

# INDEX OF SHEETS

SHEET NUMBER	DESCRIPTION
1	COVER SHEET -- LOCATION MAP
2	SUMMARY OF QUANTITIES
3	TYPICAL CROSS SECTION, HMA SHOULDER LOCATION & DETAIL
4	TYPICAL INTERSECTIONS, PRIVATE ENTRANCES AND MAILBOX TURNOUTS
5	QUANTITY TABLES AND AGG. FIELD ENTRANCES

## STANDARDS

000001-05	SYMBOLS AND ABBREVIATIONS, & PATTERNS
667101-01	PERMANENT SURVEY MARKERS
701301-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-02	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701901-01	TRAFFIC CONTROL DEVICES
780001-02	TYPICAL PAVEMENT MARKINGS
BLR 24-2	MAILBOX TURNOUTS FOR LOCAL ROADS

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

## AMERICAN RECOVERY AND REINVESTMENT ACT PLANS FOR PROPOSED IMPROVEMENT OF FEDERAL AID SECONDARY HIGHWAY 329 BUILT IN ACCORDANCE WITH L. A. P. P. POLICY IROQUOIS COUNTY HIGHWAY PROJECT

ROUTE FAS 329  
SECTION 09-00302-00-RS  
PROJECT RS-ARA-0329 (106)  
JOB # C-93-003-10

### GROSS LENGTH OF IMPROVEMENT

29,766 FT = 5.637 MI.

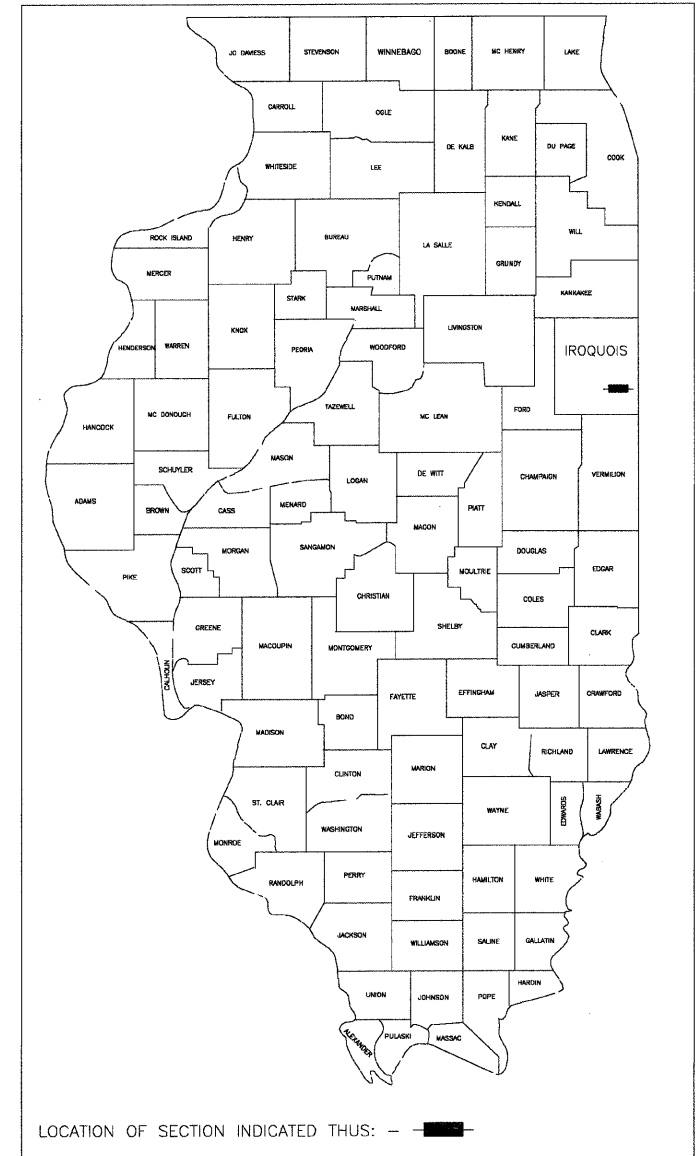
### OMMISSION LENGTH

BRIDGE #1 OMISSION LENGTH = 59.0 FT. = 0.010 MI.  
BRIDGE #2 OMISSION LENGTH = 84.0 FT. = 0.016 MI.  
BRIDGE #3 OMISSION LENGTH = 88.0 FT. = 0.017 MI.  
RAILROAD OMISSION LENGTH = 11.0 FT. = 0.002 MI.

