

F.A.S. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 221	*	MERCER	11	1
ILLINOIS PROJECT				

INDEX OF SHEETS

- 1. COVER SHEET
- 2. TYPICAL SECTION
- 3.-5. GENERAL NOTES, SUMMARY OF QUANTITIES, AND SCHEDULES
- 6.-7. DETAILS
- 8.-14. PLAN AND PROFILE
- CROSS SECTIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED
LOCAL AGENCY IMPROVEMENT

PLAN 1 INCH = 100 FEET
 PROFILE HOR. 1 INCH = 100 FEET
 PROFILE VERT. 1 INCH = 10 FEET
 CROSS SECTIONS 1 INCH = 5 FEET

RS-221(104)

* 01-00093-00-RS

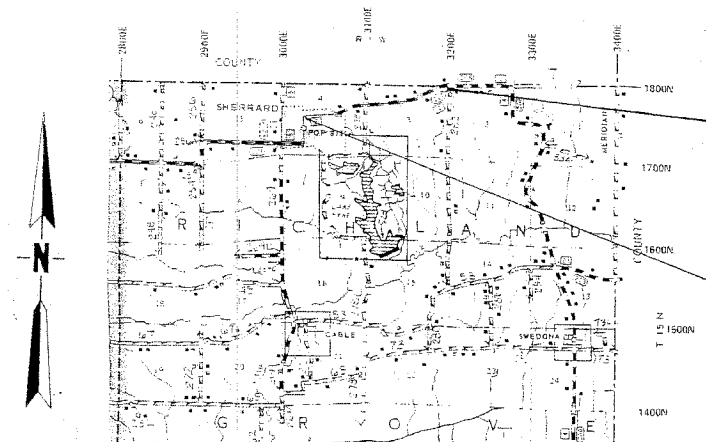
CONTRACT 89315

FAS ROUTE 221 SECTION 01-00093-00-RS COUNTY: MERCER
 Sherrard Road
 PROJECT RS-221(104)

3R GUIDELINES

STANDARDS

000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-02	TEMPORARY EROSION CONTROL SYSTEMS
542301 -	PRECAST REIN. CONC. FLARED END SECTIONS
701001-01	OFF ROAD OPERATION 2L-2W 15MIN AWAY 45 MPH
701006-02	OFF ROAD OPERATION 2L-2W 15' TO PVT EDGE 45 MPH
701011-01	OFF ROAD OPERATION 2L-2W DAY ONLY 45 MPH
701201-02	LANE CLOSURE 2L-2W DAY ONLY ON RD TO 24' OFF RD 45 MPH
701301-02	LANE CLOSURE 2L-2W SHORT TIME OPERATIONS
701306-01	LANE CLOSURE 2L-2W SLOW MOVE OPS DAY ONLY 45 MPH
701311-02	LANE CLOSURE 2L-2W MOVING OPERATIONS DAY ONLY
701501-03	URBAN LANE CLOSURE 2L-2W UNDIVIDED
702001-06	TRAFFIC CONTROL DEVICES
780001-01	TYPICAL PAVEMENT MARKINGS

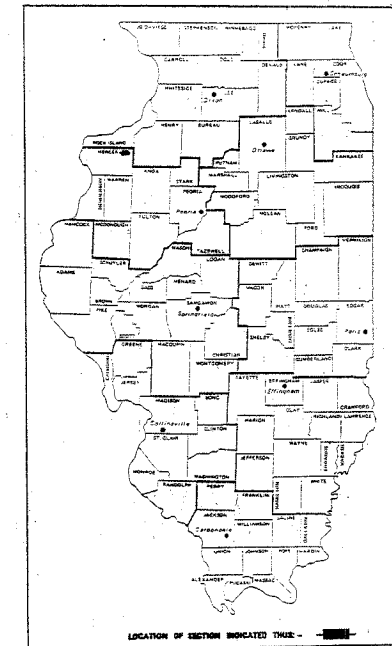


LOCATION MAP

END PROJECT
STATION 98+00

BEGIN PROJECT
STATION 0+00

IMPROVEMENT CONSISTS OF RESURFACING
2 MILES OF ROADWAY.



LOCATION OF SECTION INDICATED THERE -

QC/QA BITUMINOUS SUPERPAVE PROJECT

JOB NO. - C-94-102-03

CONTRACT - 89315

FUNCTIONAL CLASSIFICATION - MAJOR COLLECTOR

TRAFFIC - 2275 ADT (2014)

DESIGN SPEED - 50 MPH

VARIANCES GRANTED = NONE

UTILITY LOCATION: J.U.L.I.E. 1-800-892-0123

GROSS LENGTH OF SECTION - 9800.00 FEET (1.856 MI.)

NET LENGTH OF SECTION - 9800.00 FEET (1.856 MI.)



Star L. Rheynard
3-14-05
MY LICENSE EXPIRES 11-30-05

APPROVED	<i>April 4, 2005</i> <i>Star L. Rheynard</i> COUNTY ENGINEER
PASSED	<i>April 11, 2005</i> <i>L. Scott DeBelle</i> DISTRICT FOUR ENGINEER OF LOCAL ROADS & STREETS
Releasing For	<i>Blume</i> 20 05
Bid Based on	<i>Blume</i> 20 05
Limited Review	<i>Blume</i>
DEPUTY DIRECTOR OF HIGHWAYS, REGION THREE ENGINEER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	

