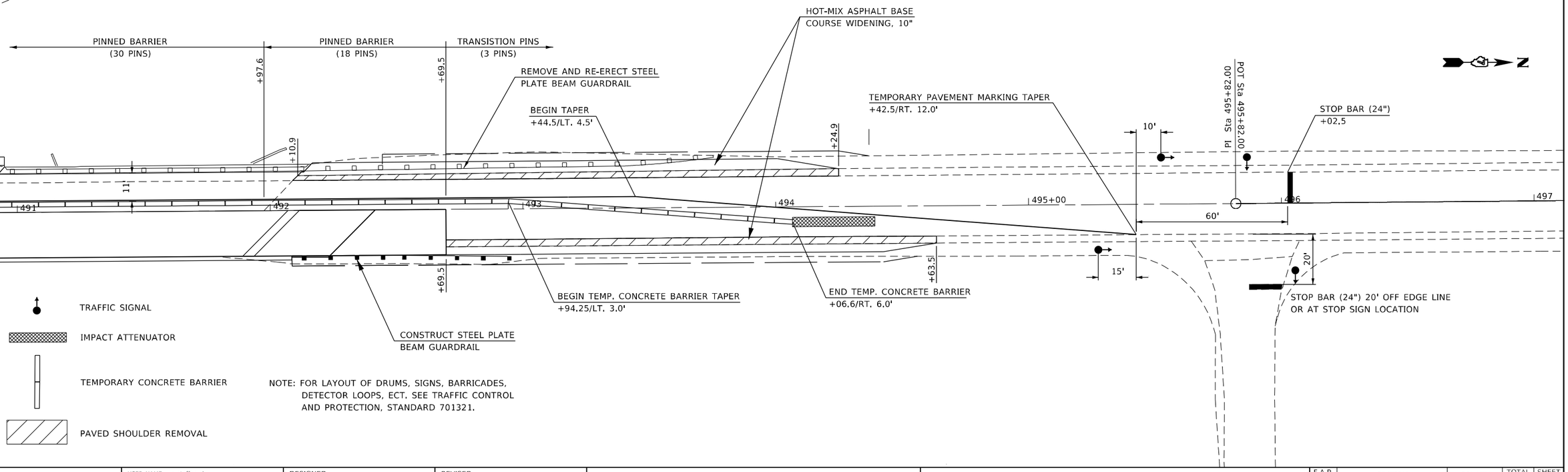
T.R. 363
PROFILE

SCALE: 20H:5V | SHEET 1 OF 1 SHEETS | STA. 91+50.00 | TO STA. 100+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	188-1	CRAWFORD	83	18
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

NOTE: FOR LAYOUT OF DRUMS, SIGNS, BARRICADES, DETECTOR LOOPS, ECT. SEE TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.





NOTE: FOR LAYOUT OF DRUMS, SIGNS, BARRICADES, DETECTOR LOOPS, ECT. SEE TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.

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	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

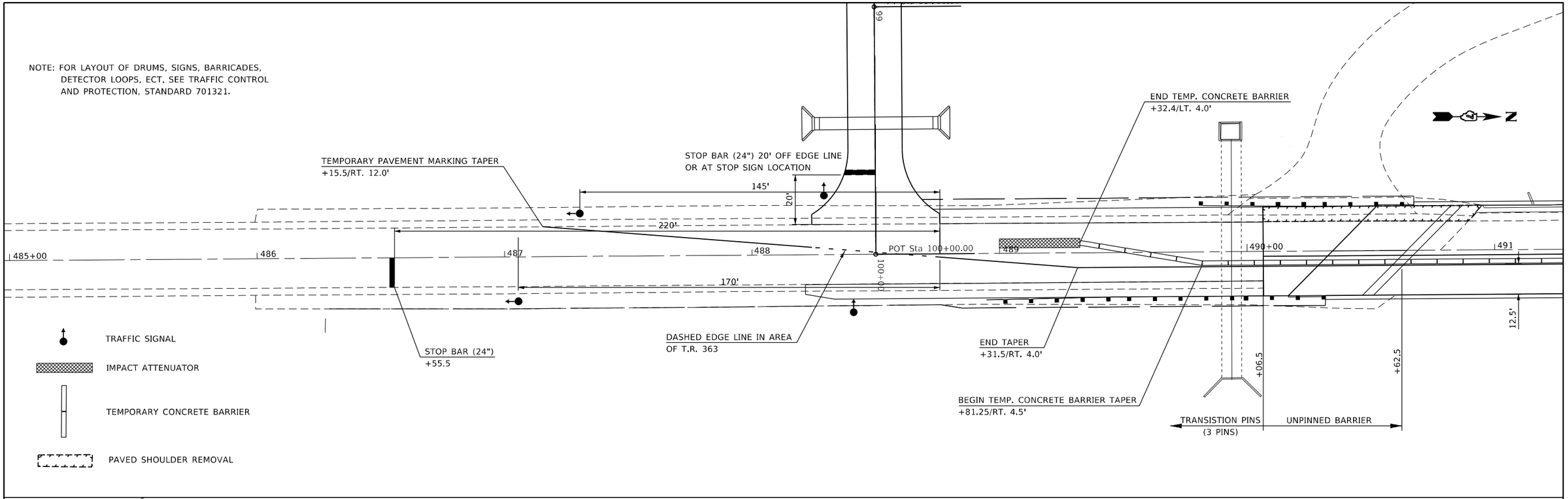
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I TRAFFIC CONTROL
S.N. 017–0005

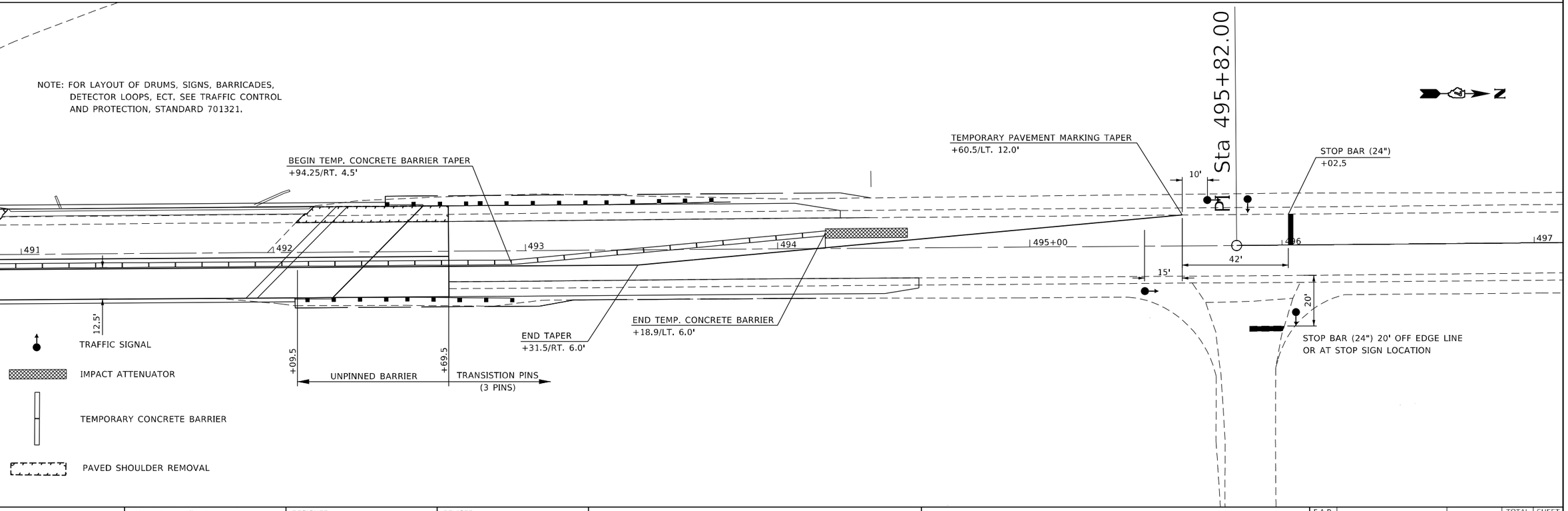
SCALE: 20 | SHEET 1 OF 2 SHEETS | STA. 485+00.00 TO STA. 497+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	19
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

NOTE: FOR LAYOUT OF DRUMS, SIGNS, BARRICADES, DETECTOR LOOPS, ECT. SEE TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.



NOTE: FOR LAYOUT OF DRUMS, SIGNS, BARRICADES, DETECTOR LOOPS, ECT. SEE TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.



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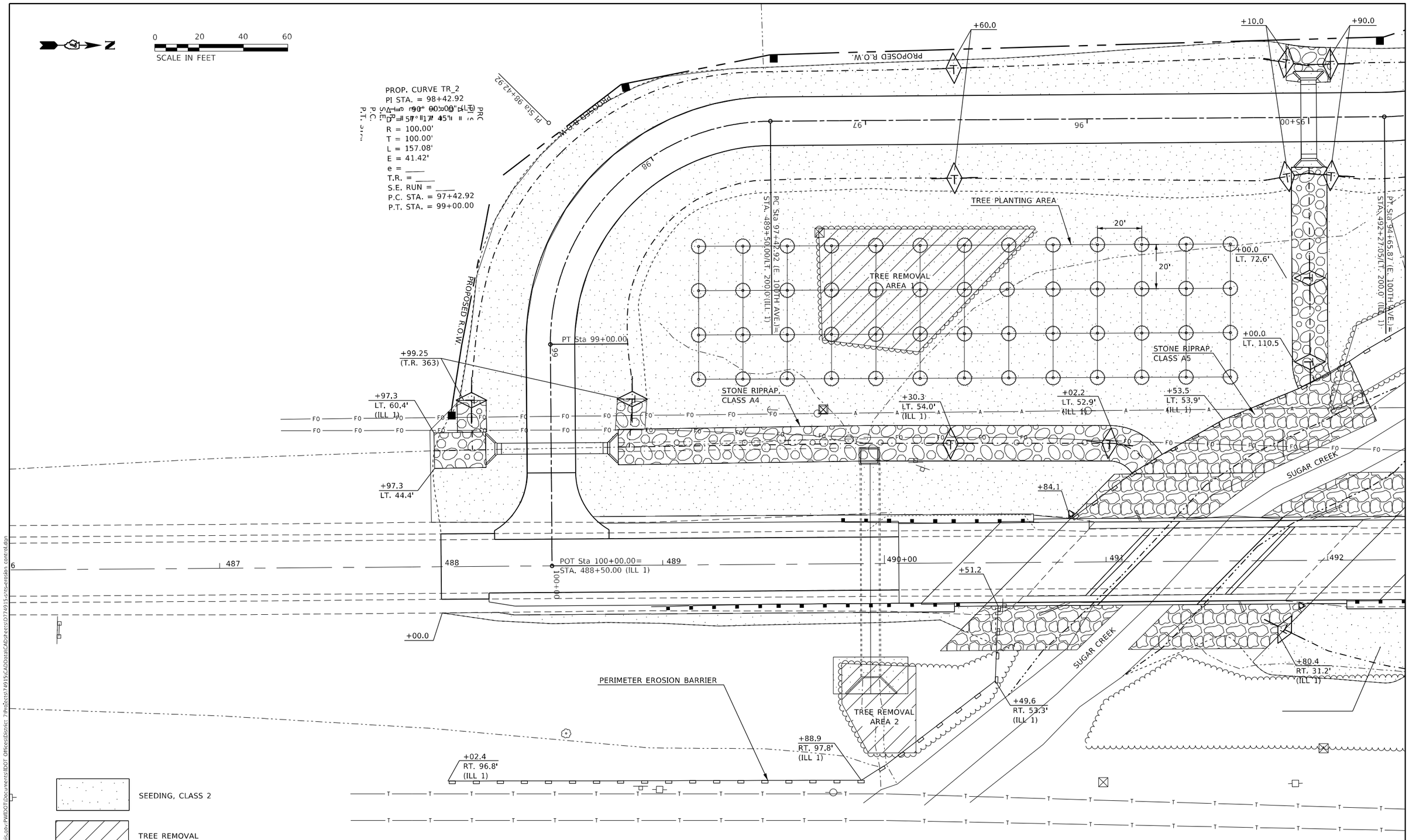
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II TRAFFIC CONTROL
S.N. 017–0005

SCALE: 20 | SHEET 2 OF 2 SHEETS | STA. 485+00.00 | TO STA. 497+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	20
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			



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	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL AND TREE REMOVAL SHEETS

SCALE: 20 | SHEET 1 OF 2 SHEETS | STA. 486+00.00 TO STA. 492+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	188-1	CRAWFORD	83	21
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

N

0 20 40 60
SCALE IN FEET

TREE REMOVAL
AREA 2

PERIMETER EROSION BARRIER

POT Sta 91+20.00 (E. 100TH AVE.)=
STA. 493+16.60/LT. 488.50' (ILL 1)

+50.0
+80.0
+55.0
PROPOSED R.O.W.

P.C. Sta 93+03.16 (E. 100TH AVE.)=
STA. 493+26.39/LT. 305.6' (ILL1)

+50.0
LT. 39.3'
(T.R. 363)

+75.0
LT. 49.6'
(T.R. 363)
PROPOSED R.O.W.

P.T. Sta 94+08.95

+00.0
LT. 58.3'
(T.R. 363)

+75.0
+00.0
+10.0

PROP. CURVE TR_1
PI STA. = 94+08.95
Δ = 93° 13' 23" (RT)
D = 57° 17' 45"
R = 100.00'
T = 105.79'
L = 162.70'
E = 45.57'
e = ____
T.R. = ____
S.E. RUN = ____
P.C. STA. = 93+03.16
P.T. STA. = 94+65.87

+50.0
LT. 85.6'
(T.R. 363)

+82.4
LT. 110.4'
(T.R. 363)

PT Sta 94+65.87 (E. 100TH AVE.)=
STA. 492+27.05/LT. 200.0' (ILL 1)

+00.0
LT. 72.6'
(T.R. 363)

+00.0
LT. 110.5
(T.R. 363)

+80.4
RT. 31.2'
(ILL 1)

+90.0
+10.0

D.S. DITCH OUTLET ELEV. = 499.70
LT. 119.0'/ STA. 94+98.22 (T.R. 363)

+53.5
LT. 53.9'
(ILL 1)

STONE RIPRAP, CLASS A4

STONE RIPRAP, CLASS A4

CONSTRUCTION LIMITS

PROPOSED R.O.W.

+75.0
+75.0

495+00
494
493
492
95+00

SEEDING, CLASS 2

TREE REMOVAL

MODEL: Default
FILE NAME: ow:\\dunroom.dot.illinois.gov:PWIDOT\Documents\IDOT Offices\District 7\Projects\74915\CADData\CADSheets\D774915-sht-erosion control.dgn

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	DRAWN -	REVISED -	
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PLOT DATE = 7/30/2020	DATE -	REVISED -	

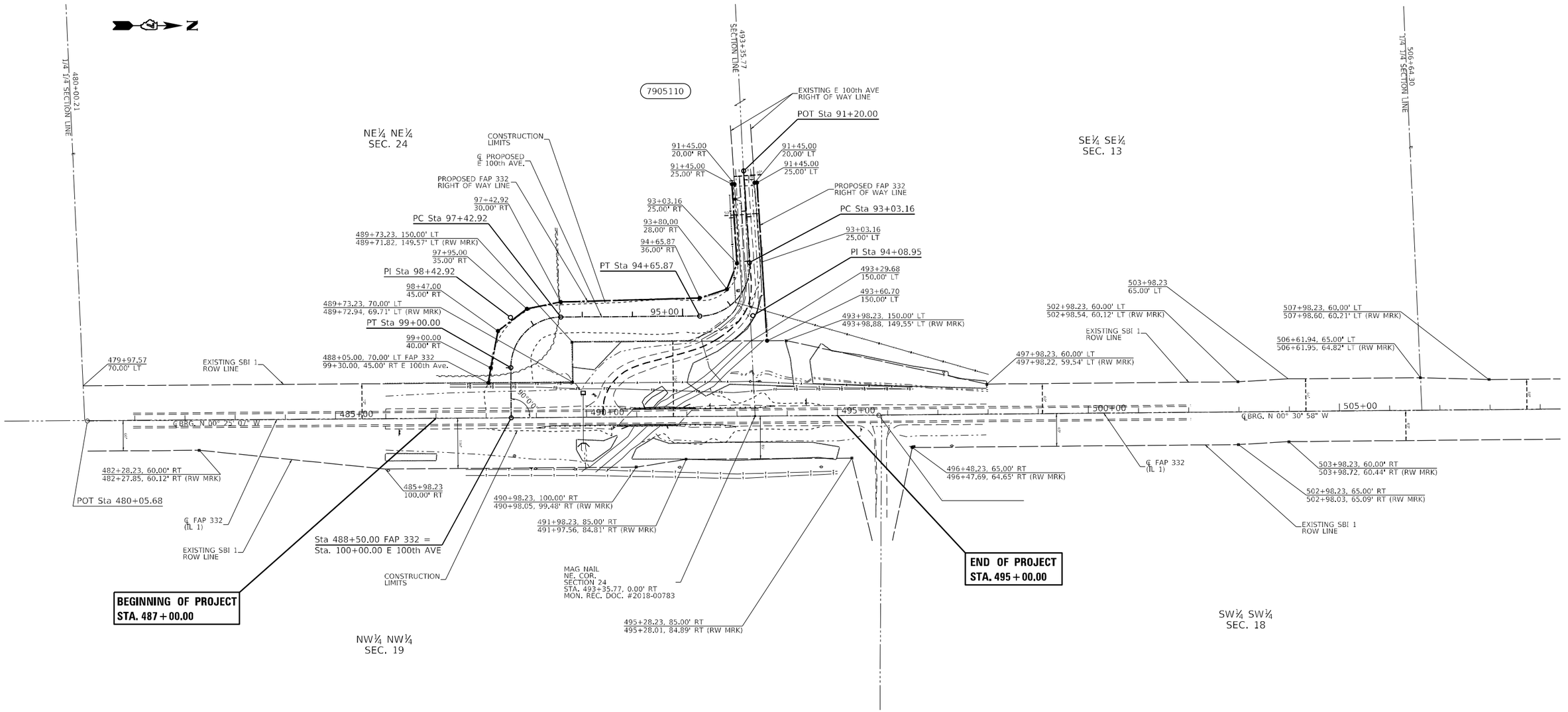
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL AND TREE REMOVAL SHEETS

SCALE: 20 | SHEET 2 OF 2 SHEETS | STA. 492+00.00 | TO STA. 495+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	22
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

T.5N.–R.12W., 2nd P.M., HONEY CREEK SOUTH TWP.



T.5N.–R.11W., 2nd P.M., HONEY CREEK SOUTH TWP.

O - EXISTING IRON PIN
⊘ - IDOT ALUMINUM DISK
⌑ - EXISTING MAG NAIL
● - SET IRON PIN
⊠ - EXISTING R.O.W. MARKER
⊗ - EXISTING FENCE POST
(R) RECORDED DISTANCE

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

TEMPORARY EASEMENTS NEEDED FOR A WORK AREA

PROP. CURVE TR_2
PI STA. = 98+42.92
Δ = 90° 00' 00" (LT)
D = 57° 17' 45"
R = 100.00'
T = 100.00'
L = 157.08'
E = 41.42'
e = ____
T.R. = ____
S.E. RUN = ____
P.C. STA. = 97+42.92
P.T. STA. = 99+00.00

PROP. CURVE TR_1
PI STA. = 94+08.95
Δ = 93° 13' 23" (RT)
D = 57° 17' 45"
R = 100.00'
T = 105.79'
L = 162.70'
E = 45.57'
e = ____
T.R. = ____
S.E. RUN = ____
P.C. STA. = 93+03.16
P.T. STA. = 94+65.87

PARCEL	OWNER	AREA TAKEN ADD	AREA TAKEN EXIST	EASEMENT	REM. AREA	INST	RECORDED MICRO FILM NO.	RECORDED DATE	RECORDED BOOK	RECORDED PAGE	EXCESS AREA	EXCESS SOLD
7905110	KARL E. NEWELL, JR. AND CECILIE A. NEWELL, TRUSTEES	1.553 AC.	0.000 AC.		74.932 AC.							

USER NAME = steffenmk	DESIGNED - JMD	REVISED -	
	DRAWN - JMD	REVISED -	
PLOT SCALE = 200.0000 ' / in.	CHECKED - BAB	REVISED -	
PLOT DATE = 7/30/2020	DATE - 08/28/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

PROJECT NHPP CVIG(902) | JOB NO. R-97-005-19
SCALE: 1" = 100' | SHEET 1 OF 1 SHEETS | STA. 480+00.00 TO STA. 508+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18 B-1	CRAWFORD	83	22A
		CONTRACT NO. 74915		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

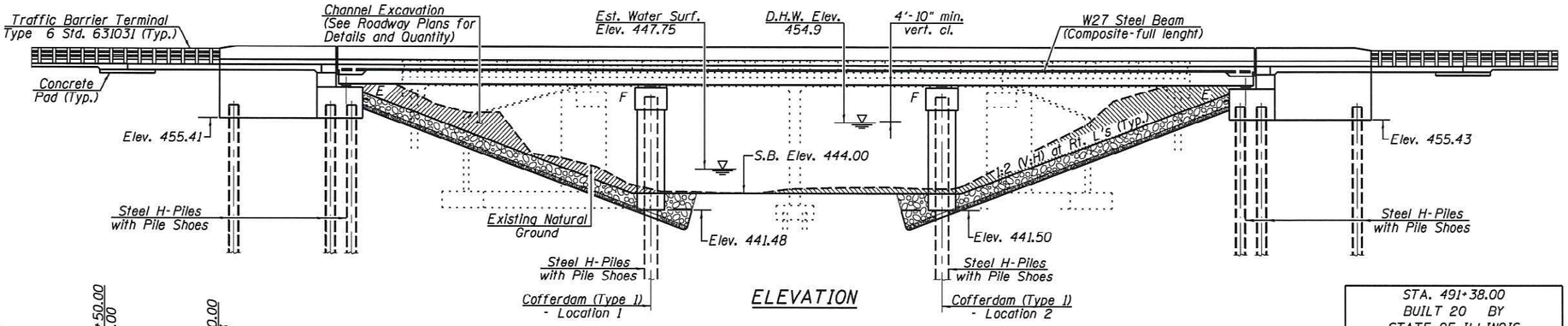
MODEL: Default
FILE NAME: z:\d1danroom.dot.illinois.gov\PWIDOT\Documents\IDOT Offices\District 7\Projects\74915\CADData\CADFiles\D774915-sht-ROW.dgn

Benchmark #1: Cut "□" on the southeast corner of structure 017-0005, Elev. 463.154

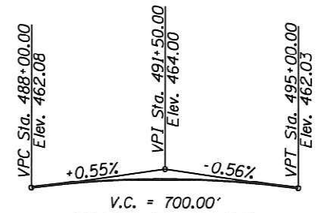
S.N. 017-0005 was built in 1921 as part of SBI-1 at Sta. 491+38.00. In 1963, under SBI-1 Section 18BR, the superstrucure was replaced. Existing structure is a two span continuous C.I.P. concrete deck with two C.I.P. concrete approach spans. The structure is 120'-1" bk to bk approaches, 36'-4" out to out and has a 45° left forward skew. Existing structure is to be removed and replaced utilizing stage construction to maintain one lane of traffic during construction.

No salvage.

Note: See Sheet 2 of 28 for Section A-A.

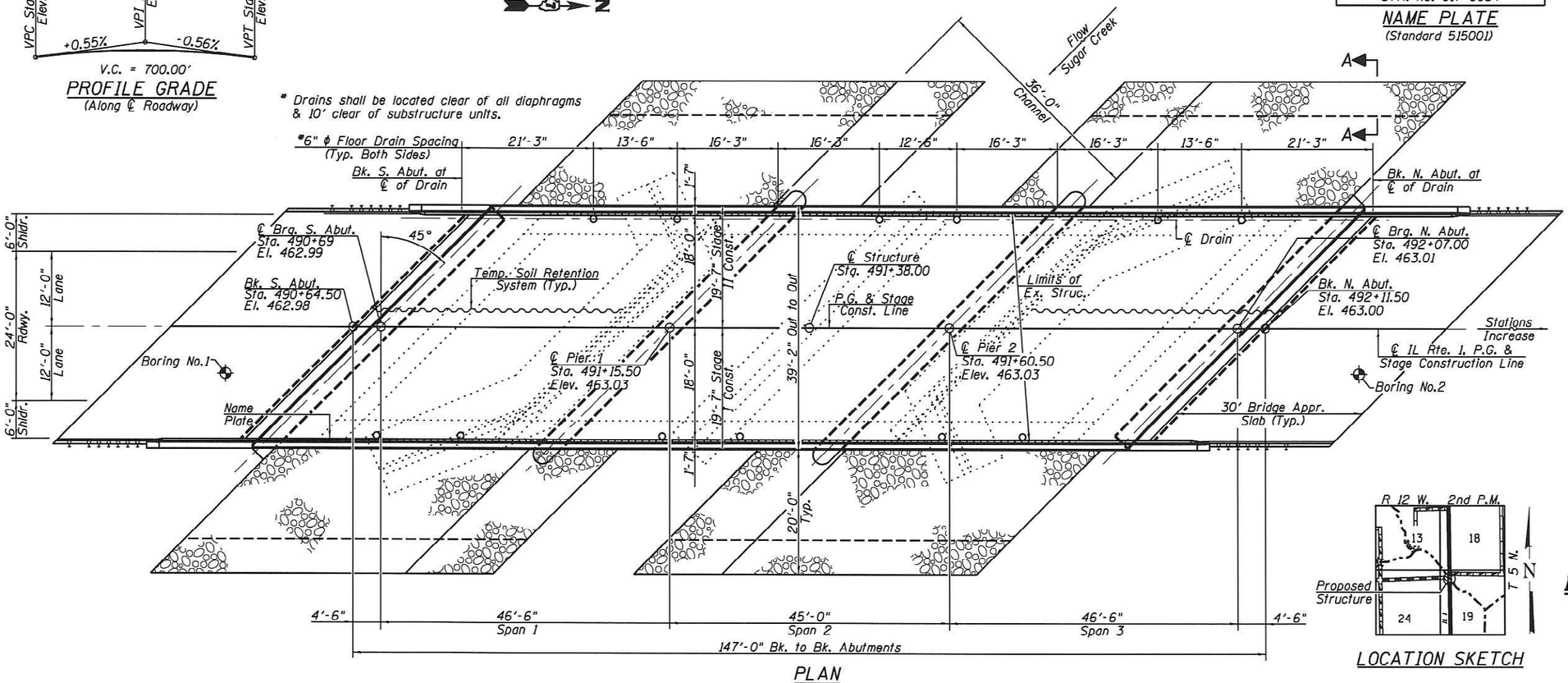


ELEVATION



PROFILE GRADE
(Along ℄ Roadway)

* Drains shall be located clear of all diaphragms & 10' clear of substructure units.



PLAN

LOCATION SKETCH

STA. 491+38.00
BUILT 20 BY
STATE OF ILLINOIS
FAP RTE. 332 SEC. 18B-1
LOADING HL 93
STR. NO. 017-0034

NAME PLATE
(Standard 515001)

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
2017 AASHTO LRFD Bridge Design Specifications, 8th Edition.

DESIGN STRESSES
FIELD UNITS
f'_c = 3,500 psi
f'_c = 4,000 psi (Superstructure)
f_y = 60,000 psi (Reinforcement)
f_y = 50,000 psi (M270 Grade 50)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.214g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.489g
Soil Site Class = D

INDEX OF SHEETS

MARK A. HENDERSON 093 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS

Mark A Henderson 1/27/2020
Expiration Date 11/30/2020

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 1 OVER SUGAR CREEK
F.A.P. RTE. 332 - SEC. 18B-1
CRAWFORD COUNTY
STA. 491+38.00
STRUCTURE NO. 017-0034

Veenstra & Kimm, Inc.
Springfield, IL. Phone: (217)544-8033

USER NAME =	DESIGNED - GBR	REVISED -	
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PLOT DATE =	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 017-0034
SHEET NO. 1 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	23
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

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

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts $^{7}/_{8}$ in. ϕ, holes $^{15}/_{16}$ in. ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 76,080 lbs. (M270 Grade 50)
= 10,500 lbs (M270 Grade 36)

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

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

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

Concrete Sealer shall be applied to the designated areas of the abutments.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsell No. 5B 7/1.

The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set parallel to the skew for striking off and screeding the concrete.

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

WATERWAY INFORMATION

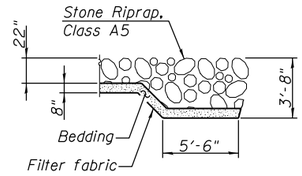
Drainage Area = 8.4 sq. mi.

Prop. Low Grade Elev. 460.3 @ Sta. 485+50
Exist. Low Grade Elev. 460.3 @ Sta. 485+50

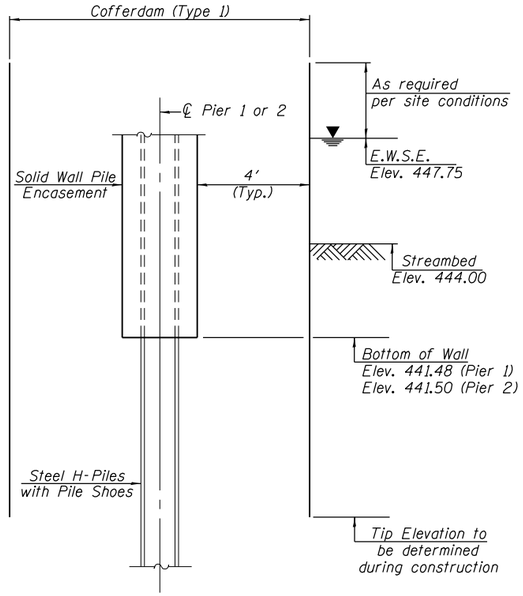
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Natural H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	2100	384	489	453.6	0.2	0.2	453.8	453.8
Design	50	3450	431	568	454.9	0.5	0.3	455.4	455.2
Base	100	4060	448	598	455.2	0.8	0.5	456.0	455.7
Overtopping									
Max. Calc.	500	5570	477	652	455.9	1.4	0.7	457.3	456.6

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S. Abut.	Pier 1	Pier 2	N. Abut.
	455.41	438.00	437.25	455.43



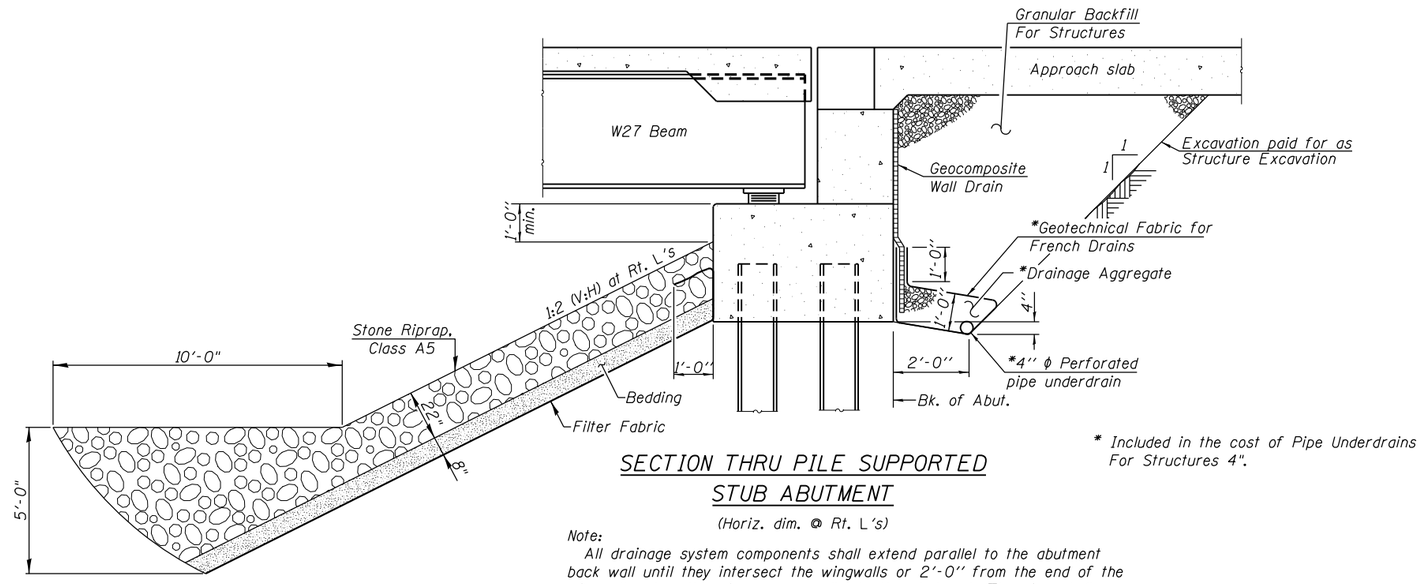
SECTION A-A



COFFERDAM DETAIL

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Floor Drains	Each	12		12
Stud Shear Connectors	Each	3924		3924
Preformed Joint Strip Seal	Foot	106		106
Granular Backfill For Structures	Cu. Yd.	122.2		122.2
Stone Riprap, Class A5	Ton		1296	1296
Filter Fabric	Sq. Yd.		962	962
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu. Yd.		314	314
Concrete Structures	Cu. Yd.		373.8	373.8
Concrete Superstructure	Cu. Yd.	189.9		189.9
Bridge Deck Grooving	Sq. Yd.	761		761
Concrete Encasement	Cu. Yd.		9.0	9.0
Protective Coat	Sq. Yd.	954		954
Reinforcement Bars, Epoxy Coated	Pound	82550	33590	116140
Bar Splicers	Each	652	230	882
Furnishing Steel Piles HP 12x53	Foot		1333	1333
Furnishing Steel Piles HP 14x89	Foot		1370	1370
Driving Piles	Foot		2703	2703
Test Pile Steel HP 12x53	Each		1	1
Pile Shoes	Each		46	46
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		67.0	67.0
Pipe Underdrain for Structures 4"	Foot		140	140
Furnishing and Erecting Structural Steel	L. Sum	1		1
Cofferdam (Type 1) - Location 1	Each		1	1
Cofferdam (Type 1) - Location 2	Each		1	1
Temporary Soil Retention System	Sq. Ft.		1300	1300
Anchor Bolts, $^{3}/_{4}$"	Each	48		48
Concrete Sealer	Sq. Ft.		1140	1140
Elastomeric Bearing Assembly Type I	Each	12		12
Concrete Superstructure (Approach Slab)	Cu. Yd.	104.7		104.7



SECTION THRU PILE SUPPORTED STUB ABUTMENT

(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains For Structures 4".

Note:

All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

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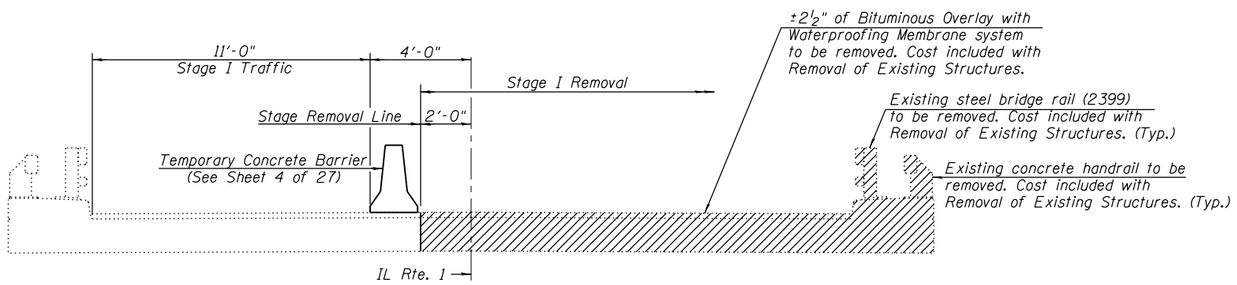
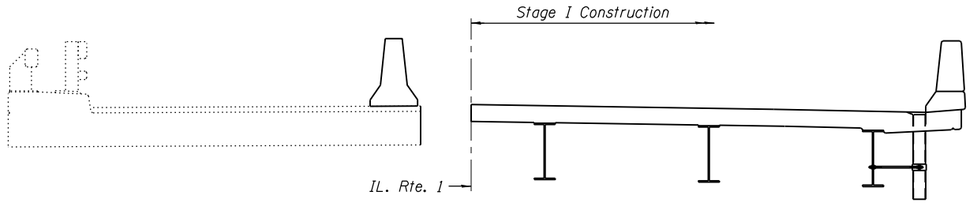
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 017-0034
SHEET NO. 2 OF 28 SHEETS

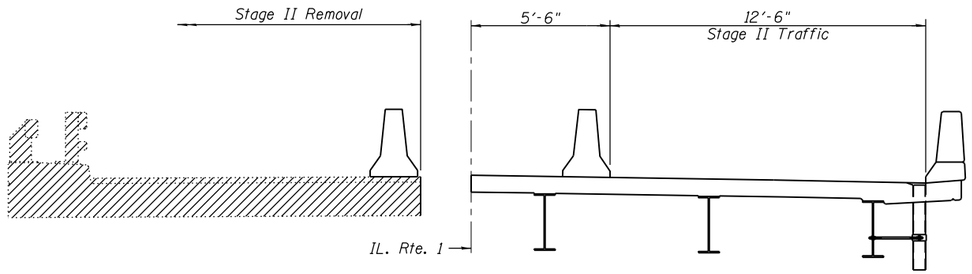
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	24
		CONTRACT NO. 74915		
		ILLINOIS FED. AID PROJECT		



STAGE I REMOVAL
(Looking North)



STAGE I CONSTRUCTION
(Looking North)



STAGE II REMOVAL
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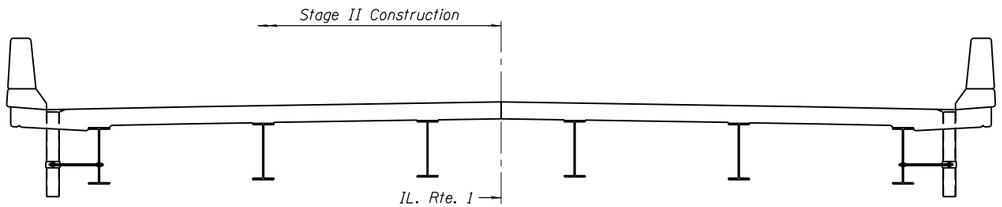
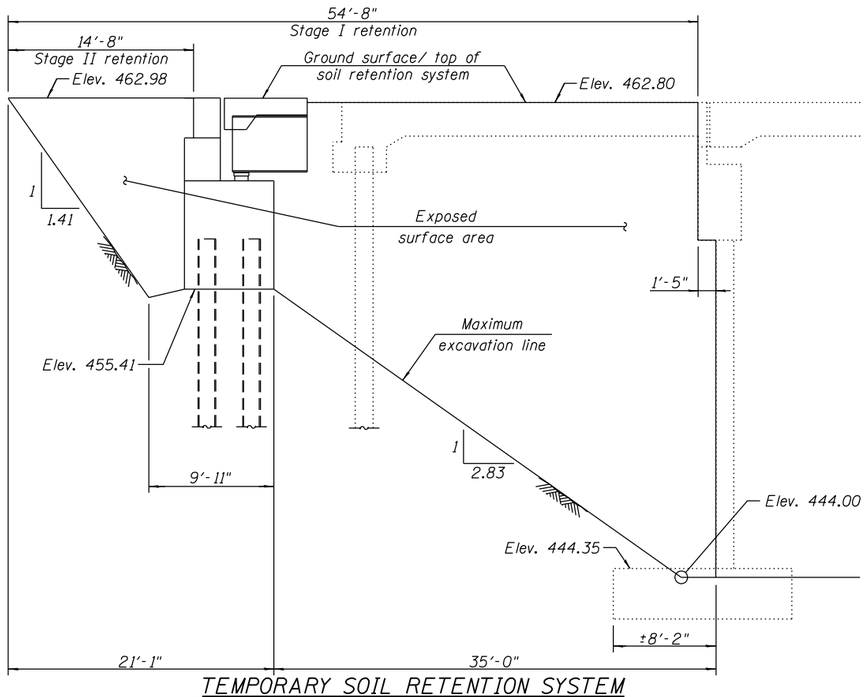


STAGE II CONSTRUCTION
(Looking North)



TEMPORARY SOIL RETENTION SYSTEM
(at South Abutment)

Estimated Exposed Area to be Retained = Stage I = 582 sq. ft.
Stage II = 68 sq. ft.

TEMPORARY SOIL RETENTION SYSTEM
(at North Abutment)

Estimated Exposed Area to be Retained = Stage I 582 sq. ft.
Stage II = 68 sq. ft.

Notes:

For quantity of Temporary Concrete Barrier, see roadway plans.

Hatched areas indicate Removal of Existing Strctures.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

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.

