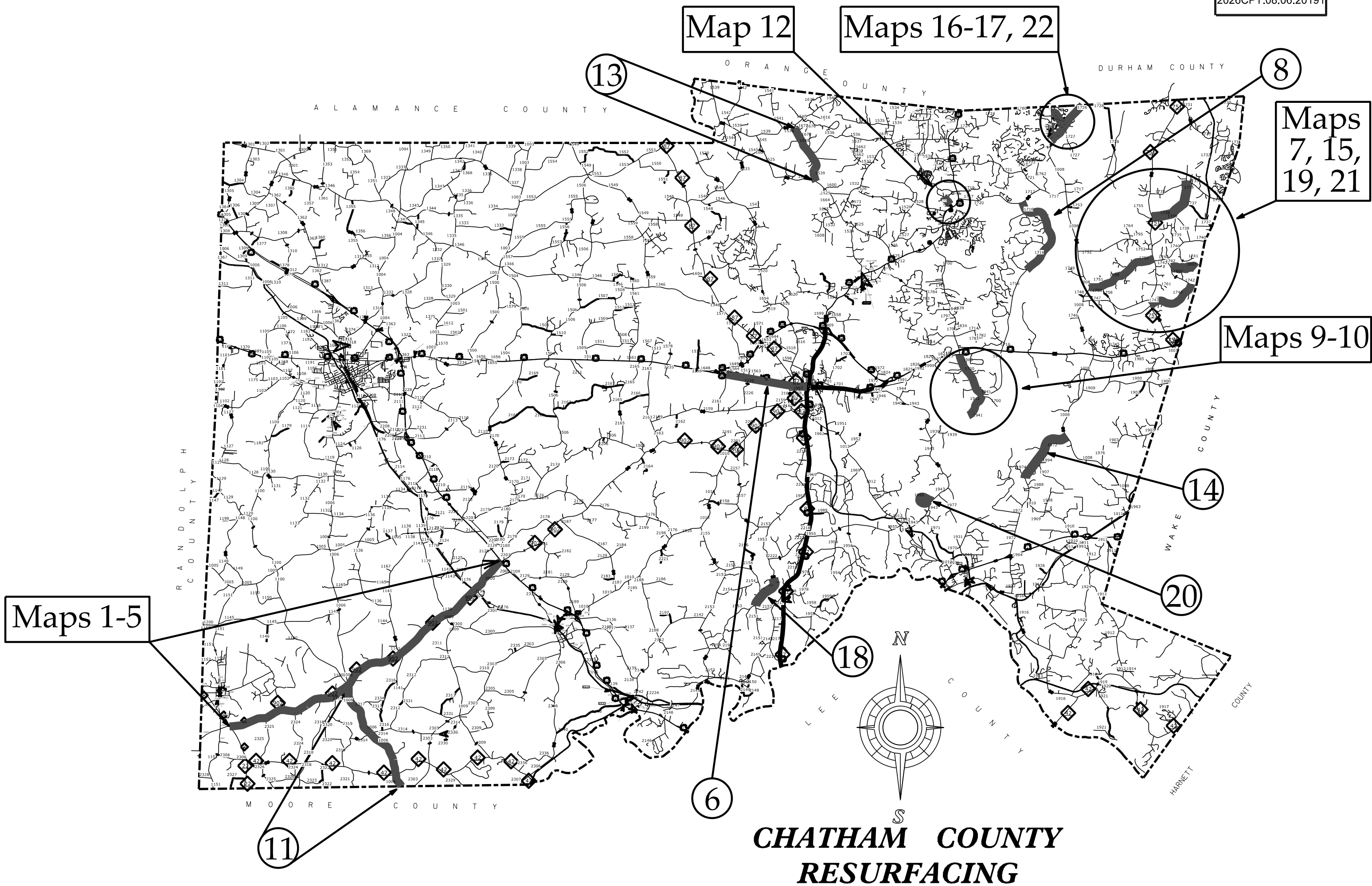
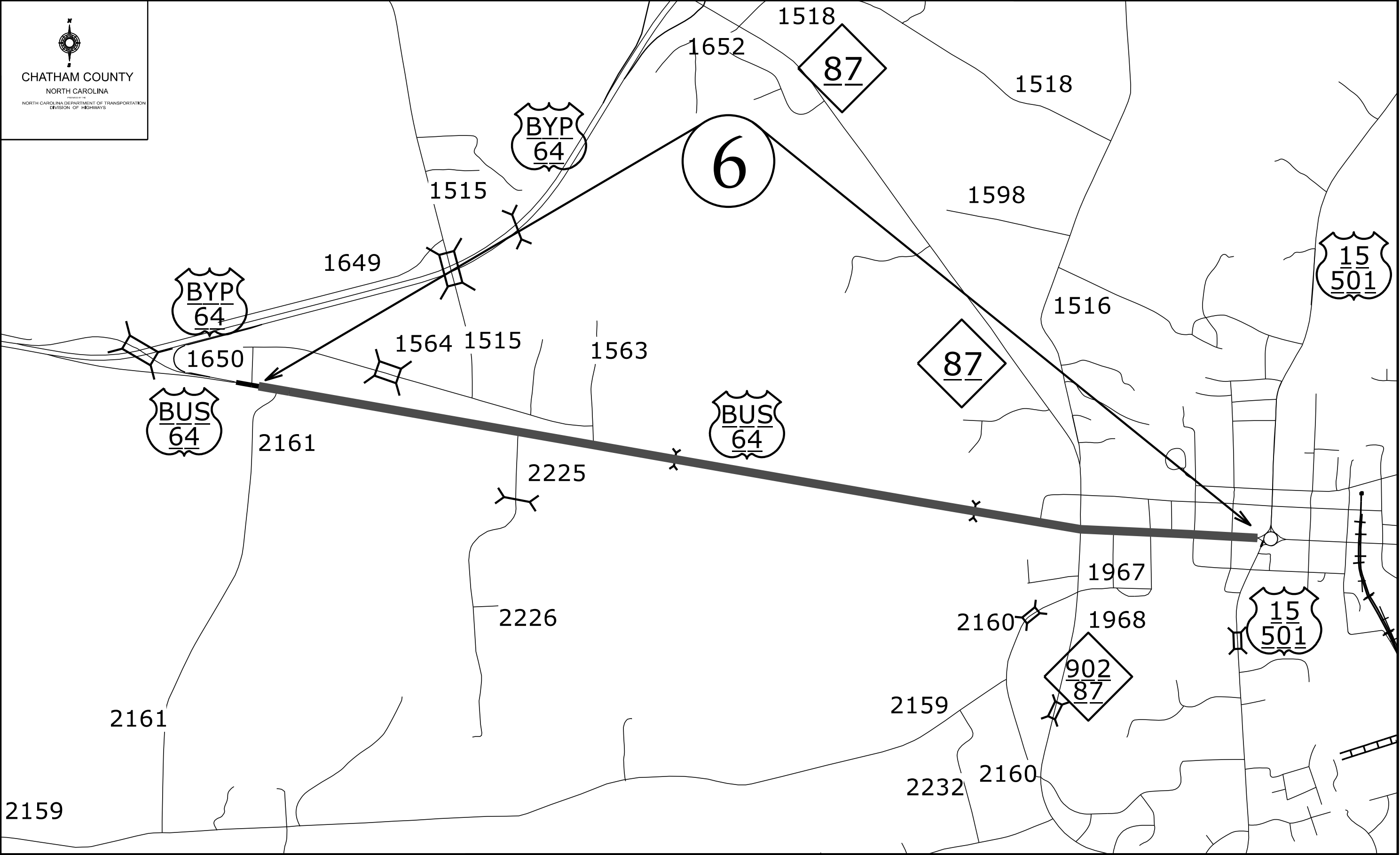


