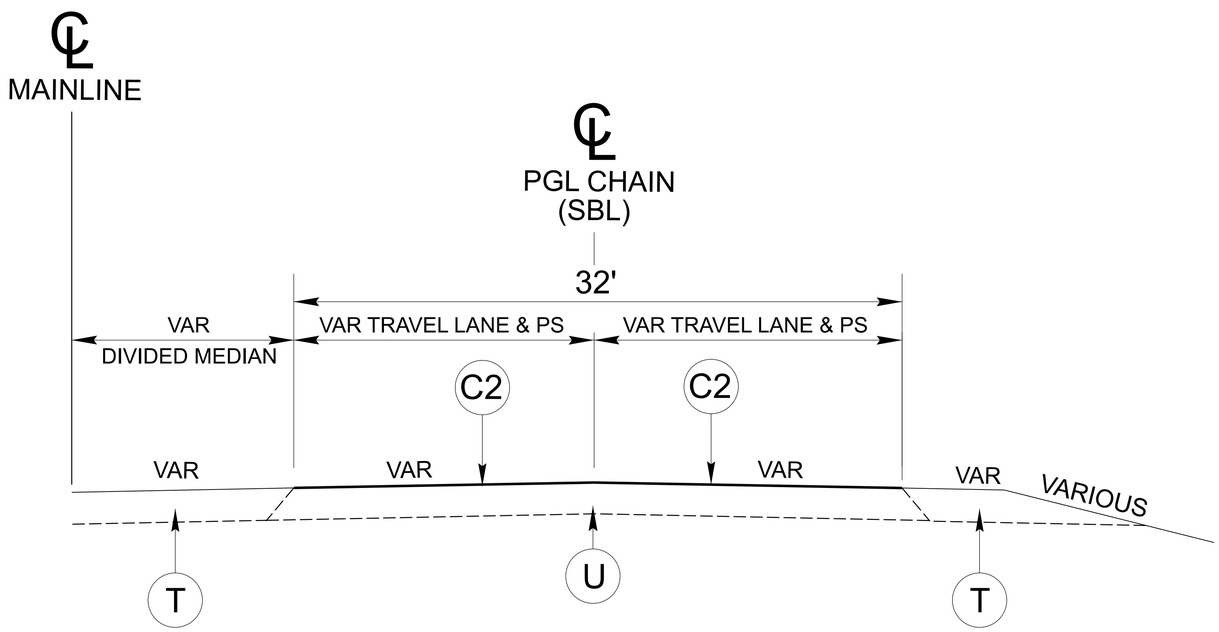
5/26/20

* "PATCHING EXISTING PAVEMENT" HAS BEEN INCLUDED AS A PAY ITEM ON MAPS. PATCHING MAY OR MAY NOT BE NEEDED DEPENDING ON CONDITION OF MAP SURFACE AT TIME THAT PAVING SEASON BEGINS. AREAS TO BE DELINIATED BY THE ENGINEER.

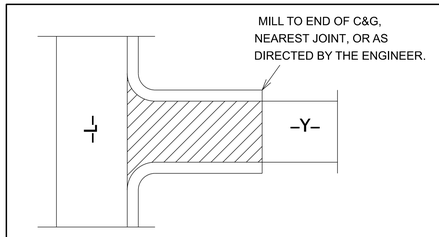
* INCIDENTAL MILLING AT LOCATIONS AS DIRECTED BY THE ENGINEER

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
F1	ASPHALT SURFACE TREATMENT, MAT COAT, NO.78 STONE
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	INCIDENTAL MILLING (See Tie in Detail)



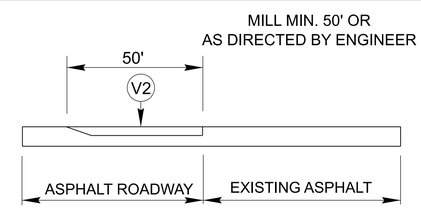
TYPICAL SECTION NO. 1

MAP 1 - US 321 SB FROM SR 1933 TO SR 1001 OVERPASS



INCLUDES INCIDENTAL MILLING AT THE ENDS OF SECTIONS FOR SMOOTH TIE-INS, CURB RADII AND STREET INTERSECTIONS, AS NEEDED OR AS DIRECTED BY THE ENGINEER

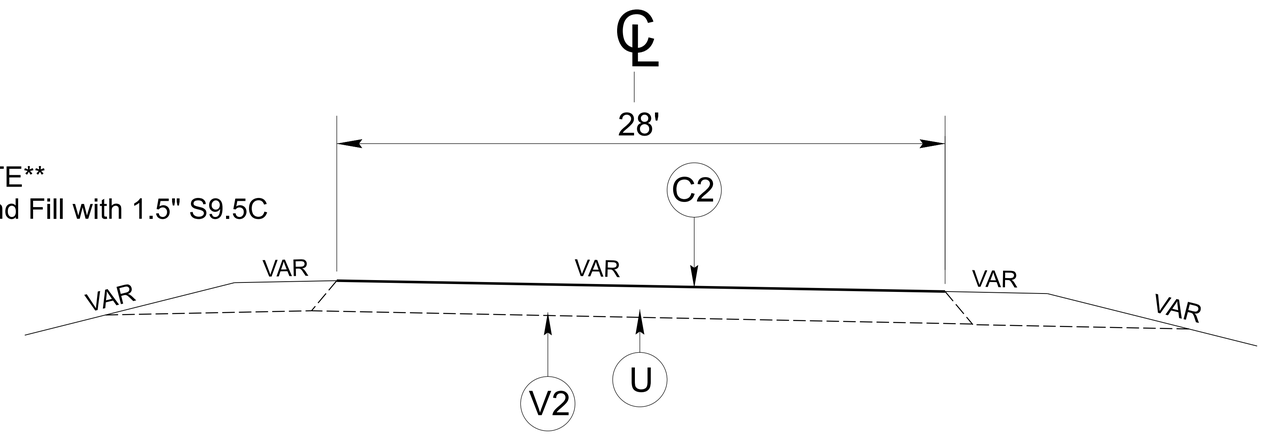
MILLING AT CURB & GUTTER INTERSECTIONS



BEGIN & END MAP TIE IN DETAIL

TIE ASPHALT OVERLAY TO EXISTING ASPHALT PAVEMENT AT BEGIN & END OF MAPS OR AS DIRECTED BY THE ENGINEER

NOTE
Mill and Fill with 1.5" S9.5C

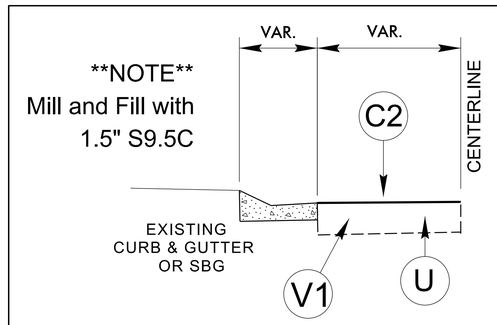


TYPICAL SECTION NO. 2

**(See Inset No.2A for additional info)

MAP 3 - RMP-6486 FROM SR 1001 TO US 321 N

MAP 4 - RMP-6487 FROM US 321 N TO SR 1001



INSET NO. 2A **

MAP 3 - LT SIDE, VARIOUS LOCATIONS

(WHEN EXIST. CURB & GUTTER OR SBG IS PRESENT)

NOTE: MILL AND FILL SHALL OCCUR ON BOTH SIDES OF THE CENTERLINE

NOTE: TYPICALS ARE NOT TO SCALE

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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION of HIGHWAYS

