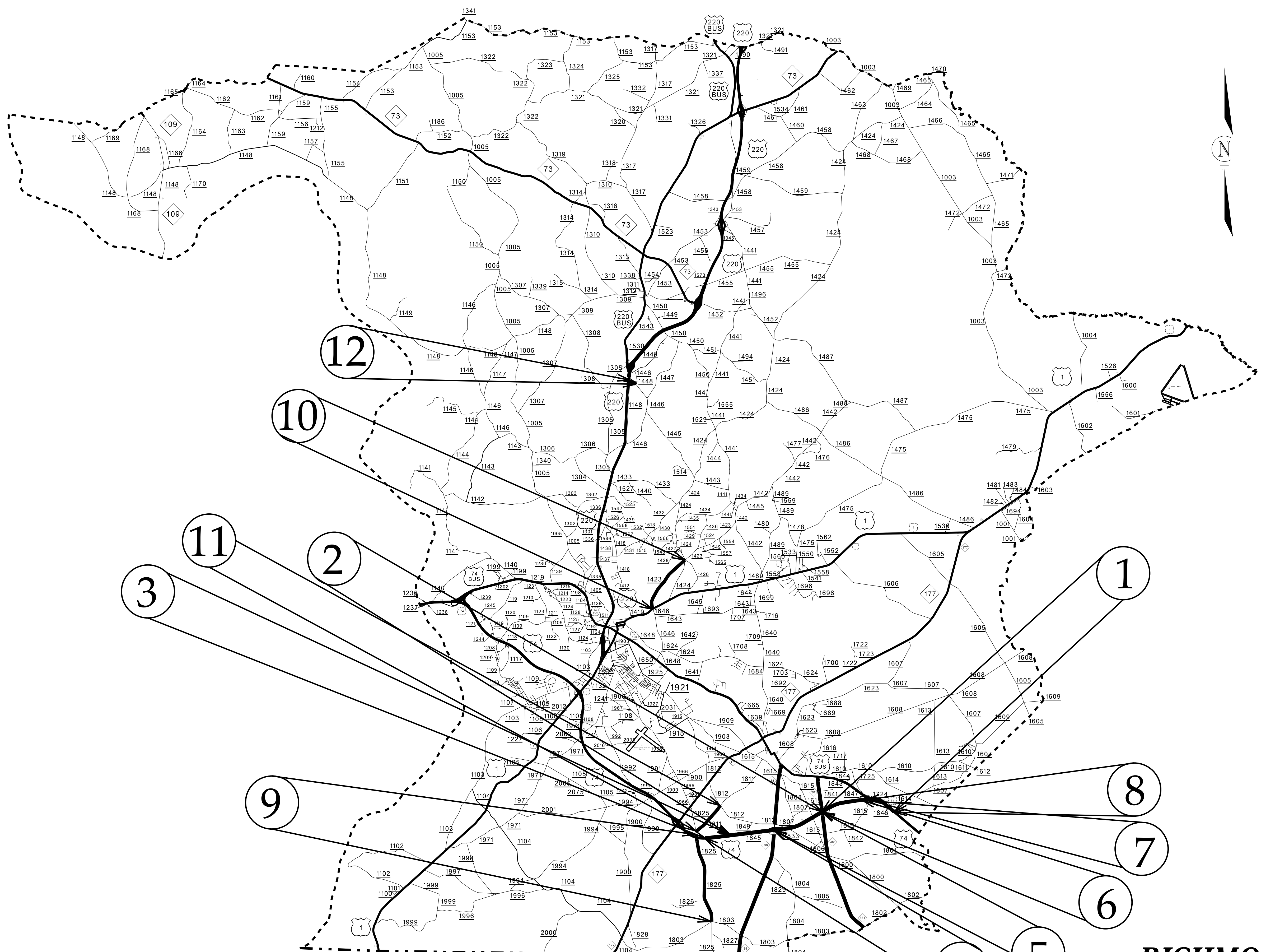
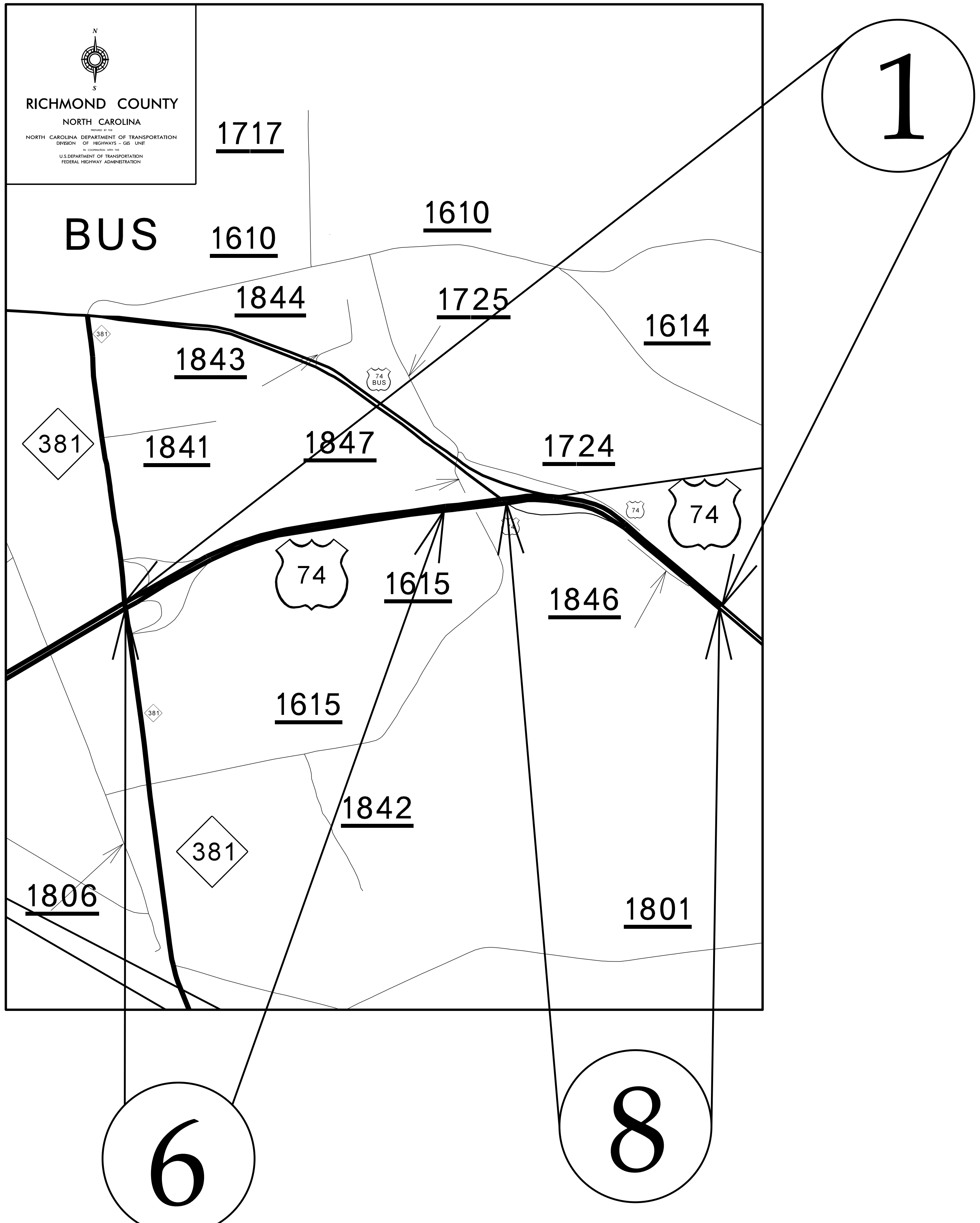
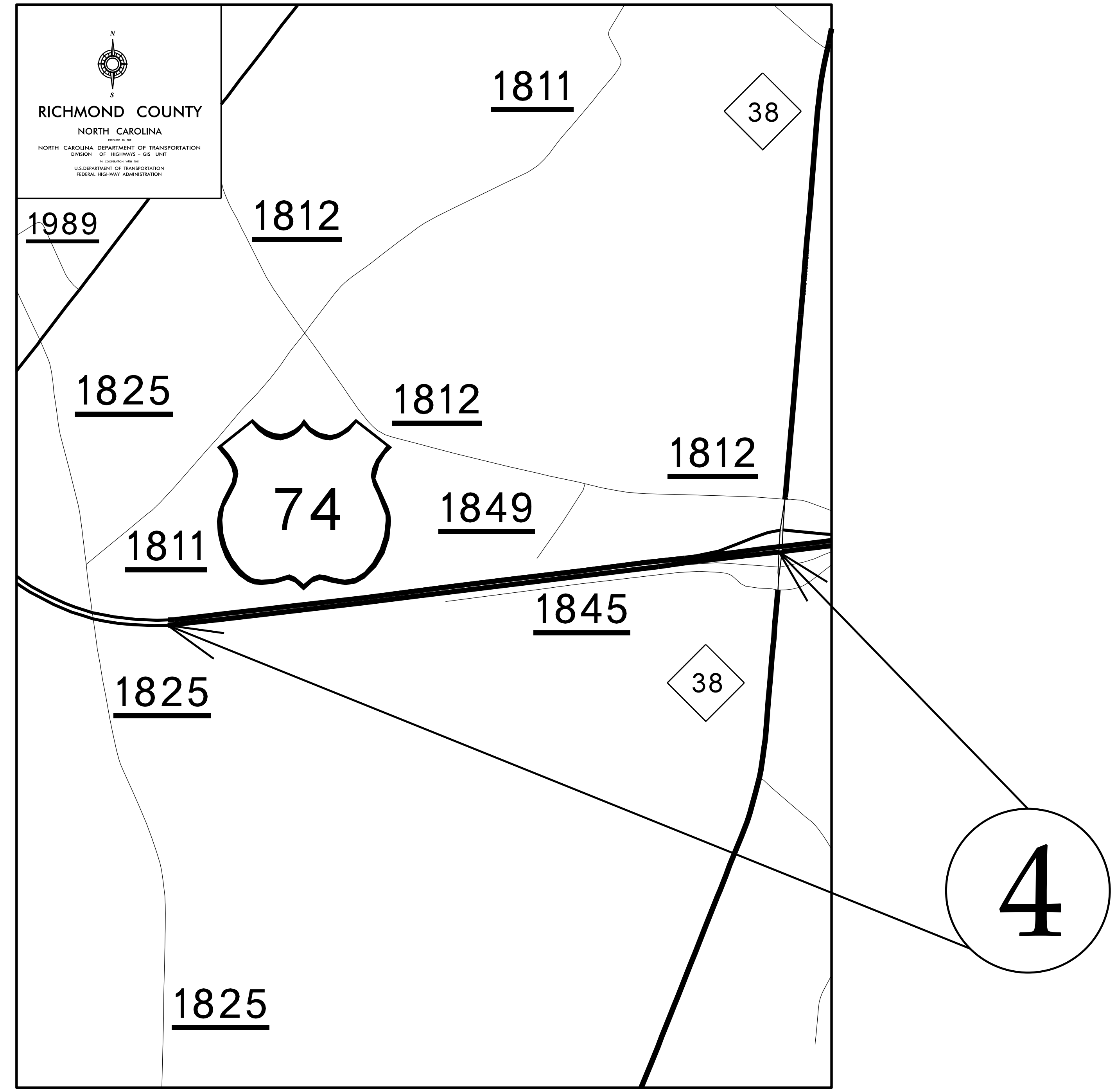
WBS ELEMENT	SHEET NO.
2021CPT.08.15.10771 2021CPT.08.15.20771	1



