

06-13-2025 LETTING ITEM 160

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 321	21-00316-00-RS	IROQUOIS	8	1
JOB No: C-93-012-25			PROJECT No: VVNI(598)	

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OF THE STATE OF ILLINOIS"

TOLL FREE JOINT UTILITY LOCATING
INFORMATION FOR EXCAVATORS (J. U. L. I. E.)
TELEPHONE NUMBER 1-800-892-0123

PLANS FOR PROPOSED IMPROVEMENT OF
FEDERAL AID SECONDARY HIGHWAY 321
SURFACE TRANSPORTATION PROGRAM - RURAL
"HMA RESURFACING PROJECT"
IROQUOIS COUNTY

FAS ROUTE 321 (CH 4)
SECTION: 21-00316-00-RS
PROJECT NO. VVNI(598)
JOB NO. C-93-012-25

INDEX OF SHEETS	
SHEET NUMBER	DESCRIPTION
1	COVER SHEET -- LOCATION MAP
2	SUMMARY OF QUANTITIES, GENERAL NOTES, MIXTURE TABLE, AND BUTT JOINT DETAIL
3	EXISTING & PROPOSED X-SECTIONS - STA. 23+72 TO 131+99
4	EXISTING & PROPOSED X-SECTIONS - STA. 131+99 TO 138+56.92 STA. 139+53.08 TO 183+84
5	EXISTING & PROPOSED X-SECTIONS - STA. 183+84 TO 253+43 EXISTING & PROPOSED X-SECTIONS - STA. 255+57 TO 277+00
6	EXISTING & PROPOSED X-SECTION FOR SN: 038-0183
7	TYPICAL ENTRANCES, SIDE ROAD INTERSECTIONS, MAIL BOX TURNOUTS & INCIDENTAL HMA SURFACING
8	QUANTITY TABLES

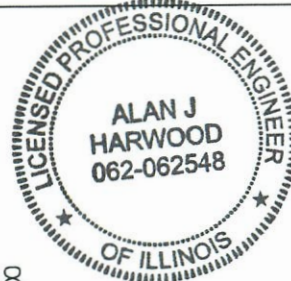
038-0183
STA 163+94

038-0195 OMISSION
STA 253+43 TO
STA 255+57

END PROJECT
STA 277+00
(500E/2950N)

ILLINOIS HIGHWAY STANDARD DRAWINGS

000001-08	SYMBOLS AND ABBREVIATIONS
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATION
701306-04	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
701901-10	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
BLR 24-2	MAILBOX TURNOUT