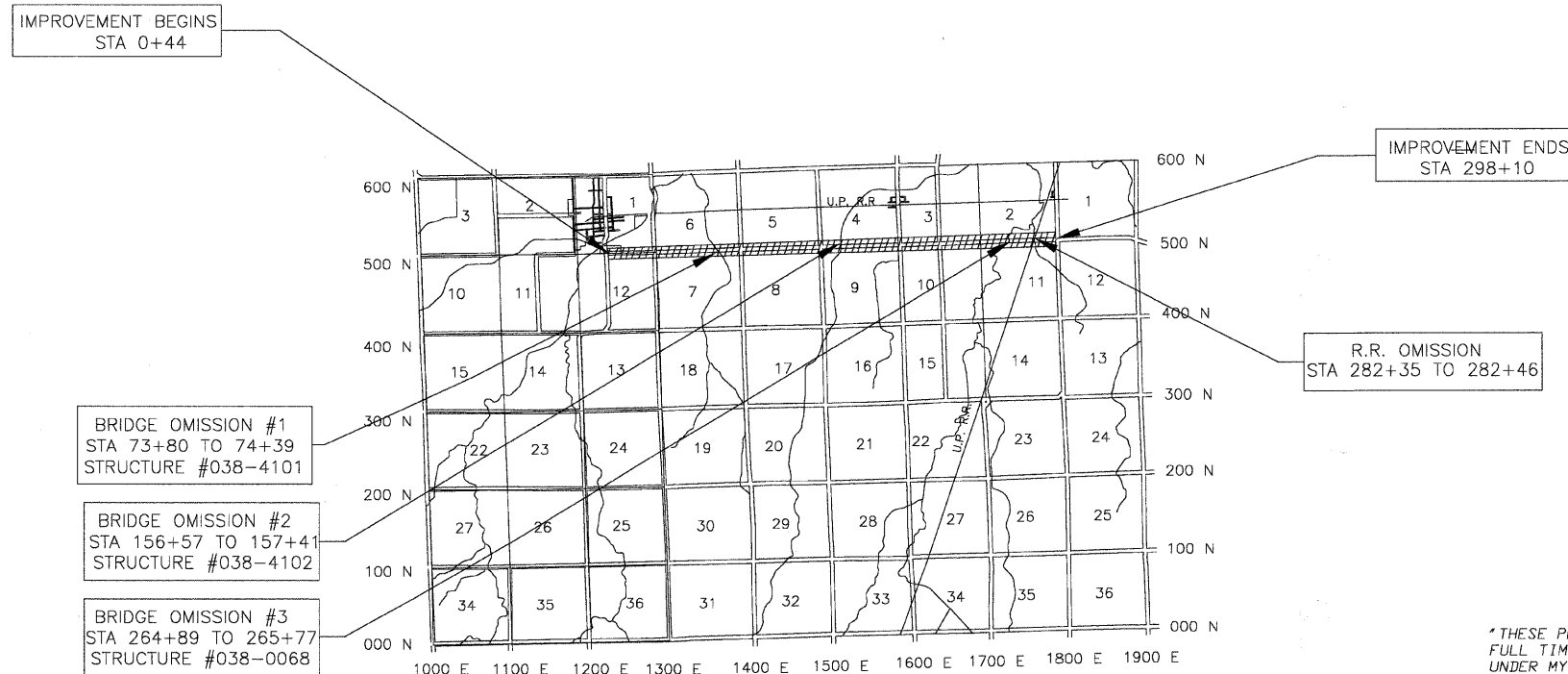
### NET LENGTH OF IMPROVEMENT

29,524 FT = 5.592 MI.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 329	09-00302-00-RS	IROQUOIS	5	1
F. H. W. A. REG. 4 ILLINOIS			PROJECT ARA-0329 (106)	
CONTRACT 87433				



