

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	1
		ILLINOIS	CONTRACT NO. 78547	

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	SIGNATURE SHEET
3	GENERAL NOTES & HIGHWAY STANDARDS
4-8	SUMMARY OF QUANTITIES
9-12	TYPICAL SECTIONS
13-14	SCHEDULES
15	ALIGNMENT TIES AND BENCHMARKS
16	PLAN AND PROFILE SHEET
17	EROSION CONTROL PLAN SHEET
18	GUARDRAIL & REMOVAL PLAN SHEET
19	RIGHT OF WAY PLAT
20	INTERSECTION DETAIL
21	CONSTRUCTION DETAILS
22-31	STRUCTURE NO. 039-0081
32-38	CROSS SECTIONS

**PROPOSED
HIGHWAY PLANS**

TR 93A (BLUEGRASS LANE)
SECTION 13B-1
PROJECT STP-ODTV (278)
STRUCTURE REPLACEMENT OVER SPRING CREEK
JACKSON COUNTY
C-99-049-16

TRAFFIC DATA

ROADWAY CLASSIFICATION = LOCAL ROAD
DESIGN SPEED = 30 MPH
CURRENT ADT (2020) = 30
DESIGN YEAR ADT (2040) = 30

PR SN 039-0081

CL STR. BLUEGRASS LANE STA. 29 + 35.00
SINGLE SPAN PCC DECK BEAMS ON
PILE BENT SPILL THRU ABUTMENTS,
56'-0" BK. TO BK. ABUTS, 27'-0" CLEAR WIDTH, 0' SKEW

END IL-151 IMPROVEMENTS
STA 350 + 78.5

TOWNSHIPS

BRADLEY

DESIGN DESIGNATION : N/A

COORDINATE SYSTEM :

POSTED SPEED : N/A



**OATES
ASSOCIATES**

Collinsville 100 Lancer Court, Suite 1 Collinsville, IL 62234 618 345 2200	St. Louis 720 Olive, Suite 700 St. Louis, MO 63101 314 588 838
Belleville 20 East Main Street Belleville, IL 62200 618 415 4555 www.oatesassociates.com	St. Charles 330 North Vann, Suite 201 St. Charles, MO 63301 636 493 6277

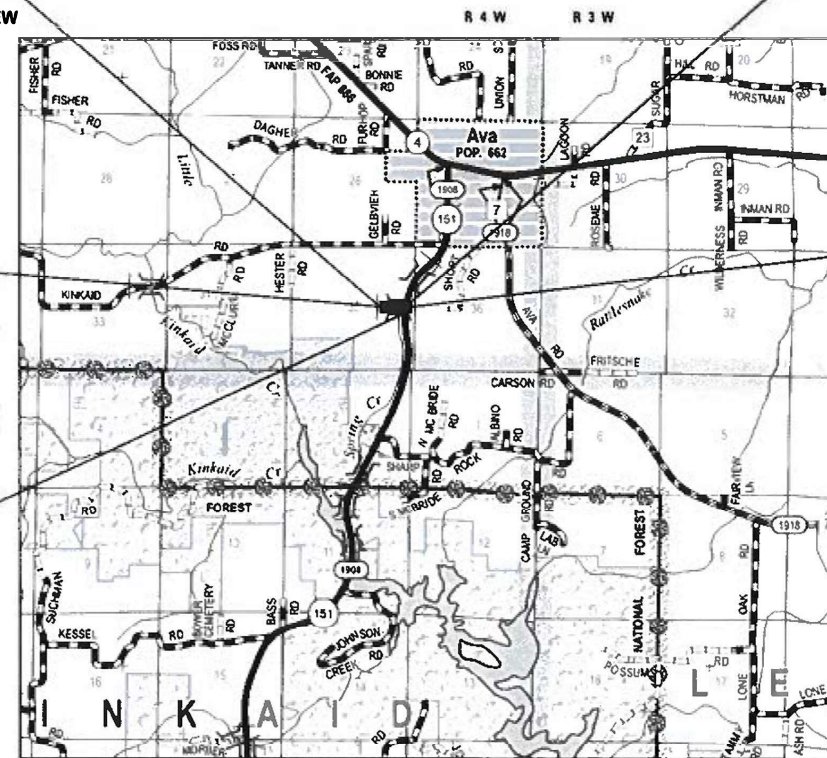
ILLINOIS DESIGN #P/M LICENSE NO.: 184-001115

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

PROJECT ENGINEER: GRANT DETERDING
CONTRACT NO. 78547

BEGIN BLUEGRASS LN
IMPROVEMENTS
STA. 27 + 40.0

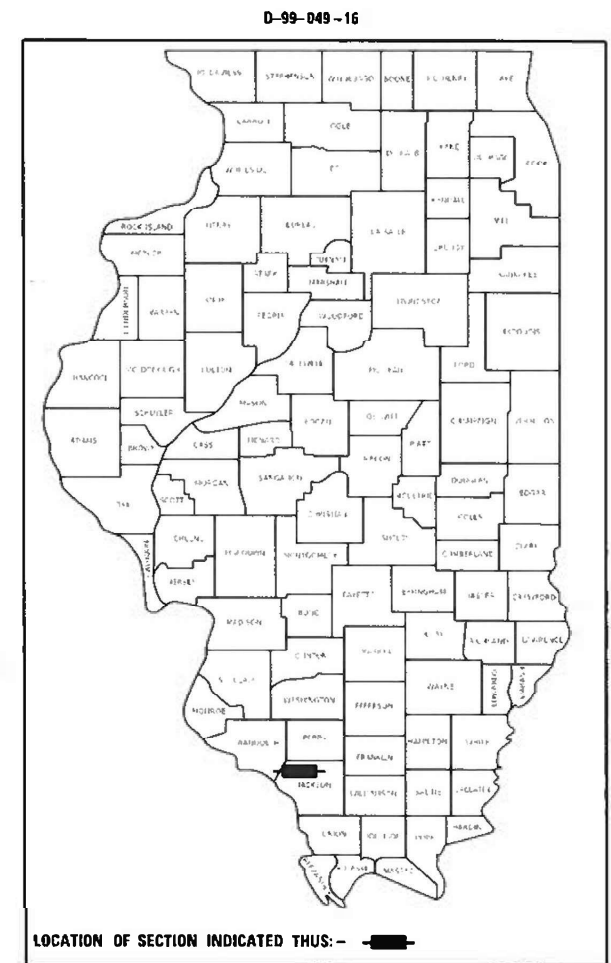
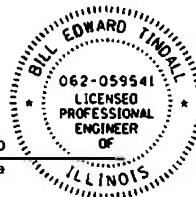
BEGIN IL-151 IMPROVEMENTS
STA 347 + 25.0



LOCATION MAP
1" = 7500'

GROSS LENGTH = 245 FT. = 0.046 MILES
NET LENGTH = 245 FT. = 0.046 MILES

8/06/20
BILL TINDALL, P.E.
IL P.E. NO. 062-059541
EXPIRES: 11/30/2021



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 08-10 20 20
KFR

REGION FIVE ENGINEER

October 2, 2020
Scott A. Elk
ENGINEER OF DESIGN AND ENVIRONMENT

October 2, 2020
James J. Gu
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION 13

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www.oatesassociates.com
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SIGNATURE SHEET

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

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	138-1	JACKSON	38	2
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				

Prepared By: Charles Stein
DISTRICT STUDIES & PLANS ENGINEER

Examined By: Nancy Stei
DISTRICT LAND ACQUISITION ENGINEER

Examined By: Carrie Nelson
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: Kevin Kelly
DISTRICT OPERATIONS ENGINEER

Examined By: KRQ
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: Daryl J. Jursink
DISTRICT CONSTRUCTION ENGINEER

Examined By: Rob Graeff 
DISTRICT MATERIALS ENGINEER

GENERAL NOTES

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

ALL HOT MIX ASPHALT	2.016 TONS/CU. YD.
ALL AGGREGATE	2.05 TONS/CU. YD.
<u>BITUMINOUS SURFACE TREATMENT (A-3)</u>	
BITUMINOUS MATERIALS (PRIME COAT)	0.0016 TONS/SQ. YD.
BITUMINOUS MATERIALS (COVER AND SEAL COATS)	0.0015 TONS/SQ. YD.
AGGREGATES (COVER AND SEAL COATS)	0.0100 TONS/SQ. YD.

2. THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT AND SHOULDER SLOPES SHALL NOT EXCEED 10%. THE SHOULDER ON THE OUTSIDE OF SUPERELEVATED CURVES SHALL BE FLATTENED ACCORDINGLY.

3. TRENCH BACKFILL REQUIRED FOR STORM SEWER, SANITARY SEWER, PIPE CULVERT REMOVALS, OR WATER MAINS SHALL ONLY BE PLACED UP TO ONE FOOT BELOW THE FINAL GRADE IN AREAS HAVING A PROPOSED GRASS OR SOD SURFACE.

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

5. COMMITMENTS:

RELOCATE EXISTING MAILBOXES ON IL-151 FROM STA 348+75 LT TO STA 351+00 LT WITH CONSTRUCTION OF NEW MAILBOX TURNOUT. DIMENSIONS OF MAILBOX TURNOUT PER 8' SHOULDER, SEE STANDARD 406201 FOR DETAILS. THIS WORK WILL BE PAID ACCORDING TO ARTICLE 107.20.

HIGHWAY STANDARDS

000001-07	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
406201-01	MAILBOX TURNOUT
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-04	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
630001-12	STEEL PLATE BEAM GUARDRAIL
630201-07	PCC / HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-10	TRAFFIC BARRIER TERMINAL, TYPE 2
631032-09	TRAFFIC BARRIER TERMINAL, TYPE 6A
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-04	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45 MPH
701901-08	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
725001-01	OBJECT AND TERMINAL MARKERS
728001-01	TELESCOPING STEEL SIGN SUPPORT
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

MIXTURES TABLE

LOCATIONS:	HOT-MIX ASPHALT SURFACE COURSE	HOT-MIX ASPHALT BINDER AND BASE COURSE WIDENING	HOT-MIX ASPHALT SHOULDERS (TOP LIFT)	HOT-MIX ASPHALT SHOULDERS (LOWER LIFT)
MIXTURE USE(S):	HOT-MIX ASPHALT SURFACE COURSE, MIX C, N70, IL-9.5FG	HOT-MIX ASPHALT BINDER COURSE, N70, IL-19.0	HOT-MIX ASPHALT SURFACE COURSE, MIX C, N30, 9.5L	HOT-MIX ASPHALT BINDER, N30, 19.0L
AB/PG:	PG64-22	PG64-22	PG64-22	PG64-22
ABR % (MAX):	SEE SPECIAL PROVISION	SEE SPECIAL PROVISION	SEE SPECIAL PROVISION	SEE SPECIAL PROVISION
DESIGN AIR VOIDS:	4.0 %, 70 GYRATION DESIGN	4.0 %, 70 GYRATION DESIGN	4.0 %, 30 GYRATION DESIGN	4.0 %, 30 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5FG	IL-19.0mm	IL-9.5L	IL-19.0L
FRICTION AGGREGATE:	C SURFACE	NONE	NONE	NONE
MIXTURE WEIGHT:	112 LBS/SQ YD/IN	112 LBS/SQ YD/IN	112 LBS/SQ YD/IN	112 LBS/SQ YD/IN
QUALITY MANAGEMENT PROGRAM:	QCQA	QCQA	QCQA	QCQA
SUBLOT SIZE:	NA	NA	NA	NA

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & HIGHWAY STANDARDS

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

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	3
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				FUNDS
				80% FED 20% STATE
				BRIDGE 0010 RURAL
20100500	TREE REMOVAL, ACRES	ACRE	0.25	0.25
20200100	EARTH EXCAVATION	CU YD	750	750
20300200	ROCK EXCAVATION IN CHANNEL	CU YD	115	115
20800150	TRENCH BACKFILL	CU YD	35.4	35.4
20900110	POROUS GRANULAR BACKFILL	CU YD	79	79
25000200	SEEDING, CLASS 2	ACRE	0.50	0.50
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45	45
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45	45
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45	45
25100115	MULCH, METHOD 2	ACRE	0.50	0.50
25100630	EROSION CONTROL BLANKET	SQ YD	421	421
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	100	100
28000305	TEMPORARY DITCH CHECKS	FOOT	414	414
28000400	PERIMETER EROSION BARRIER	FOOT	38	38

REV. - MS

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

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

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	4
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78547	

SUMMARY OF QUANTITIES

CONSTRUCTION CODE
FUNDS
80% FED 20% STATE
BRIDGE
0010
RURAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
28000500	INLET AND PIPE PROTECTION	EACH	2	2
28100105	STONE RIPRAP, CLASS A3	SQ YD	237	237
28100109	STONE RIPRAP, CLASS A5	SQ YD	469	469
28200200	FILTER FABRIC	SQ YD	706	706
35100700	AGGREGATE BASE COURSE, TYPE A 8"	SQ YD	392	392
40200500	AGGREGATE SURFACE COURSE, TYPE A 6"	SQ YD	134	134
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	60	60
40300200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.5	0.5
40300400	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	TON	1.4	1.4
40300500	COVER COAT AGGREGATE	TON	6.0	6.0
40300600	SEAL COAT AGGREGATE	TON	3.0	3.0
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	206	206
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	28	28
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	19	19

REV. - MS

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

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

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	5
			CONTRACT NO. 78547	
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

CONSTRUCTION CODE
FUNDS
80% FED 20% STATE
BRIDGE
0010
RURAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
40604002	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "C", N70	TON	34	34
44004250	PAVED SHOULDER REMOVAL	SQ YD	48	48
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	162	162
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50105220	PIPE CULVERT REMOVAL	FOOT	105	105
50200100	STRUCTURE EXCAVATION	CU YD	107	107
50300225	CONCRETE STRUCTURES	CU YD	33	33
50300280	CONCRETE ENCASEMENT	CU YD	5.1	5.1
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1,458	1,458
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4,500	4,500
50901050	STEEL RAILING, TYPE SM	FOOT	108	108
51201400	FURNISHING STEEL PILES HP10X42	FOOT	120	120
51500100	NAME PLATES	EACH	1	1
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	4	4

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

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

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	6
			CONTRACT NO. 78547	
		ILLINOIS	FED. AID PROJECT	

SUMMARY OF QUANTITIES

CONSTRUCTION CODE
FUNDS
80% FED
20% STATE
BRIDGE
0010
RURAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
542A0223	PIPE CULVERTS, CLASS A, TYPE 1 18"	FOOT	80	80
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	162	162
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	432	432
58700300	CONCRETE SEALER	SQ FT	326	326
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	47	47
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	137.5	137.5
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	1	1
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3	3
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	6	6
67100100	MOBILIZATION	L SUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1

* SPECIALTY ITEM

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

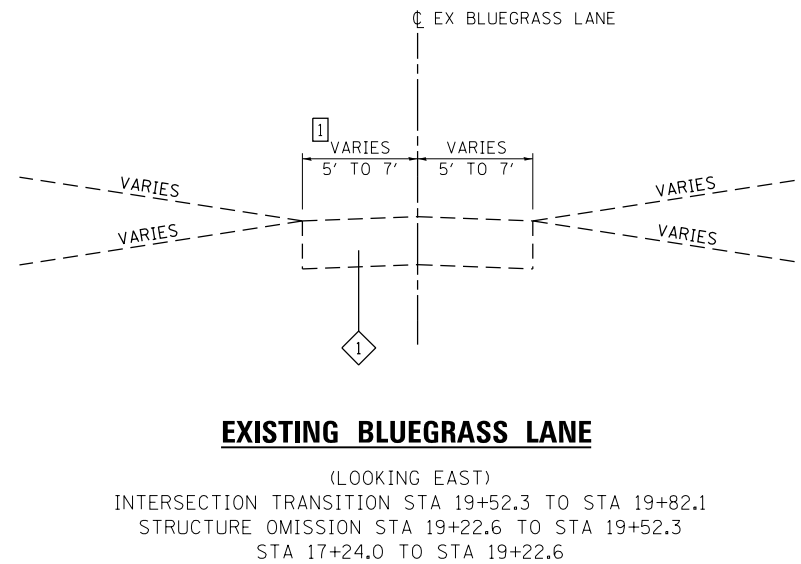
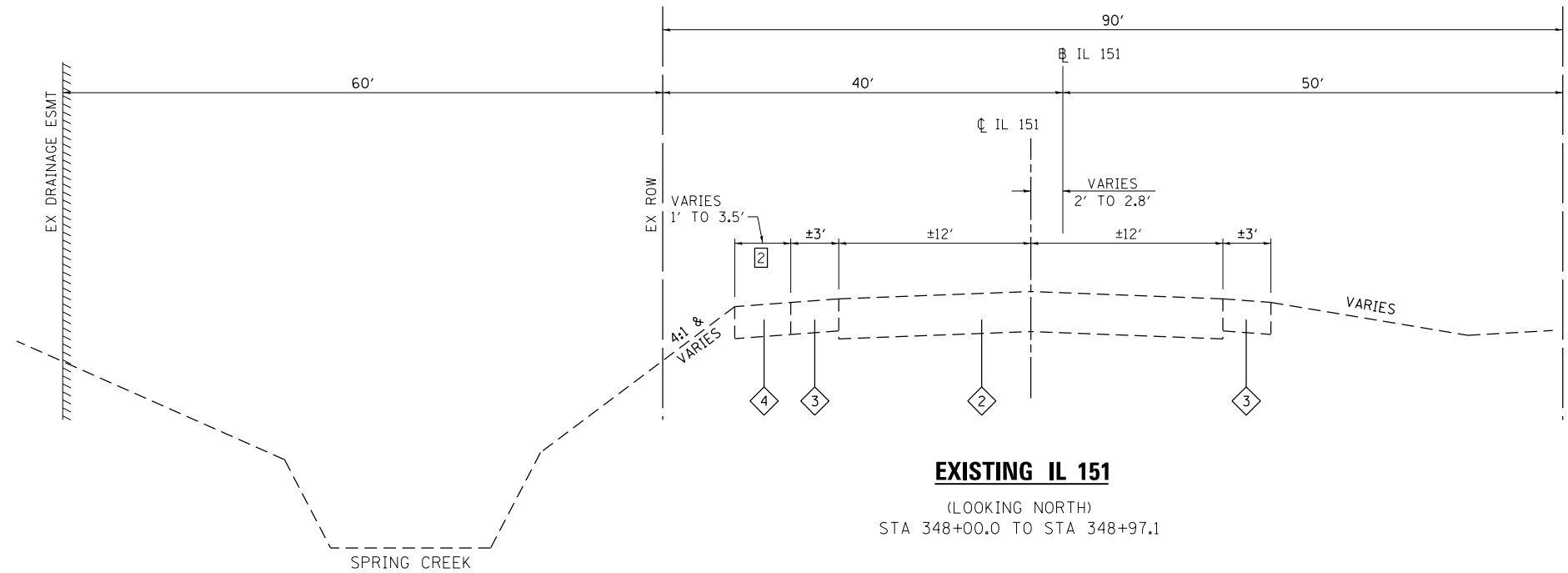
SUMMARY OF QUANTITIES

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

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	7
			CONTRACT NO. 78547	
			ILLINOIS FED. AID PROJECT	

TYPICAL SECTION LEGEND

- ① EXISTING AGGREGATE
- ② EXISTING HOT-MIX ASPHALT PAVEMENT
- ③ EXISTING HOT-MIX ASPHALT SHOULDER
- ④ EXISTING AGGREGATE SHOULDER
- ⑤ PROPOSED AGGREGATE BASE COURSE, TYPE A 8"
- ⑥ PROPOSED EARTH SHOULDERS
- ⑦ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
- ⑧ PROPOSED HMA BINDER COURSE, IL-19.0, N70, 5.5"
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "C", N70, 2.5"
- ⑩ PROPOSED BITUMINOUS MATERIALS (TACK COAT)
- ⑪ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
- ⑫ PROPOSED BITUMINOUS SURFACE TREATMENT (CLASS A-3)



TYPICAL SECTION NOTES

- ① LANE WIDTH INCLUDES EASTBOUND DIRECTION OF BLUEGRASS LANE ONLY AND DOES NOT FACTOR IN THE WESTBOUND DIRECTION OF EXISTING BLUEGRASS LANE THAT SPURS APART TO THE NORTH.
- ② WIDTH OF SHOULDER SHALL EXTEND TO GUARDRAIL FACE WHEN GUARDRAIL IS PRESENT AND MAINTAIN 10:1 SLOPE OR FLATTER. SEE HWY STD 630201.
- ③ ROAD LANE WIDTH VARIES FROM 7' TO 9' FROM STA 27+80 TO STA 28+50.