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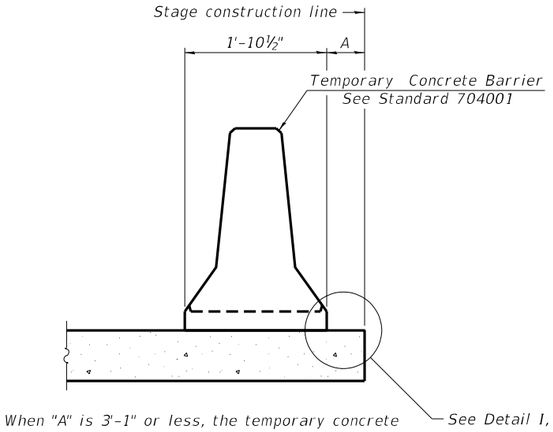
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

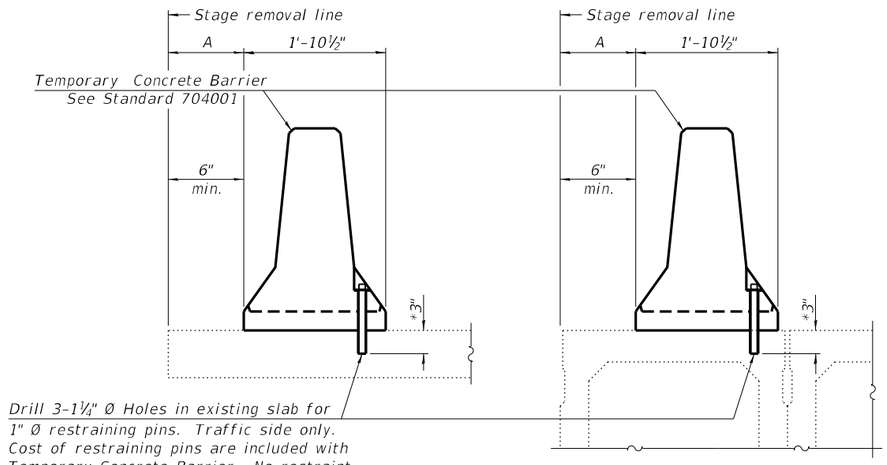
STAGE CONSTRUCTION DETAILS
STRCTURE NO. 017-0034
SHEET NO. 3 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	25
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



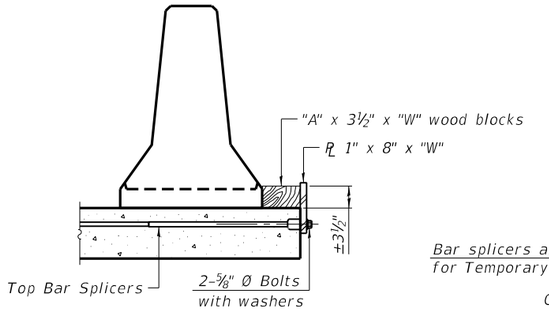
Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

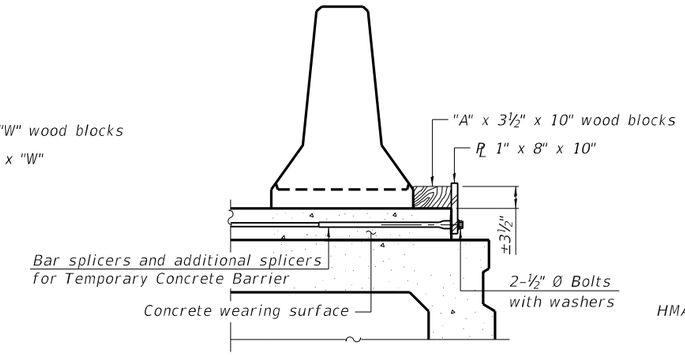
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

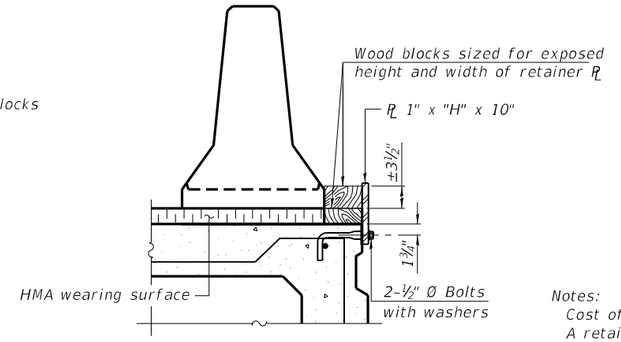
SECTIONS THRU SLAB OR DECK BEAM



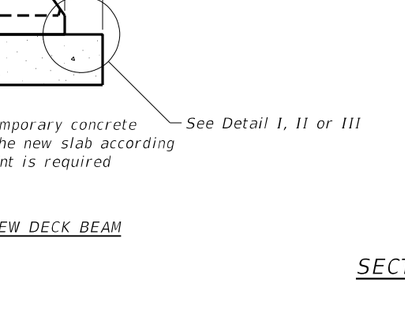
DETAIL I



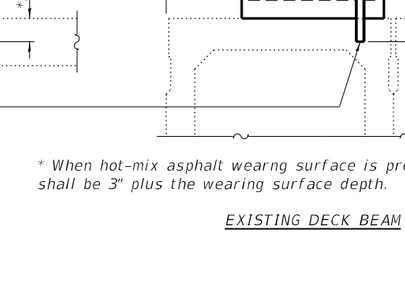
DETAIL II



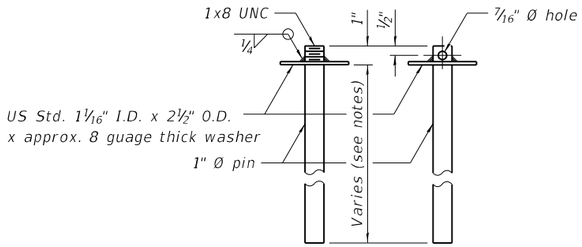
DETAIL III



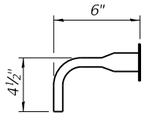
STEEL RETAINER ℄ 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"
(Detail III)



RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

2-17-2017

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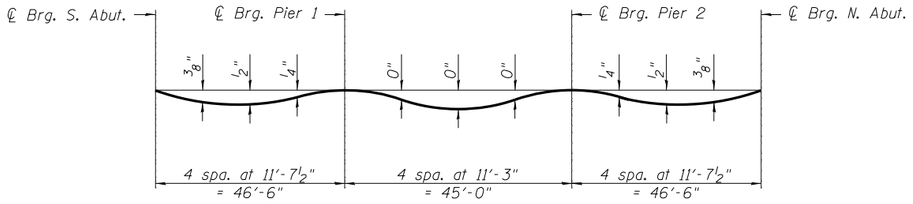
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 017-0034
SHEET NO. 4 OF 28 SHEETS

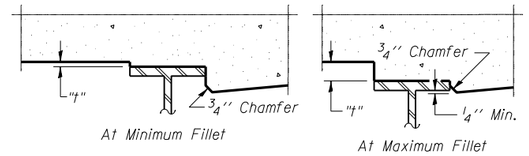
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	26
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			



DEAD LOAD DEFLECTION DIAGRAM

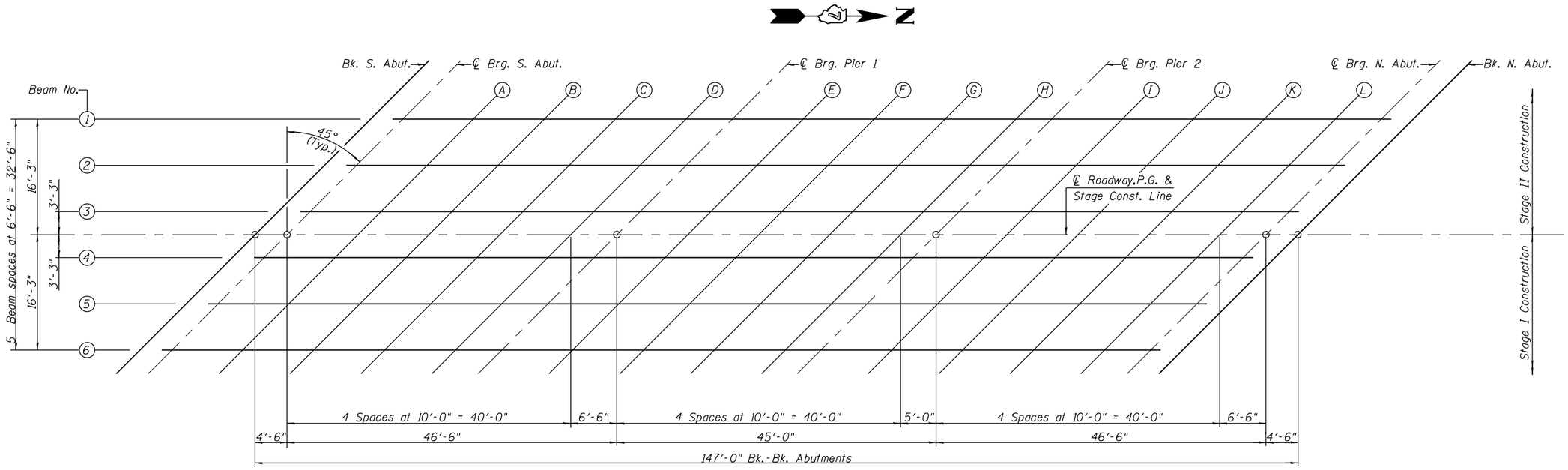
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 6 & 7 of 28.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 6 & 7 of 28, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 017-0034
SHEET NO. 5 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	27
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	490+80.75	-16.25	462.72	462.72
℄ Brg. S. Abut.	490+85.25	-16.25	462.73	462.73
A	490+95.25	-16.25	462.74	462.76
B	491+05.25	-16.25	462.74	462.78
C	491+15.25	-16.25	462.75	462.78
D	491+25.25	-16.25	462.75	462.77
℄ Brg. Pier 1	491+31.75	-16.25	462.76	462.76
E	491+41.75	-16.25	462.76	462.76
F	491+51.75	-16.25	462.76	462.76
G	491+61.75	-16.25	462.76	462.76
H	491+71.75	-16.25	462.75	462.75
℄ Brg. Pier 2	491+76.75	-16.25	462.75	462.75
I	491+86.75	-16.25	462.75	462.76
J	491+96.75	-16.25	462.74	462.77
K	492+06.75	-16.25	462.73	462.77
L	492+16.75	-16.25	462.72	462.74
℄ Brg. N. Abut.	492+23.25	-16.25	462.71	462.71
Bk. N. Abut.	492+27.75	-16.25	462.71	462.71

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	490+74.25	-9.75	462.84	462.84
℄ Brg. S. Abut.	490+78.75	-9.75	462.85	462.85
A	490+88.75	-9.75	462.86	462.88
B	490+98.75	-9.75	462.86	462.90
C	491+08.75	-9.75	462.87	462.90
D	491+18.75	-9.75	462.88	462.89
℄ Brg. Pier 1	491+25.25	-9.75	462.88	462.88
E	491+35.25	-9.75	462.88	462.88
F	491+45.25	-9.75	462.88	462.88
G	491+55.25	-9.75	462.88	462.88
H	491+65.25	-9.75	462.88	462.88
℄ Brg. Pier 2	491+70.25	-9.75	462.88	462.88
I	491+80.25	-9.75	462.87	462.89
J	491+90.25	-9.75	462.87	462.90
K	492+00.25	-9.75	462.86	462.90
L	492+10.25	-9.75	462.85	462.87
℄ Brg. N. Abut.	492+16.75	-9.75	462.84	462.84
Bk. N. Abut.	492+21.25	-9.75	462.84	462.84

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	490+67.75	-3.25	462.93	462.93
℄ Brg. S. Abut.	490+72.25	-3.25	462.94	462.94
A	490+82.25	-3.25	462.95	462.98
B	490+92.25	-3.25	462.96	463.00
C	491+02.25	-3.25	462.97	463.00
D	491+12.25	-3.25	462.97	462.99
℄ Brg. Pier 1	491+18.75	-3.25	462.98	462.98
E	491+28.75	-3.25	462.98	462.98
F	491+38.75	-3.25	462.98	462.98
G	491+48.75	-3.25	462.98	462.98
H	491+58.75	-3.25	462.98	462.98
℄ Brg. Pier 2	491+63.75	-3.25	462.98	462.98
I	491+73.75	-3.25	462.98	463.00
J	491+83.75	-3.25	462.97	463.01
K	491+93.75	-3.25	462.97	463.00
L	492+03.75	-3.25	462.96	462.98
℄ Brg. N. Abut.	492+10.25	-3.25	462.95	462.95
Bk. N. Abut.	492+14.75	-3.25	462.95	462.95

℄ ROADWAY, P.G. & STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	490+64.50	0.00	462.98	462.98
℄ Brg. S. Abut.	490+69.00	0.00	462.99	462.99
A	490+79.00	0.00	463.00	463.02
B	490+89.00	0.00	463.01	463.05
C	490+99.00	0.00	463.02	463.05
D	491+09.00	0.00	463.02	463.03
℄ Brg. Pier 1	491+15.50	0.00	463.03	463.03
E	491+25.50	0.00	463.03	463.03
F	491+35.50	0.00	463.03	463.03
G	491+45.50	0.00	463.03	463.03
H	491+55.50	0.00	463.03	463.03
℄ Brg. Pier 2	491+60.50	0.00	463.03	463.03
I	491+70.50	0.00	463.03	463.05
J	491+80.50	0.00	463.03	463.06
K	491+90.50	0.00	463.02	463.06
L	492+00.50	0.00	463.01	463.03
℄ Brg. N. Abut.	492+07.00	0.00	463.01	463.01
Bk. N. Abut.	492+11.50	0.00	463.00	463.00

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	490+61.25	3.25	462.93	462.93
℄ Brg. S. Abut.	490+65.75	3.25	462.93	462.93
A	490+75.75	3.25	462.94	462.97
B	490+85.75	3.25	462.95	462.99
C	490+95.75	3.25	462.96	462.99
D	491+05.75	3.25	462.97	462.98
℄ Brg. Pier 1	491+12.25	3.25	462.97	462.97
E	491+22.25	3.25	462.98	462.98
F	491+32.25	3.25	462.98	462.98
G	491+42.25	3.25	462.98	462.98
H	491+52.25	3.25	462.98	462.98
℄ Brg. Pier 2	491+57.25	3.25	462.98	462.98
I	491+67.25	3.25	462.98	463.00
J	491+77.25	3.25	462.98	463.01
K	491+87.25	3.25	462.97	463.01
L	491+97.25	3.25	462.96	462.98
℄ Brg. N. Abut.	492+03.75	3.25	462.96	462.96
Bk. N. Abut.	492+08.25	3.25	462.95	462.95

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	490+54.75	9.75	462.81	462.81
℄ Brg. S. Abut.	490+59.25	9.75	462.82	462.82
A	490+69.25	9.75	462.83	462.86
B	490+79.25	9.75	462.85	462.88
C	490+89.25	9.75	462.86	462.89
D	490+99.25	9.75	462.86	462.88
℄ Brg. Pier 1	491+05.75	9.75	462.87	462.87
E	491+15.75	9.75	462.87	462.87
F	491+25.75	9.75	462.88	462.88
G	491+35.75	9.75	462.88	462.88
H	491+45.75	9.75	462.88	462.88
℄ Brg. Pier 2	491+50.75	9.75	462.88	462.88
I	491+60.75	9.75	462.88	462.90
J	491+70.75	9.75	462.88	462.91
K	491+80.75	9.75	462.87	462.91
L	491+90.75	9.75	462.87	462.89
℄ Brg. N. Abut.	491+97.25	9.75	462.86	462.86
Bk. N. Abut.	492+01.75	9.75	462.86	462.86

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	490+48.25	16.25	462.68	462.68
℄ Brg. S. Abut.	490+52.75	16.25	462.69	462.69
A	490+62.75	16.25	462.70	462.73
B	490+72.75	16.25	462.71	462.75
C	490+82.75	16.25	462.73	462.76
D	490+92.75	16.25	462.74	462.75
℄ Brg. Pier 1	490+99.25	16.25	462.74	462.74
E	491+09.25	16.25	462.75	462.75
F	491+19.25	16.25	462.75	462.75
G	491+29.25	16.25	462.76	462.75
H	491+39.25	16.25	462.76	462.75
℄ Brg. Pier 2	491+44.25	16.25	462.76	462.76
I	491+54.25	16.25	462.76	462.78
J	491+64.25	16.25	462.76	462.79
K	491+74.25	16.25	462.75	462.79
L	491+84.25	16.25	462.75	462.77
℄ Brg. N. Abut.	491+90.75	16.25	462.74	462.74
Bk. N. Abut.	491+95.25	16.25	462.74	462.74

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 017-0034
SHEET NO. 7 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	29
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	490+53.21	-18.00	462.65
A1	490+63.21	-18.00	462.67
A2	490+73.21	-18.00	462.68
N. End of S. Appr. Slab	490+83.21	-18.00	462.69

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	490+47.21	-12.00	462.77
A1	490+57.21	-12.00	462.78
A2	490+67.21	-12.00	462.80
N. End of S. Appr. Slab	490+77.21	-12.00	462.81

℄ ROADWAY, P.G. & STAGE CONST. LINE

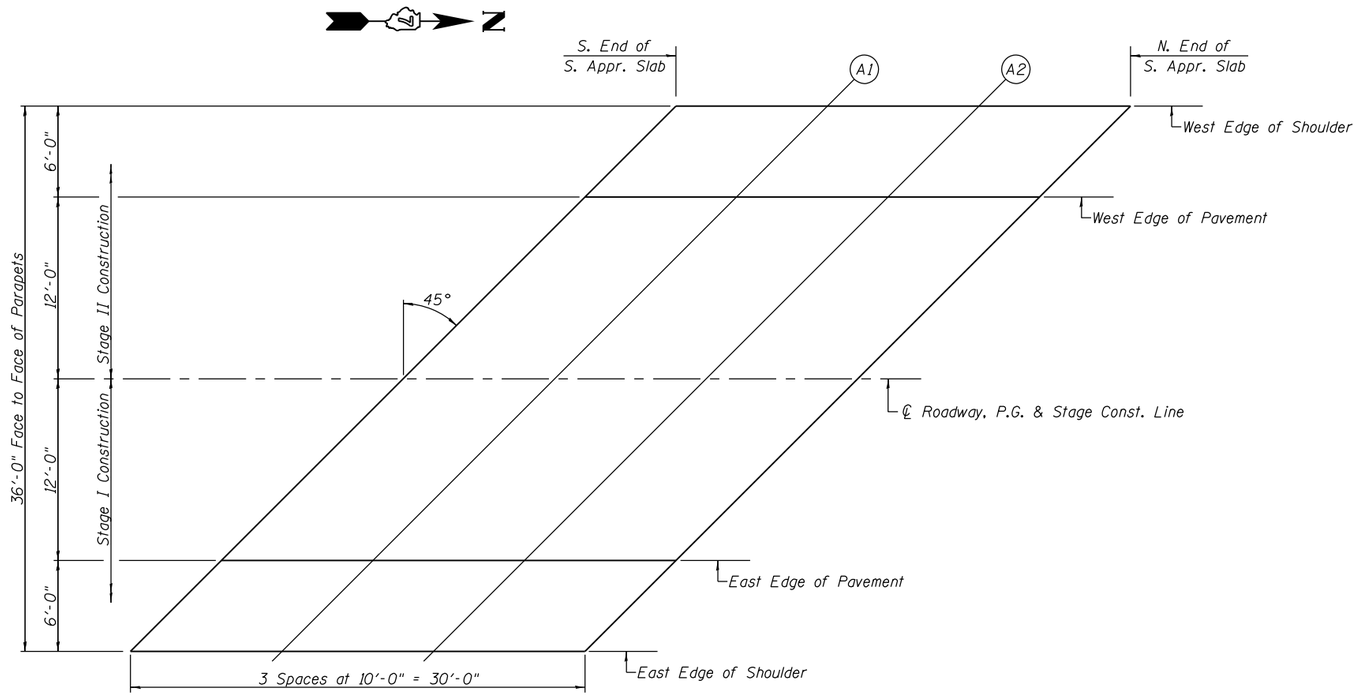
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	490+35.21	0.00	462.94
A1	490+45.21	0.00	465.95
A2	490+55.21	0.00	462.97
N. End of S. Appr. Slab	490+65.21	0.00	462.98

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	490+23.21	12.00	462.73
A1	490+33.21	12.00	462.74
A2	490+43.21	12.00	462.76
N. End of S. Appr. Slab	490+53.21	12.00	462.78

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	490+17.21	18.00	462.59
A1	490+27.21	18.00	462.61
A2	490+37.21	18.00	462.63
N. End of S. Appr. Slab	490+47.21	18.00	462.64



PLAN

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	PLOT DATE =	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 017-0034
SHEET NO. 8 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	30
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	492+28.79	-18.00	462.67
A3	492+38.79	-18.00	462.65
A4	492+48.79	-18.00	462.64
N. End of N. Appr. Slab	492+58.79	-18.00	462.62

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	492+22.79	-12.00	462.80
A3	492+32.79	-12.00	462.79
A4	492+42.79	-12.00	462.77
N. End of N. Appr. Slab	492+52.79	-12.00	462.76

℄ ROADWAY, P.G. & CONST. LINE

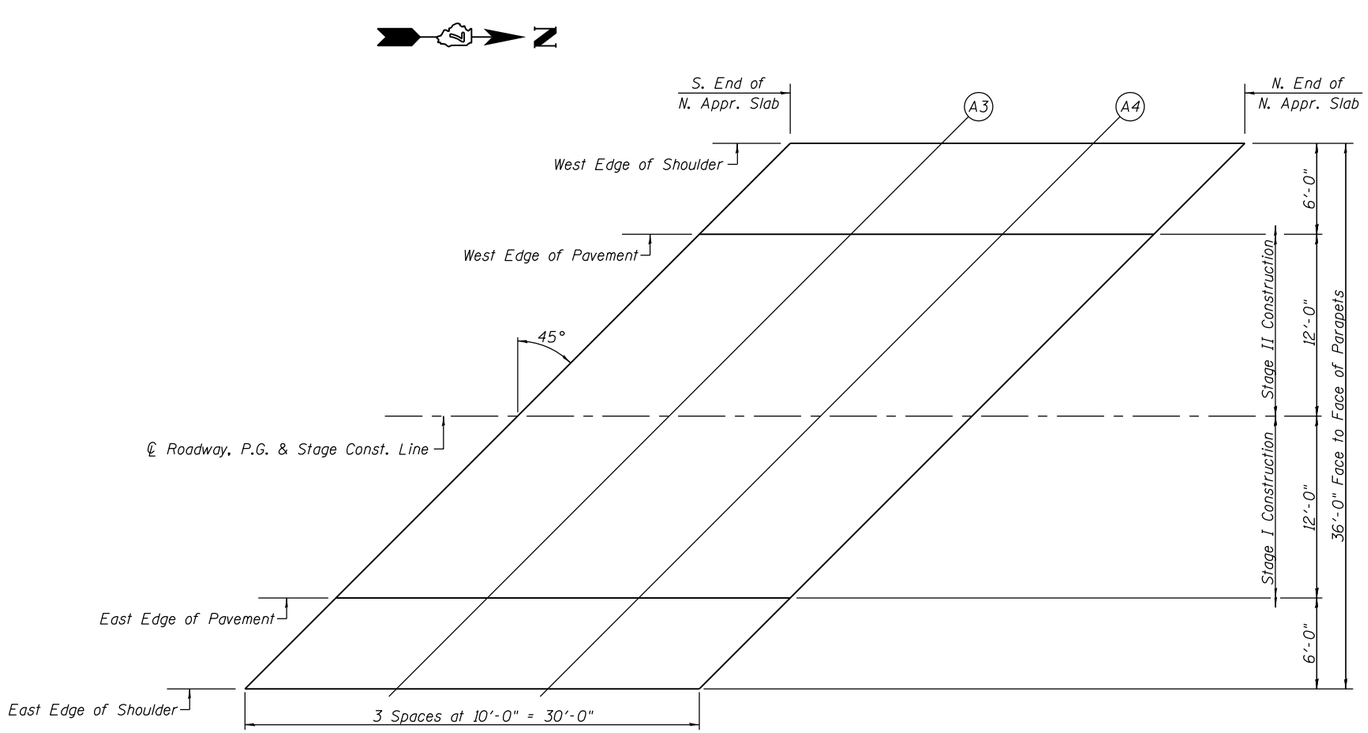
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	492+10.79	0.00	463.00
A3	492+20.79	0.00	462.99
A4	492+30.79	0.00	462.98
N. End of N. Appr. Slab	492+40.79	0.00	462.96

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	491+98.79	12.00	462.83
A3	492+08.79	12.00	462.82
A4	492+18.79	12.00	462.81
N. End of N. Appr. Slab	492+28.79	12.00	462.79

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	491+92.79	18.00	462.71
A3	492+02.79	18.00	462.70
A4	492+12.79	18.00	462.69
N. End of N. Appr. Slab	492+22.79	18.00	462.68



PLAN

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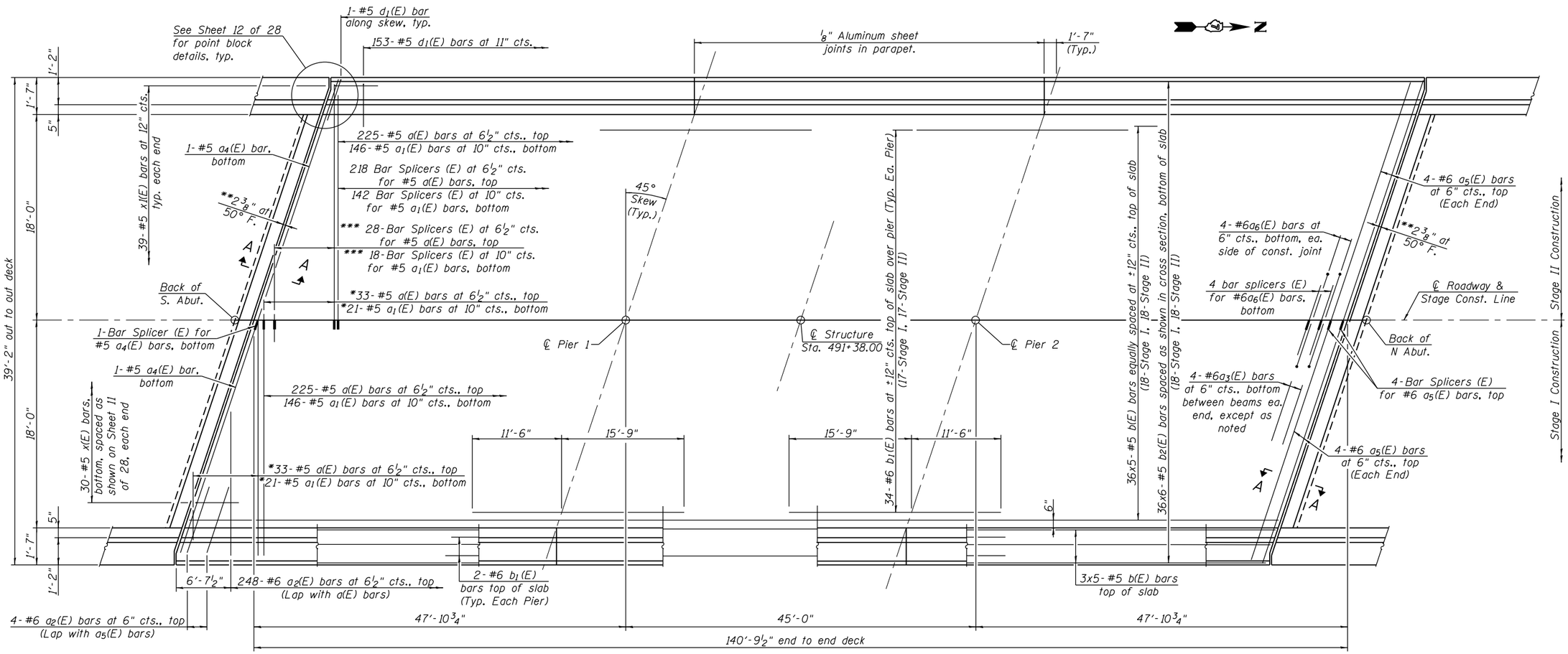
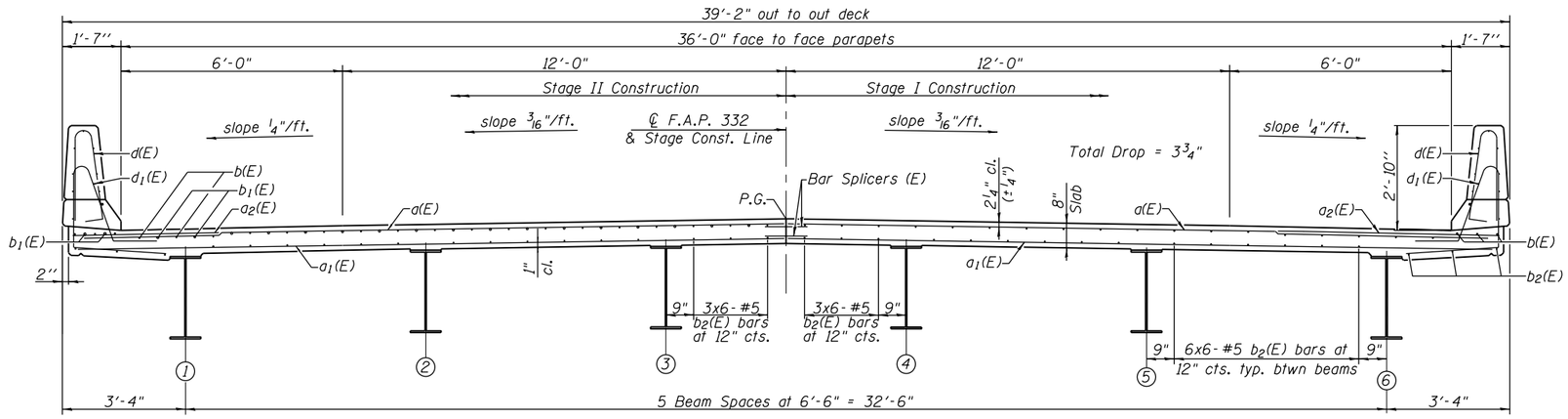
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 017-0034
SHEET NO. 9 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	31
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		



PLAN



NEAR PIER NEAR MIDSPAN

CROSS SECTION
(Looking North)

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

** Dimension showing concrete opening. For joint opening, see sheet 12 of 28.

*** Bar splicers not required for a(E) and a1(E) bars within the limits of the #6 a5(E) bars at each end of the deck.

Min. Bar Lap
#5 = 3'-6"

Notes:
See Sheet 11 of 28 for superstructure details and Bill of Material.
Bars indicated thus 36 x 5-#5 etc. indicates 36 lines of bars with 5 lengths per line.
See Sheet 11 of 28 for parapet reinforcement.
For Section A-A See Sheet 11 of 28.
See Sheet 1 of 28 for Floor Drain locations.

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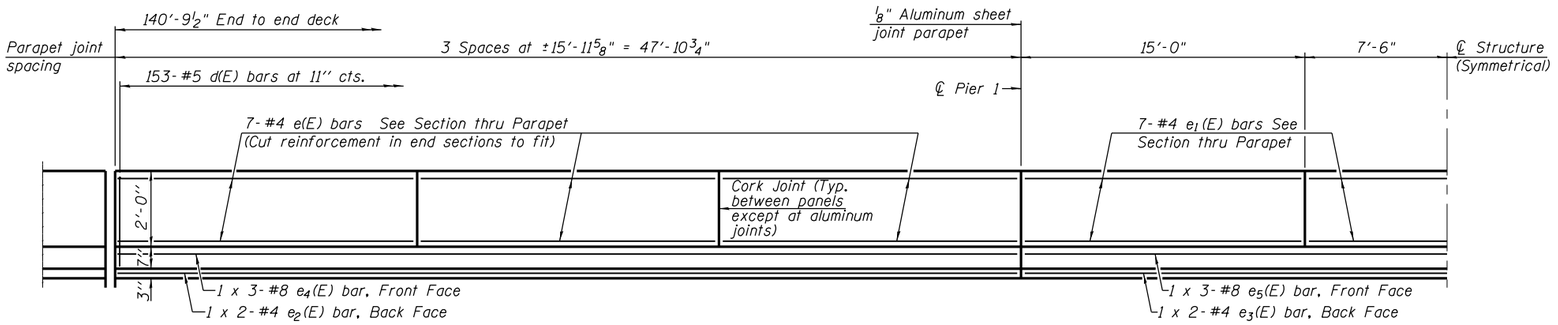
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

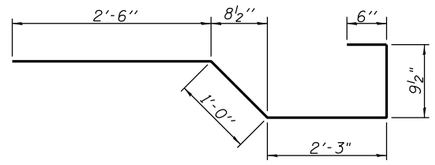
SUPERSTRUCTURE
STRUCTURE NO. 017-0034
SHEET NO. 10 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	32
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

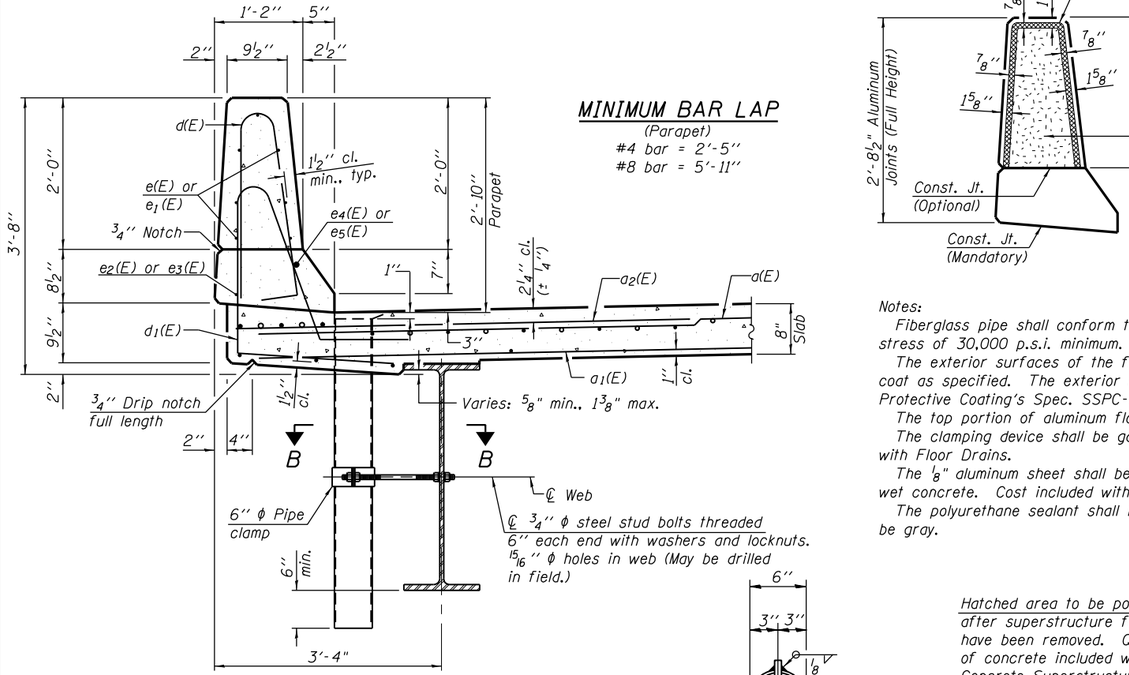


INSIDE ELEVATION OF PARAPET

(Longitudinal dimensions are along inside face of parapet)



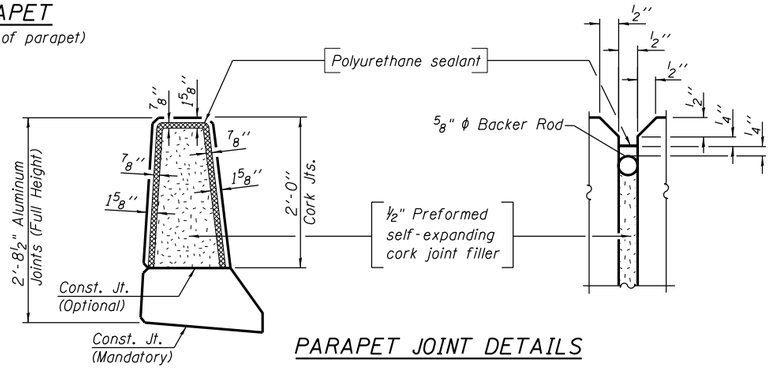
BAR x(E)



MINIMUM BAR LAP

(Parapet)
#4 bar = 2'-5"
#8 bar = 5'-11"

SECTION THRU PARAPET



PARAPET JOINT DETAILS

Notes:

Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

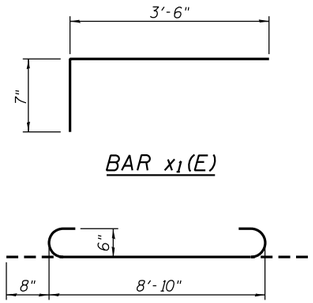
The exterior surfaces of the floor drains shall be painted according to Article 506 with the finish coat as specified. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coating's Spec. SSPC-SP1 prior to painting.

The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.

The clamping device shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.

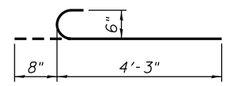
The ⅛" aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.



BAR x1(E)

a3(E) BAR

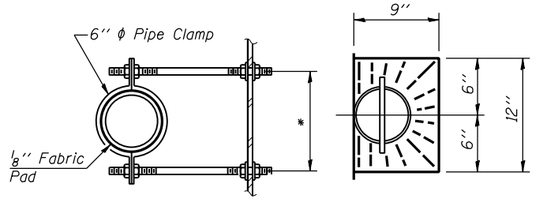


a6(E) BAR

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	516	#5	19'-1"	
a1(E)	334	#5	18'-4"	
a2(E)	512	#6	6'-6"	
a3(E)	32	#6	10'-2"	
a4(E)	4	#5	26'-9"	
a5(E)	16	#6	26'-9"	
a6(E)	16	#6	4'-11"	
b(E)	210	#5	31'-0"	
b1(E)	76	#6	27'-3"	
b2(E)	216	#5	26'-6"	
d(E)	308	#5	5'-7"	
d1(E)	308	#5	8'-1"	
e(E)	84	#4	15'-7"	
e1(E)	42	#4	14'-8"	
e2(E)	8	#4	25'-0"	
e3(E)	4	#4	23'-8"	
e4(E)	12	#8	19'-10"	
e5(E)	6	#8	18'-10"	
x(E)	60	#5	7'-1"	
x1(E)	78	#5	4'-1"	
Reinforcement Bars, Epoxy Coated		Pound	46480	
Concrete Superstructure		Cu. Yds.	189.9	

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.



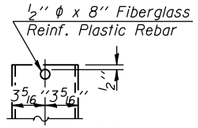
SECTION B-B

* Dimension as required by Pipe Clamp

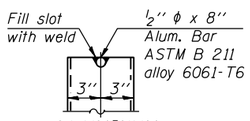
TOP PLAN

TOP PLAN

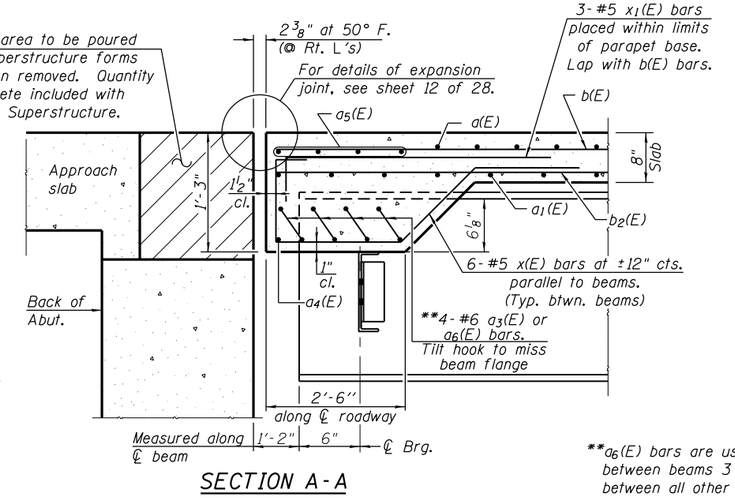
(Showing Aluminum Tube)



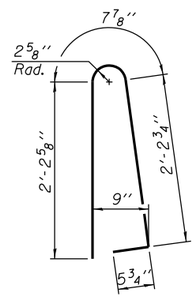
FIBERGLASS PIPE



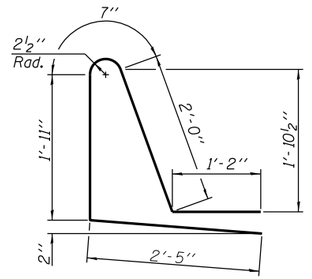
ALUMINUM TUBE



SECTION A-A



BAR d(E)



BAR d1(E)

**a6(E) bars are used with 4 bar splicers (E) in between beams 3 & 4. a3(E) bars are used between all other beam spacings.

