

ROUTE NO. FAS 1322	SECTION 08-00091-01-RS	COUNTY IROQUOIS	TOTAL SHEETS 9	SHEET NO. 1
JOB # C-93-049-10			PROJECT RS-1322(125)	
CONTRACT 87444				

INDEX OF SHEETS

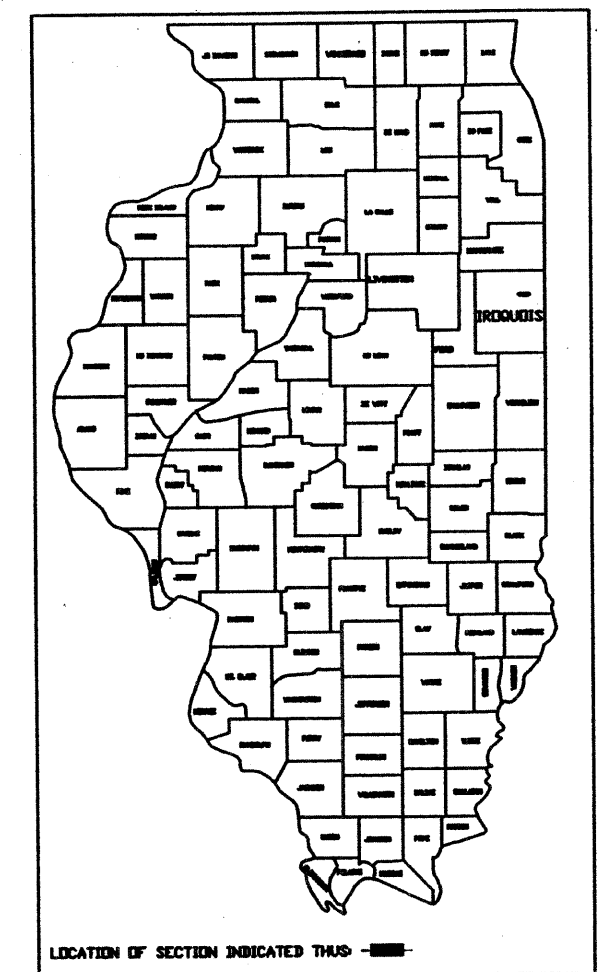
SHEET NUMBER	DESCRIPTION
1	COVER SHEET -- LOCATION MAP
2	SUMMARY OF QUANTITIES, GENERAL NOTES, MIXTURE TABLE, AND BUTT JOINTS
3, 4, 5	TYPICAL X-SECTIONS
6	TYPICAL ENTRANCES, SIDE ROAD INTERSECTIONS, AND MAIL BOX TURNOUTS
7	PAVEMENT MARKINGS
8	PAVEMENT PATCHING, EARTH EXCAVATION, HMA SHOULDERS & RUMBLE STRIP SCHEDULES
9	EARTH EXCAVATION & HMA SHOULDERS DETAIL

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

PLANS FOR PROPOSED IMPROVEMENT OF FEDERAL AID SECONDARY HIGHWAY 1322 BUILT IN ACCORDANCE WITH F.A.P.L.H.I. (3R) POLICY

IROQUOIS COUNTY HIGHWAY PROJECT

ROUTE	FAS 1322, CH 37
SECTION	08-00091-01-RS
PROJECT	RS-1322(125)
JOB NUMBER	C-93-049-10



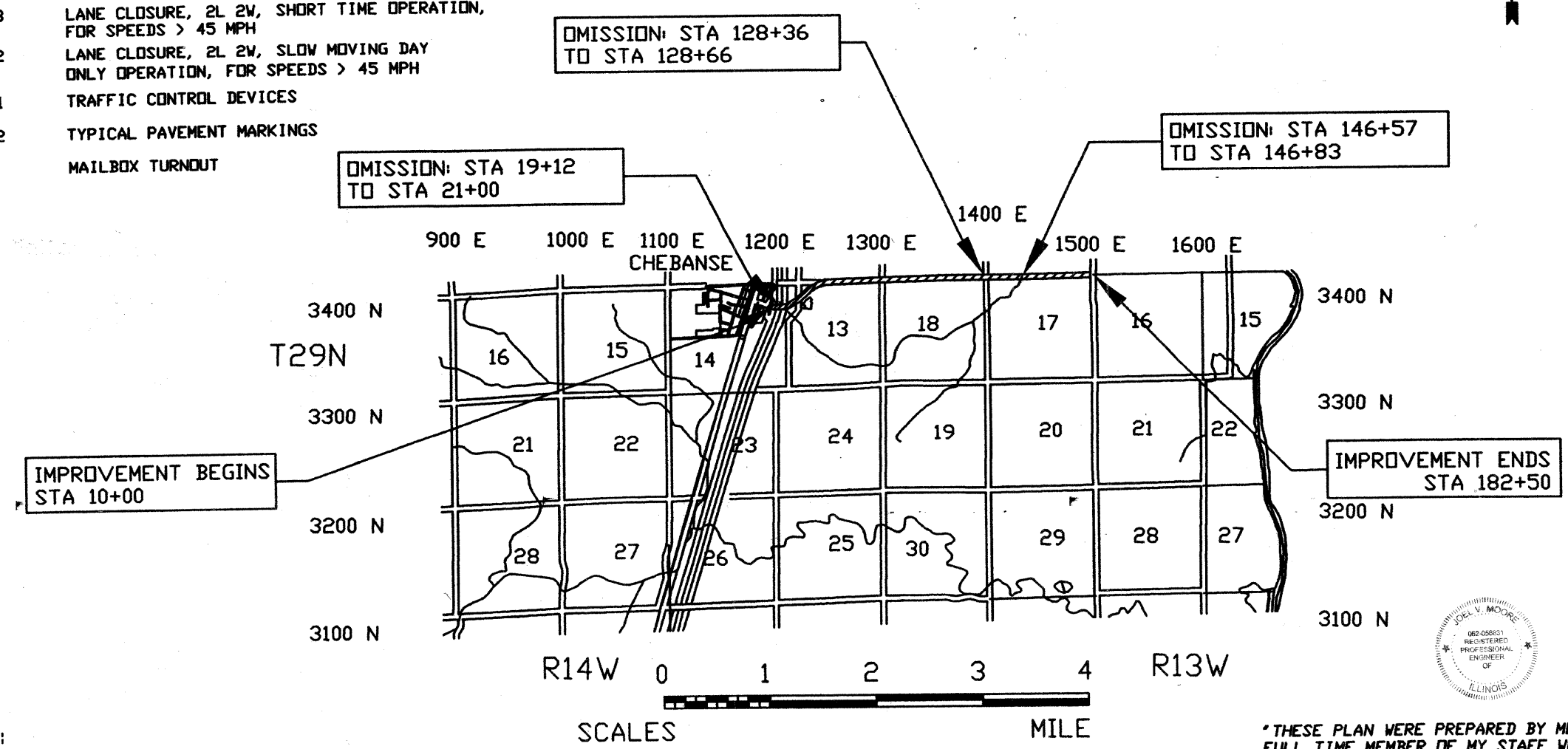
MAJOR COLLECTOR 2009 ADT = 850
PV = 88% SU = 7% MU = 5%