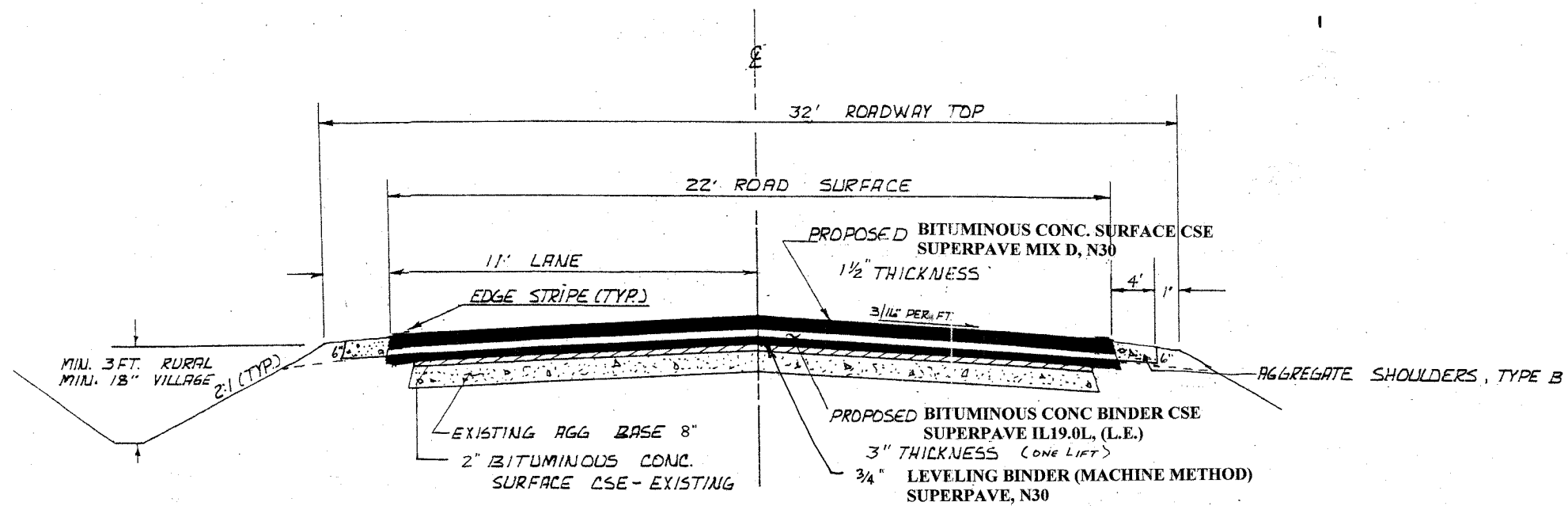
Cat. # 032808 - 00D

F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 221	*	MERCER	11	2

* 01-00093-00-RS

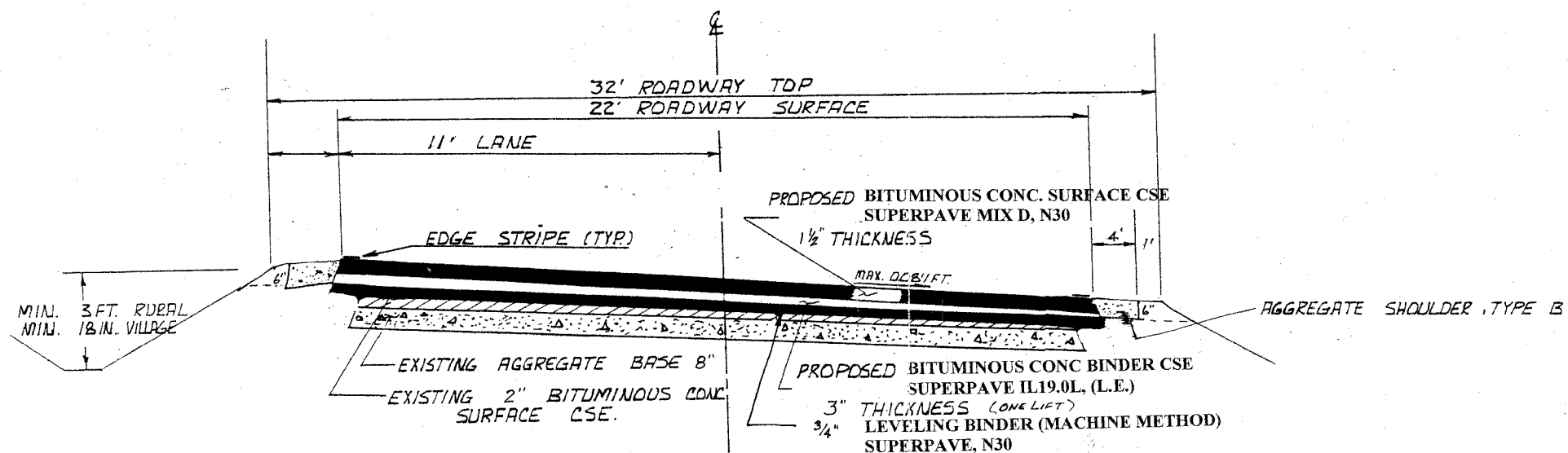
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PROPOSED TYPICAL SECTION

0+00-18+52
24+88-30+25
45+45-53+02
60+09-69+10
76+21-87+15
94+27-98+00



PROPOSED TYPICAL SECTION

STATION 18+52 TO STATION 24+88 (S.E.=0.054 1/1)
30+25 45+45 (S.E.=0.026 1/1)
53+02 60+09 (NORMAL CROWN)
69+10 76+21 (S.E.=0.052 1/1)
87+15 94+27 (S.E.=0.053 1/1)

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SUMMARY OF QUANTITIES
CONSTRUCTION TYPE CODE: 1000

ITEM	CODE	UNIT	QUANTITY
FURNISHED EXCAVATION	20400800	CU YD	1374
SEEDING, CLASS 2 (SPECIAL)	25001000	ACRE	0.9
EROSION CONTROL BLANKET	25100630	SQ YD	4400
AGGREGATE SURFACE COURSE, TYPE B	40200800	TON	400
BITUMINOUS MATERIALS (PRIME COAT)	40600100	GALLON	3600
TEMPORARY RAMP	40600990	SQ YD	10
INCIDENTAL BITUMINOUS SURFACING	40800040	TON	540
BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)	44000030	SQ YD	489
AGGREGATE SHOULDERS, TYPE B	48101200	TON	3000
PRECAST REINFORCED CONCRETE FLARED END SECTION 12"	54213657	EACH	1
STORM SEWER CLASS A, TYPE 1 12"	550A0050	FOOT	20
INLETS TO BE RECONSTRUCTED	60262700	EACH	1
FRAME AND LIDS ADJUSTMENT	60300105	EACH	4
TRAFFIC CONTROL AND PROTECTION	70101700	L.S.	1
SHORT-TERM PAVEMENT MARKING	70300100	FOOT	4000
WORK ZONE PAVEMENT MARKING REMOVAL	70301000	SQ FT	350
PAINT PAVEMENT MARKING-LINE 4"	78001110	FOOT	36275
BITUMINOUS BASE COURSE, SUPERPAVE, VARIABLE DEPT	X3551100	SQ YD	510
BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIX D, N30	X4066422	TON	2022
BITUMINOUS CONCRETE BINDER COURSE SUPERPAVE, IL19.0L (LOW ESAL)	X4066630	TON	4040
LEVELING BINDER (MACHINE METHOD), SUPERPAVE, N30	X4066760	TON	2914

FRAME AND LID ADJUSTMENT SCHEDULE

LOCATION	TYPE	QUANTITY
STA 1+49 13' RT	MH	1 EACH
STA 4+77 14' RT	WV	1 EACH
STA 5+03 15' RT	MH	1 EACH
STA 8+57 11.5' RT	MH	1 EACH
TOTAL=		4 EACH

GENERAL NOTES:

The roadway was originally constructed under FAS Section 41G. The roadway was reconstructed under section 01-00093-00-DR. Cross sections are in section 41G except those sections modified under Section 01-00093-00-DR.

Seeding shall be of all areas Disturbed by construction.

BITUMINOUS MIXTURE REQUIREMENTS

The following mixture requirements are applicable for this project.