RICHMOND COUNTY

WBS ELEMENT	SHEET NO.
2021CPT.08.15.10771 2021CPT.08.15.20771	2





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19-APR-2021 16:04
\2020-2021 Resurfacing\Richmond_June2021_Submittal\Richmond_June2021_Maps_Typ.dgn
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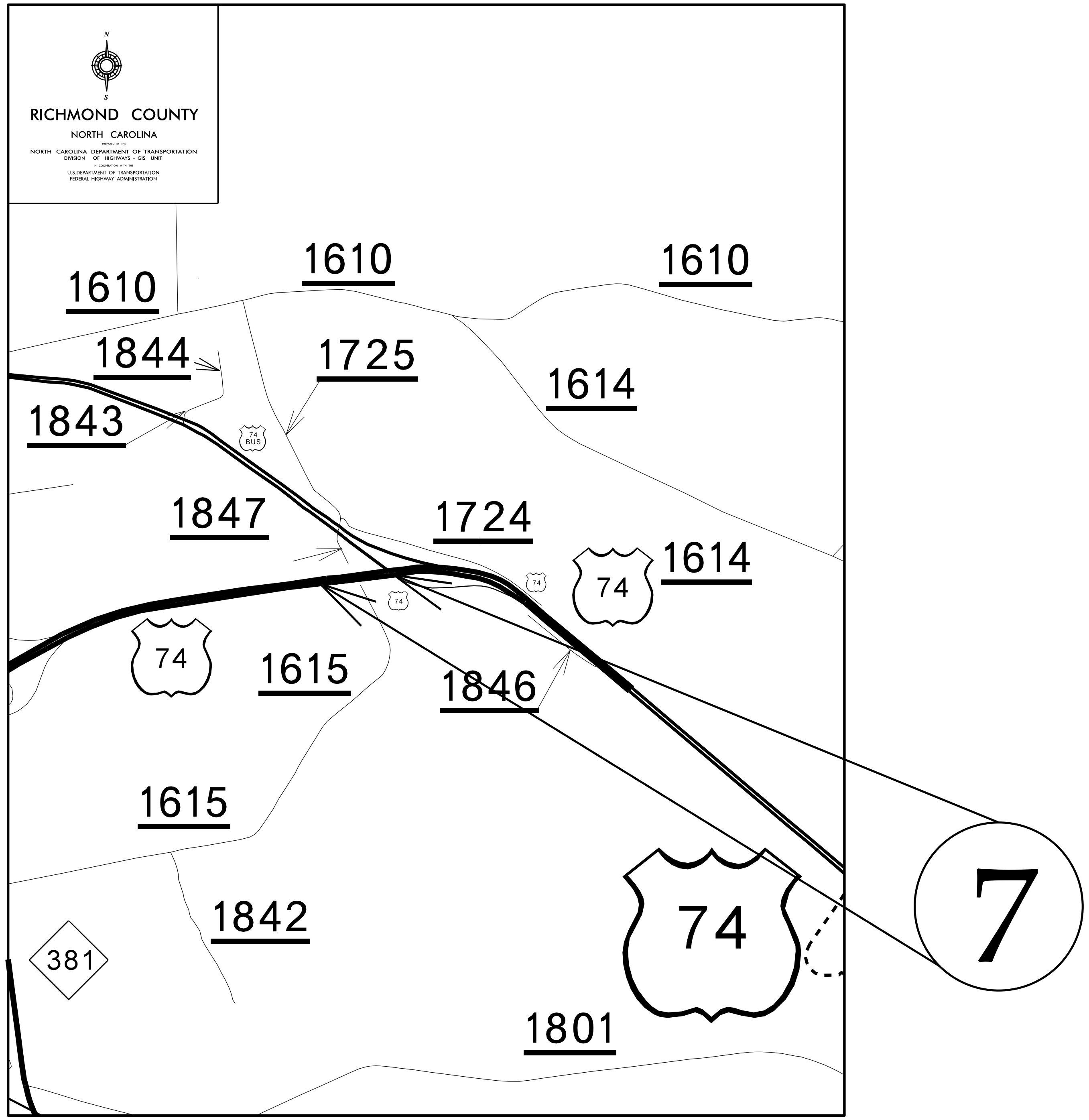
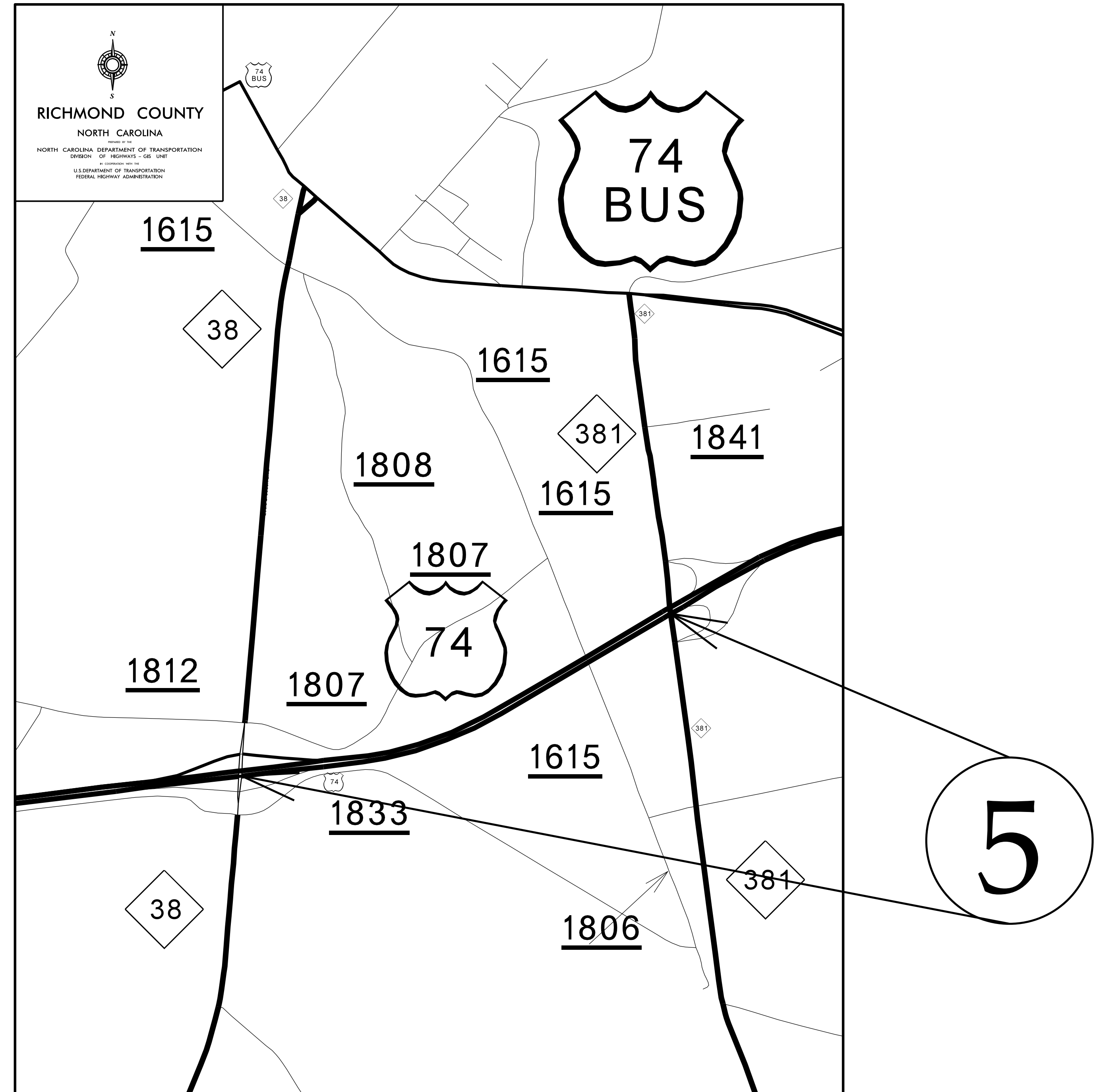
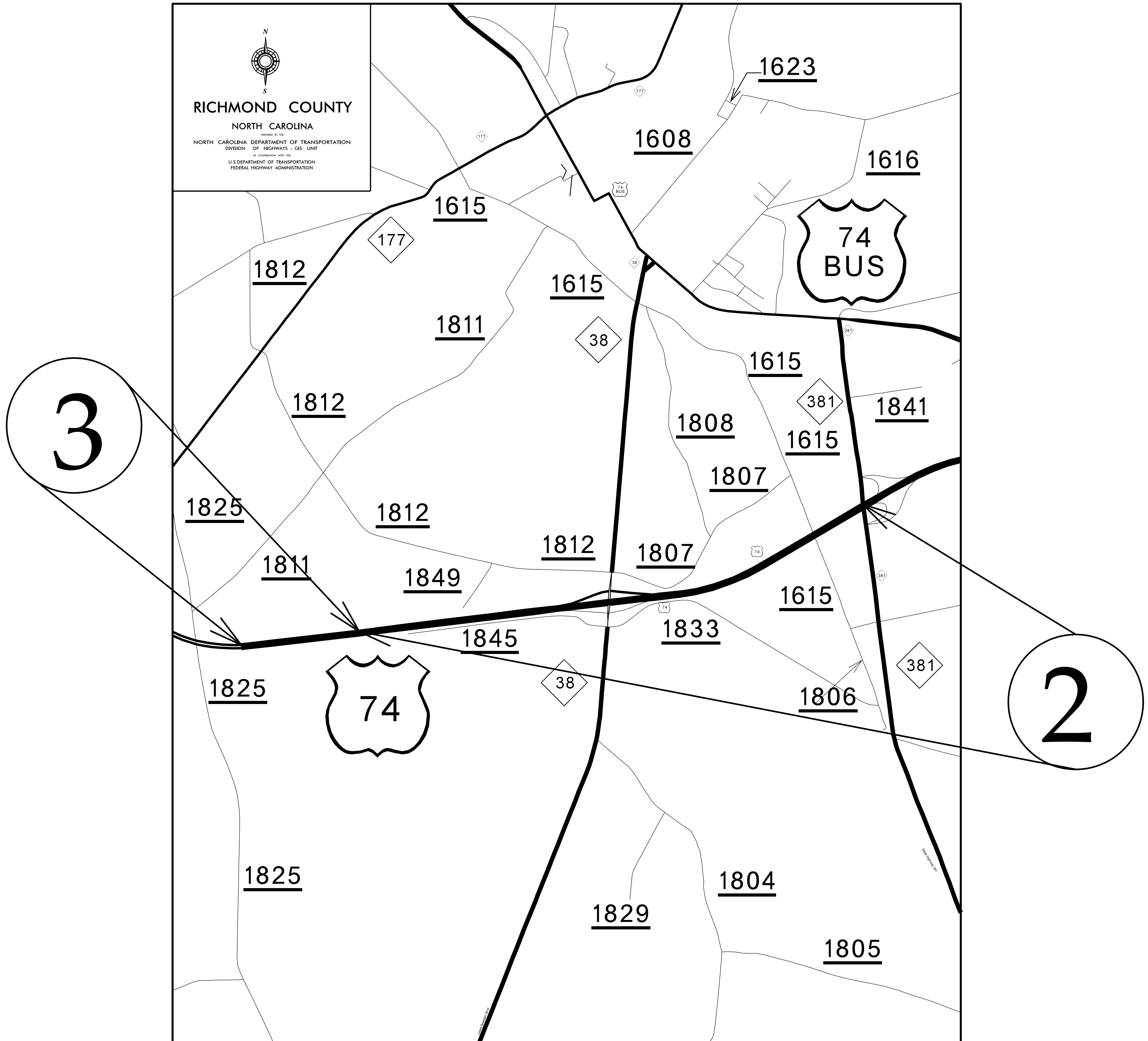
WBS ELEMENT	SHEET NO.
2021CPT.08.15.10771 2021CPT.08.15.20771	3