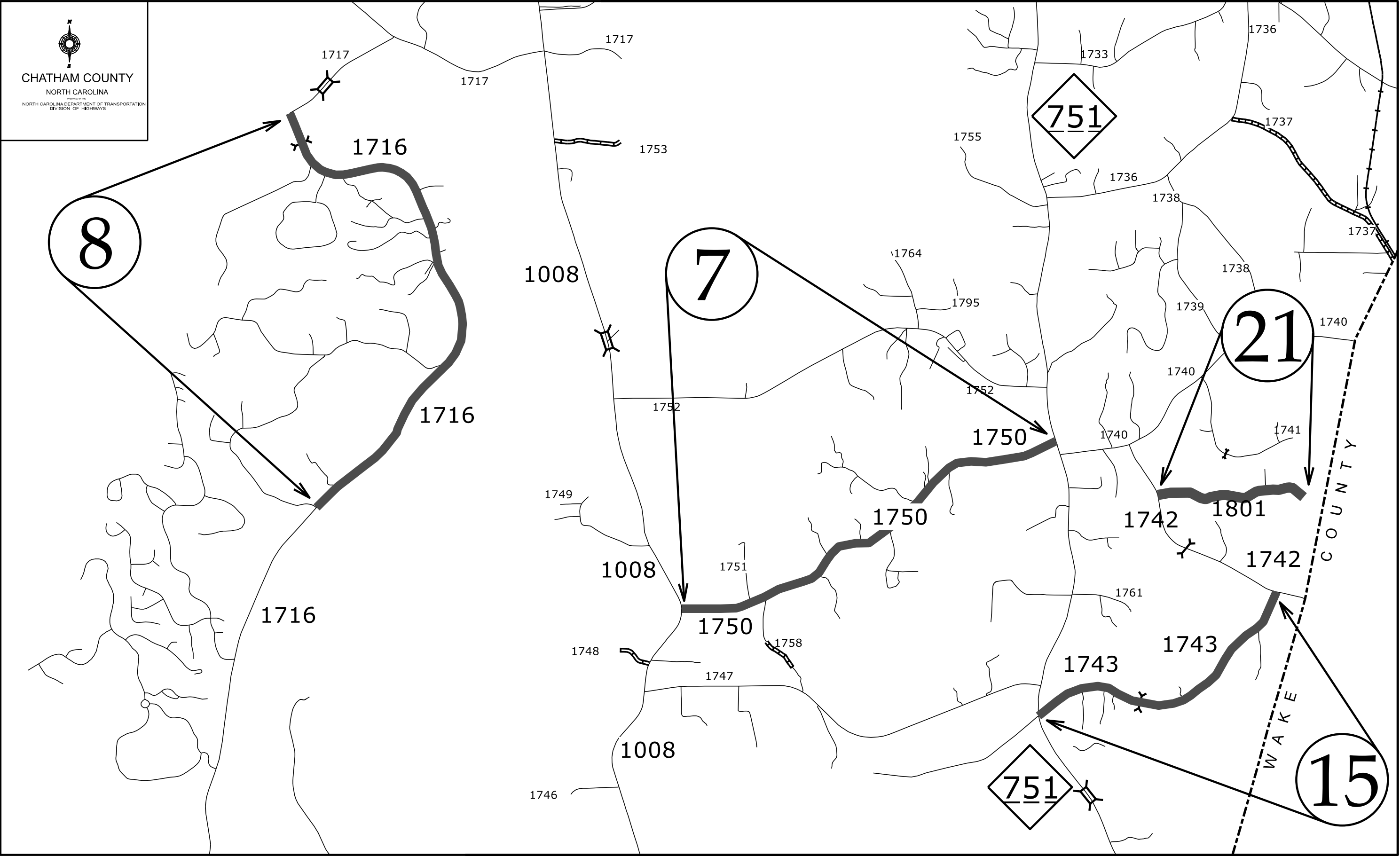