THE ACCEPTANCE OF THIS PROJECT IS BASED ON THE MINIMUM DESIGN CRITERIA FOR TRUCK ACCESS ROUTE PROGRAM PROJECTS.

CONTRACT 87444

STANDARDS

000001-05	SYMBOLS AND ABBREVIATIONS
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
701301-03	LANE CLOSURE, 2L 2W, SHORT TIME OPERATION, FOR SPEEDS > 45 MPH
701306-02	LANE CLOSURE, 2L 2W, SLOW MOVING DAY ONLY OPERATION, FOR SPEEDS > 45 MPH
701901-01	TRAFFIC CONTROL DEVICES
780001-02	TYPICAL PAVEMENT MARKINGS
BLR 24-2	MAILBOX TURNOUT



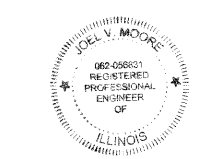
NOTES:

- JULIE # 1-800-892-0123
- KNOWN UTILITIES**
EASTERN ILLINI ELECTRIC CO-OP
VERIZON NORTH
NICOR
AMEREN CIPS
COMED

GROSS LENGTH OF IMPROVEMENT = 17,250.00 FT. = 3.267 MI.
NET LENGTH OF IMPROVEMENT = 17,006.00 FT. = 3.221 MI.
OMISSION LENGTH = 244.0 FT. = 0.046 MI.

* 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: Maech 26, 2010
County Engineer

Passed: MARCH 29, 2010
District Three Implementation Engineer

RELEASED FOR BID BASED ON LIMITED REVIEW: MARCH 29, 2010
Deputy Director of Highways, Region Two Engineer

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES			FUND CODE	1000
ITEM #	CODE #	ITEM	UNIT	QUANTITY
* 1	Z0055300	RUMBLE STRIP	EACH	6
* 2	20200100	EARTH EXCAVATION	CU YD	150
* 3	20400800	FURNISHED EXCAVATION	CU YD	70
4	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	4,675
5	40600300	AGGREGATE (PRIME COAT)	TON	165
* 6	40600625	LEVEL BINDER (MACHINE METHOD), N50	TON	4,800
* 7	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	1,840
8	40600990	TEMPORARY RAMP	SQ YD	311
* 9	40603310	HOT-MIX ASPHALT SURFACE COURSE MIX 'C' N50	TON	4,200
* 10	40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	206
* 11	44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	2,230
* 12	44201785	CLASS D PATCHES, TYPE I, 12 INCH	SQ YD	201
* 13	44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	61
* 14	44201796	CLASS D PATCHES, TYPE IV, 12 INCH	SQ YD	32
* 15	44300300	AREA REFLECTIVE CRACK CONTROL TREATMENT, SYSTEM A	SQ YD	9,475
* 16	48101200	AGGREGATE SHOULDERS, TYPE B	TON	3,400
* 17	48203100	HOT-MIX ASPHALT SHOULDERS	TON	310
Δ* 18	63100167	TRAFFIC BARRIER TERMINAL TYPE 1, (SPECIAL) TANGENT	EACH	4
19	63200310	GUARDRAIL REMOVAL	FOOT	150
20	67100100	MOBILIZATION	L SUM	1
* 21	70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1
22	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	3,450
23	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	9,972
24	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	575
Δ 25	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	4,836
Δ 26	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	80
Δ 27	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	5,136
* 28Δ	78201000	TERMINAL MARKER -DIRECT APPLIED	EACH	4

* SEE SPECIAL PROVISIONS

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

STRUCTURAL OVERLAY

FLEXIBLE PAVEMENT OVERLAY DESIGN FOR CLASS III ROAD USING EQUATION 37-8.07

DESIGN PERIOD D. P. = 20 YEARS

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

DESIGN ADT = 887 IBV = 3.00 TRAFFIC FACTOR = 0.27

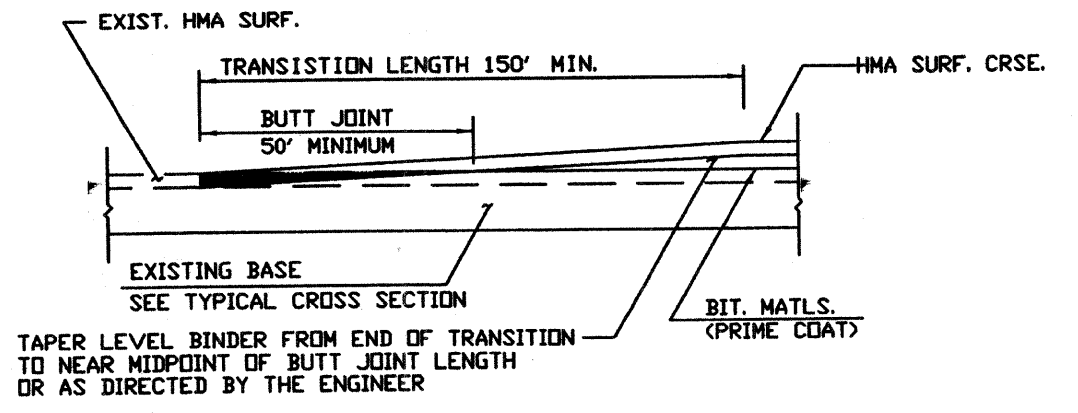
SN_F = 3.40 SN_{Fe} = 2.00 D_o = 3.50

MIXTURE TABLE

	HMA BINDER (PATCHES)	HMA LEVEL BINDER	HMA SURFACE	HMA SHOULDERS (BOTTOM 6")
PG GRADE**	PG64-22	PG64-22	PG64-22	PG58-22
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50	4.0% @ N50	2.0% @ N30
MIXTURE COMPOSITION	IL 19.0	IL 9.5	IL 12.5 OR IL 9.5	IL 19.0
FRICTION AGGREGATE			MIXTURE C	
DENSITY TEST METHOD	CORES	GROWTH CURVE	GROWTH CURVE	CORES*

- * 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.
- ** WHEN MORE THAN 20% RAP IS USED, A SOFTER ASPHALT BINDER (PG58-22) MAY BE REQUIRED AS DETERMINED BY THE ENGINEER.