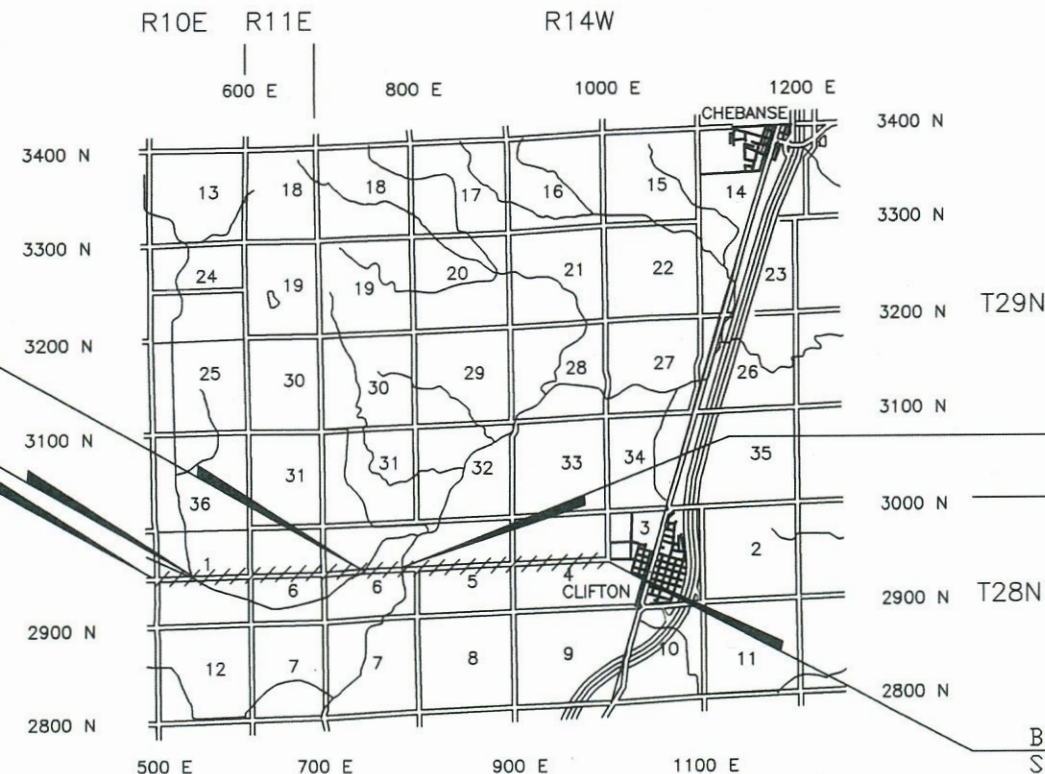


CONTRACT 87858

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

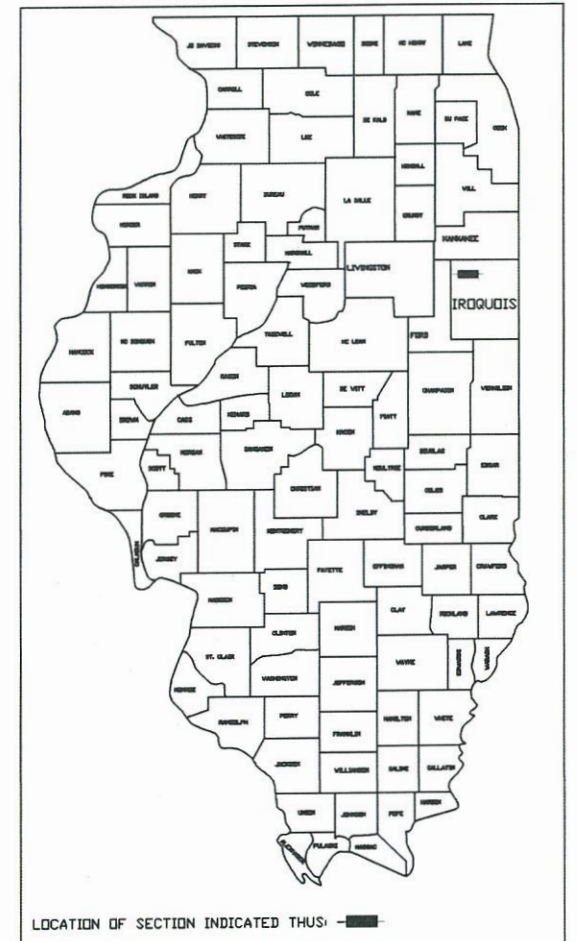
Alan J. Harwood

ALAN J. HARWOOD, COUNTY ENGINEER
ILL. REG. PROF. ENG. #620-062548
DATE EXPIRES: 11/30/25



0 1 2 3 4
SCALES MILE

GROSS LENGTH = 25,328.00 FT. = 4.797 MILE
038-3607 OMISSION LENGTH = 96.16 FT. = .018 MILE
039-0195 OMISSION LENGTH = 214.00 FT. = .041 MILE
NET LENGTH = 25,017.84 FT. = 4.738 MILE



LOCATION OF SECTION INDICATED THUS: [shaded area]

MAJOR COLLECTOR 2035 ADT = 357
PV = 88% SU = 7% MU = 5%
DESIGN SPEED = 50 M. P. H.

038-3607 OMISSION
STA 138+56.92 TO
STA 139+53.08

BEGIN PROJECT
STA 23+72
(1000E/2950N)

Approved *MARCH 27*, 20*25*
Alan Harwood
COUNTY ENGINEER

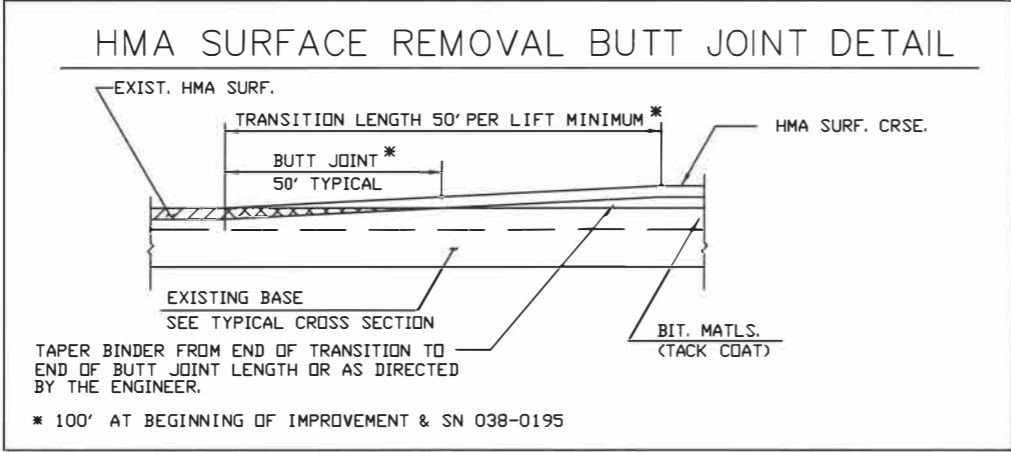
Passed *APRIL 10*, 20*25*
John Thompson
DISTRICT THREE LOCAL ROADS AND STREETS ENGINEER
RELEASED FOR BID
BASED ON LIMITED
REVIEW

REGION TWO ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES				FUND CODE	0005
	ITEM #	PAY ITEM #	PAY ITEM	UNIT	QUANTITY
	1	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	42,200
	2	40600370	LONGITUDINAL JOINT SEALANT	FOOT	25,018
SP	3	40600405	MATERIAL TRANSFER DEVICE	TON	11,500
	4	40600982	HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT	SQ YD	1,550
	5	40600990	TEMPORARY RAMP	SQ YD	113
	6	40602978	HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50	TON	3,250
	7	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	3,100
	8	40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	5,150
	9	40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	311
SP	10	44000155	HOT-MIX ASPHALT SURFACE REMOVAL 1 1/2	SQ YD	633
SP	11	48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	6,300
SP	12	66700205	PERMANENT SURVEY MARKERS, TYPE 1	EACH	9
	13	67100100	MOBILIZATION	L SUM	1
SP	14	70300100	SHORT TERM PAVEMENT MARKING	FOOT	5,004
	15	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	834
SP	16	70300221	TEMPORARY PAVEMENT MARKING LINE 4" PAINT	FOOT	6,340
	17	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	22
SP	18	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	12,680
SP	19	78011125	GROOVING FOR RECESSED PAVEMENT MARKING 25"	FOOT	22
SP	20	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1