Mixture Uses:	Bituminous Base Course	Bituminous Surface Course / Incidentals Bituminous Surfacing	Bituminous Concrete Binder Course	Leveling Binder (Machine Method)
ADPS:	PG 58-22	PG 58-22	PG 58-22	PG 58-22
RAP % (Max)**	25%	20%	20%	20%
Design Air Voids:	4.5% @ N _{max} =30	3.0% @ N _{max} =30	4.0% @ N _{max} =50	3.0% @ N _{max} =30
Mixture Composition (Gradation Method)	IL 19.0	IL 9.5L (Low ESAL)	IL 19.0L (Low ESAL)	IL 9.5L (Low ESAL)
Fraction Aggregate:	N/A	Mixture 2	N/A	N/A

** If > 15% RAP is used, the contractor may be required to use a softer grade of asphalt as determined by the Materials Engineer.

AGGREGATE SHOULDERS SCHEDULE

STA-STA	A. SH	TB
0-98+00 RT	1500	
0-98+00 LT	1500	
TOTAL	3000	

EROSION CONTROL BLANKET & SEEDING SCHEDULE

STA-STA	E.C. BL.	SEED CL 2 SP
0-98+00 RT	2200	0.45
0-98+00 LT	2200	0.45
TOTAL	4400	0.9

PAVEMENT DESIGN

PAVEMENT:
DESIGN PERIOD: 20 YEARS
STRUCTURAL DESIGN TRAFFIC: YEAR 2014
PV= 2206, SU= 46, MU= 23
ROAD CLASSIFICATION: CLASS II
PER CENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE: 50
P=97.0, S= 2.0, M= 1.0
TRAFFIC FACTOR= 0.116
MINIMUM SOIL SUPPORT: IBR= 3
STRUCTURAL NUMBER: Dt= 2.95
PAVEMENT STRUCTURE:
SURFACE TYPE: BIT., MIN STRENGTH 1700, A1= 0.40
BASE TYPE: BIT., MIN STRENGTH 1500, A2=0.30
SUBBASE TYPE: AGGREGATE, MIN STRENGTH IBR=30, A3=0.10

LEVELING BINDER SUMMARY

STA-STA	TOTAL	PLAN	LT	RT	1ST LIFT	
					LT	RT
0-17+19	398.1	398	250	148		
17+19-19+19	107.1	107	28	79		
19+19-26+22	334.8	335	74	261		
26+22-28+92	54.7	55	19	36		
28+92-46+00	342.3	342	180	162	34	
46+00-53+02	138.2	138	71	67		
53+02-61+00	377.3	377	254	123	109	
61+00-68+00	167.9	168	109	59		
68+00-76+21	319.5	320	88	232		
76+21-86+00	236.2	236	135	101		
86+00-96+00	422.4	422	312	110	137	
96+00-96+90	15.8	16	6	10		
TOTAL	2914.3	2914 TONS				

SCHEDULES
BITUMINOUS MATERIALS SCHEDULE

LOCATION	BIT C S.C. SUPER, MIX D	BIT BIND C.S. SUPER	LEVEL BINDER MM SUPER	PRIME
00+00-17+19 LT	177	354	250	315
17+19-19+19 LT	21	41	28	37
19+19-26+22 LT	73	145	74	130
26+22-28+92 LT	28	56	19	50
28+92-46+00 LT	176	352	180	313
46+00-53+02 LT	72	145	71	129
53+02-61+00 LT	83	165	254	147
61+00-68+00 LT	72	144	109	128
68+00-76+21 LT	85	169	88	150
76+21-86+00 LT	101	202	135	180
86+00-96+00 LT	103	206	312	183
96+00-96+90 LT	9	19	6	18
96+90-98+00 LT	11	22	0	20
0+00-17+19 RT	177	354	148	315
17+19-19+19 RT	21	41	79	37
19+19-26+22 RT	73	145	261	130
26+22-28+92 RT	28	56	36	50
28+92-46+00 RT	176	352	162	313
46+00-53+02 RT	72	145	67	129
53+02-61+00 RT	83	165	123	147
61+00-68+00 RT	72	144	59	128
68+00-76+21 RT	85	169	232	150
76+21-86+00 RT	101	202	101	180
86+00-96+00 RT	103	206	110	183
96+00-96+90 RT	9	19	10	18
96+90-98+00 RT	11	22	0	20
TOTAL	2022	4040	2914	3600

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BITUMINOUS MATERIALS RATE OF APPLICATION	
TYPE OF BASE	
BITUMINOUS PRIME	0.08 GAL/SQ YD.
BITUMINOUS MATL	112 LBS/IN/SQ YD.

BITUMINOUS BASE CSE	SCHEDULE VAR. DEPTH
STA 96+00-96+90 LT	115
STA 96+90-98+00 LT	140
STA 96+00-96+90 RT	115
STA 96+90-98+00 RT	140
TOTAL	510

PAINT PAVEMENT MARKING SCHEDULE

LOCATION	TYPE	QUANTITY	
		CENTERLINE YELLOW	EC OR CW WHITE
EBL STA 0+00-47+00	NP	4700'	4700'
EBL STA 47+00-62+00	I	375'	1500'
EBL STA 62+00-98+00	NP	3600'	3600'
WBL STA 0+00-30+00	NP	3000'	3000'
WBL STA 30+00-38+00	I	200'	800'
WBL STA 38+00-56+00	NP	1800'	1800'
WBL STA 62+00-70+80	I	220'	1480'
WBL STA 70+80-98+00	NP	2720'	2720'
CROSSWALK STA 12+35	CW	0	60'
		16615'	19660'
GRAND TOTAL			36275'

ENTRANCES, SIDEROADS, ALLEYS AND MAILBOXES SCHEDULE

<u>LOCATION</u>	<u>TYPE</u>	<u>AGG S. CSE TB</u>	<u>INC. BIT S.</u>
STA 1+37 LT	PE	2	5
STA 1+37 RT	SR	5	20
STA 1+73 LT	MB	11	2.5
STA 2+75 RT	PE	2	5
STA 3+00 LT	PE	2	5
STA 3+20 LT	MB	11	2.5
STA 3+20 RT	MB	11	2.5
STA 3+25 LT	PE	2	5
STA 3+25 RT	AL	2	5
STA 3+40 RT	PE	2	5
STA 4+00 LT	PE	2	5
STA 5+03 LT	SR	5	20
STA 5+03 RT	SR	5	20
STA 6+54 RT	PE	2	5
STA 6+81 RT	SR	5	20
STA 7+00 RT	PE	2	5
STA 7+63 RT	PE	2	5
STA 8+59 RT	SR	5	20
STA 8+70 LT	PE	2	5
STA 10+37 RT	AL	2	5
STA 10+56 LT	CE	4	15.5
STA 10+61 LT	PE	2	5
STA 12+15 RT	SR	5	20
STA 13+15 LT	CE	4	17
STA 13+18 RT	PE	2	5
STA 14+29 LT	DCE	8	34
STA 14+29 RT	SR	5	20
STA 16+29 RT	SR	5	20
		117	304.0