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT



SECTION NOTES

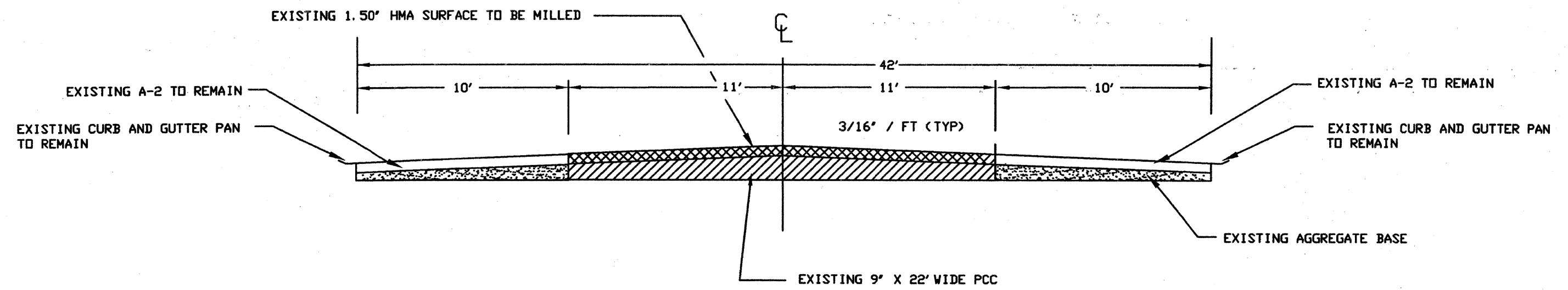
THE PROPOSED IMPROVEMENT CONSISTS OF A HOT MIX ASPHALT SURFACE COURSE INCLUDING LEVELING BINDER, SHOULDER STONE AND ALL WORK NECESSARY TO COMPLETE THE PROJECT ACCORDING TO THE PLANS AND SPECIFICATIONS.

COUNTY HIGHWAY 37 WAS CONSTRUCTED UNDER SECTIONS (91B-15D, 91-15D, 91-15D W & RS, FAI 46, 38-1)

ROUTE NO. FAS 1322	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00091-01-RS	IRROQUOIS	9	3
	JOB # C-93-049-10		PROJECT RS-1322 (125)	
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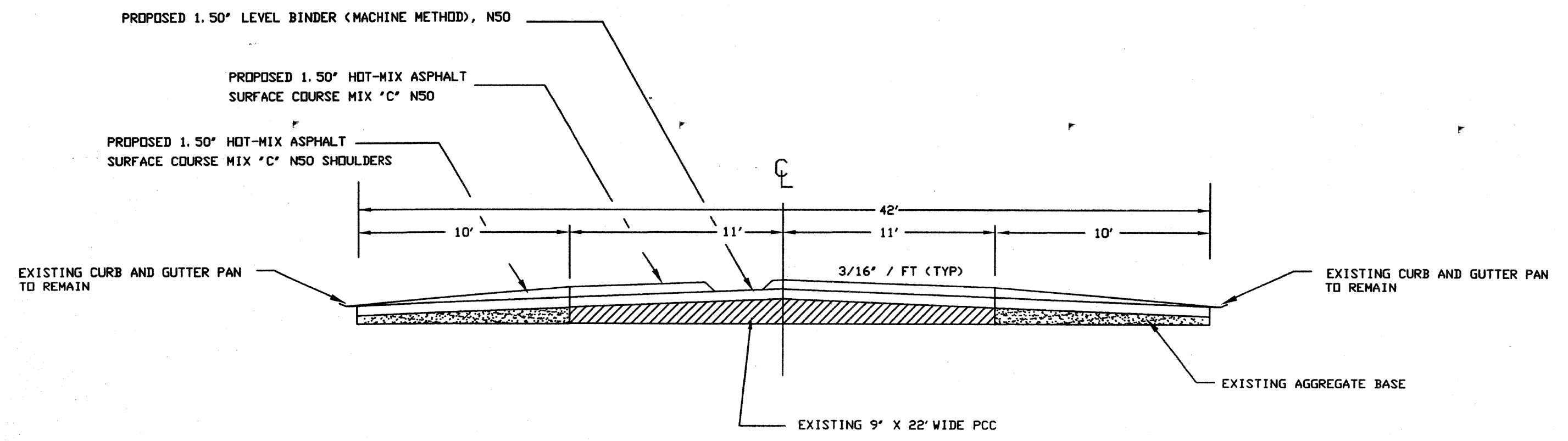
EXISTING TYPICAL SECTION