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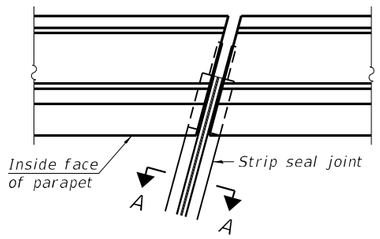
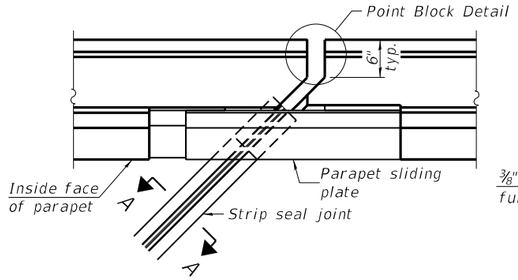
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 017-0034
SHEET NO. 11 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	33
		CONTRACT NO. 74915		
		ILLINOIS FED. AID PROJECT		

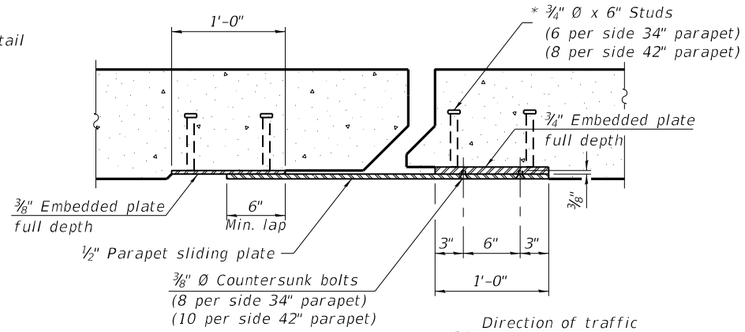


FOR SKEWS ≤ 30°

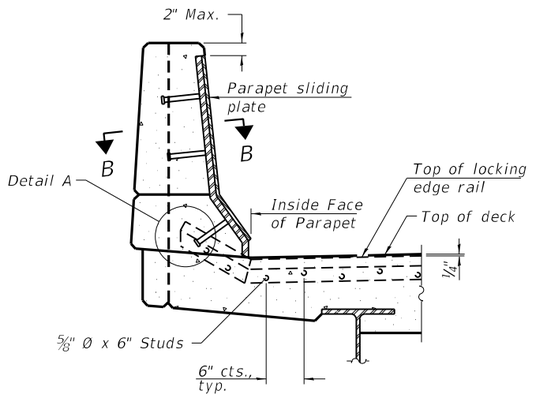


FOR SKEWS > 30°

PLAN AT PARAPET

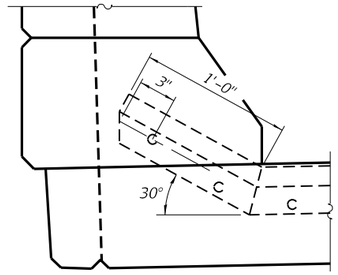


SECTION B-B

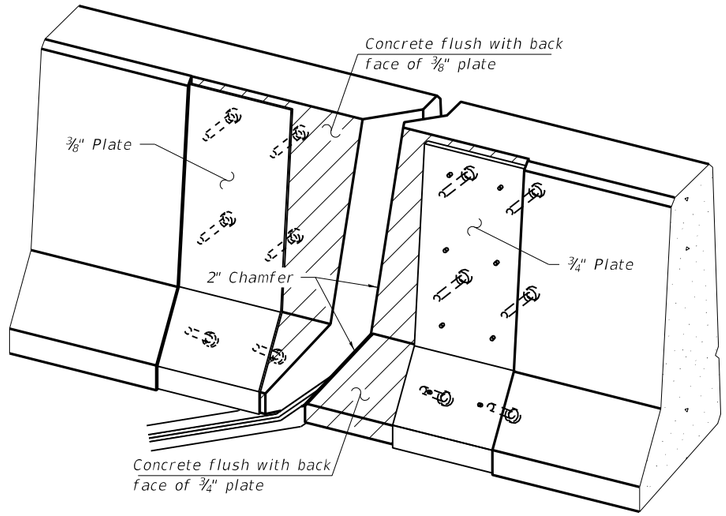


ELEVATION AT PARAPET

(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



DETAIL A



TRIMETRIC VIEW

(Showing embedded plates only)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

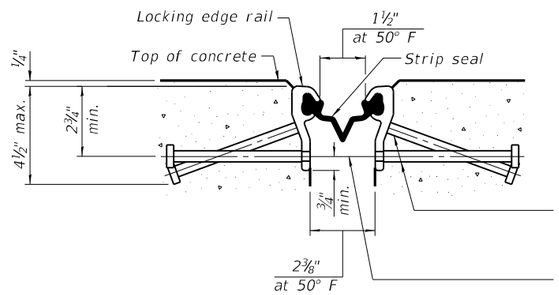
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

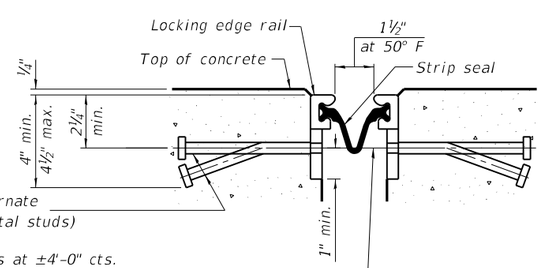
Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

34" F-shape barrier shown, 42" F-shape similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



SHOWING ROLLED RAIL JOINT



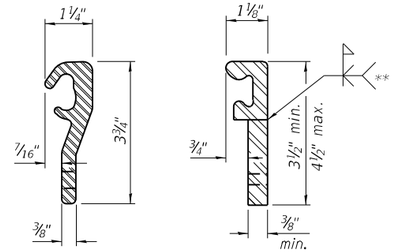
SHOWING WELDED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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

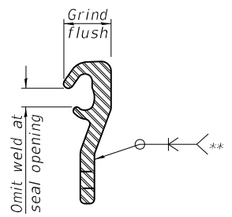


ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	106

EJ-SS 8-11-17

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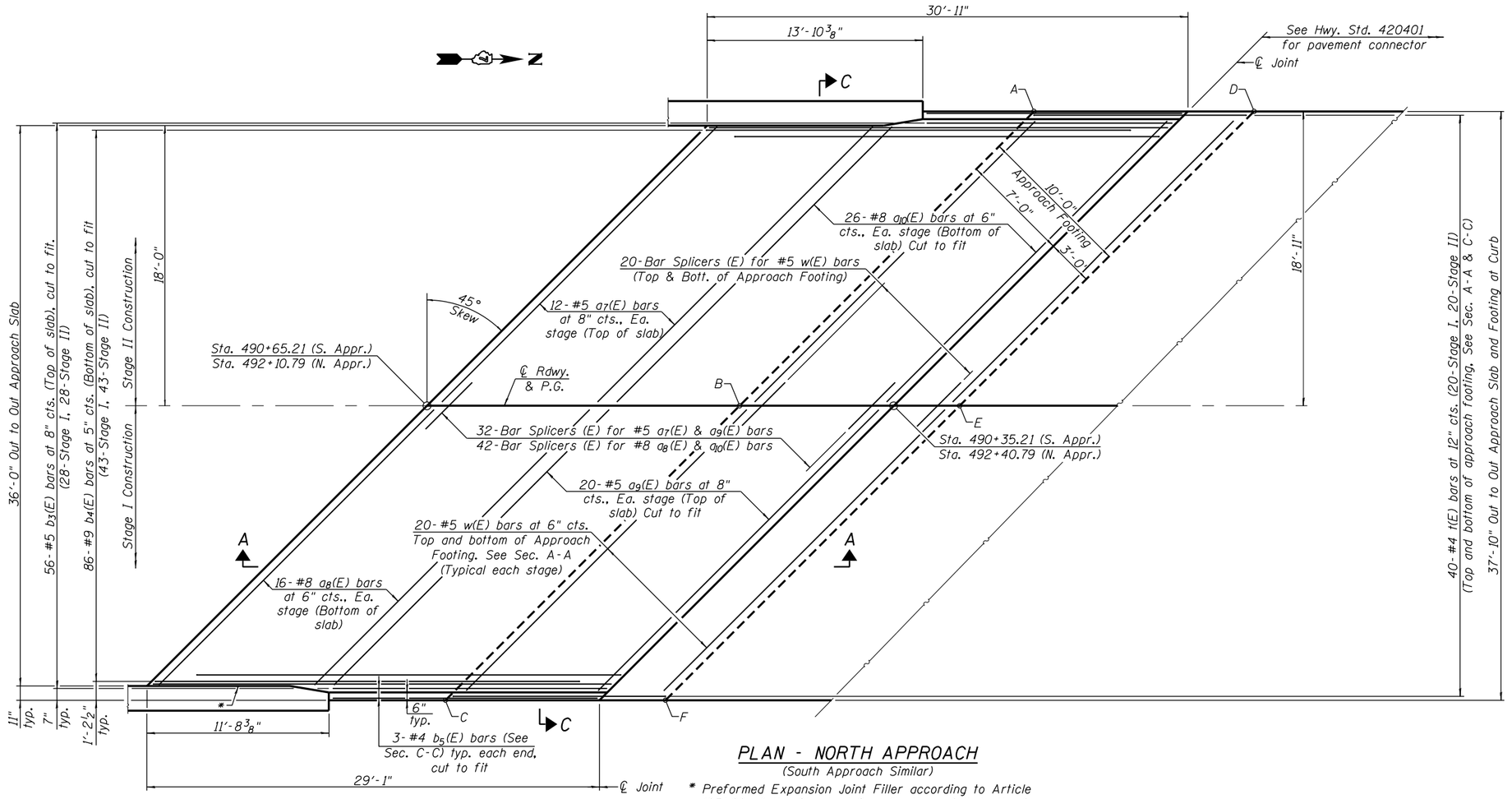
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 017-0034
SHEET NO. 12 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	34
		CONTRACT NO. 74915		
		ILLINOIS FED. AID PROJECT		

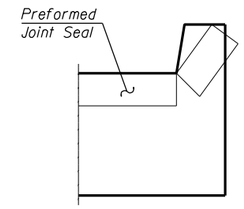
Notes:
See sheet 14 of 28 for Section A-A.



PLAN - NORTH APPROACH

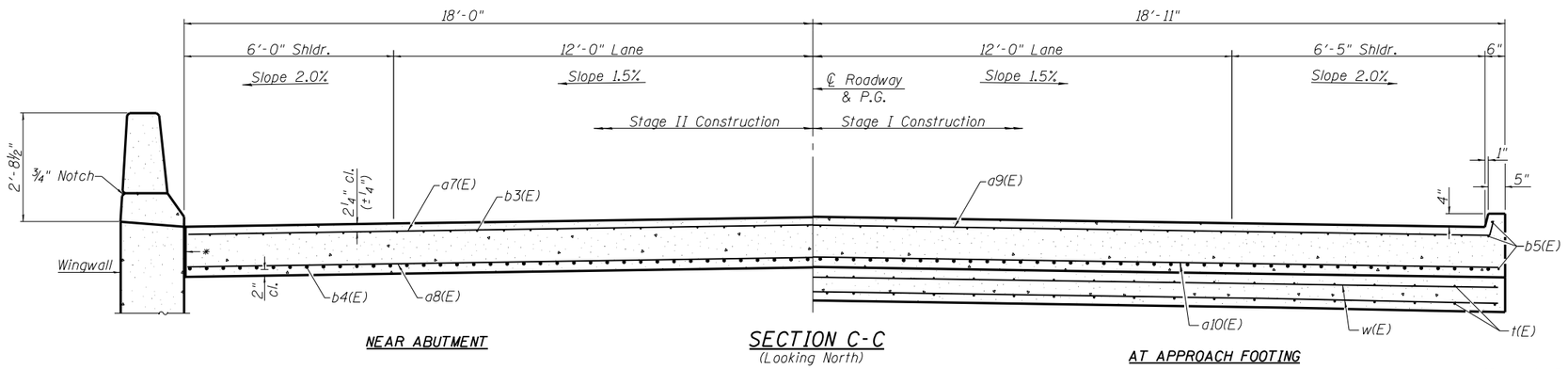
(South Approach Similar)

* Preformed Expansion Joint Filler according to Article 1051.09 of the Standard Specifications, full depth of slab, full length of parapet. Typ. each parapet.



VIEW F-F

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



NEAR ABUTMENT

SECTION C-C

(Looking North)

AT APPROACH FOOTING

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

	South Approach		North Approach	
Point	Top	Bottom	Top	Bottom
A	461.39	460.56	461.37	460.54
B	461.68	460.85	461.72	460.89
C	461.32	460.49	461.42	460.59
D	461.41	460.58	461.35	460.52
E	461.70	460.87	461.70	460.87
F	461.35	460.52	461.41	460.58

(Sheet 1 of 2)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 017-0034
SHEET NO. 13 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	35
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

Notes:

Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

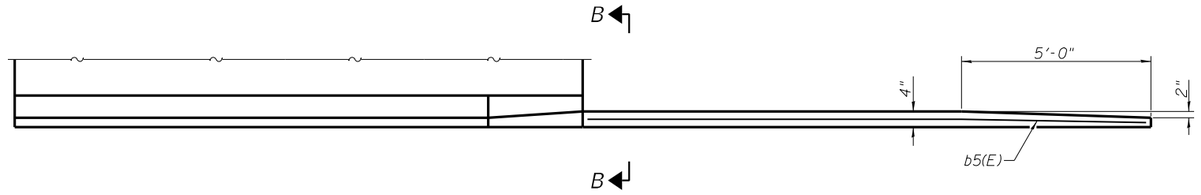
Approach footing concrete shall be paid for as Concrete Structures.

The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

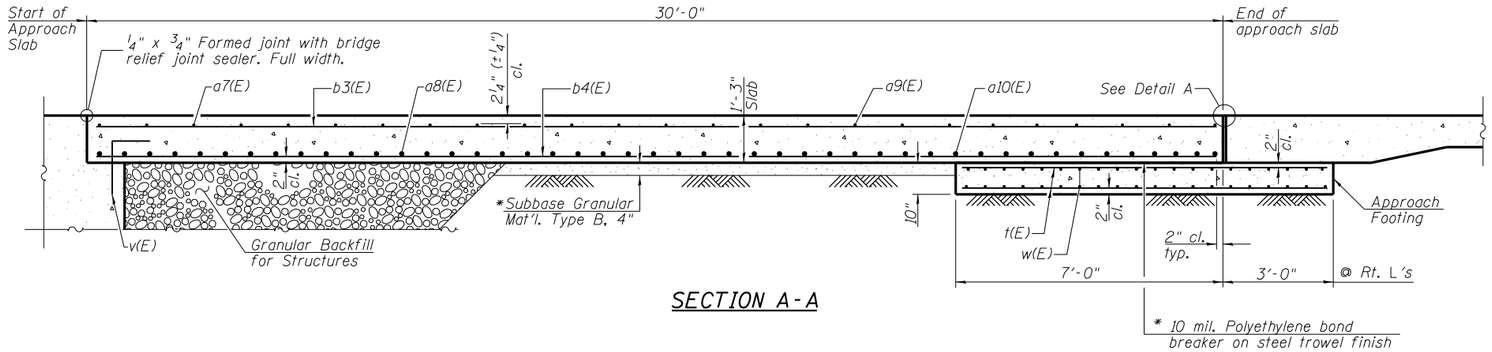
Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 28 .

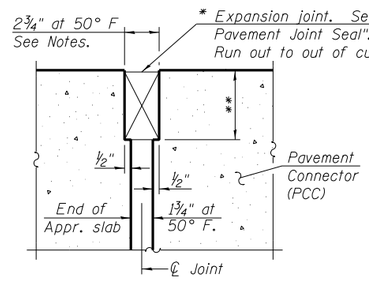
For v(E) bar details, see sheets 18 and 19 of 28.



INSIDE ELEVATION OF PARAPET AND CURB



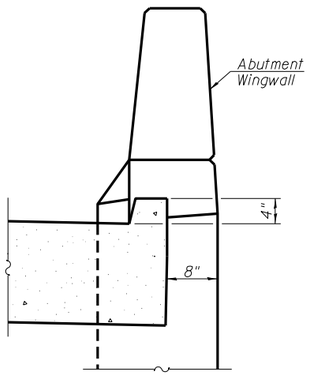
SECTION A-A



DETAIL A
(@ Rt. L's)

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations



VIEW B-B

BAR a9(E)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a7(E)	48	#5	25'-0"	
a8(E)	64	#8	25'-0"	
a9(E)	80	#5	26'-8"	
a10(E)	104	#8	26'-3"	
b3(E)	112	#5	29'-8"	
b4(E)	172	#9	29'-8"	
b5(E)	12	#5	17'-0"	
t(E)	160	#4	13'-9"	
w(E)	160	#5	26'-3"	
Concrete Superstructure (Approach Slab)		Cu. Yd.	104.7	
Concrete Structures		Cu. Yd.	33.0	
Reinforcement Bars, Epoxy Coated		Pound	41920	

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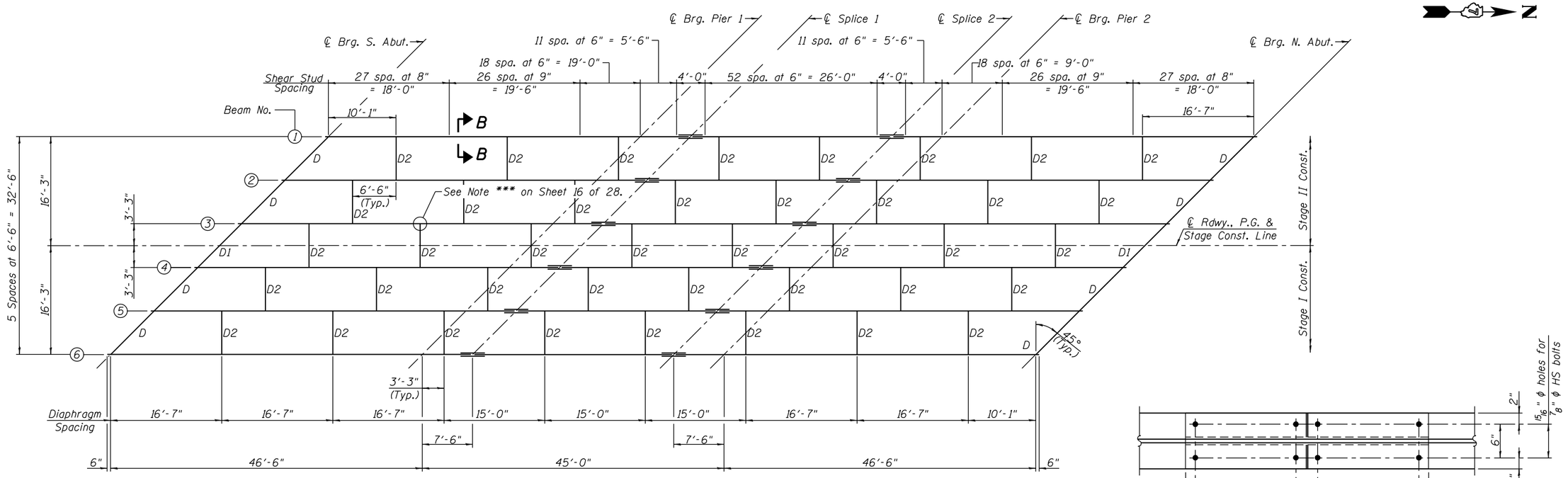
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 017-0034
SHEET NO. 14 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	36
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		



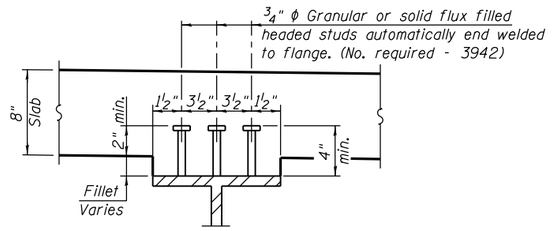
FRAMING PLAN

All beams are W27x84, AASHTO M 270, Grade 50, CVN
Note: "CVN" denotes Charpy-V-Notch impact energy requirements, Zone 2.

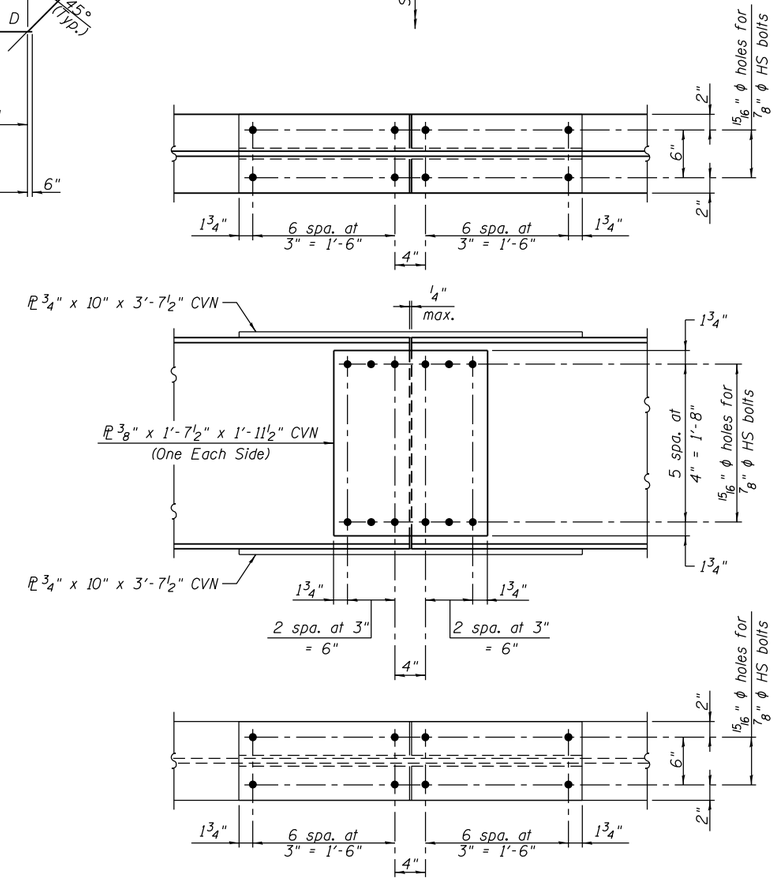
* TOP OF BEAM ELEVATIONS

LOCATION	℄ Brg. S. Abut.	℄ Brg. Pier 1	℄ Splice 1	℄ Splice 2	℄ Brg. Pier 2	℄ Brg. N. Abut.
Beam 1	462.02	461.99	461.99	461.98	461.99	462.00
Beam 2	462.14	462.11	462.11	462.11	462.11	462.13
Beam 3	462.23	462.21	462.21	462.21	462.22	462.24
Beam 4	462.22	462.21	462.21	462.21	462.22	462.25
Beam 5	462.11	462.10	462.10	462.11	462.12	462.15
Beam 6	461.98	461.97	461.97	461.99	461.99	462.03

* For fabrication only



SECTION B-B



SPLICE DETAIL

(12 Required)

All splice plates shall be AASHTO M 270, Grade 50, CVN

INTERIOR BEAM MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I_s	(in^4)	2850	2850	2850
$I_c(n)$	(in^4)	8930	8930	8930
$I_c(3n)$	(in^4)	6809	6809	6809
$I_c(cr)$	(in^4)	-	4420	-
S_s	(in^3)	214	214	214
$S_c(n)$	(in^3)	337	337	337
$S_c(3n)$	(in^3)	306	306	306
$S_c(cr)$	(in^3)	-	259	-
DC1	(k/')	0.76	0.76	0.76
M_{DC1}	('k)	134	-160	33
DC2	(k/')	0.15	0.15	0.15
M_{DC2}	('k)	26	-32	6
DW	(k/')	0.33	0.33	0.33
M_{DW}	('k)	57	-68	14
LLDF	('k)	0.627	0.627	0.627
M_{L+IM}	('k)	455	-348	352
M_u (Strength I)	('k)	1082	-951	686
* $\phi_f M_n$	('k)	1684	1072	1790
f_s DC1	(ksi)	7.5	-9.0	1.9
f_s DC2	(ksi)	1.0	-1.5	0.2
f_s DW	(ksi)	2.3	-3.2	0.6
f_s (L+IM)	(ksi)	16.2	-16.1	12.5
f_s (Service II)	(ksi)	31.9	-34.7	19.0
0.95 $R_h F_{yf}$	(ksi)	47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi)	42.4	-46.1	25.4
$\phi_f F_n$	(ksi)	-	-	-
V_f	(k)	20.4	22.7	19.0

* Compact Sections

INTERIOR BEAM REACTION TABLE					
		Abut.		Pier	
		Int.	Ext.	Int.	Ext.
LLDF		0.707	0.707	0.707	0.707
OCF		——	1.20	——	——
R_{DC1}	(k)	14.3	16.0	38.3	42.9
R_{DC2}	(k)	2.8	2.8	7.5	7.5
R_{DW}	(k)	6.1	4.7	16.3	12.5
R_{L}	(k)	47.9	57.5	71.8	71.8
R_{IM}	(k)	12.7	15.2	15.5	15.5
R_{Total}	(k)	83.8	96.2	149.4	150.2

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

LLDF: Live Load Distribution Factor

OCF: Obtuse Correction Factor

Notes:

Two hardened washers required for each set of oversized holes.

** Alternate C12 x 30 channels are permitted to facilitate material aquisition. Calculated weight of structural steel is based on the lighter section.

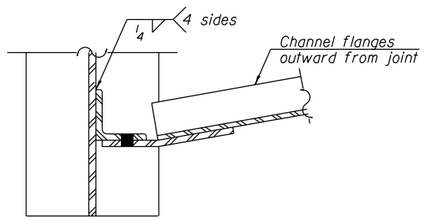
The alternate if utilized, shall be provided at no additional cost to the Department.

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

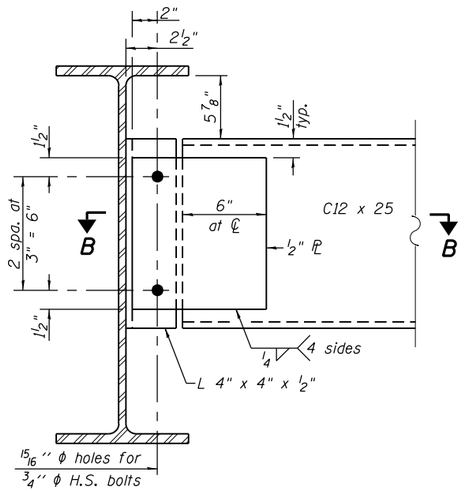
*** Use $^{13}/_{16}$" x $1\,^{7}/_{8}$" vertical slotted holes in connection angles 6" x 4" x $^1/_2$" at the East side of Beam 3 only. Provide $^5/_{16}$" plate washers for slotted holes. The bolts for slotted holes in angles at Beam 3 shall only be finger tightened prior to deck pour for Stage II Construction. The bolts shall be fully tightened after completion of the deck pour for Stage II Construction.

DIAPHRAGM D1 STAGE CONSTRUCTION SEQUENCE

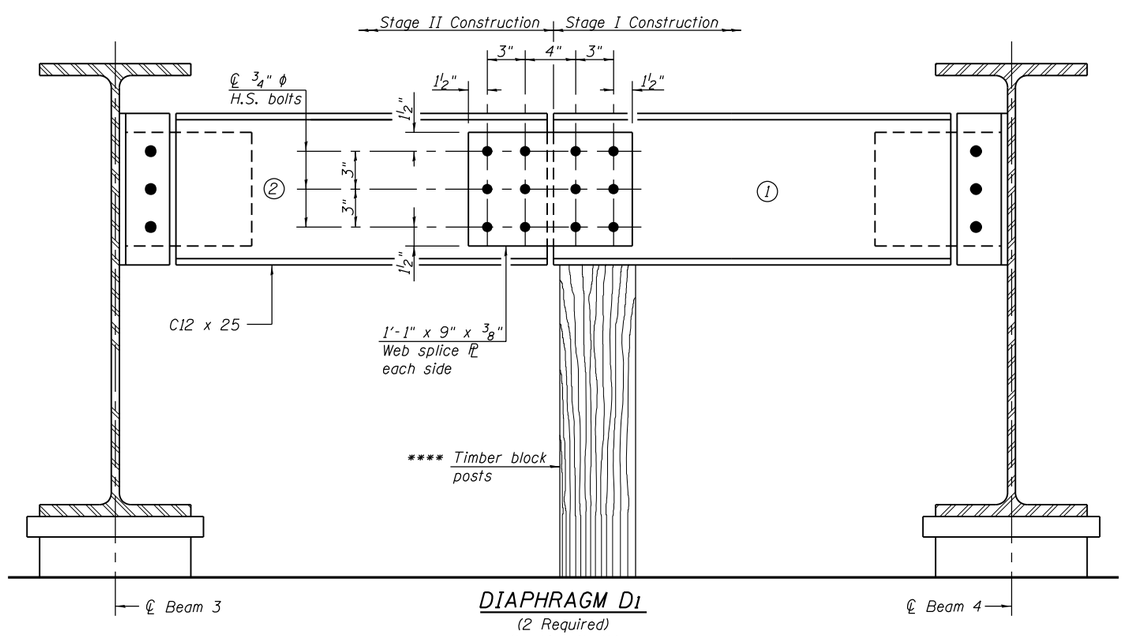
1.) Order diaphragm in two sections.
2.) Attach section (1) of diaphragm to beam
3.) Place timber block posts between section (1) of diaphragm and abutment bearing section.
4.) Attach section (2) of diaphragm to both beam and section (1) of diaphragm during stage II construction with splice plates.
5.) Remove timber block posts.



SECTION B-B

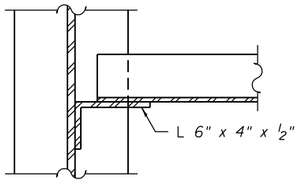


DIAPHRAGM D
(8 Required)

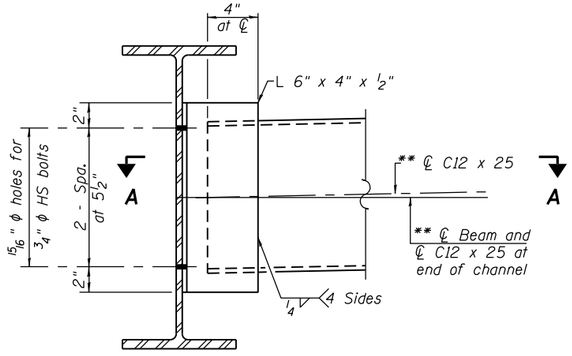


DIAPHRAGM D1
(2 Required)
(Looking North)
For details of connections to beams see Diaphragm D

**** Cost of Timber Block Posts is included with Structural Steel.



SECTION A-A



DIAPHRAGM D2
(40 Required)

USER NAME =		DESIGNED - GBR	REVISED -
		CHECKED - MAH	REVISED -
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PLOT DATE =		DATE -	REVISED -

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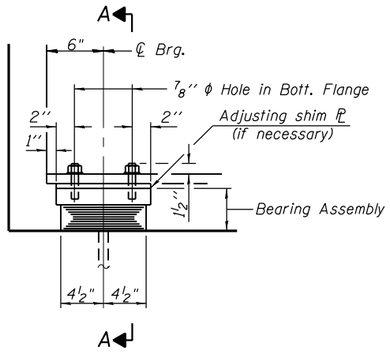
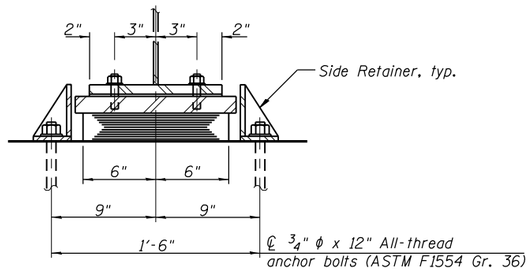
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 017-0034
SHEET NO. 16 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	38
		CONTRACT NO. 74915		
		ILLINOIS FED. AID PROJECT		



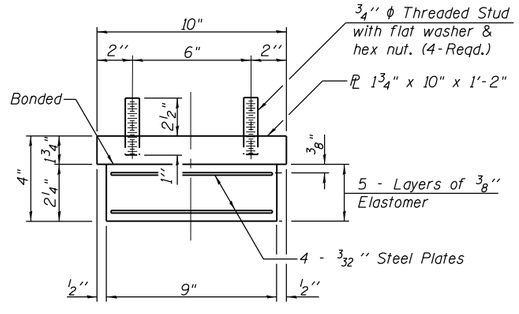
ELEVATION AT ABUT.



SECTION A-A

℄ 3/4" ϕ x 12" All-thread anchor bolts (ASTM F1554 Gr. 36) with 2" x 2" x 5/16" PL washer under nut.

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.

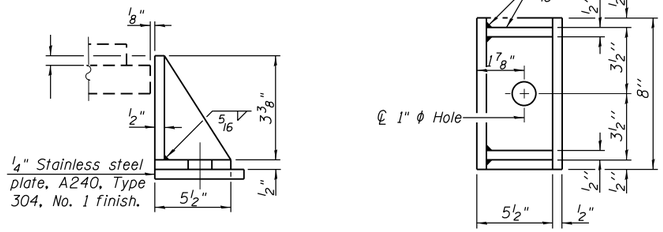
Notes:
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

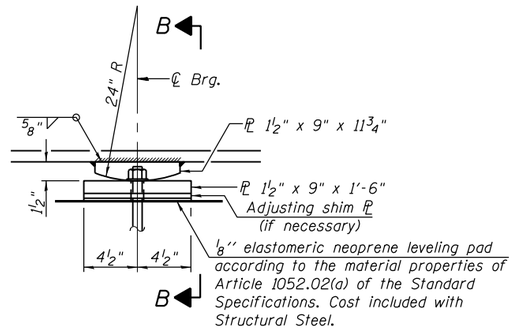
Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

The anchor bolt sizes and grades shown constitute a calculated seismic fuse. Substitution of higher diameter and grade anchor bolts will not be allowed.

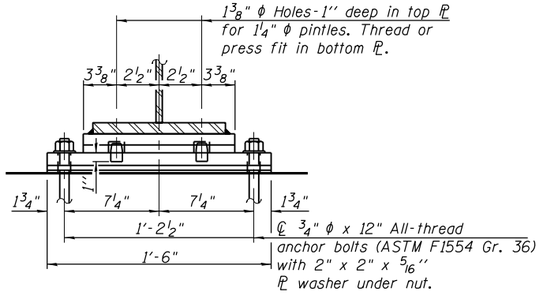


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

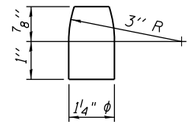


ELEVATION AT PIER



SECTION B-B

FIXED BEARING



PINTLE

Note:
The structural steel plates of the fixed bearing assembly and pintels shall conform to the requirements of AASHTO M270 Grade 50.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12
Anchor Bolts, 3/4"	Each	48

I-2E-1

1-14-2019

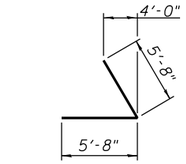
Veenstra & Kimm, Inc.
Springfield, IL. Phone: (217)544-8033

USER NAME =	DESIGNED - GBR	REVISED -
	CHECKED - VVR	REVISED -
PLOT SCALE =	DRAWN - JRP	REVISED -
PLOT DATE =	DATE -	REVISED -

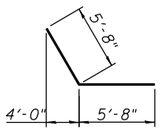
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 017-0034
SHEET NO. 17 OF 28 SHEETS

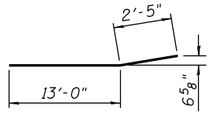
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	39
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		



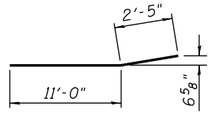
BAR $h_1(E)$



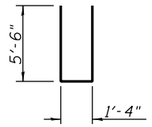
BAR $h_2(E)$



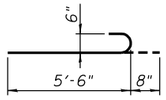
BAR $h_4(E)$



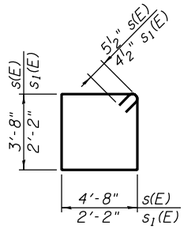
BAR $h_6(E)$



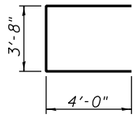
BAR $n(E)$



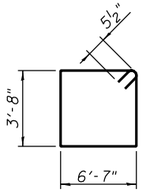
BAR $n_1(E)$



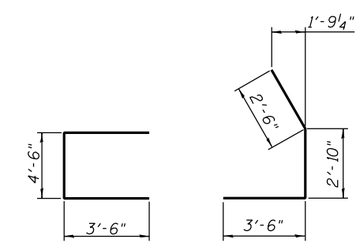
BARS $s(E)$ & $s_1(E)$



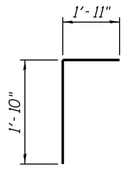
BAR $s_2(E)$



BAR $s_3(E)$

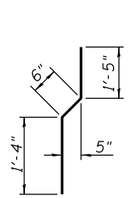


BAR $u_1(E)$

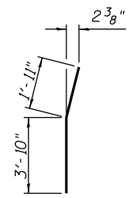


BAR $v(E)$

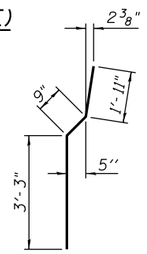
BAR $u(E)$



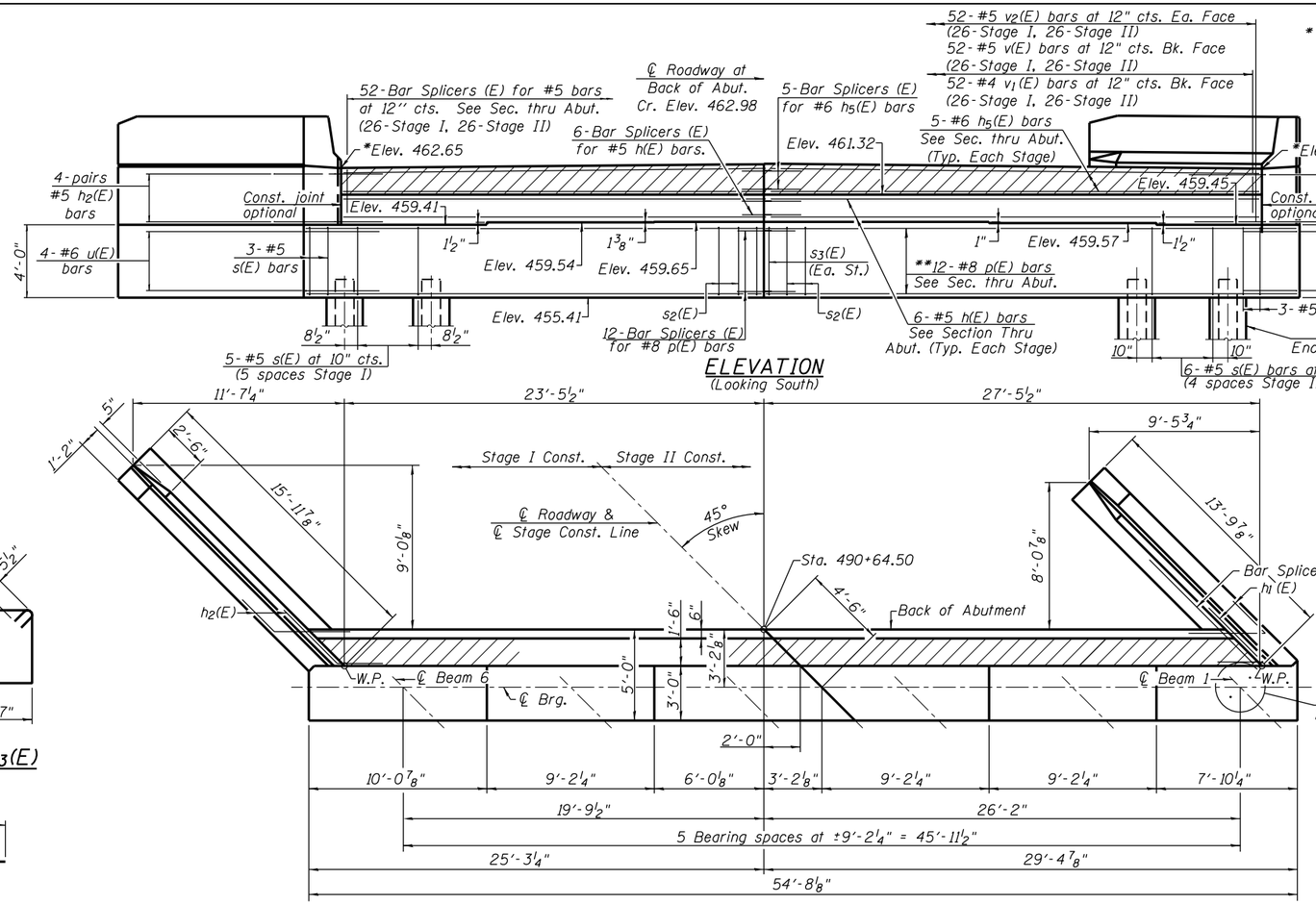
BAR $v_1(E)$



BAR $v_3(E)$

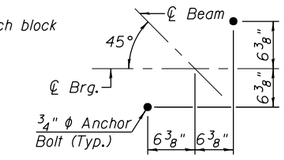


BAR $v_4(E)$



ELEVATION
(Looking South)

* At front face of hatch block

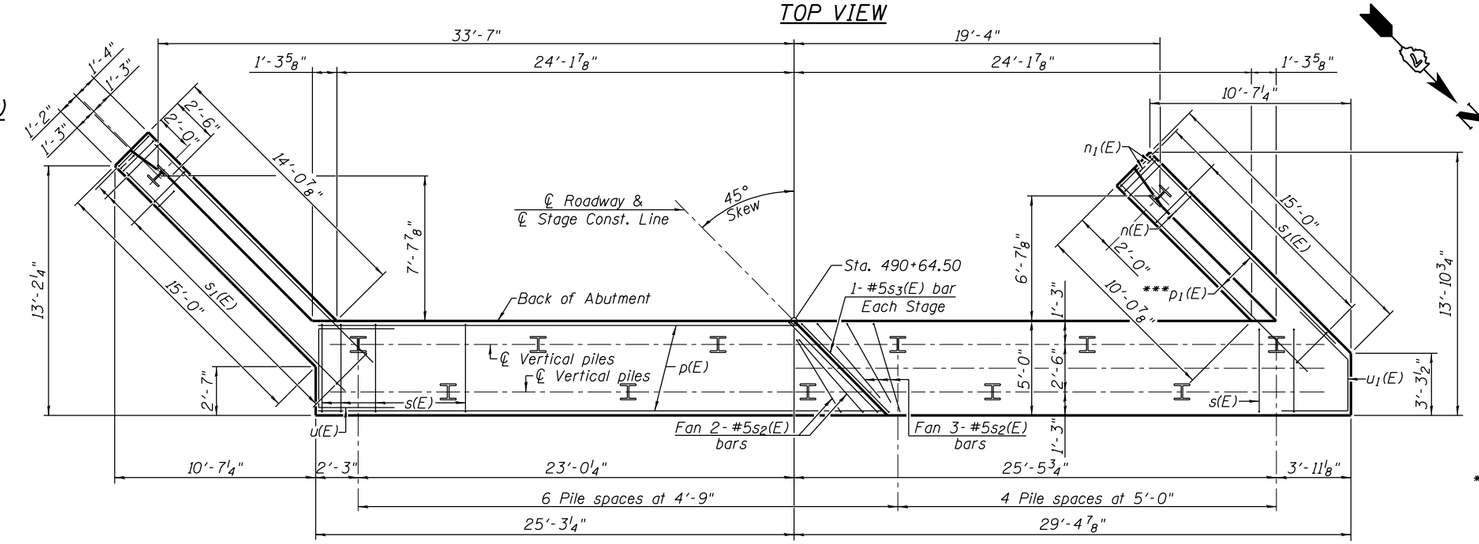


ANCHOR BOLT LOCATION DETAIL

PILE DATA

Type: HP 12x53 with Pile Shoes
Nominal Required Bearing: 416 kips
Factored Resistance Available: 229 kips
Est. Length: 45'
No. Production Piles: 12
No. Test Piles: 1

TOP VIEW



PLAN-PILE CAP

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#5	25'-1"	
$h_1(E)$	8	#5	11'-4"	
$h_2(E)$	8	#5	11'-4"	
$h_3(E)$	16	#4	14'-8"	
$h_4(E)$	8	#4	15'-5"	
$h_5(E)$	10	#6	25'-1"	
$h_6(E)$	8	#4	13'-5"	
n(E)	26	#6	12'-4"	
$n_1(E)$	14	#6	6'-2"	
** p(E)	12	#8	54'-0"	
$p_1(E)$	12	#7	17'-0"	
s(E)	55	#5	17'-7"	
$s_1(E)$	32	#4	9'-5"	
$s_2(E)$	5	#5	11'-8"	
$s_3(E)$	2	#5	21'-5"	
u(E)	4	#6	11'-6"	
$u_1(E)$	4	#6	8'-10"	
v(E)	52	#5	3'-9"	
$v_1(E)$	52	#4	3'-3"	
$v_2(E)$	104	#5	4'-1"	
$v_3(E)$	6	#6	5'-9"	
$v_4(E)$	26	#6	5'-11"	
$v_5(E)$	32	#6	5'-9"	

Structure Excavation	Cu. Yd.	118
Concrete Structures	Cu. Yd.	66.1
Reinforcement Bars, Epoxy Coated	Pound	6710
Furnishing Steel Piles HP 12x53	Foot	540
Driving Piles	Foot	540
Pile Shoes	Each	13
Test Pile Steel HP 12x53	Each	1
Concrete Encasement	Cu. Yd.	4.5
Concrete Sealer	Sq. Ft.	570

For details of Bar Splicers, see sheet 24 of 28.
For details of piles and Concrete Encasement see sheet 23 of 28.