DIVISION ELEVEN

CALDWELL COUNTY

PRIMARY AND SECONDARY ROADS

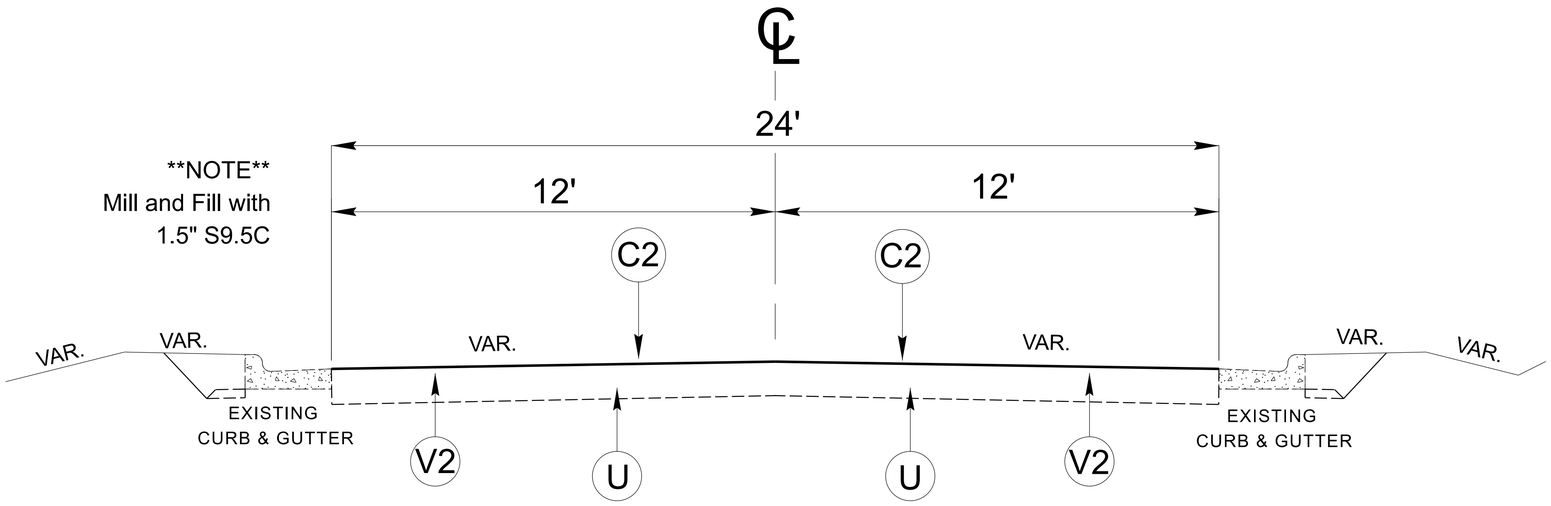
2027 ASPHALT RESURFACING

DATE: 10/8/2026
PREPARED BY: DLH

REVISIONS

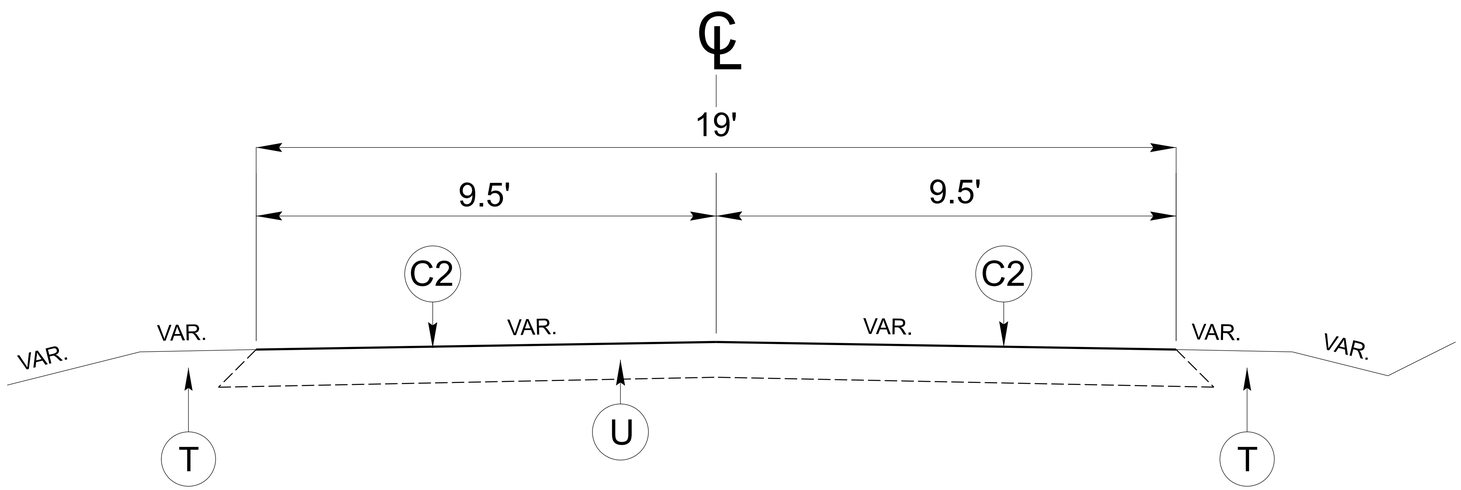
5/26/20

* INCIDENTAL MILLING AT LOCATIONS AS DIRECTED BY THE ENGINEER



TYPICAL SECTION NO. 3

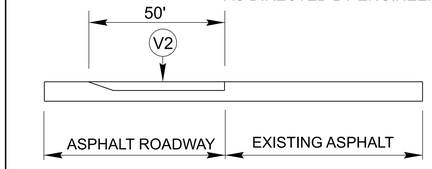
MAP 5 - SR 1108 WEST HIGHLAND AVE FROM US 321A TO GRANDVIEW ST
MAP 6 - SR 1108 NORTH HIGHLAND AVE FROM US 321 TO U-6036 PROJECT LIMITS
MAP 7 - SR 1108 NORTH HIGHLAND AVE FROM U-6036 PROJECT LIMITS TO US 321A



TYPICAL SECTION NO. 4

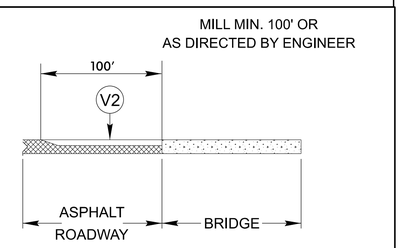
MAP 2 - NC 90 EAST FROM SR 1354 TO SR 1353

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
F1	ASPHALT SURFACE TREATMENT, MAT COAT, NO.78 STONE
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	INCIDENTAL MILLING (See Tie in Detail)



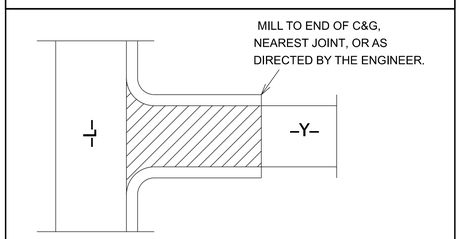
BEGIN & END MAP TIE IN DETAIL

TIE ASPHALT OVERLAY TO EXISTING ASPHALT PAVEMENT AT BEGIN & END OF MAPS OR AS DIRECTED BY THE ENGINEER



BRIDGE TIE IN DETAIL

TIE ASPHALT OVERLAY TO BRIDGE APPROACH SLABS OR AS DIRECTED BY THE ENGINEER



INCLUDES INCIDENTAL MILLING AT THE ENDS OF SECTIONS FOR SMOOTH TIE-INS, CURB RADII AND STREET INTERSECTIONS, AS NEEDED OR AS DIRECTED BY THE ENGINEER

MILLING AT CURB & GUTTER INTERSECTIONS

NOTE: TYPICALS ARE NOT TO SCALE

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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION of HIGHWAYS

DIVISION ELEVEN

CALDWELL COUNTY

PRIMARY AND SECONDARY ROADS

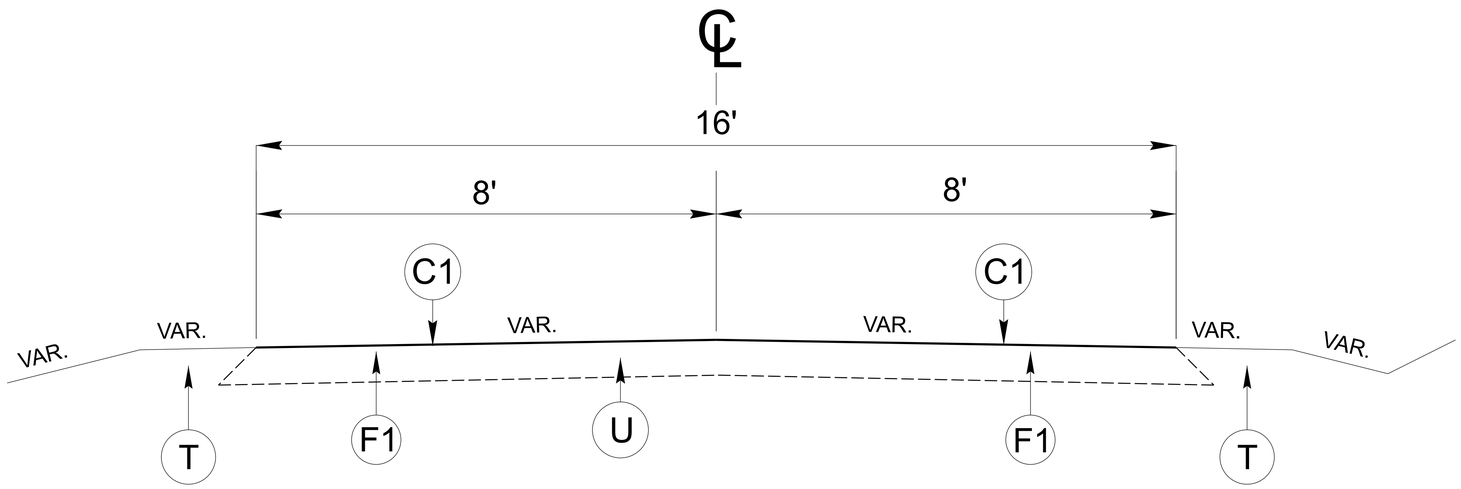
2027 ASPHALT RESURFACING

DATE: 10/8/2026
PREPARED BY: DLH

REVISIONS

5/26/20

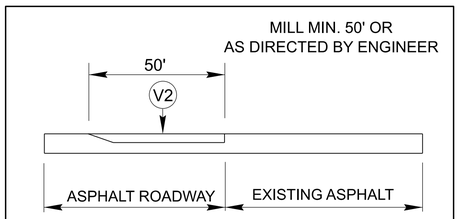
* INCIDENTAL MILLING AT LOCATIONS AS DIRECTED BY THE ENGINEER



TYPICAL SECTION NO. 5

MAP 8 - SR 1511 ZACKS FORK RD FROM SR 1605 TO SR 1545

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
F1	ASPHALT SURFACE TREATMENT, MAT COAT, NO.78 STONE
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	INCIDENTAL MILLING (See Tie in Detail)



BEGIN & END MAP TIE IN DETAIL

TIE ASPHALT OVERLAY TO EXISTING ASPHALT PAVEMENT AT BEGIN & END OF MAPS OR AS DIRECTED BY THE ENGINEER

NOTE: TYPICALS ARE NOT TO SCALE

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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION of HIGHWAYS