STATION 10+00 TO 19+12



PROPOSED TYPICAL SECTION

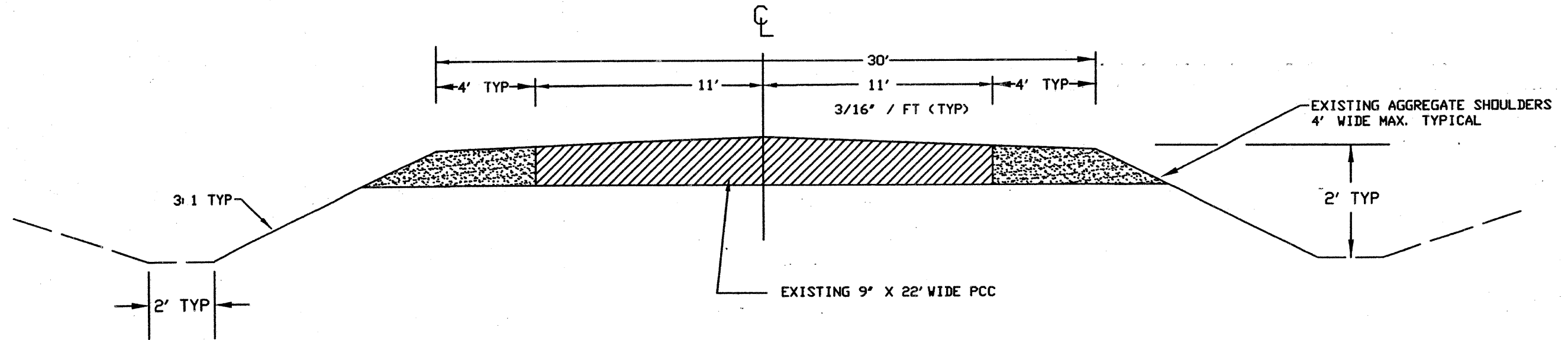
STATION 10+00 TO 19+12



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1322	08-00091-01-RS	IRROQUOIS	9	4
JOB # C-93-049-10			PROJECT	RS-1322(125)
CONTRACT 87444				