WBS ELEMENT	SHEET NO.
2021CPT.08.15.10771 2021CPT.08.15.20771	4



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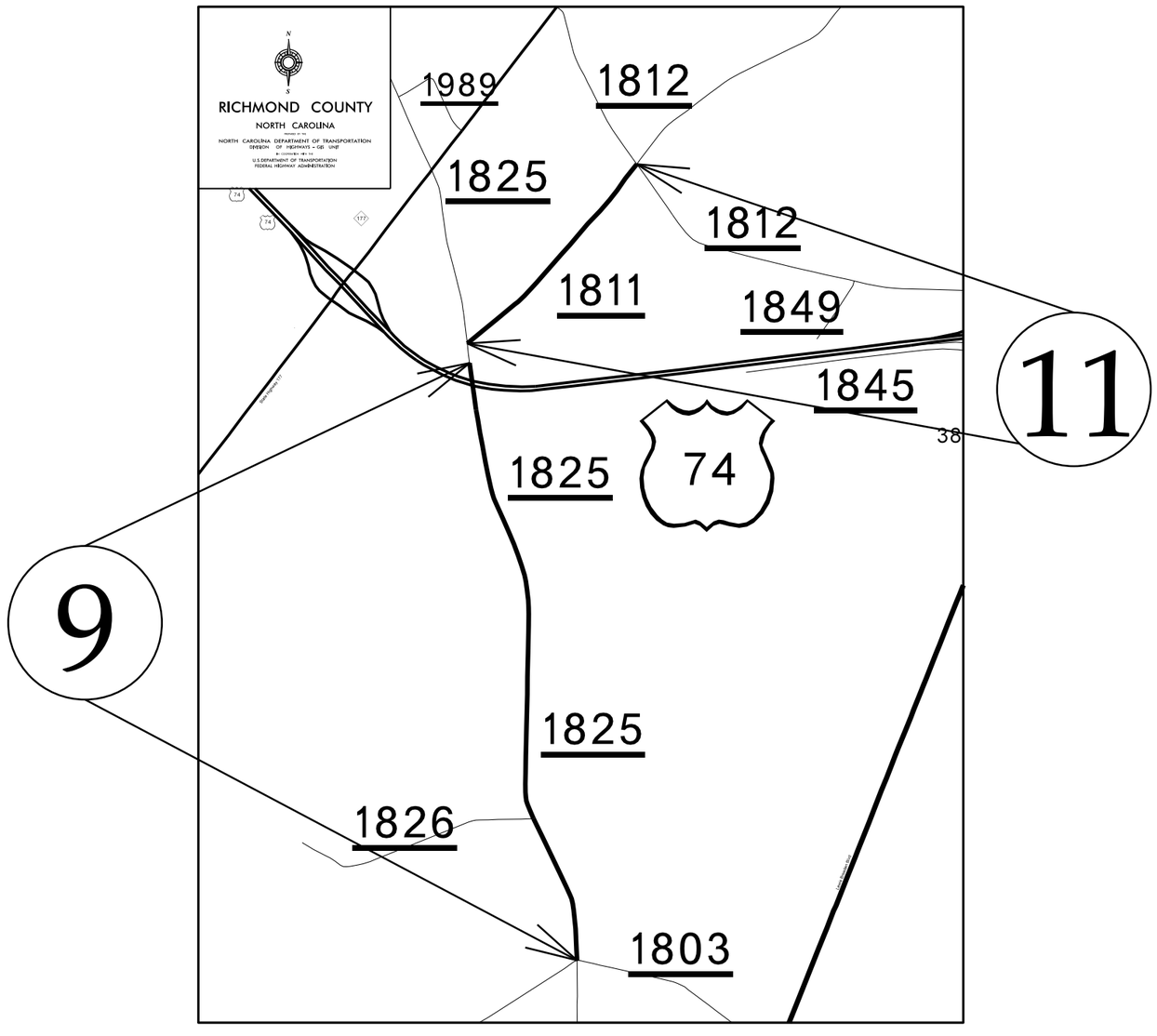
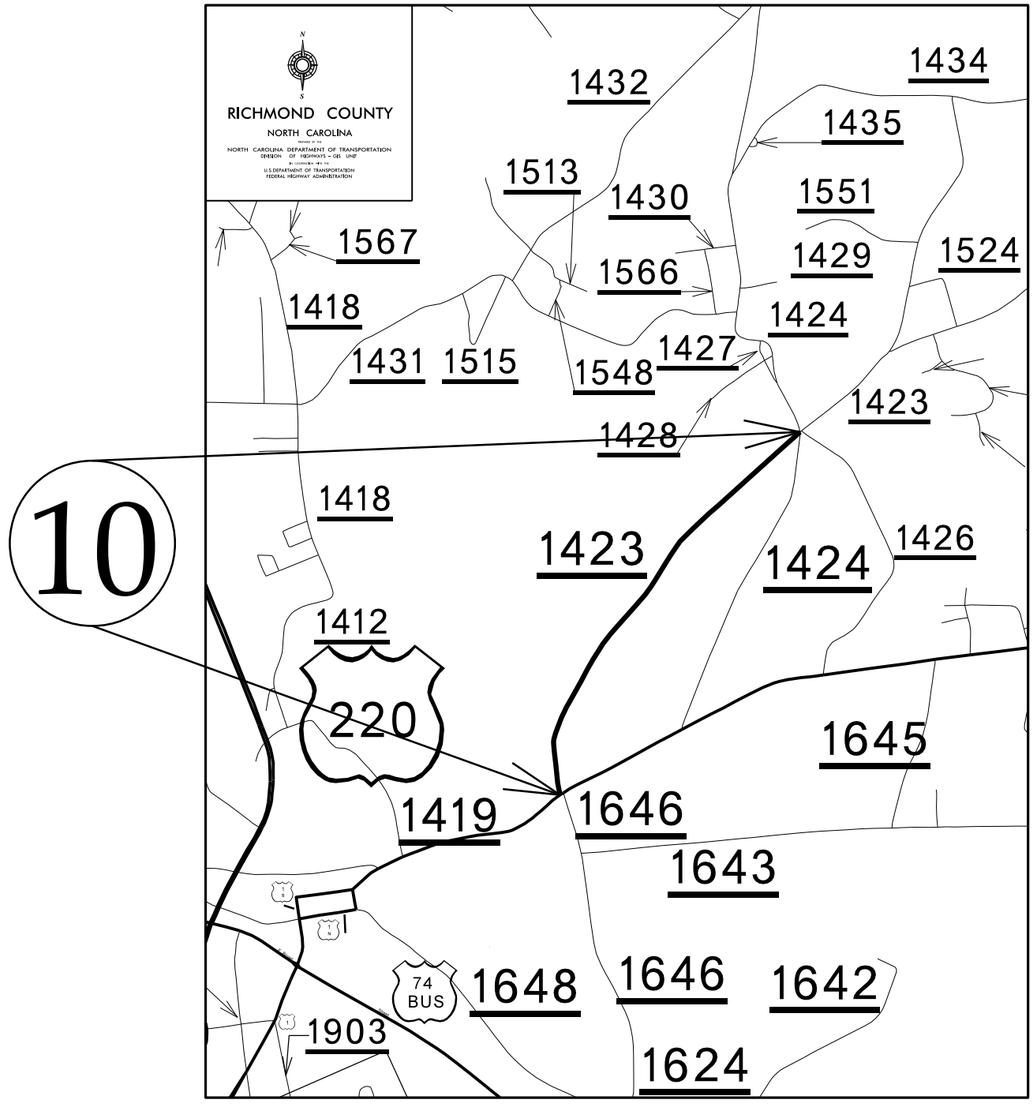
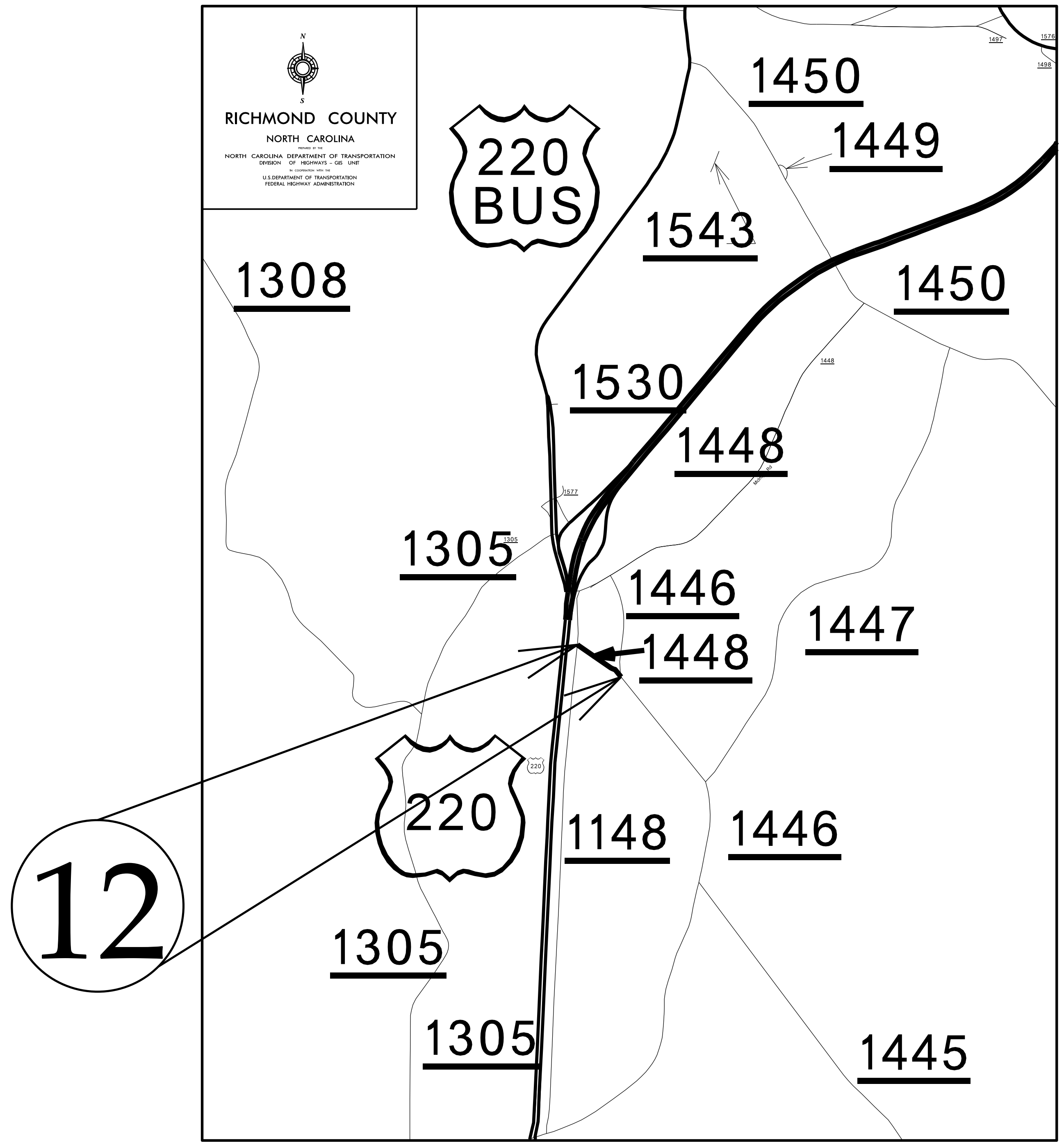
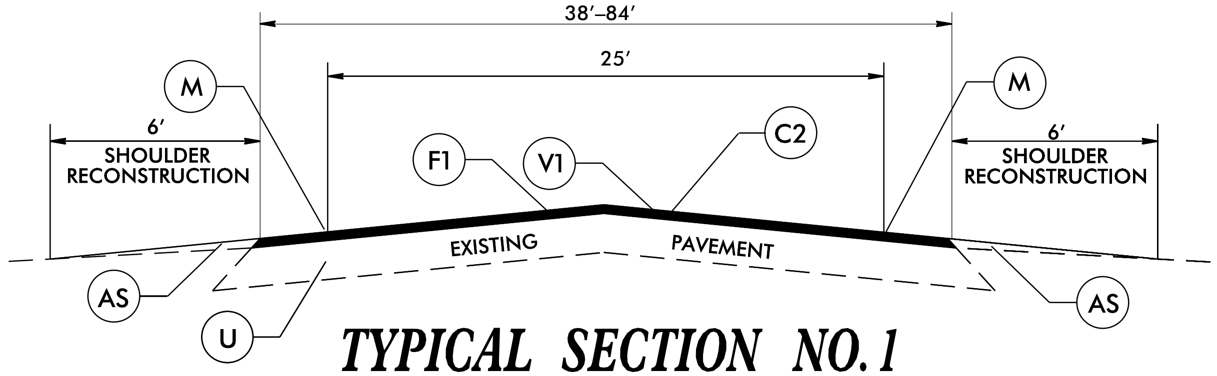
WBS ELEMENT	SHEET NO.
2021CPT.08.15.10771 2021CPT.08.15.20771	5





