

ROUTE NO. FAS 322	SECTION 04-00235-02-RS	COUNTY IROQUOIS	TOTAL SHEETS 6	SHEET NO. 1
F. H. W. A. REG. 4 ILLINOIS			PROJECT RS-322(107)	

# INDEX OF SHEETS

SHEET NUMBER	DESCRIPTION
1	COVER SHEET -- LOCATION MAP
2	SUMMARY OF QUANTITIES, GENERAL NOTES, AND MIXTURE TABLE
3 & 4	TYPICAL X-SECTIONS
5	TYPICAL ENTRANCES, SIDE ROAD INTERSECTIONS, MAIL BOX TURNOUTS
6	BUTT JOINTS, PAVEMENT REMOVAL, BITUMINOUS BASE COURSE RAISED JOINT REMOVAL, FRAMES AND LIDS TO BE ADJUSTED

## STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

### PLANS FOR PROPOSED IMPROVEMENT OF FEDERAL AID SECONDARY HIGHWAY 322 BUILT IN ACCORDANCE WITH F.A.P.L.H.I. (3R) POLICY

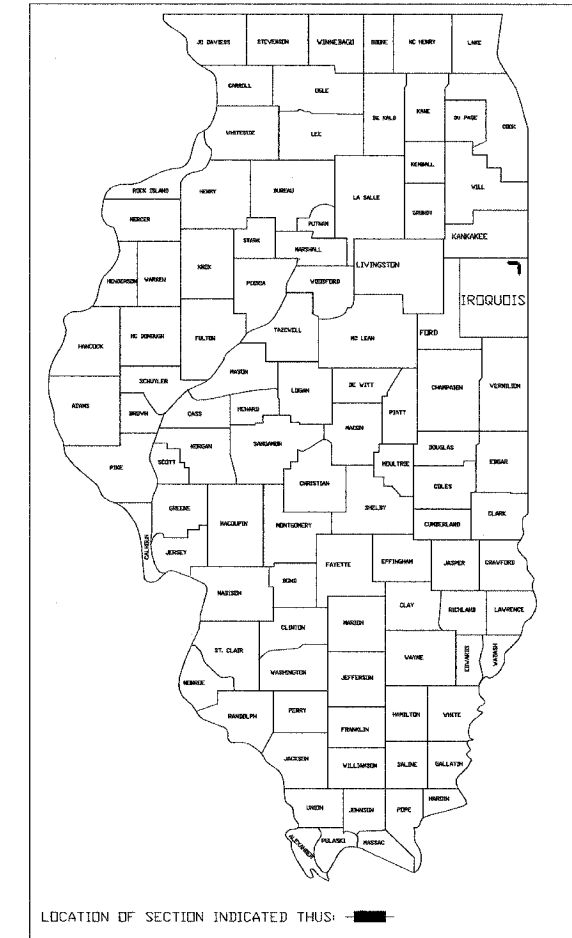
#### IROQUOIS COUNTY HIGHWAY PROJECT

ROUTE	FAS 322 (BEAVERVILLE-PAPINEAU ROAD - CH 3 & 15)
SECTION	04-00235-02-RS
PROJECT	RS-322(107)
JOB NUMBER	C-93-081-04

GROSS LENGTH OF IMPROVEMENT = 22299.46 FT. = 4.22 MI.  
NET LENGTH OF IMPROVEMENT = 22229.60 FT. = 4.21 MI.  
OMISSION LENGTH = 70.00 FT. = 0.01 MI.

### STANDARDS

000001-04	SYMBOLS AND ABBREVIATIONS
542401	METAL END SECTIONS FOR PIPE CULVERTS
701301-02	LANE CLOSURE, 2L 2W, SHORT TIME OPERATION, FOR SPEEDS > 45 MPH
701306-01	LANE CLOSURE, 2L 2W, SLOW MOVING DAY ONLY OPERATION, FOR SPEEDS > 45 MPH
702001-06	TRAFFIC CONTROL DEVICES
780001-01	TYPICAL PAVEMENT MARKINGS
BLR 24-1	MAILBOX TURNOUT