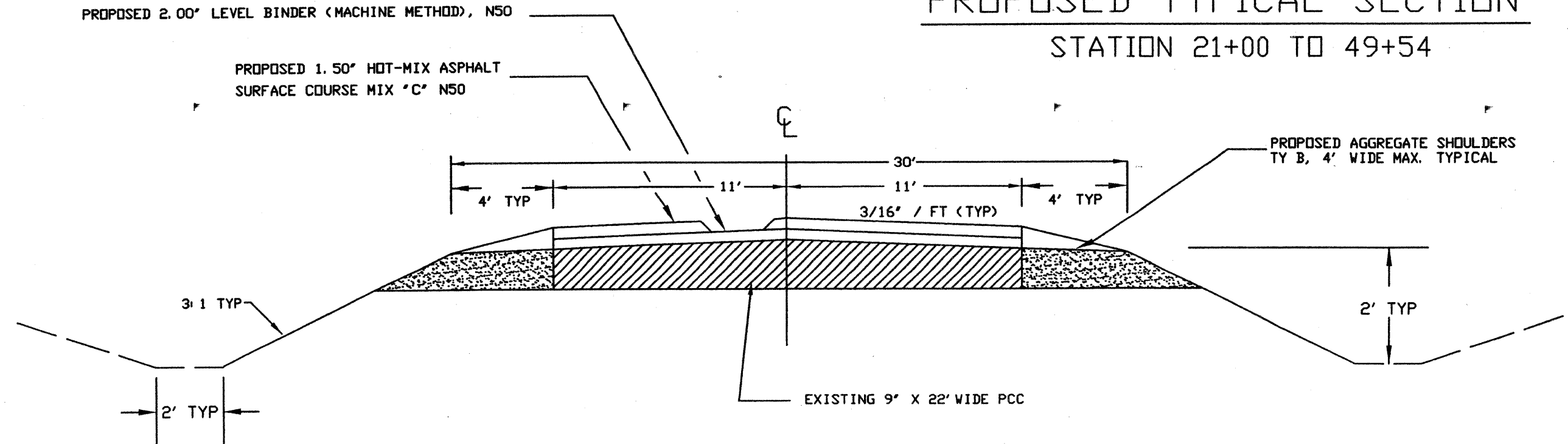
EXISTING TYPICAL SECTION

STATION 21+00 TO 49+54



PROPOSED TYPICAL SECTION

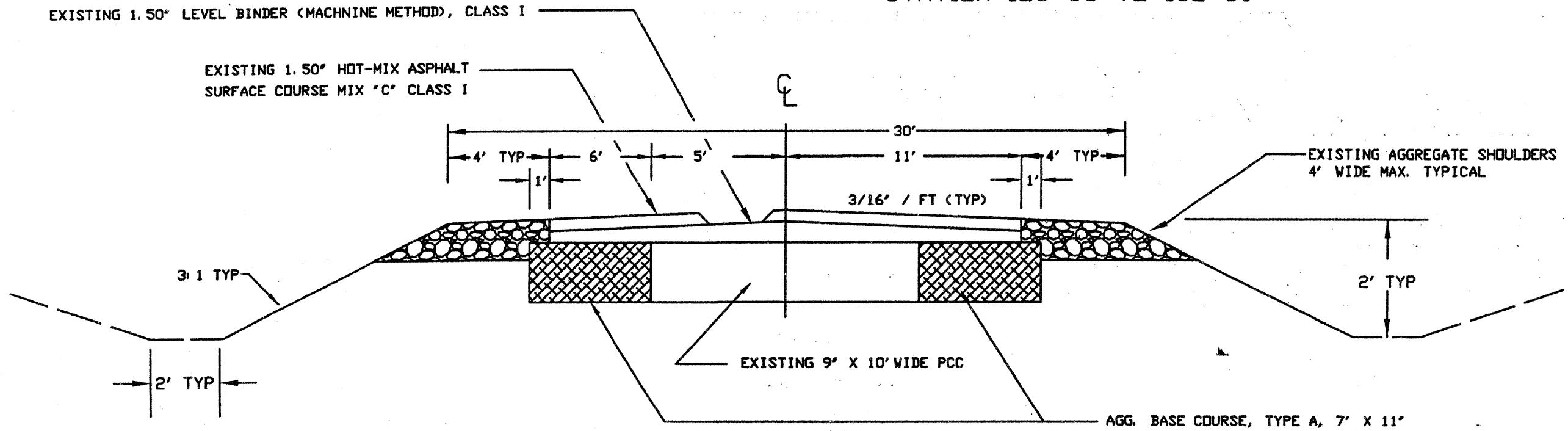
STATION 21+00 TO 49+54



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1322	08-00091-01-RS	IRROQUOIS	9	5
JOB # C-93-049-10			PROJECT	RS-1322 (125)
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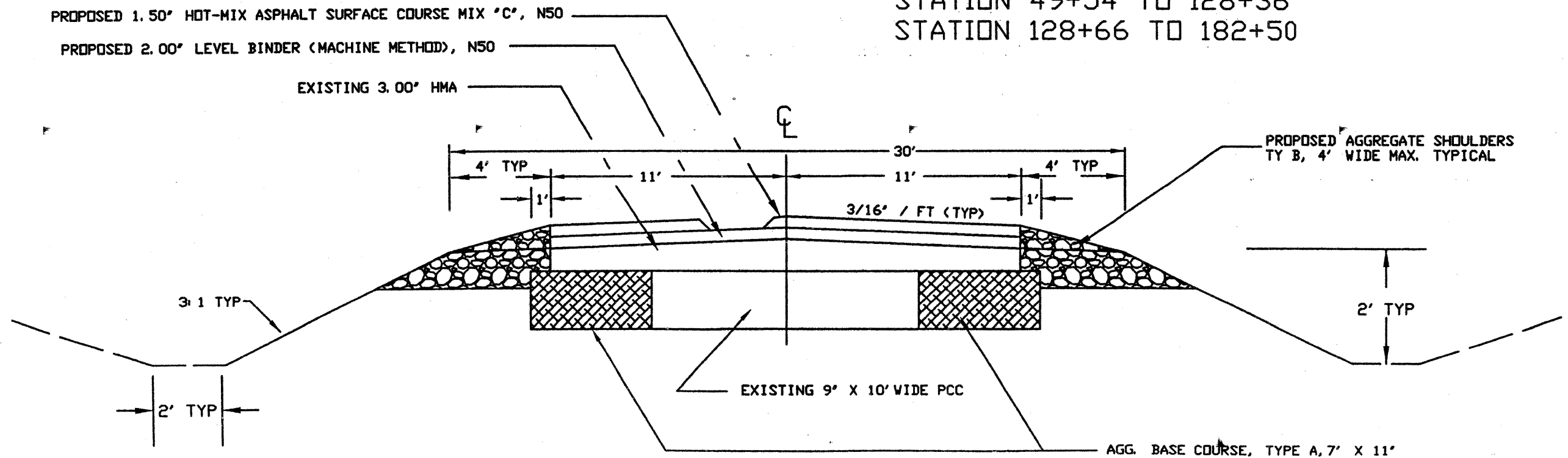
EXISTING TYPICAL SECTION

STATION 49+54 TO 128+36
STATION 128+66 TO 182+50



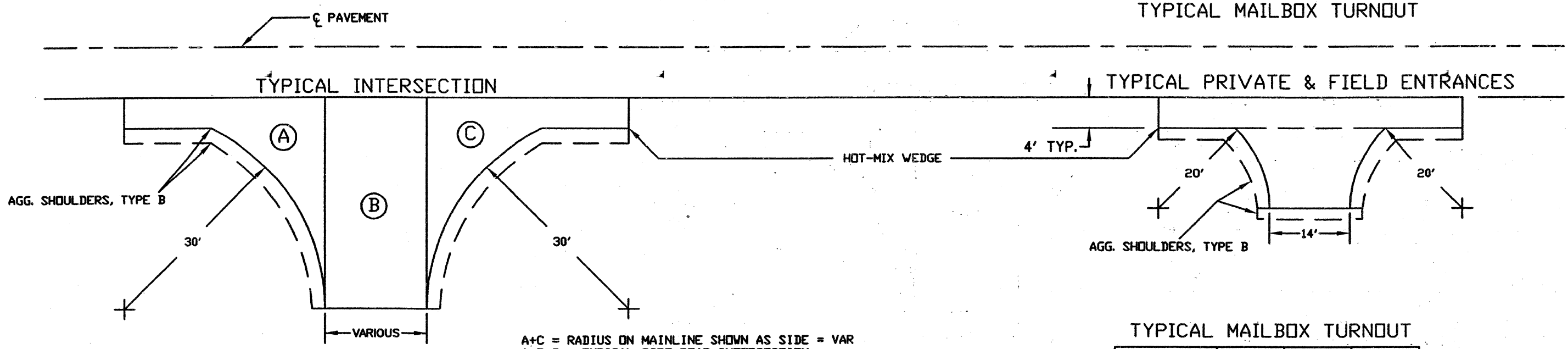
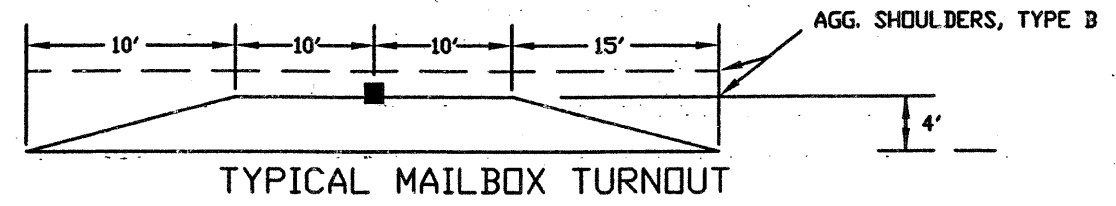
PROPOSED TYPICAL SECTION

STATION 49+54 TO 128+36
STATION 128+66 TO 182+50



NOTE: ALL PRIVATE ENTRANCES, MAIL BOX TURNOUTS AND SIDE ROAD INTERSECTIONS SHALL BE PAID FOR AS INCIDENTAL HOT-MIX ASPHALT SURFACING = TOTAL 206 TON

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



TYPICAL MAILBOX TURNOUT

STATION	SIDE	SQ. YD.	TON
56+95	RT	20	4
64+78	RT	20	4
85+78	RT	20	4
107+88	RT	20	4
TOTAL = 16 TONS			

TYPICAL FIELD ENTRANCES

STATION	RT/LT	TYPE	PROPOSED	SQ. YD.	TON
50+33	LT.	FE	AGG	—	5
50+54	RT.	FE	AGG	—	5
61+73	LT.	FE	AGG	—	5
63+61	RT.	FE	AGG	—	5
83+39	RT.	FE	AGG	—	5
86+85	LT.	FE	AGG	—	5
92+63	RT.	FE	AGG	—	5
95+11	RT.	FE	AGG	—	5
96+20	LT.	FE	AGG	—	5
115+16	RT.	FE	AGG	—	5
115+57	LT.	FE	AGG	—	5
145+31	LT.	FE	AGG	—	5
150+14	RT.	FE	AGG	—	5
151+00	LT.	FE	AGG	—	5
169+00	RT.	FE	AGG	—	5
174+29	LT.	FE	AGG	—	5
182+14	RT.	FE	AGG	—	5

TOTAL AGGREGATE FOR FIELD ENTRANCES = 85 TON. THIS QUANTITY IS INCLUDED IN AGGREGATE SHOULDERS, TYPE B TOTAL QUANTITY.