DIVISION ELEVEN

CALDWELL COUNTY

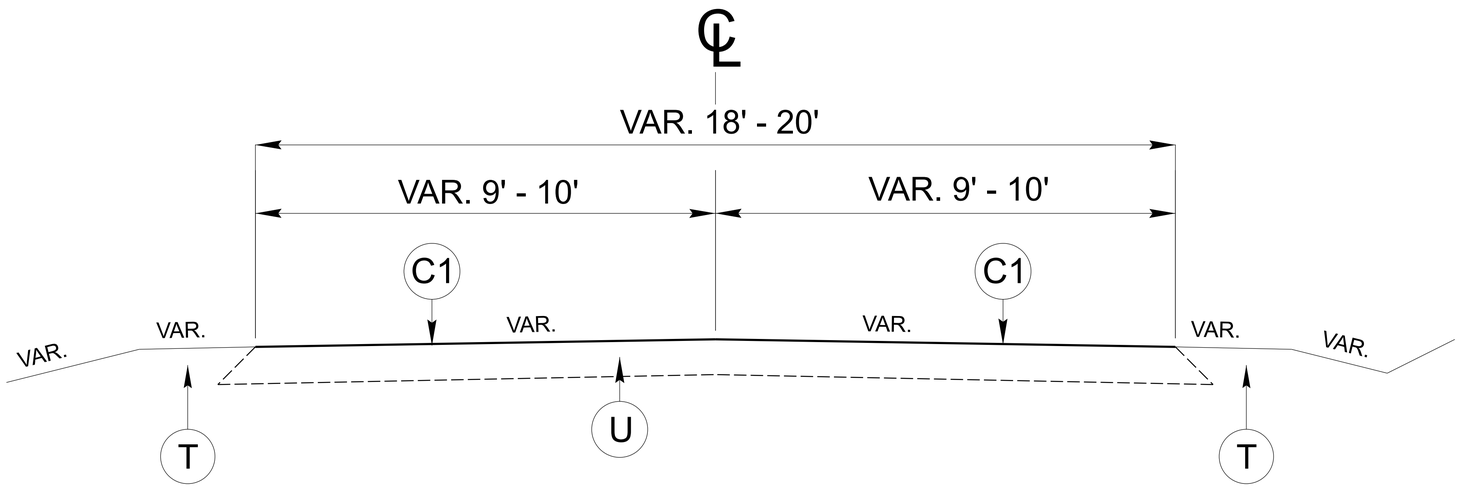
PRIMARY AND SECONDARY ROADS

2027 ASPHALT RESURFACING

DATE: 10/8/2026
PREPARED BY: DLH

REVISIONS

* INCIDENTAL MILLING AT LOCATIONS AS DIRECTED BY THE ENGINEER



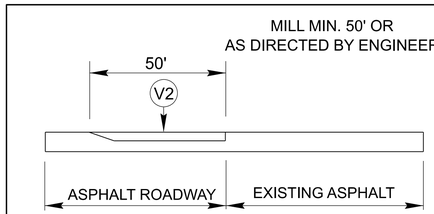
TYPICAL SECTION NO. 6

** MAP 9 - SR 1718 DEAL MILL RD FROM SR 1844 TO SR 1108
**(See Inset No.9A for additional info)

MAP 10 - SR 1850 ELLENWOOD RD FROM SR 1751 TO CUL-DE-SAC

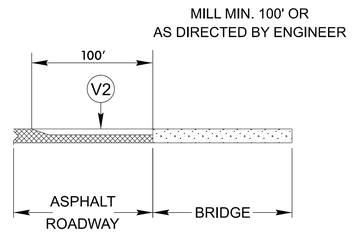
MAP 11 - SR 1892 MELROSE LN FROM SR 1850 TO CUL-DE-SAC

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
F1	ASPHALT SURFACE TREATMENT, MAT COAT, NO.78 STONE
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	INCIDENTAL MILLING (See Tie in Detail)



BEGIN & END MAP TIE IN DETAIL

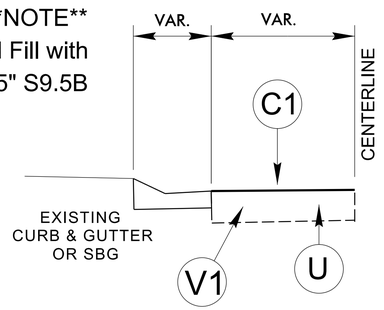
TIE ASPHALT OVERLAY TO EXISTING ASPHALT PAVEMENT AT BEGIN & END OF MAPS OR AS DIRECTED BY THE ENGINEER



BRIDGE TIE IN DETAIL

TIE ASPHALT OVERLAY TO BRIDGE APPROACH SLABS OR AS DIRECTED BY THE ENGINEER

NOTE
Mill and Fill with
1.5" S9.5B



INSET NO. 9A **

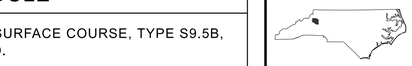
NOTE: INSET NO. 9A IS MIRRORED THE SAME ON LT AND RT SIDES

MAP 9 - VARIOUS LOCATIONS ADJACENT TO BRIDGE #90 (WHEN EXIST. CURB & GUTTER OR SBG IS PRESENT)
MILL AND FILL SHALL OCCUR ON BOTH SIDES OF THE CENTERLINE IF CURB & GUTTER OR SBG IS PRESENT ON EITHER LT OR RT SIDE

NOTE: TYPICALS ARE NOT TO SCALE

DK00502
004

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION of HIGHWAYS



DIVISION ELEVEN

CALDWELL COUNTY

PRIMARY AND SECONDARY ROADS

2027 ASPHALT RESURFACING

DIVISION OF HIGHWAYS · DIVISION 11 · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

DATE: 10/8/2026
PREPARED BY: DLH

REVISIONS

5/26/20

CONTRACT NUMBER	SHEET NUMBER
DK00502	5

SUMMARY OF QUANTITIES

												1220000000-E	1245000000-E	1260000000-E	1297000000-E	1330000000-E	1519000000-E	1523000000-E	1575000000-E	1704000000-E	1775500000-E	1838000000-E	2815000000-N	2830000000-N	2845000000-N	7444000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	1½" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5B	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	ASPHALT SURFACE TREATMENT, MAT COAT #78	EMULSION FOR ASPHALT SURFACE TREATMENT	ADJUST DROP INLET	ADJUST MANHOLES	ADJUST METER OR VALVE BOX	INDUCTIVE LOOP SAWCUT
								MI	FT			TON	SMI	TON	SY	SY	TONS	TONS	TON	TONS	SY	GAL	EA	EA	EA	LF
2027CPT.11.06.10141	Caldwell	1	US-321 S / BLOWING ROCK BOULEVARD	FROM MILE POST 10.9 TO SR 1001 OVERPASS	1	2	MD	1.649	32	10.900	12.549	60	3.3	326		800		2,741	178	340						
2027CPT.11.06.10141	Caldwell	2	NC-90 E / COLLETTSVILLE ROAD	FROM SR 1354 TO SR 1353	4	2	2WU	3.300	19	20.560	23.860	80	6.6	660		300		3,266	212	400						
2027CPT.11.06.10141	Caldwell	3	RAMP-6486	FROM SR1001 TO US 321 N	2	1		0.189	28	0.000	0.189				2,450			275	16							
2027CPT.11.06.10141	Caldwell	4	RAMP-6487	FROM US 321 N TO SR 1001	2	1		0.164	28	0.000	0.164				5,245			239	14							264
TOTAL FOR PROJECT NUMBER 2027CPT.11.06.10141								**5.302**				**140**	**9.9**	**986**	**7,695**	**1,100**		**6,521**	**420**	**740**						**264**
2027CPT.11.06.20141	Caldwell	5	SR-1108 / WEST HIGHLAND AVENUE	FROM US 321A TO GRANDVIEW STREET	3	2	2WU	0.200	24	4.210	4.410				2,800	60		250	15					6	10	
2027CPT.11.06.20141	Caldwell	6	SR-1108 / NORTH HIGHLAND AVENUE/WEST HIGHLAND AVENUE	FROM US 321 TO PROJECT LIMITS U-6036	3	2	2WU	0.180	24	3.240	3.420				2,534	20		280	16					6	6	
2027CPT.11.06.20141	Caldwell	7	SR-1108 / NORTH HIGHLAND AVENUE/WEST HIGHLAND AVENUE	PROJECT LIMITS U-6036 TO US 321A	3	2	2WU	0.630	24	3.580	4.210				8,870	20		900	55					14	16	360
2027CPT.11.06.20141	Caldwell	8	SR-1511 / ZACKS FORK ROAD	FROM SR 1605 TO SR 1545	5	2	2WU	2.030	16	7.620	9.650	40	4.1	406		20	1,664		111	50	19,055	6,700				
2027CPT.11.06.20141	Caldwell	9	SR-1718 / DEAL MILL ROAD	FROM SR 1844 TO SR 1108	6	2	2WU	1.980	20	3.240	5.220	40	4.0	396	460	150	2,025		151	400						
2027CPT.11.06.20141	Caldwell	10	SR-1850 / ELLENWOOD ROAD	FROM SR 1751 TO CUL-DE-SAC	6	2	2WU	0.630	18	0.000	0.630	15	1.3	126		20	580		38							
2027CPT.11.06.20141	Caldwell	11	SR-1892 / MELROSE LANE	FROM SR 1850 TO CUL-DE-SAC	6	2	2WU	0.200	18	0.000	0.200	15	0.4	40			184		12				1			
TOTAL FOR PROJECT NUMBER 2027CPT.11.06.20141								**5.220**				**110**	**9.8**	**968**	**14,664**	**290**	**4,453**	**1,430**	**398**	**450**	**19,055**	**6,700**	**1**	**26**	**32**	**360**
GRAND TOTAL								**10.522**				**250**	**19.7**	**1,954**	**22,359**	**1,390**	**4,453**	**7,951**	**818**	**1,190**	**19,055**	**6,700**	**1**	**26**	**32**	**624**