WBS ELEMENT	SHEET NO.
2021CPT.08.15.10771 2021CPT.08.15.20771	6

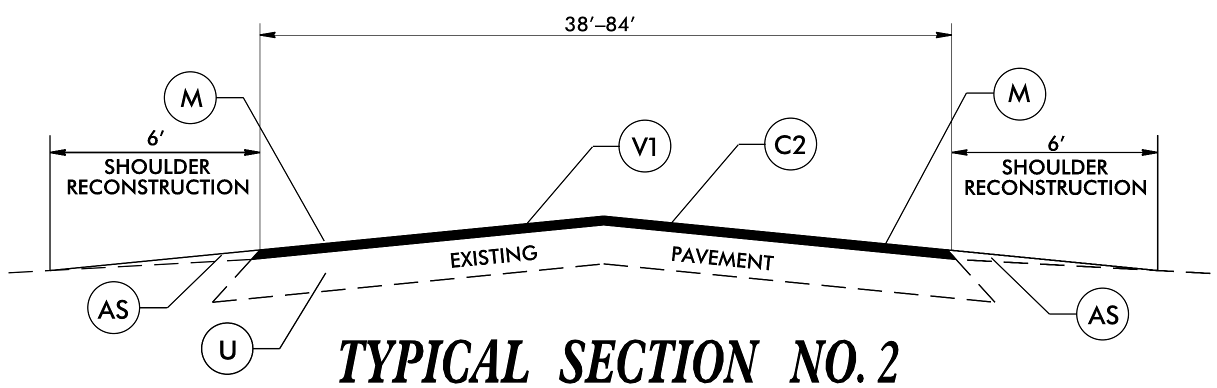




TYPICAL SECTION NO. 1

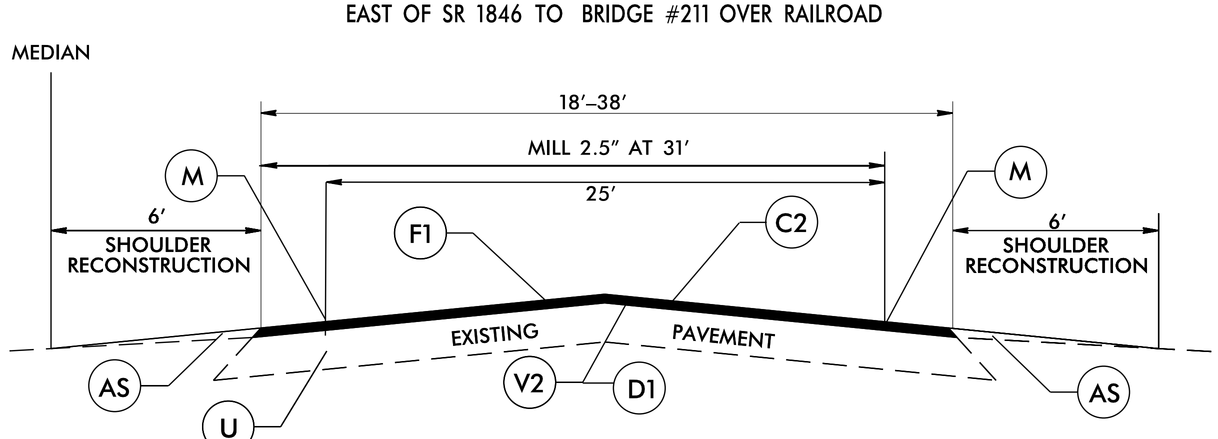
NOTE: OPEN–GRADED FRICTION COURSE TO BE PLACED BETWEEN MILLED RUMBLE STRIPS ONLY.

NOTE: USE FOR MAP #1 FROM BRIDGE #211 OVER RAILROAD TO BRIDGE #210 OVER NC 381



TYPICAL SECTION NO. 2

NOTE: USE FROM START OF MAP #1 0.4 MILES EAST OF SR 1846 TO BRIDGE #211 OVER RAILROAD



TYPICAL SECTION NO. 3

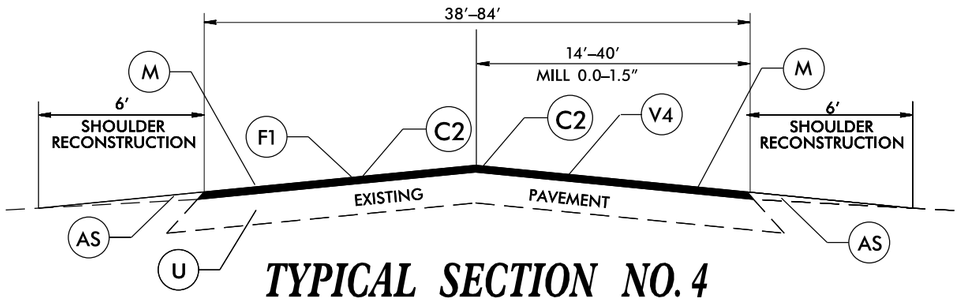
NOTE: 2.5" MILLING TO BE PERFORMED BETWEEN MEDIAN AND OUTSIDE OF EXISTING RUMBLE STRIPS.

NOTE: OPEN–GRADED FRICTION COURSE TO BE PLACED BETWEEN MILLED RUMBLE STRIPS ONLY.

NOTE: USE FOR MAP #3 FROM STA. 0+00 TO STA. 37+90
USE FOR MAP #4 FROM STA. 2+10 TO STA. 97+72
USE FOR MAP #6 FROM STA. 3+54 TO STA. 42+00

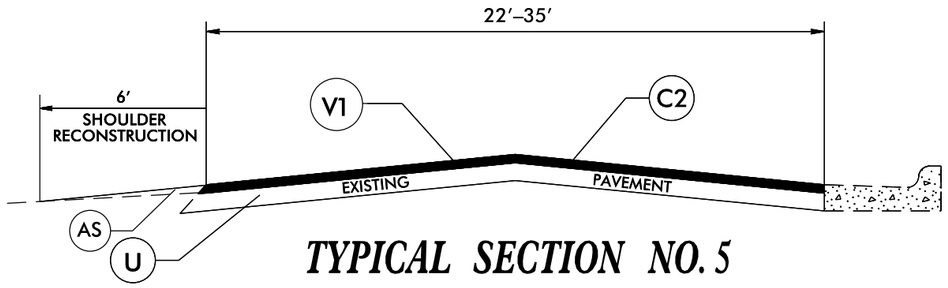
PAVEMENT SCHEDULE

AS	AGGREGATE SHOULDER BORROW (ASB)
C1	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 3.0" ASPHALT CONC. SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO (2) LAYERS
D1	PROP. APPROX. 2.5" ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
F1	PROP. APPROX. 5⁄8" OPEN–GRADED ASPHALT FRICTION COURSE, TYPE FC–1 MODIFIED, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
M	MILLED RUMBLE STRIPS
V1	1.5" MILLING
V2	2.5" MILLING
V3	3.0" MILLING
V4	0.0"–1.5" MILLING
U	EXISTING PAVEMENT



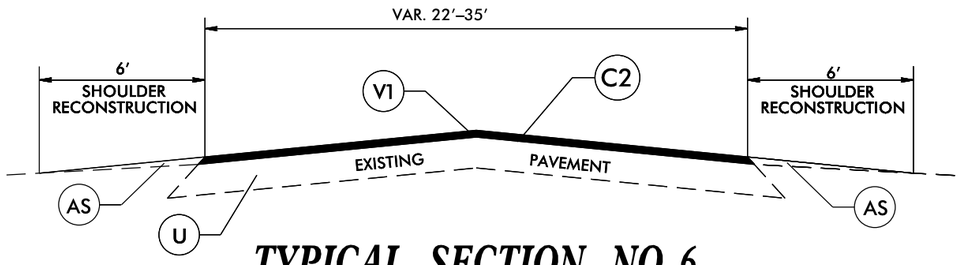
TYPICAL SECTION NO. 4

NOTE: USE AT RAMP NO.319, MAP NO. 4
NOTE: OPEN–GRADED FRICTION COURSE TO BE PLACED BETWEEN MILLED RUMBLE STRIPS ONLY.