MAJOR COLLECTOR 2009 ADT = 650  
PV = 88% SU = 7% MU = 5%

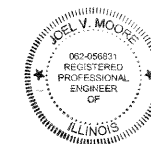


### NOTES:

JULIE # 1-800-892-0123  
KNOWN UTILITIES  
AMEREN CIPS  
EASTERN ILLINI ELECTRIC CO-OP  
AVENUE BROADBAND  
VERIZON

CONTRACT 87433

\* THESE PLAN WERE PREPARED BY ME OR BY A  
FULL TIME MEMBER OF MY STAFF WORKING  
UNDER MY DIRECT SUPERVISION \*



JOEL V. MOORE, COUNTY ENGINEER  
ILL. REG. PROF. ENG. #62056831  
DATE EXPIRES: 11/30/11

Approved Oct 21, 2009  
*John A. Moore*  
County Engineer  
Passed 10-27, 2009  
*Samuel R. Jones*  
DISTRICT THREE ENGINEER OF LOCAL ROADS & STREETS  
RELEASED FOR BID  
BASED ON LIMITED  
REVIEW 10-27, 2009  
*George E. Ryan*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION TWO ENGINEER  
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAS 329	SECTION 09-00302-00-RS	COUNTY IROQUOIS	TOTAL SHEETS 5	SHEET NO. 2
F. H. W. A. REG. 4 ILLINOIS			PROJECT ARA-0329 (106)	
CONTACT 87433				

SUMMARY OF QUANTITIES			FUND CODE	I000
ITEM #	CODE #	ITEM	UNIT	QUANTITY
1	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1.00
* 2	20200100	EARTH EXCAVATION	CU YD	116.00
3	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GAL	7,800.00
4	40600300	AGGREGATE (PRIME COAT)	TON	290.00
* 5	40600625	LEVEL BINDER (MACHINE METHOD), N50	TON	6,300.00
* 6	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	1,653.00
7	40600985	PCC SURFACE REMOVAL-BUTT JOINT	SQ YD	139.20
8	40600990	TEMPORARY RAMP	SQ YD	126.50
* 9	40603310	HOT-MIX ASPHALT SURFACE COURSE "C" N50	TON	6,200.00
*10	40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	614.00
*11	48101200	AGGREGATE SHOULDERS, TYPE B	TON	6,200.00
*12	48203100	HOT-MIX ASPHALT SHOULDERS	TON	235.00
13	66700205	PERMANENT SURVEY MARKER, TYPE 1	EACH	7.00
14	67100100	MOBILIZATION	L SUM	1.00
*15	70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1.00
16	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	5,954.00
17	70300200	TEMPORARY PAVEMENT MARKING	FOOT	9,264.00
18	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	993.00
Δ 19	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	123.00
Δ 20	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	66.00
Δ 21	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	9,264.00

\* SEE SPECIAL PROVISIONS  
Δ SPECIALTY ITEMS

### GENERAL NOTES

THE THICKNESS OF HOT-MIX ASPHALT 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 HOT-MIX ASPHALT LIFTS.

FOR ALL 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
AGGREGATE PRIME COAT	0.002	TONS/SQ YD
HOT MIX ASPHALT SURFACE COURSE	112	LBS/SQ YD/INCH
LEVELING BINDER (MACHINE METHOD)	112	LBS/SQ YD/INCH
BINDER COURSE, IL 19.0, N50	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

### FUNCTIONAL OVERLAY

DESIGN DATA FOR INFORMATION ONLY.