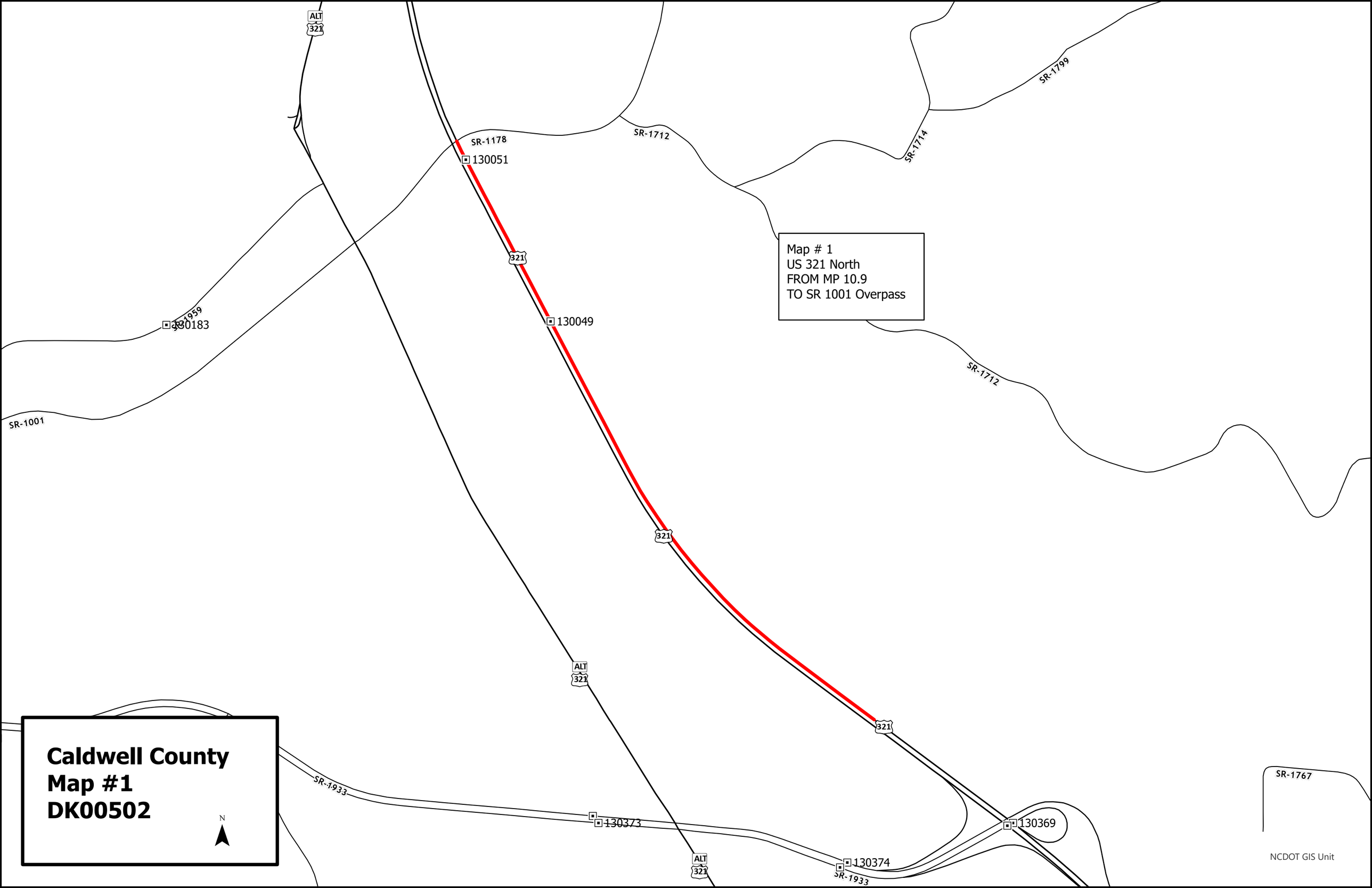
MILE POST MAP

CONTRACT NUMBER	SHEET NUMBER
DK00502	6

THERMOPLASTIC AND PAINT QUANTITIES

													4413000000-E	4704000000-E	4709000000-E	4720000000-E		4725000000-E					4890000000-E		4895000000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP		WORK ZONE ADVANCE/GENERAL WARNING SIGNING	THERMOPLASTIC PAVEMENT MARKING, LINES 16", 90 MIL	THERMOPLASTIC PAVEMENT MARKING LINES, 24", 90 MIL	THERMOPLASTIC MESSAGE RXR, 90 MIL	THERMOPLASTIC MESSAGE SCHOOL, 90 MIL	THERMOPLASTIC STRAIGHT ARROW, 90 MIL	THERMOPLASTIC RIGHT ARROW, 90 MIL	THERMOPLASTIC LEFT ARROW, 90 MIL	THERMOPLASTIC MERGE ARROW, 90 MIL	THERMOPLASTIC STRAIGHT & LEFT ARROW, 90 MIL	HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINES, 4", 65 MIL	HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINES, 8", 65 MIL	POLYCARBONATE H-SHAPED MARKER
								MI	FT				SF	LF	LF	EA	EA	EA	EA	EA	EA	EA	LF	LF	EA
2027CPT.11.06.10141	Caldwell	1	US-321 S / BLOWING ROCK BOULAVARD	FROM MILE POST 10.9 TO SR 1001 OVERPASS	1	2	MD	1.649	32	10.9	12.549		176					8	3	4	3		20,000	690	140
2027CPT.11.06.10141	Caldwell	2	NC-90 E / COLLETTSVILLE ROAD	FROM SR 1354 TO SR 1353	4	2	2WU	3.3	19	20.56	23.86		238										69,800		218
2027CPT.11.06.10141	Caldwell	3	RAMP-6486	FROM SR1001 TO US 321 N	2	1		0.189	28	0	0.189		96		50						3		2,300	80	20
2027CPT.11.06.10141	Caldwell	4	RAMP-6487	FROM US 321 N TO SR 1001	2	1		0.164	28	0	0.164		96		50				3			3	3,300	260	20
TOTAL FOR PROJECT NUMBER 2027CPT.11.06.10141								**5.302**					**606**		**100**			**8**	**6**	**4**	**6**	**3**	**95,400**	**1,030**	**398**
																				27					
2027CPT.11.06.20141	Caldwell	5	SR-1108 / WEST HIGHLAND AVENUE	FROM US 321A TO GRANDVIEW STREET	3	2	2WU	0.2	24	4.21	4.41		112	50	110	2	6						2,100		15
2027CPT.11.06.20141	Caldwell	6	SR-1108 / NORTH HIGHLAND AVENUE/WEST HIGHLAND AVENUE	FROM US 321 TO PROJECT LIMITS U-6036	3	2	2WU	0.180	24	3.240	3.420		112.0										2,070		12
2027CPT.11.06.20141	Caldwell	7	SR-1108 / NORTH HIGHLAND AVENUE/WEST HIGHLAND AVENUE	PROJECT LIMITS U-6036 TO US 321A	3	2	2WU	0.630	24	3.580	4.210		112.0	50	125	2	12						7,000		38
2027CPT.11.06.20141	Caldwell	8	SR-1511 / ZACKS FORK ROAD	FROM SR 1605 TO SR 1545	5	2	2WU	2.03	16	7.62	9.65		176										42,200		
2027CPT.11.06.20141	Caldwell	9	SR-1718 / DEAL MILL ROAD	FROM SR 1844 TO SR 1108	6	2	2WU	1.98	20	3.24	5.22		176										42,000		
2027CPT.11.06.20141	Caldwell	10	SR-1850 / ELLENWOOD ROAD	FROM SR 1751 TO CUL-DE-SAC	6	2	2WU	0.63	18	0	0.63		112												
2027CPT.11.06.20141	Caldwell	11	SR-1892 / MELROSE LANE	FROM SR 1850 TO CUL-DE-SAC	6	2	2WU	0.2	18	0	0.2		112												
TOTAL FOR PROJECT NUMBER 2027CPT.11.06.20141								**5.85**					**912**	**100**	**235**	**4**	**18**						**95,370**		**65**
																	22								
GRAND TOTAL								**11.152**					**1,518**	**100**	**335**	**4**	**18**	**8**	**6**	**4**	**6**	**3**	**190,770**	**1,030**	**463**
																	22			**27**					

MILE POST MAP


ALT
321
SR-1178
130051
SR-1712
SR-1714
SR-1799
321
130049
Map # 1
US 321 North
FROM MP 10.9
TO SR 1001 Overpass
SR-1712
SR-1959
130183
SR-1001
ALT
321
321
SR-1933
130373
ALT
321
130374
SR-1933
130369
SR-1767
Caldwell County
Map #1
DK00502
N
NCDOT GIS Unit

130023

SR-1368

SR-1353

SR-1354

SR-1368

SR-1355

SR-1397

90

130030

90

SR-1340

Map # 2
NC 90 - Collettsville Rd
FROM SR 1354 - Glass Rd
TO SR 1353 - Setzers Creek Rd

SR-1429

SR-1340

SR-1340

Caldwell County
Map #2
DK00502

N

SR-1310

NCDOT GIS Unit

Map # 3
Ramp 6486
FROM SR 1001 - Hibriten Dr
TO US 321 North

Map # 4
Ramp 6487
FROM US 321 North
TO SR 1001 - Hibriten Dr

SR-1178
SR-1178
SR-1712
SR-1001
SR-1001
SR-1959
321
ALT 321
ALT 321
321
321

Caldwell County
Map #3 and 4
DK00502

N

NCDOT GIS Unit

Map # 6
SR 1108 - N. Highland Ave / W. Highland Ave
FROM US 321
TO Project Limits U-6036