TYPICAL SECTION NO. 5

NOTE: TO BE USED ON RAMPS
MAPS 1 AND 6



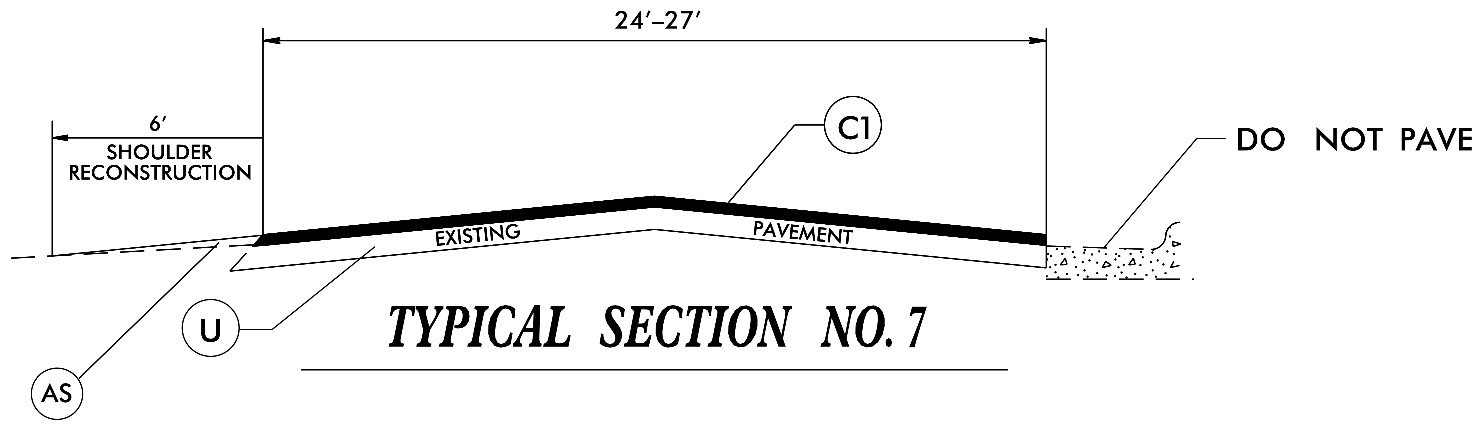
TYPICAL SECTION NO. 6

NOTE: TO BE USED ON RAMPS
MAPS 1,4,5,6

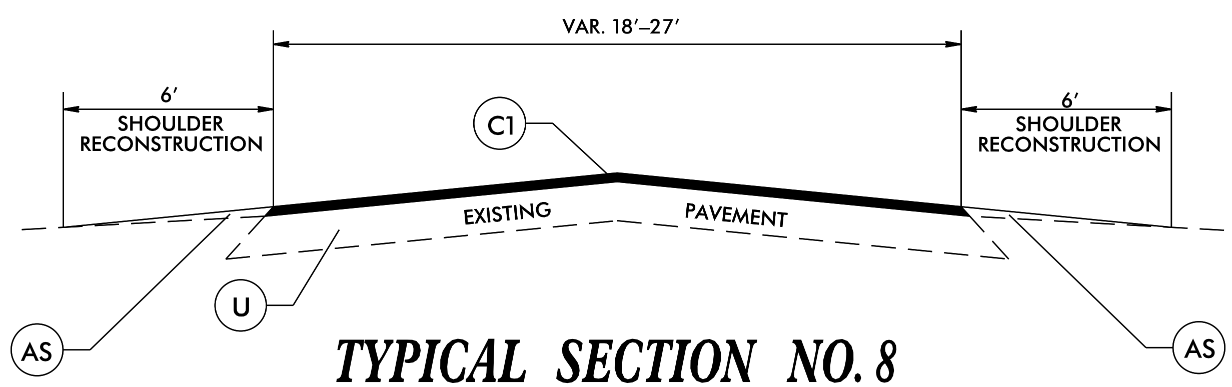
PAVEMENT SCHEDULE

AS	AGGREGATE SHOULDER BORROW (ASB)
C1	PROP. APPROX. 1.5″ ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5″ ASPHALT CONC. SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 3.0″ ASPHALT CONC. SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO (2) LAYERS
D1	PROP. APPROX. 2.5″ ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
F1	PROP. APPROX. 5/8″ OPEN–GRADED ASPHALT FRICTION COURSE, TYPE FC–1 MODIFIED, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
M	MILLED RUMBLE STRIPS
V1	1.5″ MILLING
V2	2.5″ MILLING
V3	3.0″ MILLING
V4	0.0″–1.5″ MILLING
U	EXISTING PAVEMENT

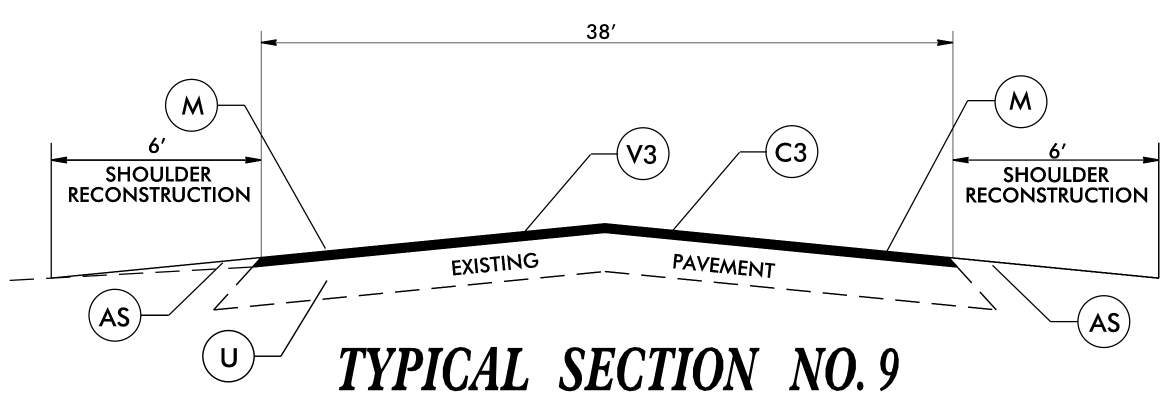
WBS ELEMENT	SHEET NO.
2021CPT.08.15.10771 2021CPT.08.15.20771	9



TYPICAL SECTION NO. 7



TYPICAL SECTION NO. 8

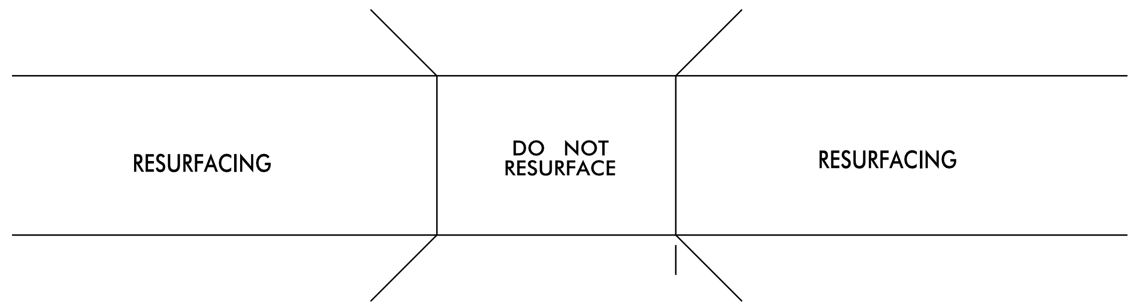


TYPICAL SECTION NO. 9

PAVEMENT SCHEDULE

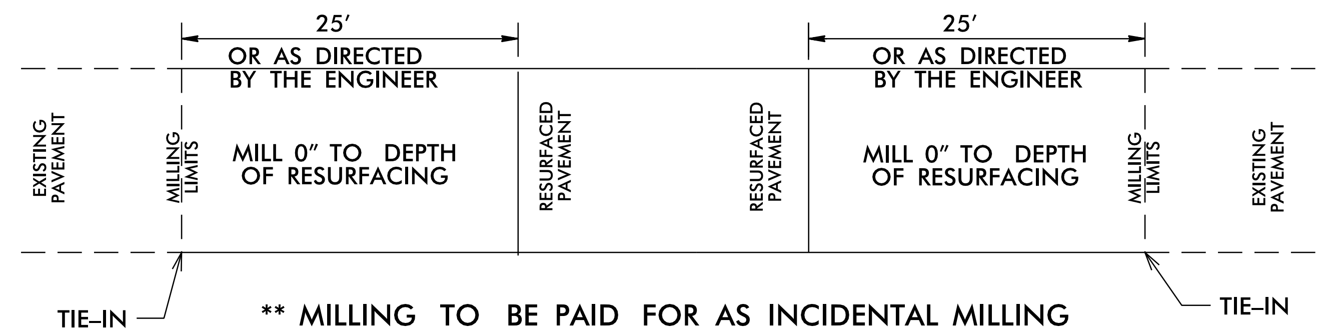
AS	AGGREGATE SHOULDER BORROW (ASB)
C1	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 3.0" ASPHALT CONC. SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO (2) LAYERS
D1	PROP. APPROX. 2.5" ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
F1	PROP. APPROX. 5⁄8" OPEN–GRADED ASPHALT FRICTION COURSE, TYPE FC–1 MODIFIED, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
M	MILLED RUMBLE STRIPS
V1	1.5" MILLING
V2	2.5" MILLING
V3	3.0" MILLING
V4	0.0"–1.5" MILLING
U	EXISTING PAVEMENT

WBS ELEMENT	SHEET NO.
2021CPT.08.15.10771 2021CPT.08.15.20771	10



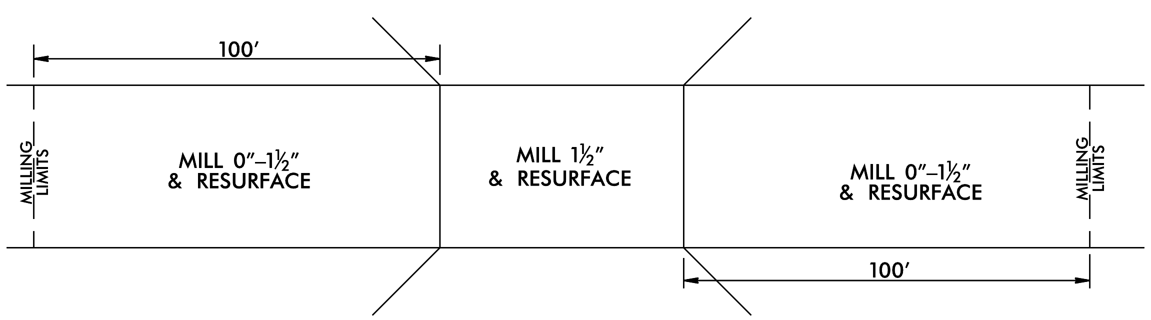
BRIDGE DRAWING FOR MAP NO 1,2,3,4,5,6,7,8 US HWY 74 EBL/WBL (BRIDGE NO 190,191,207,208,209,210,211,212,213,214)

* TIE IN OPEN–GRADED ASPHALT FRICTION COURSE TO THE BRIDGE.