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

TYPICAL INTERSECTION - SIDE ROADS

STATION	SIDE	WIDTH	SQ. YD.	TON
25+58	Frontage RD LT	20'	312	53
25+77	Frontage RD RT	20'	243	41
41+50	TR 1B Chebanse Rd	20'	243	41
*76+80	TR 132 RT	18'	27	8
76+88	TR 150 LT	18'	138	18
TOTALS = 161 TONS				

* THIS INTERSECTION SHALL RECEIVE ONLY A FOUR FOOT PAVED APRON.

TYPICAL PRIVATE ENTRANCES

STATION	RT/LT	TYPE	PROPOSED	SQ. YD.	TON
** 57+16	RT.	PE.	HMA	28	7
* 64+92	LT.	PE.	HMA	15	5
* 66+43	LT.	PE.	HMA	15	5
** 86+09	RT.	PE.	HMA	28	7
* 107+70	RT.	PE.	HMA	15	5

TOTAL = 29 TONS

* THESE ENTRANCES SHALL RECEIVE ONLY A FOUR FOOT PAVED APRON.
** THESE ENTRANCES SHALL RECEIVE ONLY A SIX FOOT PAVED APRON.

PAVEMENT MARKING SCHEDULE

LOCATION	PERMANENT		THERMOPLASTIC				
	4" SKIP DASH YELLOW CENTERLINE	4" SOLID YELLOW CENTERLINE	4" SINGLE WHITE EDGE LINE	4" SINGLE YELLOW EDGE LINE	4" SKIP DASH YELLOW CENTERLINE	4" SOLID YELLOW CENTERLINE	24" WHITE STOP BAR
	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT
CL STA 10+00 TO CL STA 19+12					228		
RT STA 10+00 TO RT STA 15+50			550				
LT STA 10+00 TO LT STA 15+50			550				
RAMP CB			106	75			
RAMP BD			135	92			40
RAMP DA			116	87			
RAMP AC			139	109			40
LT STA 16+10 TO LT STA 16+45			35				
RT STA 16+68 TO RT STA 23+24			656				
LT STA 16+68 TO LT STA 23+24			656				
DOUBLE NO PASS STA 19+12 TO 25+00						1176	
RT STA 23+60 TO RT STA 23+93			33				
RT STA 24+64 TO RT STA 25+00			36				
LT STA 24+43 TO LT STA 25+00			57				
DOUBLE NO PASS STA 25+00 TO 27+81		562					
LCL STA 27+81 TO LCL STA 34+95							
CL STA 27+81 TO CL STA 128+36	2514	714					
CL STA 128+66 TO CL STA 182+50	1346						
SUBTOTAL	3860	1276	3069	363	228	1176	80
TOTAL	5136		4836				80

SCHEDULE - CLASS D PATCHING 12"

LOCATION BY STATION	EASTBOUND LANE			WESTBOUND LANE		
	PATCH			PATCH		
	TYPE I SQ YD	TYPE II SQ YD	TYPE IV SQ YD	TYPE I SQ YD	TYPE II SQ YD	TYPE IV SQ YD
22+60 RT	4.9					
22+60 LT				4.9		
23+00 LT						32.0
23+00 RT	4.9					
24+05 LT				4.9		
24+05 RT	4.9					
24+46 RT	4.9					
24+50 LT				4.9		
24+90 LT				4.9		
24+90 RT	4.9					
25+05 LT				4.9		
25+05 RT	4.9					
25+20 LT				4.9		
25+20 RT	4.9					
25+58 LT				4.9		
25+58 RT	4.9					
26+00 LT					9.8	
26+00 RT		9.8				
27+00 LT				4.9		
27+00 RT	4.9					
27+30 LT				4.9		
27+30 RT	4.9					
28+00 LT				4.9		
28+00 RT	4.9					
29+00 LT				4.9		
29+00 RT	4.9					
29+36 LT				4.9		
29+36 RT	4.9					
30+00 LT				4.9		
30+00 RT	4.9					
31+60 LT				4.9		
31+60 RT	4.9					
32+30 LT				4.9		
32+30 RT	4.9					
35+90 LT				4.9		
36+90 RT	4.9					
38+00 LT				4.9		
38+00 RT	4.9					
39+00 LT					7.3	
39+00 RT		7.3				
40+50 LT				4.9		
40+50 RT	4.9					
41+00 LT					7.3	
41+00 RT		7.3				
43+00 LT				4.9		
43+00 RT	4.9					
45+00 LT					6.1	
45+00 RT		6.1				
46+00 LT				4.9		
46+00 RT	5.0					
TOTALS	103.0	30.5	0.0	98.0	30.5	32.0
TYPE I TOTALS	103.0			98.0		
TYPE II TOTALS		30.5			30.5	
TYPE IV TOTALS			0.0			32.0

= 201.0 SQ YD
= 61.0 SQ YD
= 32.0 SQ YD

ROUTE NO. FAS 1322	SECTION 08-00091-01-RS C-93-049-10	COUNTY IRDOQUIS	TOTAL SHEETS 9	SHEET NO. 8
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TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL TANGENT

STATION TO STATION	EACH
STA 145+57 TO 146+07 RT	1.0
STA 145+82 TO 146+32 LT	1.0
STA 147+08 TO 147+58 RT	1.0
STA 147+33 TO 147+83 LT	1.0
TOTAL =	4.0

GUARDRAIL REMOVAL

STATION TO STATION	FOOT
145+69.5 TO 146+07 RT	37.5
145+94.5 TO 146+32 LT	37.5
147+08 TO 147+45.5 RT	37.5
147+33 TO 147+70.5 LT	37.5
TOTAL =	150.0