SP: SEE SPECIAL PROVISIONS
* SPECIALTY ITEM



PAVEMENT DESIGN - CH 4

STRUCTURAL DESIGN TRAFFIC: YEAR 2035
PV= 314 (88%) SU= 25 (7%) MU= 18 (5%)
ROAD CLASSIFICATION CLASS III
TRAFFIC FACTOR: ACTUAL TF = 0.097 AC TYPE = PG 64-22
SN_F = 2.9
PG GRADE: BINDER = PG 64-22 SURFACE = PG 64-22
SUB GRADE SUPPORT RATING:
IBV = 3.0 (STA. 23+72 TO 139+99)

PAVEMENT DESIGN - CH 4

STRUCTURAL DESIGN TRAFFIC: YEAR 2035
PV= 314 (88%) SU= 25 (7%) MU= 18 (5%)
ROAD CLASSIFICATION CLASS III
TRAFFIC FACTOR: ACTUAL TF = 0.097 AC TYPE = PG 64-22
SN_F = 2.9
PG GRADE: BINDER = PG 64-22 SURFACE = PG 64-22
SUB GRADE SUPPORT RATING:
IBV = 3.0 (STA. 139+99 TO 183+84)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 321	21-00316-00-RS	IROQUOIS	8	2
JOB No: C-93-012-25		PROJECT No: VVNI(598)		
CONTACT 87858				

MIXTURE TABLE

	HMA BINDER	HMA BINDER	HMA SURFACE	INCIDENTAL HMA
PG GRADE	PG64-22	PG64-22	PG64-22	PG64-22
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION	IL 19.0	IL 9.5	IL 9.5	IL 9.5
FRICTION AGGREGATE	N/A	N/A	MIXTURE C	MIXTURE C
DENSITY TEST METHOD	NUCLEAR	NUCLEAR	NUCLEAR	SATISFACTION OF ENGINEER
MIXTURE WEIGHT	112#/Sq. Yd./In.	112#/Sq. Yd./In.	112#/Sq. Yd./In.	112#/Sq. Yd./In.
QUALITY MANAGEMENT PROGRAM	QC/QA	QC/QA	QC/QA	QC/QA
SUBLOT SIZE	N/A	N/A	N/A	N/A
MATERIAL TRANSFER DEVICE	REQUIRED	REQUIRED	REQUIRED	N/A
LOCATION(S)	STA. 183+84 TO STA. 277+00	STA. 23+72 TO STA. 183+84	ENTIRE PROJECT	ENTIRE PROJECT

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.

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.

SECTION NOTES

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

COUNTY HIGHWAY 4 IS A COMBINATION OF SECTIONS: 34-15d, 34BR, 197Q, (34-15d, 197Q)W & RS, 04-00034-04-BR, 59-15d, (59-15d)W & RS, 59XBR

APPLICATION RATES

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

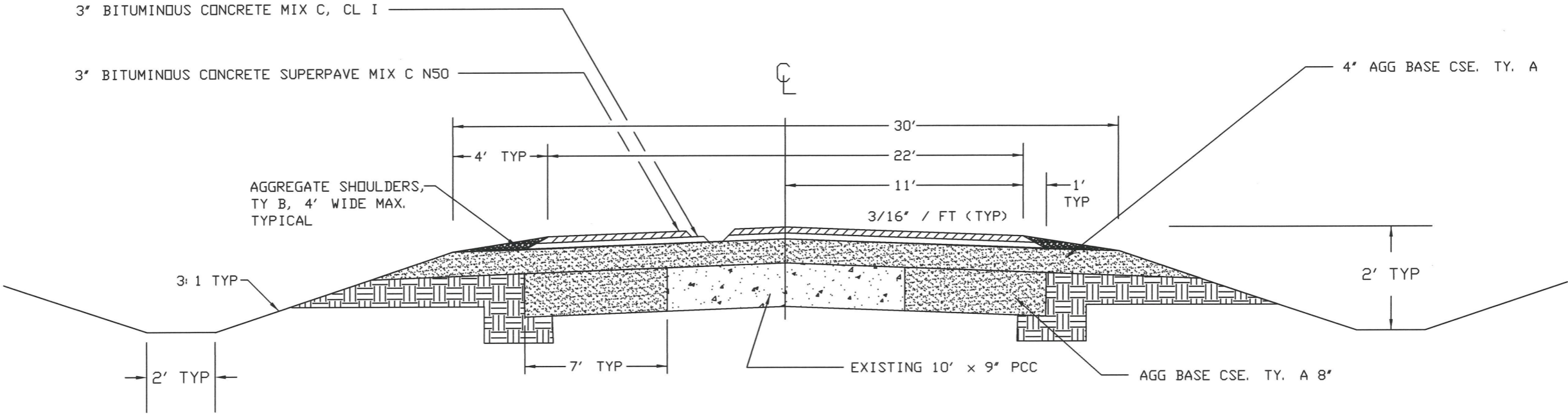
GRANULAR MATERIALS	2.05	TONS/CU YD
BITUMINOUS MATERIALS PRIME COAT	0.05/.025	LBS/SQ FT
HOT MIX ASPHALT SURFACE COURSE	112	LBS/SQ YD/INCH
BINDER COURSE, IL-19.0, N50	112	LBS/SQ YD/INCH
SHORT TERM PAVEMENT MARKING	4	FT/40 FT OF APPLICATION
PAINT PAVEMENT MARKING - LINE 4"	10	FT/40 FT OF APPLICATION