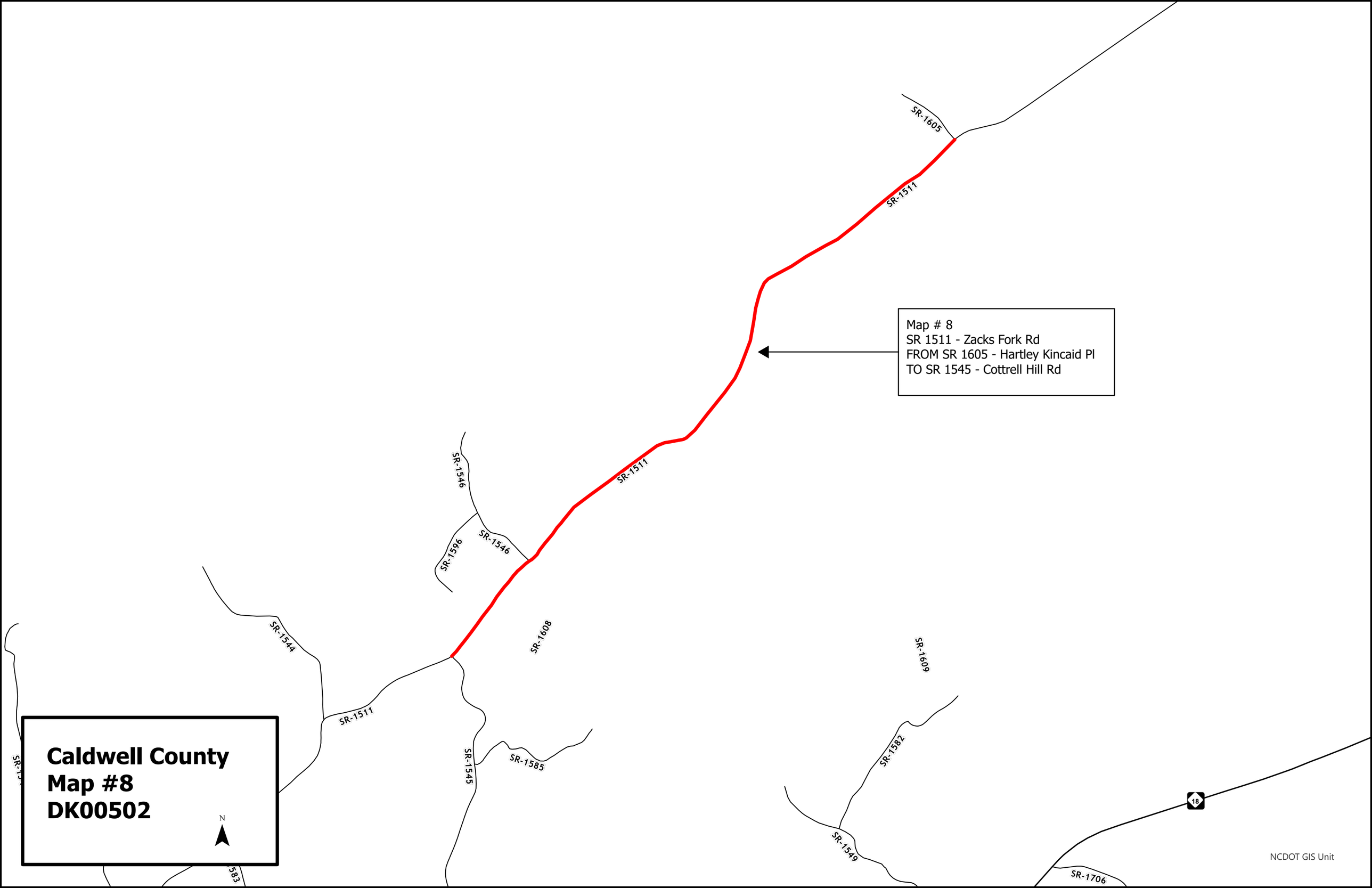
Map # 7
SR 1108 - N. Highland Ave / W. Highland Ave
FROM Project Limits U-6036
TO US 321 A

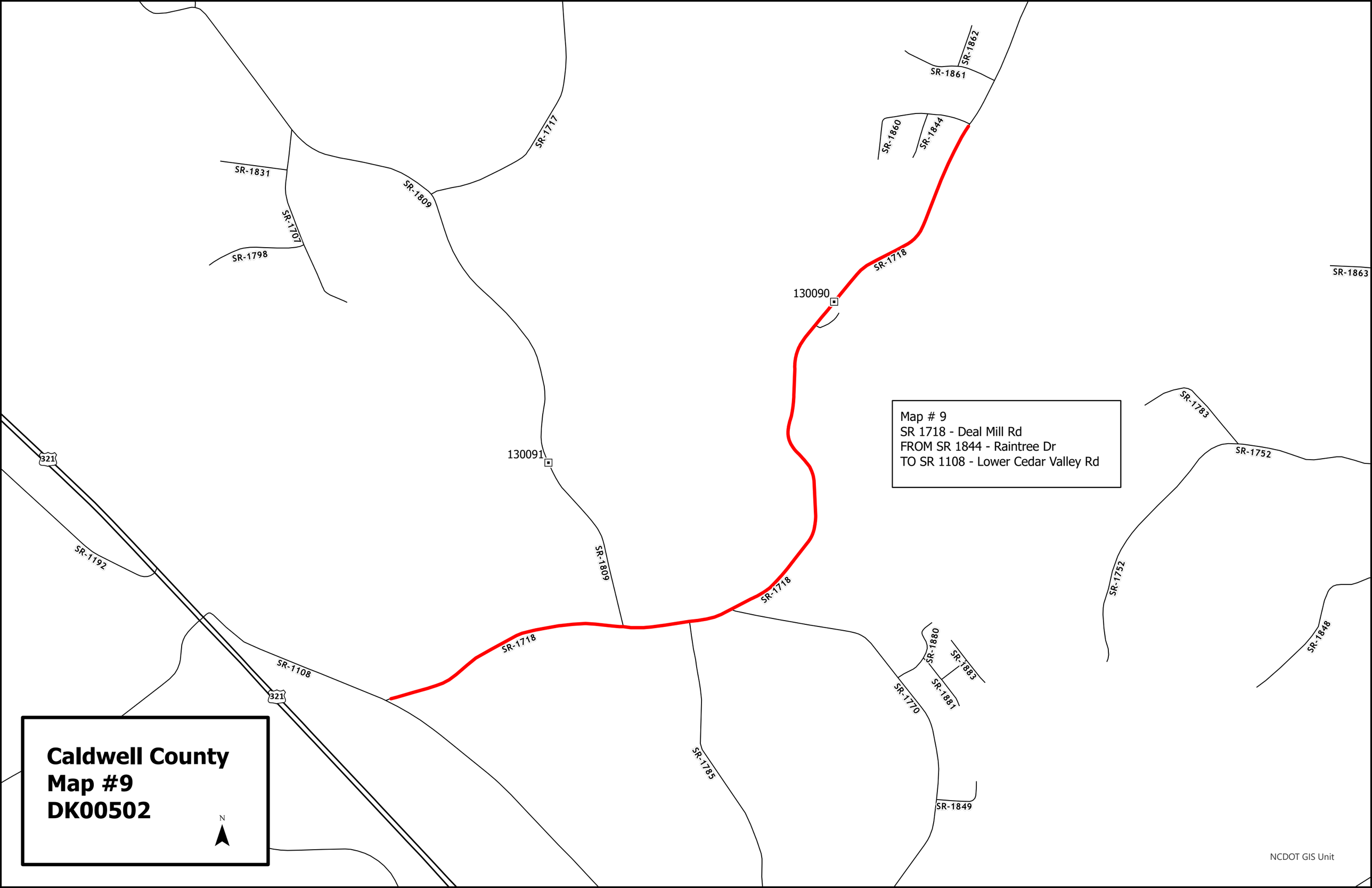
Map # 5
SR 1108 - W. Highland Ave
FROM US 321 A
TO Grandview St

Caldwell County
Map #5, 6, and 7
DK00502

N

NCDOT GIS Unit


SR-1605
SR-1511
Map # 8
SR 1511 - Zacks Fork Rd
FROM SR 1605 - Hartley Kincaid Pl
TO SR 1545 - Cottrell Hill Rd
SR-1546
SR-1596
SR-1546
SR-1511
SR-1544
SR-1608
SR-1609
SR-1511
SR-1545
SR-1585
SR-1582
SR-1549
18
SR-1706
Caldwell County
Map #8
DK00502
N
NCDOT GIS Unit


SR-1862
SR-1861
SR-1860
SR-1844
SR-1717
SR-1831
SR-1809
SR-1707
SR-1798
SR-1718
130090
SR-1863
Map # 9
SR 1718 - Deal Mill Rd
FROM SR 1844 - Raintree Dr
TO SR 1108 - Lower Cedar Valley Rd
SR-1783
SR-1752
130091
SR-1809
SR-1718
SR-1752
SR-1848
321
SR-1192
SR-1108
SR-1880
SR-1883
SR-1881
SR-1770
SR-1785
SR-1849
Caldwell County
Map #9
DK00502
N
NCDOT GIS Unit