HMA SURFACE REMOVAL BUTT JOINT

STATION TO STATION	SQ. YDS.
STA 10+00 TO 10+25 RT(SHLDRS)	27.8
STA 10+00 TO 10+25 LT(SHLDRS)	27.8
STA 18+62 TO 19+12 RT(SHLDRS)	16.7
STA 18+62 TO 19+12 LT(SHLDRS)	16.7
STA 16+10 RT RAMP CB	150.0
STA 16+15 LT RAMP AC	150.0
STA 21+00 TO 21+50	155.6
STA 23+75 RT RAMP BD	150.0
STA 23+80 LT RAMP DA	150.0
STA 25+55 LT FRONTAGE RD	111.1
STA 25+55 RT FRONTAGE RD	111.1
STA 41+50 LT TR1B CHEBANSE RD	111.1
STA 128+16 TO 128+36	184.4
STA 128+66 TO 128+86	193.3
STA 182+30 TO 182+50	284.4
TOTAL =	1840.0

RUMBLE STRIPS

STATION TO STATION	EACH
118+16 TO 117+91 RT	1
120+91 TO 120+66 RT	1
122+66 TO 122+41 RT	1
134+36 TO 134+61 LT	1
136+11 TO 136+36 LT	1
138+86 TO 139+11 LT	1
TOTAL =	6

EARTH EX WIDENING & HMA SHOULDERS

STATION TO STATION	EARTH EX WIDENING	HMA SHOULDERS
	CU. YDS. ^F	TONS
STA 16+67 TO 18+70 RT	22.6	46.0
STA 16+80 TO 18+70 LT	21.1	43.0
STA 21+44 TO 23+24 RT	20.0	42.0
STA 21+44 TO 23+24 LT	20.0	42.0
STA 24+64 TO 25+00 RT	5.3	11.0
STA 24+43 TO 25+00 LT	8.4	18.0
RAMP 'BD' WEST SHOULDER	7.4	15.0
RAMP 'BD' EAST SHOULDER	7.4	15.0
RAMP 'DA' WEST SHOULDER	7.4	15.0
RAMP 'DA' EAST SHOULDER	7.4	15.0
STA 128+36 - NW RADIUS	5.6	15.0
STA 128+66 - SE RADIUS	10.4	12.0
STA 182+50 - NW RADIUS	7.0	21.0
TOTAL =	150.0	310.0