FUNCTIONAL CLASSIFICATION = MAJOR COLLECTOR  
CURRENT ADT = 780  
DESIGN ADT = 858  
DESIGN SPEED = 50 MPH

CONTRACT 87284

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Approved 7/6, 2006

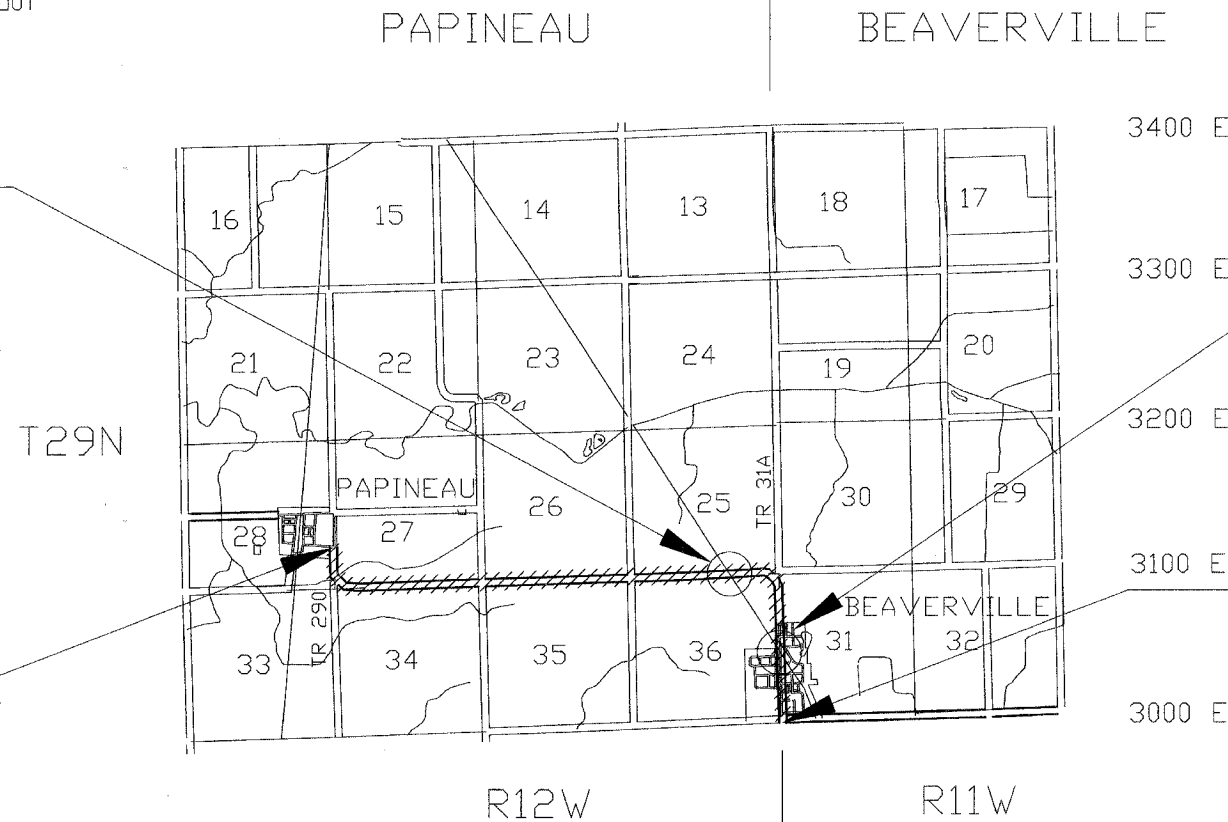
County Engineer

Passed July 10, 2006

District Engineer of Local Roads and Streets

Approved July 10, 2006

Region Engineer



RAILROAD OMISSION:  
STA 159+64 TO STA 159+70

RAILROAD OMISSION:  
STA 200+96 TO STA 201+60

IMPROVEMENT BEGINS  
AT STA 6+00

IMPROVEMENT ENDS  
AT STA 226+63

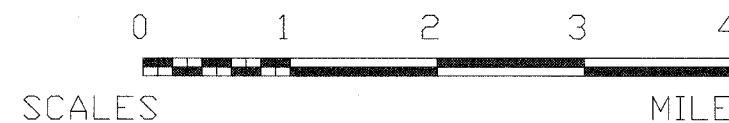
"THESE PLANS WERE PREPARED BY ME OR BY A  
FULL TIME MEMBER OF MY STAFF WORKING  
UNDER MY DIRECT SUPERVISION"

### NOTES:

1. JULIE # 1-800-892-0123

KNOWN UTILITIES  
EASTERN ILLINI ELECTRIC CO-OP  
VERIZON NORTH  
NICOR GAS  
AMEREN CIPS

2100 E 2200 E 2300 E 2400 E 2500 E 2600 E 2700 E



JOHN C. DEVINE, COUNTY ENGINEER  
ILL. REG. PROF. ENG. #062-033387  
DATE EXPIRES: 11/30/07

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 322	04-00235-02-RS	IRROQUOIS	6	2
F. H. W. A. REG. 4 ILLINOIS			PROJECT RS-322(107)	
CONTRACT 87284				

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE I000		
ITEM #	CODE #	ITEM	UNIT	COUNTY	VILLAGE OF BEAVERVILLE	TOTAL QUANTITY
* 1	X0300854	RAISED JOINT REMOVAL	EACH	14.00		14.00
* 2	X3550500	BITUMINOUS BASE COURSE SUPERPAVE 8"	SQ YD	582.00		582.00
3	X4066414	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50	TON	4100.00	500.00	4600.00
4	X4066614	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, MIX "C", N50	TON	6800.00		6800.00
* 5	X4066765	LEVELING BINDER (MACHINE METHOD), SUPERPAVE N50	TON	4100.00		4100.00
6	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1.00		1.00
7	Z0013825	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	45.00		45.00
8	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	3100.00	275.00	3375.00
9	40600300	AGGREGATE (PRIME COAT)	TON	105.00	10.00	115.00
*10	40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	855.00	429.00	1284.00
11	40600990	TEMPORARY RAMP	SQ YD	59.00		59.00
*12	40800040	INCIDENTAL BITUMINOUS SURFACING	TON	403.00	28.00	431.00
*13	44000100	PAVEMENT REMOVAL	SQ YD	582.00		582.00
*14	48101200	AGGREGATE SHOULDERS, TYPE B	TON	7700.00		7700.00
*15	54200277	PIPE CULVERTS, CLASS C, TYPE 1, 72"	FOOT	56.00		56.00
16	54213507	END SECTIONS 72"	EACH	2.00		2.00
*17	60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH		5.00	5.00
18	66700205	PERMANENT SURVEY MARKER, TYPE 1	EACH	9.00		9.00
19	67100100	MOBILIZATION	L SUM	1.00		1.00
*20	70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1.00		1.00
21	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	6447.00		6447.00
22	70300200	TEMPORARY PAVEMENT MARKING	FOOT	11569.00		11569.00
23	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	662.00		662.00
△ 24	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	28.80		28.80
△ 25	78000610	THERMOPLASTIC PAVEMENT MARKING - LINE 16"	FOOT	172.00		172.00
△ 26	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	132.00		132.00
△ 27	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	11569.00		11569.00