FLEXIBLE PAVEMENT OVERLAY DESIGN FOR CLASS III ROAD USING EQUATION 54-5.3

DESIGN PERIOD D. P. = 20 YEARS

DESIGN YEAR = 2019 PV=88% SU=7% MU=5%

DESIGN ADT = 715 IBV = 2.50 TRAFFIC FACTOR = 0.174

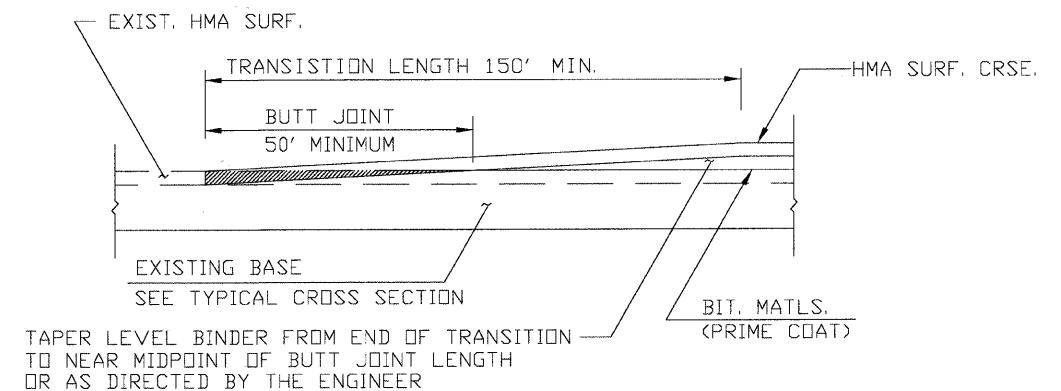
SN<sub>F</sub> = 3.30 SN<sub>Fe</sub> = 2.07 D<sub>o</sub> = 3.075

### MIXTURE TABLE

	HMA LEVEL BINDER	HMA SURFACE	HMA SHOULDERS (BOTTOM 7 1/2)
PG GRADE	PG64-22	PG64-22	PG58-22
DESIGN AIR Voids	4.0% @ N50	4.0% @ N50	2.0% @ N30
MIXTURE COMPOSITION	IL 9.5	IL 12.5 OR IL 9.5	IL 19.0
FRICTION AGGREGATE		MIXTURE C	
DENSITY TEST METHOD	SATISFACTION OF ENGINEER	GROWTH CURVE	*

\* MATERIAL SHALL BE COMPACTED TO 93.0-97.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT WHEN PLACED AS FIRST LIFT ON AN UNIMPROVED SUBGRADE THE MINIMUM PERCENT COMPACTION SHALL BE 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION.

### HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT



### SECTION NOTES

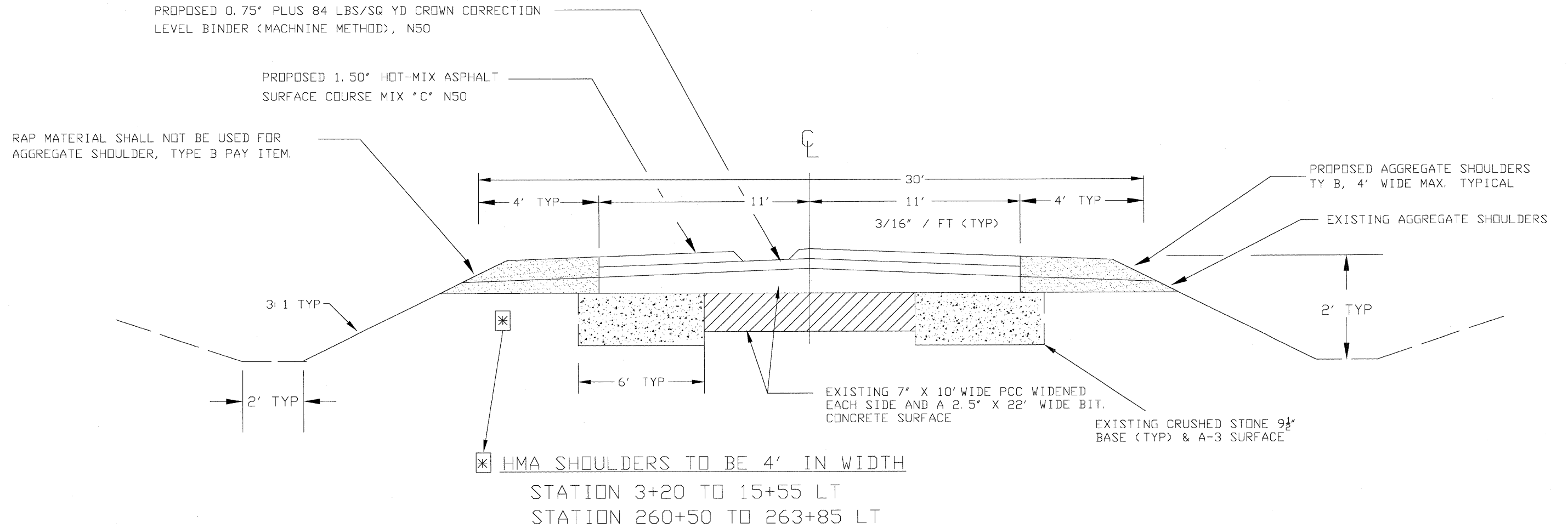
THE PROPOSED IMPROVEMENT CONSISTS OF A HOT MIX ASPHALT SURFACE COURSE INCLUDING LEVELING BINDER, SHOULDER STONE AND ALL WORK NECESSARY TO COMPLETE THE PROJECT ACCORDING TO THE PLANS AND SPECIFICATIONS.