SR-1757

SR-1757

SR-1865

SR-1751

SR-1850

SR-1892

SR-1850

SR-1850

Map # 11
SR 1892 - Melrose Pl
FROM SR 1850 - Ellenwood Rd
TO Cul-de-sac

Map # 10
SR 1850 - Ellenwood Rd
FROM SR 1751 - Grace Chapel Rd
TO Cul-de-sac

SR-1751

SR-1847

SR-1857

Caldwell County
Map #10 and 11
DK00502

N

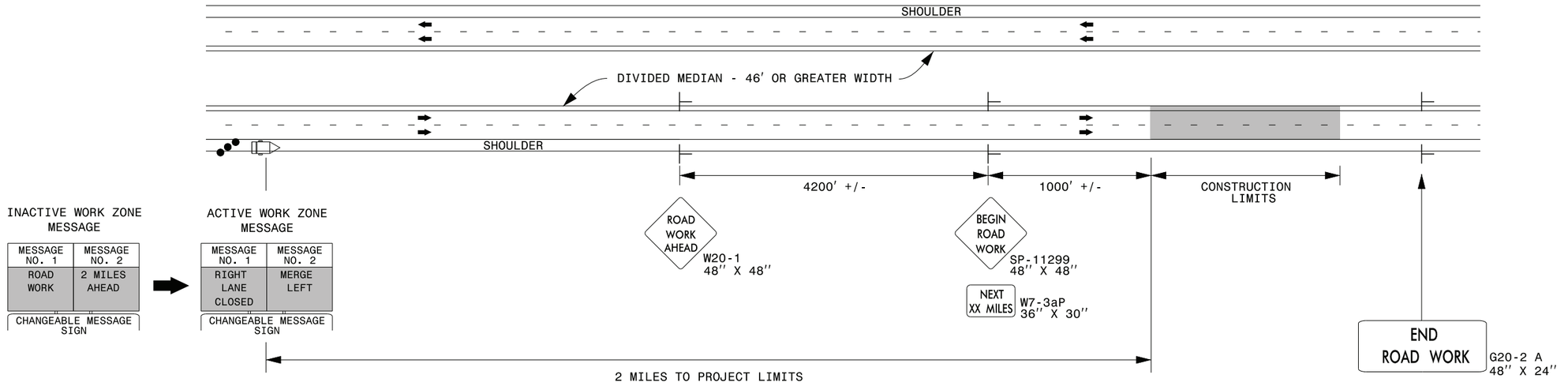
Caldwell County

Catawba County

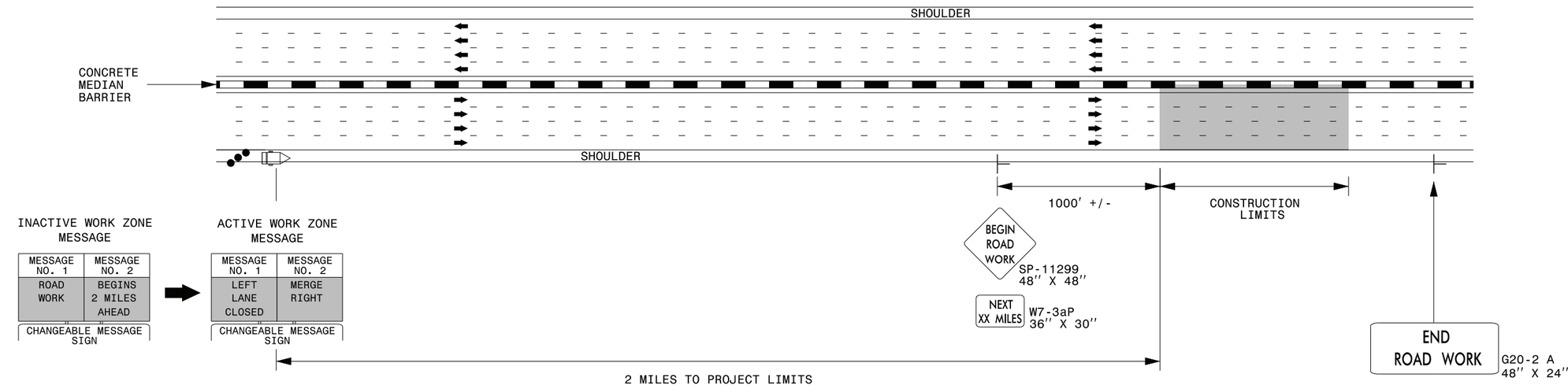
NCDOT GIS Unit

PROJ. REFERENCE NO.	SHEET NO.
DK00502	7

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

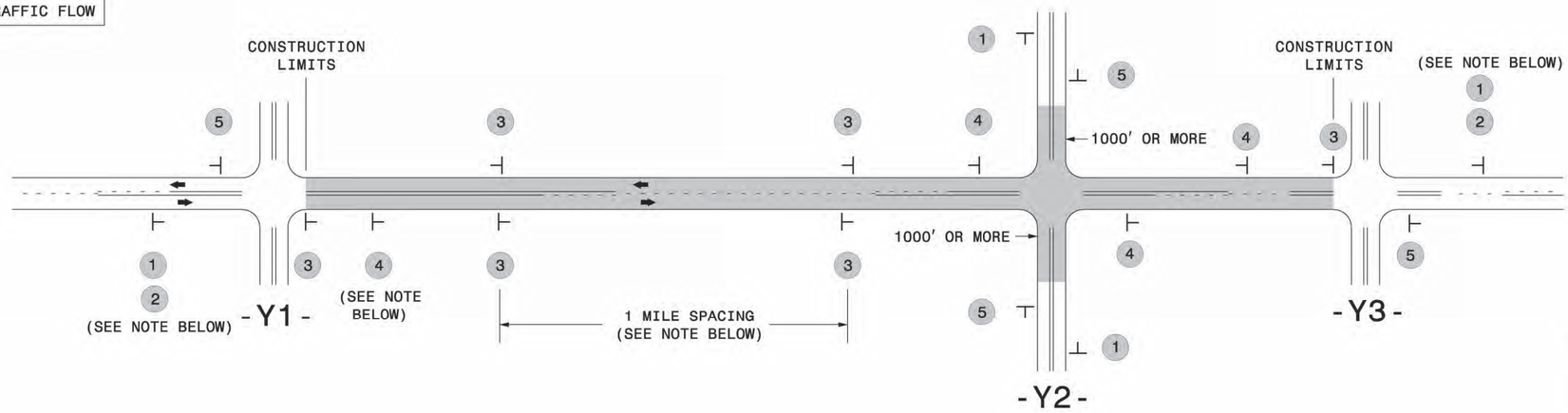
RESURFACING ADVANCE WARNING SIGNS FOR HIGH SPEED FACILITIES ≥ 60 MPH

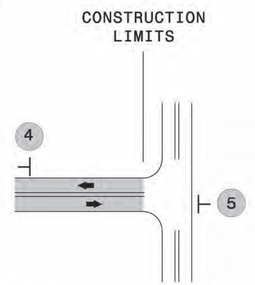
3/23/2015
C:\Users\rmgarrett\Downloads\Resurfacing_AdvWarn_HSpd.dgn
User:rmgarrett

PROJ. REFERENCE NO.	SHEET NO.
DK00502	8

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

2 — NEXT XX MILES, W7-3aP, 24" X 18"
#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.

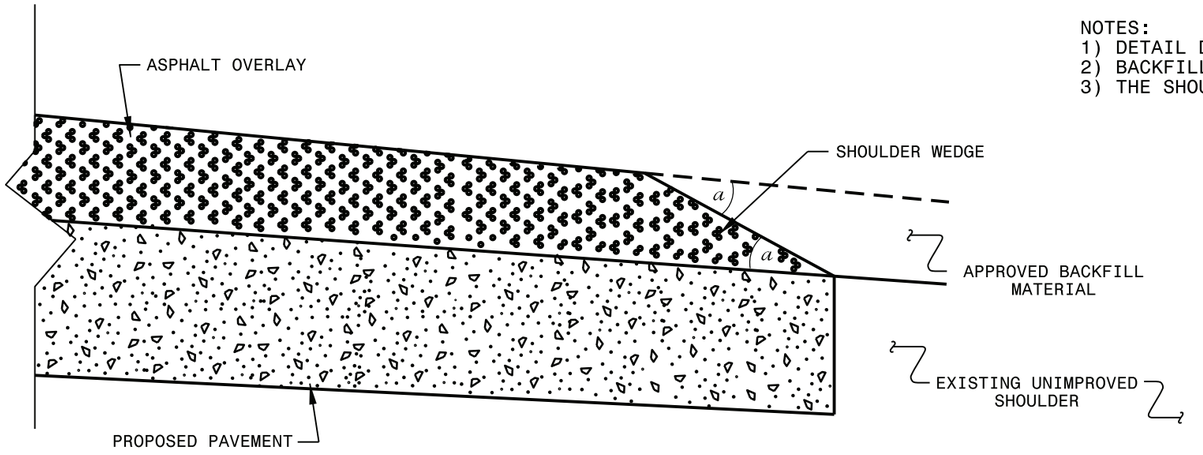
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

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

5/15/2017
S:\TMD\WZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn
User:kreddis

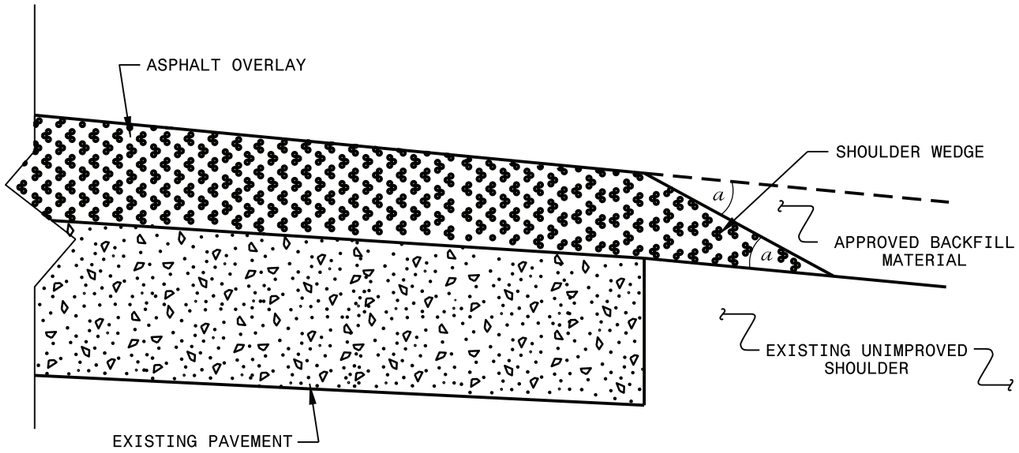
PROJECT REFERENCE NO.	SHEET NO.
DK00502	9

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 AND SIDE STREETS.



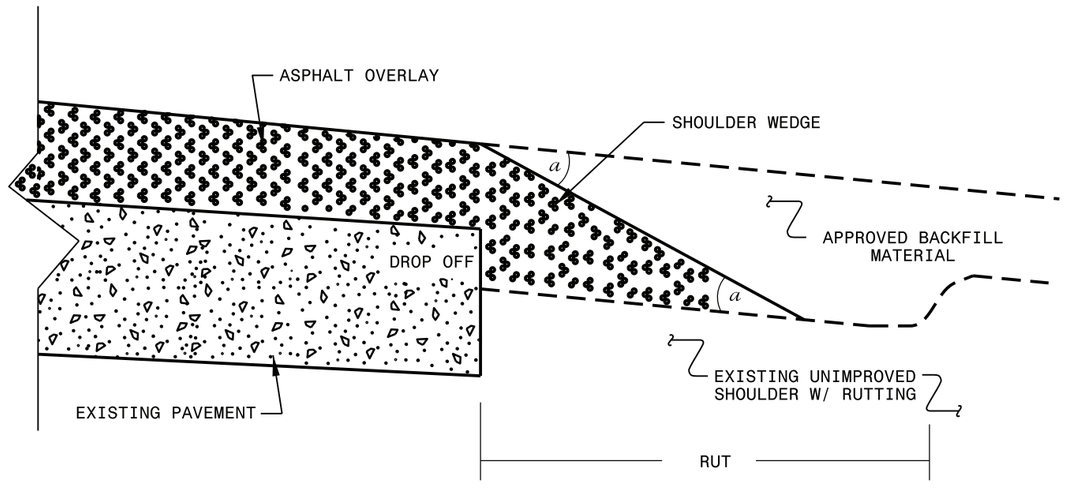
SHOULDER WEDGE DETAIL

(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:	10/16/12
CHECKED BY:		DATE:	
FILE SPEC.:	s:usr/details/stand/shoulderwedgedetail.dgn		