\* SEE SPECIAL PROVISIONS  
 △ SPECIALTY ITEMS

### GENERAL NOTES

THE THICKNESS OF BITUMINOUS MIXTURES SHOWN ON THE TYPICAL X-SECTION IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE.

THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS BITUMINOUS LIFTS.

FOR ALL SHORT TERM PAVEMENT MARKINGS ON FINAL SURFACES (I.E., MAINLINE PAVEMENT), ONLY TEMPORARY PAVEMENT MARKING TAPE SHALL BE USED.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUB-NUMBER LISTED IN THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN ASSUMED IN CALCULATING PLAN QUALITIES:

GRANULAR MATERIALS	2.05	TONS/CU YD
BITUMINOUS MATERIALS PRIME COAT	0.05	GAL/SQ YD OR 0.35 GAL/SQ YD
AGGREGATE PRIME COAT	0.002	TONS/SQ YD
BITUMINOUS CONCRETE SURFACE COURSE	112	LBS/SQ YD/INCH
BITUMINOUS CONCRETE BINDER COURSE	112	LBS/SQ YD/INCH
LEVELING BINDER (MACHINE METHOD)	112	LBS/SQ YD/INCH
SHORT TERM PAVEMENT MARKING	4	FT/40 FT OF APPLICATION
PAINT PAVEMENT MARKING - LINE 4"	10	FT/40 FT OF APPLICATION

### DESIGN DATA

STA 6+00 TO STA 201+58.8 TYPICAL SECTION  
 STA 218+76 TO STA 226+63 TYPICAL SECTION

FLEXIBLE PAVEMENT DESIGN FOR  
 CLASS III LOCAL ROAD (FAPLHI 5-8-132)

DESIGN PERIOD D. P. = 20 YEARS

DESIGN YEAR = 2026 PV=88% SU=7% MU=5%

DESIGN ADT = 858 IBR = 3.0 TRAFFIC FACTOR = 0.2319

D<sub>t</sub> = 4.15

### DESIGN DATA

STA 201+58.8 TO STA 218+76 TYPICAL SECTION

COMPOSITE PAVEMENT DESIGN FOR  
 CLASS III LOCAL ROAD

DESIGN PERIOD D. P. = 20 YEARS

DESIGN YEAR = 2026 PV=88% SU=7% MU=5%

DESIGN ADT = 1373 IBR = 3.0 TRAFFIC FACTOR = 0.8414

D<sub>e</sub> = 4.5 D<sub>c</sub> = 7.06 D<sub>s</sub> = -0.063

### SECTION NOTES

THE PROPOSED IMPROVEMENT CONSISTS OF A BITUMINOUS SURFACE COURSE INCLUDING LEVELING BINDER, BINDER, SHOULDER STONE AND ALL WORK NECESSARY TO COMPLETE THE PROJECT ACCORDING TO THE PLANS AND SPECIFICATION.

THIS HIGHWAY WAS CONSTRUCTED UNDER SECTIONS 77-00235-00-AS, 80-00235-00-FP, 80-00243-00-RS, AND 74-MFT

### MIXTURE TABLE

	SUPERPAVE BINDER	SUPERPAVE LEVEL BINDER	SUPERPAVE SURFACE	SUPERPAVE BASE COURSE
PG GRADE	PG64-22	PG64-22	PG64-22	PG64-22
MAX % RAP ALLOWABLE**	25%	25%	15%	25%
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION	IL-19.0	IL-9.5	IL-12.5 or IL 9.5	IL-19.0
FRICTION AGGREGATE			MIXTURE C	
PLANT CONTROL LIMITS	CLASS I	CLASS I	CLASS I	CLASS I

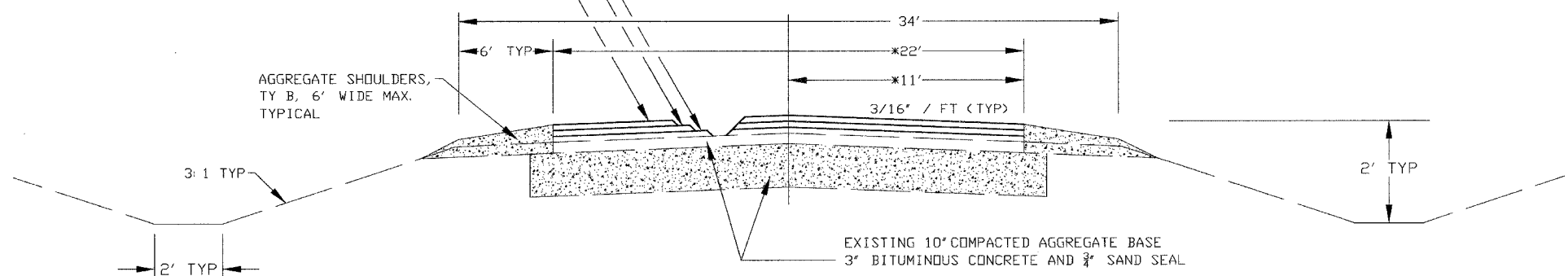
\*\* IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 322	04-00235-02-RS	IRROQUOIS	6	3
F. H. W. A. REG. 4 ILLINOIS			PROJECT RS-322(107)	