Map 6

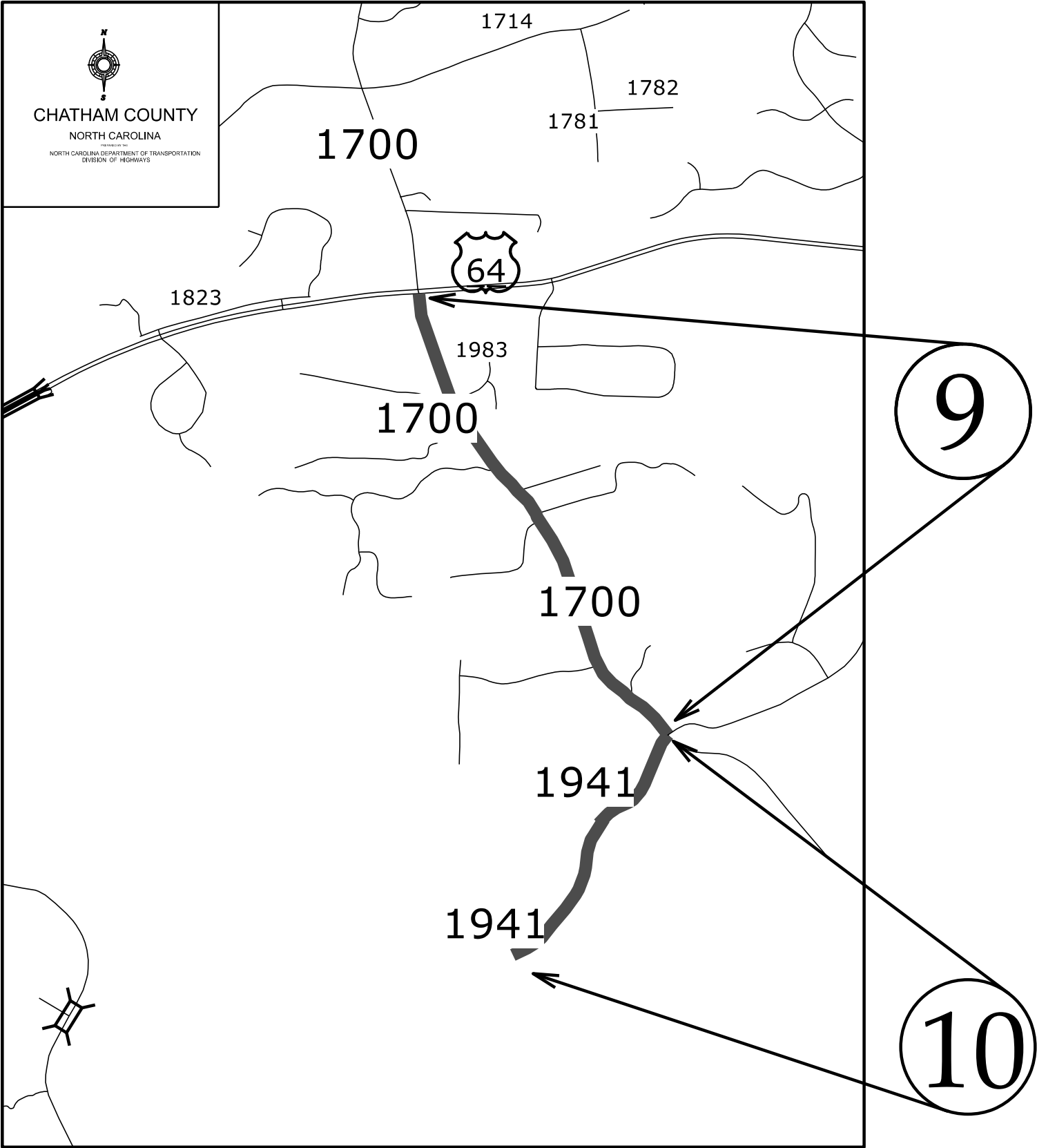


CHATHAM COUNTY