ENTRANCES, SIDEROADS, ALLEYS AND MAILBOXES SCHEDULE, CONT'D

<u>LOCATION</u>	<u>TYPE</u>	<u>AGG S CSE TY B</u>	<u>INC. BIT S.</u>
STA 16+42 LT	CE	4	17
STA 17+29 RT	PE	2	5
STA 17+60 RT	MB	11	2.5
STA 18+00 LT	CE	2	17
STA 18+00 RT	AL	2	5
STA 19+65 RT	PE	2	5
STA 19+70 RT	MB	11	2.5
STA 19+73 RT	PE	2	5
STA 21+58 LT	FE	4	
STA 23+87 LT	FE	4	
STA 24+73 RT	PE	2	5
STA 28+15 LT	FE	4	
STA 30+10 RT	MB	11	2.5
STA 30+70 LT	SR	5	20
STA 34+18 LT	FE	4	
STA 36+51 RT	FE	4	
STA 36+60 LT	FE	4	
STA 37+98 RT	PE	2	5
STA 38+10 RT	MB	11	2.5
STA 42+81 LT	SR	5	20
STA 42+81 RT	SR	5	20
STA 44+00 RT	CE	4	17
STA 50+35 RT	FE	4	
STA 50+40 LT	FE	4	
STA 52+67 RT	FE	4	
STA 54+79 LT	PE	2	5
STA 54+79 RT	MB	11	2.5
STA 55+82 RT	FE	4	
STA 56+00 LT	FE	4	
STA 58+50 RT	PE	2	5
STA 58+70 RT	MB	11	2.5
		151	166

ENTRANCES, SIDEROADS, ALLEYS AND MAILBOXES SCHEDULE, CONT'D

<u>LOCATION</u>	<u>TYPE</u>	<u>AGG S CSE TY B</u>	<u>INC. BIT S.</u>
STA 59+60 RT	FE	4	
STA 60+20 LT	PE	2	
STA 60+20 RT	MB	11	5
STA 63+44 RT	PE	2	2.5
STA 63+59 RT	MB	11	5
STA 64+10 LT	PE	2	2.5
STA 67+00 LT	PE	2	5
STA 67+10 RT	MB	11	5
STA 68+62 RT	MB	11	2.5
STA 68+80 RT	PE	2	2.5
STA 69+20 LT	PE	2	5
STA 69+67 RT	MB	11	5
STA 69+82 LT	PE	2	2.5
STA 80+53 RT	PE	2	5
STA 80+70 RT	MB	11	5
STA 81+50 RT	FE	4	2.5
STA 82+00 LT	FE	4	
STA 85+00 LT	PE	2	
STA 85+00 RT	MB	11	5
STA 86+29 LT	FE	4	2.5
STA 91+75 RT	FE	4	
STA 96+05 LT	FE	4	
STA 97+20 LT	PE	2	5
STA 97+20 RT	MB	11	2.5
		132	70
		151	166
		117	304.0
		400	540.0

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FAS 221	*	MERCER	11	6
ILLINOIS PROJECT			RS-221(10*)	

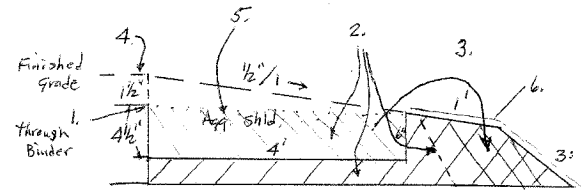
Furnished Excavation

Suggested Construction Sequence:

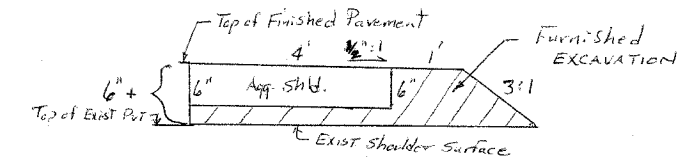
1. Construct bituminous pavement through the binder course, setting class 2 barricades with proper leg length at 100' centers along the edge of pavement anytime the drop off at the edge of pavement exceeds 2".
2. Place dirt fill on shoulder over 4' in width and compact.
3. Mill out the dirt to a depth of 4 1/2" at the edge of pavement through 6" at 4' from the edge of pavement at the correct slope from the final pavement surface elevation leaving a 6" wall of dirt to place shoulder rock against, replace barricades and finish dirtwork on the shoulder including the slopes.
4. Finish bituminous surface course.
5. Place aggregate shoulder and final grade if necessary.
6. Seed disturbed or bare part of shoulder and slope. Place erosion blanket.

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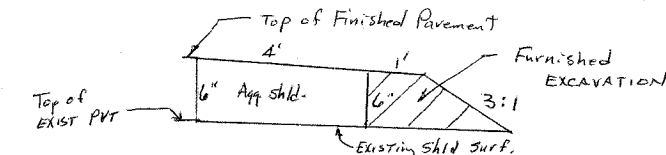


Shoulder Sequence Chart



TYPICAL SHOULDER SECTION

where proposed pavement is 6" above existing pavement at edge of pavement. Most of the pavement is this way due to low edge of pavement grades.



TYPICAL SHOULDER SECTION

where proposed pavement is 6" above existing pavement at edge of pavement.

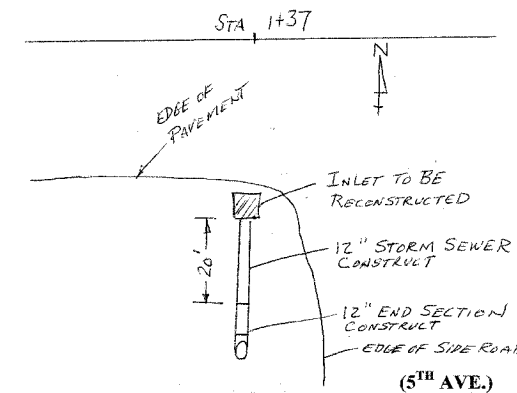
If the contractor desires to do other than the suggested construction sequence he will supply the Engineer with a written proposal of his sequence for review and approval prior to any construction.