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

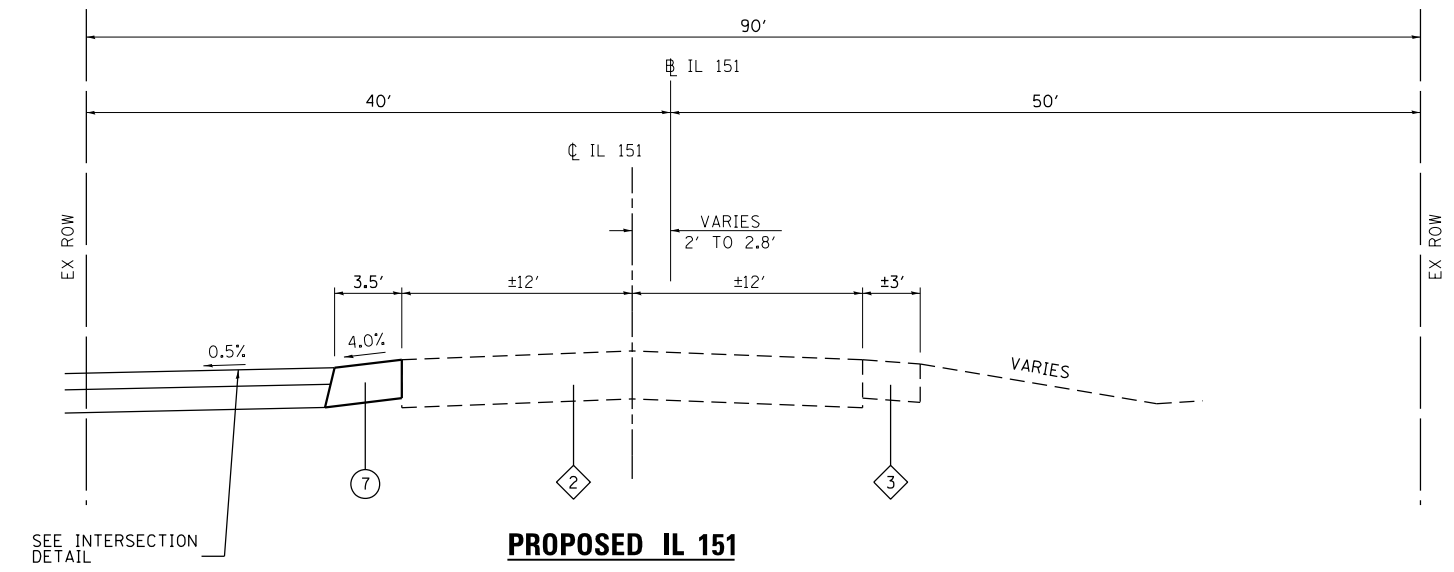
**EXISTING
 TYPICAL SECTIONS**

SCALE: NTS SHEET 1 OF 4 SHEETS STA. TO STA.

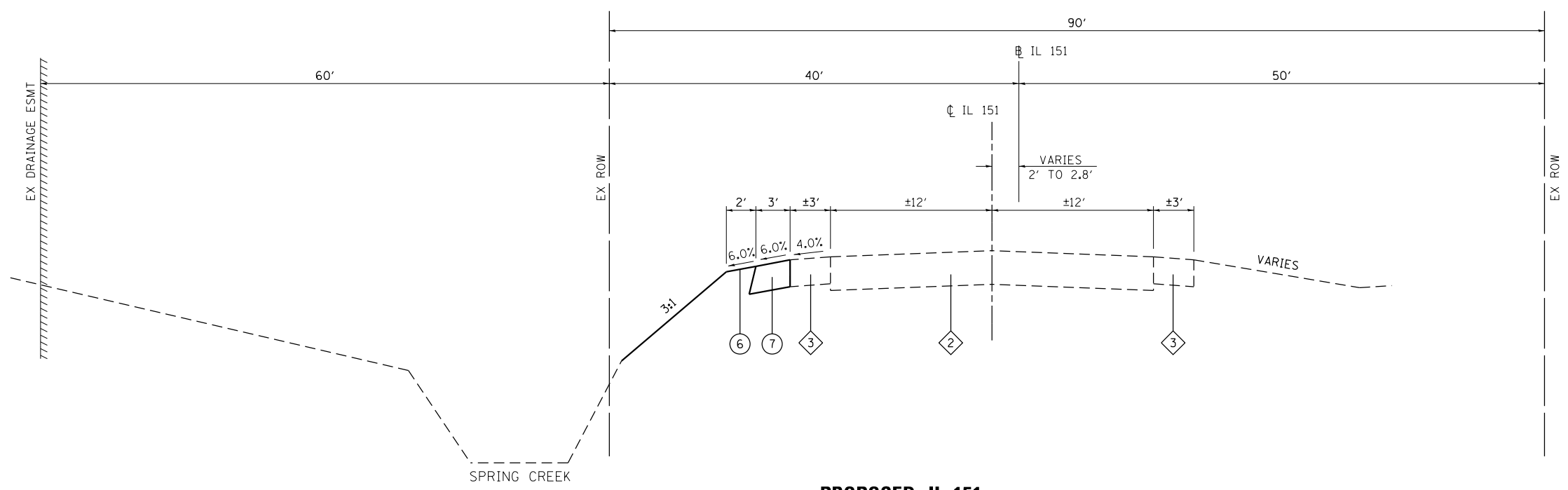
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93A	13B-1	JACKSON	38	9
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				

TYPICAL SECTION LEGEND

- ① EXISTING AGGREGATE
- ② EXISTING HOT-MIX ASPHALT PAVEMENT
- ③ EXISTING HOT-MIX ASPHALT SHOULDER
- ④ EXISTING AGGREGATE SHOULDER
- ⑤ PROPOSED AGGREGATE BASE COURSE, TYPE A 8"
- ⑥ PROPOSED EARTH SHOULDERS
- ⑦ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
- ⑧ PROPOSED HMA BINDER COURSE, IL-19.0, N70, 5.5"
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "C", N70, 2.5"
- ⑩ PROPOSED BITUMINOUS MATERIALS (TACK COAT)
- ⑪ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
- ⑫ PROPOSED BITUMINOUS SURFACE TREATMENT (CLASS A-3)



PROPOSED IL 151
(LOOKING NORTH)
INTERSECTION STA 348+26.0 TO STA 349+27.0



PROPOSED IL 151
(LOOKING NORTH)
STA 347+25.0 TO STA 348+26.0

TYPICAL SECTION NOTES

- ① LANE WIDTH INCLUDES EASTBOUND DIRECTION OF BLUEGRASS LANE ONLY AND DOES NOT FACTOR IN THE WESTBOUND DIRECTION OF EXISTING BLUEGRASS LANE THAT SPURS APART TO THE NORTH.
- ② WIDTH OF SHOULDER SHALL EXTEND TO GUARDRAIL FACE WHEN GUARDRAIL IS PRESENT AND MAINTAIN 10:1 SLOPE OR FLATTER. SEE HWY STD 630201.
- ③ ROAD LANE WIDTH VARIES FROM 7' TO 9' FROM STA 27+80 TO STA 28+50.

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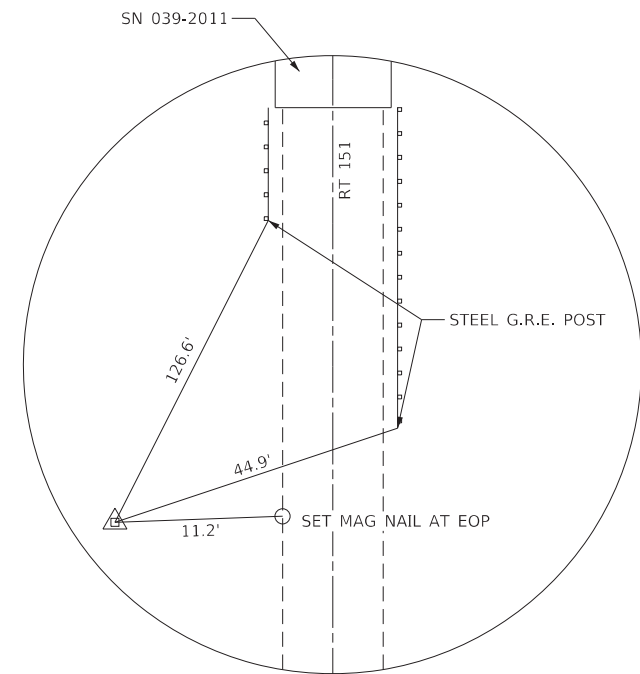
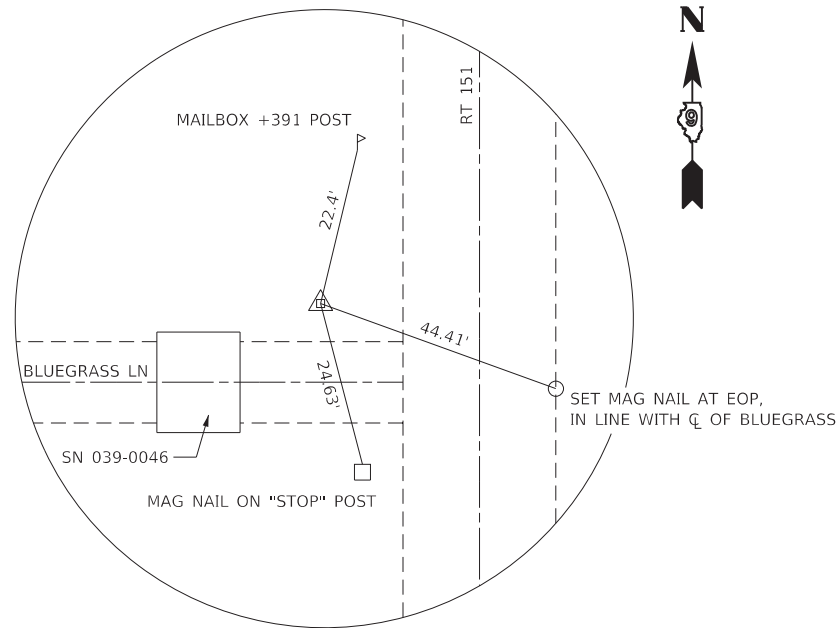
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED
TYPICAL SECTIONS**

SCALE: NTS SHEET 3 OF 4 SHEETS STA. TO STA.

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	11
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				



IRON BAR

STA 348+55.46
N: 2487073.62
E: 440233.63

IRON BAR

STA 357+87.97
N: 2487328.47
E: 441135.96

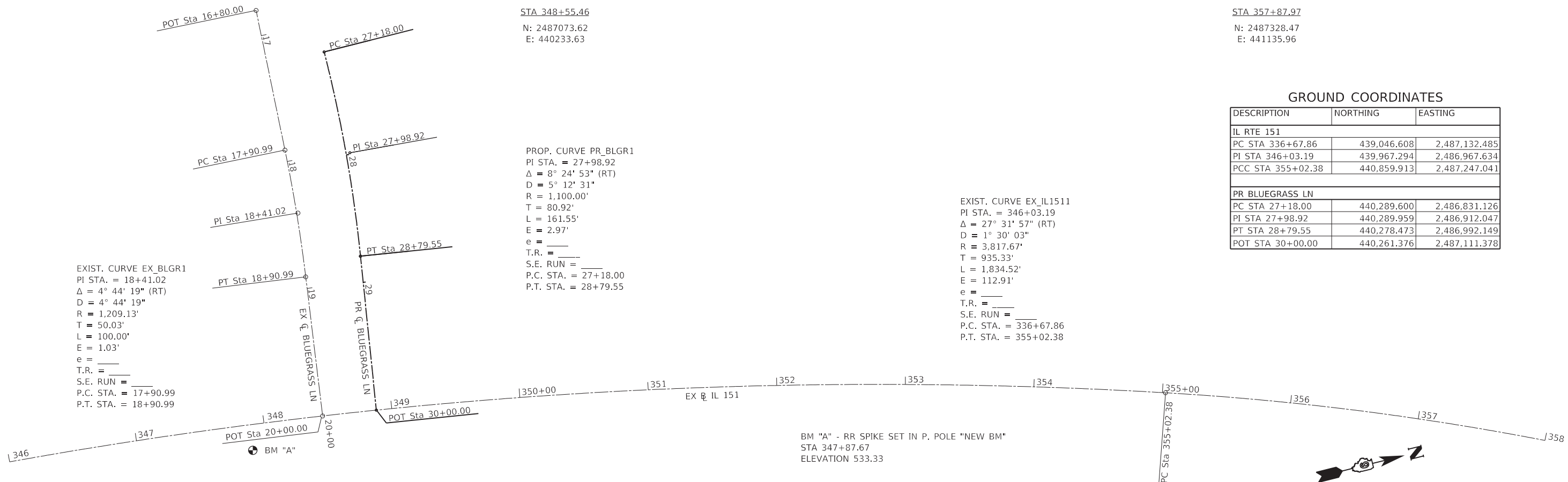
PROP. CURVE PR_BLGR1
PI STA. = 27+98.92
 $\Delta = 8^\circ 24' 53''$ (RT)
D = $5^\circ 12' 31''$
R = 1,100.00'
T = 80.92'
L = 161.55'
E = 2.97'
e = _____
T.R. = _____
S.E. RUN = _____
P.C. STA. = 27+18.00
P.T. STA. = 28+79.55

EXIST. CURVE EX_IL1511
PI STA. = 346+03.19
 $\Delta = 27^\circ 31' 57''$ (RT)
D = $1^\circ 30' 03''$
R = 3,817.67'
T = 935.33'
L = 1,834.52'
E = 112.91'
e = _____
T.R. = _____
S.E. RUN = _____
P.C. STA. = 336+67.86
P.T. STA. = 355+02.38

GROUND COORDINATES

DESCRIPTION	NORTHING	EASTING
IL RTE 151		
PC STA 336+67.86	439,046.608	2,487,132.485
PI STA 346+03.19	439,967.294	2,486,967.634
PCC STA 355+02.38	440,859.913	2,487,247.041
PR BLUEGRASS LN		
PC STA 27+18.00	440,289.600	2,486,831.126
PI STA 27+98.92	440,289.959	2,486,912.047
PT STA 28+79.55	440,278.473	2,486,992.149
POT STA 30+00.00	440,261.376	2,487,111.378

EXIST. CURVE EX_BLGR1
PI STA. = 18+41.02
 $\Delta = 4^\circ 44' 19''$ (RT)
D = $4^\circ 44' 19''$
R = 1,209.13'
T = 50.03'
L = 100.00'
E = 1.03'
e = _____
T.R. = _____
S.E. RUN = _____
P.C. STA. = 17+90.99
P.T. STA. = 18+90.99



MODEL: Default
FILE NAME: I:\18120\18120\005 - Bluegrass Dr. over Spring Creek\CADD\Microstation\CADD Drawings\0918120\005-sht-alignment-Ties and BM.dgn



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DRAWN -
PLOT SCALE = 40,0000 ' / in.
CHECKED -
PLOT DATE = 8/6/2020
DATE -

DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT TIES AND BENCHMARKS

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

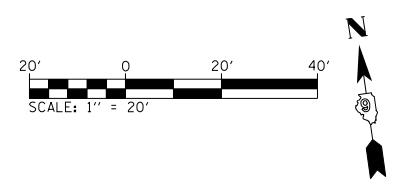
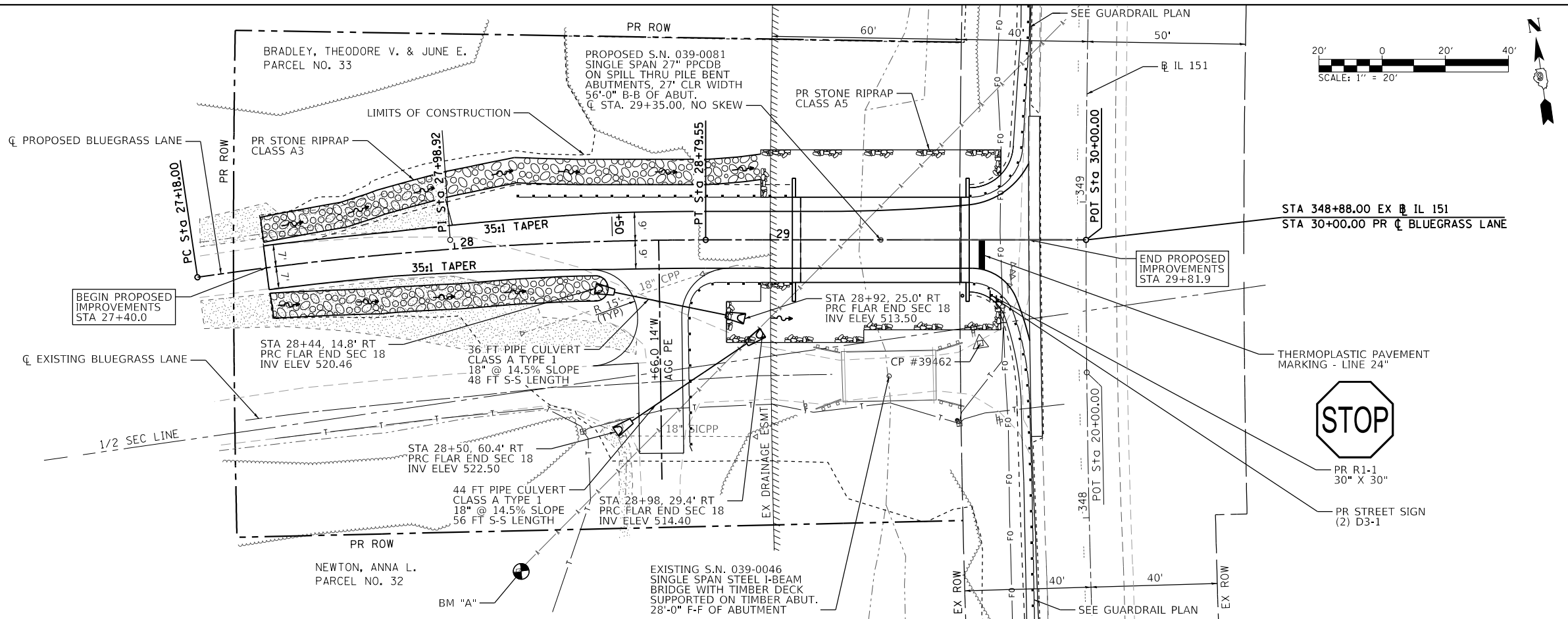
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93A	13B-1	JACKSON	38	15
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				