** MILLING TO BE PAID FOR AS INCIDENTAL MILLING

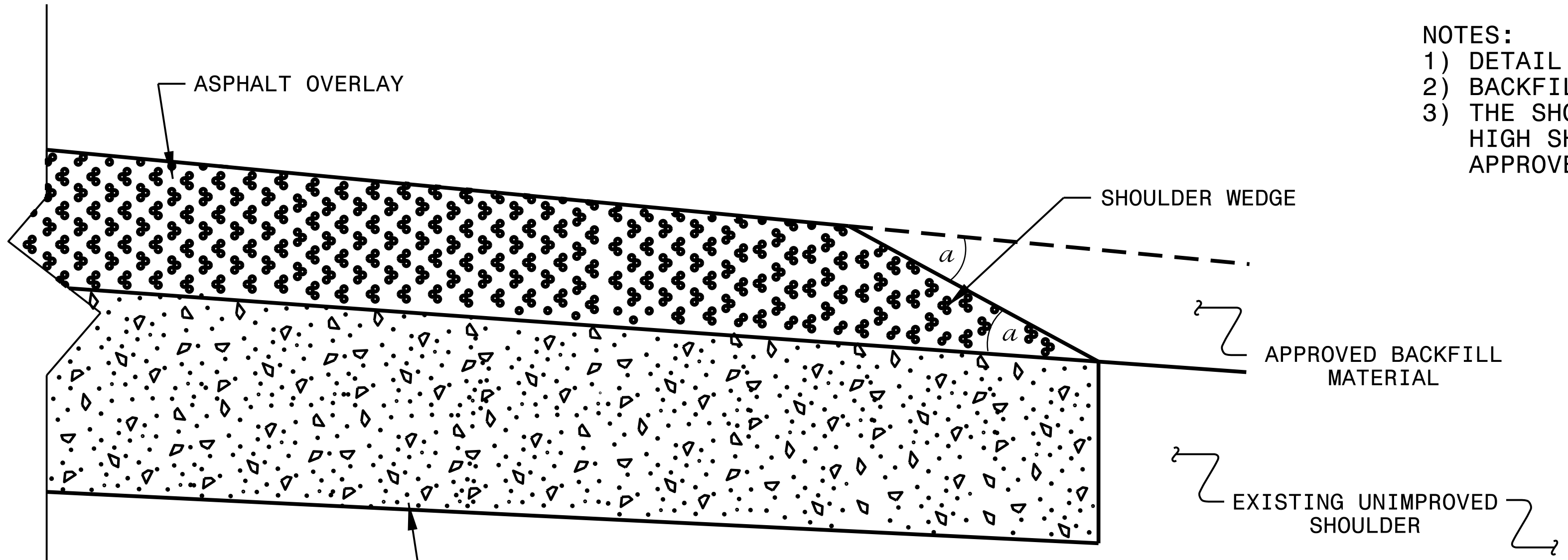
PAVEMENT TIE–IN DETAIL



BRIDGE DRAWING FOR MAP NO 9 SR 1825 AIRPORT RD (BRIDGE NO 18)

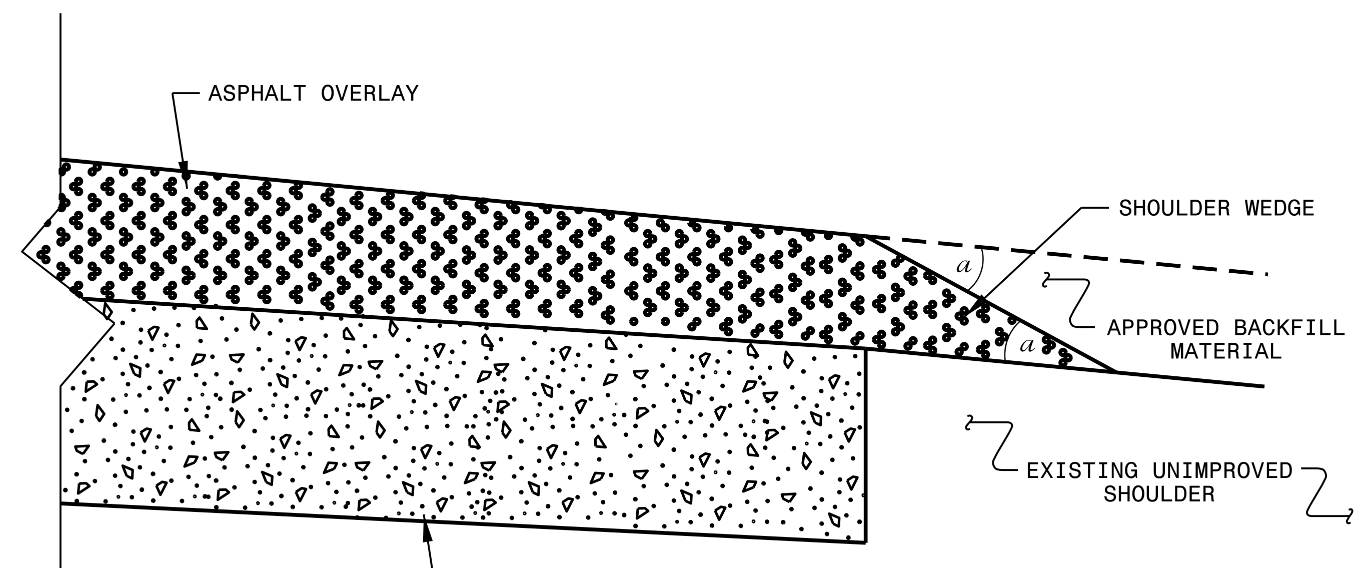
* MILLING FOR APPROACHES SHALL BE PAID FOR UNDER INCIDENTAL MILLING

NOTES:
1) DETAIL DOES NOT APPLY TO OGAFC AND ULTRA-THIN BONDED WEARING COURSE.
2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



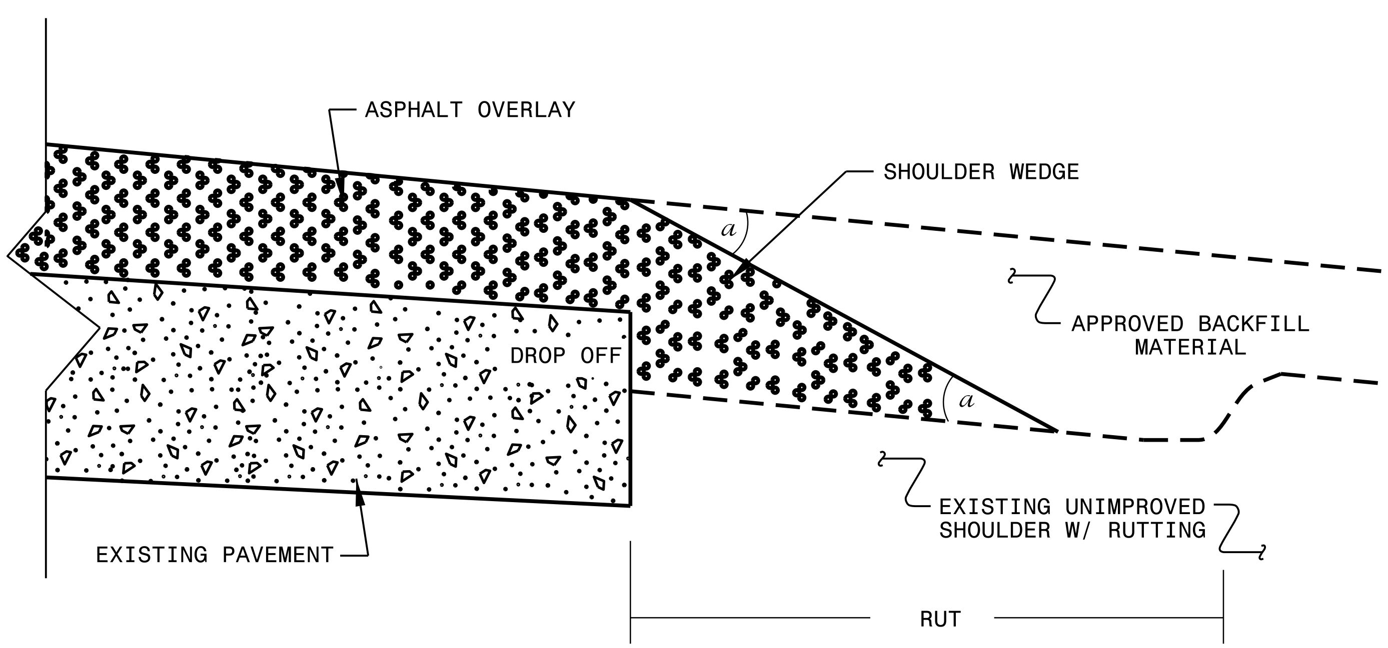
SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ Widening or with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ NO Widening)



SHOULDER WEDGE DETAIL

(Resurfacing Adjacent to Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SHOULDER WEDGE DETAILS

ORIGINAL BY: T.SPELL DATE: 7-19-11
MODIFIED BY: DATE: 2/2/16
CHECKED BY: DATE:
FILE SPEC.: s:usr/details/stand/shoulderwedgedetail.dgn