CONTRACT 87284

- 0. 75' PLUS 56 LBS/SQ YD CROWN CORRECTION LEVELING BINDER MACHINE METHOD, SUPERPAVE IL-9.5 N50
- 2. 25' BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N50
- 1. 25' BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIXTURE C N50

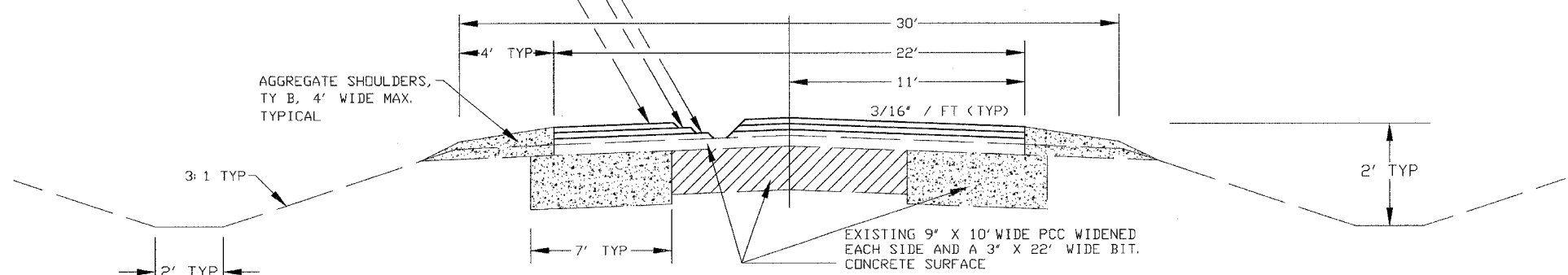
\* EXISTING BASE WIDENED 3' FROM STA 13+97 TO STA 25+32 LT  
STA 169+57 TO STA 181+66 RT  
BASE = 15', SURFACE = 14'



TYPICAL SECTION #1  
STATION 6+00 TO 185+42

- 0. 75' PLUS 56 LBS/SQ YD CROWN CORRECTION LEVELING BINDER MACHINE METHOD, SUPERPAVE IL-9.5 N50
- 2. 25' BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N50
- 1. 25' BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIXTURE C N50

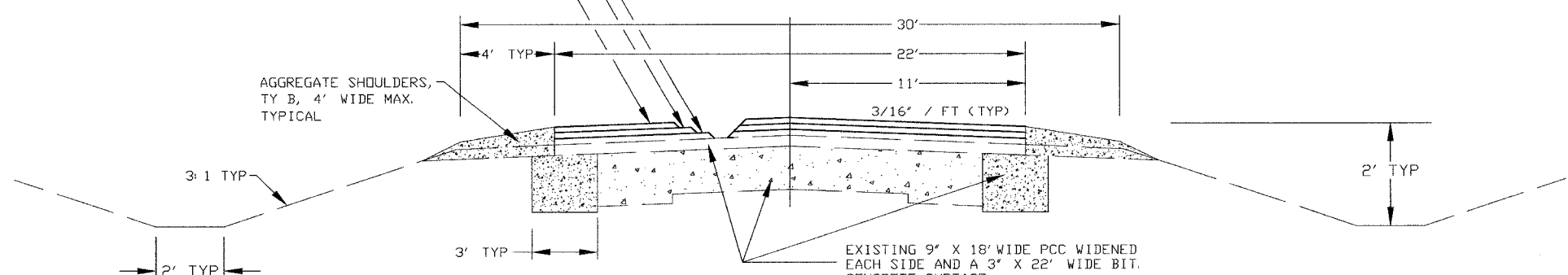
AGGREGATE SHOULDERS, TY B, 4' WIDE MAX. TYPICAL



TYPICAL SECTION #2  
STATION 185+42 TO 199+73

- 0. 75' PLUS 56 LBS/SQ YD CROWN CORRECTION LEVELING BINDER MACHINE METHOD, SUPERPAVE IL-9.5 N50
- 2. 25' BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N50
- 1. 25' BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIXTURE C N50