PROP. CURVE PR.BLGRI
 PI STA. = 27+98.92
 $\Delta = 8^\circ 24' 53''$ (RT)
 $D = 5^\circ 12' 31''$
 $R = 1,100.00'$
 $T = 80.92'$
 $L = 161.55'$
 $E = 2.97'$
 $e = \text{---}$
 $T.R. = \text{---}$
 $S.E. RUN = \text{---}$
 P.C. STA. = 27+18.00
 P.T. STA. = 28+79.55

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNMENT CHECKED	
	GRADE CHECKED	
	STRUCTURE NOTATION CHECKED	
	NOTE BOOK NO.	
	CADD FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATION CHECKED	
	NOTE BOOK NO.	
	CADD FILE NAME	

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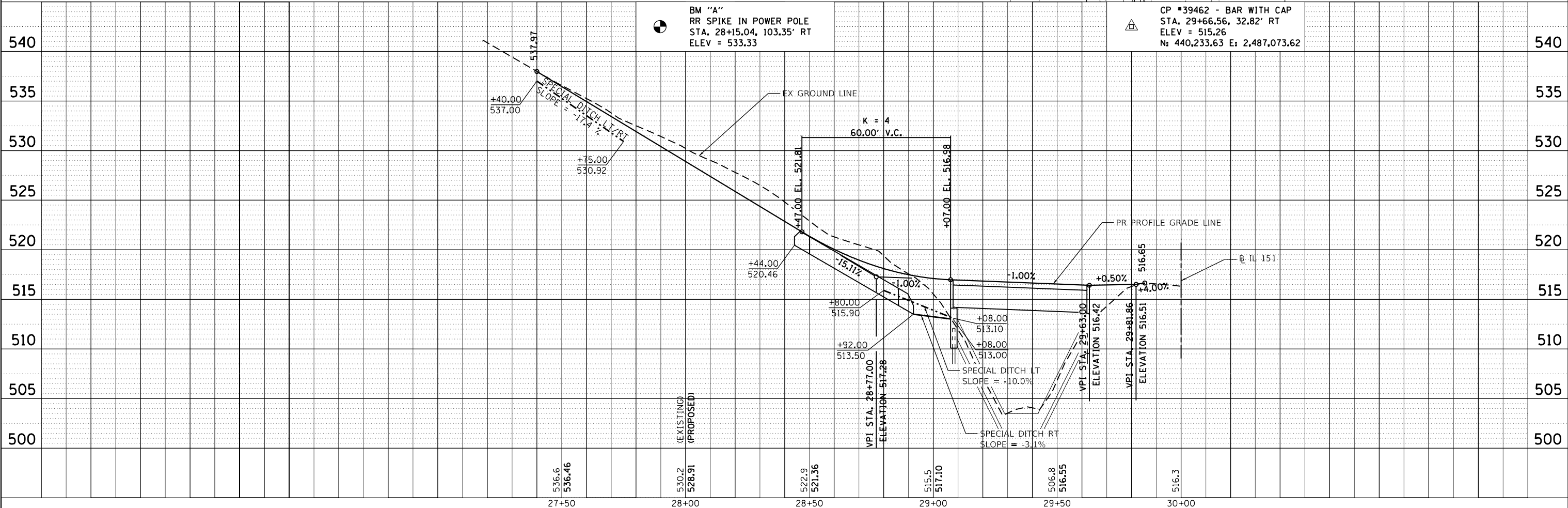
STA 348+88.00 EX IL 151
 STA 30+00.00 PR CL BLUEGRASS LANE

END PROPOSED IMPROVEMENTS
 STA 29+81.9

THERMOPLASTIC PAVEMENT MARKING - LINE 24"



PR R1-1
 30" X 30"
 PR STREET SIGN
 (2) D3-1



USER NAME = bill.tindall	DESIGNED -	REVISED -
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PLOT DATE = 9/29/2020	CHECKED -	REVISED -
	DATE -	REVISED -

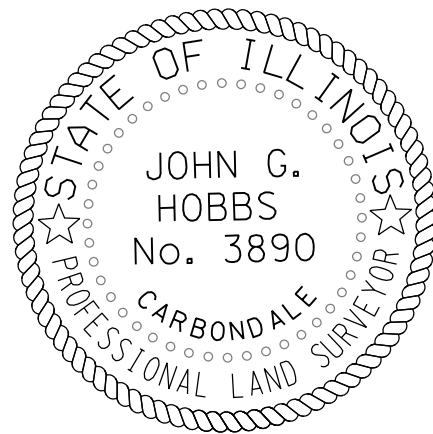
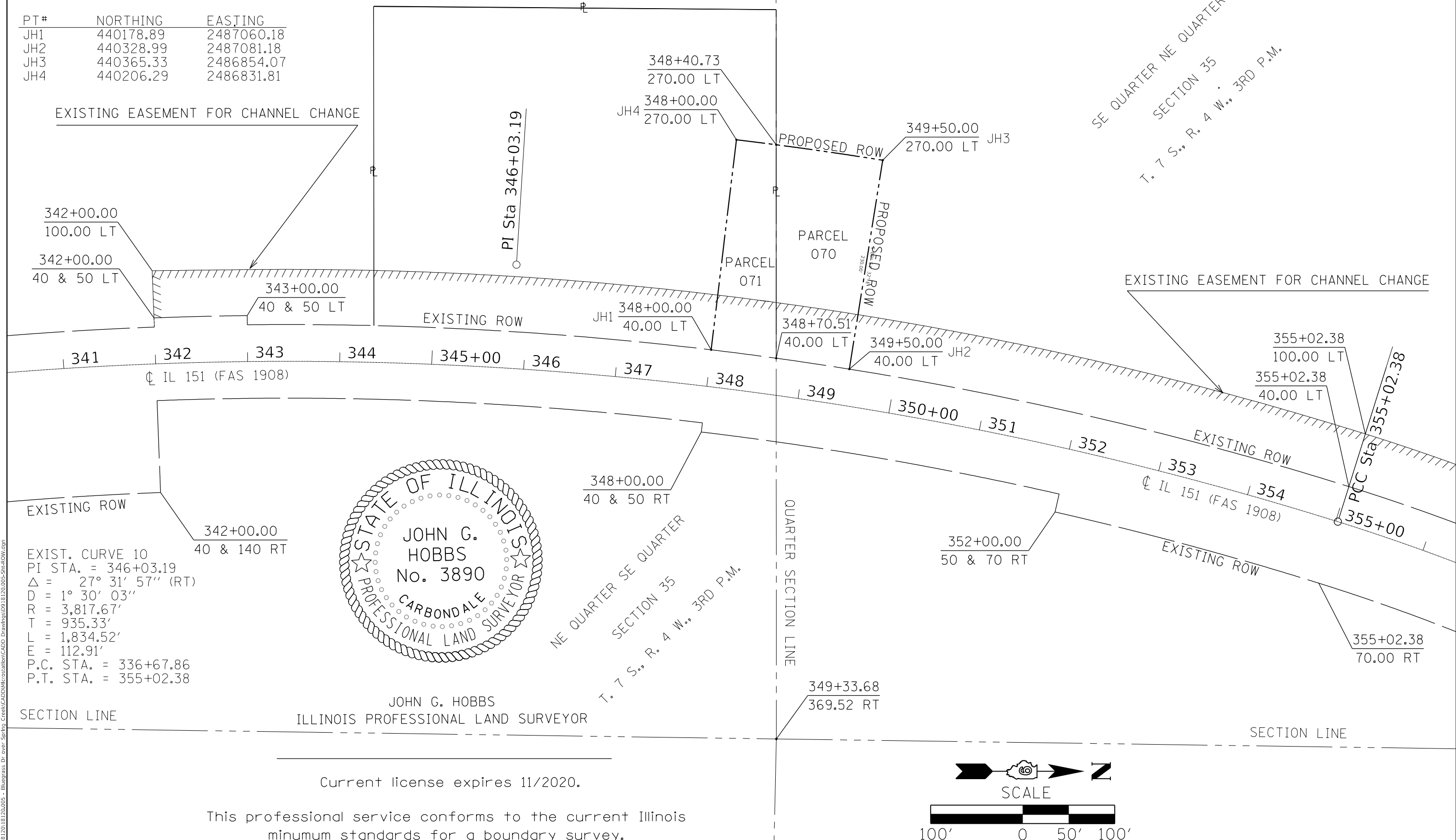
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BLUEGRASS LANE
 PLAN & PROFILE SHEET
 SCALE: 1"=20'
 SHEET 1 OF 1 SHEETS
 STA. 27+40 TO STA. 29+85

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	16
CONTRACT NO. 78547			ILLINOIS FED. AID PROJECT	

PARCEL#	PROPERTY OWNER	PURPOSE	ACREAGE
070	DWAYNE JESS	R.O.W.	0.521 AC±
071	THOMAS & DORATHEA THROOP	R.O.W.	0.303 AC±

PT#	NORTHING	EASTING
JH1	440178.89	2487060.18
JH2	440328.99	2487081.18
JH3	440365.33	2486854.07
JH4	440206.29	2486831.81



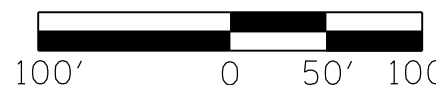
JOHN G. HOBBS
ILLINOIS PROFESSIONAL LAND SURVEYOR

Current license expires 11/2020.

This professional service conforms to the current Illinois minimum standards for a boundary survey.



SCALE



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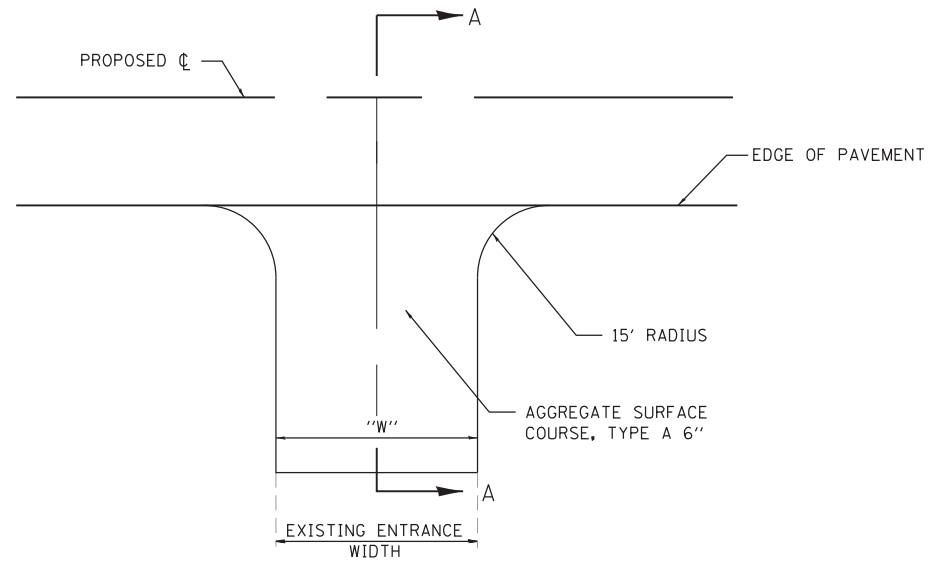
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	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

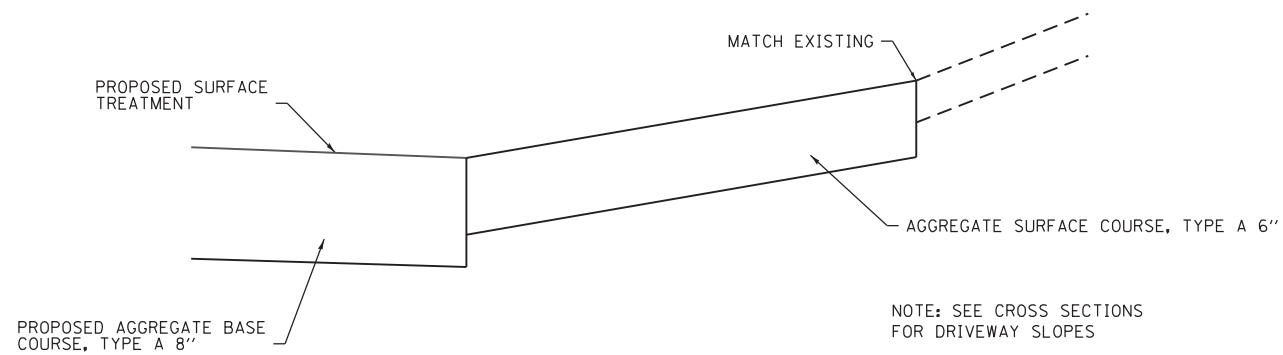
IL RTE 151 SN 039-0046
RIGHT OF WAY PLAT

SCALE: 1" = 100' SHEET 1 OF 1 SHEETS STA. 341+00.00 TO STA. 356+00.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	19
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				



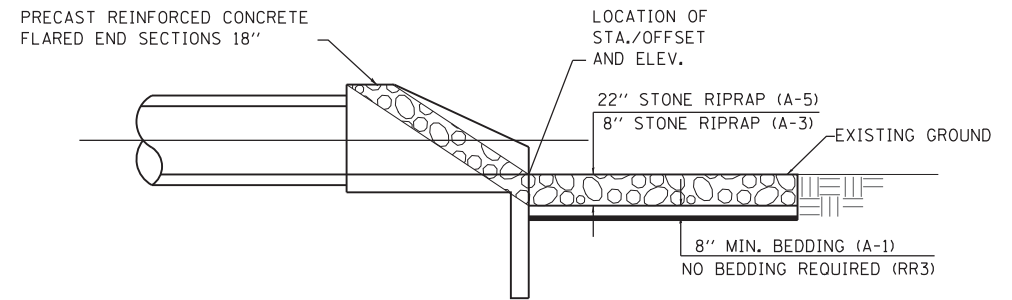
PRIVATE ENTRANCE (P.E.)
(NOT TO SCALE)



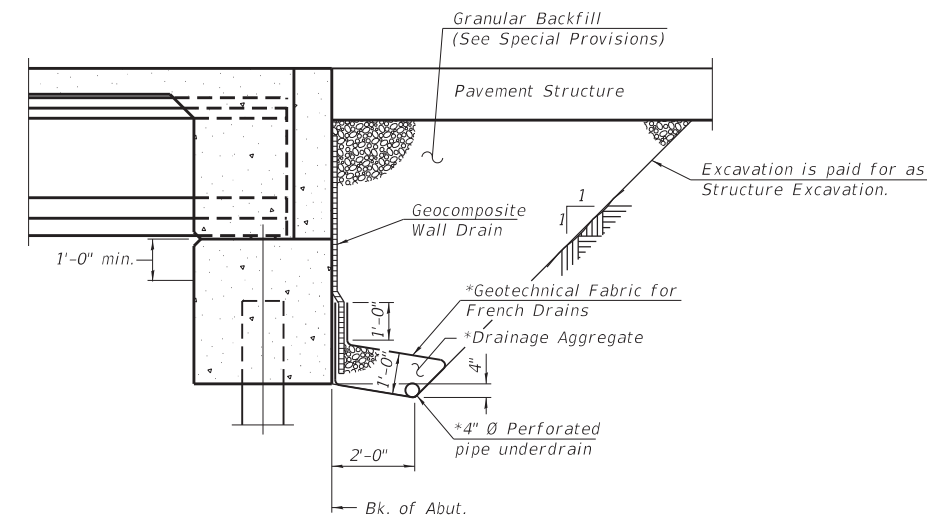
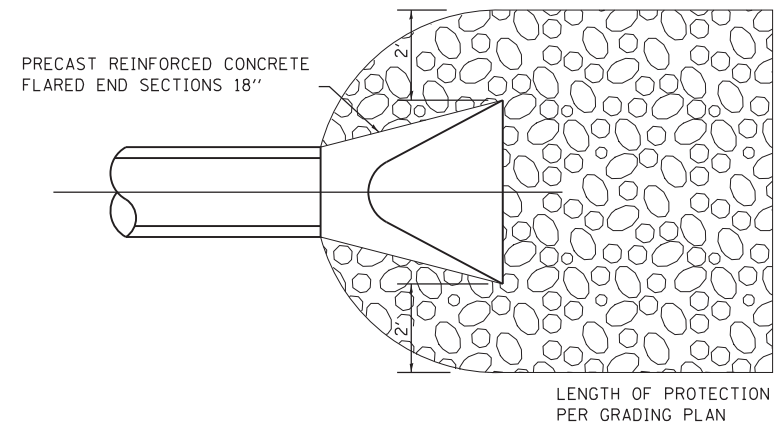
SECTION A-A

PRIVATE ENTRANCE (P.E.)
(NOT TO SCALE)

NOTE: SEE CROSS SECTIONS FOR DRIVEWAY SLOPES



TYPICAL RIPRAP DETAIL



SECTION THRU INTEGRAL ABUTMENT

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

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

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

MODEL: Default
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	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

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

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	21
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				

Benchmark: BM "A", RR spike in power pole, Sta. 28+15.04, 103.35' Rt., Elev. 533.33.

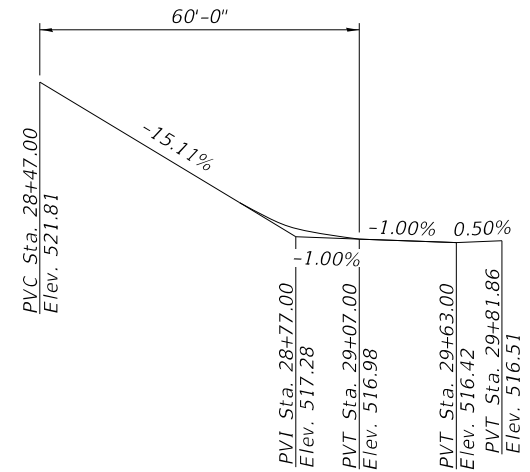
Existing Structure: S.N. 039-0046 was originally built in 1935 and consists of a single span steel wide flange beam superstructure with a timber deck supported by closed timber column abutments founded on timber footings. The back to back abutment length is 30'-0" and the out to out width is 16'-0". Structure to be removed and replaced with a new structure on a new alignment approximately 40' upstream of the existing structure.

Traffic Control: The road will remain open during construction.