PAVEMENT DESIGN - CH 4

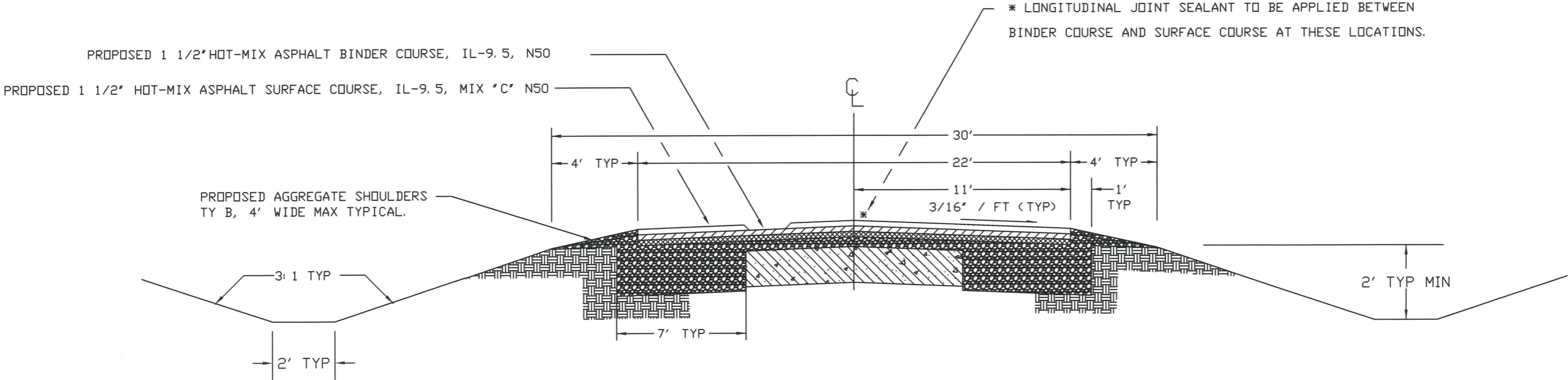
STRUCTURAL DESIGN TRAFFIC: YEAR 2035
PV= 314 (88%) SU= 25 (7%) MU= 18 (5%)
ROAD CLASSIFICATION CLASS III
TRAFFIC FACTOR: ACTUAL TF = 0.097 AC TYPE = PG 64-22
SN_F = 2.9
PG GRADE: BINDER = PG 64-22 SURFACE = PG 64-22
SUB GRADE SUPPORT RATING:
IBV = 3.0 (STA. 183+84 TO 277+00)

EXISTING TYPICAL SECTION 1
STATION 23+72 TO 131+99

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 321	21-00316-00-RS	IROQUOIS	8	3
JOB No: C-93-012-25		PROJECT No: VVNI(598)		
CONTACT 87858				



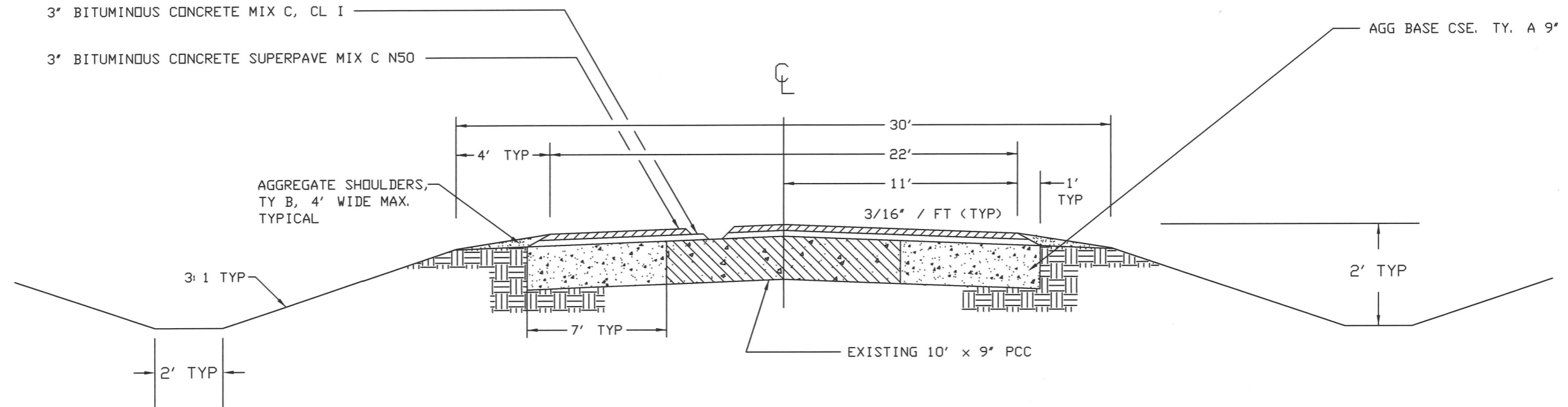
PROPOSED TYPICAL SECTION 1
STATION 23+72 TO 131+99



EXISTING TYPICAL SECTION 2

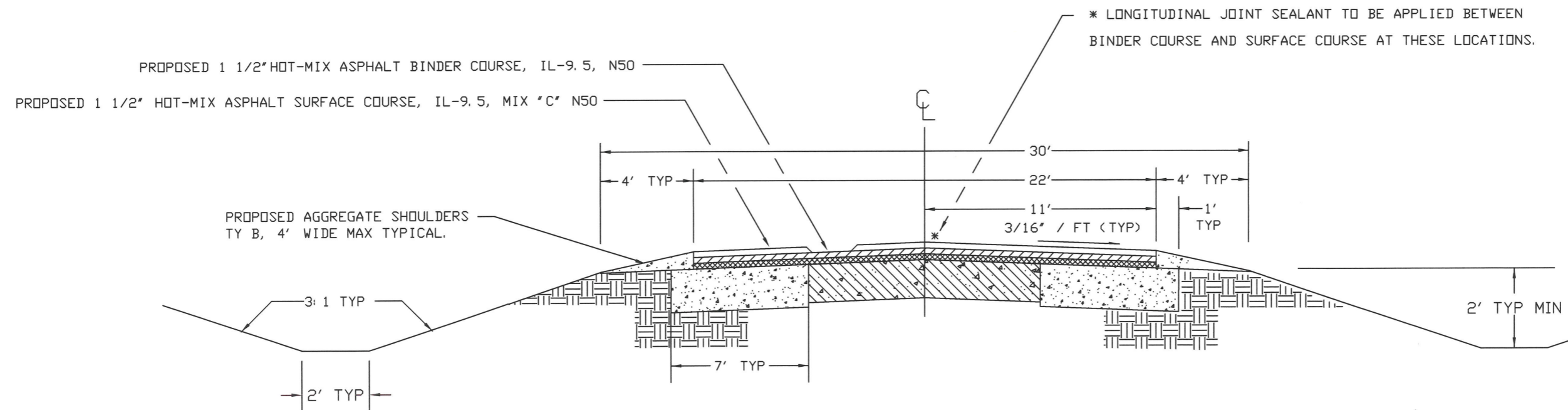
STATION 131+99 TO 138+56.92
STATION 139+53.08 TO 183+84