AGGREGATE SHOULDERS, TY B, 4' WIDE MAX. TYPICAL

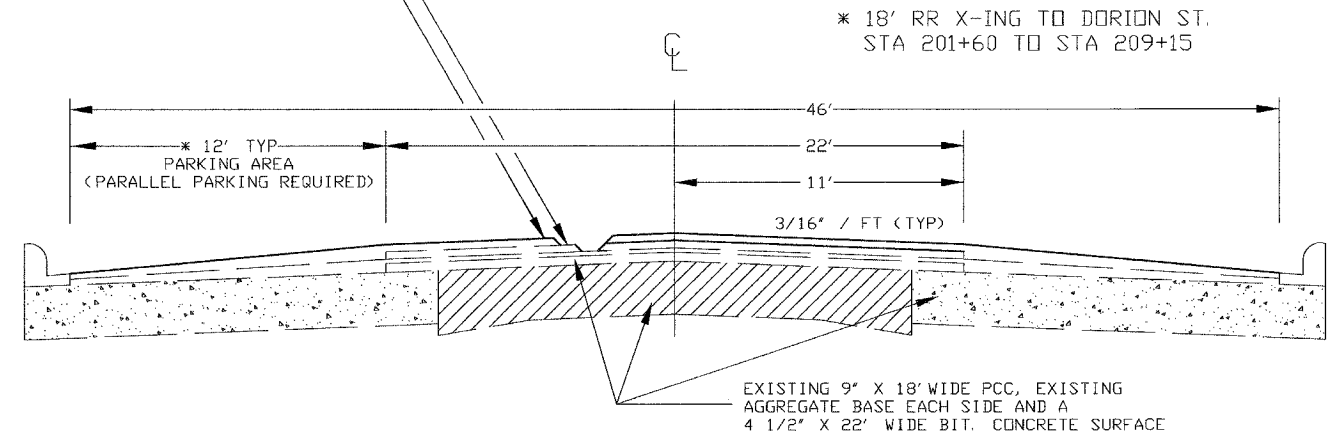


TYPICAL SECTION #3  
STATION 199+73 TO 200+93.2

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 322	04-00235-02-RS	IRROQUOIS	6	4
F. H. W. A. REG. 4 ILLINOIS			PROJECT RS-322(107)	

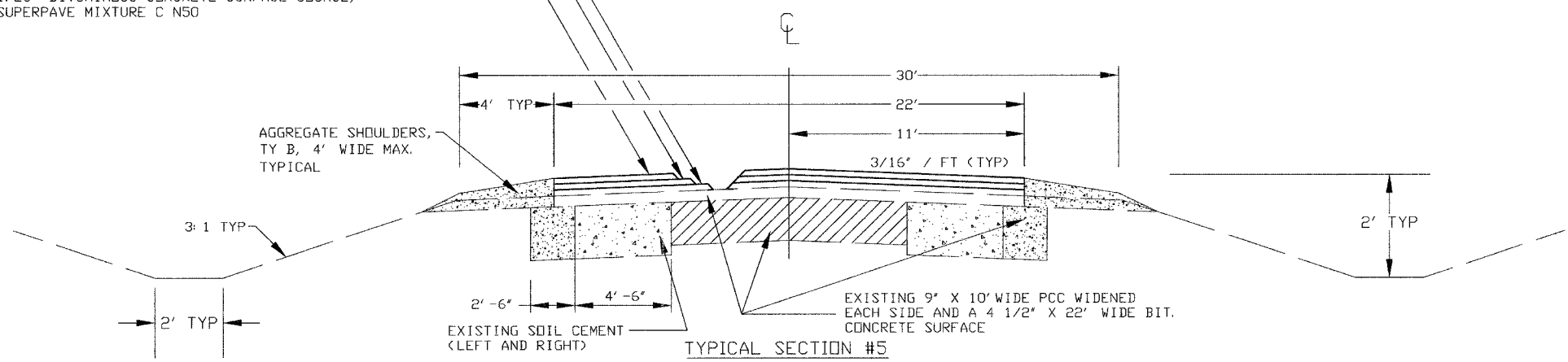
CONTRACT 87284

0.75' PLUS 56 LBS/SQ YD CROWN CORRECTION LEVELING BINDER  
MACHINE METHOD, SUPERPAVE IL-9.5 N50  
1.25' BITUMINOUS CONCRETE SURFACE COURSE,  
SUPERPAVE MIXTURE C N50



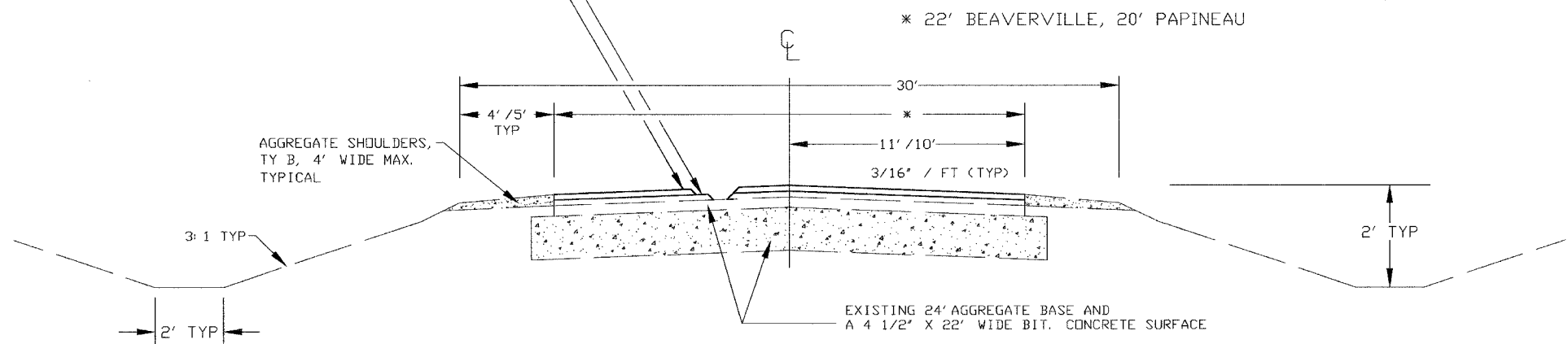
TYPICAL SECTION #4  
STATION 201+58.8 TO 218+76.5