FURNISHED EXCAVATION SCHEDULE

RT STA 0-31+00	267 CY
RT STA 31+00-74+00	247 CY
RT STA 74+00-98+00	133 CY
LT STA 0-38+00	240 CY
LT STA 38+00-72+50	231 CY
LT STA 72+50-98+00	256 CY
TOTAL	1374 CY

3'x 3' INLET SPECIAL
21' RT STA 1+37

INLET AND STORM SEWER DETAIL



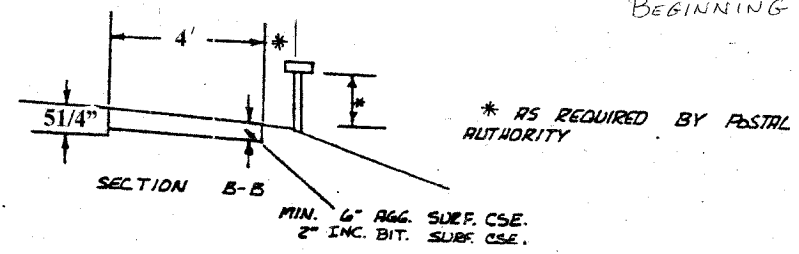
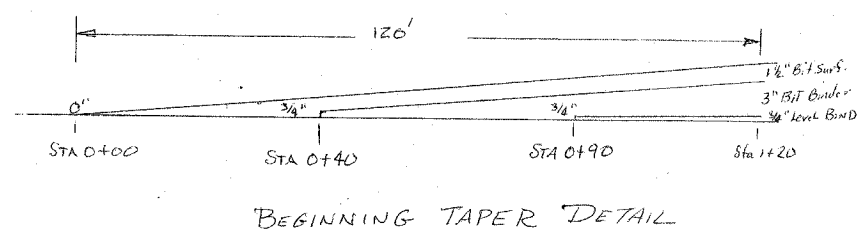
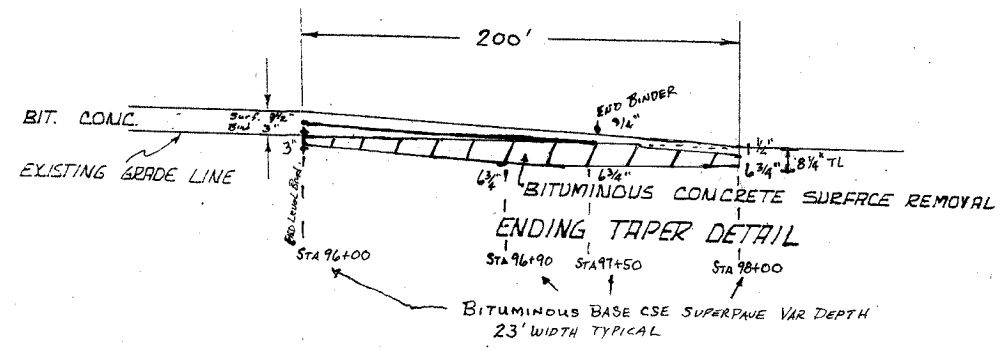
SEE SPECIAL PROVISIONS
SHEET SP7

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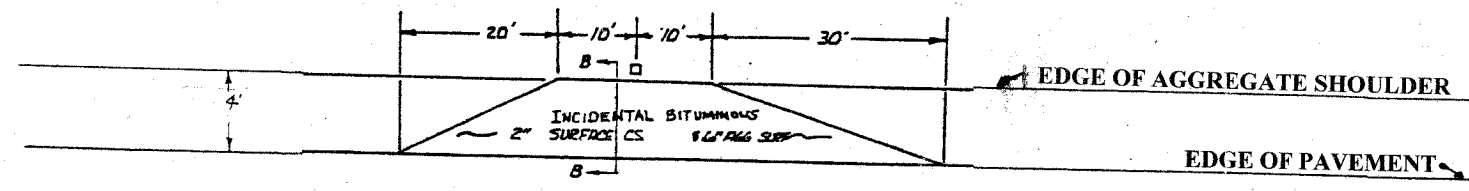
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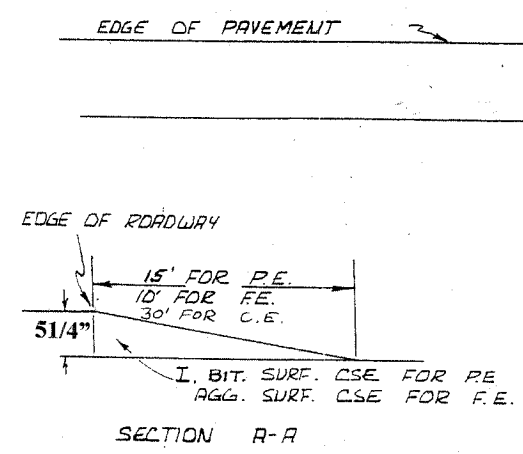
MAIL BOX TURNOUT DETAIL