COUNTY HIGHWAY 10 WAS CONSTRUCTED UNDER SECTIONS (33-15D, E-15D, L-15D, 194Q, 200G, 200Q, 194Q RS, 200Q RS).

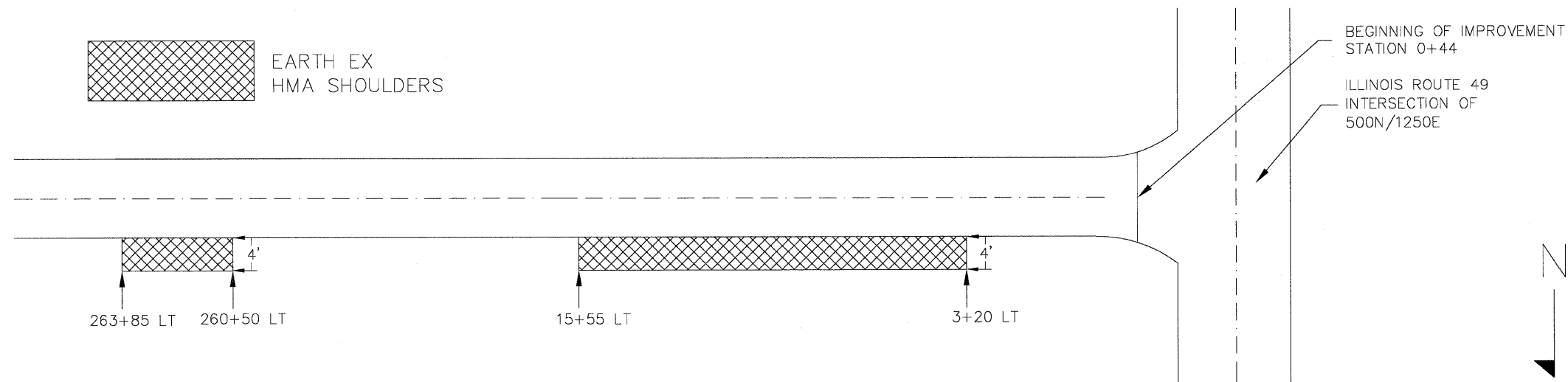
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 329	09-00302-00-RS	IRROQUOIS	5	3
F. H. W. A. REG. 4 ILLINOIS			PROJECT ARA-0329 (106)	
CONTRACT 87433				