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 321	21-00316-00-RS	IROQUOIS	8	4
JOB No: C-93-012-25		PROJECT No: VVNI(598)		
CONTACT 87858				



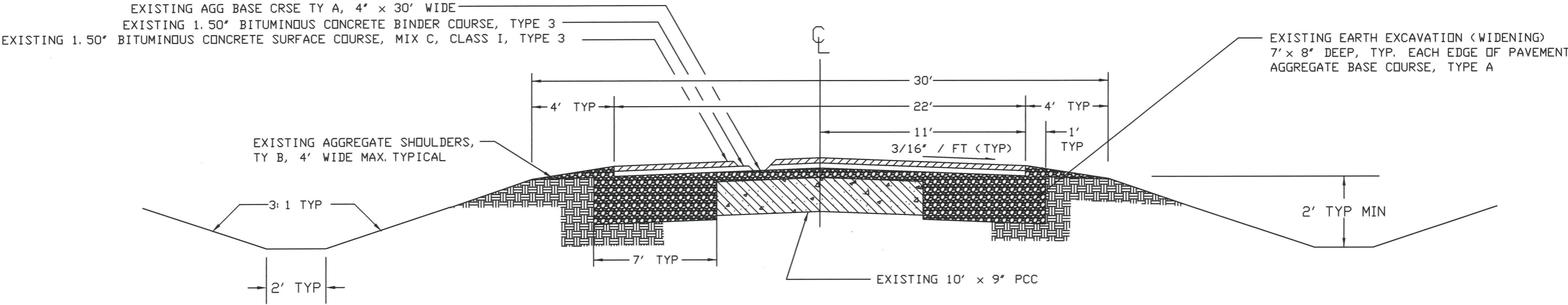
PROPOSED TYPICAL SECTION 2

STATION 131+99 TO 138+56.92
STATION 139+53.08 TO 183+84

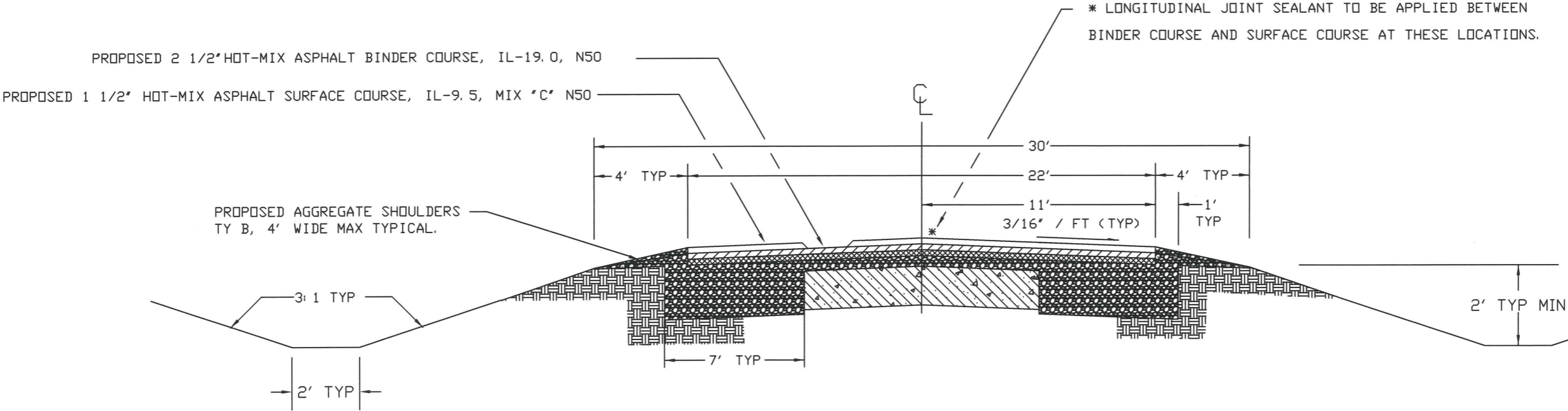


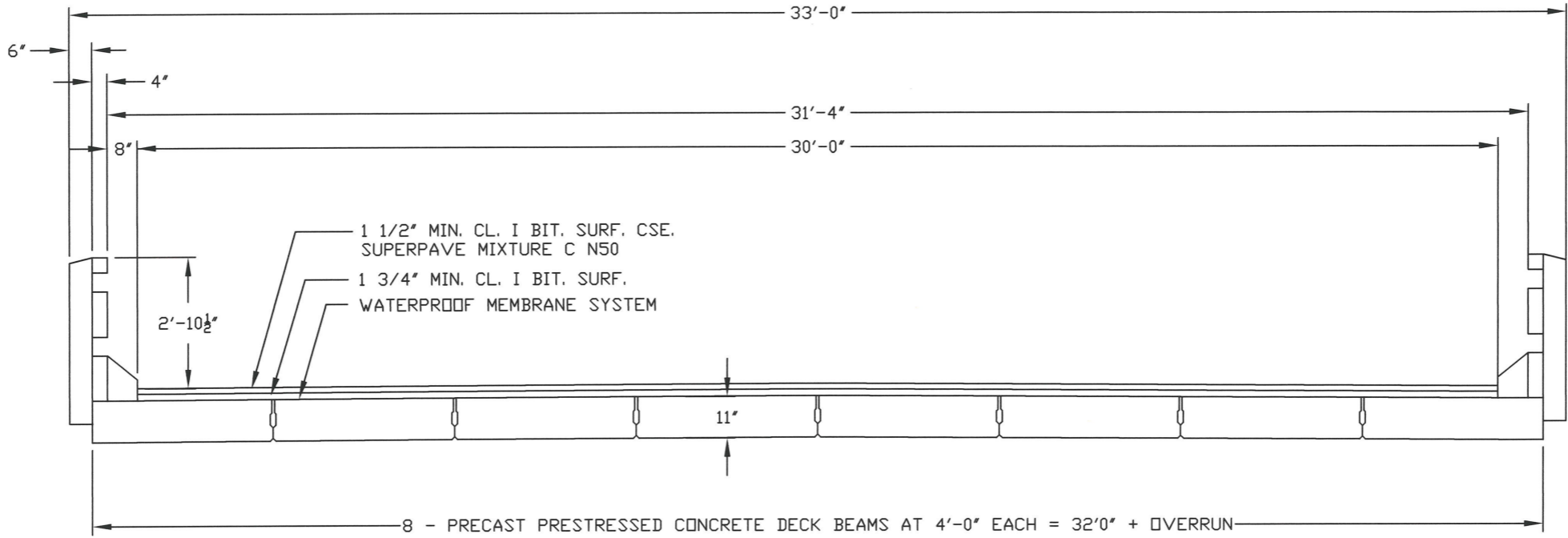
EXISTING TYPICAL SECTION 3
STATION 183+84 TO 253+43
STATION 255+57 TO 277+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 321	21-00316-00-RS	IRROQUOIS	8	5
JOB No: C-93-012-25		PROJECT No: VVNI(598)		
CONTACT 87858				