NORTH CAROLINA
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

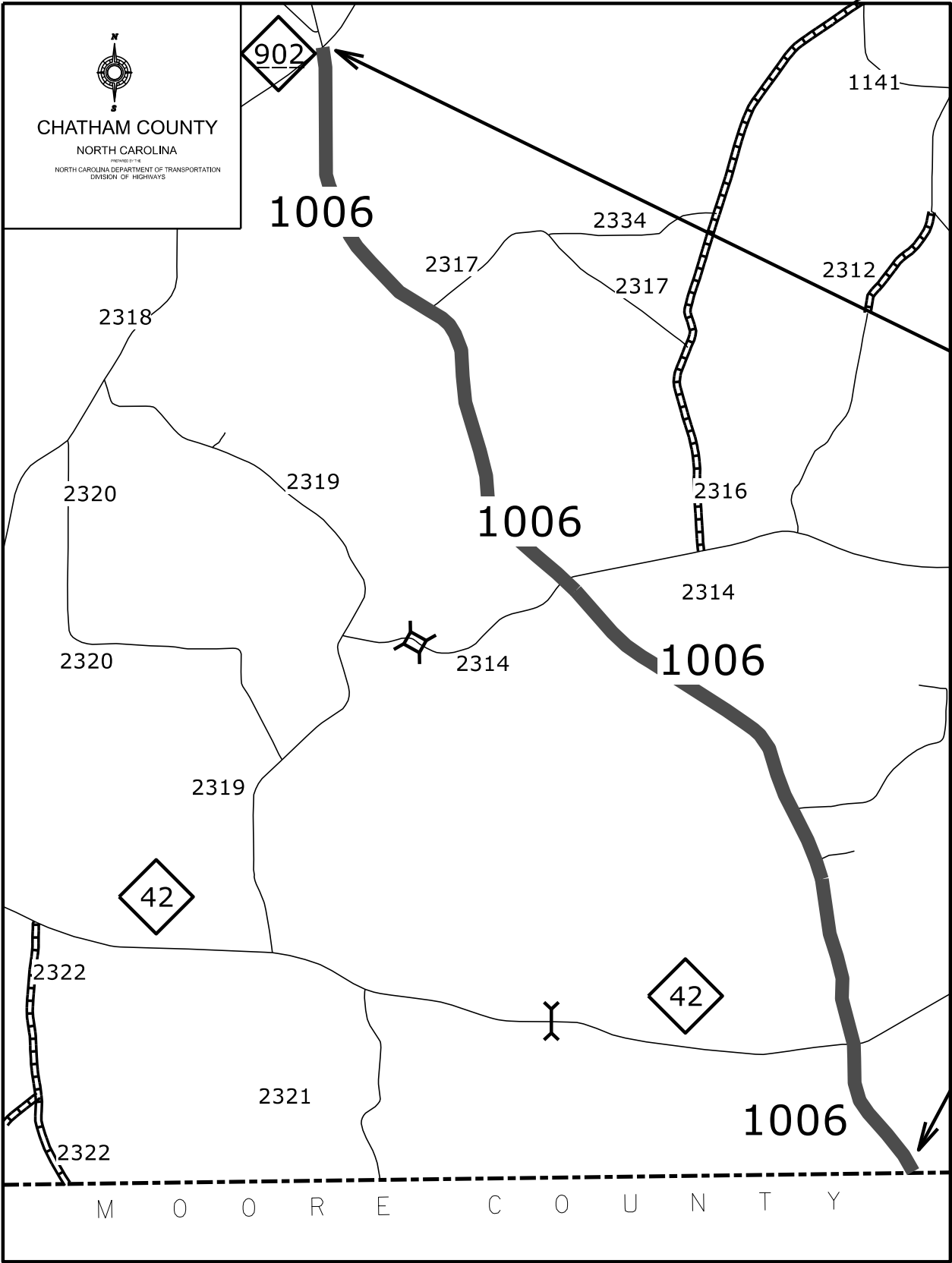
Maps 7, 8, 15, 21