No Salvage

INDEX OF STRUCTURE SHEETS

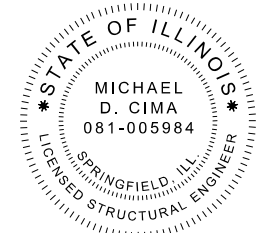
1. General Plan and Elevation
2. General Details
3. Superstructure Details
4. 27"x36" PPC Deck Beam
5. 27"x36" PPC Deck Beam Details
6. Steel Railing, Type SM With Hot-Mix Asphalt Wearing Surface
7. West Abutment
8. East Abutment
9. HP Pile Details
10. Soil Boring Logs



PROFILE GRADE
(Along \bar{C} Roadway)

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.)		
	W. Abut.	E. Abut.	Item 113
Q100	510.1	509.6	8
Q200	510.1	509.6	
Design	510.1	509.6	
Check	510.1	509.6	

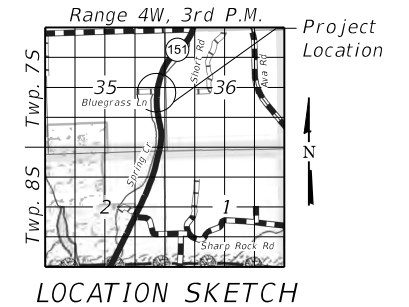


Michael D. Cima
Michael D. Cima, Illinois S.E. 081-005984 Date Expires 11/30/2020

WATERWAY INFORMATION

Flood	Freq. Yr.	Q. C.F.S.	Opening Ft ²		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Drainage Area = 595 acres Exist. Low Grade Elev. 515.12 at Sta. 19+52 Prop. Low Grade Elev. 516.42 at Sta. 29+63									
Design	10	738	104	100	508.0	0.6	0.6	508.6	508.6
Base	15	845	115	110	508.3	0.7	0.6	509.0	508.9
Scour Design	100	1500	165	178	510.1	1.1	0.6	511.2	510.7
Check	200	1670	176	195	510.5	1.2	0.6	511.7	511.1
Max. Calc.	500	2140	204	235	511.4	1.5	0.6	512.9	512.0

Note: See Sheet 2 of 10 for Total Bill of Materials, slope treatment details, section A-A.



GENERAL PLAN & ELEVATION
BLUEGRASS LANE (TR 93A)
OVER SPRING CREEK
SECTION 13B-1
JACKSON COUNTY
STATION 29+35.00
STRUCTURE NO. 039-0081

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.24g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.66g
Soil Site Class = C

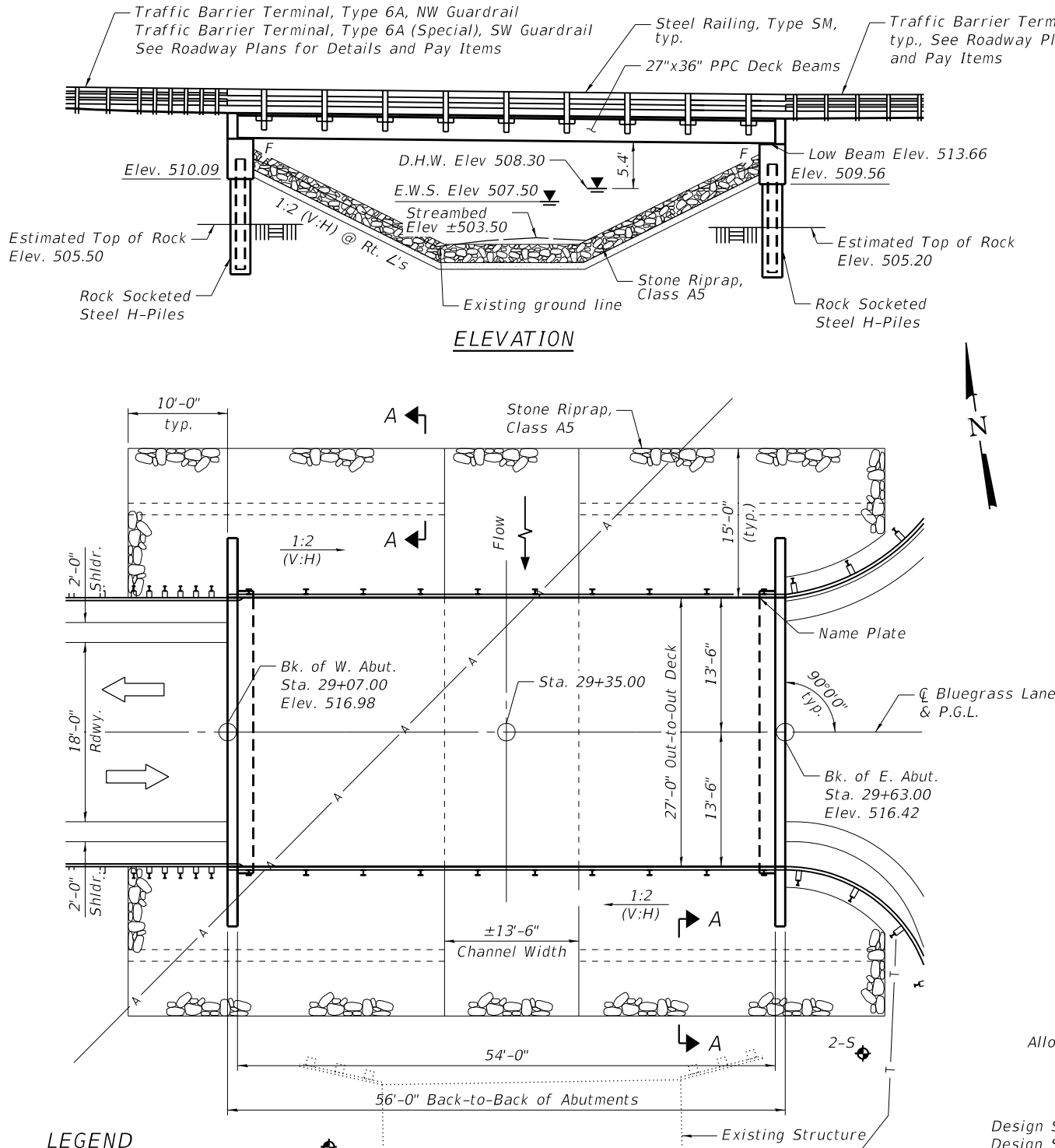
DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi ($1/2"$ \emptyset low-relax strands)
 $f_{pbt} = 201,960$ psi ($1/2"$ \emptyset low-relax strands)



ELEVATION

PLAN

LEGEND

- A - Existing Ariel Lines
- T - Existing Underground Telephone Cables

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FILE NAME: \$FILES\$



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\$FILESS\$		CHECKED -	KWB	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

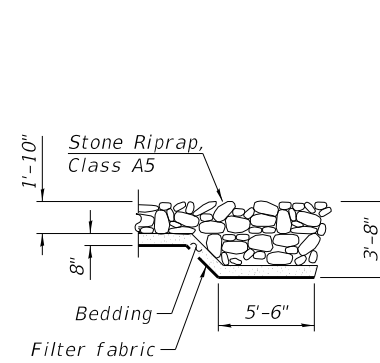
GENERAL PLAN AND ELEVATION
STRUCTURE NO. 039-0081

SHEET 1 OF 10 SHEETS

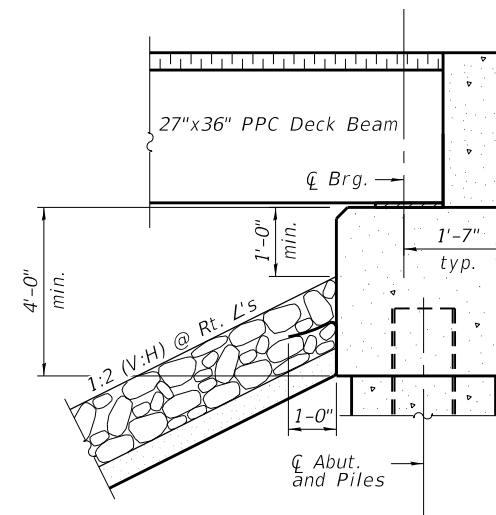
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	22
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				

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.
 See roadway plans for approach embankment.
 Concrete sealer shall be applied to the seat and front face of the abutments.



SECTION A-A



SECTION THRU ABUTMENT

STATION 29+35.00
 BUILT 202_ BY
 STATE OF ILLINOIS
 SEC. 13B-1
 LOADING HL-93
 STR. NO. 039-0081

NAME PLATE
 See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Rock Excavation in Channel	Cu. Yd.	-	-	115
Stone Riprap, Class A5	Sq. Yd.	-	-	435
Filter Fabric	Sq. Yd.	-	-	435
Hot-Mix Asphalt Surface Course, IL-9.5FG, Mix "C", N70	Ton	25	-	25
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu. Yd.	-	59	59
Concrete Structures	Cu. Yd.	-	33.0	33.0
Concrete Encasement	Cu. Yd.	-	5.1	5.1
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1458	-	1458
Reinforcement Bars, Epoxy Coated	Pound	-	4500	4500
Steel Railing, Type SM	Foot	108	-	108
Furnishing Steel Piles HP10x42	Foot	-	120	120
Name Plates	Each	-	-	1
Waterproofing Membrane System	Sq. Yd.	162	-	162
Portland Cement Mortar Fairing Course	Foot	432	-	432
Concrete Sealer	Sq. Ft.	-	326	326
Setting Piles in Rock	Each	-	10	10

MODEL: \$MODELNAME\$
 FILE NAME: \$FILEL\$



QUIGG ENGINEERING INC

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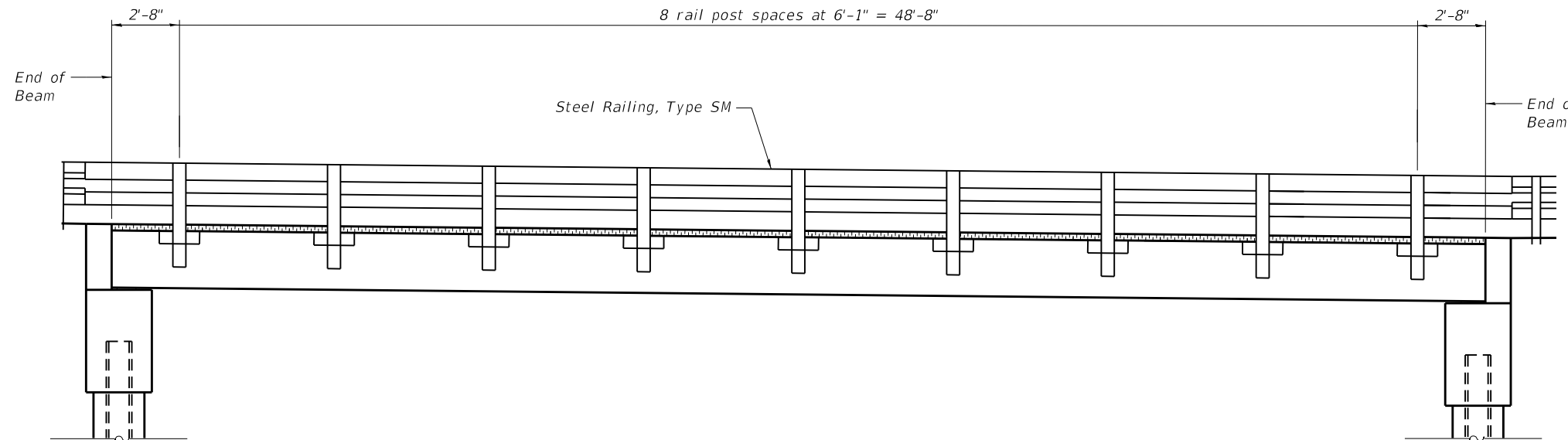
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL DETAILS
 STRUCTURE NO. 039-0081

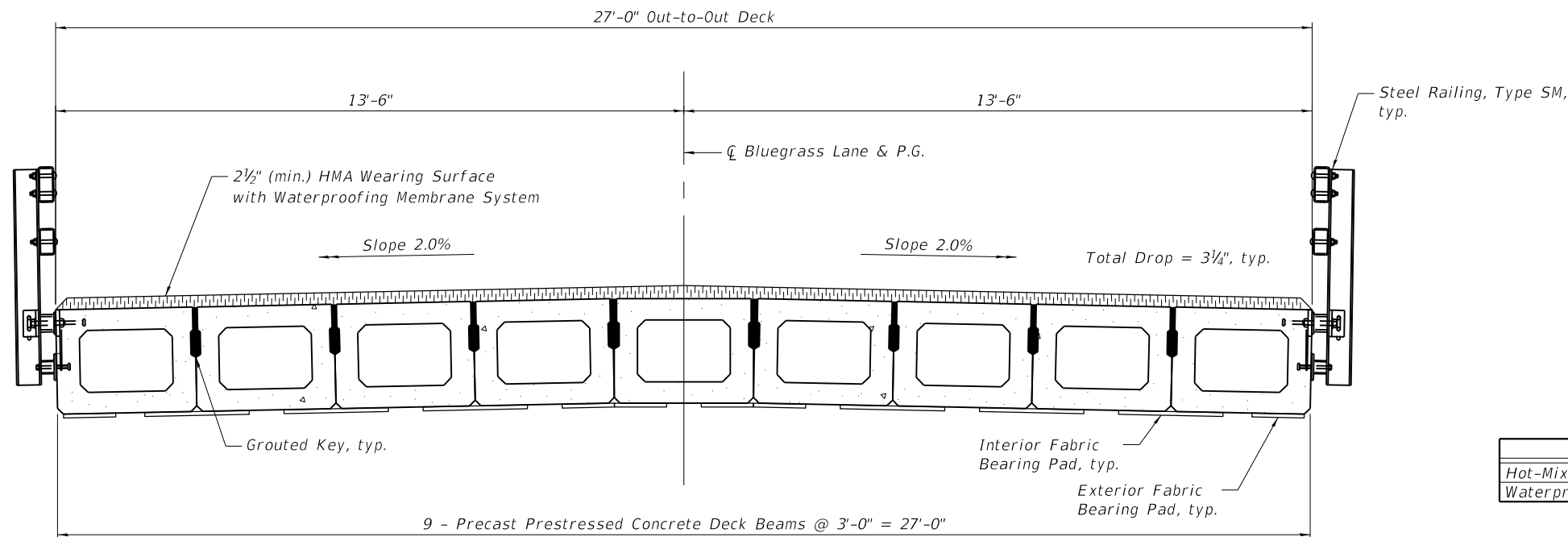
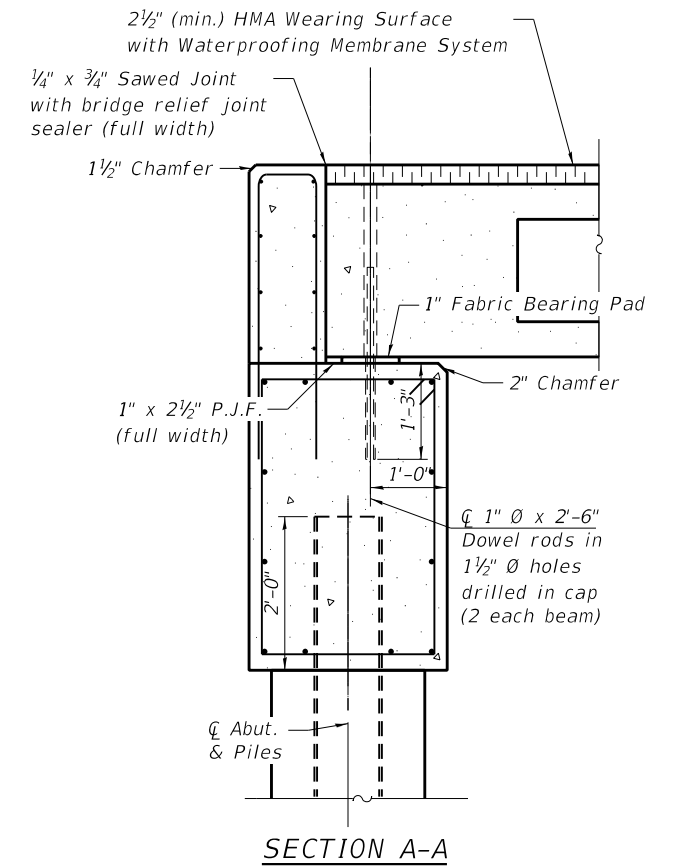
SHEET 2 OF 10 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	23
			CONTRACT NO. 78547	
		ILLINOIS	FED. AID PROJECT	

\$DATE\$ \$TIME\$



ELEVATION
 (Showing Rail Post Spacing)
 See sheet 6 of 10 for Railing Details

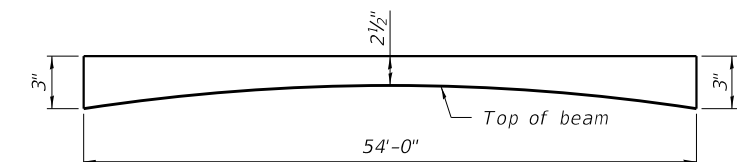


CROSS SECTION
 (Looking East)

Notes:
 See sheets 4 and 5 of 10 for Deck Beam details and Bill of Material.
 See sheet 5 of 10 for Fabric Bearing Pad details.
 See sheet 6 of 10 for Steel Railing details.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Hot-Mix Asphalt Surface Course, IL-9.5FG, Mix "C", N70	Tons	25
Waterproofing Membrane System	Sq. Yd.	162



ANTICIPATED HMA WEARING SURFACE PROFILE
 (For information only)