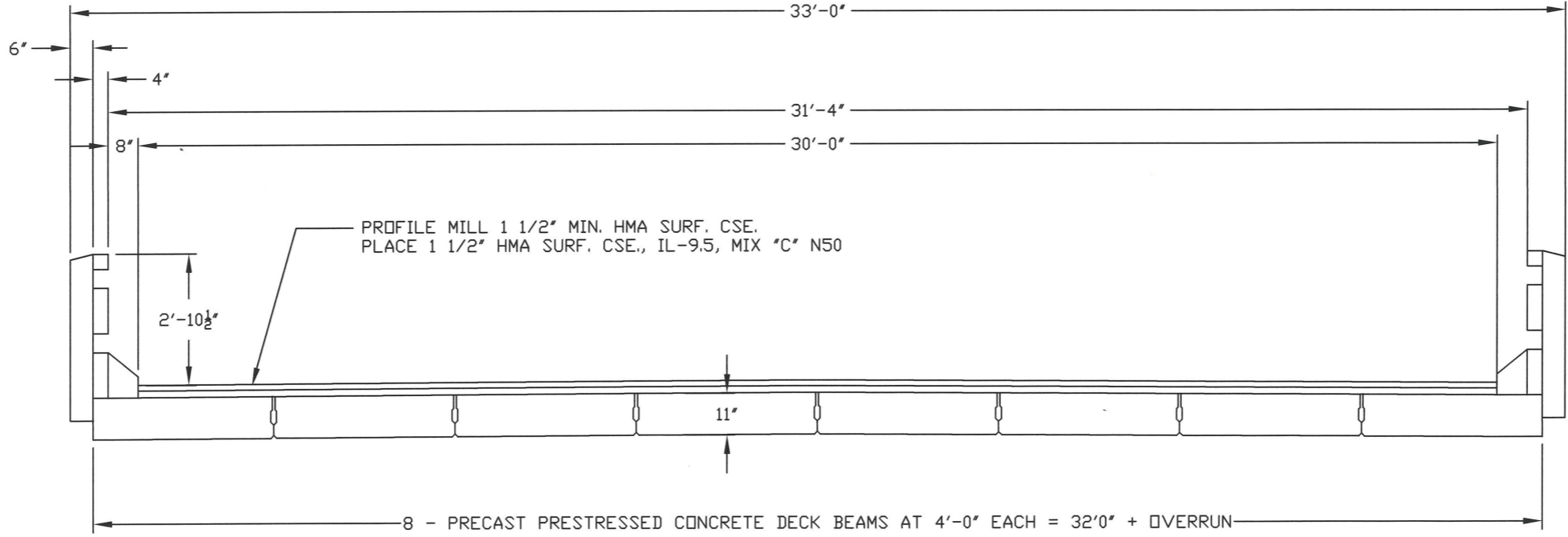


PROPOSED TYPICAL SECTION 3
STATION 183+84 TO 253+43
STATION 255+57 TO 277+00

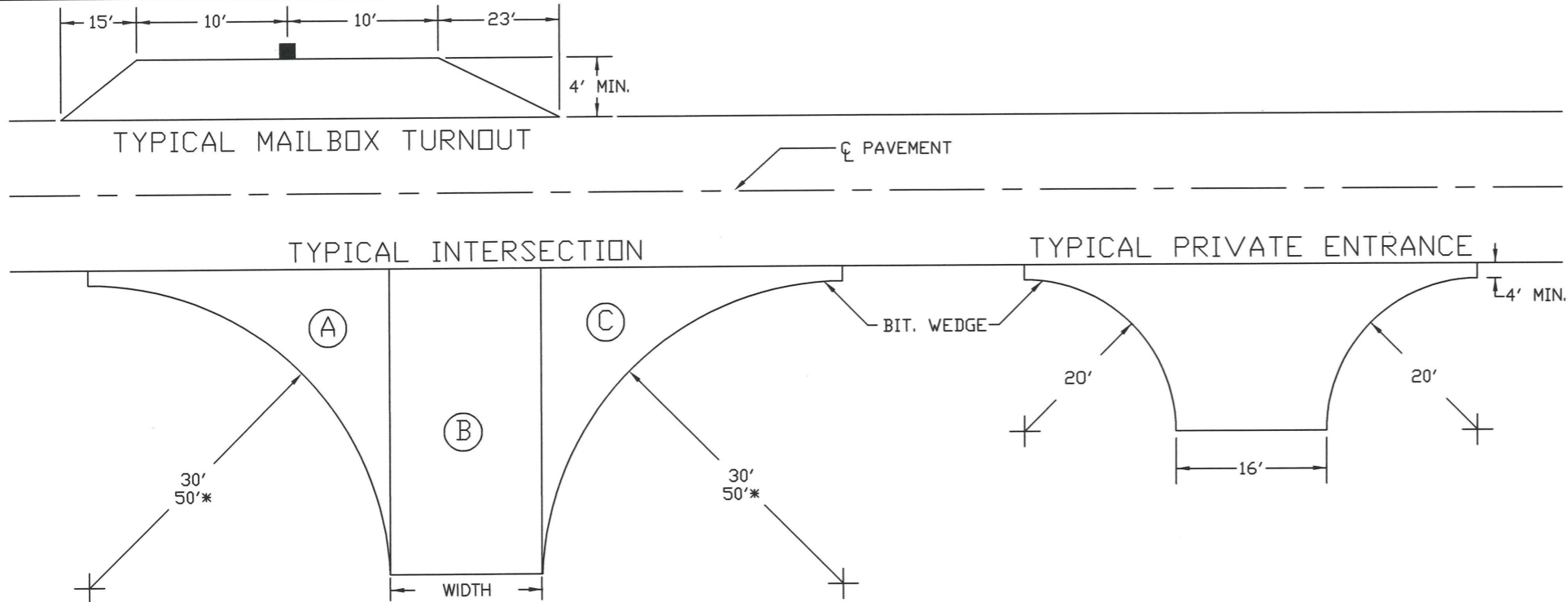




EXISTING CROSS SECTION
STRUCTURE 038-0183
STA 163+54 TO STA 164+34



PROPOSED CROSS SECTION
STRUCTURE 038-0183
STA 163+54 TO STA 164+34



A+C = RADIUS ON MAINLINE SHOWN AS SIDE = VAR
ALL INTERSECTION ARE THE WIDTH NOTED.
P
A+B+C = TYPICAL SIDE ROAD INTERSECTION

NOTE: ALL PRIVATE ENTRANCES, MAIL BOX
TURNOUTS AND SIDE ROAD INTERSECTIONS
SHALL BE PAID FOR AS INCIDENTAL
BITUMINOUS SURFACING - TOTAL 311 TON.

TOTAL AGGREGATE FOR FIELD ENTRANCES = 210 TONS
THIS QUANTITY IS INCLUDED IN AGGREGATE SHOULDERS,
TYPE B TOTAL QUANTITY.

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

40800050 - INCIDENTAL HMA SURFACING

TYPICAL INTERSECTION - SIDE ROADS

STATION	SIDE	WIDTH	SQ. YD.	LOCATION	TON
24+08.7	RT	20'	75	1000E/2950N	12 TON
77+62.5	LT	18'	70	900E/2950N	11 TON