0.75' PLUS 56 LBS/SQ YD CROWN CORRECTION LEVELING BINDER  
MACHINE METHOD, SUPERPAVE IL-9.5 N50  
2.25' BITUMINOUS CONCRETE BINDER COURSE,  
SUPERPAVE, IL-19.0, N50  
1.25' BITUMINOUS CONCRETE SURFACE COURSE,  
SUPERPAVE MIXTURE C N50

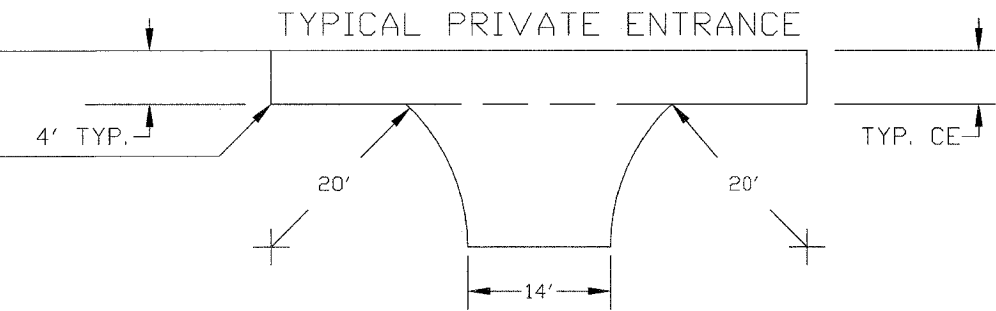
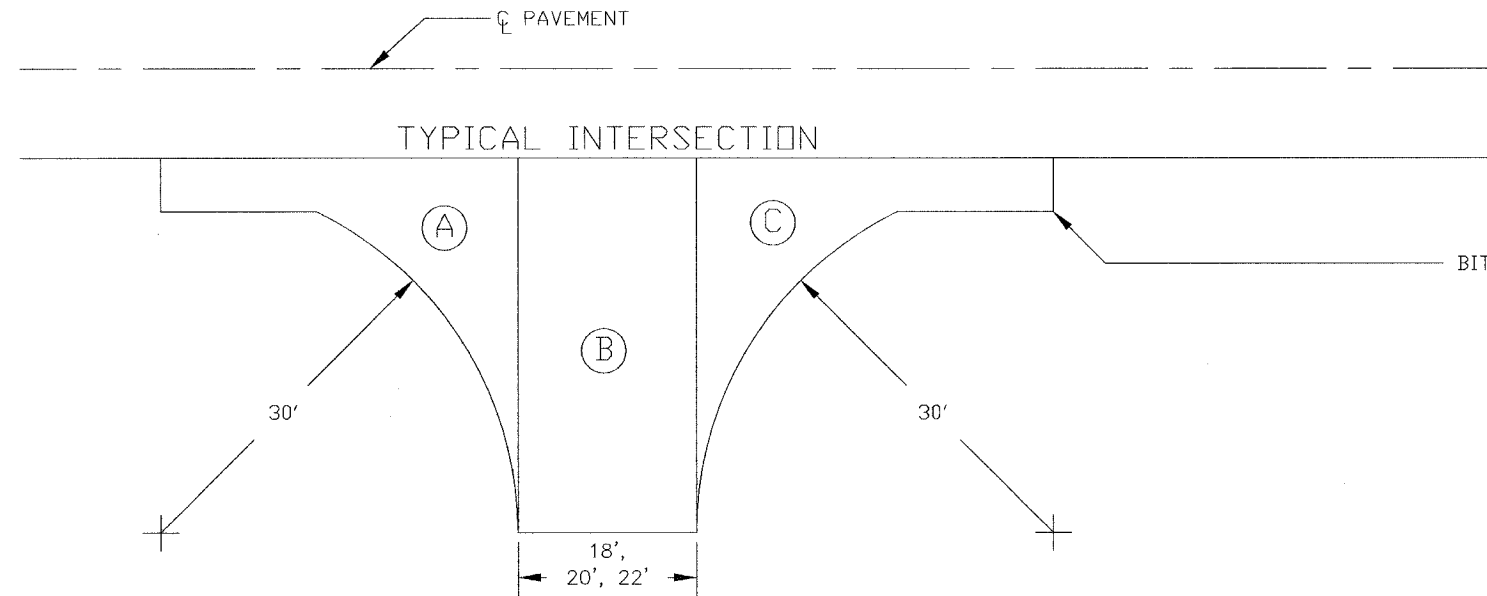
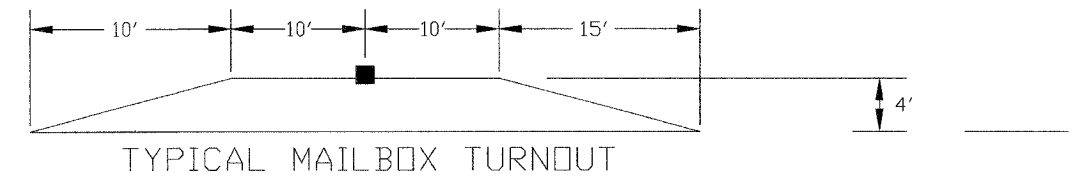