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 FILE NAME: \$FILES\$

QEI
 QUIGG ENGINEERING INC

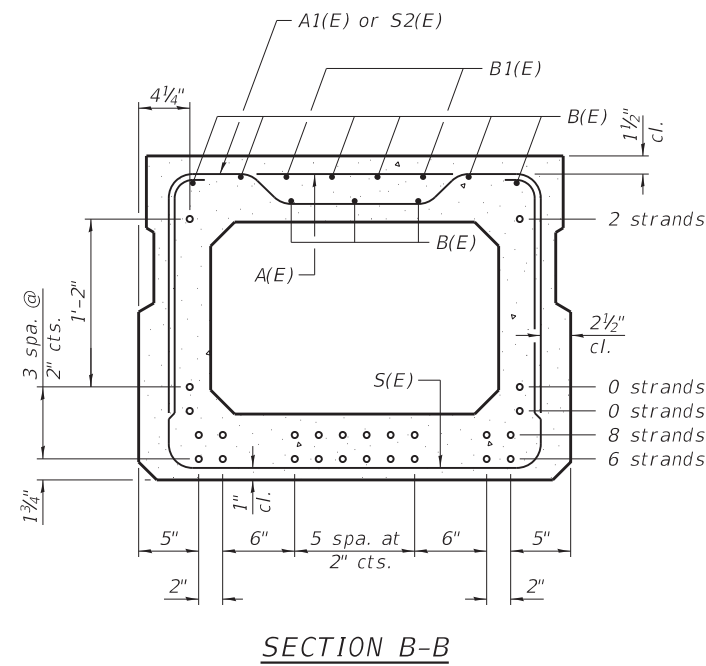
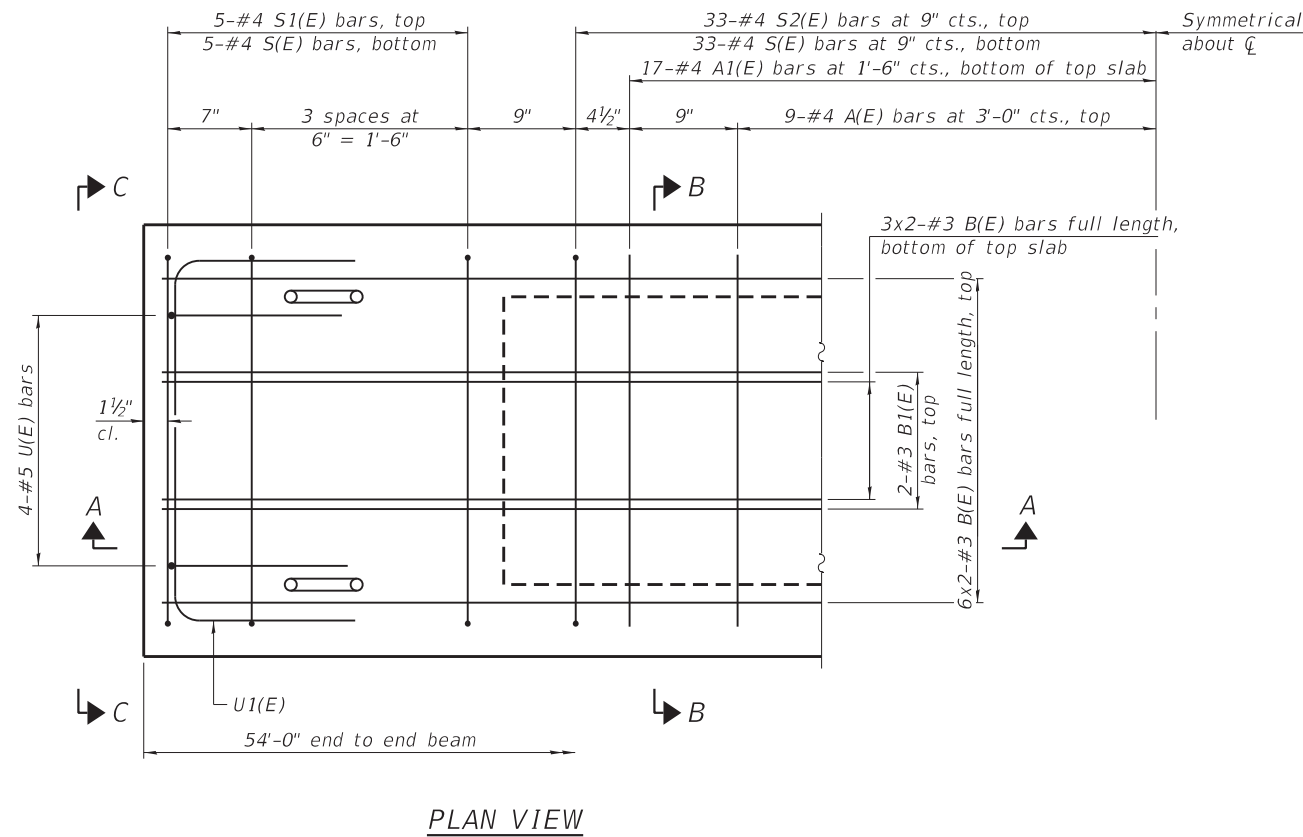
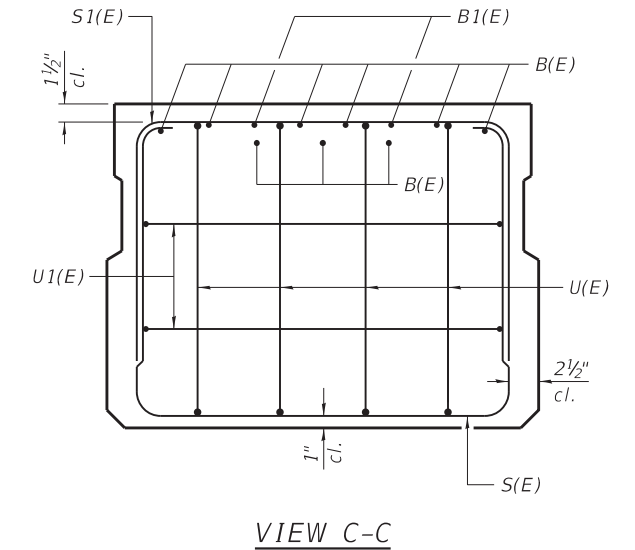
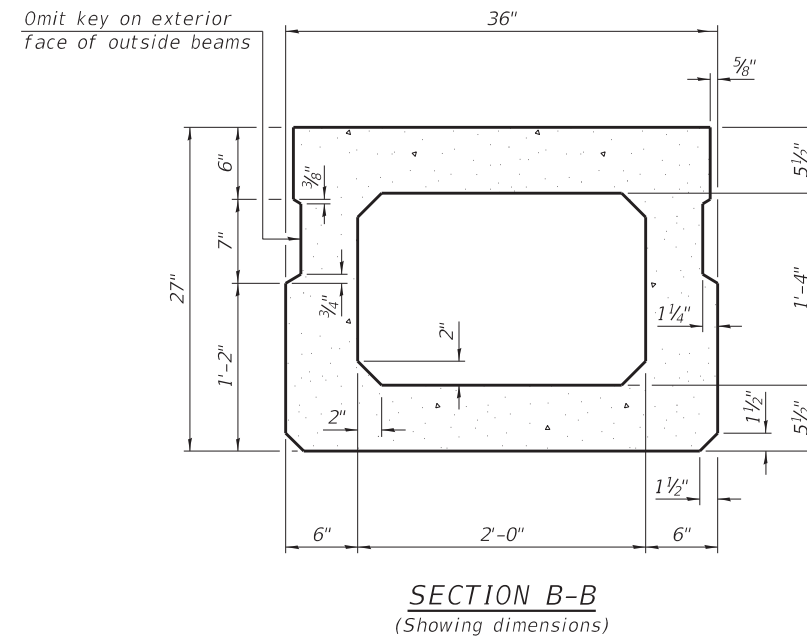
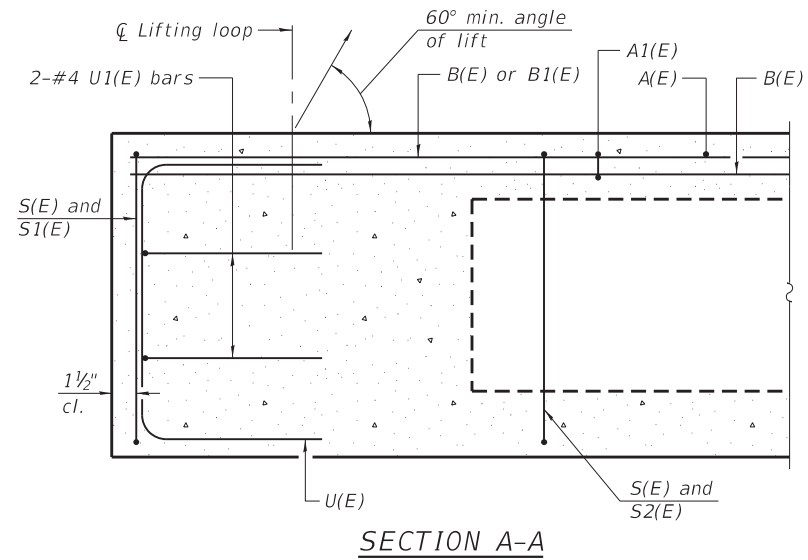
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
 STRUCTURE NO. 039-0081

SHEET 3 OF 10 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	24
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				



SECTION B-B
(Showing reinforcement and permissible strand locations)

Note:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	18	#4	2'-7"	—
A1(E)	34	#4	2'-10"	—
B(E)	18	#3	27'-8"	—
B1(E)	4	#3	10'-0"	—
S(E)	75	#4	7'-5"	⌋
S1(E)	10	#4	5'-11"	⌋
S2(E)	65	#4	6'-2"	⌋
U(E)	8	#5	4'-6"	⌋
U1(E)	4	#4	5'-0"	⌋

Note:
See sheet 5 of 10 for additional details and Bill of Material.

Notes:
Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.
Bars indicated as 3x2-#3 etc. indicates 3 lines of bars with 2 lengths per line.

MINIMUM BAR LAP
#3 bar = 1'-6"

MODEL: \$MODELNAME\$
FILE NAME: \$FILES\$

PD-2736-0

1-1-2020



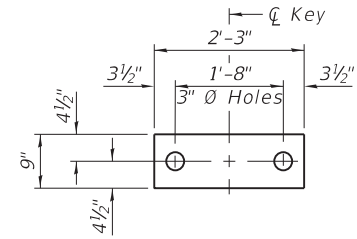
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

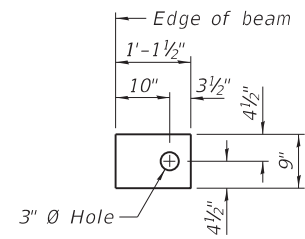
27" x 36" PPC DECK BEAM
STRUCTURE NO. 039-0081

SHEET 4 OF 10 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	25
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				



FABRIC BEARING PAD
(Interior)

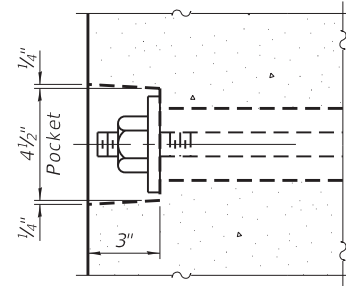


FABRIC BEARING PAD
(Exterior)

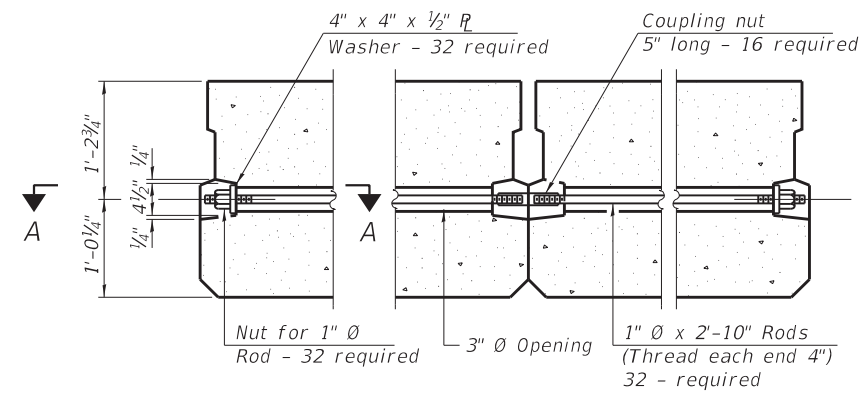
FIXED

Notes:

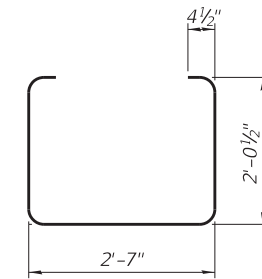
- All bearing pads shall be 1" thick.
- Omit holes when using expansion bearings.
- Expansion bearing pads shall be bonded to the substructure.



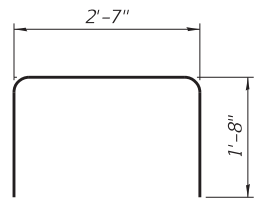
SECTION A-A



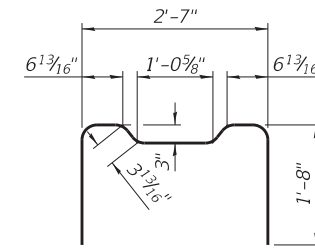
TYPICAL TRANSVERSE TIE ASSEMBLY



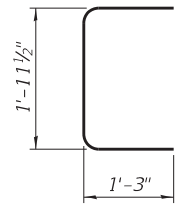
BAR S(E)



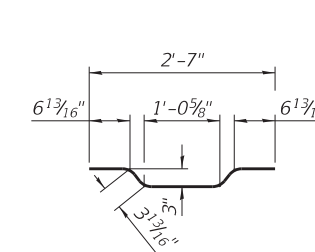
BAR S1(E)



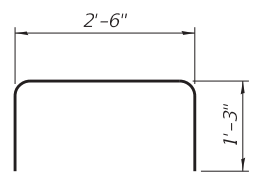
BAR S2(E)



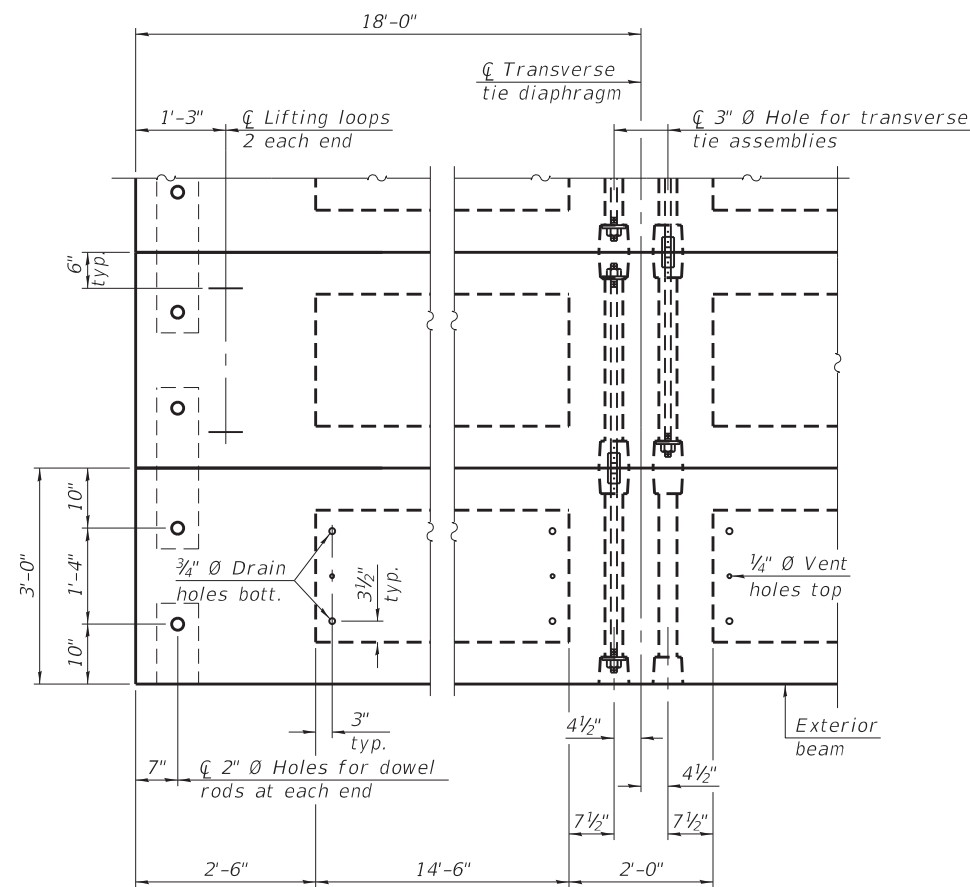
BAR U(E)



BAR A1(E)



BAR U1(E)

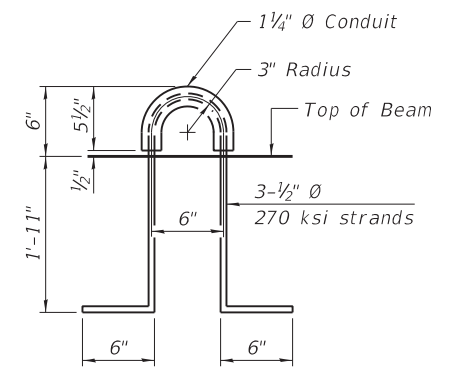


PLAN VIEW

Note:
Connect beams in pairs with the transverse tie configuration shown.

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" Ø rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" Ø lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



LIFTING LOOP DETAIL

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	1458
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MODEL: \$MODELNAME\$
FILE NAME: \$FILES\$