** Order p(E) bars full length. Cut to fit skew and use remainder of bars in opposite side.

*** Bend $p_1(E)$ bars in field as required to miss piles.

A-1-L (>30°)

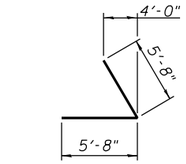
Veenstra & Kimm, Inc.
Springfield, IL. Phone: (217)544-8033

USER NAME =	DESIGNED - GBR	REVISED -	
	CHECKED - MAH	REVISED -	
PLOT SCALE =	DRAWN - JRP	REVISED -	
PLOT DATE =	DATE -	REVISED -	

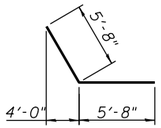
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 017-0034
SHEET NO. 18 OF 28 SHEETS

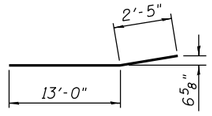
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	40
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			



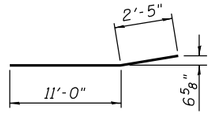
BAR $h_1(E)$



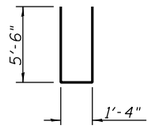
BAR $h_2(E)$



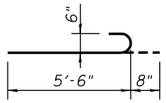
BAR $h_4(E)$



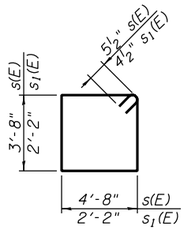
BAR $h_6(E)$



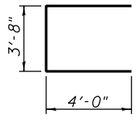
BAR $n(E)$



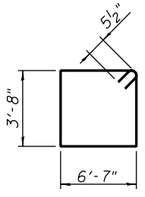
BAR $n_1(E)$



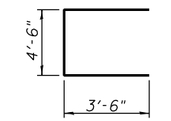
BARS $s(E)$ & $s_1(E)$



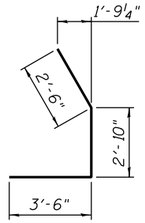
BAR $s_2(E)$



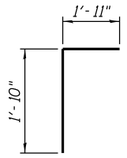
BAR $s_3(E)$



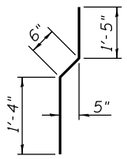
BAR $u(E)$



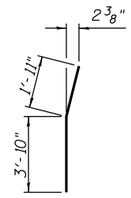
BAR $u_1(E)$



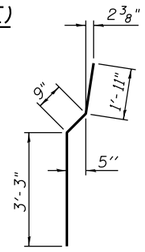
BAR $v(E)$



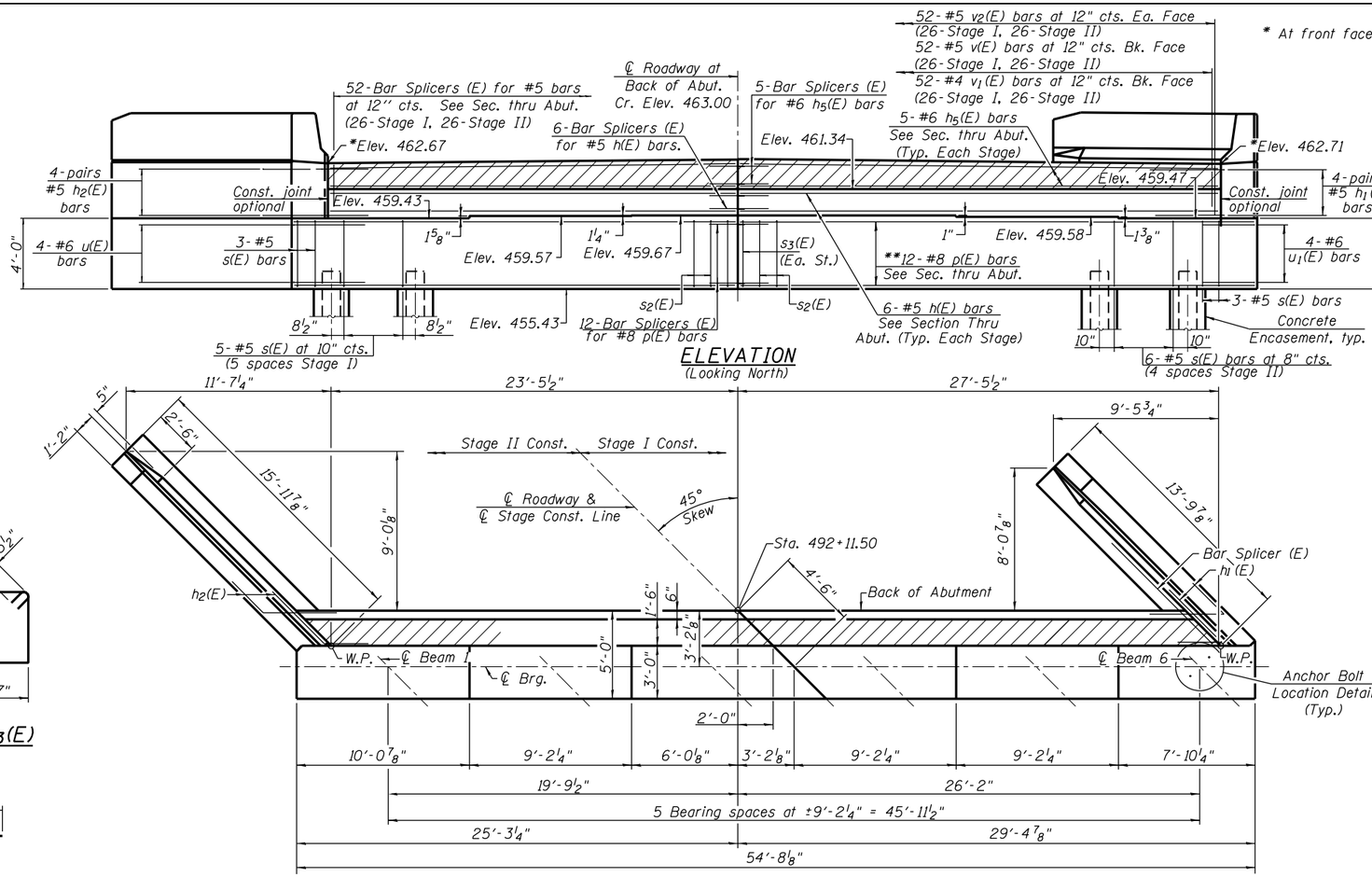
BAR $v_1(E)$



BAR $v_3(E)$

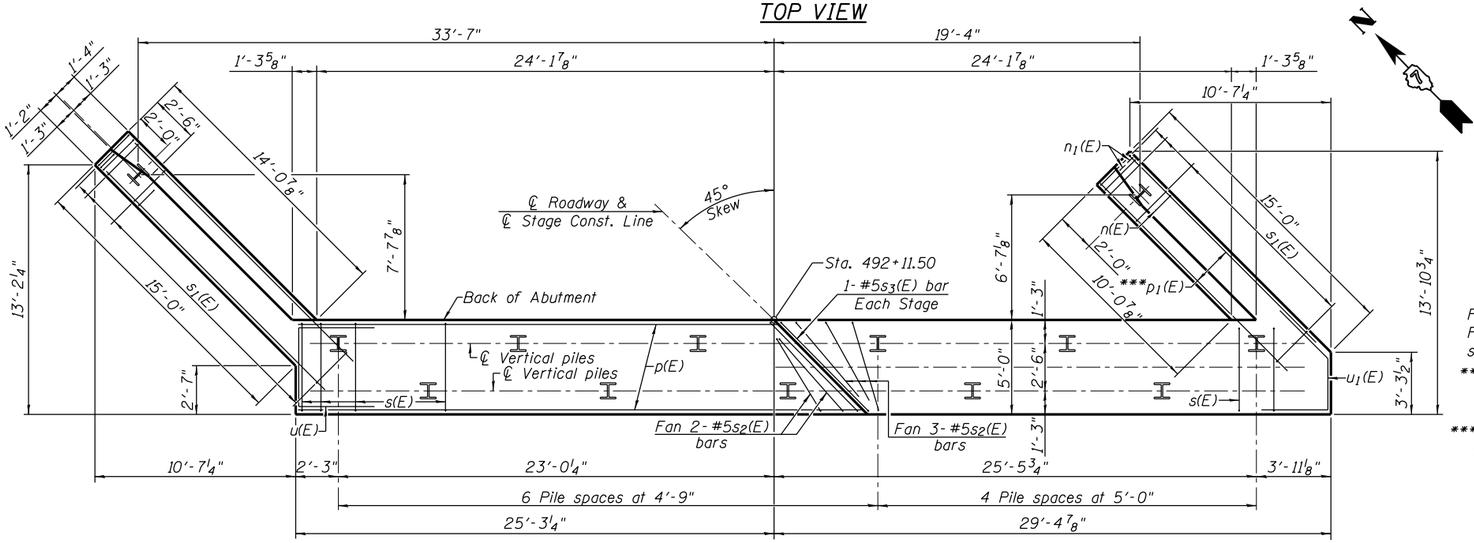


BAR $v_4(E)$

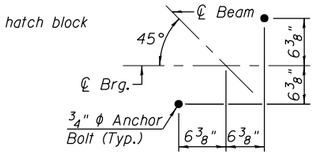


ELEVATION
(Looking North)

TOP VIEW



PLAN-PILE CAP



ANCHOR BOLT LOCATION DETAIL

PILE DATA

Type: HP 12x53 with Pile Shoes
Nominal Required Bearing: 416 kips
Factored Resistance Available: 229 kips
Est. Length: 61'
No. Production Piles: 13
No. Test Piles: 0

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#5	25'-1"	
$h_1(E)$	8	#5	11'-4"	
$h_2(E)$	8	#5	11'-4"	
$h_3(E)$	16	#4	14'-8"	
$h_4(E)$	8	#4	15'-5"	
$h_5(E)$	10	#6	25'-1"	
$h_6(E)$	8	#4	13'-5"	
n(E)	26	#6	12'-4"	
$n_1(E)$	14	#6	6'-2"	
p(E)	12	#8	54'-0"	
$p_1(E)$	12	#7	17'-0"	
s(E)	55	#5	17'-7"	
$s_1(E)$	32	#4	9'-5"	
$s_2(E)$	5	#5	11'-8"	
$s_3(E)$	2	#5	21'-5"	
u(E)	4	#6	11'-6"	
$u_1(E)$	4	#6	8'-10"	
v(E)	52	#5	3'-9"	
$v_1(E)$	52	#4	3'-3"	
$v_2(E)$	104	#5	4'-1"	
$v_3(E)$	6	#6	5'-9"	
$v_4(E)$	26	#6	5'-11"	
$v_5(E)$	32	#6	5'-9"	
Structure Excavation		Cu. Yd.	118	
Concrete Structures		Cu. Yd.	66.1	
Reinforcement Bars, Epoxy Coated		Pound	6710	
Furnishing Steel Piles HP 12x53		Foot	793	
Driving Piles		Foot	793	
Pile Shoes		Each	13	
Concrete Encasement		Cu. Yd.	4.5	
Concrete Sealer		Sq. Ft.	570	

For details of Bar Splicers, see sheet 24 of 28.
For details of piles and Concrete Encasement see sheet 23 of 28.

** Order p(E) bars full length. Cut to fit skew and use remainder of bars in opposite side.

*** Bend $p_1(E)$ bars in field as required to miss piles.

A-1-L (>30°)

Veenstra & Kimm, Inc.
Springfield, IL. Phone: (217)544-8033

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	CHECKED - MAH	REVISED -	
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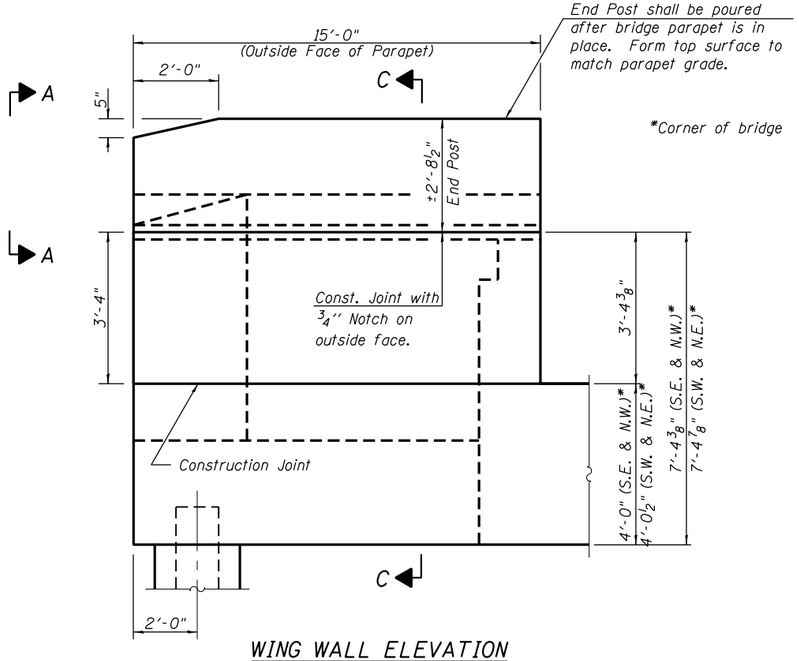
PLOT DATE =	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

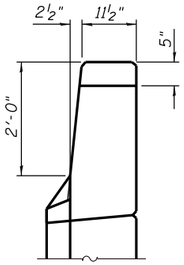
NORTH ABUTMENT
STRUCTURE NO. 017-0034
SHEET NO. 19 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	41
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

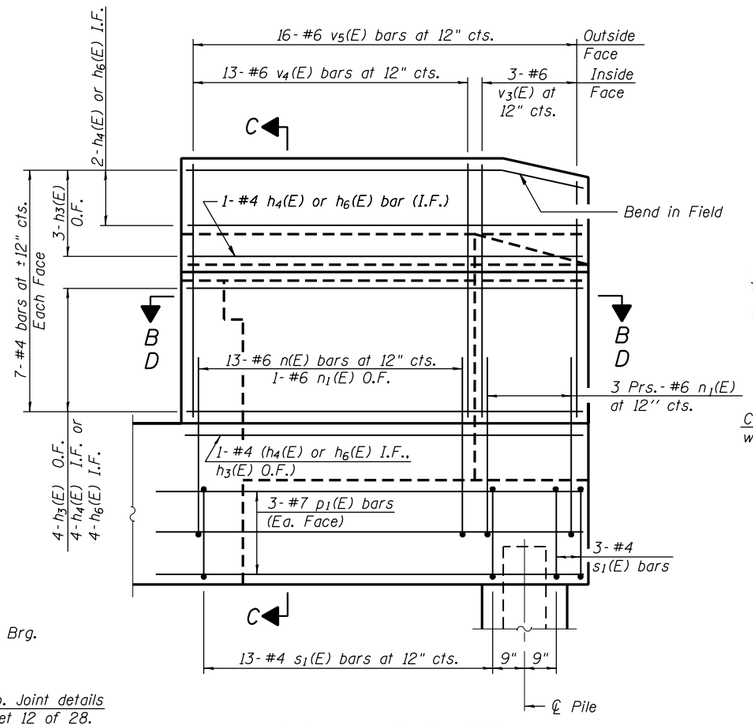


WING WALL ELEVATION

Showing Dimensions

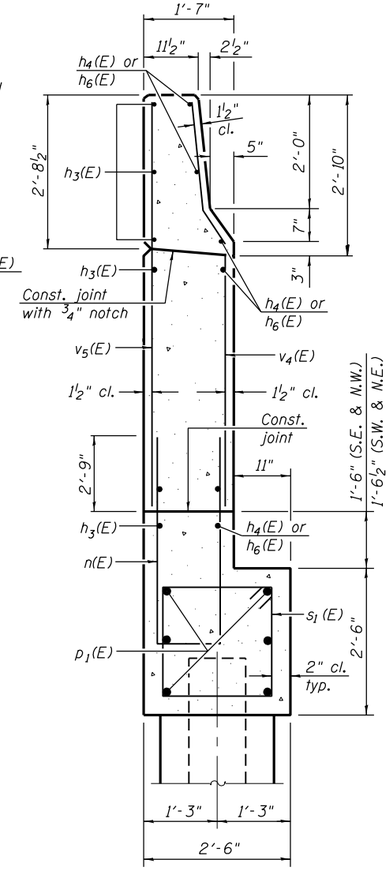


VIEW A-A

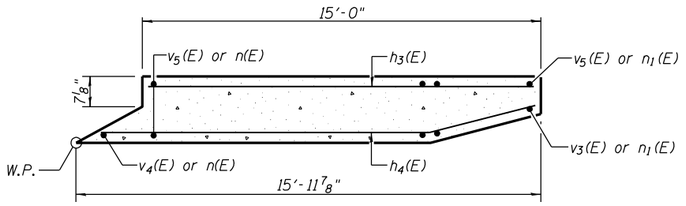


WING WALL ELEVATION

Showing Reinforcement

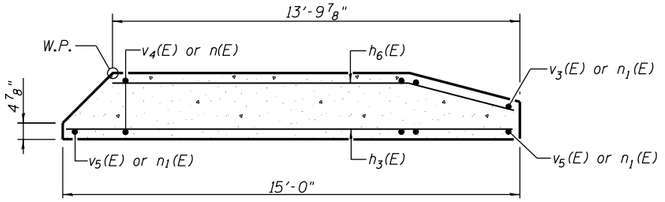


SECTION C-C



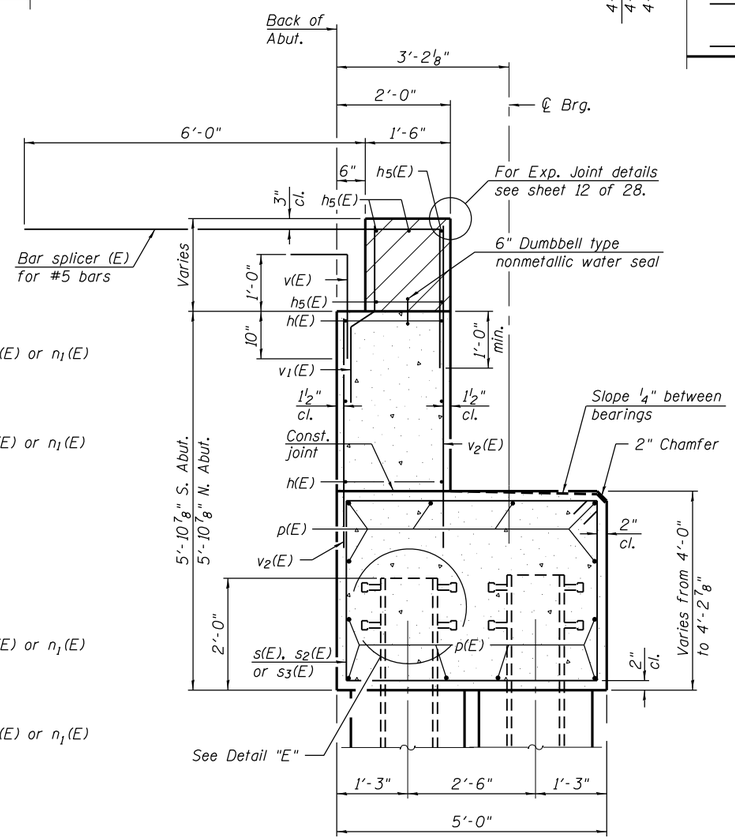
SECTION B-B

West Parapet of North Abutment
(East Parapet of South Abutment Similar)

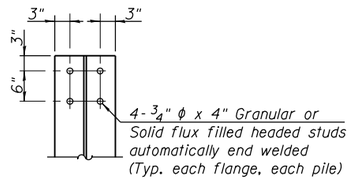


SECTION D-D

East Parapet of North Abutment
(West Parapet of South Abutment Similar)



SEC. THRU ABUT.



DETAIL E

Cost included in Furnishing
Steel Piles HP 12x53

Notes:

Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.

Space reinforcement in cap to miss anchor bolts.

Pour steps monolithically with cap.

Quantity of concrete in end post included with Concrete Superstructure on sheet 11 of 28.

Concrete sealer to be applied to backwalls, bridge seats and front face of pile caps.

A-1-D 7-1-10

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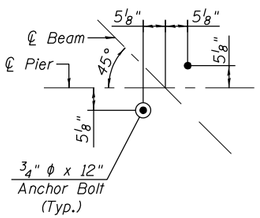
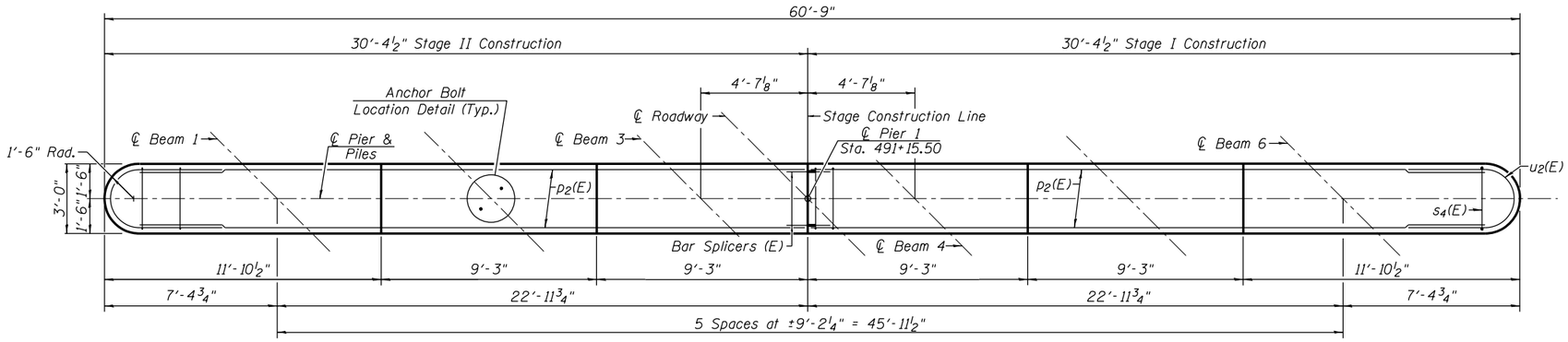
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS
STRUCTURE NO. 017-0034
SHEET NO. 20 OF 28 SHEETS

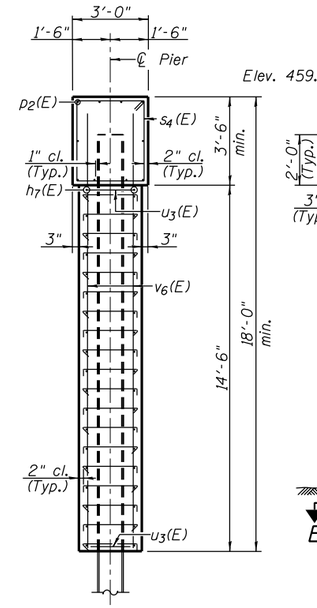
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	42
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			



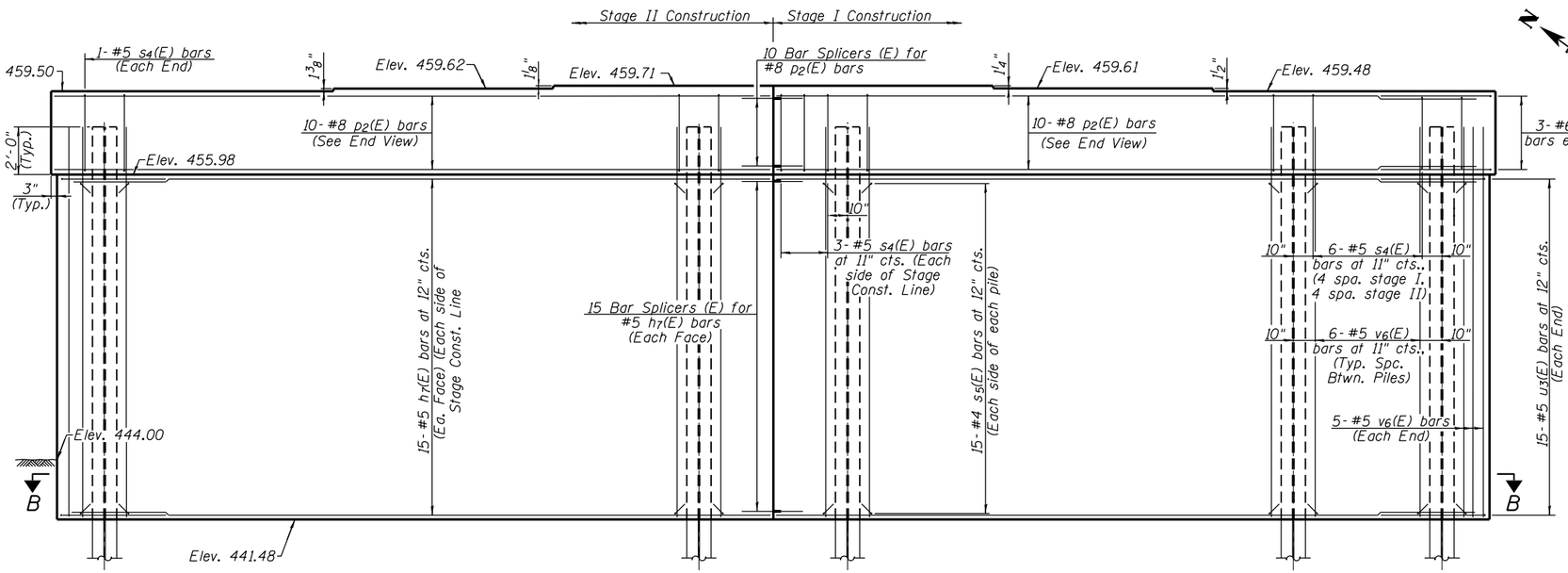
ANCHOR BOLT LOCATION DETAIL



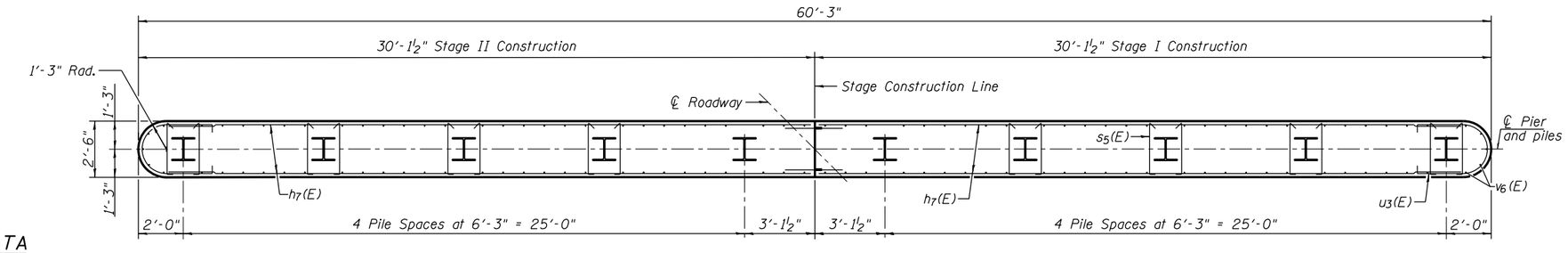
TOP PLAN



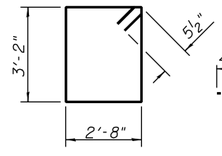
END VIEW



ELEVATION
(Looking North)

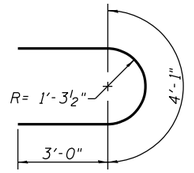


SECTION B-B

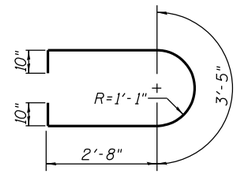


BAR $s_4(E)$

BAR $s_5(E)$



BAR $u_2(E)$



BAR $u_3(E)$

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_7(E)$	60	#5	28'-8"	———
$p_2(E)$	20	#8	28'-8"	———
$s_4(E)$	56	#5	12'-7"	□
$s_5(E)$	300	#4	3'-3"	⌐
$u_2(E)$	6	#6	10'-1"	⊃
$u_3(E)$	30	#5	10'-5"	⊃
$v_6(E)$	118	#5	16'-6"	———

Structure Excavation	Cu. Yd.	39
Concrete Structures	Cu. Yd.	104.3
Reinforcement Bars, Epoxy Coated	Pound	7160
Furnishing Steel Piles HP 14x89	Foot	650
Driving Piles	Foot	650
Pile Shoes	Each	10
Cofferdam (Type 1) - Location 1	Each	1

PILE DATA

Type:	HP 14 x 89 with Pile Shoes
Nominal Required Bearing:	658 kips
Allowable Resistance Available:	358 kips
Est. Length:	65 ft.
No. Production Piles:	10
No. Test Piles:	0

** Alternate end of bar.

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of Bar Splicers, see sheet 24 of 28.
For details of Piles see sheet 23 of 28.
If a portion of the pier wall or concrete encasement is underwater, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

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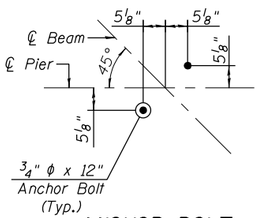
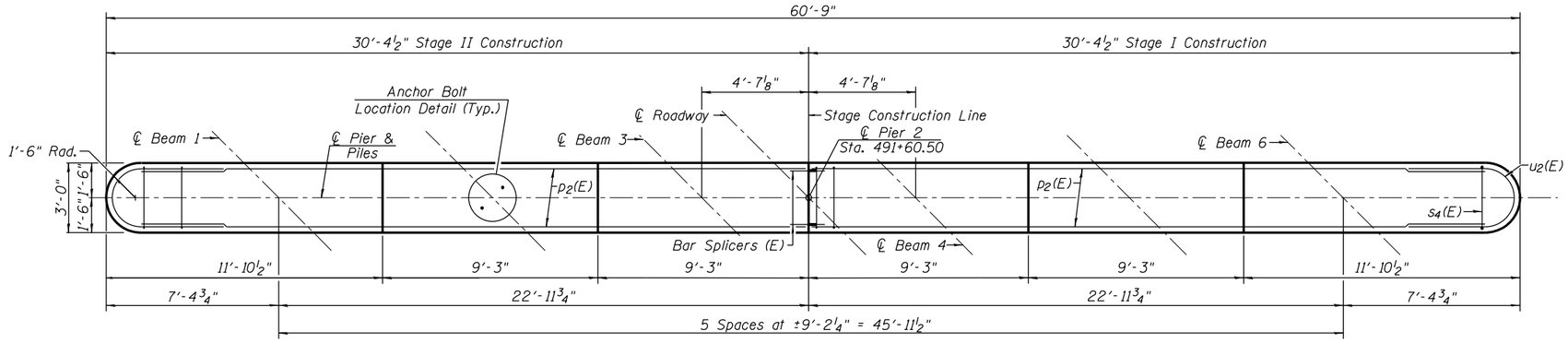
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1
STRUCTURE NO. 017-0034
SHEET NO. 21 OF 28 SHEETS

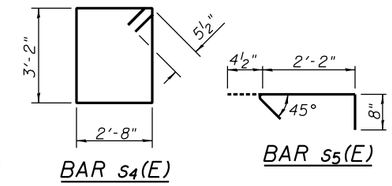
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	43
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			



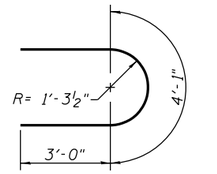
ANCHOR BOLT LOCATION DETAIL



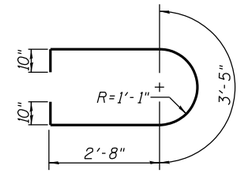
TOP PLAN



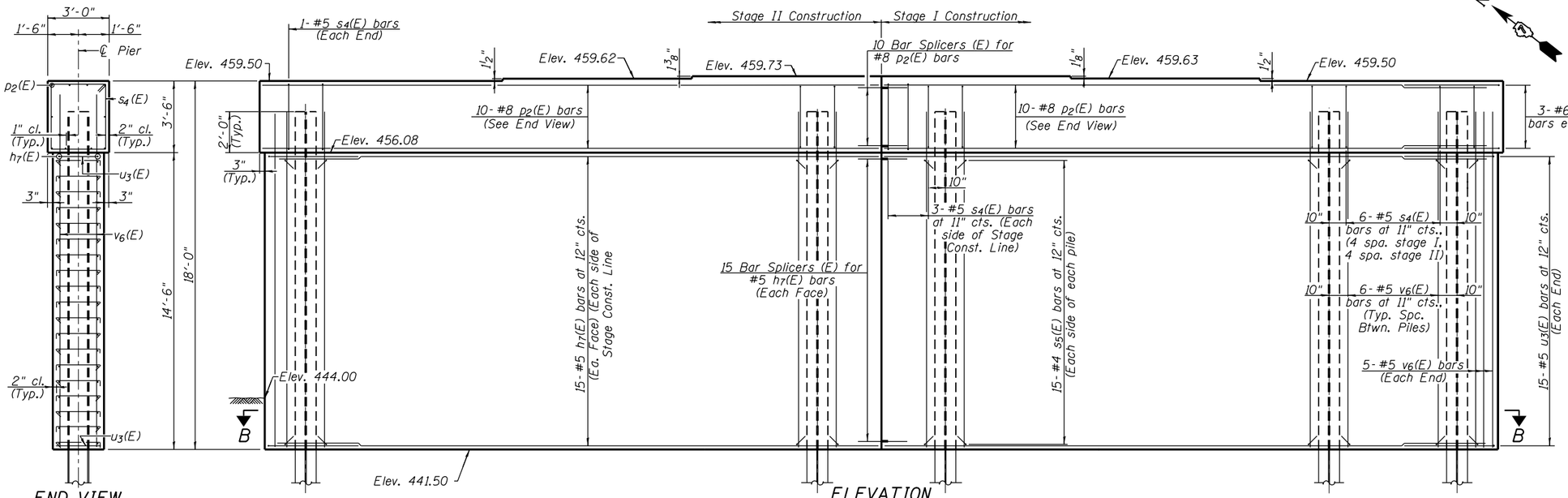
BAR $s_4(E)$ BAR $s_5(E)$



BAR $u_2(E)$

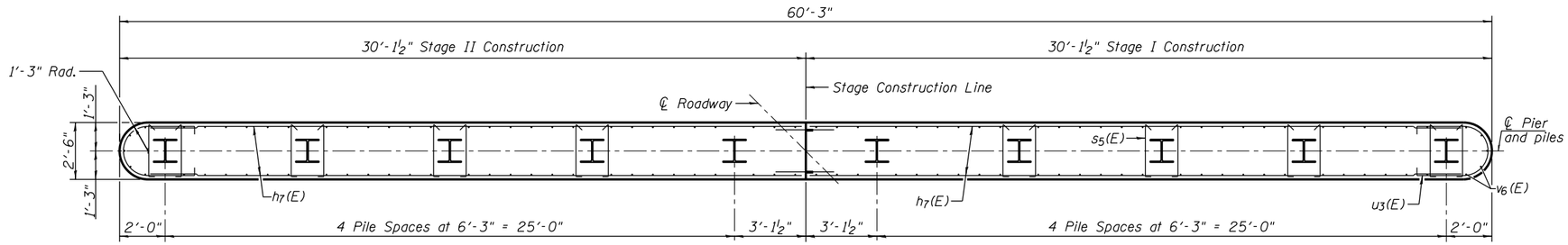


BAR $u_3(E)$



END VIEW

ELEVATION (Looking North)



SECTION B-B

PILE DATA

Type:	HP 14 x 89 with Pile Shoes
Nominal Required Bearing:	549 kips
Allowable Resistance Available:	300 kips
Est. Length:	72 ft.
No. Production Piles:	10
No. Test Piles:	0

** Alternate end of bar.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_7(E)$	60	#5	28'-8"	
$p_2(E)$	20	#8	28'-8"	
$s_4(E)$	56	#5	12'-7"	
$s_5(E)$	300	#4	3'-3"	
$u_2(E)$	6	#6	10'-1"	
$u_3(E)$	30	#5	10'-5"	
$v_6(E)$	118	#5	16'-6"	
Structure Excavation		Cu. Yd.	39	
Concrete Structures		Cu. Yd.	104.3	
Reinforcement Bars, Epoxy Coated		Pound	7160	
Furnishing Steel Piles HP 14x89		Foot	720	
Driving Piles		Foot	720	
Pile Shoes		Each	10	
Cofferdam (Type 1) - Location 2		Each	1	

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of Bar Splicers, see sheet 24 of 28.
For details of Piles see sheet 23 of 28.
If a portion of the pier wall or concrete encasement is underwater, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

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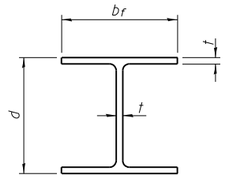
DEPARTMENT OF TRANSPORTATION

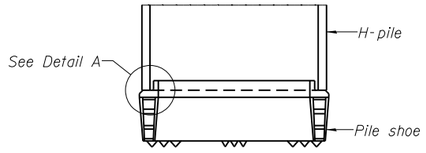
PIER 2
STRUCTURE NO. 017-0034
SHEET NO. 22 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	44
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

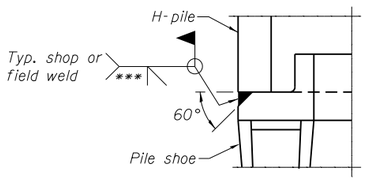


STEEL PILE TABLE

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

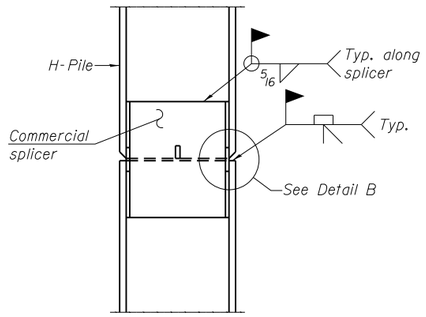


ELEVATION

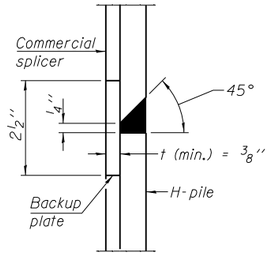


DETAIL A

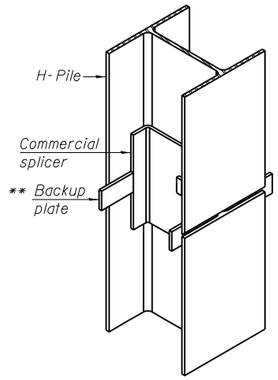
H-PILE SHOE ATTACHMENT



ELEVATION

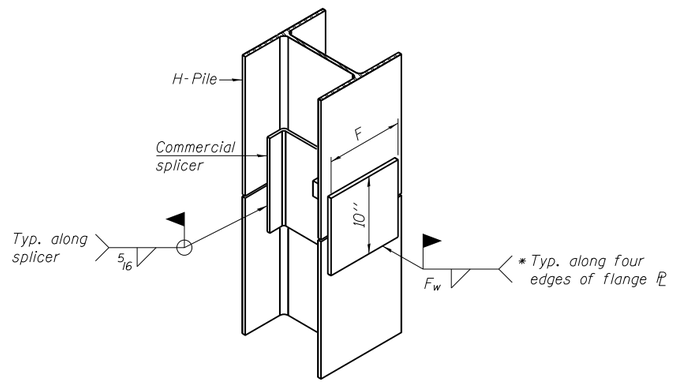


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



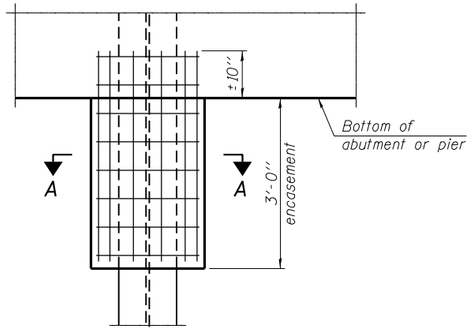
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

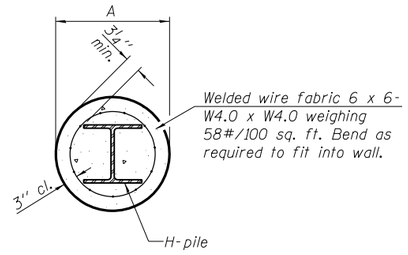
* Interrupt welds 1/4'' from end of web and/or each flange.

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

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



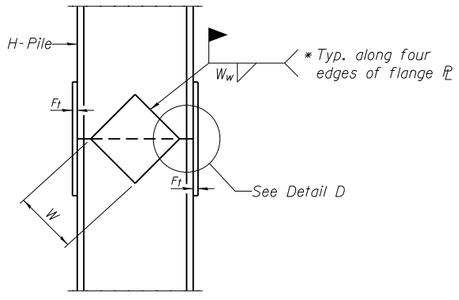
ELEVATION



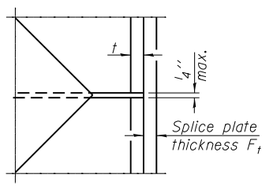
SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

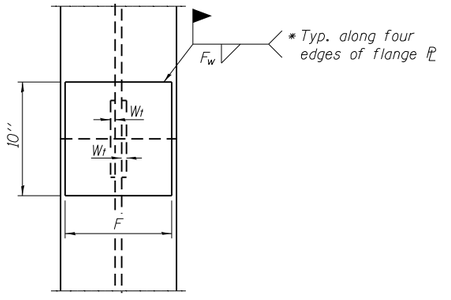
(Forms for encasement may be omitted when soil conditions permit).