TYPICAL SECTION #5  
STATION 218+76.5 TO 226+63

0.75' PLUS 86 LBS/SQ YD CROWN CORRECTION LEVELING BINDER  
MACHINE METHOD, SUPERPAVE IL-9.5 N50  
1.50' BITUMINOUS CONCRETE SURFACE COURSE,  
SUPERPAVE MIXTURE C N50



TYPICAL SECTION #6  
TR 31A - BEAVERVILLE SIDE ROAD, STA 60+12 TO STA 65+00  
TR 290 - PAPINEAU SIDE ROAD, STA 10+00 TO STA 14+00



A+C = RADIUS ON MAINLINE SHOWN AS SIDE = VAR  
A+B+C = TYPICAL SIDE ROAD INTERSECTION

TYPICAL FIELD ENTRANCES

TYPICAL MAILBOX TURNOUT

STATION	SIDE	SQ. YD.	TON
12+58	LT	15	4
32+54	RT	15	4
97+45	RT	15	4
127+69	RT	15	4
165+80	RT	15	4
TOTALS		75 SQ YDS	20 TON

NOTE: ALL PRIVATE ENTRANCES, MAIL BOX TURNOUTS AND SIDE ROAD INTERSECTIONS SHALL BE PAID FOR AS INCIDENTAL BITUMINOUS SURFACING - TOTAL 431 TON.

TYPICAL COMMERCIAL ENTRANCES

STATION TO STATION	SQ. YD.	TONS
196+00 TO 200+00 RT	178	42
197+00 TO 200+50 LT	156	37
TR 31A 63+00 TO 64+00 LT	33	10
TOTALS	367	89

STATION	TYPE	SIDE	SQ. YD.	TON	STATION	TYPE	SIDE	SQ. YD.	TON
16+00	FE	RT	24	4	123+50	FE	RT	24	4
18+60	FE	LT	24	4	125+00	FE	RT	24	4
31+00	FE	LT	24	4	137+30	FE	RT	24	4
31+05	FE	RT	24	4	144+69	FE	RT	24	4
41+08	FE	RT	24	4	144+69	FE	LT	24	4
57+76	FE	RT	24	4	150+90	FE	RT	24	4
97+40	FE	LT	24	4	157+70	FE	LT	24	4
104+10	FE	LT	24	4	159+38	FE	LT	24	4
110+75	FE	RT	24	4	159+92	FE	LT	24	4
111+10	FE	LT	24	4	167+00	FE	LT	24	4
123+50	FE	LT	24	4					
TOTALS			504 SQ YD	84 TON, AGG SHLDRS, TY B					

TYPICAL INTERSECTION

STATION	SIDE	WIDTH	SQ. YD.	TON
6+40	CORNELL ST RT	20'	173	20
70+77	TR 302 RT	20'	173	18
70+77	TR 302 LT	22'	190	18
124+19	TR 320 RT	20'	173	18
124+19	TR 320 LT	20'	173	18
191+36	NORTH ST LT	20'	173	14
195+77	ARSENEAU ST LT	20'	173	14
199+43	EARL AVE LT	20'	173	14
223+31	ST. MARY'S ST LT	20'	173	14
225+94	UNNAMED ST RT	18'	155	18
TOTALS			1729	166

INCIDENTALS ON SPURS

STATION	SIDE	WIDTH	SQ. YD.	TON
13+00	TR 290, PE LT	VAR	55	20
64+00	TR 31A, PE RT	VAR	55	8
10+50	TR 290A	16'	138	20
TOTALS			248	48

TYPICAL PRIVATE ENTRANCES

STATION	TYPE	SIDE	SQ. YD.	TON	STATION	TYPE	SIDE	SQ. YD.	TON
11+60	PE	LT	57	8	194+59	PE	RT	57	8
12+40	PE	LT	57	8	204+79	PE	LT	57	8
52+75	PE	RT	57	8	219+95	PE	RT	29	4
57+00	PE	LT	57	8	221+64	PE	RT	57	8
97+65	PE	RT	57	8	222+79	PE	RT	29	4
127+65	PE	LT	57	8	224+09	PE	LT	29	4
166+10	PE	LT	57	8	224+79	PE	RT	29	4
191+80	PE	RT	57	8	225+63	PE	RT	29	4
TOTALS			772 SQ YD	108 TON					

ROUTE NO. FAS 322	SECTION 04-00235-02-RS	COUNTY IROQUOIS	TOTAL SHEETS 6	SHEET NO. 6
F. H. W. A. REG. 4 ILLINOIS			PROJECT RS 322(107)	

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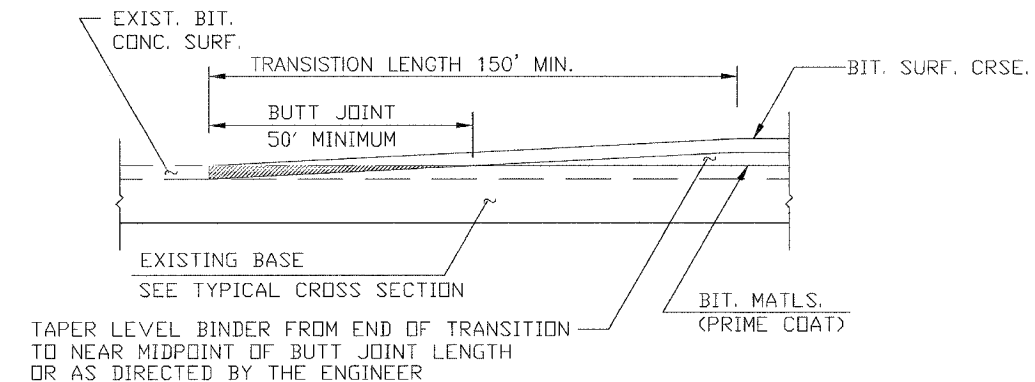
### BITUMINOUS SURFACE REMOVAL - BUTT JOINT