# PROPOSED TYPICAL SECTION

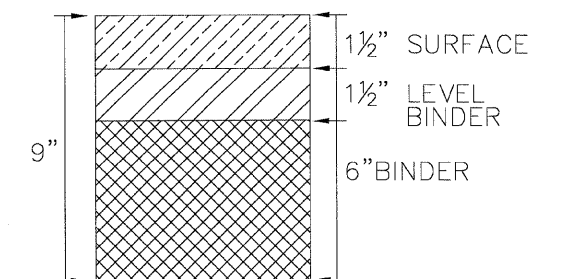
## STATION 0+44 TO 298+10



### EARTH EX & HMA SHOULDERS

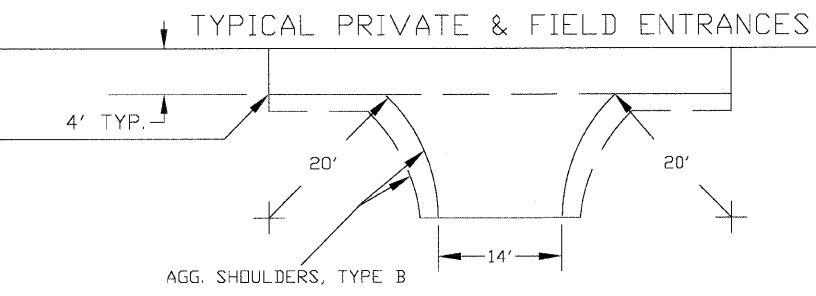
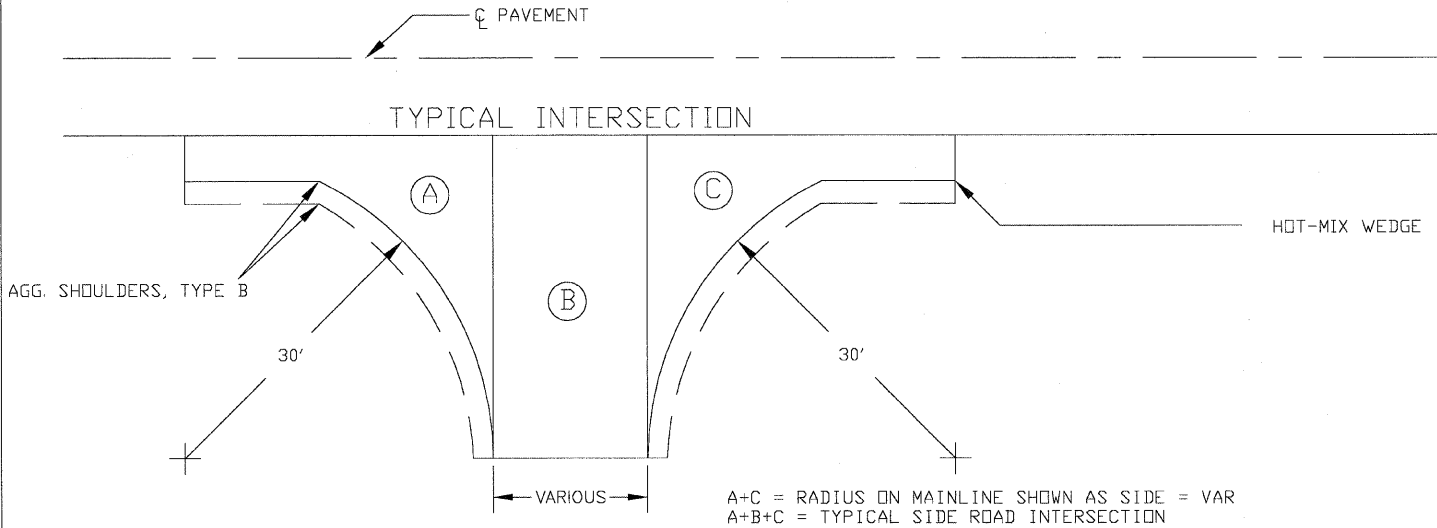
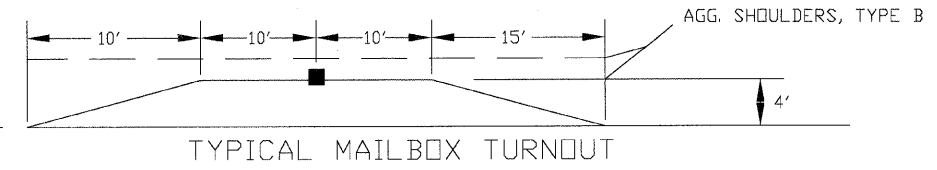


### HMA SHOULDERS DETAIL



NOTE: ALL PRIVATE ENTRANCES, MAIL BOX TURNOUTS AND SIDE ROAD INTERSECTIONS SHALL BE PAID FOR AS INCIDENTAL HOT-MIX ASPHALT SURFACING TOTAL 614 TON.

NOTE: AGGREGATE AROUND ALL PRIVATE ENTRANCES, MAIL BOX TURNOUTS, SIDE ROAD INTERSECTIONS, AND FIELD ENTRANCES SHALL BE CONSIDERED INCIDENTAL TO AGGREGATE SHOULDERS, TYPE B AND PLACED AS DIRECTED BY THE ENGINEER.