ELEVATION



DETAIL D



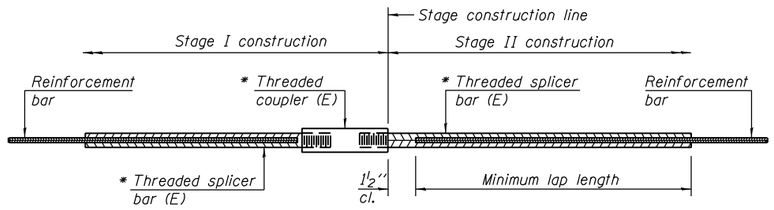
END VIEW

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

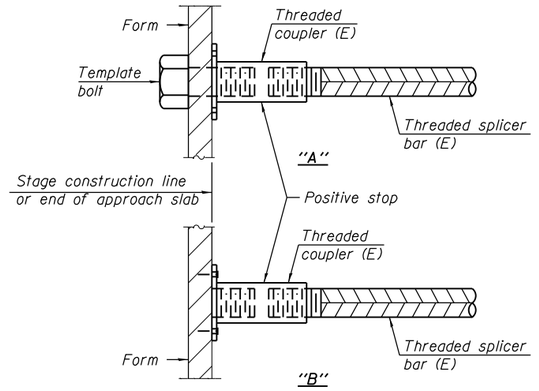
WELDED PLATE FIELD SPLICE

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

F-HP 8-11-2017

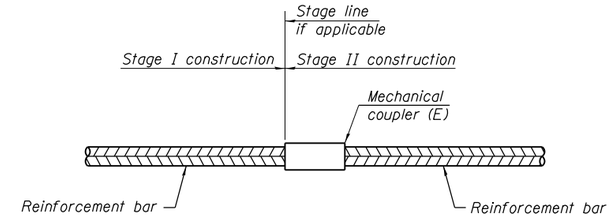


STANDARD BAR SPLICER ASSEMBLY



INSTALLATION AND SETTING METHODS

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

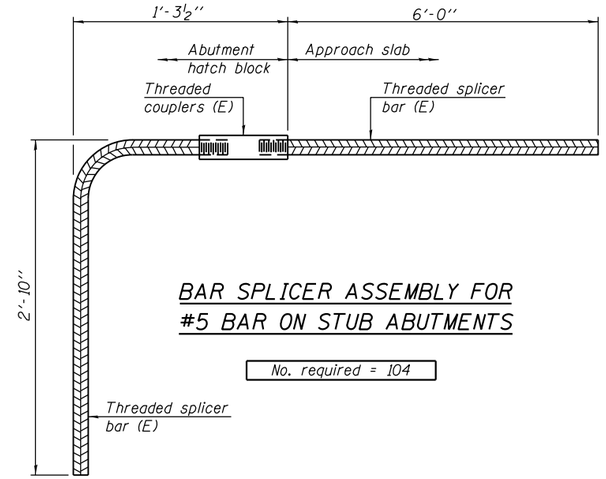


STANDARD MECHANICAL SPLICER

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

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

Location	Bar size	No. assemblies required	Minimum lap length
N. Approach Footing	5	40	3'-2"
N. Abut. Cap	8	12	5'-9"
N. Abut. Wall	5	6	3'-2"
N. Abut. Hatch Block	6	5	3'-10"
S. Approach Footing	5	40	3'-2"
S. Abut. Cap	8	12	5'-9"
S. Abut. Wall	5	6	3'-2"
S. Abut. Hatch Block	6	5	3'-10"
Top of Deck	6	8	3'-7"
Top of Deck	5	246	3'-0"
Bottom of Deck	5	160	3'-0"
N. Edge Beam	6	4	3'-7"
N. Edge Beam	5	1	3'-0"
S. Edge Beam	6	4	3'-7"
S. Edge Beam	5	1	3'-0"
N. Appr. Slab (Top)	5	32	3'-4"
N. Appr. Slab (Bott.)	8	42	4'-9"
S. Appr. Slab (Top)	5	32	3'-4"
S. Appr. Slab (Bott.)	8	42	4'-9"
Pier 1 Cap	8	10	5'-1"
Pier 1 Wall	5	30	3'-2"
Pier 2 Cap	8	10	5'-1"
Pier 2 Wall	5	30	3'-2"



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 104

NOTES

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

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

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

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

BSD-1 2-17-2017

Veenstra & Kimm, Inc.
Springfield, IL. Phone: (217)544-8033

USER NAME =	DESIGNED - GBR	REVISED -
	CHECKED - VVR	REVISED -
PLOT SCALE =	DRAWN - JRP	REVISED -
PLOT DATE =	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 017-0034
SHEET NO. 24 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	46
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

SHEET INTENTIONALLY LEFT BLANK

Veenstra & Kimm, Inc.
Springfield, IL. Phone: (217)544-8033

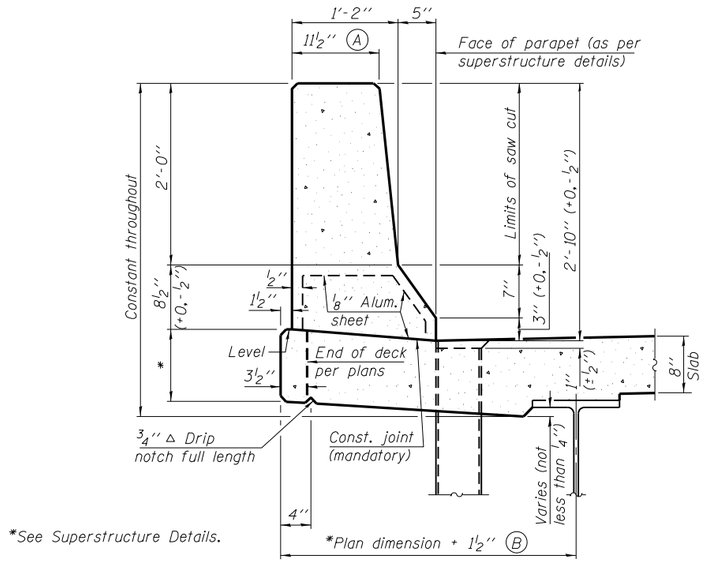
USER NAME =	DESIGNED - GBR	REVISED -
	CHECKED - VVR	REVISED -
PLOT SCALE =	DRAWN - JRP	REVISED -
PLOT DATE =	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET INTENTIONALLY LEFT BLANK

SHEET NO. 25 OF 28 SHEETS

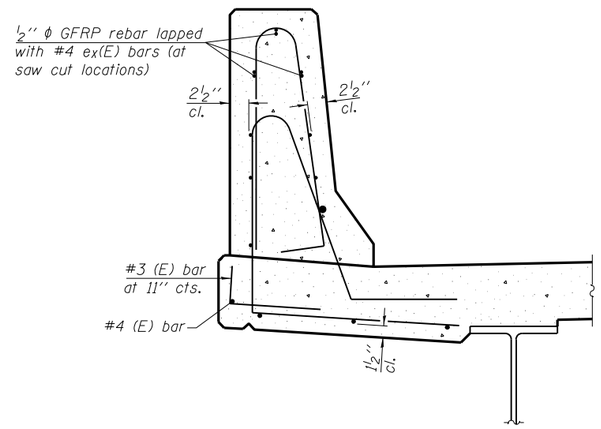
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	47
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		



*See Superstructure Details.

34" F SHAPE PARAPET SECTION

(Showing dimensions)



SECTION

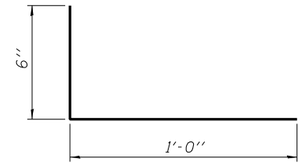
(34" parapet shown - 42" parapet similar)
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

GENERAL NOTES

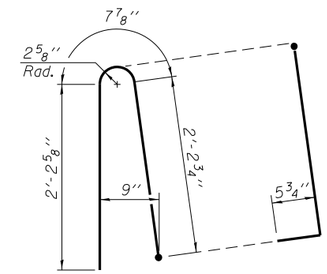
All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0165 cu. yds./ft. for 34" parapet or = 0.0223 cu. yds./ft. for 42" parapet.

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

Steel superstructure shown. Other superstructure types similar.

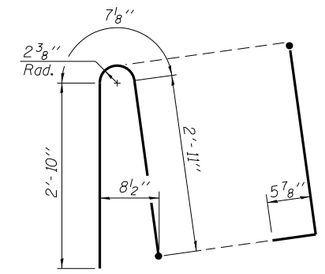


#3 (E) BAR



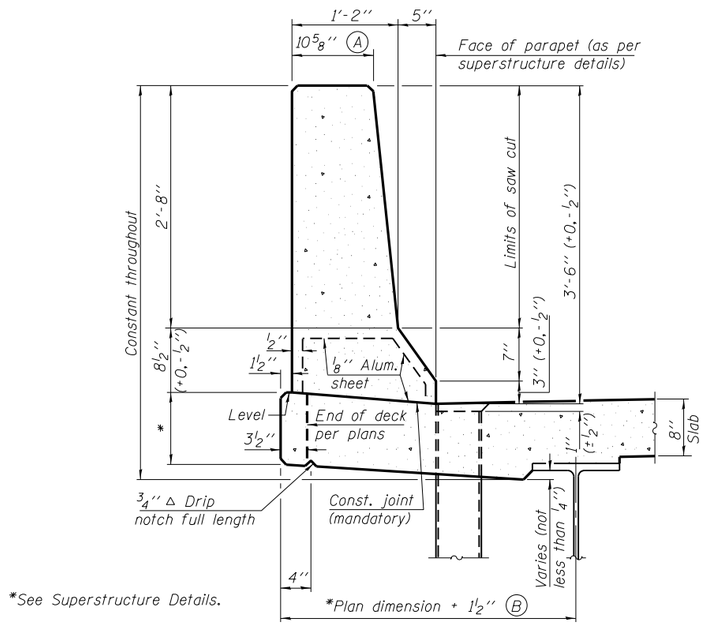
ALTERNATE BAR d(E)

(For 34" parapet when conduit is present)



ALTERNATE BAR d(E)

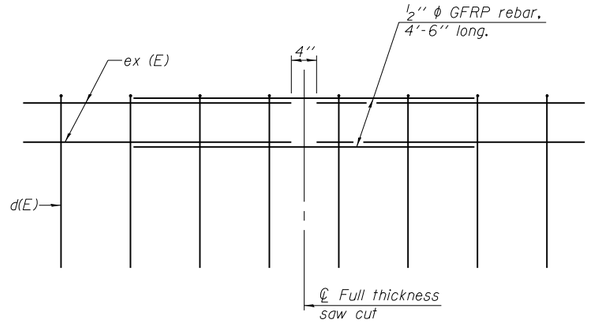
(For 42" parapet when conduit is present)



*See Superstructure Details.

42" F SHAPE PARAPET SECTION

(Showing dimensions)



GFRP REBAR STIFFENING DETAIL

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

SFP 34-42

11-22-2016

USER NAME =	DESIGNED - GBR	REVISED -	
	CHECKED - VVR	REVISED -	
PLOT SCALE =	DRAWN - JRP	REVISED -	
PLOT DATE =	DATE -	REVISED -	

Veenstra & Kimm, Inc.
Springfield, IL. Phone: (217)544-8033

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 017-0034
SHEET NO. 26 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	48
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/10/07

ROUTE FAP 332 (IL 1) DESCRIPTION Sugar Creek LOGGED BY E. Sandschafer

SECTION (18BR)B-1 LOCATION Sec 13 & 24 in R 12 W, Sec 18 & 19 in R 11 W, SEC., TWP. 5 N, RNG., 3 PM

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

STRUCT. NO. 017-0005
Station 491+38

BORING NO. 1
Station 490+44
Offset 7.50ft Rt
Ground Surface Elev. 462.56 ft

Surface Water Elev. Dry ft
Stream Bed Elev. 462.55 ft

Groundwater Elev.:
First Encounter 428.1 ft
Upon Completion 449.3 ft
After 24 Hrs. 449.7 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
5.5" asphalt on 8.5" concrete pavement. 461.46			
Soft to medium, damp, brown, CLAY LOAM TILL.	50/4"		
	50/1" 30	0.5 B	13
-5	5		
No recovery this trip, rock stuck in sampler shoe.	5 4		
455.26	2		
Medium to stiff, damp, gray, SANDY LOAM.	3 2	1.0 S	16
452.86			
-10	2		
Medium to stiff, damp, gray, LOAM.	1 2	1.0 B	20
450.06	0		
Soft to medium, damp, gray, SILTY LOAM.	0 1	0.5 B	23
448.06			
-15	1		
Soft, damp, gray marbled brown, SANDY LOAM.	2 3	0.4 S	17
445.26	2		
Brown, fine grained, SAND. 444.56	2	1.2	20
Soft, damp, gray marbled red, CLAY LOAM. 443.06	2	B	
-20	1		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Soft, very damp, gray marbled red, LOAM. *(continued)*	1 2	0.3 B	22
440.56			
Hard, very moist, gray, CLAY LOAM TILL.	2		
	2 3	0.9 B	18
-25	30		
	50 50	+4.5 PP	8
	12		
	24 36	7.8 S	9
-30	12		
	23 39		8
	29		
-35			
	36 50/5"		8
422.56 -40	14		

Latitude W 9° deg 41.088 min., Longitude N 38 deg 51.824 min., Map Datum WGS 84

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/10/07

ROUTE FAP 332 (IL 1) DESCRIPTION Sugar Creek LOGGED BY E. Sandschafer

SECTION (18BR)B-1 LOCATION Sec 13 & 24 in R 12 W, Sec 18 & 19 in R 11 W, SEC., TWP. 5 N, RNG., 3 PM

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

STRUCT. NO. 017-0005
Station 491+38

BORING NO. 1
Station 490+44
Offset 7.50ft Rt
Ground Surface Elev. 462.56 ft

Surface Water Elev. Dry ft
Stream Bed Elev. 462.55 ft

Groundwater Elev.:
First Encounter 428.1 ft
Upon Completion 449.3 ft
After 24 Hrs. 449.7 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Hard, very moist, gray, CLAY LOAM TILL.	29 46		10
-45	12		
	23 36		10
396.56			
Very dense, moist, gray, SANDSTONE.			
392.76 -70	50/3"		8
Borehole continued with rock coring.	50/0" 50/0"		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Hard, very moist, gray, CLAY LOAM TILL. *(continued)*	22 30		10
-65			
-75			
-85			
-95			
-105			
-115			
-125			
-135			
-145			
-155			
-165			
-175			
-185			
-195			

Latitude W 9° deg 41.088 min., Longitude N 38 deg 51.824 min., Map Datum WGS 84

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

ROCK CORE LOG

Date 10/10/07

ROUTE FAP 332 (IL 1) DESCRIPTION Sugar Creek LOGGED BY E. Sandschafer

SECTION (18BR)B-1 LOCATION Sec 13 & 24 in R 12 W, Sec 18 & 19 in R 11 W, SEC., TWP. 5 N, RNG., 3 PM

COUNTY Crawford CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 017-0005
Station 491+38

CORING BARREL TYPE & SIZE NW, conv dbl bbl, split inner
Core Diameter 2.06 in
Top of Rock Elev. 396.56 ft
Begin Core Elev. 392.76 ft

BORING NO. 1
Station 490+44
Offset 7.50ft Rt
Ground Surface Elev. 462.56 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray, SANDSTONE w/ many Clay Shale partings and seams. 392.76		100	47	0.7	
Rock core sample B1C1 from 73.2' to 73.7' depth = 7.5 tsf Qu.					
387.76 -75		96	59	0.7	
Dark gray, moderately weathered, CLAY SHALE.					
Rock core sample B1C2 from 78.2' to 78.7' depth = 15.1 tsf Qu.					
382.76 -80					
Extent of exploration.					
Benchmark: BM 431 cut square on SW corner of existing structure 017-0005, Sta 490+90, 17' Lt = 463.15' elevation. Provided by Program Development.					
-85					
-95					
-105					
-115					
-125					
-135					
-145					
-155					
-165					
-175					
-185					
-195					

Color pictures of the cores Available on request
Cores will be stored for examination until 10/10/08
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/11/07

ROUTE FAP 332 (IL 1) DESCRIPTION Sugar Creek LOGGED BY E. Sandschafer

SECTION (18BR)B-1 LOCATION Sec 13 & 24 in R 12 W, Sec 18 & 19 in R 11 W, SEC., TWP. 5 N, RNG., 3 PM

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

STRUCT. NO. 017-0005
Station 491+38

BORING NO. 2
Station 492+26
Offset 8.00ft Lt
Ground Surface Elev. 462.55 ft

Surface Water Elev. Dry ft
Stream Bed Elev. 462.55 ft

Groundwater Elev.:
First Encounter ft
Upon Completion 416.6 ft
After 24 Hrs. 445.1 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4" asphalt on 10" concrete pavement.			
461.35			
Gray, CLAY.			
460.35			
No recovery - possible concrete in front of auger.			
	6		
-5	12		
	13		
455.55			
Medium, damp, gray marbled brown, CLAY LOAM w/ some fine gravel and wood.	1		
	2	0.7	15
	3	B	
-10	2		
	3	0.7	16
	3	B	
450.55			
Soft, damp, gray, LOAM w/ wood chunks.	0		
	0	0.4	13
	1	B	
448.05			
Soft, damp, gray, SILTY LOAM w/ wood chunks.	1		
-15	2	0.3	24
	2	B	
445.25			
Gray, fine grained, SAND.	1		
444.95	2	1.5	25
Stiff, damp, gray marbled brown, CLAY LOAM.	3	B	
443.05			
-20	1		
Very soft, very damp, gray, SILTY LOAM. *(continued)*	1	0.3	34
	1	B	
	0		
	0	0.4	32
	0	B	
-25	0		
	0	0.2	19
	0	B	
	0		
	0	0.2	22
	0	B	
432.55 -30	0		
Medium, damp, gray, CLAY LOAM TILL.	2	0.6	18
	5	B	
428.55			
Hard, damp, gray, CLAY LOAM TILL.	428.05		
Gray, SANDY LOAM.	427.55 -35	12	
	13	+4.5	9
Hard, damp, gray, CLAY LOAM TILL.	21	PP	
422.55 -40	18		

Latitude W 9° deg 41 070 min, Longitude N 38 deg 51 964 min, Map Datum WGS 84

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/11/07

ROUTE FAP 332 (IL 1) DESCRIPTION Sugar Creek LOGGED BY E. Sandschafer

SECTION (18BR)B-1 LOCATION Sec 13 & 24 in R 12 W, Sec 18 & 19 in R 11 W, SEC., TWP. 5 N, RNG., 3 PM

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

STRUCT. NO. 017-0005
Station 491+38

BORING NO. 2
Station 492+26
Offset 8.00ft Lt
Ground Surface Elev. 462.55 ft

Surface Water Elev. Dry ft
Stream Bed Elev. 462.55 ft

Groundwater Elev.:
First Encounter ft
Upon Completion 416.6 ft
After 24 Hrs. 445.1 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Hard, damp, gray, CLAY LOAM TILL.	50	6.7	9
	50	S	
-45	13		
	27	5.3	10
	40	S	
-50	13		
	21	6.0	10
	40	B	
-55			
-60	6		
Hard, damp, gray, CLAY LOAM TILL. *(continued)*	9	4.6	13
	15	B	
-65			
-70	2		
	4	1.3	14
	7	B	
383.05			
-80	30		

Latitude W 9° deg 41 070 min, Longitude N 38 deg 51 964 min, Map Datum WGS 84

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/11/07

ROUTE FAP 332 (IL 1) DESCRIPTION Sugar Creek LOGGED BY E. Sandschafer

SECTION (18BR)B-1 LOCATION Sec 13 & 24 in R 12 W, Sec 18 & 19 in R 11 W, SEC., TWP. 5 N, RNG., 3 PM

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

STRUCT. NO. 017-0005
Station 491+38

BORING NO. 2
Station 492+26
Offset 8.00ft Lt
Ground Surface Elev. 462.55 ft

Surface Water Elev. Dry ft
Stream Bed Elev. 462.55 ft

Groundwater Elev.:
First Encounter ft
Upon Completion 416.6 ft
After 24 Hrs. 445.1 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Very dense, moist, gray, SANDSTONE. *(continued)*	50/5"		8
382.15	50/2"		
Extent of exploration.			
Benchmark: BM 431 cut square on SW corner of existing structure 017-0005, Sta 490+90, 17' Lt = 463.15' elevation. Provided by Program Development.			
-85			
-90			
-95			
-100			

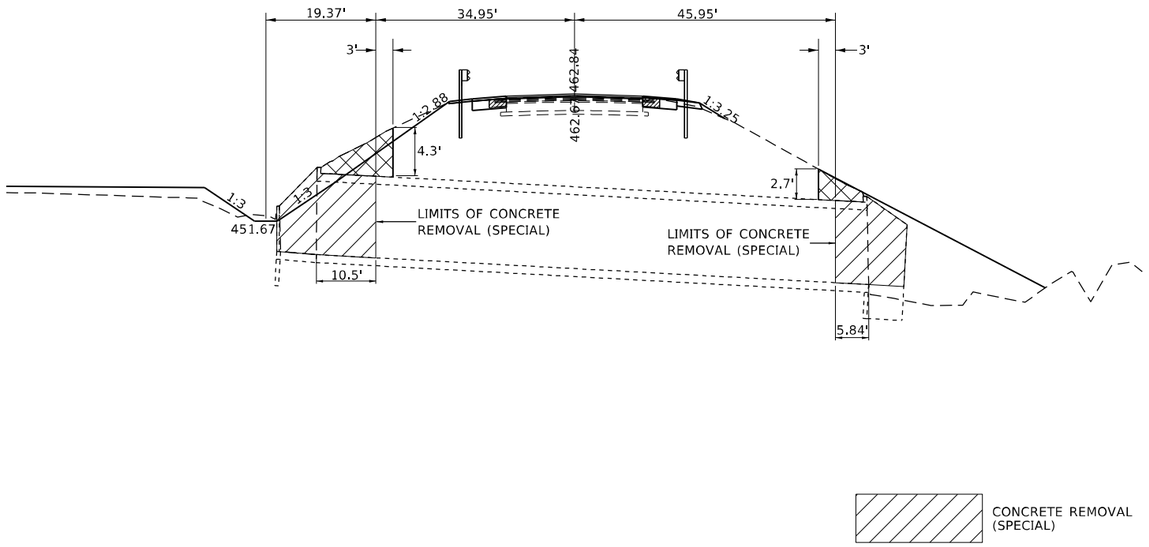
Latitude W 9° deg 41 070 min, Longitude N 38 deg 51 964 min, Map Datum WGS 84

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

BBS, from 137 (Rev. 8-99)

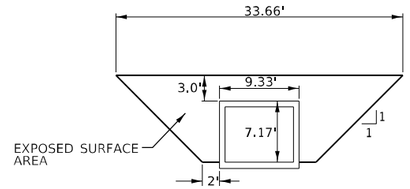
CONCRETE REMOVAL (SPECIAL)

STA. 489+93.66

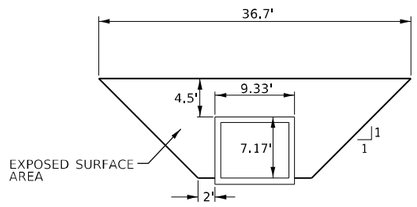


TEMPORARY SOIL RETENTION SYSTEM

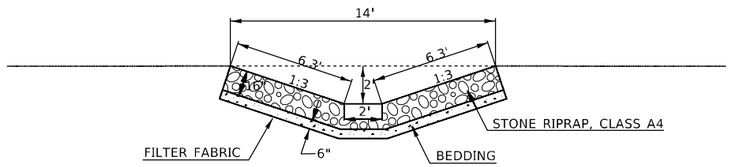
LOCATION 2, STA. 489+93.66 RT.



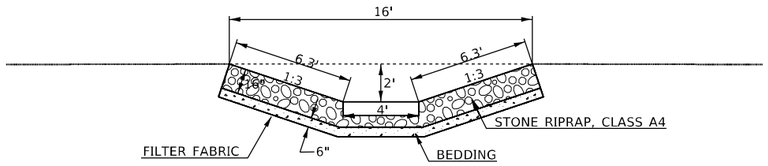
LOCATION 2, STA. 489+93.66 LT.



DITCH DETAILS



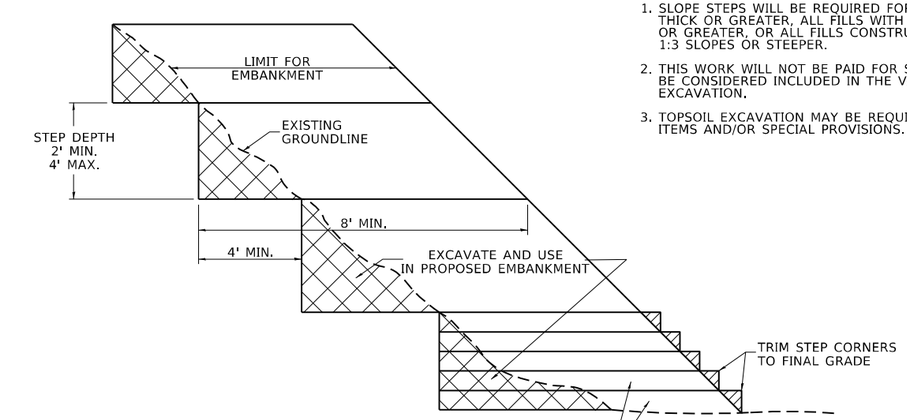
ROADSIDE DITCHES ALONG T.R. 363



OUTLET DITCHES FOR 7'X2' AND
5'X3' PRECAST BOX CULVERTS
UNDER T.R. 363

SLOPE STEPS DETAIL

TYPICAL SECTION



GENERAL NOTES:

1. SLOPE STEPS WILL BE REQUIRED FOR ALL FILLS 12" THICK OR GREATER, ALL FILLS WITH A HEIGHT OF 10' OR GREATER, OR ALL FILLS CONSTRUCTED ON EXISTING 1:3 SLOPES OR STEEPER.
2. THIS WORK WILL NOT BE PAID FOR SEPERATELY BUT SHALL BE CONSIDERED INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.
3. TOPSOIL EXCAVATION MAY BE REQUIRED, SEE PROJECT PAY ITEMS AND/OR SPECIAL PROVISIONS.

REPLACEMENT MATERIAL:

STANDARD EMBANKMENT (IN ACCORDANCE WITH 205 OF THE STANDARD SPECIFICATION.

MODEL: Default
FILE NAME: z:\d3annxcm.dot.illinois.gov\PWIDOT\Documents\IDOT Offices\District 7\Projects\74915\CADData\CADpieces\074915-sht-details.dgn

USER NAME = steffenmk	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

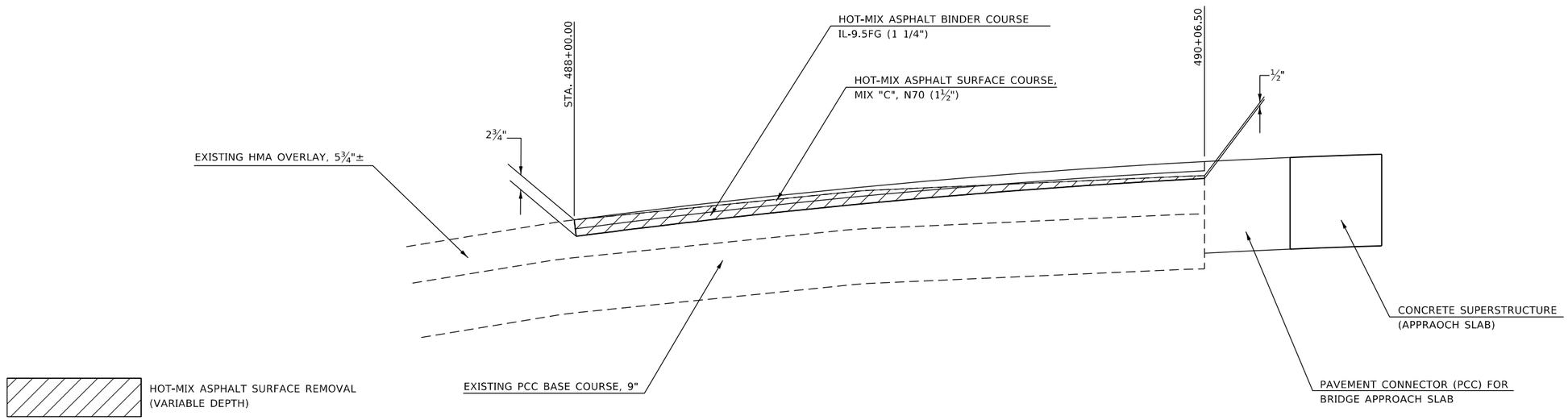
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

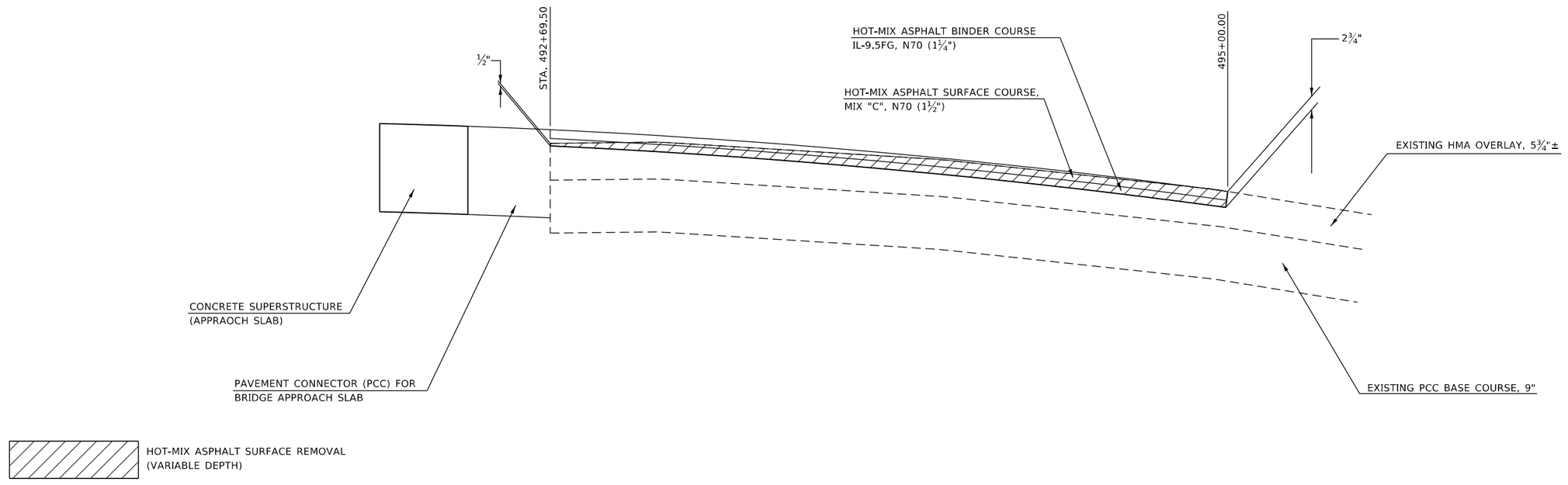
DISTRICT DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	188-1	CRAWFORD	83	51
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

MILLING AND RESURFACING DETAIL





MODEL: $MODELNAME$
FILE NAME: $FILE$

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

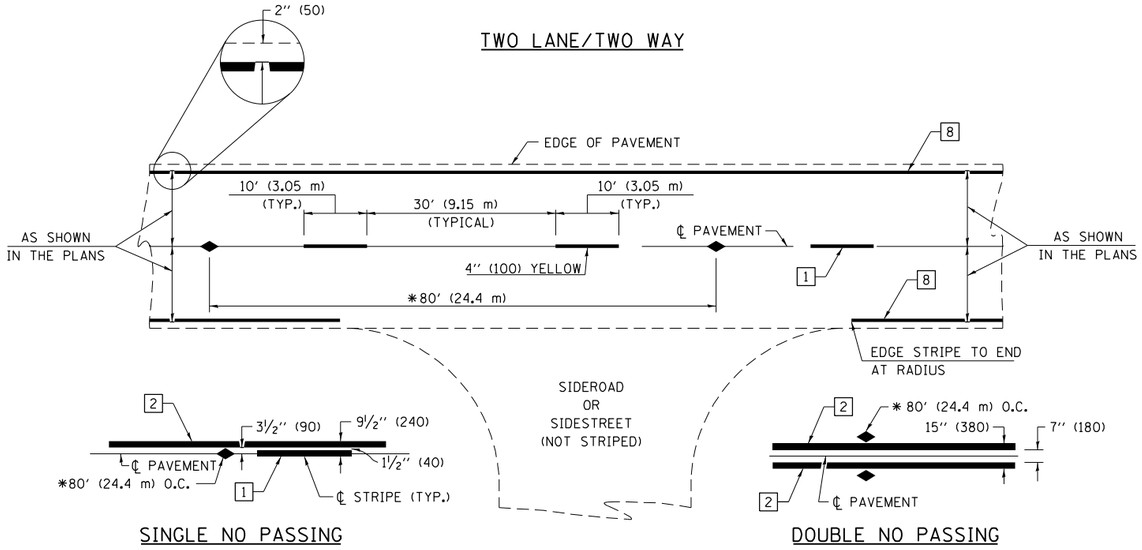
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	52
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

TWO LANE/TWO WAY



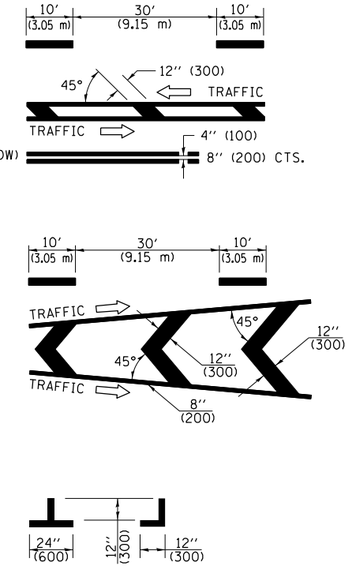
SINGLE NO PASSING

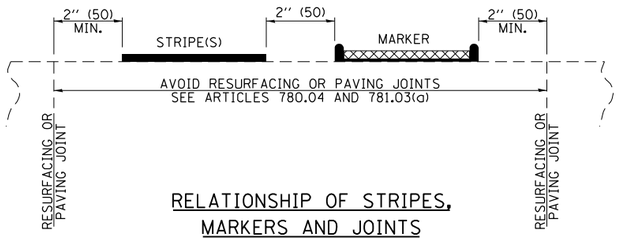
DOUBLE NO PASSING

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

PAVEMENT MARKING LEGEND

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



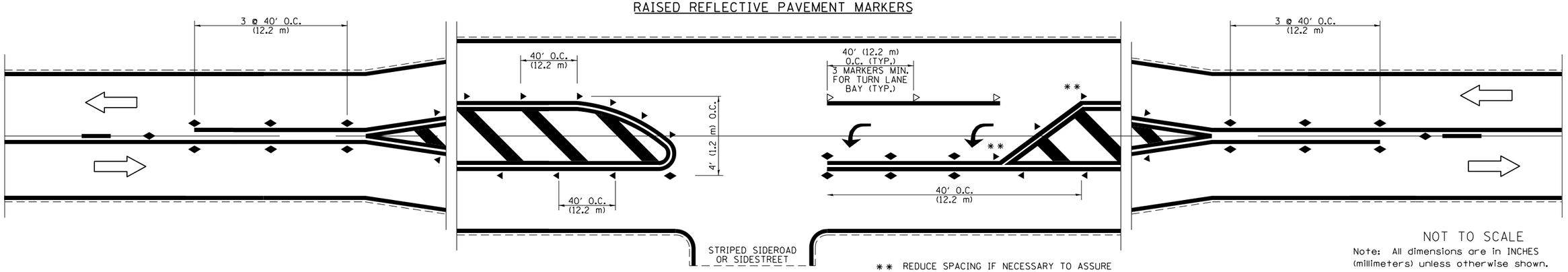


RELATIONSHIP OF STRIPES, MARKERS AND JOINTS

TYPICAL PAVEMENT MARKERS LEGEND

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

RAISED REFLECTIVE PAVEMENT MARKERS



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

NOT TO SCALE

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

DISTRICT 7 DETAIL NO. 78000001

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	188-1	CRAWFORD	83	53
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

USER NAME = steffenmk	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 7/30/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

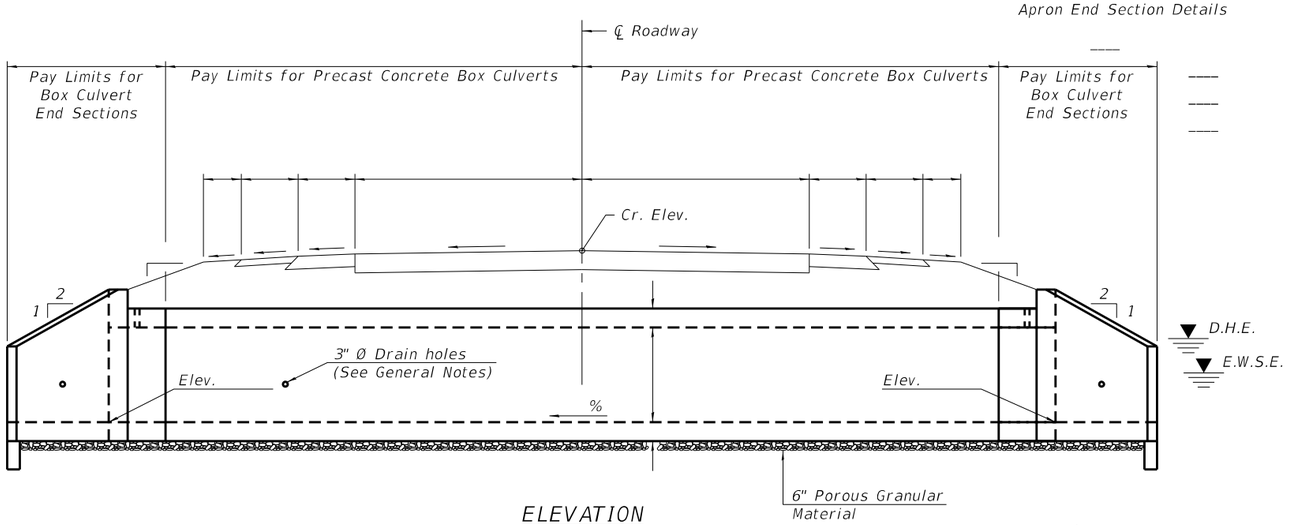
SCALE: NA | SHEET 3 OF 3 SHEETS | STA. | TO STA.

MODEL: Default
FILE NAME: pw:\\dotcmroom.dot.illinois.gov:PWBDOTDocuments\IDOT Offices\District 7\Projects\74915\CADData\CADFolders\D774915-sht-Details.dgn

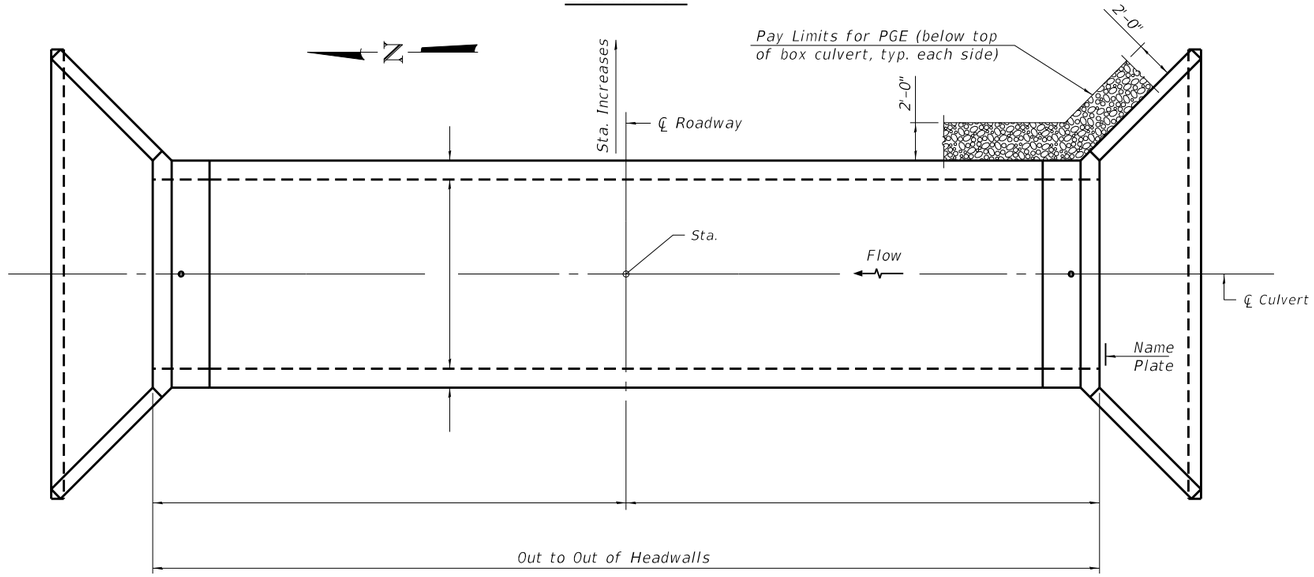
Benchmark:

Existing Structure:

INDEX OF SHEETS



ELEVATION



PLAN

GENERAL NOTES

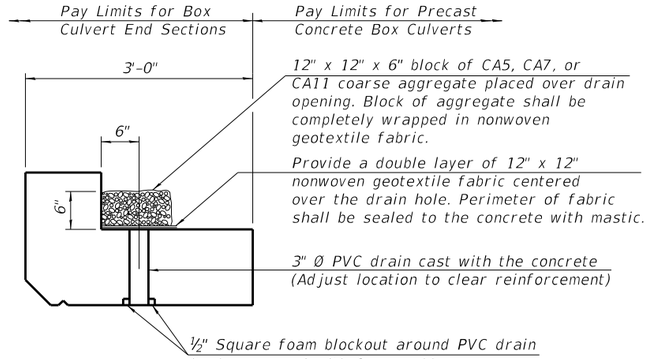
The design fill height for this box is _ ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.

Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.

The 6 in. thick layer of porous granular material required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. Cost of the porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.

Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.

Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert, 2 ft from the back face of the end sections, and not closer than 2 ft from the face of embankment.