77+62.5	RT	16'	65	900E/2950N	10 TON
131+55.8	LT	16'	65	800E/2950N	10 TON
183+34.8 *	LT	22'	150	700E/2950N	25 TON
183+34.8 *	RT	22'	150	700E/2950N	25 TON
225+17	LT	16'	65	600E/2950N	10 TON
225+17	RT	16'	65	600E/2950N	10 TON
TOTALS			705		113 TON

TYPICAL PRIVATE ENTRANCE

STATION	SIDE	SQ. YD.	TON
31+40	RT	55	8 TON
33+20	RT	55	8 TON
35+25	RT	55	8 TON
37+50	RT	55	8 TON
44+07	LT	55	8 TON
52+95	RT	55	8 TON
54+40	RT	55	8 TON
56+60	RT	55	8 TON
59+34	LT	55	8 TON
60+80	LT	55	8 TON
142+97	LT	55	8 TON
146+35	RT	55	8 TON
176+77	RT	55	8 TON
177+66	RT	55	8 TON
178+30	RT	55	8 TON
179+51	RT	55	8 TON
194+53	LT	55	8 TON
195+50	LT	55	8 TON
213+05	RT	55	8 TON
215+50	RT	55	8 TON
259+85	LT	55	8 TON
TOTALS		1,155	168 TON

TYPICAL MAILBOX TURNOUT

STATION	SIDE	SQ. YD.	TON
35+35	RT	20	3 TON
54+60	LT	20	3 TON
59+50	LT	20	3 TON
142+65	LT	20	3 TON
146+30	LT	20	3 TON
178+10	LT	20	3 TON
195+32	LT	20	3 TON
202+15	LT	20	3 TON
209+50	LT	20	3 TON
213+45	LT	20	3 TON
TOTALS		200	30 TON