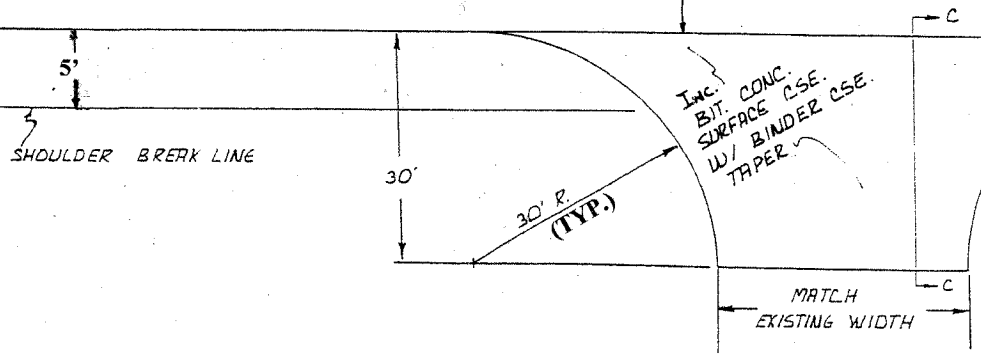
← FLOW OF TRAFFIC

CENTER LINE OF ROAD

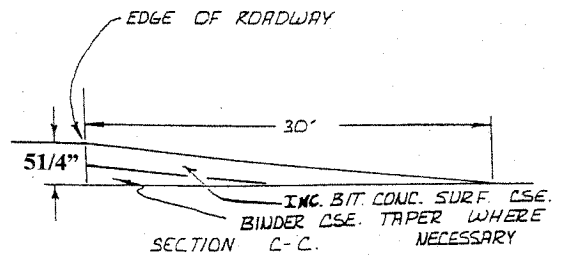
FLOW OF TRAFFIC →



ENTRANCE DETAIL
FOR ENTRANCE LOCATIONS
SEE SCHEDULE ON SHEET 5 OF 11



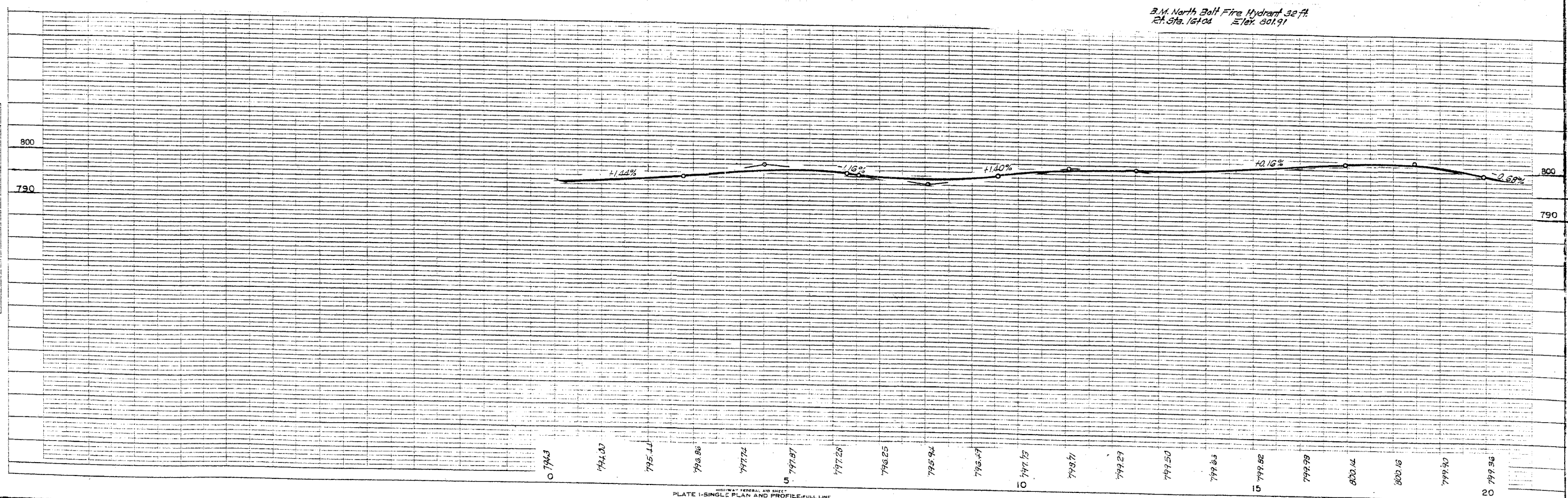
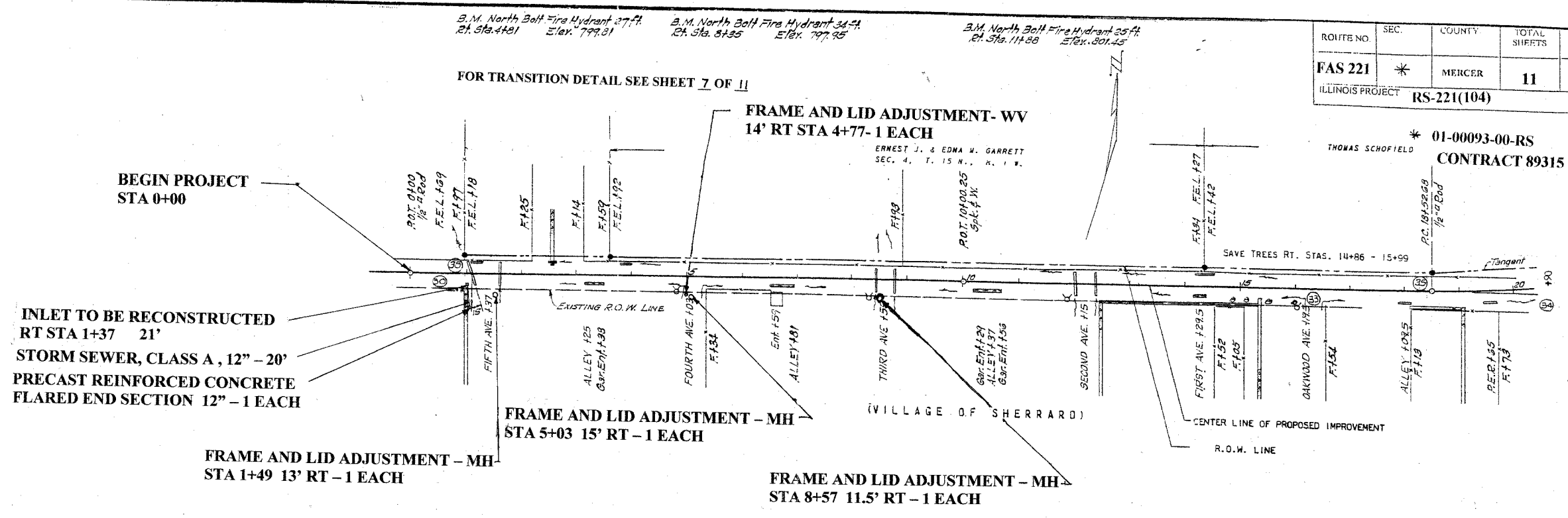
SIDE ROAD DETAIL
FOR SIDEROAD LOCATIONS
SEE SCHEDULE ON SHEET 5 OF 11



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THOMAS SCHOFIELD * 01-00093-00-RS
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NOTE: CHECK QUANTITY OF MATERIALS TO BE ORDERED.