DRAIN DETAIL

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)

PROFILE GRADE

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications
6th Edition with 2013 interims

LOADING HL-93

DESIGN STRESSES

PRECAST UNITS

f'c = 5,000 psi
fy = 65,000 psi (Welded Wire Reinforcement)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Box Culvert End Sections, Culvert 1	Each	2
Precast Concrete Box Culverts, 7X2	Foot	30
Box Culvert End Sections, Culvert 2	Each	2
Precast Concrete Box Culverts, 5X3	Foot	46
Porous Granular Embankment	Cu. Yd.	6.5

GENERAL PLAN AND ELEVATION
IL RTE. RT 1 OVER SUGAR CREEK
F.A. P 332 SEC. 18B-1
CRAWFORD COUNTY

MODEL: $MODELNAME$
FILE NAME: $FILEL$

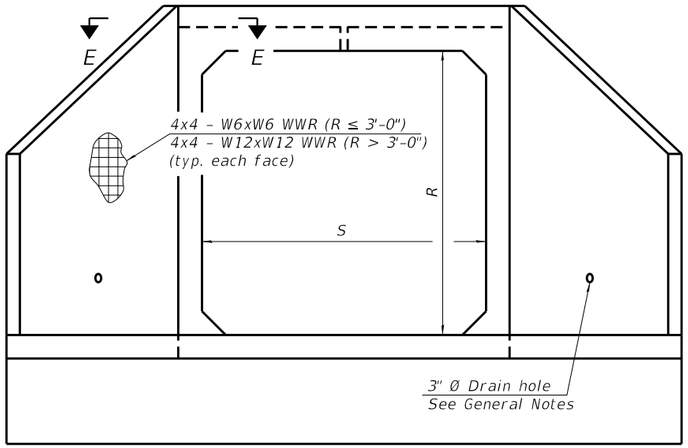
USER NAME = $USER$	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = $SCALE$	CHECKED - _____	REVISED - _____
PLOT DATE = $DATE$	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

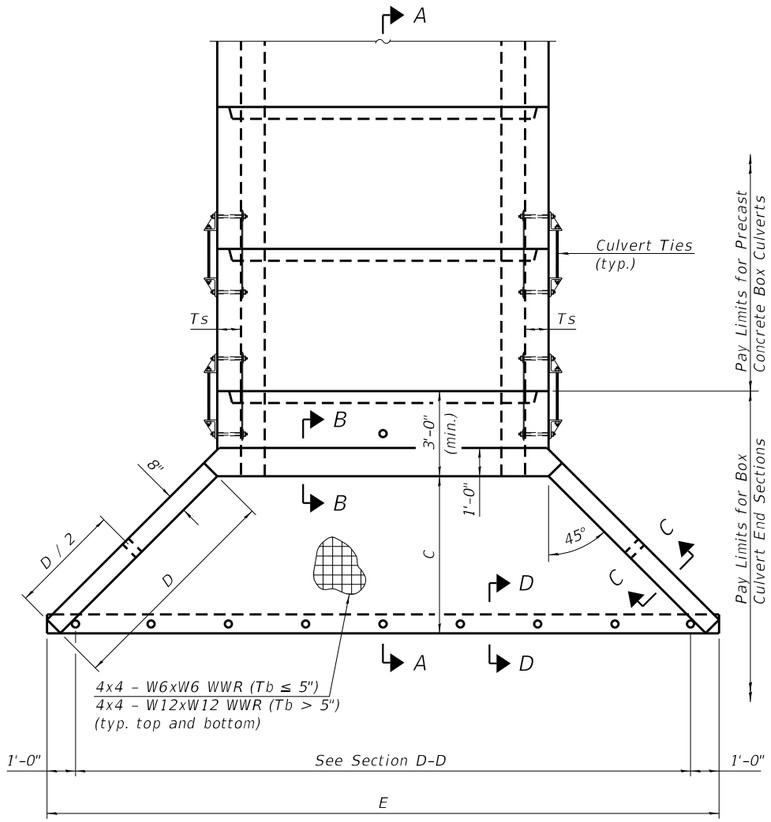
BOX CULVERT WITH APRON END SECTION

SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

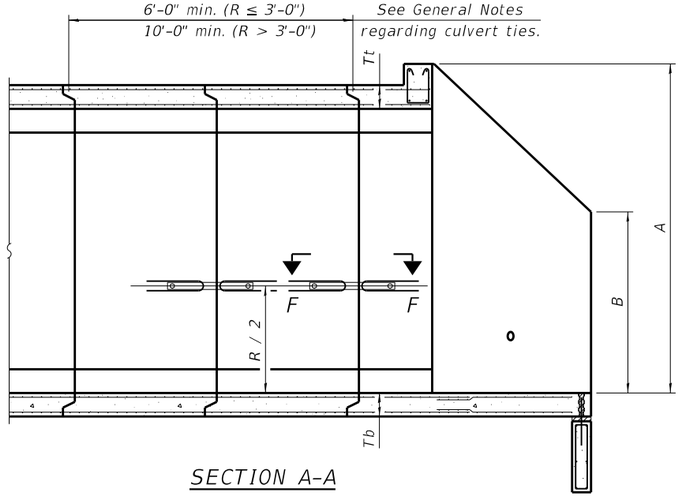
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	53A
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			



END VIEW



PLAN



SECTION A-A

GENERAL NOTES

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. End sections will be paid for at the contract unit price per each for Box Culvert End Sections.

The Contractor may furnish the end section as a single precast concrete piece or construct the end section in the field using cast-in-place (CIP) construction. For CIP construction, the bottom slab thickness shall be increased by 2" and the clear cover to the bottom mat of reinforcement shall be increased to 3".

Box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements for ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

The number of culvert ties shall be sufficient to engage the minimum length of culvert barrel shown within the pay limits for Precast Concrete Box Culverts and will be dependent upon the length of box culvert segments furnished by the Contractor. Culvert ties are not required for box culverts having a rise (R) less than or equal to 3 ft and a span (S) greater than or equal to 10 ft.

All costs associated with furnishing and installing or constructing the toewall and culvert ties will not be measured for payment but shall be included in the unit price for Box Culvert End Sections of the culvert number specified.

Shop drawings that detail slab thickness and reinforcement layout for the Box Culvert End Sections shall be provided to the Engineer for review and approval. Reinforcement bars not detailed herein shall be detailed with a clear distance at the end of the reinforcement not less than ½" nor more than 2". For the precast option, it shall be the Contractor's responsibility for determining a method of handling and a construction procedure shall be included on the shop drawings. The Contractor shall determine and detail in the shop drawings any necessary strengthening or stiffening provisions necessary to handle the precast segment. Any required modifications shall be at no extra charge.

The Contractor may use reinforcement bars in lieu of welded wire reinforcement (WWR). Reinforcement bars shall be limited to the sizes of #3 through #5 bars, a maximum spacing of the lesser of 8" or the member thickness, and shall result in an area of reinforcement equal to or greater than that provided by the WWR. Minimum lap lengths detailed herein are applicable to WWR and reinforcement bars.

Reinforcement (circumferential and longitudinal) in the culvert barrel portion of the end section being lapped with reinforcement from the wingwalls or bottom slab of the end section shall not be less than that required by ASTM C 1577 for the design fill height or the reinforcement detailed for the end section, whichever is greater.

One drain hole shall be provided in each wingwall for end sections of box culverts having an opening with a clear rise greater than 3 ft. The drain hole shall be located within the lower 1/3 of the clear rise of the box culvert and shall conform to the requirements of Article 503.11 of the Standard Specifications.

APRON END SECTION DIMENSIONS

Span (S)	Rise (R)	Tt	Tb	Ts	A	B	C	D	E	Concrete Cu. Yd.	Culvert Ties Required
3'-0"	2'-0"	7"	6"	4"	3'-4"	2'-2"	2'-10⅝"	4'-1"	10'-4⅝"	2.8	Yes
3'-0"	2'-0"	4"	4"	4"	3'-1"	2'-1"	2'-7⅞"	3'-9"	9'-11"	2.3	Yes
3'-0"	3'-0"	7"	6"	4"	4'-4"	2'-8"	3'-10⅝"	5'-6"	12'-4⅝"	3.7	Yes
3'-0"	3'-0"	4"	4"	4"	4'-1"	2'-7"	3'-7⅞"	5'-2"	11'-11"	3.1	Yes
4'-0"	2'-0"	7.5"	6"	5"	3'-4½"	2'-2½"	2'-11⅜"	4'-2"	11'-8"	3.3	Yes
4'-0"	2'-0"	5"	5"	5"	3'-2"	2'-1"	2'-8½"	3'-10"	11'-2⅜"	2.8	Yes
4'-0"	3'-0"	7.5"	6"	5"	4'-4½"	2'-8½"	3'-11⅜"	5'-7"	13'-8⅛"	4.2	Yes
4'-0"	3'-0"	5"	5"	5"	4'-2"	2'-7"	3'-8½"	5'-3"	13'-2⅜"	3.7	Yes
4'-0"	4'-0"	7.5"	6"	5"	5'-4½"	3'-2½"	4'-11⅜"	7'-0"	15'-8⅛"	5.3	Yes
4'-0"	4'-0"	5"	5"	5"	5'-2"	3'-1"	4'-8⅜"	6'-8"	15'-2½"	4.7	Yes
5'-0"	2'-0"	8"	7"	6"	3'-5"	2'-3"	2'-11⅜"	4'-2"	12'-10"	3.9	Yes
5'-0"	2'-0"	6"	6"	6"	3'-3"	2'-2"	2'-10"	4'-0"	12'-7¼"	3.5	Yes
5'-0"	3'-0"	8"	7"	6"	4'-5"	2'-9"	3'-11⅜	5'-7"	14'-10⅛"	4.9	Yes
5'-0"	3'-0"	6"	6"	6"	4'-3"	2'-8"	3'-10"	5'-5"	14'-7¼"	4.5	Yes
5'-0"	4'-0"	8"	7"	6"	5'-5"	3'-3"	4'-11⅜"	7'-0"	16'-10⅛"	6.1	Yes
5'-0"	4'-0"	6"	6"	6"	5'-3"	3'-2"	4'-9¼"	6'-9"	16'-5½"	5.5	Yes
5'-0"	5'-0"	8"	7"	6"	6'-5"	3'-9"	5'-11⅜"	8'-5"	18'-10⅛"	7.4	Yes
5'-0"	5'-0"	6"	6"	6"	6'-3"	3'-8"	5'-9¼"	8'-2"	18'-5⅞"	6.8	Yes
6'-0"	2'-0"	8"	7"	7"	3'-5"	2'-3"	2'-11⅜"	4'-2"	14'-0"	4.3	Yes
6'-0"	2'-0"	7"	7"	7"	3'-4"	2'-2"	2'-10⅝"	4'-1"	13'-10⅝"	4.2	Yes
6'-0"	3'-0"	8"	7"	7"	4'-5"	2'-9"	3'-11⅜"	5'-7"	16'-0⅛"	5.4	Yes
6'-0"	3'-0"	7"	7"	7"	4'-4"	2'-8"	3'-10⅝"	5'-6"	15'-10⅝"	5.2	Yes
6'-0"	4'-0"	8"	7"	7"	5'-5"	3'-3"	4'-11⅜"	7'-0"	18'-0⅛"	6.5	Yes
6'-0"	4'-0"	7"	7"	7"	5'-4"	3'-2"	4'-10¾"	6'-11"	17'-10¾"	6.5	Yes
6'-0"	5'-0"	8"	7"	7"	6'-5"	3'-9"	5'-11⅜"	8'-5"	20'-0⅛"	8.0	Yes
6'-0"	5'-0"	7"	7"	7"	6'-4"	3'-8"	5'-10¾"	8'-4"	19'-10¾"	7.8	Yes
6'-0"	6'-0"	8"	7"	7"	7'-5"	4'-3"	6'-11½"	9'-10"	22'-0¼"	9.5	Yes
6'-0"	6'-0"	7"	7"	7"	7'-4"	4'-2"	6'-10¾"	9'-9"	21'-10¾"	9.3	Yes
7'-0"	2'-0"	8"	8"	8"	3'-5"	2'-3"	2'-11⅜"	4'-2"	15'-2"	4.9	Yes
7'-0"	3'-0"	8"	8"	8"	4'-5"	2'-9"	3'-11⅜"	5'-7"	17'-2⅛"	6.1	Yes
7'-0"	4'-0"	8"	8"	8"	5'-5"	3'-3"	4'-11⅜"	7'-0"	19'-2⅛"	7.4	Yes
7'-0"	5'-0"	8"	8"	8"	6'-5"	3'-9"	5'-11⅜"	8'-5"	21'-2⅛"	8.9	Yes
7'-0"	6'-0"	8"	8"	8"	7'-5"	4'-3"	6'-11½"	9'-10"	23'-2¼"	10.6	Yes
8'-0"	2'-0"	8"	8"	8"	3'-5"	2'-3"	2'-11⅜"	4'-2"	16'-2"	5.3	Yes
8'-0"	3'-0"	8"	8"	8"	4'-5"	2'-9"	3'-11⅜"	5'-7"	18'-2⅛"	6.5	Yes
8'-0"	4'-0"	8"	8"	8"	5'-5"	3'-3"	4'-11⅜"	7'-0"	20'-2⅛"	7.8	Yes
8'-0"	5'-0"	8"	8"	8"	6'-5"	3'-9"	5'-11⅜"	8'-5"	22'-2⅛"	9.3	Yes
8'-0"	6'-0"	8"	8"	8"	7'-5"	4'-3"	6'-11½"	9'-10"	24'-2¼"	11.0	Yes
9'-0"	2'-0"	9"	9"	9"	3'-6"	2'-3"	3'-0¾"	4'-4"	17'-6⅞"	6.2	Yes
9'-0"	3'-0"	9"	9"	9"	4'-6"	2'-9"	4'-0¾"	5'-9"	19'-6⅞"	7.5	Yes
9'-0"	4'-0"	9'	9"	9"	5'-6"	3'-3"	5'-0¾"	7'-2"	21'-6⅞"	9.0	Yes
9'-0"	5'-0"	9"	9"	9"	6'-6"	3'-9"	6'-0⅞"	8'-7"	23'-7"	10.6	Yes
9'-0"	6'-0"	9"	9"	9"	7'-6"	4'-3"	7'-0⅛"	9'-11"	25'-5⅜"	12.4	Yes
10'-0"	2'-0"	10"	10"	10"	3'-7"	2'-4"	3'-1½"	4'-5"	18'-10¼"	7.1	No
10'-0"	3'-0"	10"	10"	10"	4'-7"	2'-10"	4'-1½"	5'-10"	20'-10¼"	8.6	No
10'-0"	4'-0"	10"	10"	10"	5'-7"	3'-4"	5'-1½"	7'-3"	22'-10⅜"	10.2	Yes
10'-0"	5'-0"	10"	10"	10"	6'-7"	3'-10"	6'-1½"	8'-8"	24'-10⅜"	12.0	Yes
10'-0"	6'-0"	10"	10"	10"	7'-7"	4'-4"	7'-1½"	10'-1"	26'-10⅜"	13.9	Yes
11'-0"	2'-0"	11"	11"	11"	3'-8"	2'-4"	3'-2⅞"	4'-7"	20'-3⅛"	8.2	No
11'-0"	3'-0"	11"	11"	11"	4'-8"	2'-10"	4'-2⅞"	6'-0"	22'-3⅛"	9.8	No
11'-0"	4'-0"	11"	11"	11"	5'-8"	3'-4"	5'-2¼"	7'-4"	24'-1¾"	11.5	Yes
11'-0"	5'-0"	11"	11"	11"	6'-8"	3'-10"	6'-2¼"	8'-9"	26'-1¾"	13.3	Yes
11'-0"	6'-0"	11"	11"	11"	7'-8"	4'-4"	7'-2¼"	10'-2"	28'-1⅞"	15.5	Yes
12'-0"	2'-0"	12"	12"	12"	3'-9"	2'-5"	3'-3⅝"	4'-8"	21'-6½"	9.3	No
12'-0"	3'-0"	12"	12"	12"	4'-9"	2'-11"	4'-3⅜"	6'-1"	23'-6½"	11.1	No
12'-0"	4'-0"	12"	12"	12"	5'-9"	3'-5"	5'-3⅜"	7'-6"	25'-6⅝"	13.0	Yes
12'-0"	5'-0"	12"	12"	12"	6'-9"	3'-11"	6'-3⅝"	8'-11"	27'-6⅝"	14.1	Yes
12'-0"	6'-0"	12"	12"	12"	7'-9"	4'-5"	7'-3⅝"	10'-4"	29'-6⅝"	17.4	Yes

Note:
Two sets of apron end section dimensions are shown above for some box culvert sizes due to the top and bottom slabs having different thicknesses per ASTM C 1577 for design fill heights less than 2 ft.

SCB-AES 2-17-2017

MODEL: $MODELNAME$
FILE NAME: $FILEL$

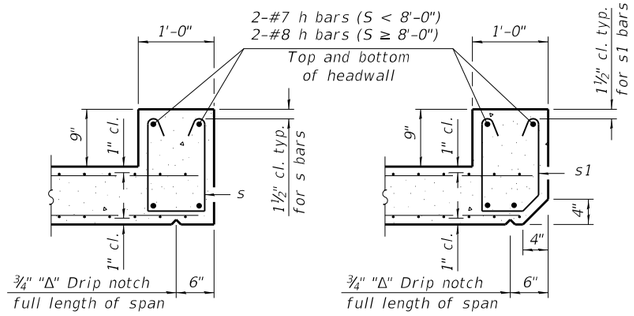
USER NAME = $USER$	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = $SCALE$	CHECKED - _____	REVISED - _____
PLOT DATE = $DATE$	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT APRON END
SECTION DETAILS – STRUCTURE NO. _____

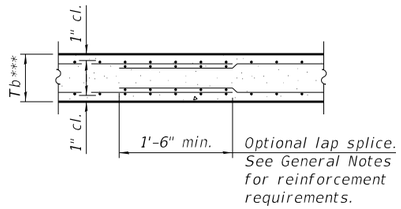
SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	53B
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

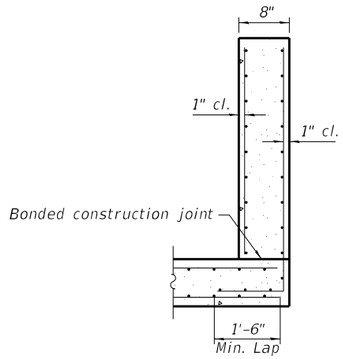


SECTION B-B
(Top slab at downstream end)

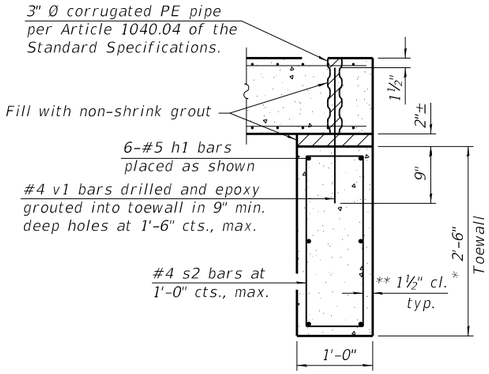
SECTION B-B
(Top slab at upstream end)



SECTION B-B
(Bottom Slab)

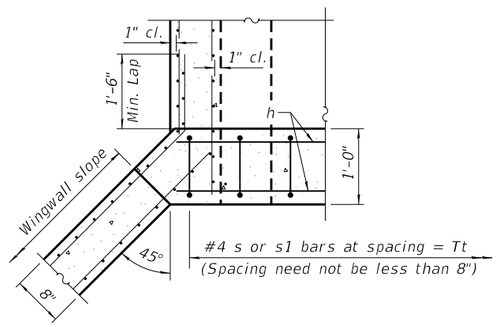


SECTION C-C

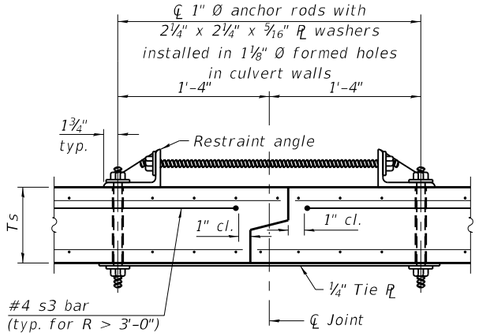


SECTION D-D

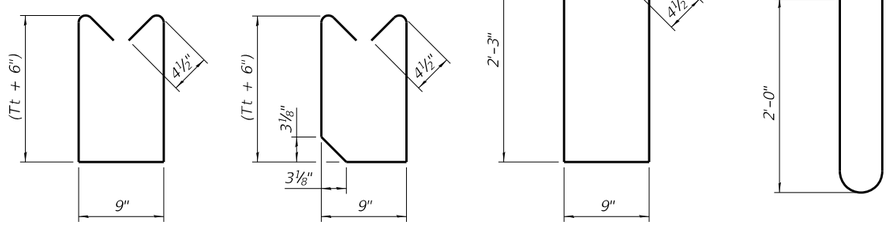
*** This dimension shall be increased by 2" for CIP construction.



SECTION E-E



SECTION F-F
(Showing culvert tie details)

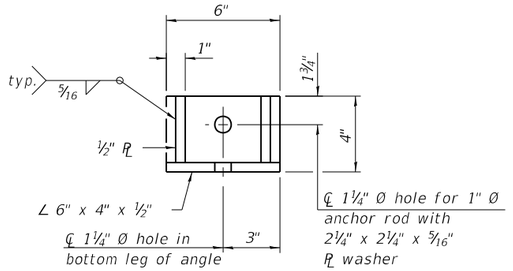


BAR s

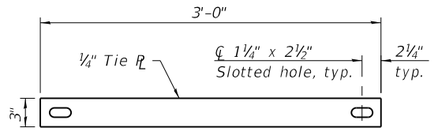
BAR s1

BAR s2

BAR s3



RESTRAINT ANGLE DETAIL



TIE PLATE DETAIL

TOEWALL CONSTRUCTION SEQUENCE

1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.

** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

Notes:

1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for the tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2¼"x2¼"x5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional ½ turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

SCB-AES 2-17-2017

MODEL: $MODEL NAME$
FILE NAME: $FILE$

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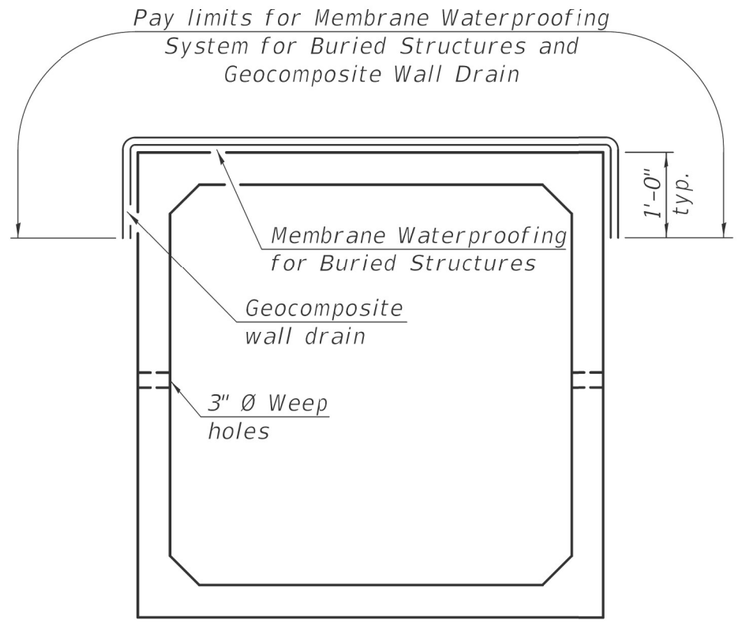
	DRAWN - _____	REVISED - _____	
PLOT SCALE = $SCALE$	CHECKED - _____	REVISED - _____	
PLOT DATE = $DATE$	DATE - _____	REVISED - _____	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT APRON END
SECTION DETAILS – STRUCTURE NO. _____

SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	53C
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		



PRECAST CONCRETE
BOX CULVERT

Fill Height ≤ 3 ft.

For fill heights > 3 ft., omit Membrane Waterproofing System for Buried Structures and Geocomposite Wall Drain.

Note:

Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps Membrane Waterproofing System for Buried Structures.

MODEL: $MODELNAME$
FILE NAME: $FILEL$

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	DRAWN - _____	REVISED - _____	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = $SCALE$	CHECKED - _____	REVISED - _____	
PLOT DATE = $DATE$	DATE - _____	REVISED - _____	

MEMBRANE WATERPROOFING SYSTEM FOR PRECAST CULVERTS FOR CULVERT 1

SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	53D
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

EARTHWORK QUANTITIES INCLUDED WITH CROSS SECTIONS FOR TR 363

488 + 25.00

C=0.0
F=1.2

462.03 462.03 462.21 462.19 462.03 461.85
1.5% 1.5%
1:5.25 1:5.25
O.W.

488 + 00.00

C=0.0
F=0.0

461.78 461.90 462.08 462.08 461.90 461.78
1.5% 1.5%
EX. R.O.W.

487 + 75.00

461.90 462.08 462.08 461.90
EX. R.O.W.

465 460 455 450

200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

USER NAME = steffenmk	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

SCALE: 10H:5V | SHEET 1 OF 13 SHEETS | STA. 487+75.00 | TO STA. 488+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	54
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

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

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PRE-STAGE CONSTRUCTION

STA. 98+20.86
℄DITCH 454.38

455.49
455.48
0.7%
454.91
452.91
1:4
1:3
1:3.75
EX. R.O.W.

462.13
462.37
462.40
462.55
1.5%
1.5%
462.37
462.13
1:4

C=24.4
F=12.7

489+00.00

EARTHWORK QUANTITIES INCLUDED WITH CROSS SECTIONS FOR TR 363

462.27
462.32
462.40
462.45
1.5%
1.5%
462.27
462.03
1:4
1:4

C=0.0
F=1.1

488+75.00

R.O.W.

EARTHWORK QUANTITIES INCLUDED WITH CROSS SECTIONS FOR TR 363

462.15
462.24
462.33
1.5%
1.5%
462.15
461.91
1:4.25

C=0.0
F=0.5

488+50.00

R.O.W.

200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

465 460 455 450

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

ORIGINAL SURVEY
NOTE BOOK
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SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

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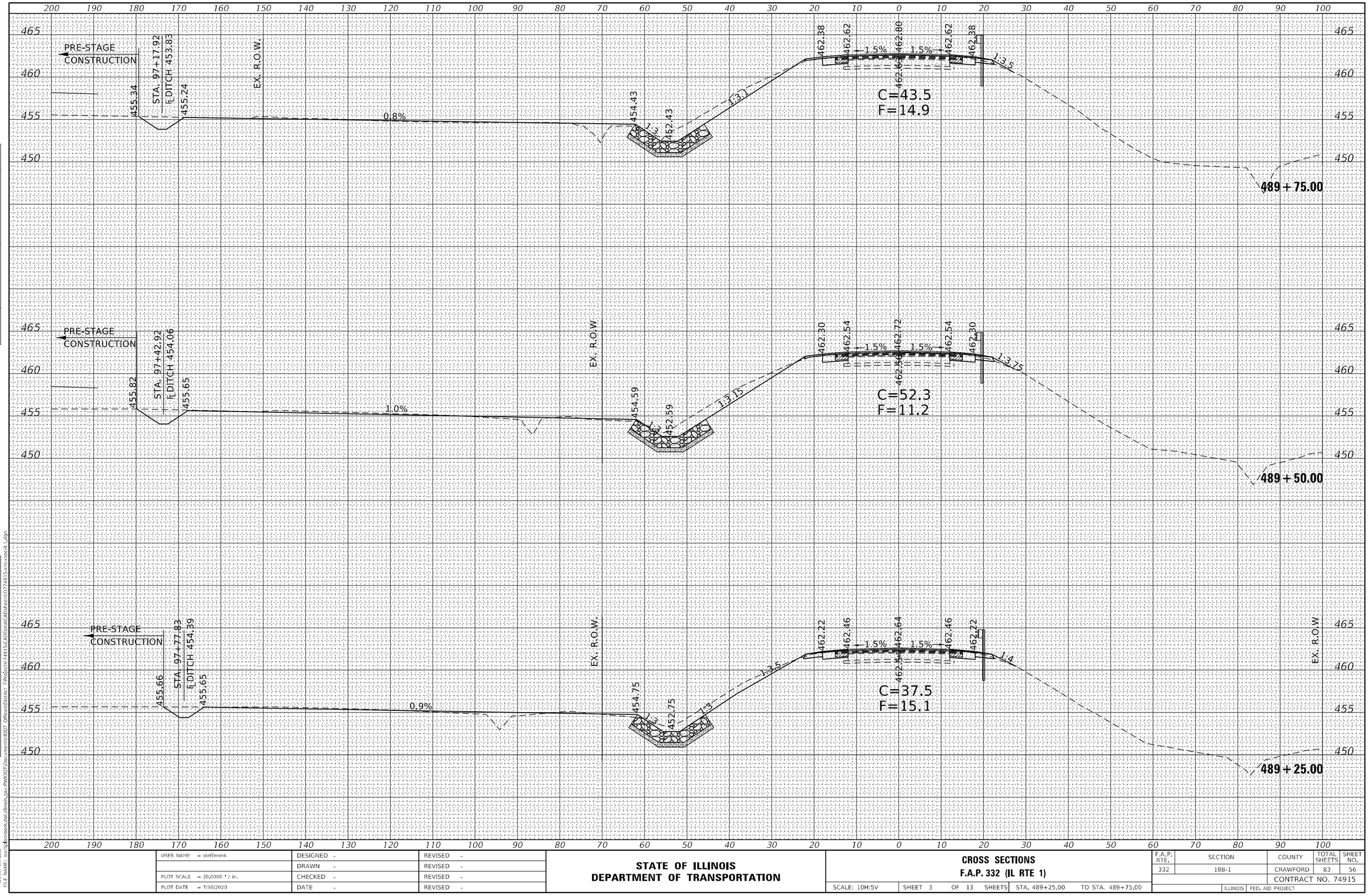
PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

SCALE: 10H:5V | SHEET 2 OF 13 SHEETS | STA. 488+50.00 | TO STA. 489+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	55
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	



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PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

SCALE: 10H:5V | SHEET 3 OF 13 SHEETS | STA. 489+25.00 | TO STA. 489+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	56
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

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

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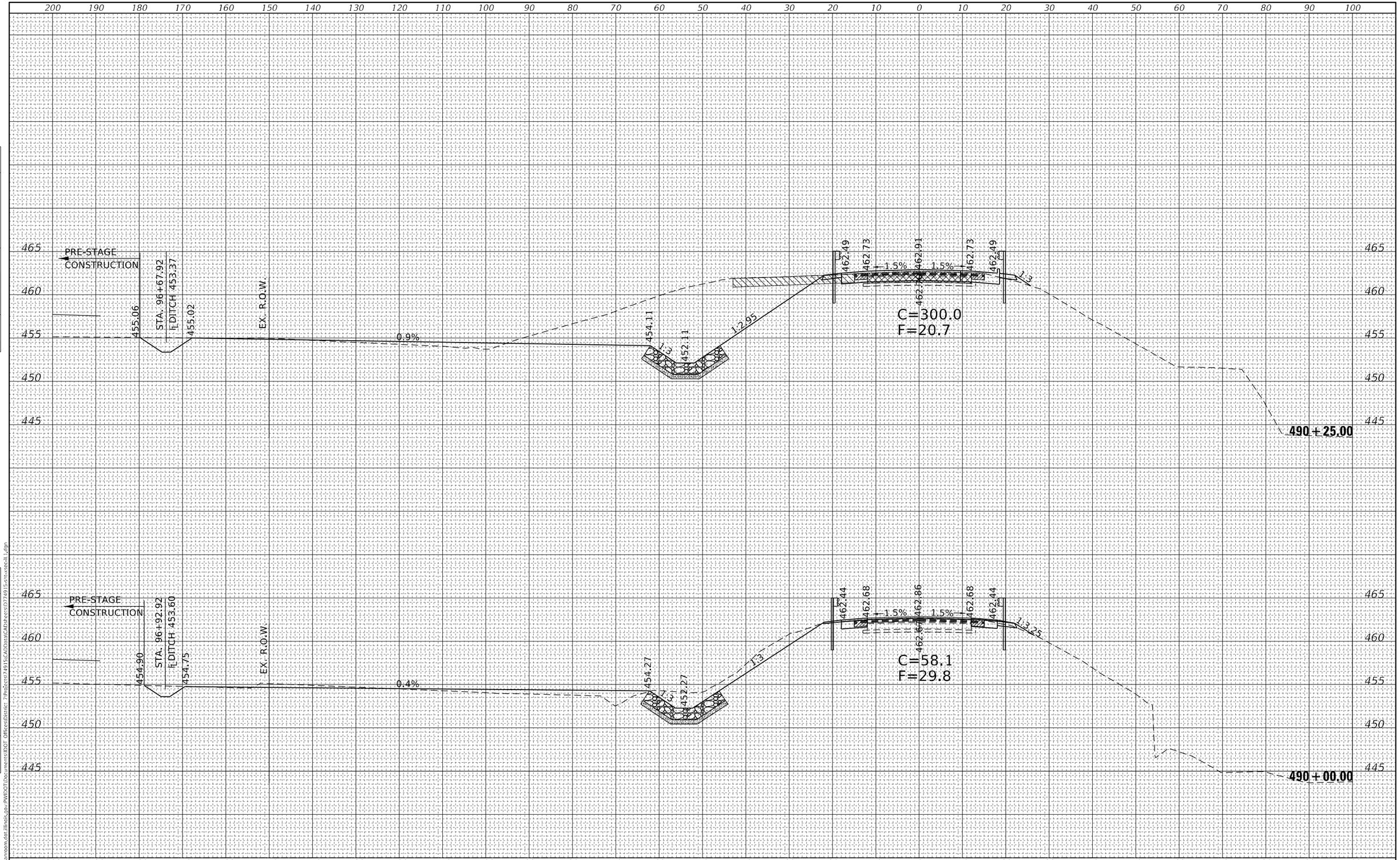
AREAS		
AREAS CHECKED		DATE



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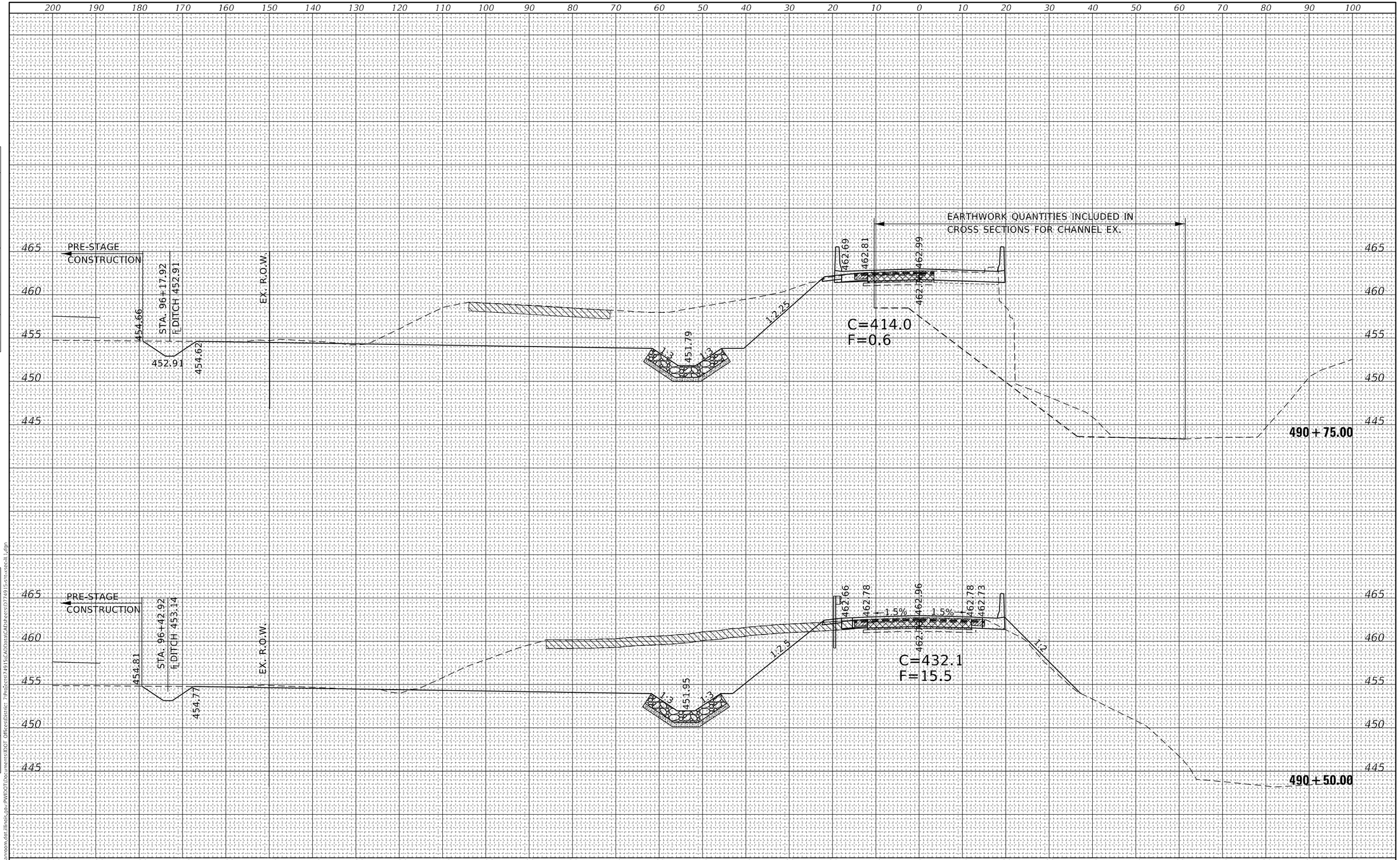
PLOT DATE = 7/30/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

SCALE: 10H:5V | SHEET 4 OF 13 SHEETS | STA. 490+00.00 | TO STA. 490+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	57
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		



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PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

SCALE: 10H:5V | SHEET 5 OF 13 SHEETS | STA. 490+50.00 TO STA. 490+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	58
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

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

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200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

470 465 460 455 450 445

PRE-STAGE CONSTRUCTION

454.76

STA. 95+67.92

L DITCH 452.45

452.45

454.67

EX. R.O.W.

453.50

EARTHWORK QUANTITIES INCLUDED IN CROSS SECTIONS FOR CHANNEL EX.

463.02

462.79

C=211.5
F=2.0

491+25.00

PRE-STAGE CONSTRUCTION

454.69

STA. 95+92.92

L DITCH 452.68

452.68

454.64

EX. R.O.W.

451.63

1:3

1:3

453.50

EARTHWORK QUANTITIES INCLUDED IN CROSS SECTIONS FOR CHANNEL EX.