PDD-2736-0

1-1-2020



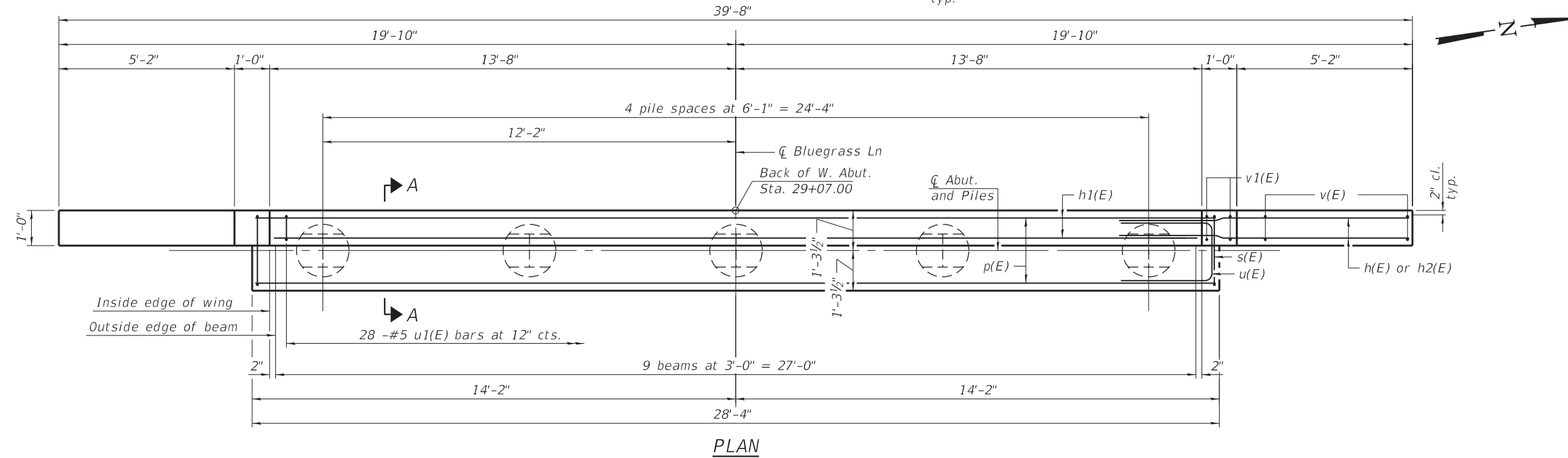
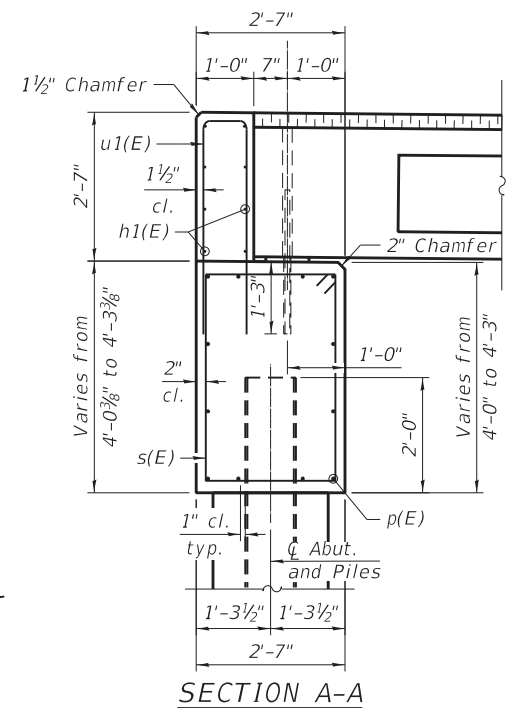
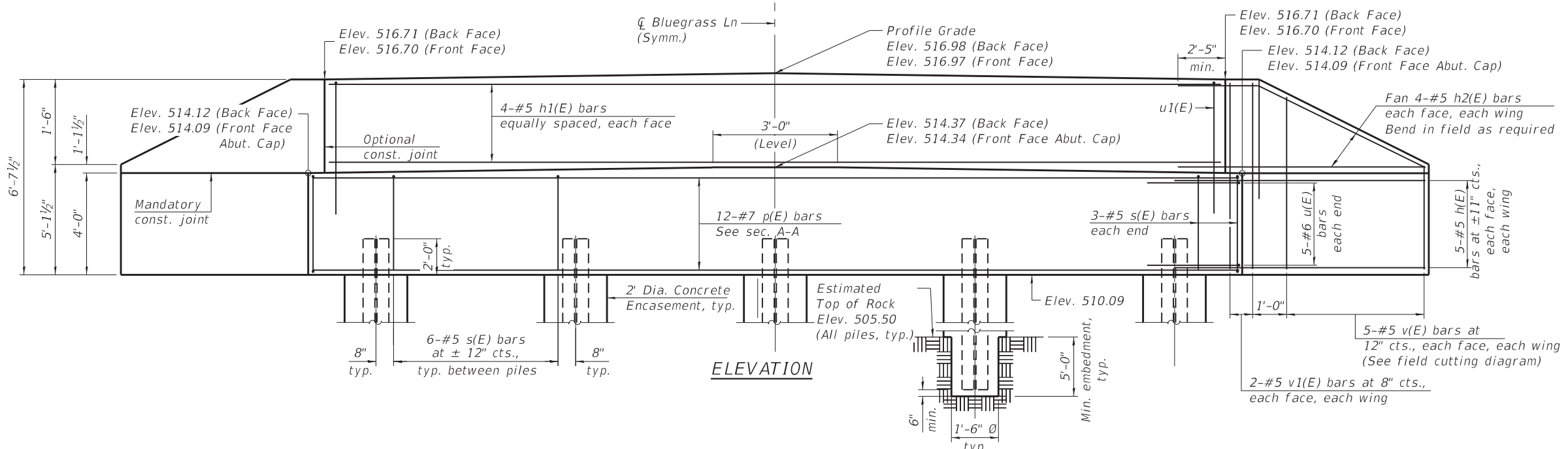
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\$FILESS\$	CHECKED - KWB	REVISED -
PLOT SCALE = \$\$SCALE\$	DRAWN - KFO	REVISED -
PLOT DATE =	CHECKED - MDC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

27" x 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 039-0081

SHEET 5 OF 10 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	26
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				

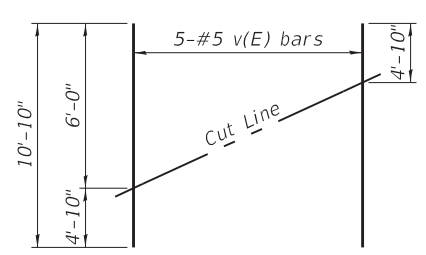


BILL OF MATERIAL FOR WEST ABUTMENT

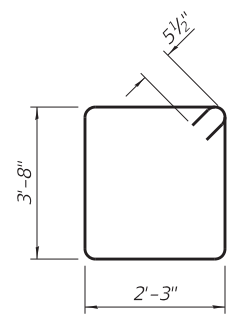
Bar	No.	Size	Length	Shape
h(E)	20	#5	8'-1"	—
h1(E)	8	#5	27'-0"	—
h2(E)	16	#5	8'-8"	—
p(E)	12	#7	28'-0"	—
s(E)	30	#5	12'-9"	□
u(E)	10	#6	12'-2"	U
u1(E)	28	#5	9'-6"	U
v(E)	10	#5	10'-10"	—
v1(E)	8	#5	6'-3"	—
Structure Excavation		Cu. Yd.	32.0	
Concrete Structures		Cu. Yd.	16.5	
Reinforcement Bars, Epoxy Coated		Pound	2250	
Furnishing Steel Piles HP10x42		Foot	60	
Setting Piles in Rock		Each	5	
Concrete Encasement		Cu. Yd.	2.6	
Concrete Sealer		Sq. Ft.	163	

PILE DATA

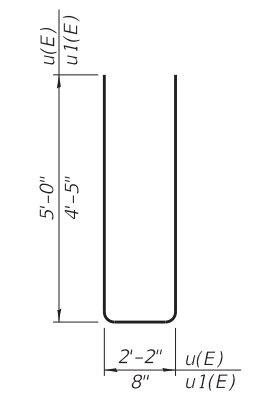
Type: HP10x42
 Nominal Required Bearing: Set in Rock
 Factored Resistance Available: 184k/pile
 Est. Length: 12 ft/pile
 No. Production Piles: 5



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



BAR s(E)



BARS u(E) & u1(E)

Notes:
 For details of piles and Concrete Encasement, see sheet 9 of 10.
 Cast backwall and tops of wingwalls after beams have been erected.

MODEL: \$MODELNAME\$
 FILE NAME: \$FILES\$



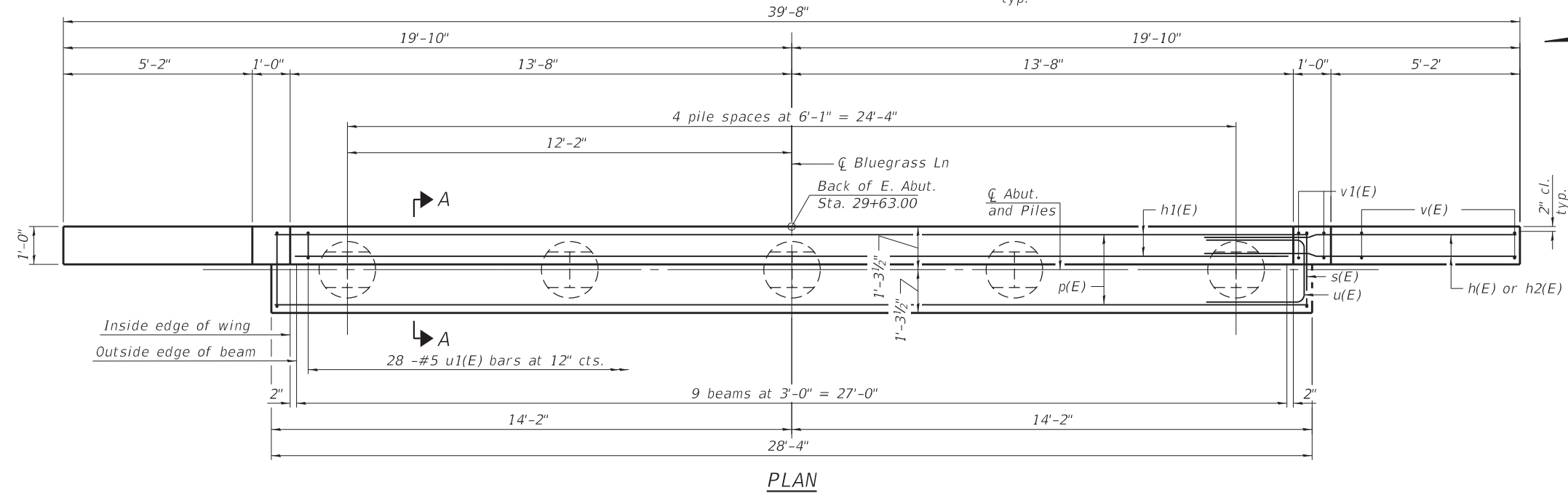
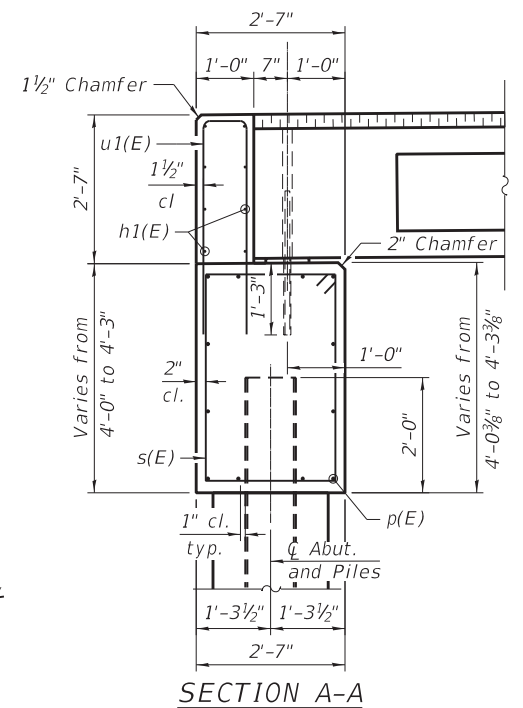
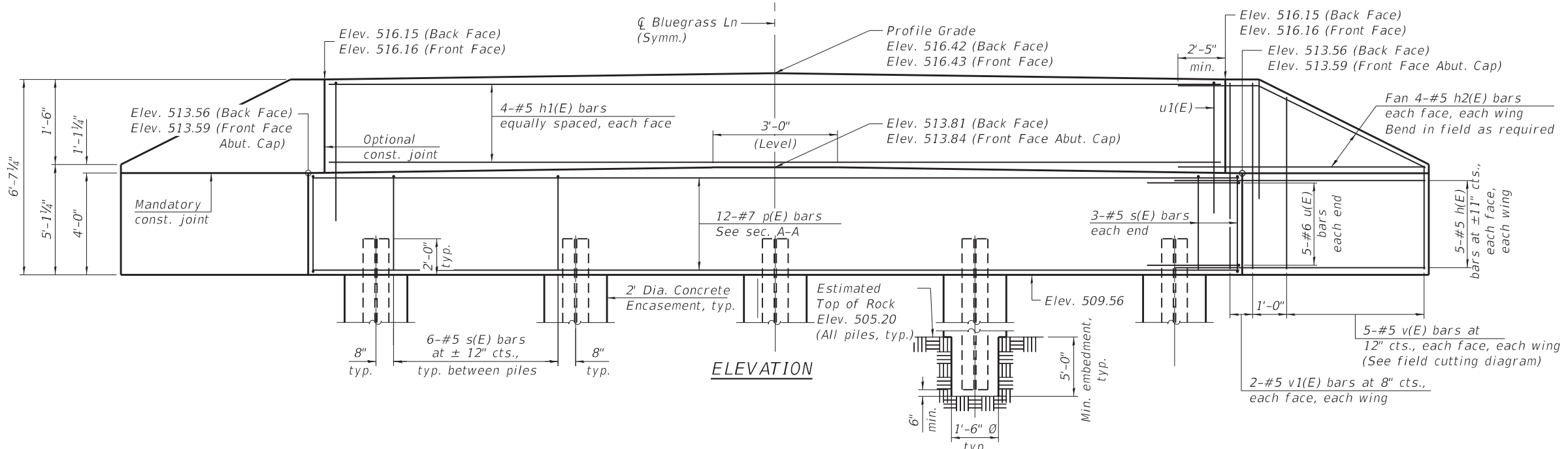
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\$FILESS\$		CHECKED -	KWB	REVISED -	
PLOT SCALE =	\$SCALE\$	DRAWN -	KFO	REVISED -	
PLOT DATE =		CHECKED -	MDC	REVISED -	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT
 STRUCTURE NO. 039-0081

SHEET 7 OF 10 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	28
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				

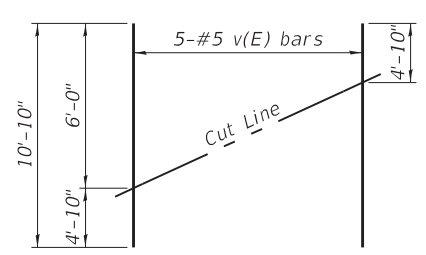


BILL OF MATERIAL FOR EAST ABUTMENT

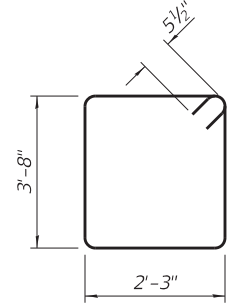
Bar	No.	Size	Length	Shape
h(E)	20	#5	8'-1"	—
h1(E)	8	#5	27'-0"	—
h2(E)	16	#5	8'-8"	—
p(E)	12	#7	28'-0"	—
s(E)	30	#5	12'-9"	□
u(E)	10	#6	12'-2"	U
u1(E)	28	#5	9'-6"	U
v(E)	10	#5	10'-10"	—
v1(E)	8	#5	6'-3"	—
Structure Excavation		Cu. Yd.	27.0	
Concrete Structures		Cu. Yd.	16.5	
Reinforcement Bars, Epoxy Coated		Pound	2250	
Furnishing Steel Piles HP10x42		Foot	60	
Setting Piles in Rock		Each	5	
Concrete Encasement		Cu. Yd.	2.5	
Concrete Sealer		Sq. Ft.	163	

PILE DATA

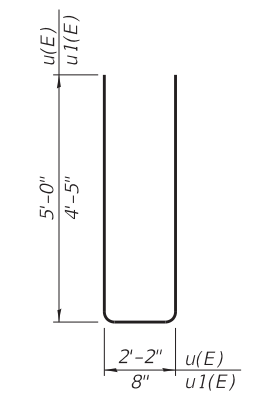
Type: HP10x42
 Nominal Required Bearing: Set in Rock
 Factored Resistance Available: 184k/pile
 Est. Length: 12 ft/pile
 No. Production Piles: 5



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



BAR s(E)



BARS u(E) & u1(E)

Notes:
 For details of piles and Concrete Encasement, see sheet 9 of 10.
 Cast backwall and tops of wingwalls after beams have been erected.

MODEL: \$MODELNAME\$
 FILE NAME: \$FILES\$



USER NAME =	SUSERS\$	DESIGNED -	KFO	REVISED -	
\$FILESS\$		CHECKED -	KWB	REVISED -	
PLOT SCALE =	\$SCALE\$	DRAWN -	KFO	REVISED -	
PLOT DATE =		CHECKED -	MDC	REVISED -	

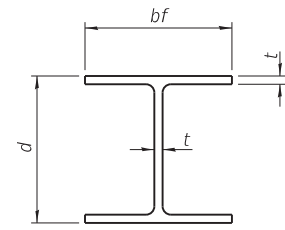
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT
 STRUCTURE NO. 039-0081

SHEET 8 OF 10 SHEETS

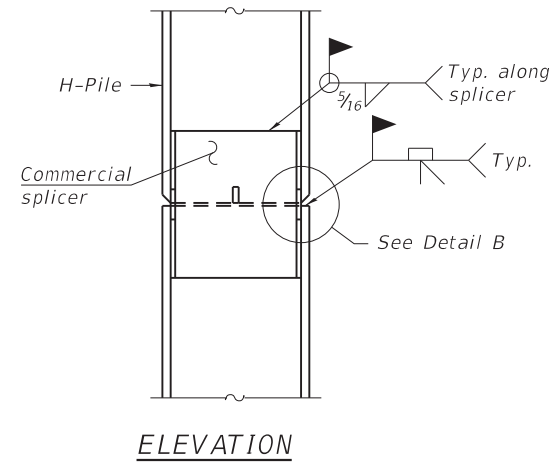
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	29
CONTRACT NO. 78547				

ILLINOIS FED. AID PROJECT

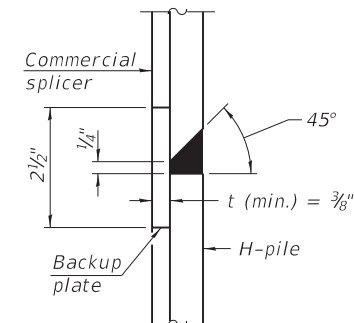


STEEL PILE TABLE

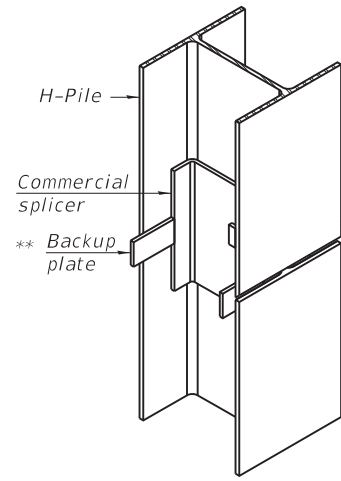
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 3/8"	14 3/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"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

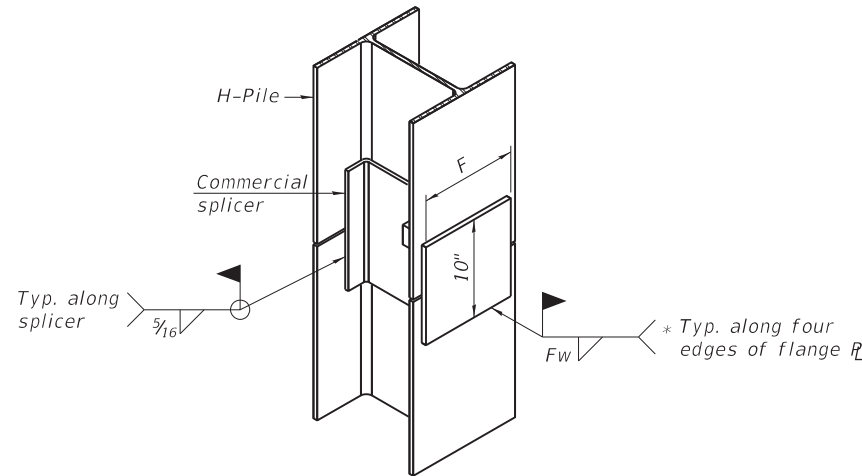


DETAIL "B"



ISOMETRIC VIEW

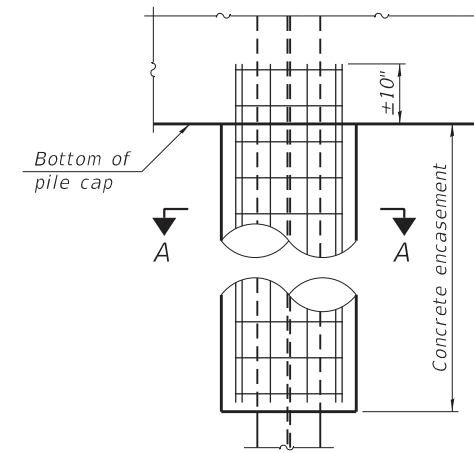
WELDED COMMERCIAL SPLICE



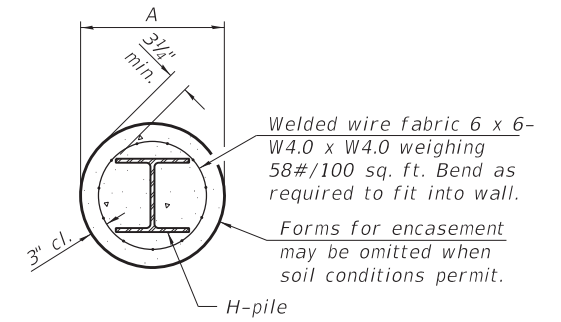
ISOMETRIC VIEW

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.).