EARTH EX & HMA SHOULDERS

ROUTE NO.
FAS 1322

SECTION
08-00091-01-RS
JOB # C-93-049-10

COUNTY
IROQUOIS

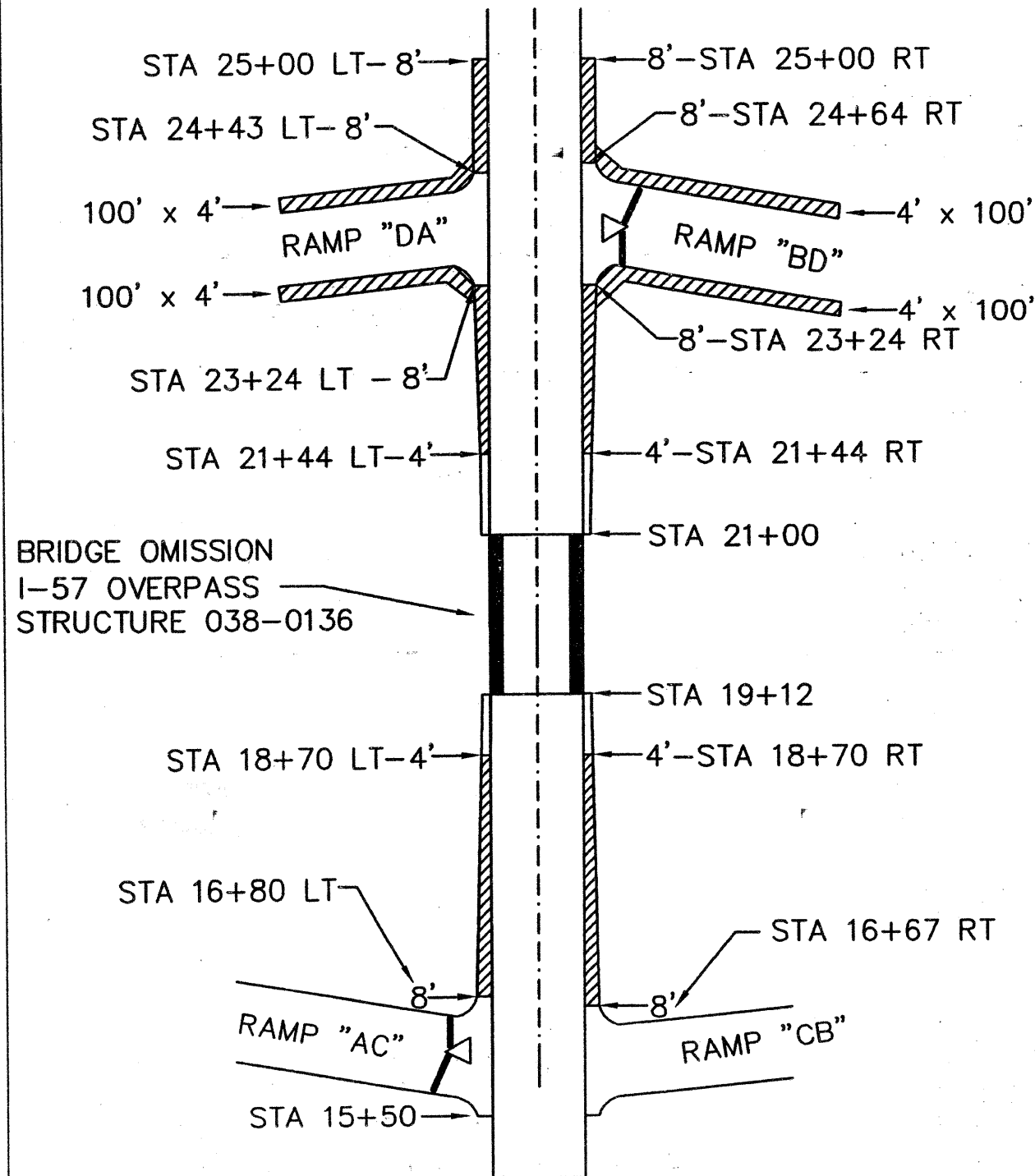
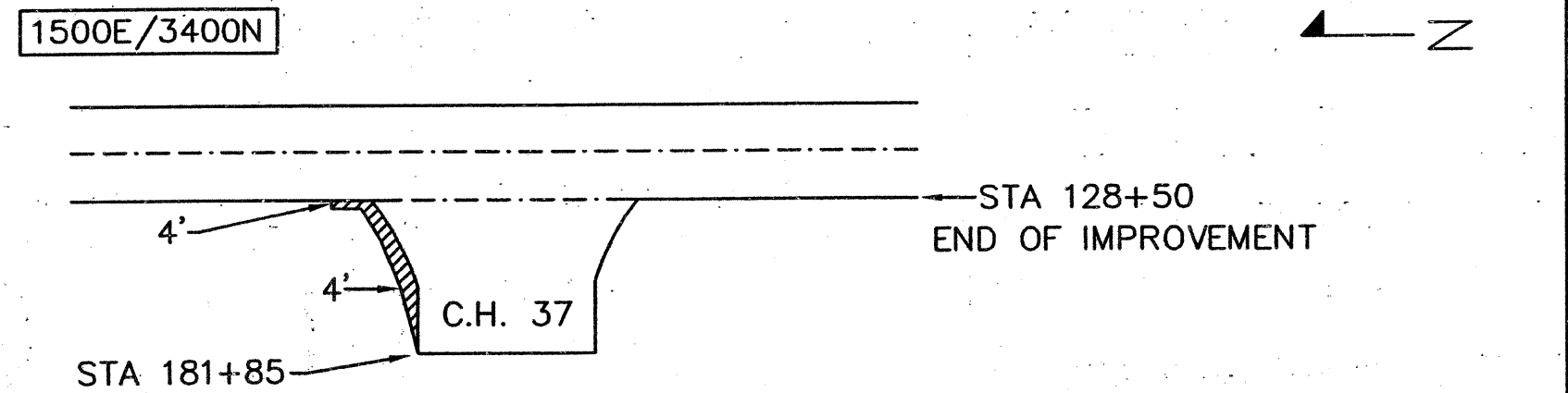
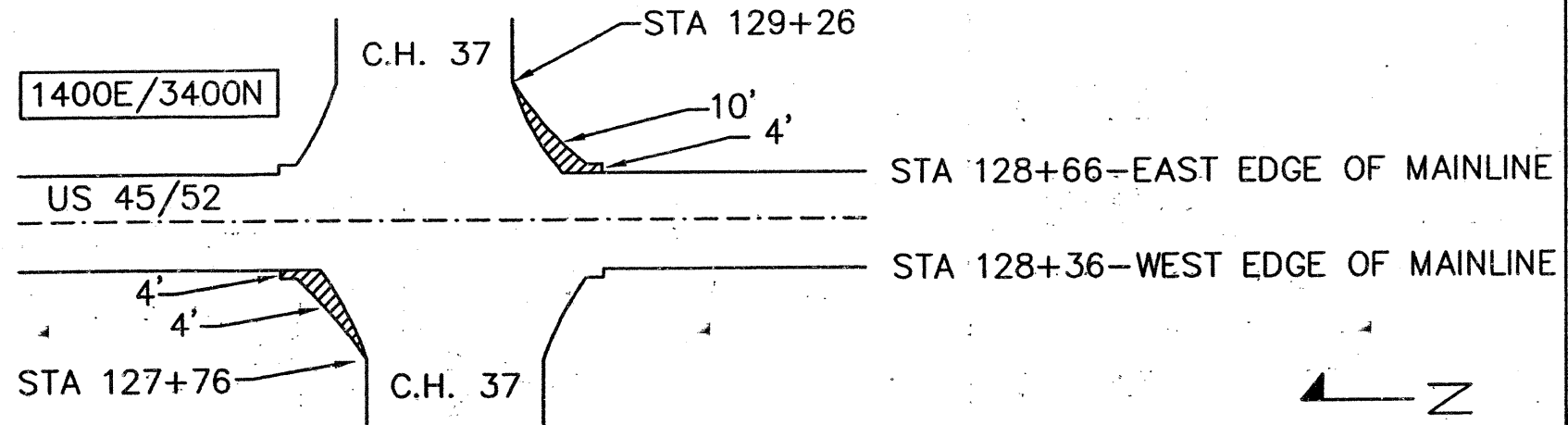
TOTAL SHEETS
9

SHEET NO.
9

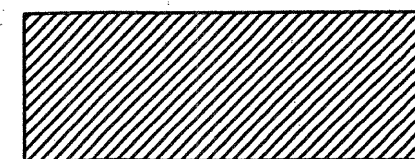
PROJECT
RS-1322 (125)

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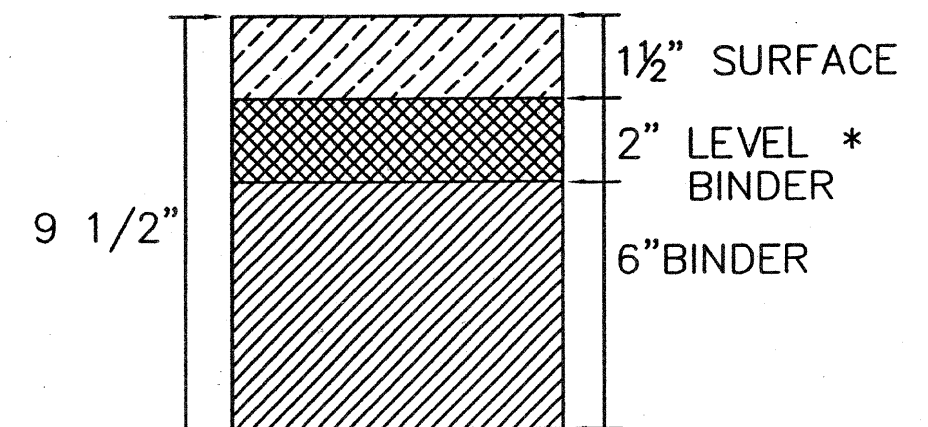
INTERSECTION OF US 45/52 & CH 37



HMA SHOULDERS DETAIL



PROPOSED
EARTH EX
HMA SHOULDERS



* 1 1/2" STA 16+67 TO 18+70