STATION TO STATION & GENERAL DESCRIPTION	SQ. YD.
STA 6+40 RT - CORNELL ST	60
TR 290 - PAPINEAU SPUR ENDING TRANSITION	179
STA 159+15 TO STA 159+65 (RR X-ING)	123
STA 159+70 TO STA 160+20 (RR X-ING)	123
TR 31A - BEAVERVILLE SPUR ENDING TRANSITION	62
STA 200+46 TO STA 200+96 (RR X-ING)	123
STA 201+60 TO STA 201+85 (RR X-ING)	62
STA 226+13 TO STA 226+63 ENDING TRANSITION	123
TOTALS	855

### BITUMINOUS SURFACE REMOVAL - BUTT JOINT VILLAGE OF BEAVERVILLE

STATION TO STATION & GENERAL DESCRIPTION	SQ. YD.
STA 202+92 RT (STATION ST)	40
STA 206+23 RT (DONOVAN AVE)	40
STA 204+80 LT (POST OFFICE ENTRANCE)	27
STA 205+77 LT (CURBYS HARDWARE ENTRANCE)	60
INLETS (@ 6 LOCATIONS, 17 SQ YD/LOCATION)	102
STA 209+42 RT (DORION ST)	40
STA 209+42 LT (DORION ST)	40
STA 212+78 LT (CHAPEL ST)	40
STA 214+20 RT (WEST CHAPEL ST)	40
TOTALS	429

### BITUMINOUS SURFACE REMOVAL - BUTT JOINT



### PAVEMENT REMOVAL

STATION TO STATION 6 FOOT WIDE 8 INCHES DEEP	SQ. YD.	TONS *
16+65 TO 16+75 LT/ RT	25	12
34+58 TO 34+74 RT	11	5
35+30 TO 35+60 RT	20	9
76+11 TO 76+43 LT	22	10
84+18 TO 84+69 LT	34	16
84+47 TO 84+92 RT	30	14
98+92 TO 99+46 RT	36	17
107+14 TO 107+51 RT	25	12
112+85 TO 113+21 RT	24	11
133+39 TO 133+86 RT	31	14
136+54 TO 137+18 RT	43	20
143+73 TO 144+03 RT	20	9
145+87 TO 146+40 RT	35	16
158+82 TO 159+26 LT	29	13
158+84 TO 159+23 RT	26	12
176+03 TO 176+89 LT	57	26
181+83 TO 182+88 LT	70	32
182+62 TO 182+88 RT	17	8
183+37 TO 183+77 RT	27	13
TOTALS	582	269

\*\*\* THIS QUANTITY FOR REFERENCE ONLY  
FOR BIT BS CSE SUPER 8"

### RAISED JOINT REMOVAL

STATION		
182+36	204+93	217+28
190+60	208+25	218+81
193+90	208+87	220+43
203+67	212+63	221+58
204+44	213+80	

### FRAMES AND LIDS TO BE ADJUSTED

STATION	ADJUSTMENT	EACH
209+06 (15' RT C)	3	1
209+21 (24' RT C)	1	1
209+70 (15' RT C)	2.5	1
214+47 (12' RT C)	2.5	1
225+71 (15' RT C)	3	1
TOTALS		5

### PERMANENT SURVEY MARKERS

STATION		
* 10+30.00	124+18.77	199+43.70
70+76.80	150+75.26	213+81.00
97+52.85	191+35.60	225.93.50

\* STATIONING OF TR 290

### CURVE DATA

P. I.	20+96.05
	90° 54' 40"
D	7° 30' 00"
R	763.94'
T	776.19'
L. C.	1088.94'
L.	1212.15'
E	325.11'
P. C.	13+19.86
P. T.	25+32.01

BEGIN S. E.	12+19.86
FULL S. E.	13+69.86
	S. E. 24+82.01
END S. E.	26+32.01

SUPER ELEVATION = 8%

### CURVE DATA

P. I.	177+30.06
	90° 41' 27"
D	7° 30' 00"
R	763.944'
T	773.211'
L. C.	1086.873'
L.	1209.211'
E	322.99'
P. C.	169+56.85
P. T.	181+66.06

BEGIN S. E.	168+56.85
FULL S. E.	170+06.85
	S. E. 181+16.06
END S. E.	182+66.06

SUPER ELEVATION = 8%

### PAVEMENT MARKINGS C & NO PASSING ZONES

STATION TO STATION	FOOT	LINE 4'
CENTERLINE		
6+00 TO 159+65	15365	3841
179+65 TO 200+95	2130	533
201+65 TO 226+63	2498	625
NO PASSING ZONES		
153+65 TO 179+65 RT	2600	2600
159+65 TO 190+65 LT	3100	3100
197+30 TO 201+65 RT	435	435
200+95 TO 205+30 LT	435	435
TOTALS		11569