PROJECT NO.	SHEET NO.	TOTAL NO.
2021CPT.08.15.10771, 2021CPT.08.15.20771	12	

SUMMARY OF QUANTITIES

													1245000000-E	1260000000-E	1297000000-E			1308000000-E	1330000000-E	1503000000-E	1519000000-E	1524200000-E	1575000000-E	1577000000-E	1662000000-E	1840000000-E	2830000000-N	2845000000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	1.5" MILLING	2.5" MILLING	3" MILLING	0" TO 1.5" MILLING	INCIDENTAL MILLING	INTERMEDIATE COURSE, I19.0C	SURFACE COURSE, S9.5B	ASPHALT CONC SURFACE COURSE, TYPE S9.5D	ASPHALT BINDER FOR PLANT MIX	POLYMER MODIFIED ASPHALT BINDER FOR PLANT MIX	OGAFC, TYPE FC-1 MOD.	MILLED RUMBLE STRIPS	ADJUST MANHOLES	ADJUST METER OR VALVE BOX
										MI	FT	SMI	TON	SY	SY	SY	SY	SY	TONS	TONS	TON	TONS	TONS	TON	LF	EA	EA
2021CPT.08.15.10771	Richmond	1	WB US HWY 74 BYPASS	FROM 0.4MI E. OF SR 1846 TO BRIDGE NO 210(AT NC HWY 381)(INCLUDES RAMPS AT EXIT 320)	1,2,5,6	2	MD	NO	NO	2.47	31	4.77	668	66,185				583			6,169		462	1,804	22,835		
TOTAL FOR MAP NO. 1										**2.47**		**4.77**	**668**	**66,185**				**583**			**6,169**		**462**	**1,804**	**22,835**		
2021CPT.08.15.10771	Richmond	2	WB US HWY 74 BYPASS	FROM BRIDGE NO. 210(AT NCHWY 381) TO 1.1 MI. W. OF BRIDGE NO. 191 (NC HWY 38 LOUIS BREEDEN BLVD)	1	2	MD	NO	NO	2.52	39	2.36	330	66,185							5,715		464	2,273	26,256		
TOTAL FOR MAP NO. 2										**2.52**		**2.36**	**330**	**66,185**							**5,715**		**464**	**2,273**	**26,256**		
2021CPT.08.15.10771	Richmond	3	WB US HWY 74 BYPASS	FROM 1.1 MI. W. OF BRIDGE NO.191(AT NC HWY 38 LOUIS BREEDEN BLVD) TO BRIDGE NO.207(AT MARKS CRK.)	1,3	2	MD	NO	NO	0.783	38	1.12	201	1,539	13,190				1,992		1,662	96	135	661	8,257		
TOTAL FOR MAP NO. 3										**0.783**		**1.12**	**201**	**1,539**	**13,190**				**1,992**		**1,662**	**96**	**135**	**661**	**8,257**		
2021CPT.08.15.10771	Richmond	4	EB US HWY 74 BYPASS	FROM BRIDGE NO 208 AT MARKS CREEK TO BRIDGE NO 190(AT NC 38)(INCLUDES EXIT 319 OFF RAMP TO NC 38)	1,3,4,6	2	MD	NO	NO	1.91	38	3.55	496	8,822	33,119		1,350		5,055		4,792	243	389	1,906	20,140		
TOTAL FOR MAP NO. 4										**1.91**		**3.55**	**496**	**8,822**	**33,119**		**1,350**		**5,055**		**4,792**	**243**	**389**	**1,906**	**20,140**		
2021CPT.08.15.10771	Richmond	5	EB US HWY 74 BYPASS	FROM BRIDGE NO 190(AT NC HWY 38) TO BRIDGE NO 209(AT NC HWY 381)(INCLUDES EXIT 319 ON RAMP FROM NC 38)	1,6	2	MD	NO	NO	1.392	38	1.80	252	38,868							3,591		292	1,428	14,720		
TOTAL FOR MAP NO. 5										**1.392**		**1.80**	**252**	**38,868**							**3,591**		**292**	**1,428**	**14,720**		
2021CPT.08.15.10771	Richmond	6	EB US HWY 74 BYPASS	FROM BRIDGE NO 209(AT NC HWY 381) TO BRIDGE NO 212(AT RXR)(INCLUDES RAMPS AT EXIT 320)	1,3,5,6	2	MD	NO	NO	1.13	31	1.38	193	14,620	13,458				1,969		3,204	94	260	1,275	11,933		
TOTAL FOR MAP NO. 6										**1.13**		**1.38**	**193**	**14,620**	**13,458**				**1,969**		**3,204**	**94**	**260**	**1,275**	**11,933**		
2021CPT.08.15.10771	Richmond	7	EB US HWY 74 BYPASS	FROM BRIDGE NO 212(AT RXR) TO BRIDGE NO 214(AT US HWY 74 BUS)	9	2	MD	NO	NO	0.154	38	0.15	21			3,538					654		37		1,626		
TOTAL FOR MAP NO. 7										**0.154**		**0.15**	**21**			**3,538**					**654**		**37**		**1,626**		
2021CPT.08.15.10771	Richmond	8	EB US HWY 74	FROM BRIDGE NO 214(AT US HWY 74 BUS) TO 0.4MI E. OF SR 1846	2	2	MD	NO	NO	1.081	32	2.10	295	27,332				1,472			2,738		156		8,838		
TOTAL FOR MAP NO. 8										**1.081**		**2.10**	**295**	**27,332**				**1,472**			**2,738**		**156**		**8,838**		
TOTAL FOR PROJ NO. 2021CPT.08.15.10771										**11.44**		**17.23**	**2,456**	**223,551**	**59,767**	**3,538**	**1,350**	**2,055**	**9,016**		**28,525**	**433**	**2,195**	**9,347**	**114,605**		
2021CPT.08.15.20771	Richmond	9	SR 1825(AIRPORT RD)	FROM PAVT JNT 0.085MI S. OF SR 1811(GIN MILL RD) TO AND THRU SR 1803(GHIO RD)	8	2	2WU	NO	NO	2.51	22	5.08	711	359				1,103		2,974		199					
TOTAL FOR MAP NO. 9										**2.51**		**5.08**	**711**	**359**				**1,103**		**2,974**		**199**					
2021CPT.08.15.20771	Richmond	10	SR 1423(RICHMOND RD)	FROM SR 1424(ROBERDEL RD) TO US HWY 1(FAYETTEVILLE RD)	7,8	2	2WU	NO	NO	1.63	24	3.19	447					3,516		2,485		166				14	11
TOTAL FOR MAP NO. 10										**1.63**		**3.19**	**447**					**3,516**		**2,485**		**166**				**14**	**11**
2021CPT.08.15.20771	Richmond	11	SR 1811(GIN MILL RD)	FROM SR 1825(AIRPORT RD) TO SR 1812(FREEMAN MILL RD)	8	2	2WU	NO	NO	0.98	18	1.96	274					411		944		63					
TOTAL FOR MAP NO. 11										**0.98**		**1.96**	**274**					**411**		**944**		**63**					
2021CPT.08.15.20771	Richmond	12	SR 1448(CARGO RD)	FROM SR 1446(HAYWOOD CEMETARY RD) TO SR 1448(CARGO RD/US 220 SERVICE ROAD)	8	2	2WU	NO	NO	0.204	20	0.41	57					267		223		15					
TOTAL FOR MAP NO. 12										**0.204**		**0.41**	**57**					**267**		**223**		**15**					
TOTAL FOR PROJ NO. 2021CPT.08.15.20771										**5.324**		**10.64**	**1,489**	**359**				**5,297**		**6,626**		**443**				**14**	**11**
GRAND TOTAL										**16.764**		**27.87**	**3,945**	**223,910**	**59,767**	**3,538**	**1,350**	**7,352**	**9,016**	**6,626**	**28,525**	**876**	**2,195**	**9,347**	**114,605**	**14**	**11**