INCIDENTAL HMA SURFACING TOTALS

TYPICAL INT.'S & SIDE ROADS	113 TONS
PRIVATE ENTRANCES	168 TONS
TYPICAL MAILBOX TURNOUT	30 TONS
TOTAL = 311 TONS	

48102100 - AGGREGATE WEDGE SHOULDER, TYPE B

TYPICAL FIELD ENTRANCES

STATION	SIDE	TYPE	PROPOSED	TON	STATION	RT/LT	TYPE	PROPOSED	TON
30+50	RT	FE	AGG	7 TON	158+05	RT	FE	AGG	7 TON
37+30	LT	FE	AGG	7 TON	158+90	LT	FE	AGG	7 TON
47+30	LT	FE	AGG	7 TON	163+90	RT	FE	AGG	7 TON
68+25	RT	FE	AGG	7 TON	164+90	LT	FE	AGG	7 TON
77+10	LT	FE	AGG	7 TON	196+66	RT	FE	AGG	7 TON
78+10	RT	FE	AGG	7 TON	215+50	LT	FE	AGG	7 TON
104+25	LT	FE	AGG	7 TON	229+65	RT	FE	AGG	7 TON
104+52	RT	FE	AGG	7 TON	230+93	RT	FE	AGG	7 TON
104+90	LT	FE	AGG	7 TON	241+47	RT	FE	AGG	7 TON
117+90	RT	FE	AGG	7 TON	251+38	LT	FE	AGG	7 TON
118+15	LT	FE	AGG	7 TON	252+45	RT	FE	AGG	7 TON
131+55	RT	FE	AGG	7 TON	257+75	LT	FE	AGG	7 TON
141+00	RT	FE	AGG	7 TON	259+80	RT	FE	AGG	7 TON
146+95	RT	FE	AGG	7 TON	264+64	LT	FE	AGG	7 TON
157+70	LT	FE	AGG	7 TON	265+03	RT	FE	AGG	7 TON

TOTALS = 210 TONS

AGGREGATE WEDGE SHOULDER, TY B TOTALS

MAINLINE QUANTITIES	6090 TONS
FIELD ENTRANCE QUANTITIES	210 TONS
TOTAL = 6300 TONS	

78001110 – PAINT PAVEMENT MARKING – LINE 4”
70300221 – TEMPORARY PAVEMENT MARKING LINE 4” PAINT

TYPE	STATION TO STATION	FEET	LINE 4"
	CENTERLINE (YELLOW)		
SKIP DASH	23+72 TO 277+00	25,328'	6,340'
	SUB-TOTAL =	6,340'	
	NO PASSING ZONE (YELLOW)		
	SUB-TOTAL =	0'	
	TOTAL ALL STRIPING FOR PAINT PAVEMENT MARKING LINE 4" (TWO APPLICATIONS) = 12,680'		
	TOTAL FOR TEMPORARY PAVEMENT MARKING = 6,340'		

78011125
GROOVING FOR RECESSED
PAVEMENT MARKING 25”

STATION TO STATION	FOOT
183+34.8 RT	11
183+34.8 LT	11
TOTAL =	22

78000650
THERMOPLASTIC PAVEMENT
MARKING LINE – 24”

STATION TO STATION	FOOT
183+34.8 RT	11
183+34.8 LT	11
TOTAL =	22

40600982
HMA SURFACE REMOVAL
BUTT JOINT

STATION TO STATION	SQ. YDS.
23+72 TO 24+72	244
24+08.7 RT	25
44+07 LT	9
59+34 LT	9
138+06.92 TO 138+56.92	122
139+53.08 TO 140+03.08	122
162+29 TO 162+79	122
165+09 TO 165+59	122
177+60 RT	9
183+34.80 LT	98
183+34.80 RT	49
213+05 RT	9
252+43 TO 253+43	244
255+57 TO 256+57	244
276+50 TO 277+00	122
TOTAL =	1,550

40600990
TEMPORARY RAMP

STATION	SQ. YDS.
23+72	11
24+08.70 RT	10
138+56.92	11
139+53.08	11
183+34.80 LT	11
183+34.80 RT	11
183+84	15
253+43	11
255+57	11
277+00	11
TOTAL =	113

44000155
HMA SURFACE REMOVAL 1 1/2”

STATION	WIDTH	SQ. YDS.
162+79 TO 163+54	22	183
163+54 TO 164+34	30	267
164+34 TO 165+09	22	183
TOTAL =		633

66700205
PERMANENT SURVEY MARKERS
TYPE 1

STATION	EACH
24+08.7	1
77+62.4	1
104+62.5	1
131+55.8	1
158+05.8	1
183+34.8	1
210+06.1	1
225+32.0	1
251+94.8	1
TOTAL =	9

PAVEMENT SCHEDULE

PAY ITEM	40603080	40602978	40604050	48101200	40600290	40600370	40600405
UNIT	(TON)	(TON)	(TON)	(TON)	(POUND)	(FOOT)	(TON)
STATION TO STATION	HMA BINDER COURSE IL-19.0, N50	HMA BINDER COURSE IL-9.5, N50	HMA SURFACE COURSE IL-9.5 MIX “C” N50	AGGREGATE SHOULDERS TYPE B	BITUMINOUS MATERIALS (TACK COAT)	LONGITUDINAL JOINT SEALANT	MATERIAL TRANSFER DEVICE
23+72 TO 183+84		3,250	3,268	4,007	26,843	15,914	6,518
183+84 TO 277+00	3,100		1,882	2,293	15,357	9,104	4,982
TOTAL =	3,100	3,250	5,150	6,300	42,200	25,018	11,500