$$$$SYSTIME$$$$
$$$$USERNAME$$$$

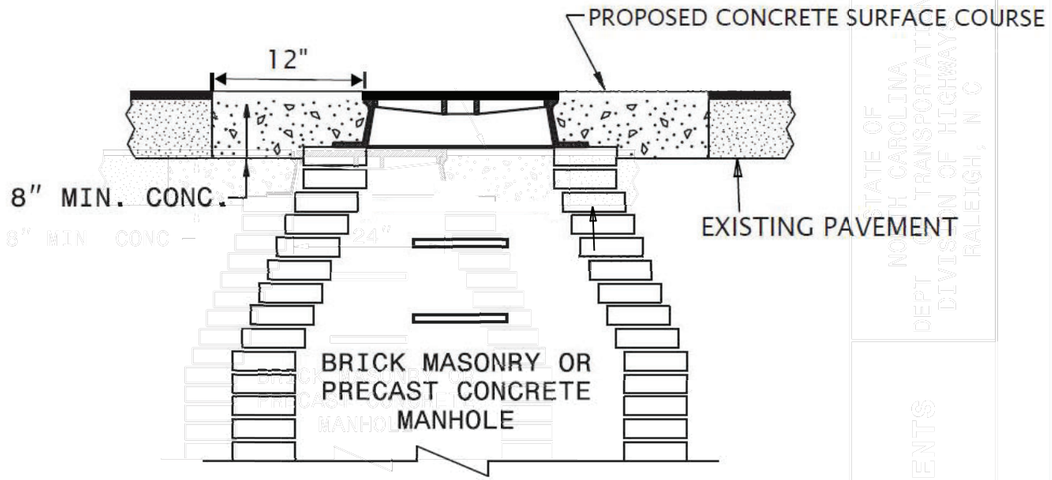
PROJECT REFERENCE NO.	SHEET NO.
K00502	10

8/17/99

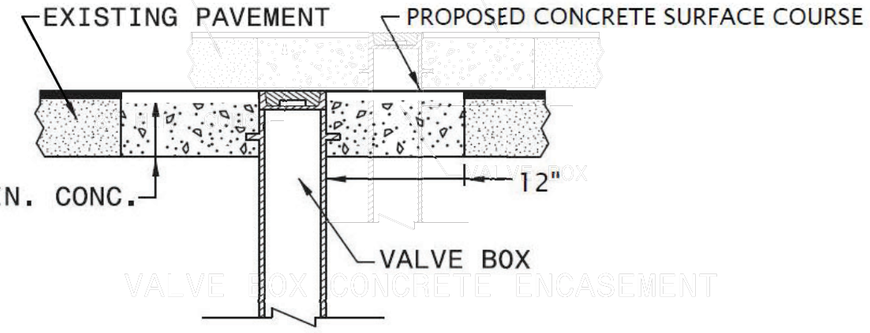
REVISIONS

GENERAL NOTES:

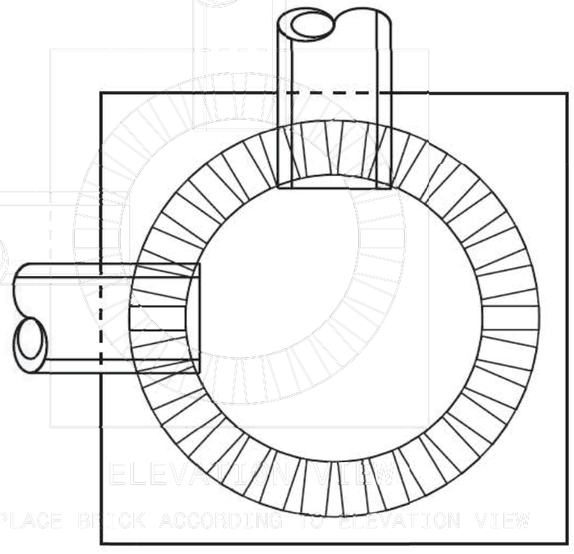
1. USE RAPID SET DYED CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.
2. REMOVE ALL FAULTY EXISTING BRICKWORK AND REPLACE WITH NEW BRICK MASONRY.
3. SHEER CUT RECTANGULAR EXCAVATION FOR THE ADJUSTMENT ON ALL SIDES. NO OVERSAW CUTS ALLOWED IN CORNERS.
4. FILL AREA BELOW 8" DEPTH WITH 78M OR NO. 57 CLEAN STONE.
5. MIX MORTAR TO NCDOT SPECIFICATIONS.
6. MORTAR JOINTS 1/2" +/- 1/8"



MANHOLE CONCRETE ENCASEMENT



VALVE BOX CONCRETE ENCASEMENT

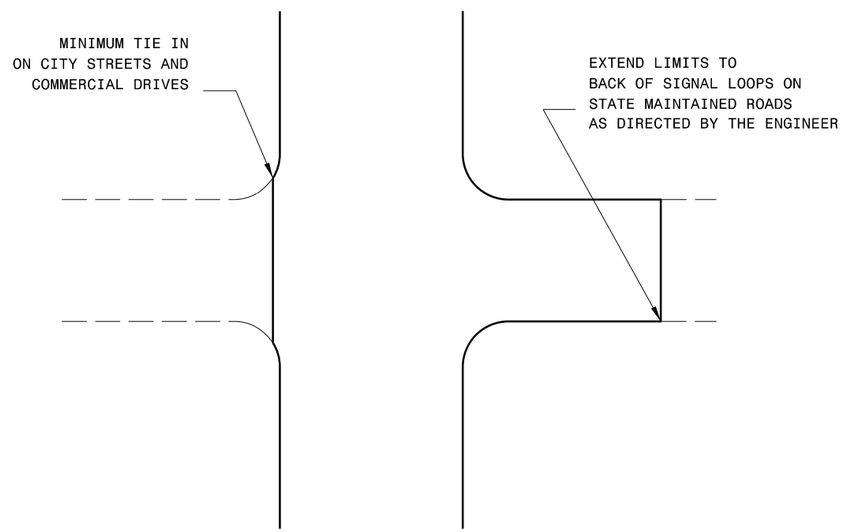


ELEVATION VIEW

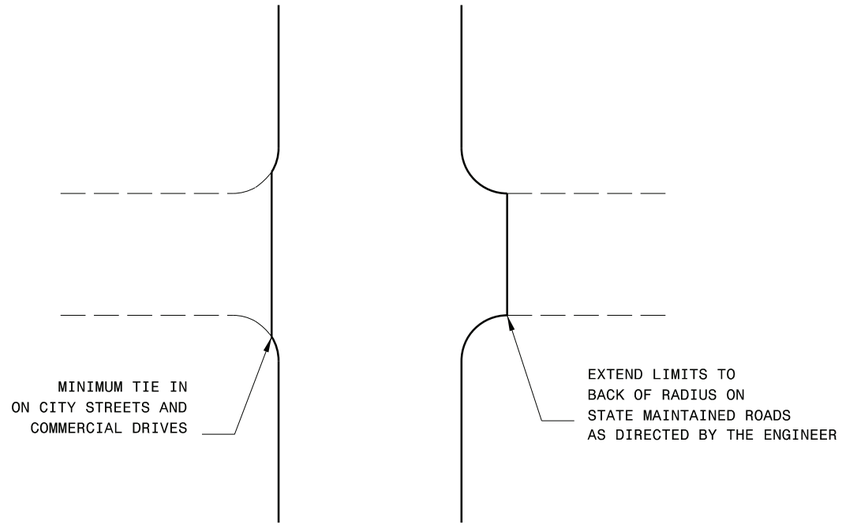
PLACE BRICK ACCORDING TO ELEVATION VIEW

24-JAN-2016 13:31
C:\Users\jwilson\Desktop\DETAIL PSHS\Microstation Files\MH_Valve Adjust_2015.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
DK00502	11



TYPICAL DETAIL OF PROJECT LIMITS AT
SIGNALIZED Y LINES



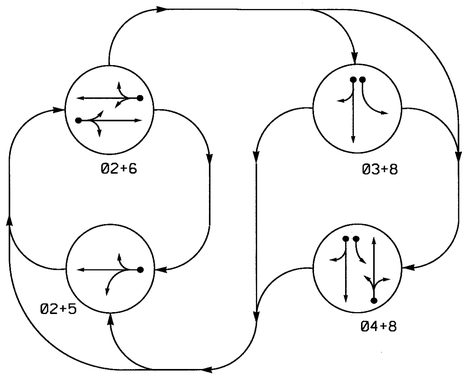
TYPICAL DETAIL OF PROJECT LIMITS AT
UNSIGNALIZED Y LINES

ADDITIONAL INTERSECTIONS (NON-TYPICAL)		
Extend paving limits to back of radius or loop on the following intersections:		
MAP#	STREET NAME	COMMENTS

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PROJECT REFERENCE NO.	SHEET NO.
N/A	Sig. 1

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

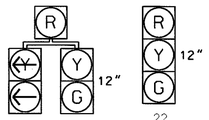
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE 02+5	02+6	03+8	04+8	FLASH
21	G	G	R	R	Y
22	G	G	R	R	Y
41, 42	R	R	R	G	R
61, 62	R	G	R	R	Y
81	R	R	G	G	R
82	R	R	G	G	R