PROJECT NO.	SHEET NO.	TOTAL NO.
2021CPT.08.15.10771, 2021CPT.08.15.20771	13	

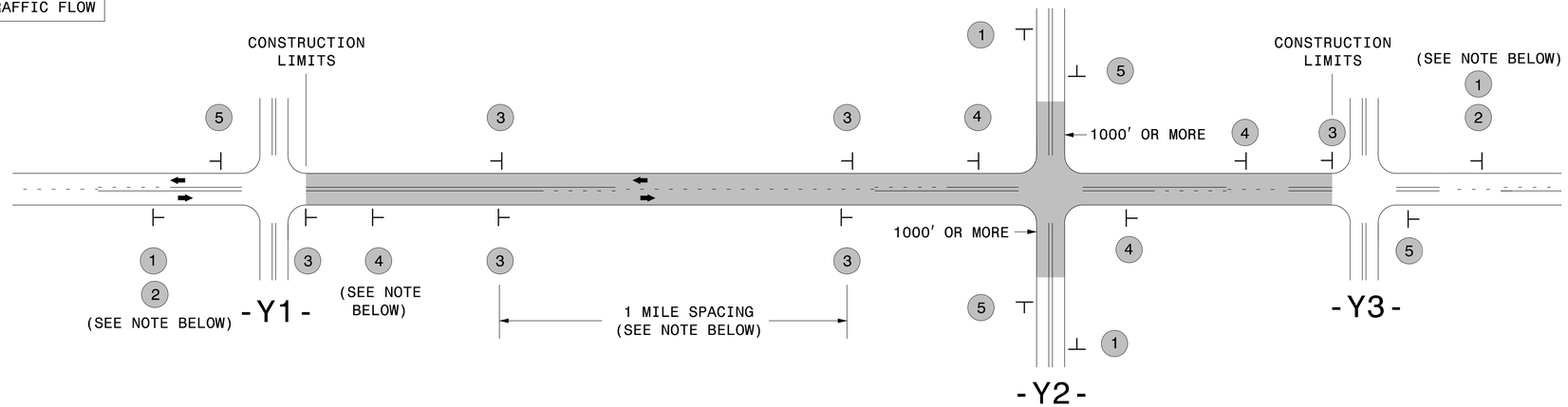
THERMOPLASTIC AND PAINT QUANTITIES

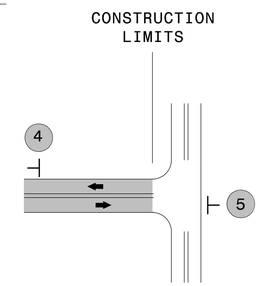
										4413000000-E	4457000000-N	4510000000-N	4688000000-E		4695000000-E	4700000000-E	4725000000-E				4815000000-E		4820000000-E	4825000000-E	4835000000-E	4845000000-N				4855000000-E	4891000000-E	4905000000-N	4650000000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	6" X 90 M WHITE THERMO	6" X 90 M YELLOW THERMO	8" X 90 M WHITE THERMO	12" X 90 M WHITE THERMO	THERMO LT ARROW 90 M	THERMO RAMP ARROW 90M	THERMO MERGE ARROW 90M	THERMO RT ARROW 90 M	6" WHITE PAINT	6" YELLOW PAINT	8" WHITE PAINT	12" WHITE PAINT	24" WHITE PAINT	PAINT LT ARROW	PAINT RAMP ARROW	PAINT MERGE ARROW	PAINT RT ARROW	6" LINE REMOVAL	GENERIC PAVEMENT MARKING ITEM - 24" X 90 M WHITE THERMO	SNOW PLOWABLE MARKERS C & R MARKERS	TEMPORARY RAISED PAVEMENT C&R MARKERS
								MI	FT	SF	LS	HR	LF	LF	LF	LF	EA	EA	EA	EA	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	LF	EA	EA
2021CPT.08.15.10771	Richmond	1	WB US HWY 74 BYPASS	FROM 0.4MI E. OF SR 1846 TO BRIDGE NO 210(AT NC HWY 381)(INCLUDES RAMPS AT EXIT 320)	1,2,5,6	2	MD	2.47	31	430		30	17,257	13,529		1,572	3	1			28,186	21,878		3,144		6	2			1,750		251	251
TOTAL FOR MAP NO. 1								**2.47**		**430**		**30**	**17,257**	**13,529**		**1,572**	**3**	**1**			**28,186**	**21,878**		**3,144**		**6**	**2**			**1,750**		**251**	**251**
2021CPT.08.15.10771	Richmond	2	WB US HWY 74 BYPASS	FROM BRIDGE NO. 210(AT NCHWY 381) TO 1.1 MI. W. OF BRIDGE NO. 191 (NC HWY 38 LOUIS BREEDEN BLVD)	1	2	MD	2.52	39	430		32	17,057	13,153		1,647			7		34,566	26,658		3,294				14		402		248	248
TOTAL FOR MAP NO. 2								**2.52**		**430**		**32**	**17,057**	**13,153**		**1,647**			**7**		**34,566**	**26,658**		**3,294**				**14**		**402**		**248**	**248**
2021CPT.08.15.10771	Richmond	3	WB US HWY 74 BYPASS	FROM 1.1 MI. W. OF BRIDGE NO.191(AT NC HWY 38 LOUIS BREEDEN BLVD) TO BRIDGE NO.207(AT MARKS CRK.)	1,3	2	MD	0.783	38				5,156	4,155							10,312	8,310										52	52
TOTAL FOR MAP NO. 3								**0.783**					**5,156**	**4,155**							**10,312**	**8,310**										**52**	**52**
2021CPT.08.15.10771	Richmond	4	EB US HWY 74 BYPASS	FROM BRIDGE NO 208 AT MARKS CREEK TO BRIDGE NO 190(AT NC 38)(INCLUDES EXIT 319 OFF RAMP TO NC 38)	1,3,4,6	2	MD	1.91	38	270	*	18	13,572	11,003	76	921	1			1	27,576	22,358	152	1,842	110	2			2	392	55	128	128
TOTAL FOR MAP NO. 4								**1.91**		**270**		**18**	**13,572**	**11,003**	**76**	**921**	**1**			**1**	**27,576**	**22,358**	**152**	**1,842**	**110**	**2**			**2**	**392**	**55**	**128**	**128**
2021CPT.08.15.10771	Richmond	5	EB US HWY 74 BYPASS	FROM BRIDGE NO 190(AT NC HWY 38) TO BRIDGE NO 209(AT NC HWY 381)(INCLUDES EXIT 319 ON RAMP FROM NC 38)	1,6	2	MD	1.392	38	270		10	10,606	8,447		780			3		22,172	17,534		1,560				6		800		139	139
TOTAL FOR MAP NO. 5								**1.392**		**270**		**10**	**10,606**	**8,447**		**780**			**3**		**22,172**	**17,534**		**1,560**				**6**		**800**		**139**	**139**
2021CPT.08.15.10771	Richmond	6	EB US HWY 74 BYPASS	FROM BRIDGE NO 209(AT NC HWY 381) TO BRIDGE NO 212(AT RXR)(INCLUDES RAMPS AT EXIT 320)	1,3,5,6	2	MD	1.13	31	350		6	9,796	8,999		921			3		19,592	17,998		1,842				6				132	132
TOTAL FOR MAP NO. 6								**1.13**		**350**		**6**	**9,796**	**8,999**		**921**			**3**		**19,592**	**17,998**		**1,842**				**6**				**132**	**132**
2021CPT.08.15.10771	Richmond	7	EB US HWY 74 BYPASS	FROM BRIDGE NO 212(AT RXR) TO BRIDGE NO 214(AT US HWY 74 BUS)	9	2	MD	0.154	38	350		1	1,008	818							1,598	1,288								530		13	13
TOTAL FOR MAP NO. 7								**0.154**		**350**		**1**	**1,008**	**818**							**1,598**	**1,288**								**530**		**13**	**13**
2021CPT.08.15.10771	Richmond	8	EB US HWY 74	FROM BRIDGE NO 214(AT US HWY 74 BUS) TO 0.4MI E. OF SR 1846	2	2	MD	1.081	32	350		6	8,394	5,712		654	4		3	1	8,394	5,712		654	41	4		3	1		41	114	114
TOTAL FOR MAP NO. 8								**1.081**		**350**		**6**	**8,394**	**5,712**		**654**	**4**		**3**	**1**	**8,394**	**5,712**		**654**	**41**	**4**		**3**	**1**		**41**	**114**	**114**
TOTAL FOR PROJ NO. 2021CPT.08.15.10771								**11.44**		**2,450**	*	**103**	**82,846**	**65,816**	**76**	**6,495**	**8**	**1**	**16**	**2**	**152,396**	**121,736**	**152**	**12,336**	**151**	**12**	**2**	**29**	**3**	**3,874**	**96**	**1,077**	**1,077**
													148,662				**27**				**274,132**					**46**							
2021CPT.08.15.20771	Richmond	9	SR 1825(AIRPORT RD)	FROM PAVT JNT 0.085MI S. OF SR 1811(GIN MILL RD) TO AND THRU SR 1803(GHIO RD)	8	2	2WU	2.51	22	681																							
TOTAL FOR MAP NO. 9								**2.51**		**681**																							
2021CPT.08.15.20771	Richmond	10	SR 1423(RICHMOND RD)	FROM SR 1424(ROBERDEL RD) TO US HWY 1(FAYETTEVILLE RD)	7,8	2	2WU	1.63	24	422																							
TOTAL FOR MAP NO. 10								**1.63**		**422**																							
2021CPT.08.15.20771	Richmond	11	SR 1811(GIN MILL RD)	FROM SR 1825(AIRPORT RD) TO SR 1812(FREEMAN MILL RD)	8	2	2WU	0.98	18	110	*																						
TOTAL FOR MAP NO. 11								**0.98**		**110**																							
2021CPT.08.15.20771	Richmond	12	SR 1448(CARGO RD)	FROM SR 1446(HAYWOOD CEMETARY RD) TO SR 1448(CARGO RD/US 220 SERVICE ROAD)	8	2	2WU	0.204	20	182																							
TOTAL FOR MAP NO. 12								**0.204**		**182**																							
TOTAL FOR PROJ NO. 2021CPT.08.15.20771								**5.324**		**1,395**	*																						
GRAND TOTAL								**16.76**		**3,845**	**1**	**103**	**82,846**	**65,816**	**76**	**6,495**	**8**	**1**	**16**	**2**	**152,396**	**121,736**	**152**	**12,336**	**151**	**12**	**2**	**29**	**3**	**3,874**	**96**	**1,077**	**1,077**
													148,662				**27**				**274,132**					**46**							

PROJ. REFERENCE NO.	SHEET NO.
2021CPT.08.15.10771,etc.	TMP-1

SIGNING FOR RESURFACING PROJECTS

LEGEND
- ⊢ STATIONARY SIGN
- ⬅ DIRECTION OF TRAFFIC FLOW





TEE INTERSECTION

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1 — ROAD WORK AHEAD — W20-1, 48″ X 48″

2 — NEXT XX MILES — W7-3aP, 24″ X 18″

PLACE 1000′ PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000′ ALONG -Y- LINE.

#2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)

3 — LOW SOFT SHOULDER — SP 13107, 48″ X 48″

- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.
- AT TEE INTERSECTIONS INSTALL INITIALLY ½ MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.

4 — ROAD UNDER CONST — SP 13106, 48″ X 48″

- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS.
- DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.
- INSTALL 500′ +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.
- FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500′ OF EACH APPROACH.
- A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.
- FOR TEE INTERSECTIONS, INSTALL WITHIN 500′ +/- OF THE INTERSECTION ALONG -L- LINE.

5 — END ROAD WORK — G20-2 A, 48″ X 24″

PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.

MAPS LESS THAN 2 MILES

FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.

-Y- LINE SIGNING

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000′ OF RESURFACING ALONG -Y- LINE
2) SUBDIVISION ROADS
3) DEAD END ROADS

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.

ROAD WORK AHEAD — W20-1, 48″ X 48″
PLACED 500′ IN ADVANCE OF FLAGGER.

W20-7 A, 48″ X 48″
PLACED 250′ IN ADVANCE OF FLAGGER.

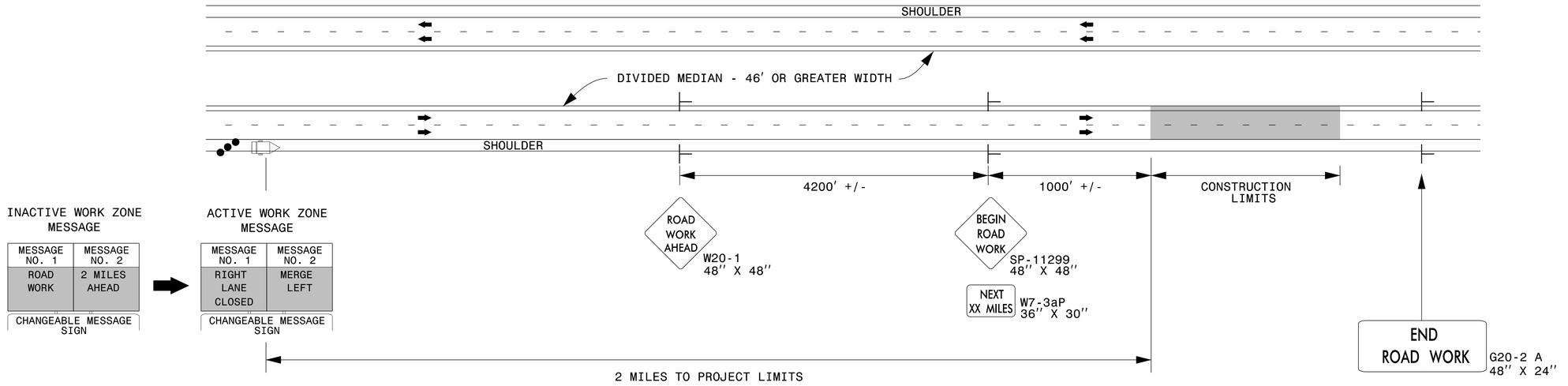
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

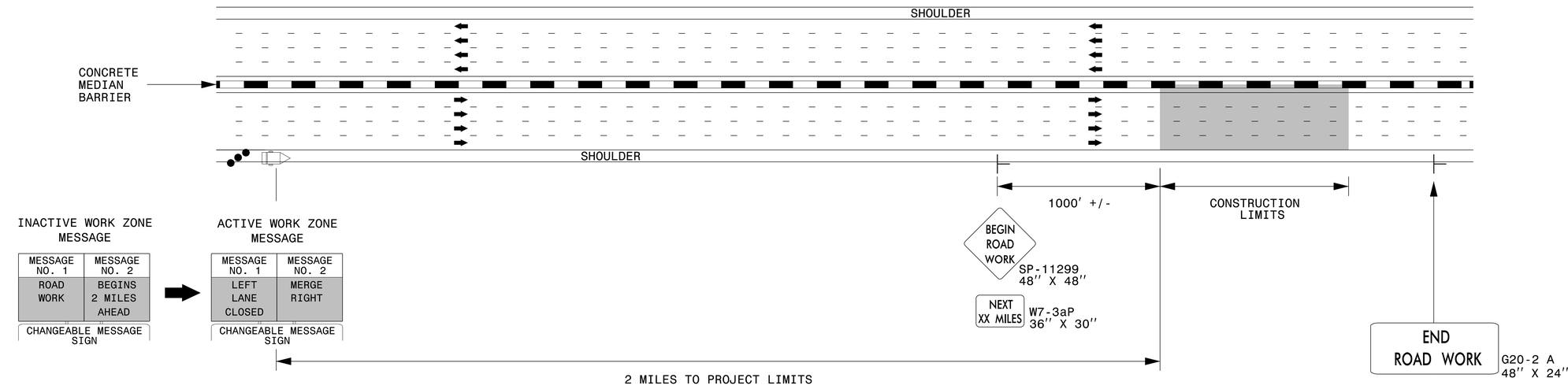
5/15/2017
SATMU\WZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn
User:kedavis

PROJ. REFERENCE NO.	SHEET NO.
2021CPT.08.15.10771,etc.	TMP-2

DIVIDED MEDIANS WITH WIDTHS 46′ OR GREATER



DIVIDED MEDIANS WITH WIDTHS LESS THAN 46′ OR WITH PERMANENT MEDIAN BARRIER



NOTES:

1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6′ AS MEASURED FROM THE EDGE OF PAVEMENT.
2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
3) FOR MEDIAN WIDTHS LESS THAN 46′ (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
5) INSTALL "ROAD WORK AHEAD"(W20-1) ALONG ENTRANCE RAMPS 500′ PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMPS WITHIN THE WORK ZONE.
6) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER AND WITH DIVIDED MEDIANS OF 46′ OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND

- CHANGEABLE MESSAGE SIGN (CMS)
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC DRUM

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR HIGH SPEED FACILITIES ≥ 60 MPH

3/23/2015
C:\Users\rmgarrett\Downloads\Resurfacing_AdvWarn_HSpd.dgn
User:rmgarrett