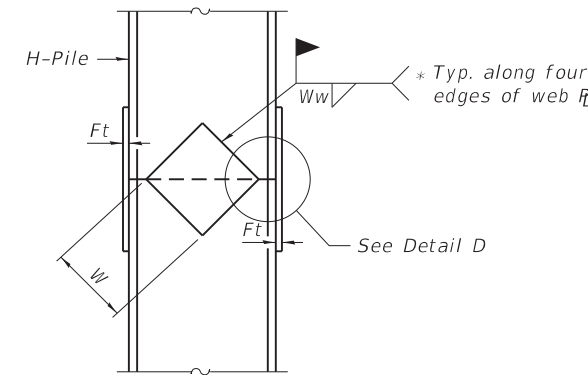


ELEVATION

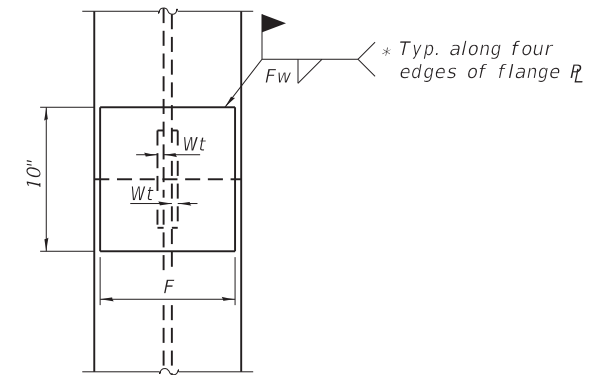


SECTION A-A

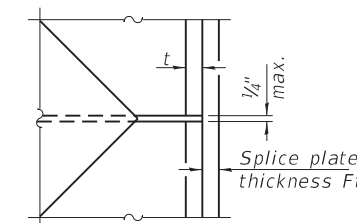
INDIVIDUAL PILE CONCRETE ENCASUREMENT (when specified)



ELEVATION



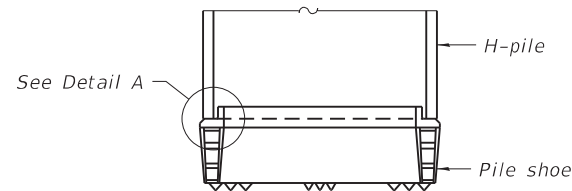
END VIEW



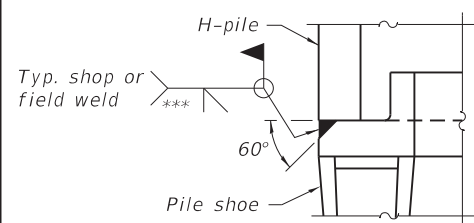
DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"



ELEVATION



DETAIL A

SHOE ATTACHMENT

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

USER NAME = \$USER\$	DESIGNED - KFO	REVISED -
\$FILESS\$	CHECKED - KWB	REVISED -
PLOT SCALE = \$SCALES\$	DRAWN - KFO	REVISED -
PLOT DATE =	CHECKED - MDC	REVISED -

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	30
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 District Nine Materials
 TR 93A off IL 151 (Bluegrass Lane) Over Spring Creek
 Route: Bluegrass Lane Structure Number: 039-0046 Date: 9/28/2017
 Section _____ Bored By: R Moberly
 County: Jackson Location: 6.7 mi North of IL Rte 3 Checked By: A Hayes

Bridge Foundation
 Boring Log
 Sheet 1 of 1

Boring No 1-S		D	B			Surf Wat Elev: 503.3	D	B		
Station 5' W of W Abut		E	L			Ground Water Elevation	E	L		
Offset 3' N CL		P	O	Qu	W%	when Drilling	P	O	Qu	W%
Ground Surface 516.0 Ft		T	W	tsf		At Completion	T	W	tsf	W%
		H	S			At: Hrs:	H	S		
Crushed aggregate										
	514.5					Borehole advanced with hollow stem auger (8" O.D., 3.25" I.D.)				
Stiff, moist, brown, Clay to Silty Clay A7-6						To convert "N" values to "N60" multiply by 1.25				
		2								
		2	1.9B		19					
		2								
	5.0						30.0			
		2								
		3	1.6B		20					
		3								
	508.0									
Soft to Medium, very moist, Brown, Silty Clay Loam A-4										
		1								
		2	0.5B		23					
		4								
	10.0						35.0			
	505.5									
Hard, dry, grey, Clay Shale			100/4"							
		26								
		100/7"								
	15.0						40.0			
			100/3"							
	497.5									
			100/1.5"							
	20.0						45.0			
Bottom of hole = 18.1 feet										
No free water observed										
Elevation referenced to BM 39462 = 515.2 feet										
	25.0						50.0			

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

44

ILLINOIS DEPARTMENT OF TRANSPORTATION
 District Nine Materials
 TR 93A off IL 151 (Bluegrass Lane) Over Spring Creek
 Route: Bluegrass Lane Structure Number: 039-0046 Date: 9/28/2017
 Section _____ Bored By: R Moberly
 County: Jackson Location: 6.7 mi North IL Rte 3 Checked By: A Hayes

Bridge Foundation
 Boring Log
 Sheet 1 of 1

Boring No 2-S		D	B			Surf Wat Elev: 503.3	D	B		
Station 18' E of E Abut		E	L			Ground Water Elevation	E	L		
Offset 10' N CL		P	O	Qu	W%	when Drilling	P	O	Qu	W%
Ground Surface 515.2 Ft		T	W	tsf		At Completion	T	W	tsf	W%
		H	S			At: Hrs:	H	S		
Crushed aggregate										
	514.2					Borehole advanced with hollow stem auger (8" O.D., 3.25" I.D.)				
Very stiff, moist, brown, Silty Clay to Clay A7-6						To convert "N" values to "N60" multiply by 1.25				
		2								
		3	2.5B		20					
		3								
	510.2						30.0			
Loose, moist, brown, Sand and Gravel										
		3								
		2								
	508.2									
Soft, very moist, brown, Clay Loam to Silty Clay Loam A-4										
		2								
		2	0.4S		15					
		5								
	505.2						35.0			
Hard, dry, grey and brown, Clay Shale										
			100/7"							
			100/8"							
	15.0						40.0			
			100/3"							
	497.7									
			100/4"							
	20.0						45.0			
Bottom of hole = 17.3 feet										
No free water observed										
Elevation referenced to BM# 39462 = 515.2 feet										
	25.0						50.0			

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

45

MODEL: \$MODELNAME\$
 FILE NAME: \$FILEL\$



QUIGG ENGINEERING INC

USER NAME = \$USER\$	DESIGNED - KFO	REVISED -
\$FILEL\$	CHECKED - KWB	REVISED -
PLOT SCALE = \$\$SCALE\$	DRAWN - KFO	REVISED -
PLOT DATE =	CHECKED - MDC	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
 STRUCTURE NO. 039-0081

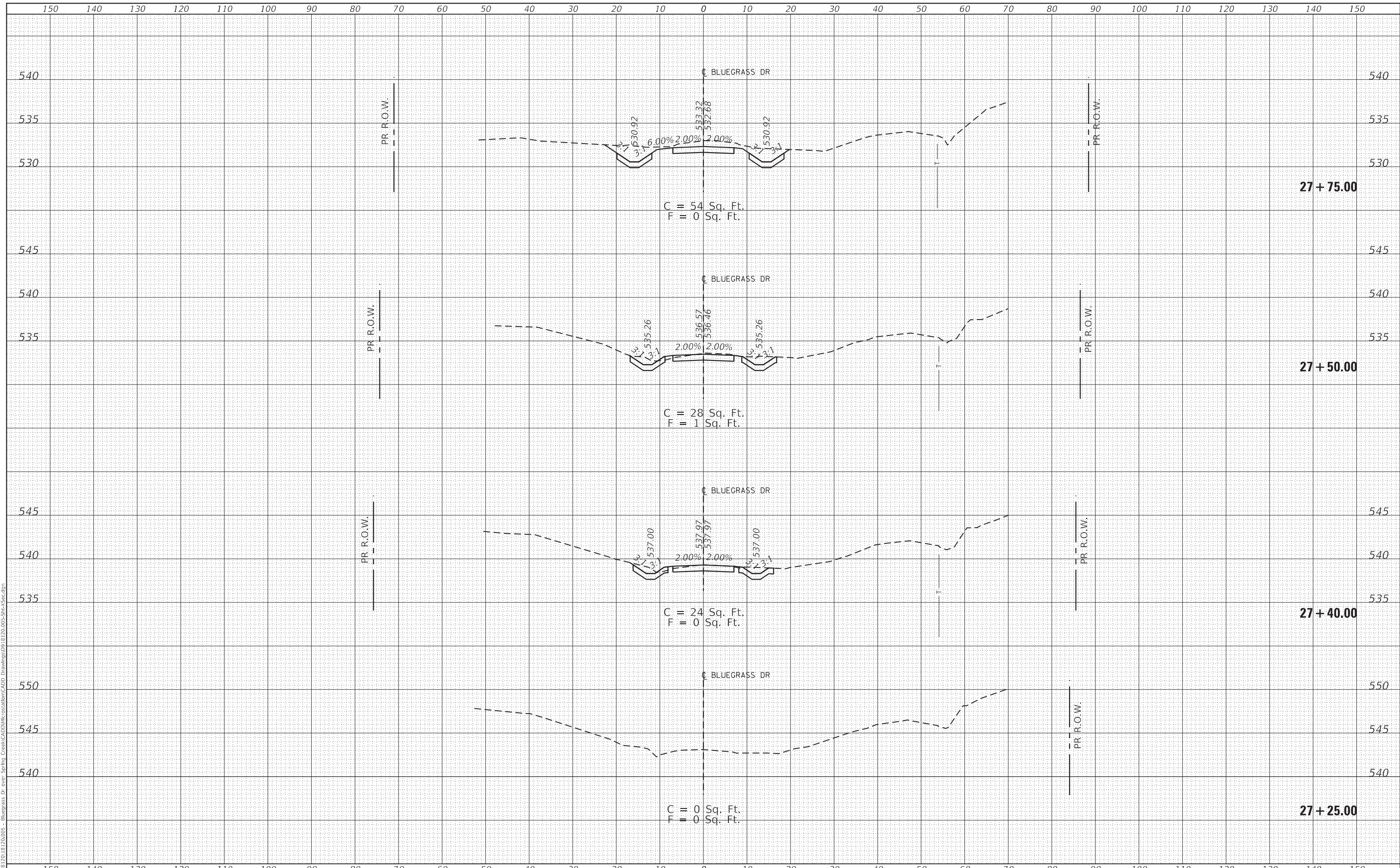
SHEET 10 OF 10 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	31
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				

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

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

MODEL: Definit
 FILE NAME: H:\18120_18120A005 - Bluegrass Dr over Spring Creek\CADD\Microstation\CADD Drawings\0918120A005-Sht-35sec.dgn



C = 54 Sq. Ft.
 F = 0 Sq. Ft.

C = 28 Sq. Ft.
 F = 1 Sq. Ft.

C = 24 Sq. Ft.
 F = 0 Sq. Ft.

C = 0 Sq. Ft.
 F = 0 Sq. Ft.

27 + 75.00

27 + 50.00

27 + 40.00

27 + 25.00



USER NAME	= rylene.wiltjes
DESIGNED	-
DRAWN	-
CHECKED	-
DATE	-
PLOT SCALE	= 20.0000' / in.
PLOT DATE	= 8/6/2020

REVISD	-
REVISD	-
REVISD	-
REVISD	-

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BLUEGRASS LANE
 CROSS SECTIONS

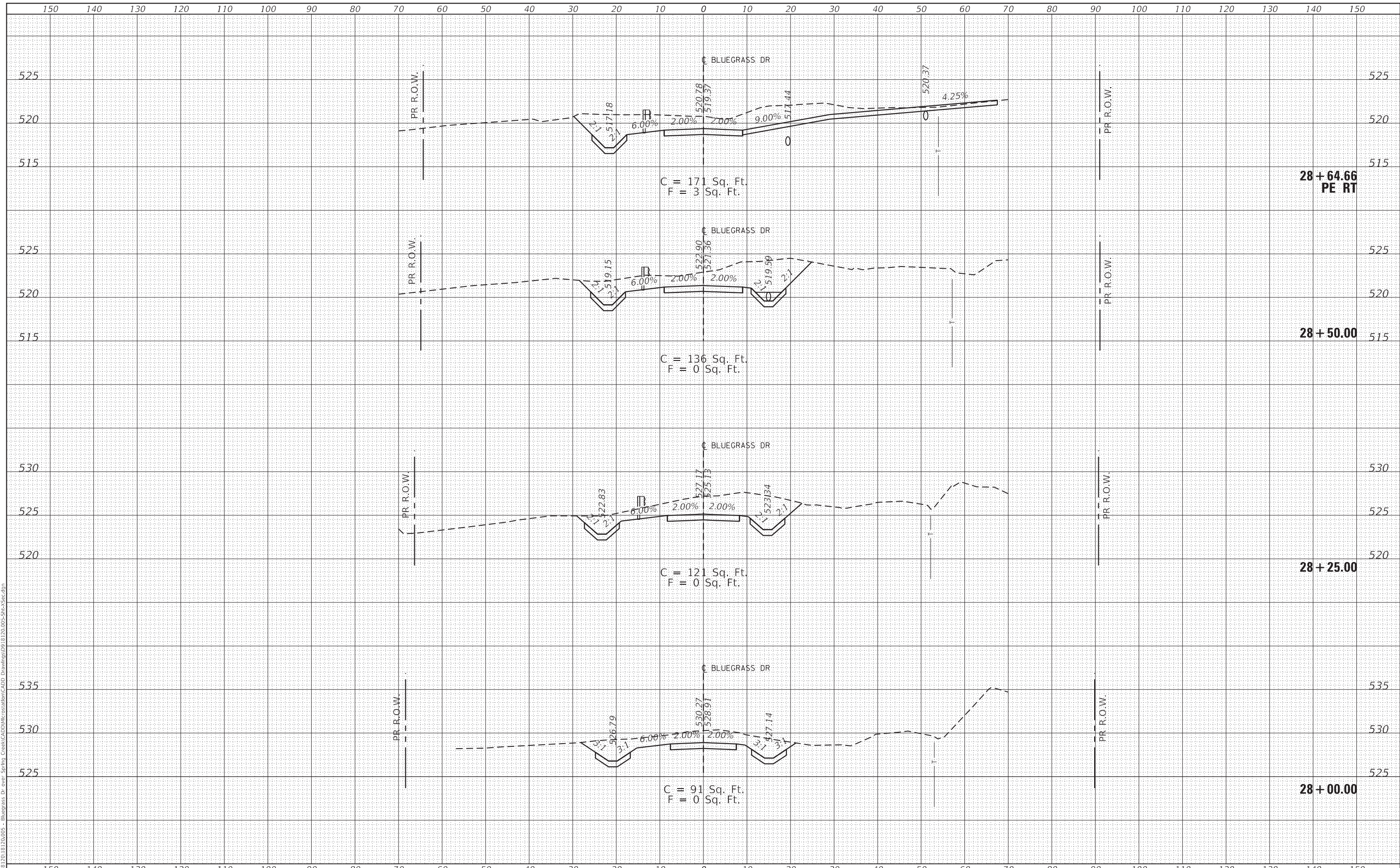
SCALE: SHEET 1 OF 4 SHEETS STA. 27+25.00 TO STA. 27+75.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	32
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				

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

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

MODEL: Definit
 FILE NAME: H:\18120_18120A005 - Bluegrass Dr over Spring Creek\CADD\MicroStation\CADD Drawings\0918120_005-Sht-35sec.dgn



USER NAME = ryme,wiltjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/6/2020	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BLUEGRASS LANE
 CROSS SECTIONS**

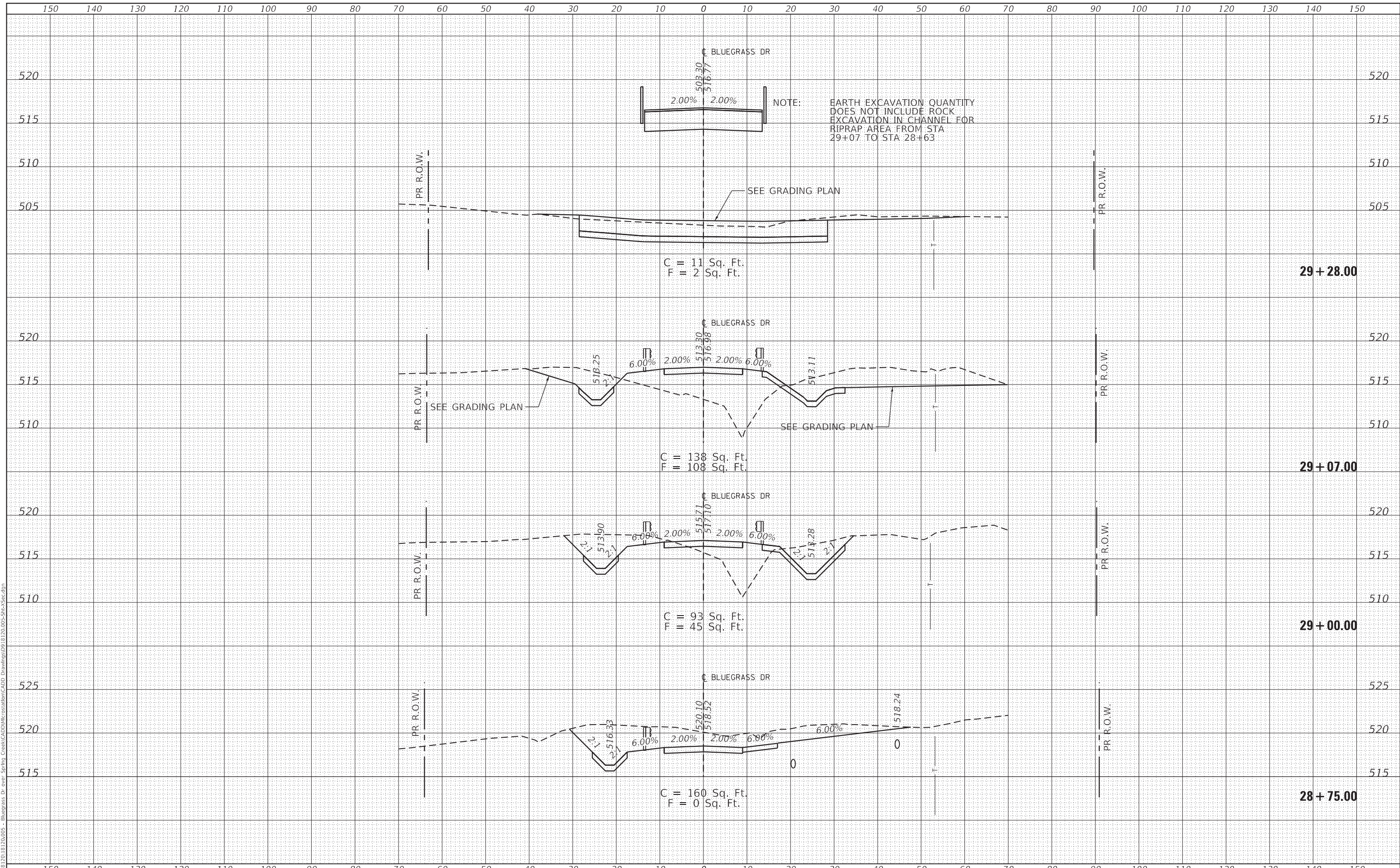
SCALE: SHEET 2 OF 4 SHEETS STA. 28+00.00 TO STA. 28+64.66