CURVE DATA
 P.I. 21474.16
 I. 20°40'
 D. 1°15'
 L. 3214.8
 E. 635.88
 T. 29.06
 R. 1763.07

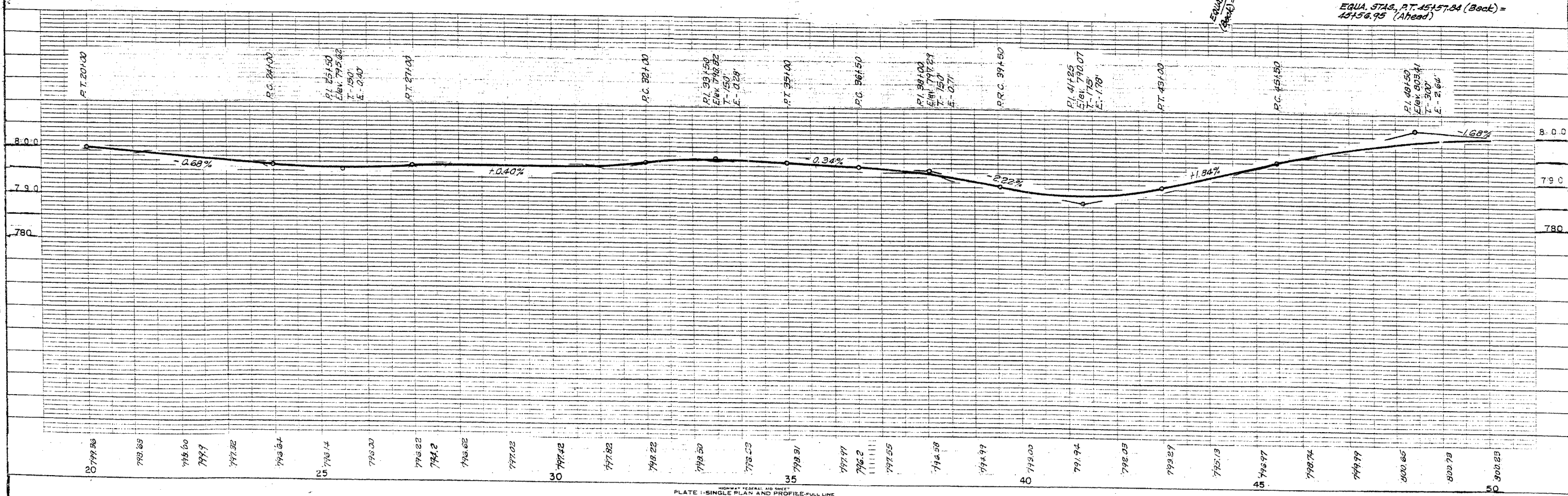
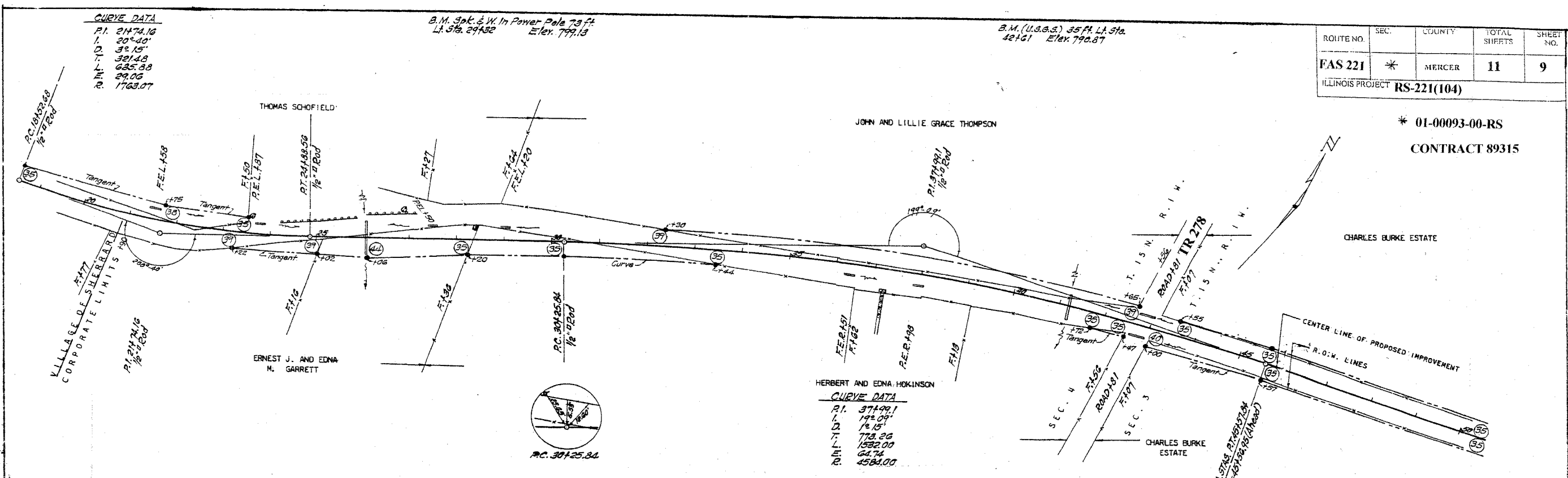
B.M. Spk. & W. In Power Pole 73 ft
 Lt Sta. 29432 Elev. 799.13

B.M. (U.S.G.S.) 35 FT. L.A. Sta.
 42161 Elev. 790.87

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B.M. Spk. & W. In Root of Oak Tree
 73 Ft. 21.56 Elev. 547.00 Elev. 794.97

B.M. Spk. & W. In Gate Post 59 Ft.
 Lt. Sta. 694.97 Elev. 800.32

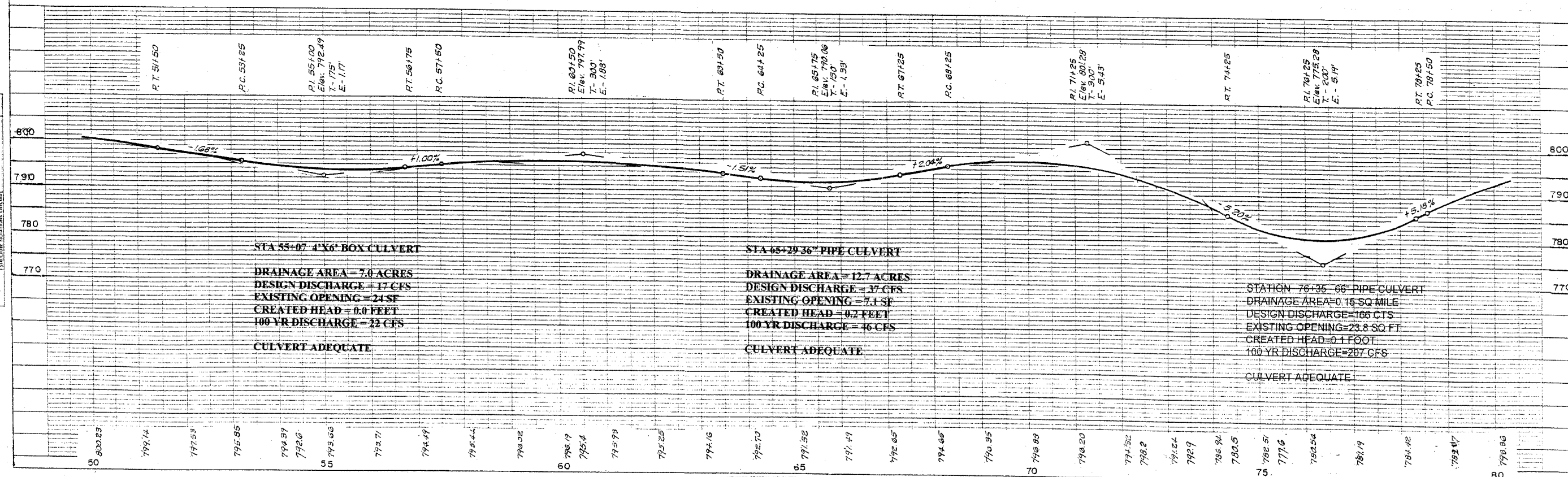
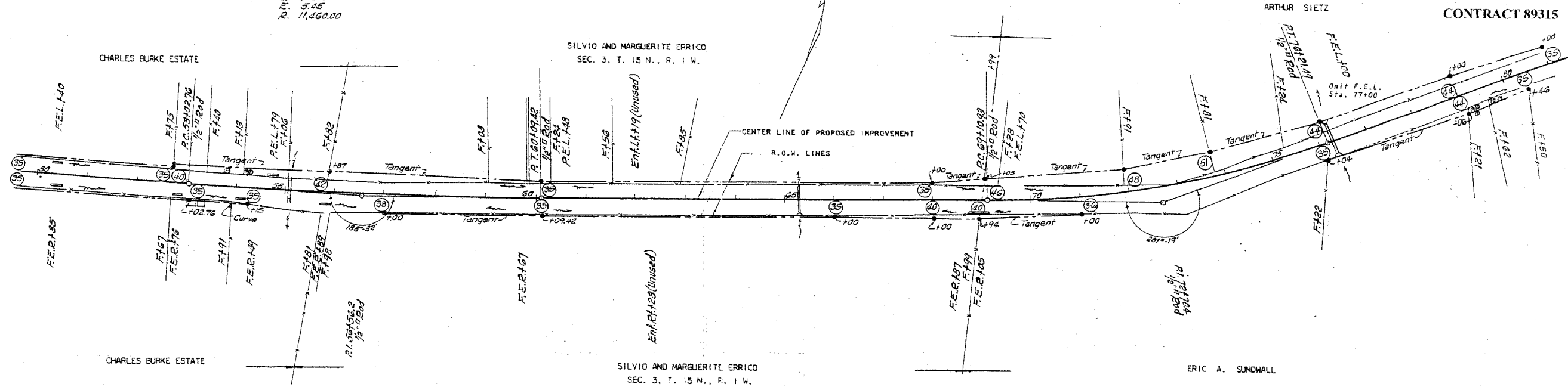
CURVE DATA
 P.I. 56+56.2
 I. 3° 32'
 D. 0° 30' 00"
 L. 353.24
 E. 706.66
 F. 5.45
 R. 11,460.00