463.01

462.78

C=369.2
F=2.1

491+00.00

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PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

SCALE: 10H:5V | SHEET 6 OF 13 SHEETS | STA. 491+00.00 TO STA. 491+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	59
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

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

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

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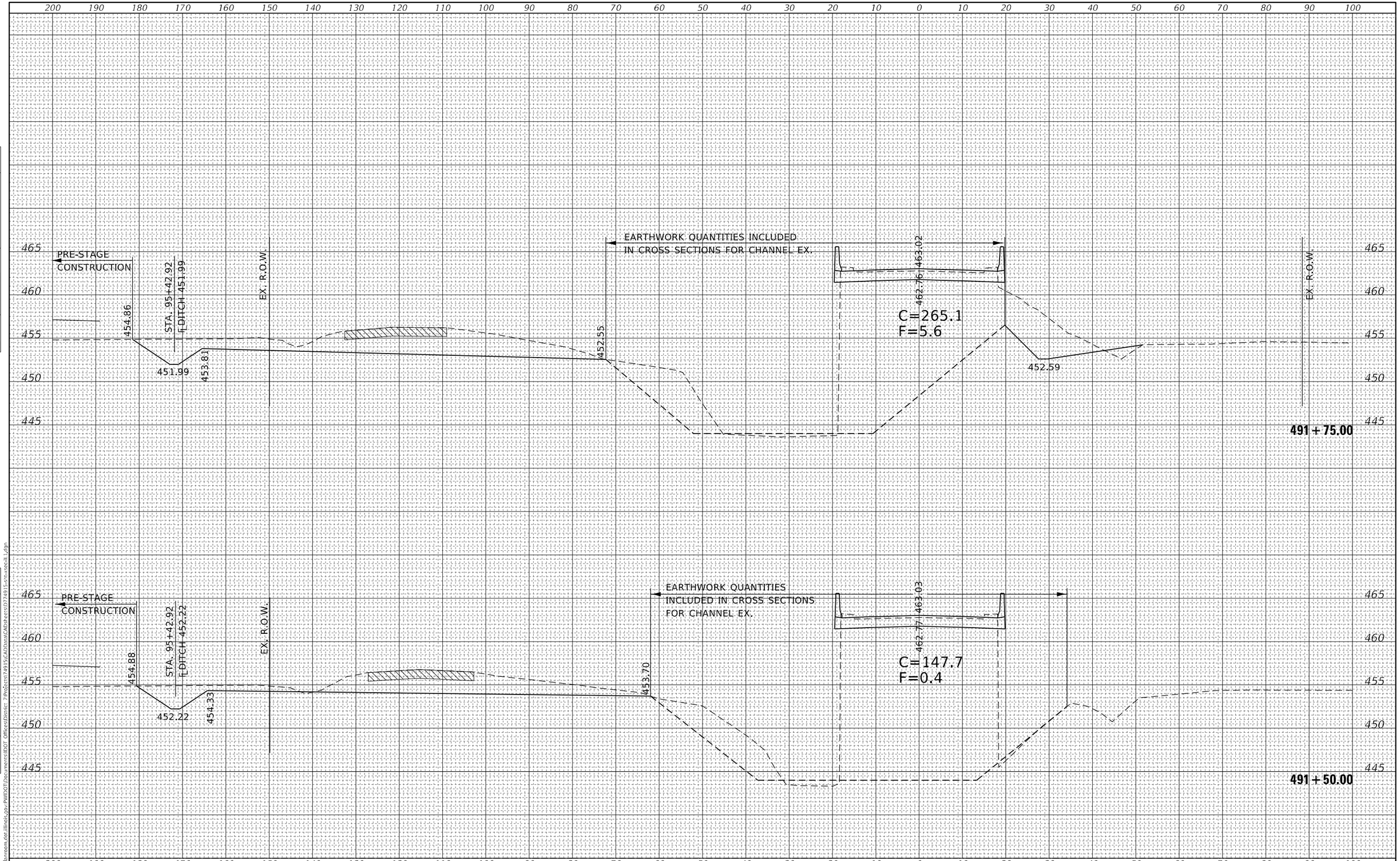

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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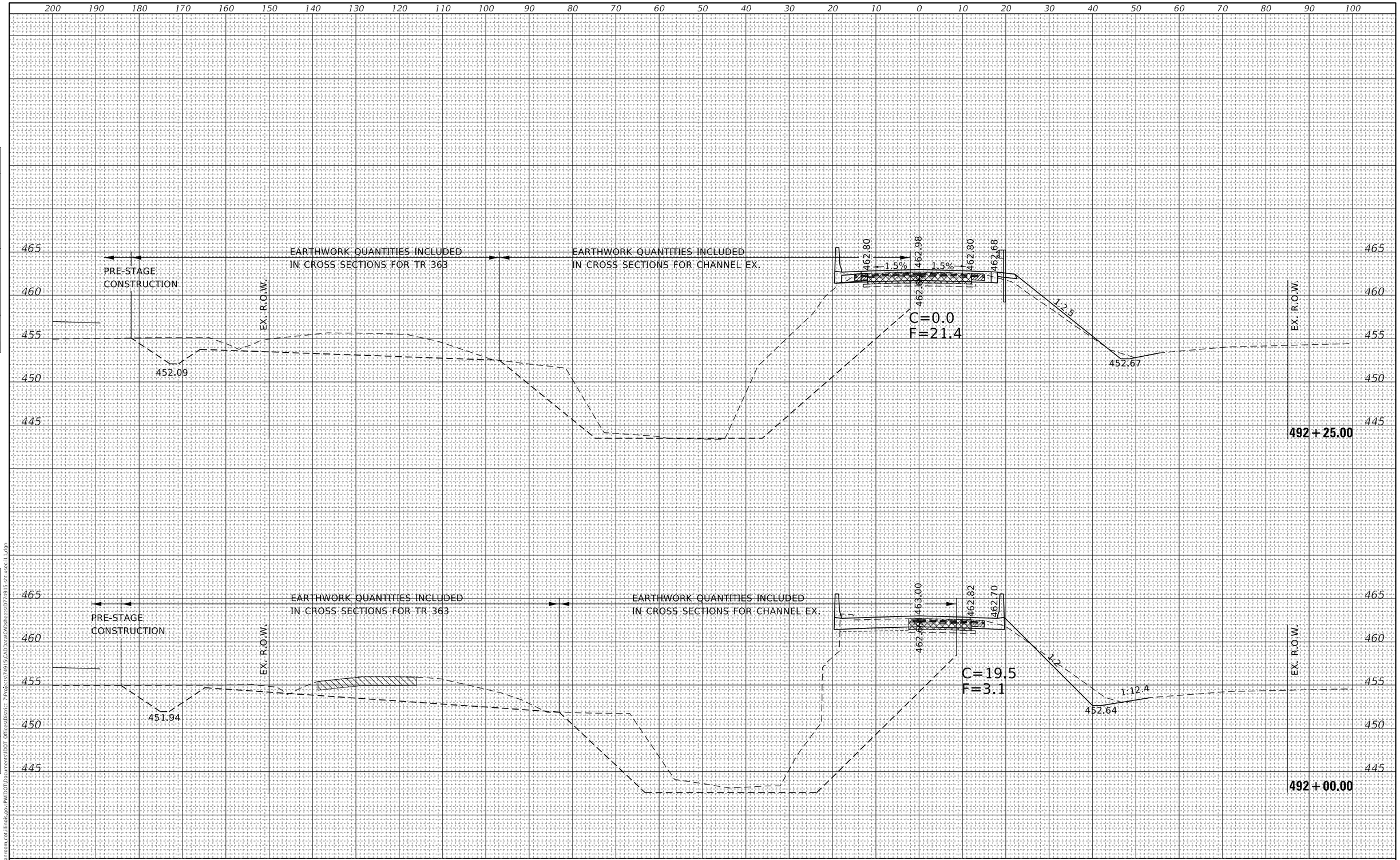
	DRAWN -	REVISED -	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

SCALE: 10H:5V | SHEET 7 OF 13 SHEETS | STA. 491+50.00 | TO STA. 491+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	60
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY	NOTE BOOK	NO.
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TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	NOTE BOOK	NO.
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AREAS		
AREAS CHECKED		

DATE	BY

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

SCALE: 10H:5V | SHEET 8 OF 13 SHEETS | STA. 492+00.00 | TO STA. 492+25.00

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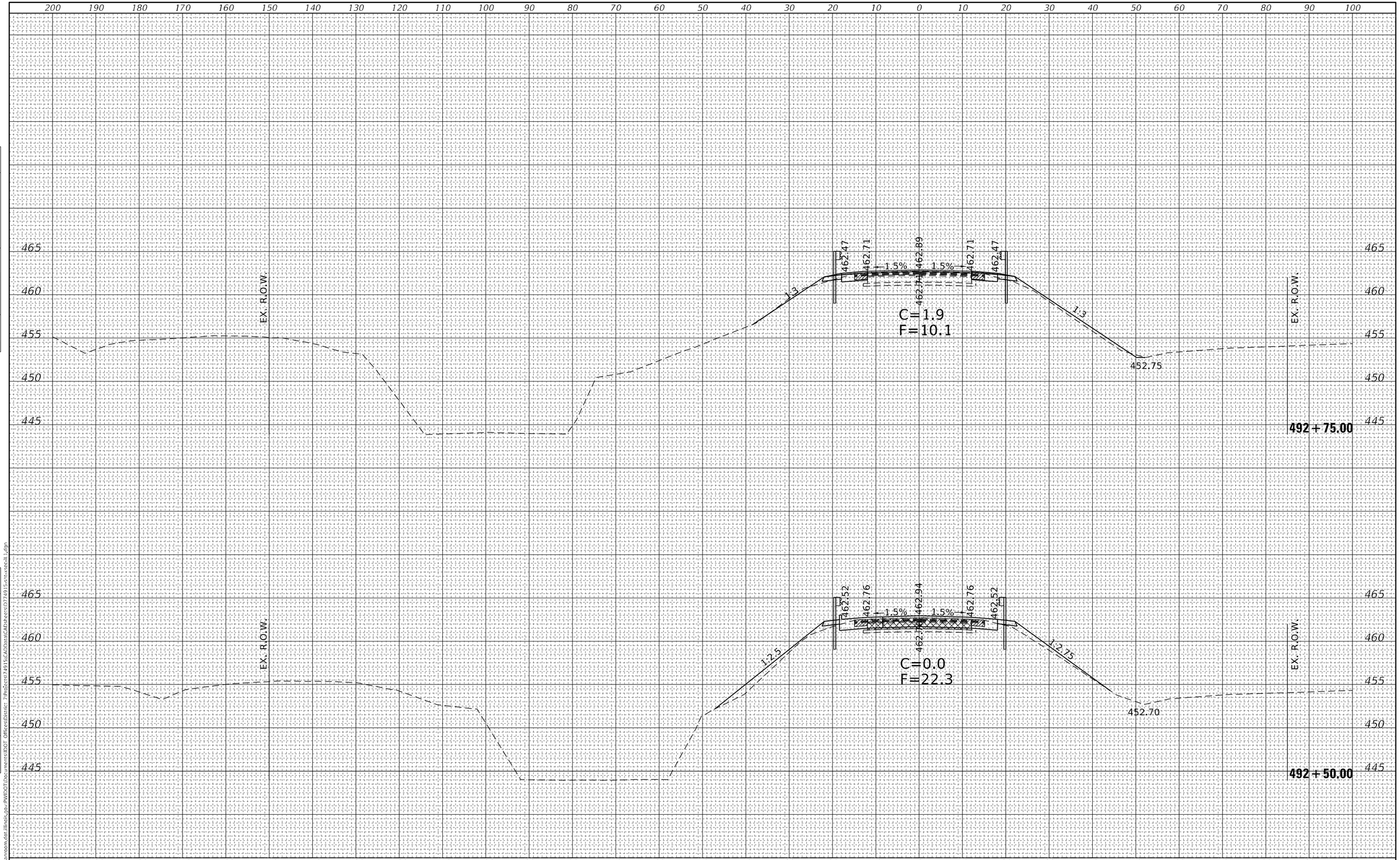
	ILLINOIS	FED. AID PROJECT		



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

SCALE: 10H:5V | SHEET 9 OF 13 SHEETS | STA. 492+50.00 | TO STA. 492+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	62
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

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

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

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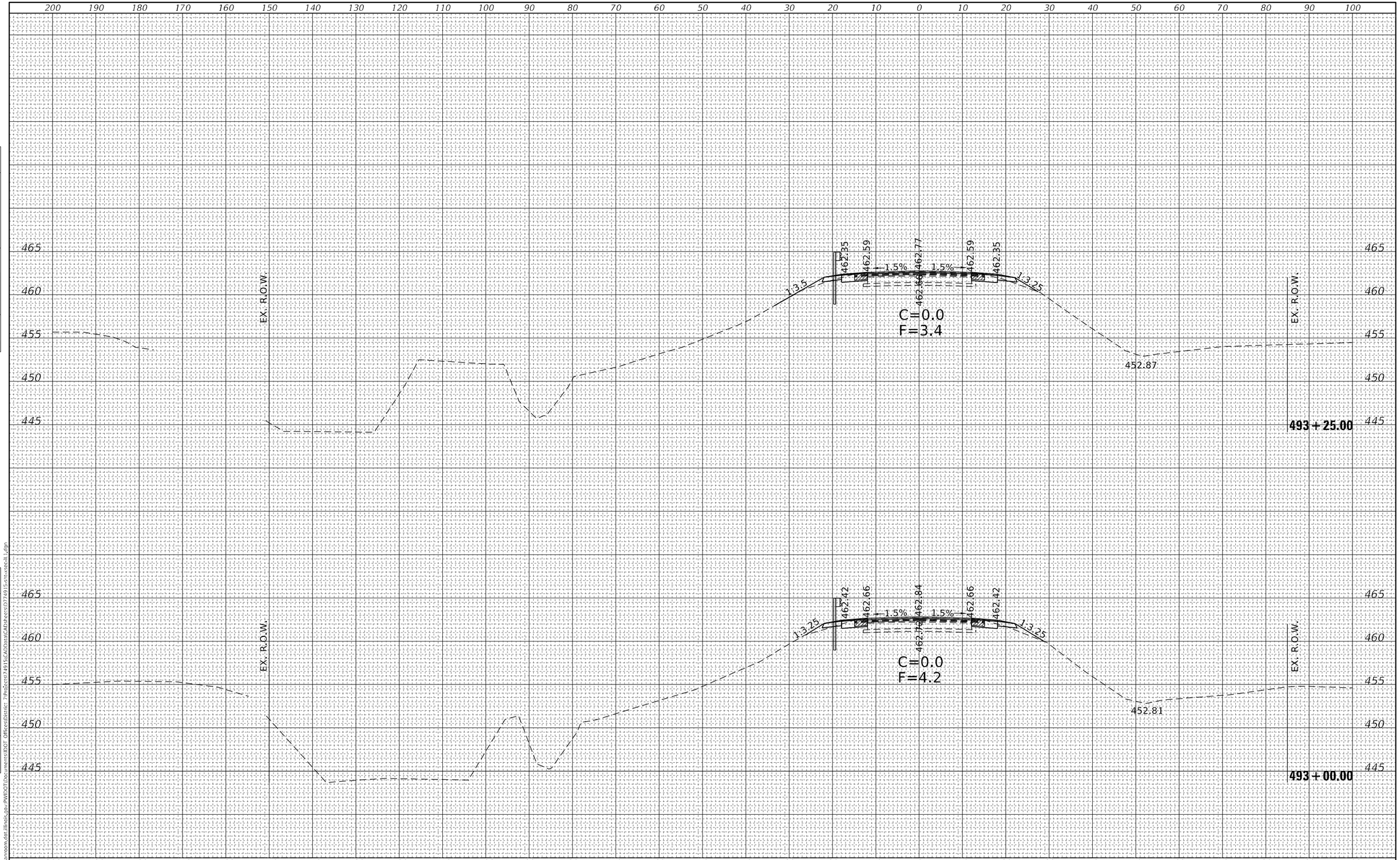

FINAL SURVEY	NOTE BOOK	NO.
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PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE

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

BY	DATE

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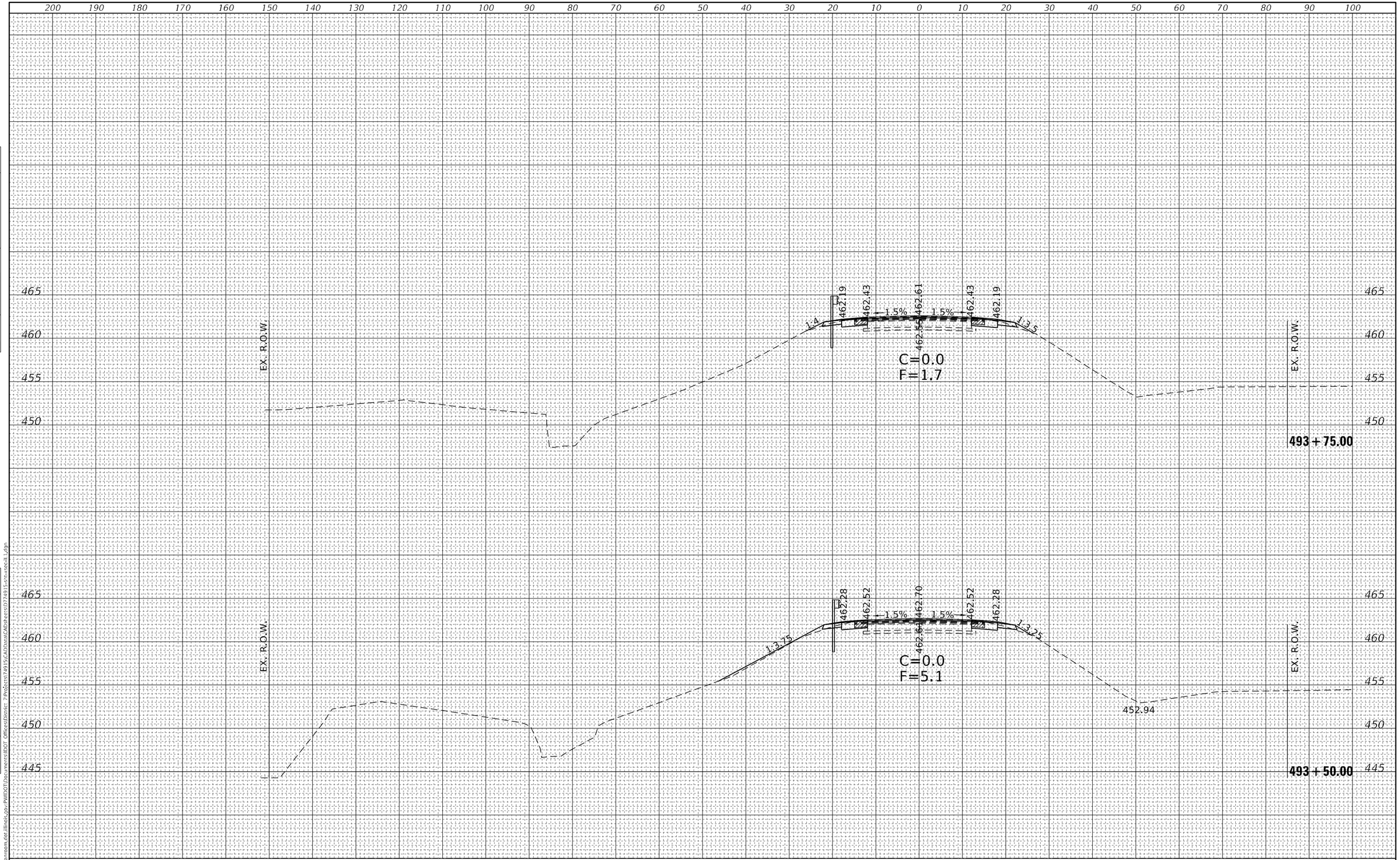
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

SCALE: 10H:5V | SHEET 10 OF 13 SHEETS | STA. 493+00.00 | TO STA. 493+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	63
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		



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	DRAWN -	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

SCALE: 10H:5V | SHEET 11 OF 13 SHEETS | STA. 493+50.00 | TO STA. 493+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	64
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

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

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

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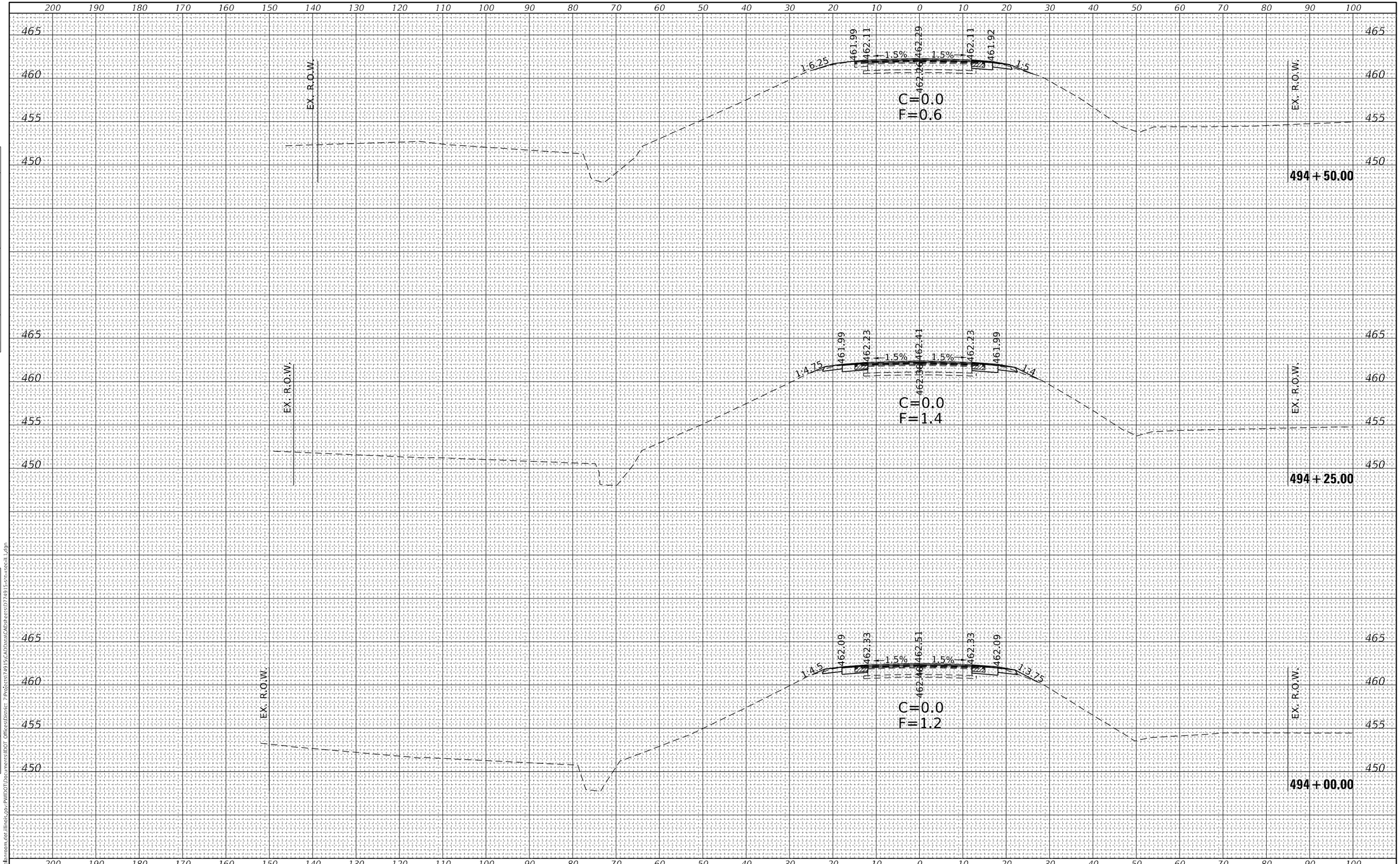

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	DRAWN -	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

SCALE: 10H:5V | SHEET 12 OF 13 SHEETS | STA. 494+00.00 TO STA. 494+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	65
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		

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

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

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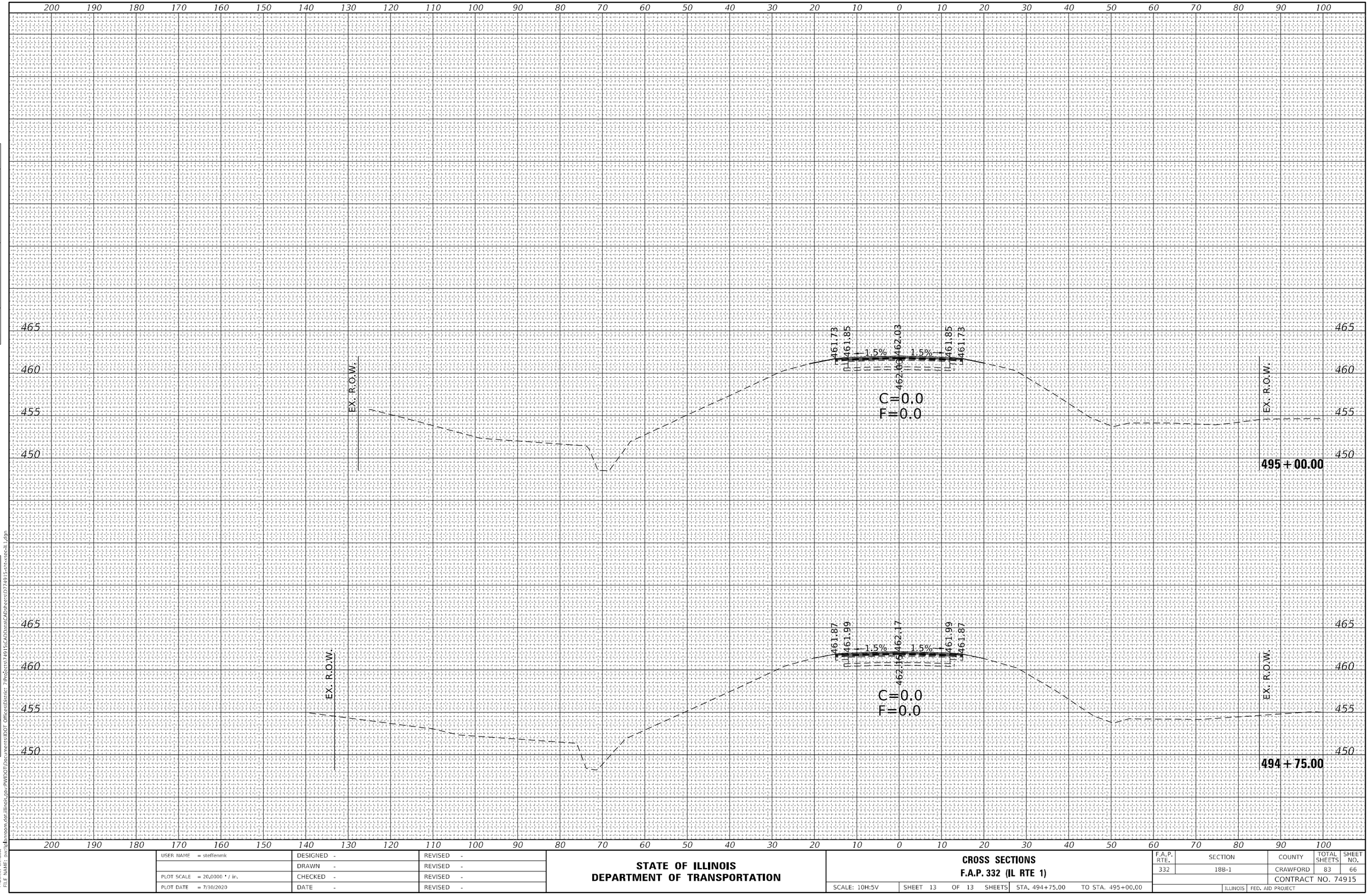

FINAL SURVEY — NOTE BOOK — NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY — NOTE BOOK — NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

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	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 7/30/2020	DATE -	REVISED -

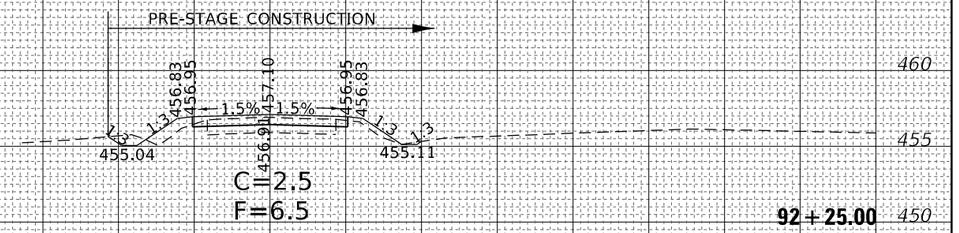
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

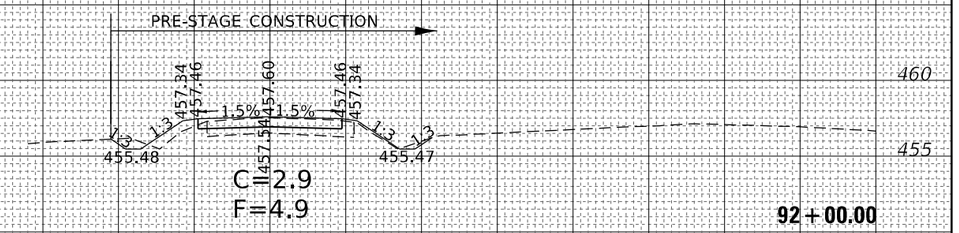
CROSS SECTIONS
F.A.P. 332 (IL RTE 1)

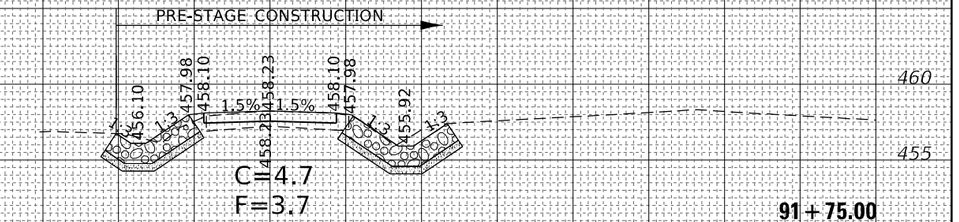
SCALE: 10H:5V | SHEET 13 OF 13 SHEETS | STA. 494+75.00 TO STA. 495+00.00

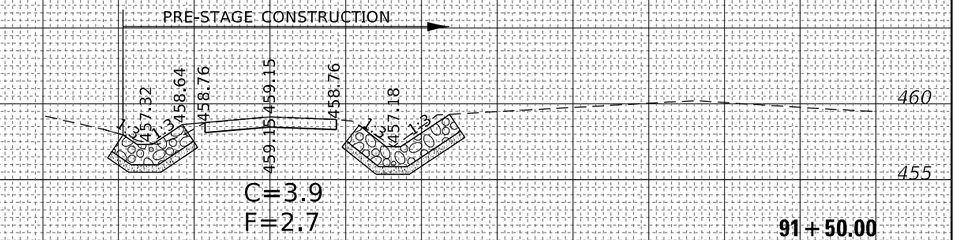
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	66
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

NOTE: T.R. 363 FROM STA. 91+50.00 TO STA. 93+75.00
SHALL BE CONSTRUCTED UNDER A ROAD CLOSURE
AFTER THE MAIN RE-LOCATION OF T.R. 363 IS
COMPLETED.









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	DRAWN -	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
TOWNSHIP ROAD 363

SCALE: 10H:5V | SHEET 1 OF 12 SHEETS | STA. 91+50.00 | TO STA. 92+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	67
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

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

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

MODEL: Default
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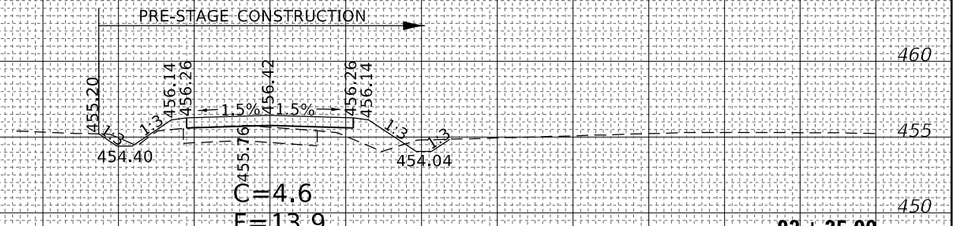
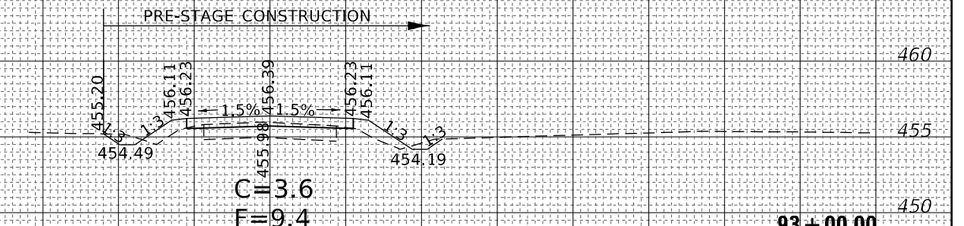
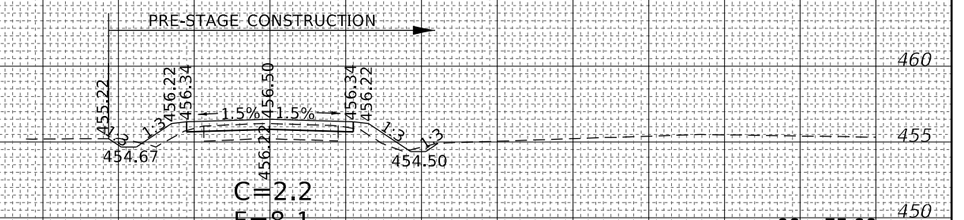
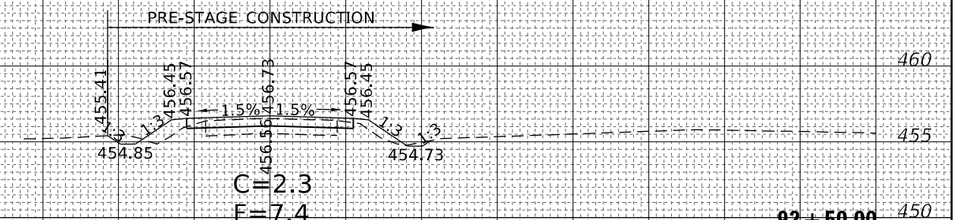
NOTE: T.R. 363 FROM STA. 91+50.00 TO STA. 93+75.00
SHALL BE CONSTRUCTED UNDER A ROAD CLOSURE
AFTER THE MAIN RE-LOCATION OF T.R. 363 IS
COMPLETED.









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	DRAWN -	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

CROSS SECTIONS
TOWNSHIP ROAD 363

SCALE: 10H:5V | SHEET 2 OF 12 SHEETS | STA. 92+50.00 | TO STA. 93+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	68
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

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

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

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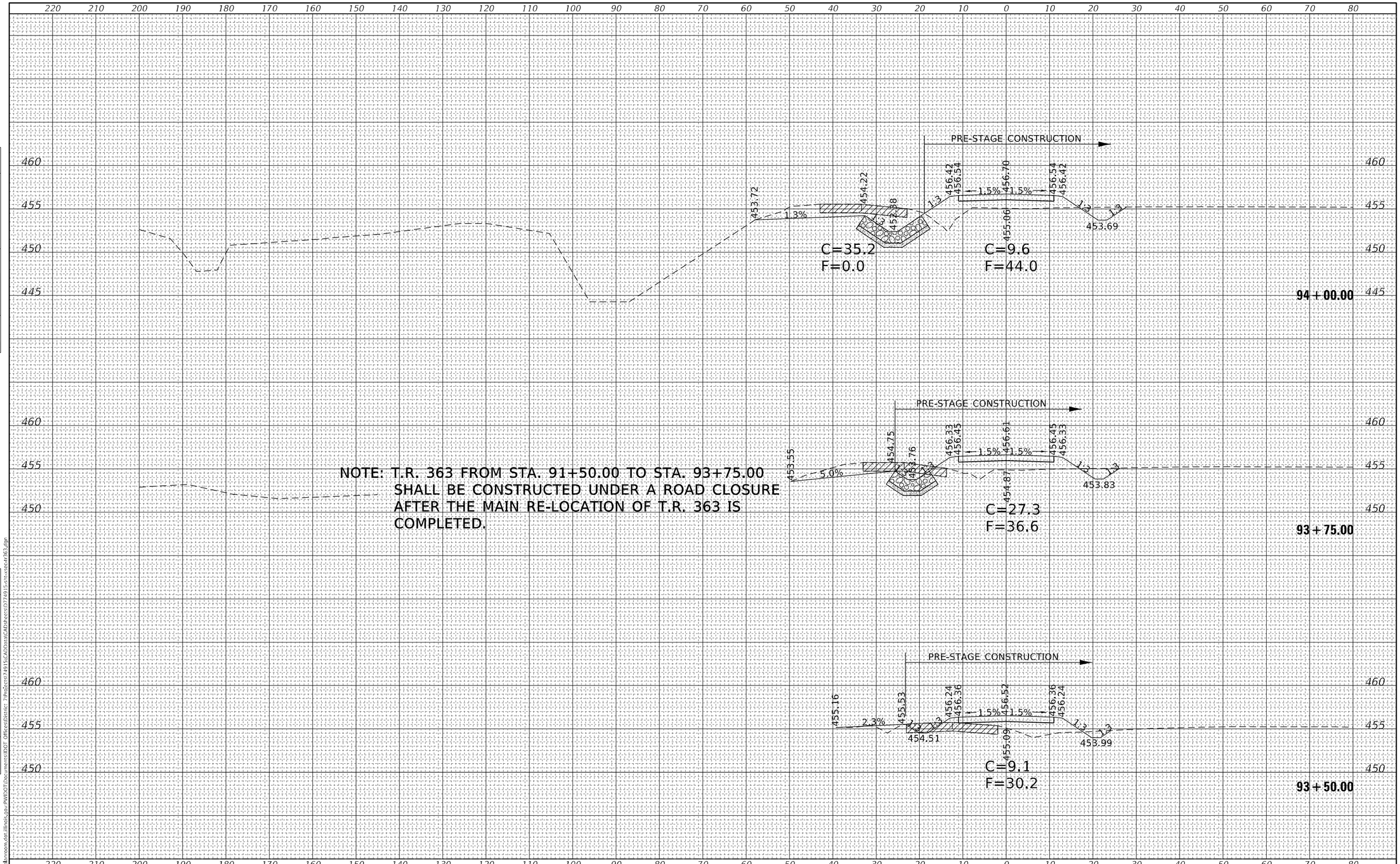

FINAL SURVEY	NOTE BOOK	NO.
ORIGINAL SURVEY	NOTE BOOK	NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

MODEL: Default
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USER NAME = steffenmk	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 7/30/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
TOWNSHIP ROAD 363

SCALE: 10H:5V | SHEET 3 OF 12 SHEETS | STA. 93+50.00 TO STA. 94+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	69
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

465 460 455 450 445

QUANTITIES INCLUDED IN CHANNEL EXCAVATION

452.47

1.7%

C=132.0
F=0.0

453.92

1:3

452.02

PRE-STAGE CONSTRUCTION

456.70
456.82

1:3

1.5%

456.98
455.01

1.5%

456.82
456.70

1:3

1:3

453.23

C=13.6
F=42.5

94 + 75.00

PRE-STAGE CONSTRUCTION

452.42

2.2%

C=71.7
F=0.0

453.92

1:3

452.14

456.61
456.73

1:3

1.5%

456.89
454.98

1.5%

456.73
456.61

1:3

1:3

453.40

C=13.5
F=39.5

94 + 50.00

453.86

1.7%

454.63

1:3

452.26

C=26.6
F=0.0

PRE-STAGE CONSTRUCTION

456.52
456.64

1:3

1.5%

456.80
455.21

1.5%

456.64
456.52

1:3

1:3

453.54

C=11.6
F=37.9

94 + 25.00

220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

USER NAME = steffenmk	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
TOWNSHIP ROAD 363

SCALE: 10H:5V | SHEET 4 OF 12 SHEETS | STA. 94+25.00 | TO STA. 94+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	70
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

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

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

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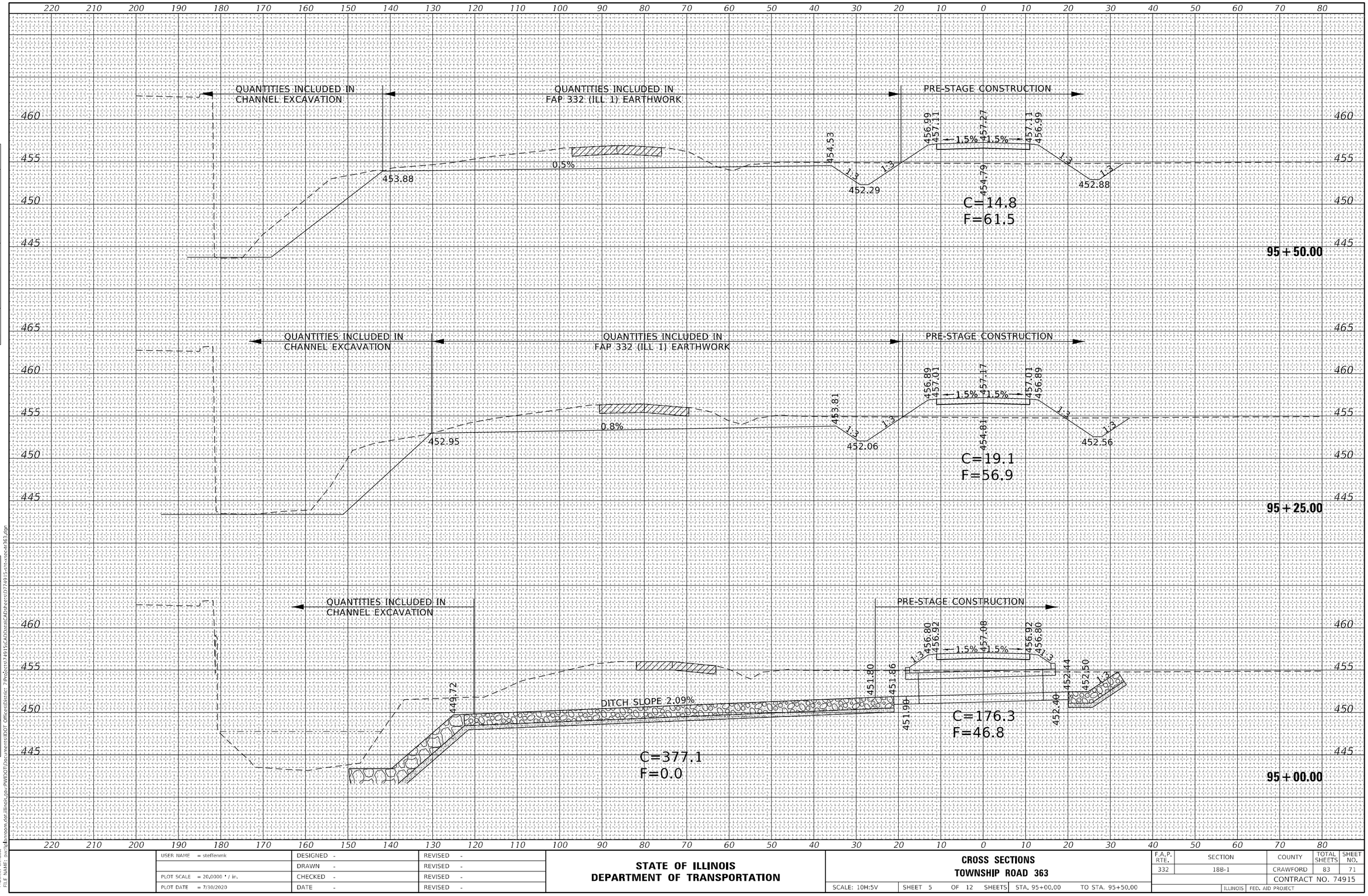

USER NAME = steffenmk	DESIGNED -	REVISED -	**STATE OF ILLINOIS**
	DRAWN -	REVISED -	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	**CROSS SECTIONS**
PLOT DATE = 7/30/2020	DATE -	REVISED -	**TOWNSHIP ROAD 363**

SCALE: 10H:5V | SHEET 5 OF 12 SHEETS | STA. 95+00.00 | TO STA. 95+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	71
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

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

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

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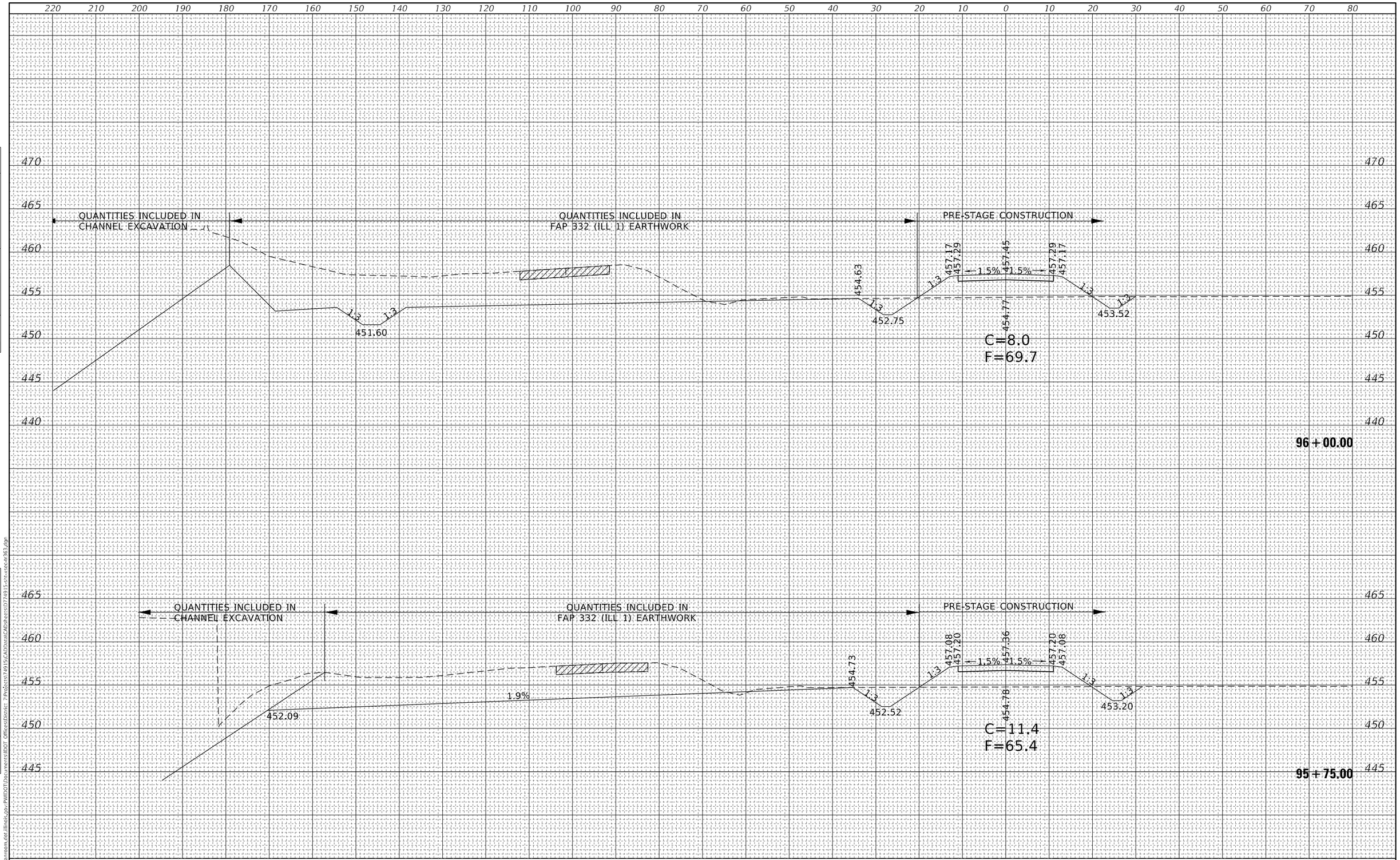