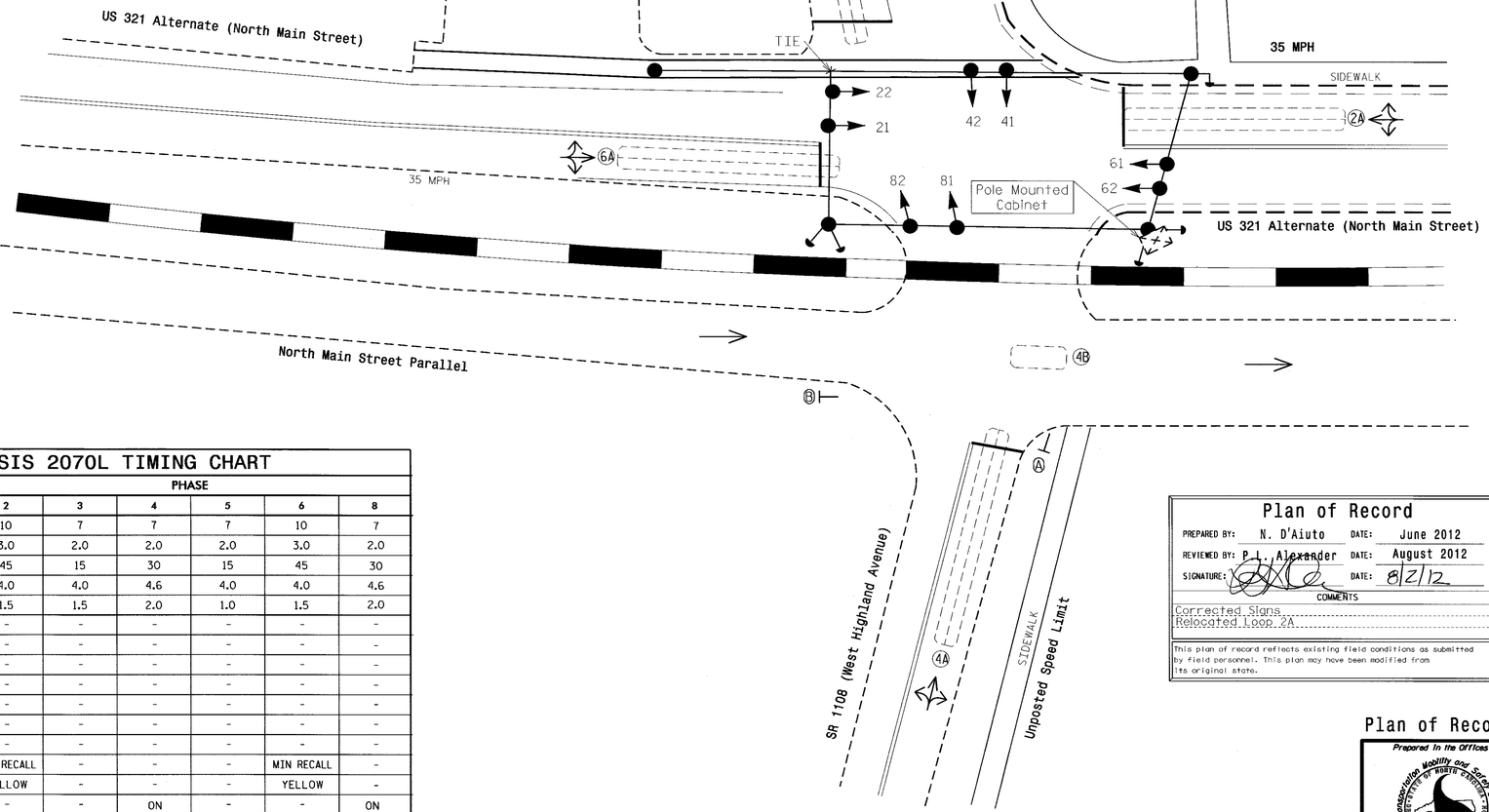
SIGNAL FACE I.D.

All Heads L.E.D.



OASIS 2070L LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	6X60	0	2-4-2	-	5	Y	Y	-	-	5	-	-
					2	Y	Y	-	-	-	-	-
4A	6X60	+5	2-4-2	-	4	Y	Y	-	-	5	-	-
4B	6X15	15	3	-	4	Y	Y	-	-	3	-	-
6A	6X60	+5	2-4-2	-	6	Y	Y	-	-	-	-	-
8A	6X50	+5	2-4-2	-	3	Y	Y	-	-	5	-	-
					8	Y	Y	-	-	3	-	-
8B	6X60	+5	2-4-2	-	8	Y	Y	-	-	5	-	-



4 PHASE FULLY ACTUATED (ISOLATED)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Omit phase 5 during phase 6 on.
4. Omit phase 3 during phase 4 on.
5. Program controller to clear from phase 2+6 to phase 2+5 by progressing through phase 4+8 (see Electrical Details).
6. Set all detector units to presence mode.
7. In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
8. Pavement markings are existing.

OASIS 2070L TIMING CHART

FEATURE	PHASE 2	3	4	5	6	8
Min Green 1 *	10	7	7	7	10	7
Extension 1 *	3.0	2.0	2.0	2.0	3.0	2.0
Max Green 1 *	45	15	30	15	45	30
Yellow Clearance	4.0	4.0	4.6	4.0	4.0	4.6
Red Clearance	1.5	1.5	2.0	1.0	1.5	2.0
Walk 1 *	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-
Seconds Per Actuation *	-	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-
Recall Mode	MIN RECALL	-	-	-	MIN RECALL	-
Vehicle Call Memory	YELLOW	-	-	-	YELLOW	-
Dual Entry	-	-	ON	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
N/A	Railroad Tracks	
A	"STOP HERE ON RED" Sign (R10-5)	A
B	"STOP" Sign (R1-1)	B

Plan of Record

PREPARED BY: N. D'Aiuto DATE: June 2012
REVIEWED BY: P.L. Alexander DATE: August 2012
SIGNATURE: DATE: 8/2/12
COMMENTS
Corrected Signs
Relocated Loop 2A

This plan of record reflects existing field conditions as submitted by field personnel. This plan may have been modified from its original state.

Plan of Record

Prepared In the Offices of:
Transportation Mobility and Safety Division
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 20 1"=20'

US 321 Alternate (North Main Street) at SR 1108 (Highland Avenue)

Division 11 Caldwell County Granite Falls

PLAN DATE: September 1995 REVIEWED BY: T.H. Agnew
PREPARED BY: C. Pierce REVIEWED BY: D. Harris

REVISIONS	INIT.	DATE
Upgraded Heads	CK	9/20/04

SIG. INVENTORY NO. 11-0875

Not a certified document. This document originally Issued and sealed by Gene G.Murr,Jr.,PE No.14543 on 9/21/1995. This document shall not be considered a certified document.

02-AUG-2012 13:56
C:\ITS\Sig\ITS Signals\Design Section\Western Region\Divi~1\11-0875\por_sig_dsn_20120628.dgn
nadiuto

PROJECT REFERENCE NO.	SHEET NO.
POR	Sig. 1

PHASING DIAGRAM

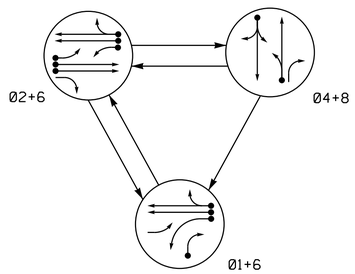


TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+6	PHASE Ø2+6	PHASE Ø4+8	PHASE FLASH
11	←	~~F Y~~	~~R~~	~~Y~~
21	~~F Y~~	~~F Y~~	~~R~~	~~Y~~
22,23	R	G	R	Y
41,42	R	R	G	R
61,62	G	G	R	Y
81	R	R	G	R
82	R/←	R	G	R

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	-	1	Y	Y	-	-	15	-	-
					6	Y	Y	Y	-	3	-	-
1B	6X40	0	2-4-2	-	1	Y	Y	-	-	15	-	-
2A	6X6	300	5	-	2	Y	Y	-	-	-	-	-
2B	6X6	300	5	-	2	Y	Y	-	-	-	-	-
2C	6X40	0	2-4-2	-	2	Y	Y	-	-	-	-	-
4A	6X40	0	2-4-2	-	4	Y	Y	-	-	5	-	-
6A	6X6	300	5	-	6	Y	Y	-	-	-	-	-
6B	6X6	300	5	-	6	Y	Y	-	-	-	-	-
8A	6X40	0	2-4-2	-	8	Y	Y	-	-	-	-	-

3 Phase
Fully Actuated
Isolated

NOTES

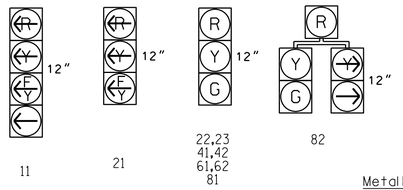
1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 may be lagged.
4. Set all detector units to presence mode.
5. Pavement markings are existing.

PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

SIGNAL FACE I.D.

All Heads L.E.D.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Metal Strain Pole	

OASIS 2070 TIMING CHART

FEATURE	PHASE 1	2	4	6	8
Min Green 1 *	7	12	7	12	7
Extension 1 *	2.0	6.0	2.0	6.0	2.0
Max Green 1 *	20	45	25	45	25
Yellow Clearance	3.0	4.7	3.6	4.7	3.6
Red Clearance	2.9	1.6	2.3	1.6	2.0
Red Revert	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-	-
Don't Walk 1	-	-	-	-	-
Seconds Per Actuation *	-	1.5	-	1.5	-
Max Variable Initial *	-	34	-	34	-
Time Before Reduction *	-	15	-	15	-
Time To Reduce *	-	30	-	30	-
Minimum Gap	-	3.0	-	3.0	-
Recall Mode	-	MIN RECALL	-	MIN RECALL	-
Vehicle Call Memory	-	YELLOW	-	YELLOW	-
Dual Entry	-	-	ON	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Plan of Record

PREPARED BY:	C. Pierce	DATE:	July 2015
REVIEWED BY:	Z. M. Little	DATE:	July 2015
SIGNATURE:	DocuSigned by: Zachary M. Little 0C21EFD04F5341F...	DATE:	7/15/2015

COMMENTS

Revised the speed limit to 35 mph on Hibriten Drive and keep the design speed at 45 mph.

This plan of record reflects existing field conditions as submitted by field personnel. This plan may have been modified from its original state.

Plan of Record

Prepared in the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
750 N.Greenfield Pkwy.Garner,NC 27529

SR 1178/SR 1001 (Hibriten Drive)
at
US 321 NB Ramp/
Old Hibriten Drive

Division 11 Caldwell County Lenoir

PLAN DATE:	November 2011	REVIEWED BY:	B.E. Wynn
PREPARED BY:	Jerry Yaravitz	REVIEWED BY:	

REVISIONS	INIT.	DATE

SCALE 0 30 1"=30'

Not a certified document. This document originally Issued and sealed by Zachary Little,PE # 30530 on 01/25/12 This document shall not be considered a certified document.

SIG. INVENTORY NO. 11-1425

14-JUL-2015 15:39
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