CURVE DATA
 P.I. 78+70.4
 I. 2° 19'
 D. 5° 00'
 L. 359.47
 E. 710.56
 F. 33.32
 R. 1910.00

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 221	*	MERCER	11	10

ILLINOIS PROJECT RS-221(104)

* 01-00093-00-RS
 CONTRACT 89315



ALL DIMENSIONS SHOWN ARE AS SHOWN UNLESS OTHERWISE NOTED.
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B.M. Spk. & W. In Power Pole 63 ft.
Rt. Sta. 80+75 Elev. 798.13

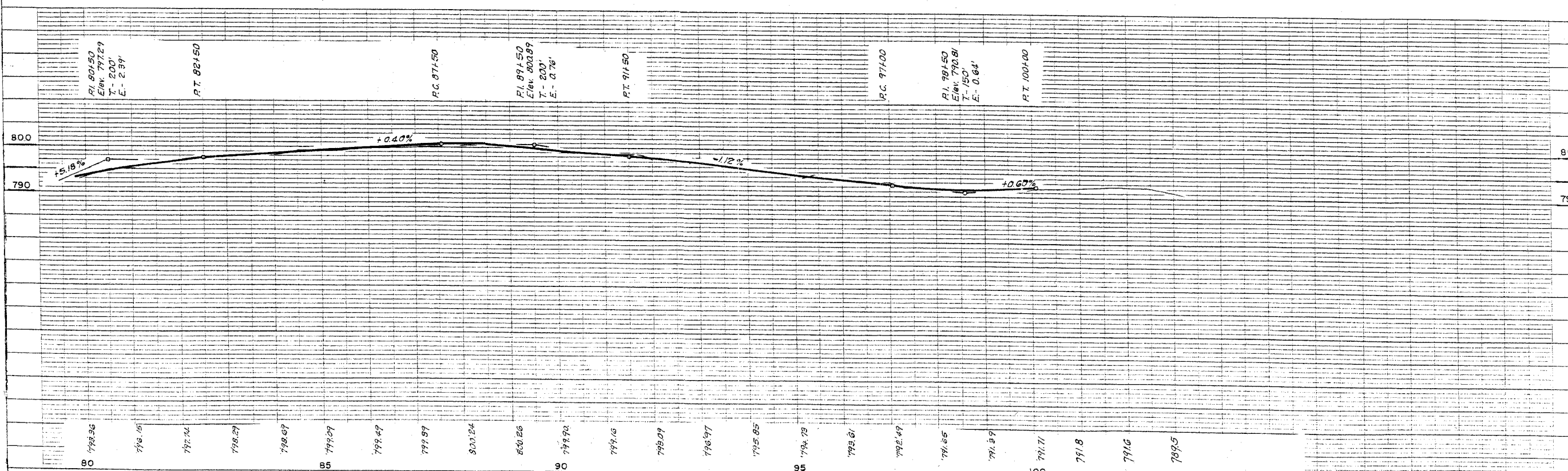
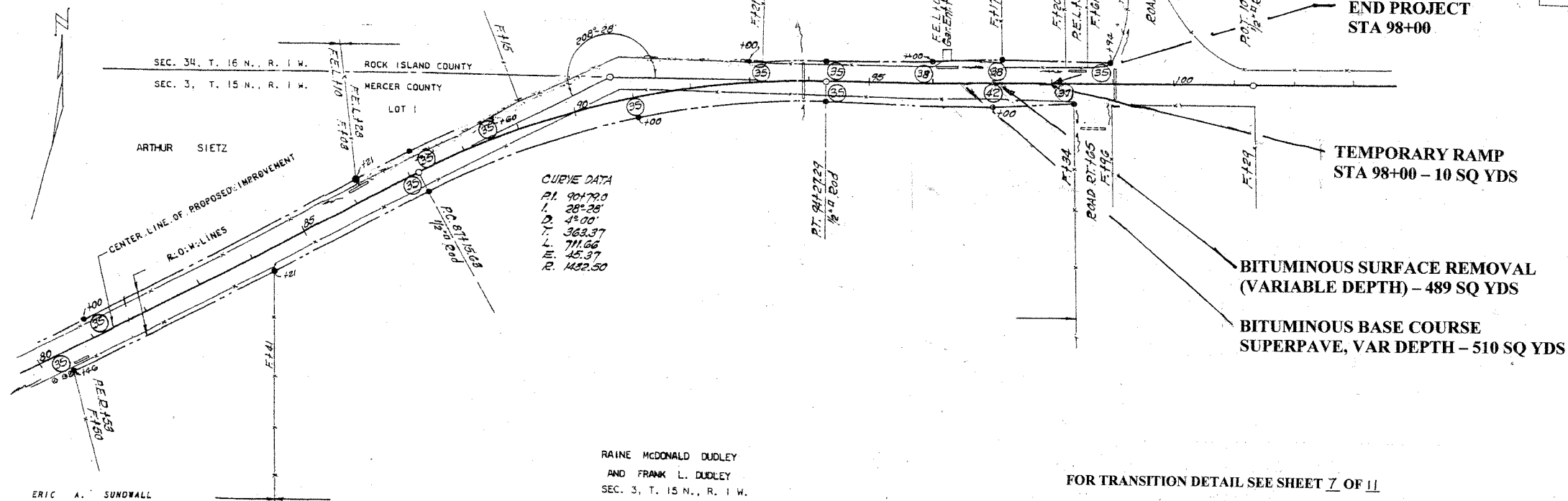
B.M. Spk. & W. In Power Pole 36 ft.
Rt. Sta. 92+50 Elev. 795.34

B.M. Spk. & W. In Root of Maple Tree
38 ft. Rt. Sta. 101+49 Elev. 795.53

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 221	*	MERCER	11	11

ILLINOIS PROJECT RS-221(104)

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CONTRACT 89315



NOTE: DRAWING CHECKED BY: [Signature] DATE: [Date] REVISIONS: [List]