USER NAME = steffenmk	DESIGNED -	REVISED -	
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PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
TOWNSHIP ROAD 363

SCALE: 10H:5V | SHEET 6 OF 12 SHEETS | STA. 95+75.00 | TO STA. 96+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	72
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

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

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

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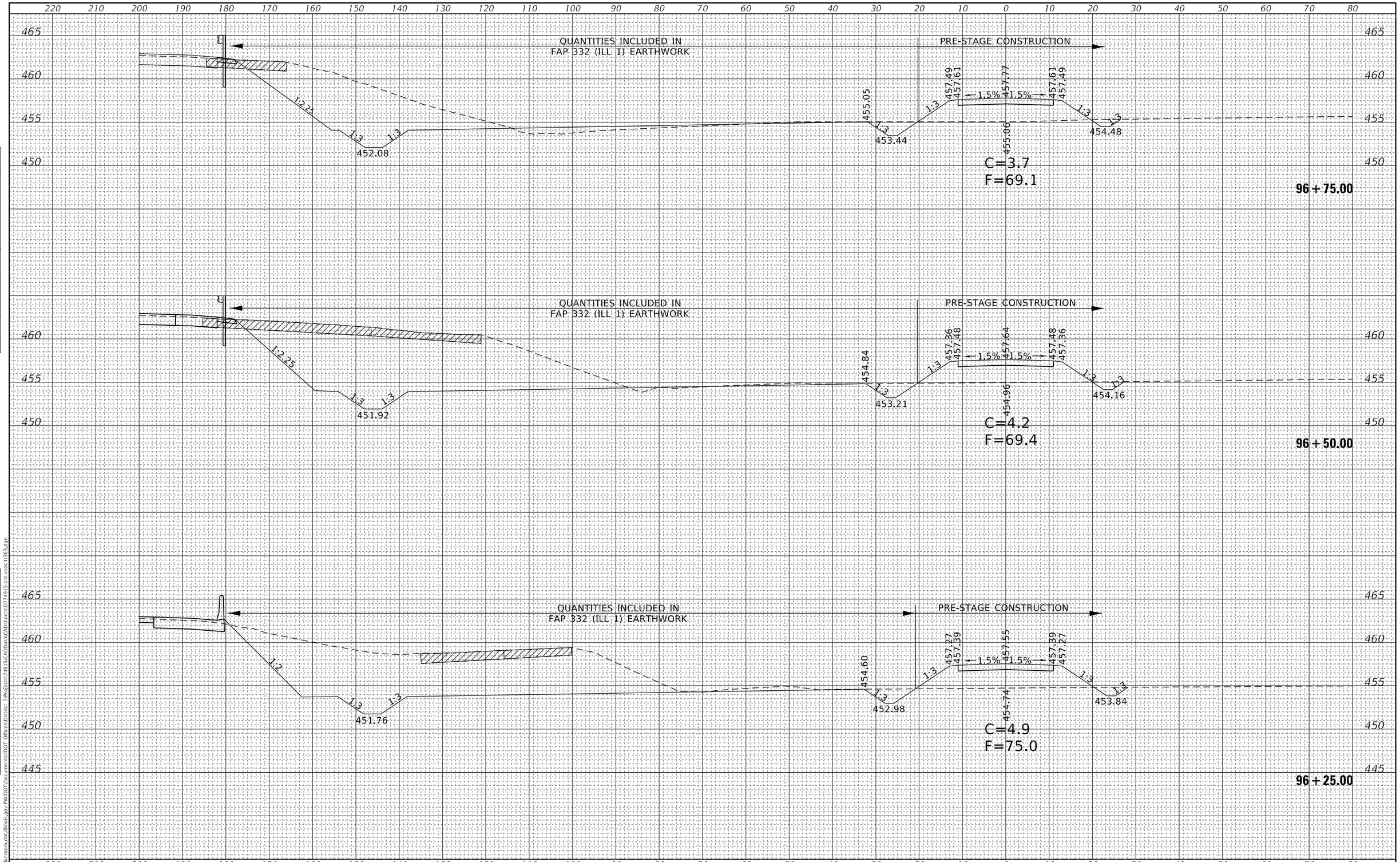

FINAL SURVEY	ORIGINAL SURVEY	NO.	BY	DATE
SURVEYED	SURVEYED			
PLOTTED	PLOTTED			
NOTE BOOK	TEMPLATE			
AREAS	AREAS			
AREAS CHECKED	AREAS CHECKED			

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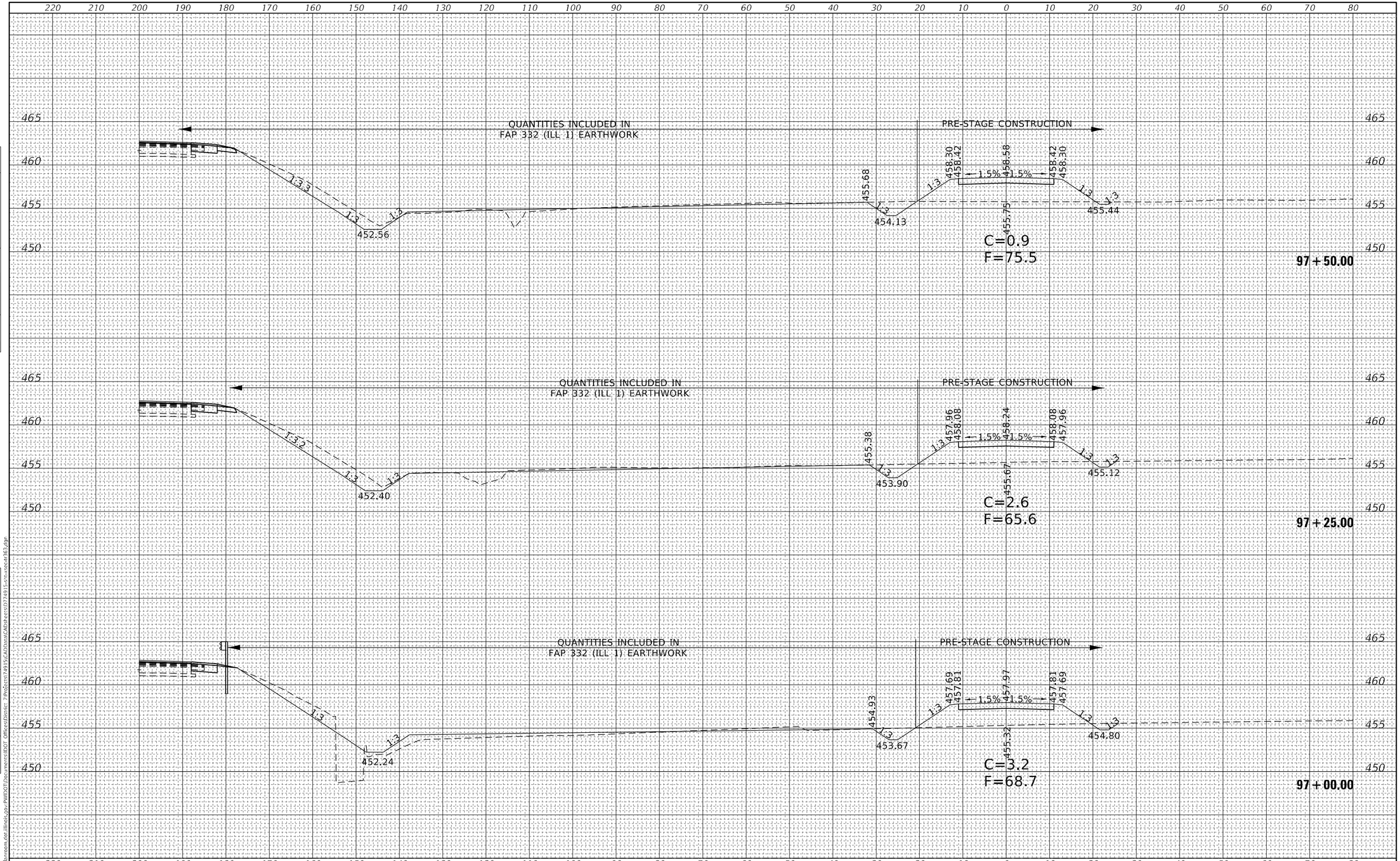
PLOT DATE = 7/30/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
TOWNSHIP ROAD 363

SCALE: 10H:5V | SHEET 7 OF 12 SHEETS | STA. 96+25.00 | TO STA. 96+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	73
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			



USER NAME = steffenmk	DESIGNED -	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
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PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

CROSS SECTIONS
TOWNSHIP ROAD 363

SCALE: 10H:5V | SHEET 8 OF 12 SHEETS | STA. 97+00.00 | TO STA. 97+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	74
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

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

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

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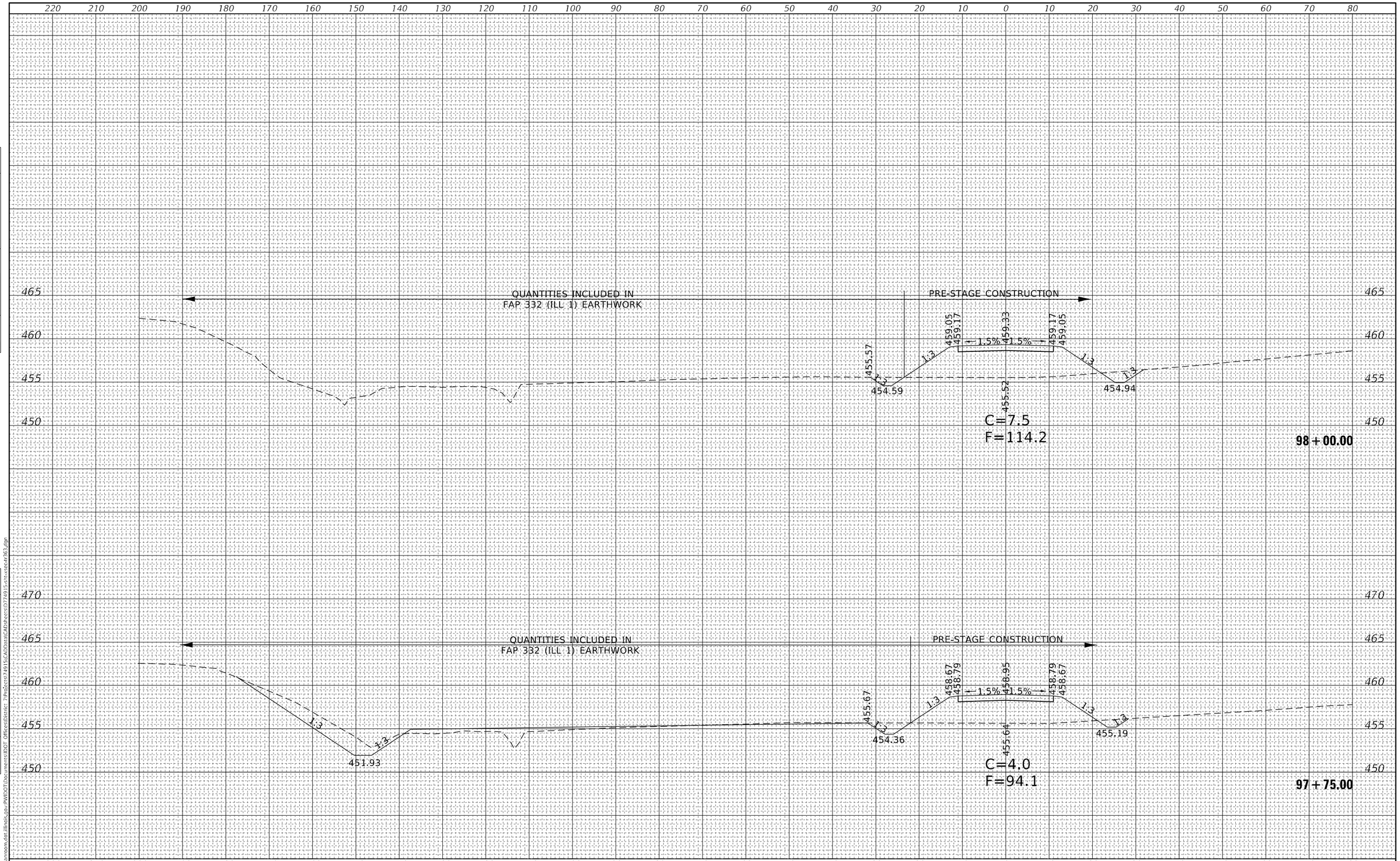

USER NAME = steffenmk	DESIGNED -	REVISED -	**STATE OF ILLINOIS**	**CROSS SECTIONS**	
	DRAWN -	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**TOWNSHIP ROAD 363**	
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -		SCALE: 10H:5V	SHEET 9 OF 12 SHEETS STA. 97+75.00 TO STA. 98+00.00
PLOT DATE = 7/30/2020	DATE -	REVISED -			

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	75
		CONTRACT NO. 74915		
	ILLINOIS FED. AID PROJECT			

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

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

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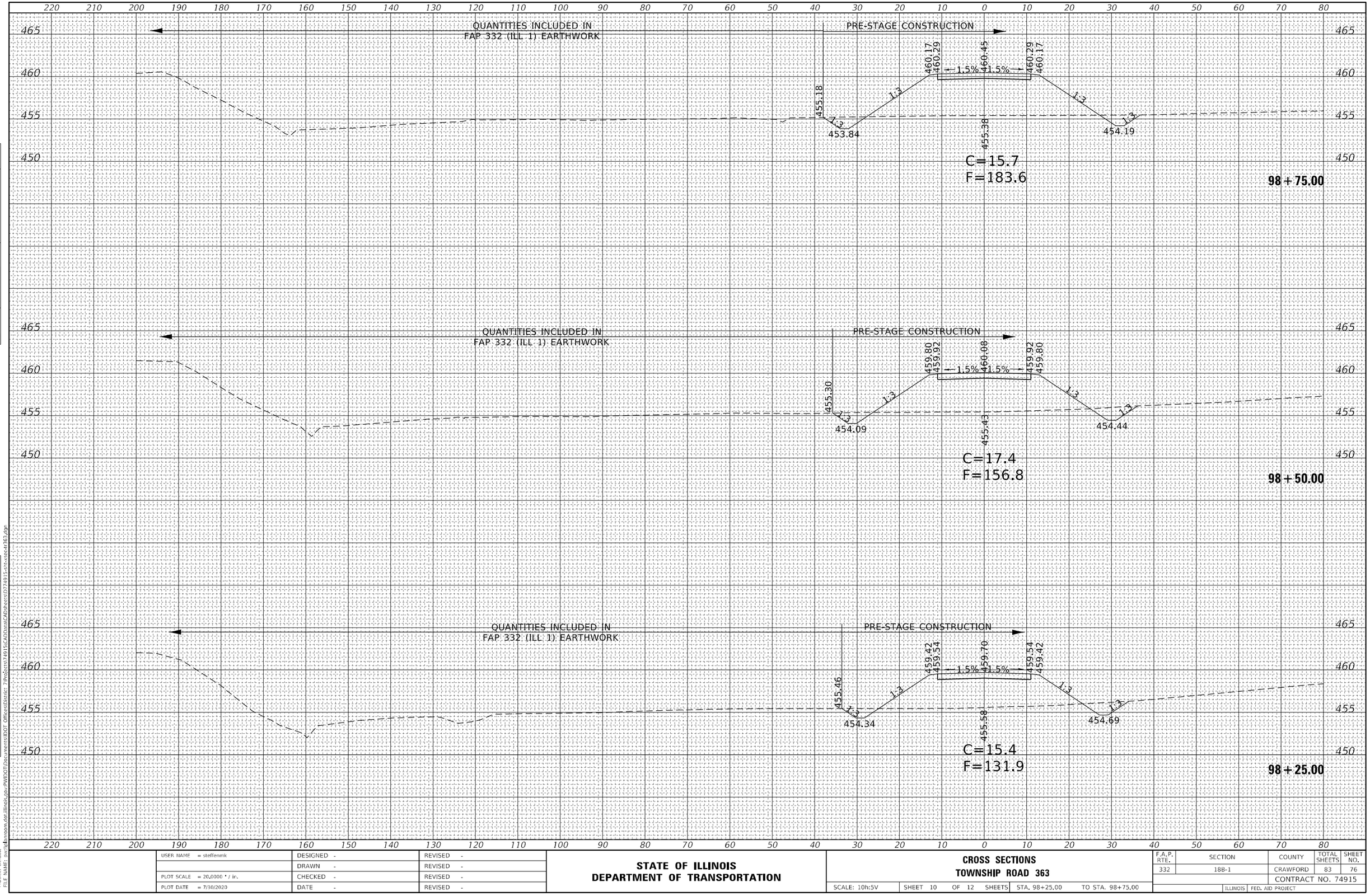

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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

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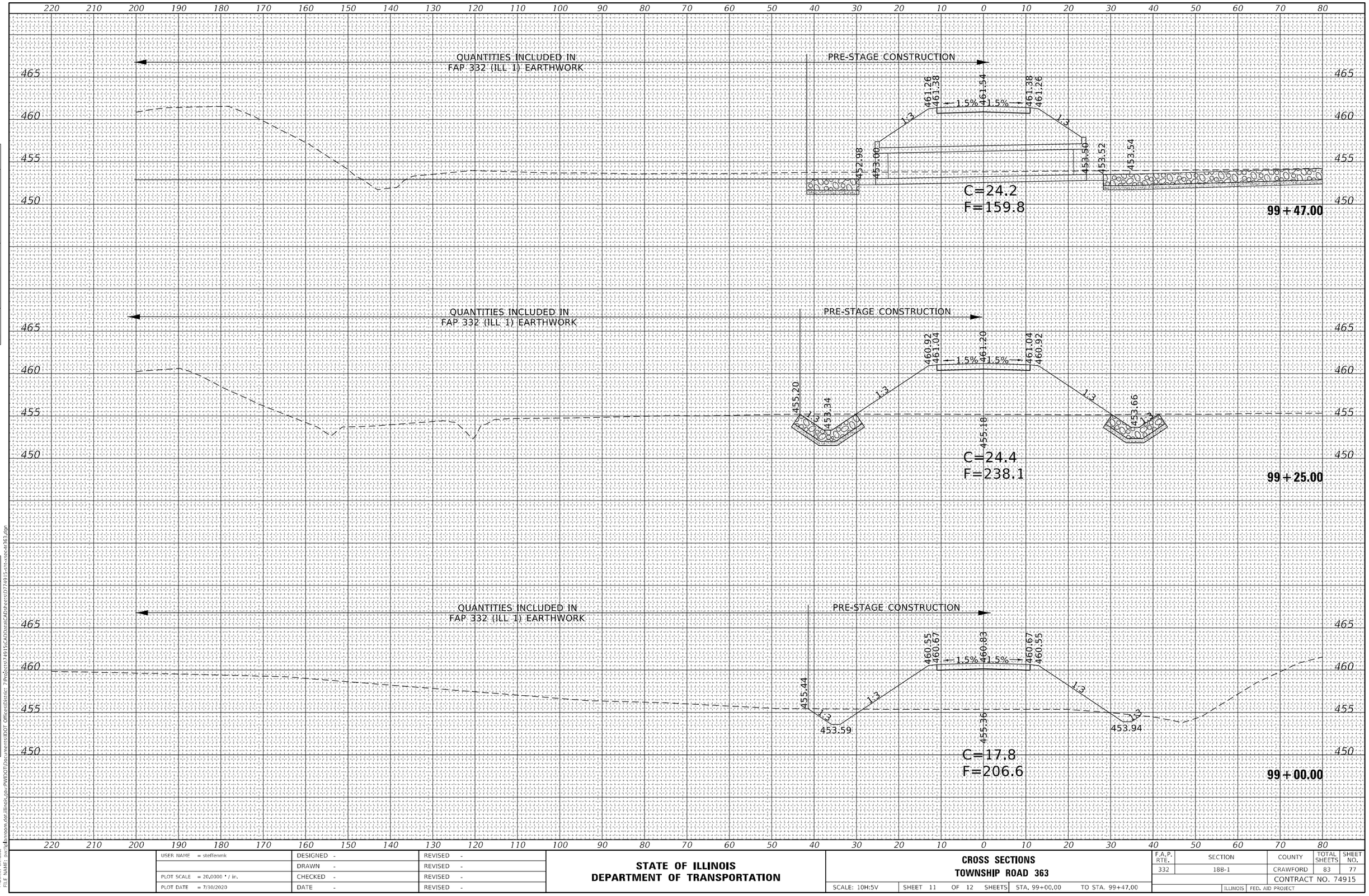
PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
TOWNSHIP ROAD 363

SCALE: 10h:5V | SHEET 10 OF 12 SHEETS | STA. 98+25.00 | TO STA. 98+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	76
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	



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

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PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

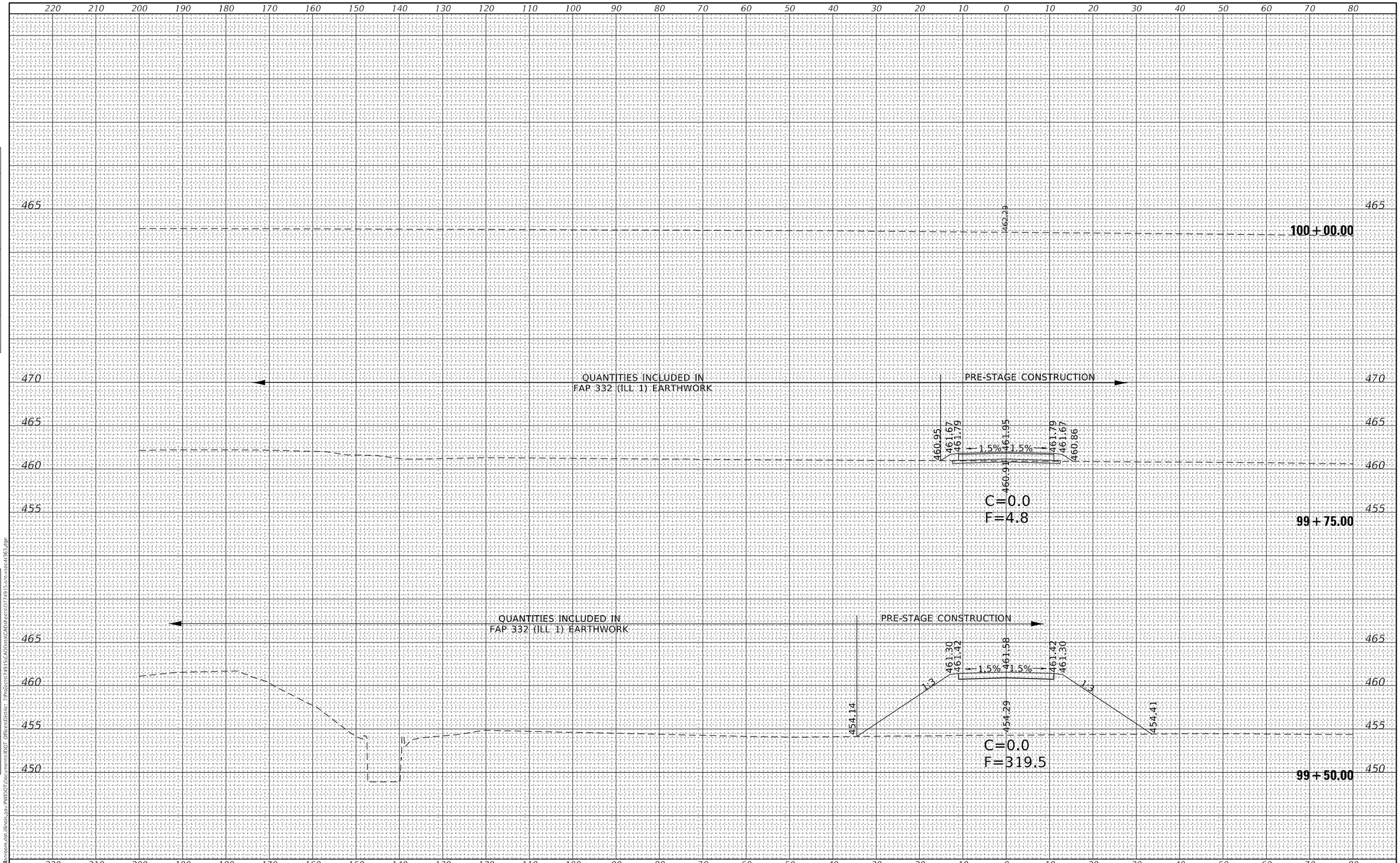
CROSS SECTIONS
TOWNSHIP ROAD 363

SCALE: 10H:5V | SHEET 11 OF 12 SHEETS | STA. 99+00.00 | TO STA. 99+47.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	77
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

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

DATE	BY



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

DATE	BY

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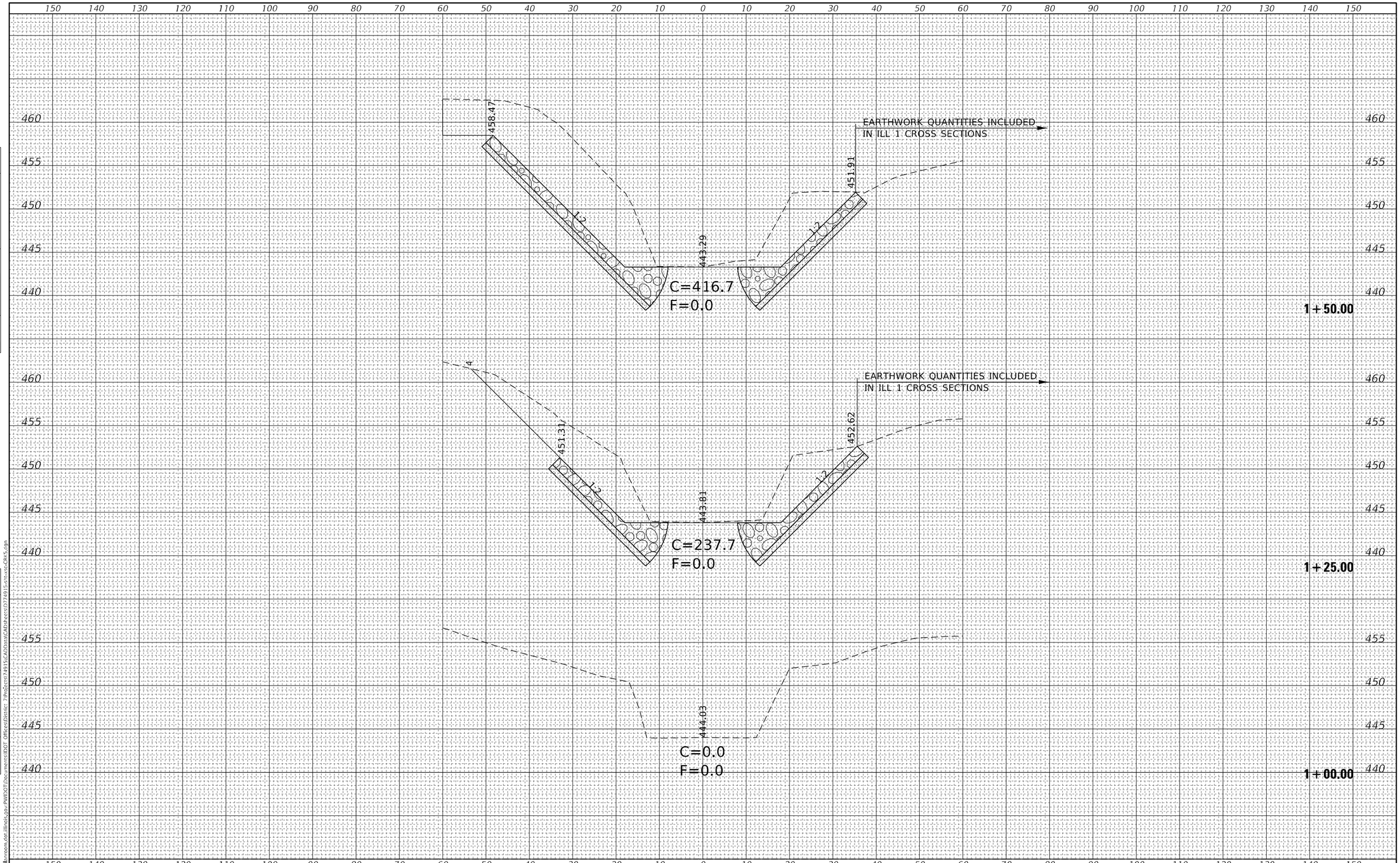
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 7/30/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
TOWNSHIP ROAD 363

SCALE: 10H:5V | SHEET 12 OF 12 SHEETS | STA. 99+50.00 | TO STA. 100+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	78
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	



USER NAME = steffenmk	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SUGAR CREEK CHANNEL

SCALE: 10H:5V | SHEET 1 OF 5 SHEETS | STA. 1+00.00 | TO STA. 1+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	79
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

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

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

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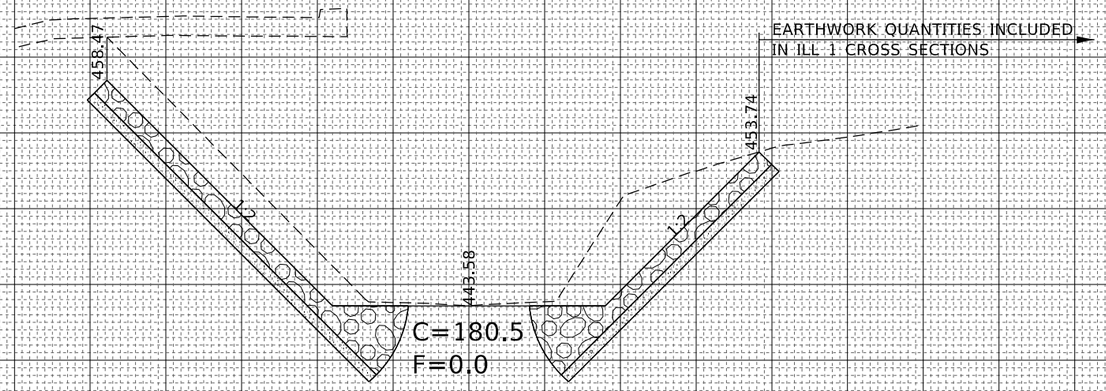

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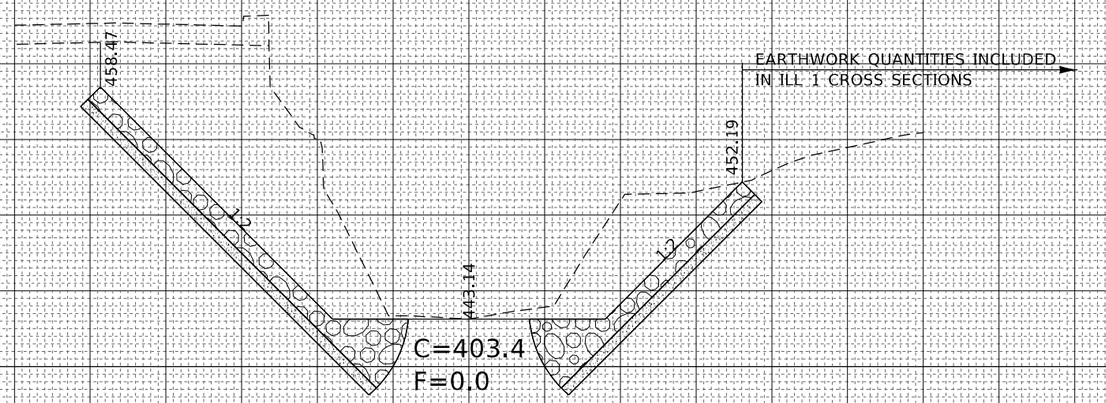

1+75.00

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

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

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PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SUGAR CREEK CHANNEL

SCALE: 10H:5V | SHEET 2 OF 5 SHEETS | STA. 1+75.00 | TO STA. 2+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	80
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

465 460 455 450 445 440

462.77

456.28

1:2

444.00

C=95.2
F=0.0

1:2

453.50

EARTHWORK QUANTITIES INCLUDED
IN ILL 1 CROSS SECTIONS

2+50.00

463.19

458.02

1:2

443.27

C=465.9
F=0.0

1:2

453.05

EARTHWORK QUANTITIES INCLUDED
IN ILL 1 CROSS SECTIONS

2+25.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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

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

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	DRAWN -	REVISED -	
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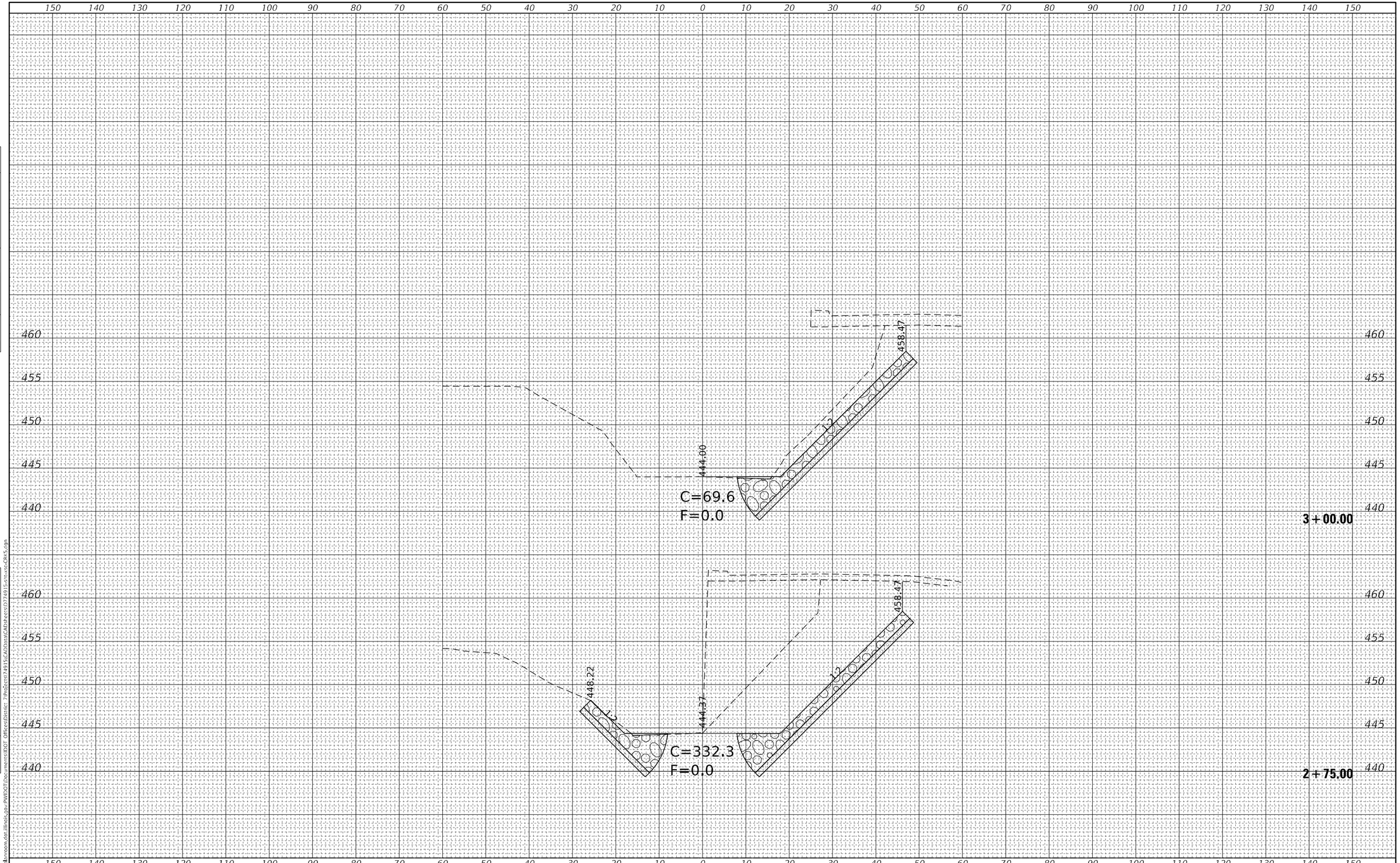
PLOT DATE = 7/30/2020	DATE -	REVISED -	

CROSS SECTIONS
SUGAR CREEK CHANNEL

SCALE: 10H:5V | SHEET 3 OF 5 SHEETS | STA. 2+25.00 | TO STA. 2+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	81
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	



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PLOT DATE = 7/30/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SUGAR CREEK CHANNEL

SCALE: 10H:5V | SHEET 4 OF 5 SHEETS | STA. 2+75.00 | TO STA. 3+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	82
		CONTRACT NO. 74915		
		ILLINOIS	FED. AID PROJECT	

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

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

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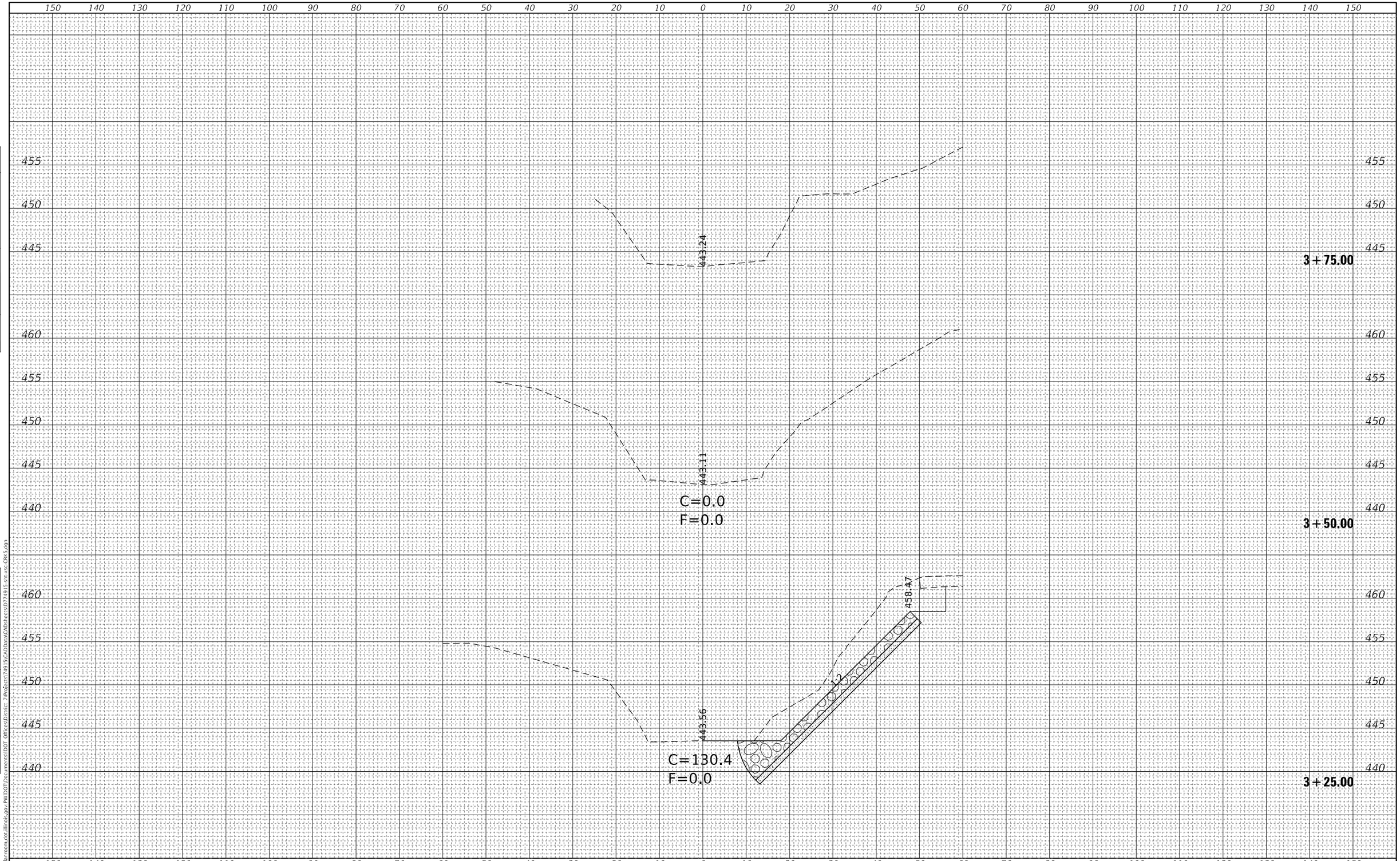

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

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

BY	DATE

BY	DATE

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PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 7/30/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SUGAR CREEK CHANNEL

SCALE: 10H:5V | SHEET 5 OF 5 SHEETS | STA. 3+25.00 | TO STA. 3+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	18B-1	CRAWFORD	83	83
		CONTRACT NO. 74915		
	ILLINOIS	FED. AID PROJECT		