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	33
			CONTRACT NO. 78547	
			ILLINOIS FED. AID PROJECT	

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

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

MODEL: Definit
 FILE NAME: H:\18120_18120A005 - Bluegrass Dr over Spring Creek\CADD\MicroStation\CADD Drawings\0918120A005-Sht-35sec.dgn



USER NAME = ryme,wiltjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/6/2020	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BLUEGRASS LANE
 CROSS SECTIONS**

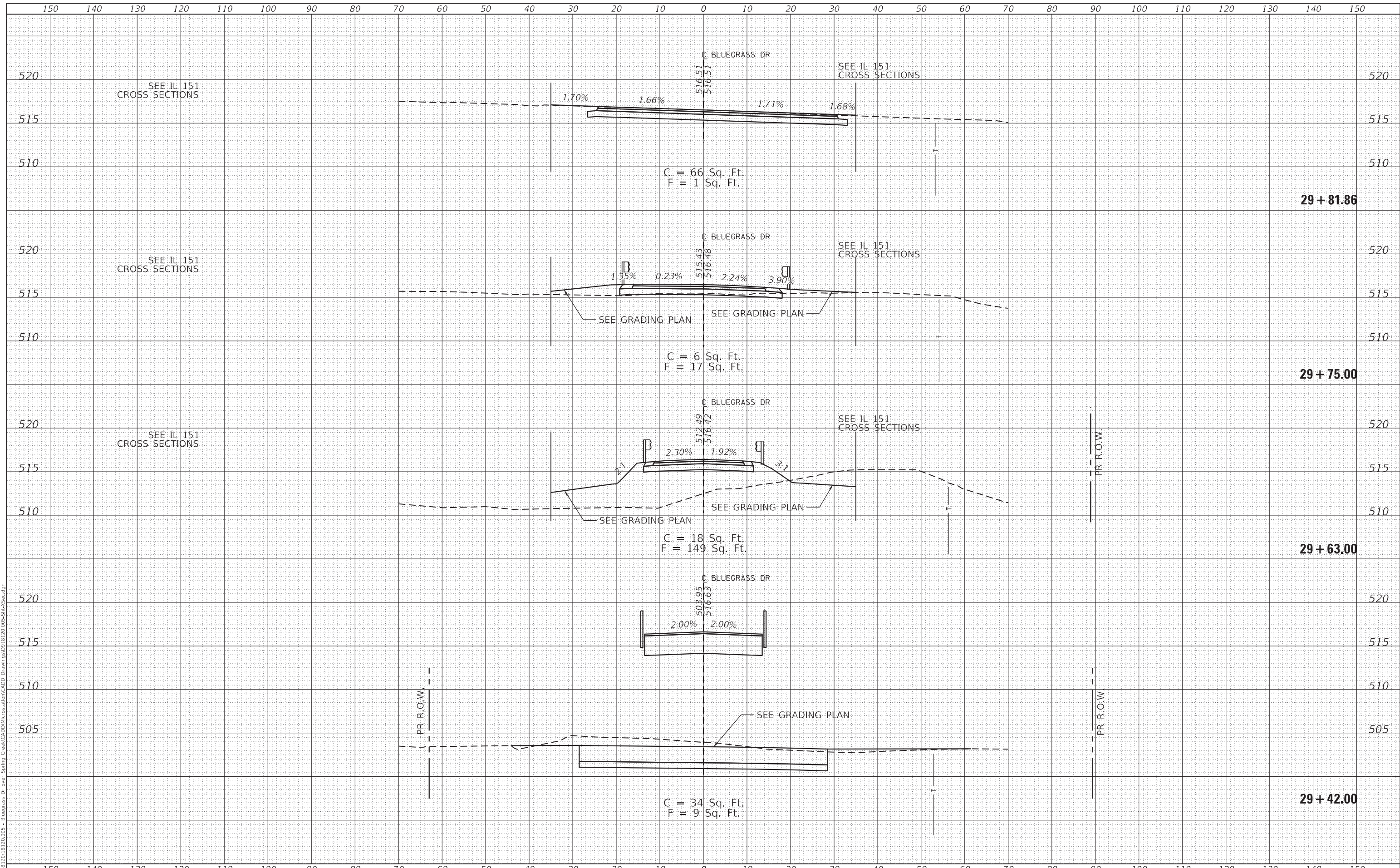
SCALE: SHEET 3 OF 4 SHEETS STA. 28+75.00 TO STA. 29+28.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	34
			CONTRACT NO. 78547	
			ILLINOIS FED. AID PROJECT	

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

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

MODEL: Definit
 FILE NAME: H:\18120_18120\05 - Bluegrass Dr - Spring Creek\CADD\Microstation\CADD Drawings\0918120_005-Sht-4Sec.dgn



USER NAME = rylene.wiltjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/6/2020	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BLUEGRASS LANE
 CROSS SECTIONS

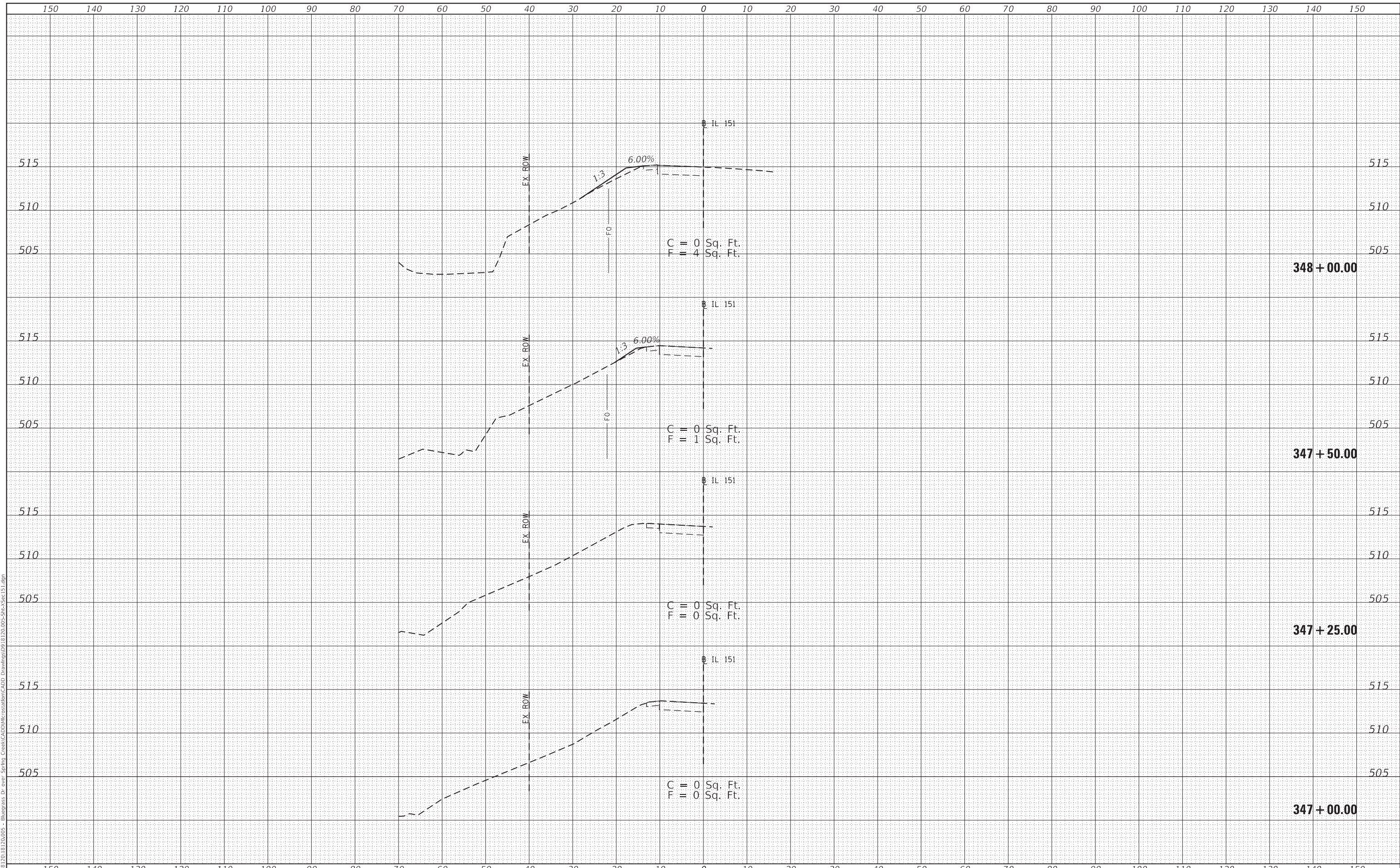
SCALE: SHEET 4 OF 4 SHEETS STA. 29+42.00 TO STA. 29+81.86

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	35
				CONTRACT NO. 78547
ILLINOIS FED. AID PROJECT				

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

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

MODEL: Definit
 FILE NAME: H:\18120_18120A\05 - Bluegrass Dr over Spring Creek\CADD\Microstation\CADD Drawings\09 18120_005-SHA-5sec IL151.dgn



USER NAME = ryme,wiltjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/6/2020	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL 151
 CROSS SECTIONS**

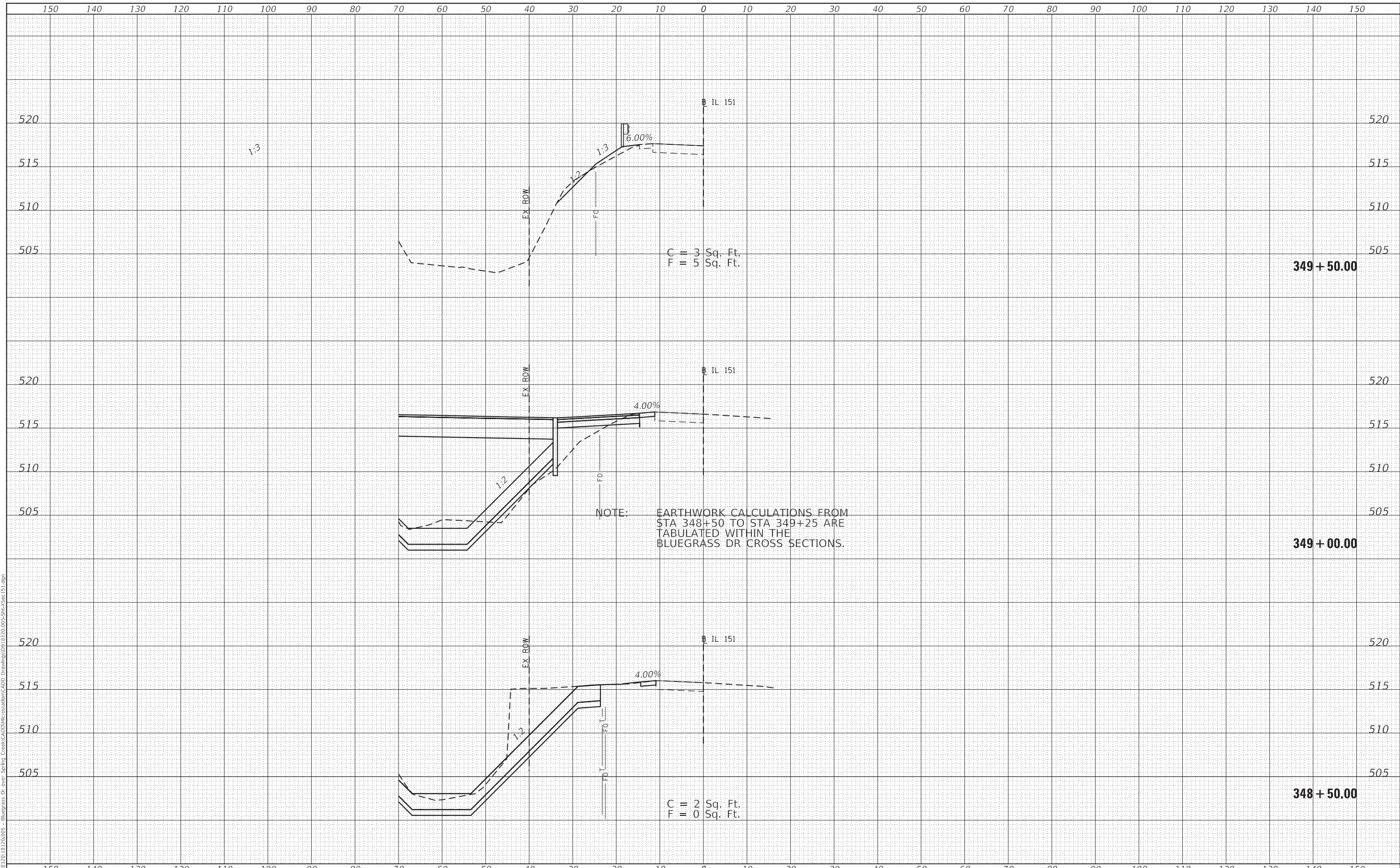
SCALE: SHEET 1 OF 3 SHEETS STA. 347+00.00 TO STA. 348+00.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	36
			CONTRACT NO. 78547	
		ILLINOIS FED. AID PROJECT		

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

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

MODEL: Definit
 FILE NAME: H:\18120_18120A\05 - Bluegrass Dr over Spring Creek\CADD\Microstation\CADD Drawings\09_18120_005-SHA-Ysect 151.dgn



USER NAME = rylene.wiltjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/6/2020	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL 151
 CROSS SECTIONS**

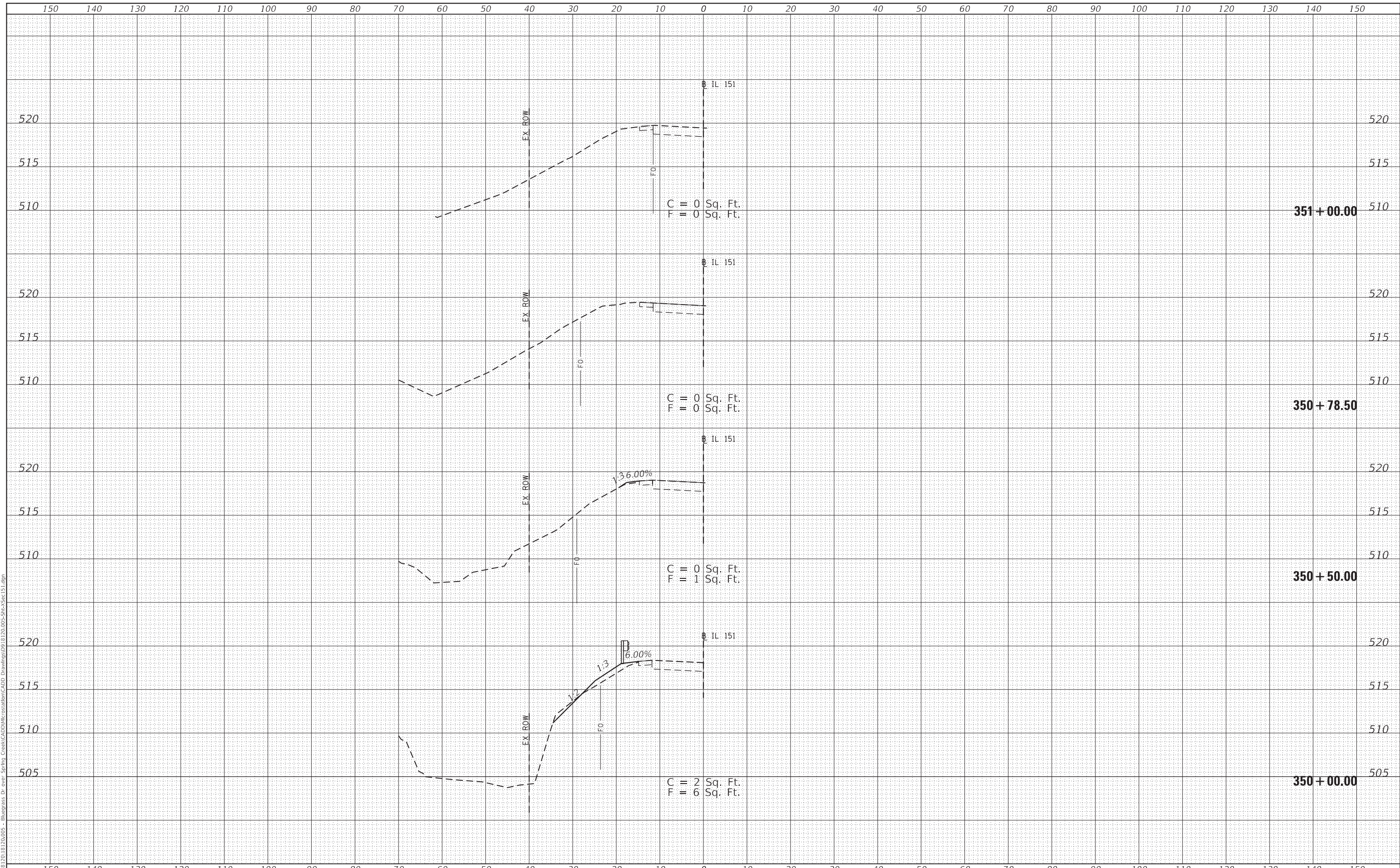
SCALE: SHEET 2 OF 3 SHEETS STA. 348+50.00 TO STA. 349+50.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	37
			CONTRACT NO. 78547	
			ILLINOIS FED. AID PROJECT	

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

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

MODEL: Definit
 FILE NAME: H:\18120_18120A\05 - Bluegrass Dr over Spring Creek\CADD\Microstation\CADD Drawings\0918120_005-Sht-3sec-151.dgn



USER NAME = ryme,wiltjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/6/2020	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL 151
 CROSS SECTIONS**

SCALE: SHEET 3 OF 3 SHEETS STA. 350+00.00 TO STA. 351+00.00

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
93A	13B-1	JACKSON	38	38
CONTRACT NO. 78547				
ILLINOIS FED. AID PROJECT				