TYPICAL MAILBOX TURNOUT

TYPICAL PRIVATE ENTRANCES

STATION	SIDE	SQ. YD	TON	STATION	SIDE	SQ. YD	TON
3+51	LT	15	5	161+91	RT	15	5
3+74	LT	15	5	192+77	RT	15	5
17+09	LT	15	5	240+66	RT	15	5
18+60	LT	15	5	245+00	RT	15	5
34+40	LT	15	5	269+30	RT	15	5
52+51	LT	15	5	279+92	RT	15	5
136+08	LT	15	5	286+45	RT	15	5
TOTAL = 70 TONS							

STATION	RT/LT	TYPE	PROPOSED	SQ. YD.	TON	STATION	RT/LT	TYPE	PROPOSED	SQ. YD.	TON
*1+60	LT	PE	HMA	65	10	**18+15	LT	PE	HMA	57	8
*1+80	RT	PE	HMA	15	4	18+33	RT	PE	HMA	57	8
3+76	RT	PE	HMA	57	8	34+20	LT	PE	HMA	57	8
**3+97	LT	PE	HMA	20	5	52+49	RT	PE	HMA	57	8
5+29	RT	PE	HMA	57	8	*106+10	RT	PE	HMA	57	8
**5+84	LT	PE	HMA	20	5	*135+94	LT	PE	HMA	57	8
6+85	RT	PE	HMA	57	8	*150+83	LT	PE	HMA	15	4
**8+10	LT	PE	HMA	20	5	*163+41	RT	PE	HMA	57	8
8+37	RT	PE	HMA	57	8	192+66	RT	PE	HMA	57	8
**9+62	LT	PE	HMA	20	5	240+66	LT	PE	HMA	57	8
10+13	RT	PE	HMA	57	8	***243+77	LT	PE	HMA	89	15
10+52	LT	PE	HMA	20	5	***246+13	LT	PE	HMA	128	22
11+88	LT	PE	HMA	20	5	***248+25	LT	PE	HMA	211	36
11+95	RT	PE	HMA	57	8	269+10	RT	PE	HMA	57	8
12+37	LT	PE	HMA	20	5	279+92	LT	PE	HMA	57	8
13+41	RT	PE	HMA	57	8	*282+10	RT	PE	HMA	15	4
13+95	RT	PE	HMA	57	8	*282+20	LT	PE	HMA	15	4
14+22	LT	PE	HMA	20	5	*282+50	RT	PE	HMA	15	4
15+35	LT	PE	HMA	20	5	*282+62	LT	PE	HMA	15	4
15+40	RT	PE	HMA	57	8	287+23	RT	PE	HMA	57	4
17+09	LT	PE	HMA	57	8						
TOTAL = 324 TONS											

TYPICAL INTERSECTION - SIDE ROADS

STATION	SIDE	WIDTH	SQ. YD.	TON
33+00 RT	500N 1300E	18'	138	18
33+00 LT	500N 1300E	20'	167	22
90+47 RT	500N 1400E	24'	200	30
90+47 LT	500N 1400E	20'	167	22
143+82 RT	500N 1500E	20'	167	22
143+82 LT	500N 1500E	18'	138	18
196+60 RT	500N 1600E	20'	167	25
196+60 LT	500N 1600E	24'	200	30
222+88 RT	500N 1650E	18'	138	18
222+88 LT	500N 1650E	14'	107	15
TOTAL = 220 TONS				

\* THESE ENTRANCES SHALL RECEIVE ONLY A FOUR FOOT PAVED APRON.  
 \*\* THESE ENTRANCES SHALL RECEIVE ONLY A SEVEN FOOT PAVED APRON.  
 \*\*\* THESE ENTRANCES SHALL RECEIVE ONLY A TEN FOOT PAVED APRON.

TYPICAL FIELD ENTRANCES

STATION	RT/LT	TYPE	PROPOSED	SQ. YD.	TON
32+40	LT	FE	AGG.	—	5
32+50	RT	FE	AGG.	—	5
40+43	LT	FE	AGG.	—	5
42+86	RT	FE	AGG.	—	5
44+78	LT	FE	AGG.	—	5
51+51	LT	FE	AGG.	—	5
56+68	RT	FE	AGG.	—	5
63+85	RT	FE	AGG.	—	5
64+38	LT	FE	AGG.	—	5
70+60	RT	FE	AGG.	—	5
72+47	LT	FE	AGG.	—	5
81+78	LT	FE	AGG.	—	5
82+30	RT	FE	AGG.	—	5
108+35	RT	FE	AGG.	—	5
117+20	RT	FE	AGG.	—	5
123+76	LT	FE	AGG.	—	5
131+32	LT	FE	AGG.	—	5
131+68	RT	FE	AGG.	—	5
150+92	RT	FE	AGG.	—	5
152+78	LT	FE	AGG.	—	5
163+41	LT	FE	AGG.	—	5
170+30	RT	FE	AGG.	—	5
180+00	RT	FE	AGG.	—	5
183+20	RT	FE	AGG.	—	5
183+20	LT	FE	AGG.	—	5
192+66	LT	FE	AGG.	—	5
208+85	RT	FE	AGG.	—	5
209+90	LT	FE	AGG.	—	5
213+15	RT	FE	AGG.	—	5
226+90	RT	FE	AGG.	—	5
230+15	LT	FE	AGG.	—	5
230+90	RT	FE	AGG.	—	5
234+40	LT	FE	AGG.	—	5
243+06	RT	FE	AGG.	—	5
252+41	RT	FE	AGG.	—	5
258+18	LT	FE	AGG.	—	5
258+97	RT	FE	AGG.	—	5
260+67	LT	FE	AGG.	—	5
261+00	RT	FE	AGG.	—	5
268+72	LT	FE	AGG.	—	5
275+84	RT	FE	AGG.	—	5
288+04	LT	FE	AGG.	—	5
292+20	RT	FE	AGG.	—	5
TOTAL = 215 TONS					

EARTH EX & HMA SHOULDERS

STATION TO STATION	EARTH EX CU. YDS.	HMA SHOULDERS TONS
CH 10		
STA 3+20 TO 15+55 LT	91.0	185.0
STA 260+50 TO 263+85 LT	25.0	50.0
TOTAL =	116.00	235.0

PCC SURFACE REMOVAL  
BUTT JOINT

STATION TO STATION	SQ. YDS.
STA 3+97 LT	17.1
STA 10+34 LT	28.0
STA 11+88 LT	17.9
STA 12+37 LT	17.1
STA 13+41 RT	20.2
STA 13+95 RT	15.6
STA 18+33 RT	23.3
TOTAL =	139.2

HMA SURFACE REMOVAL  
BUTT JOINT

STATION TO STATION	SQ. YDS.
STA 0+44 TO 0+74	217.0
STA 5+64 TO 6+00 LT	28.0
STA 8+95 TO 9+19 LT	19.0
STA 9+48 TO 9+76 LT	22.0
STA 73+50 TO 73+80	73.0
STA 74+39 TO 74+60	73.0
STA 156+27 TO 156+57	73.0
STA 157+41 TO 157+71	73.0
STA 196+00 TO 197+50	367.0
STA 196+60 LT	146.0
STA 196+60 RT	50.0
STA 264+59 TO 264+89	73.0
STA 265+77 TO 266+07	73.0
STA 281+85 TO 282+35	122.0
STA 282+46 TO 282+96	122.0
STA 297+60 TO 298+10	122.0
TOTAL =	1653.0

PERMANENT  
SURVEY MARKERS

STATION	EACH
STA 33+00 RT/LT (500N/1300E)	2
STA 90+47 (500N/1400E)	1
STA 117+14 (500N/1450E)	1
STA 143+82 (500N/1500E)	1
STA 196+60 (500N/1600E)	1
STA 222+88 (500N/1650E)	1
TOTAL =	7

STRIPING QUANTITIES  
PAINT PAVEMENT MARKINGS  
Q & NO PASSING ZONES

STATION TO STATION	FEET	LINE 4'
CENTERLINE		
0+44 TO 282+00	28,156.0	7,039.0
282+70 TO 298+10	1540.0	385.0
NO PASSING ZONE		
273+50 TO 282+70 RT	920.0	920.0
282+00 TO 291+20 LT	920.0	920.0
TOTAL =		9,264.0 FT