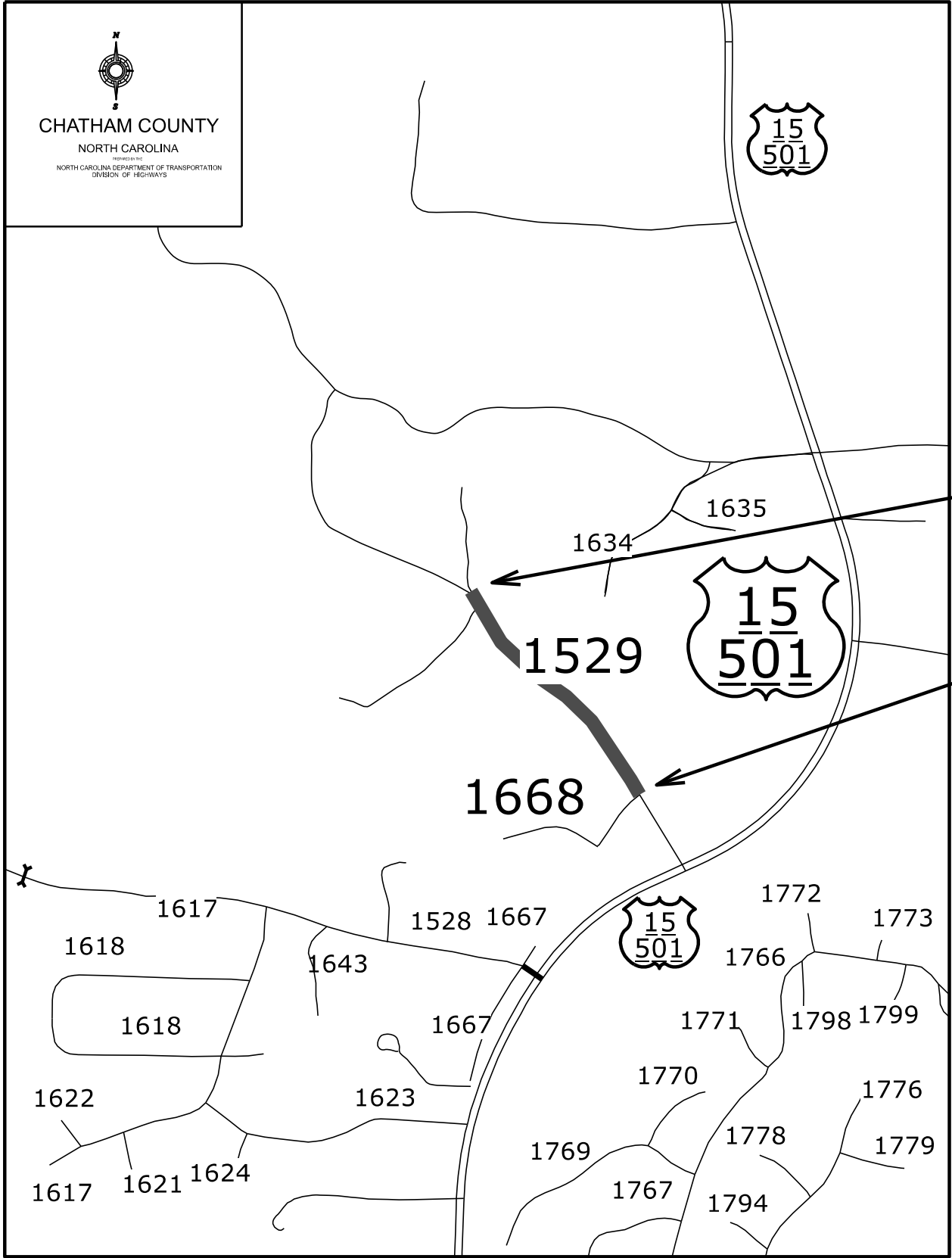
Maps 9 and 10



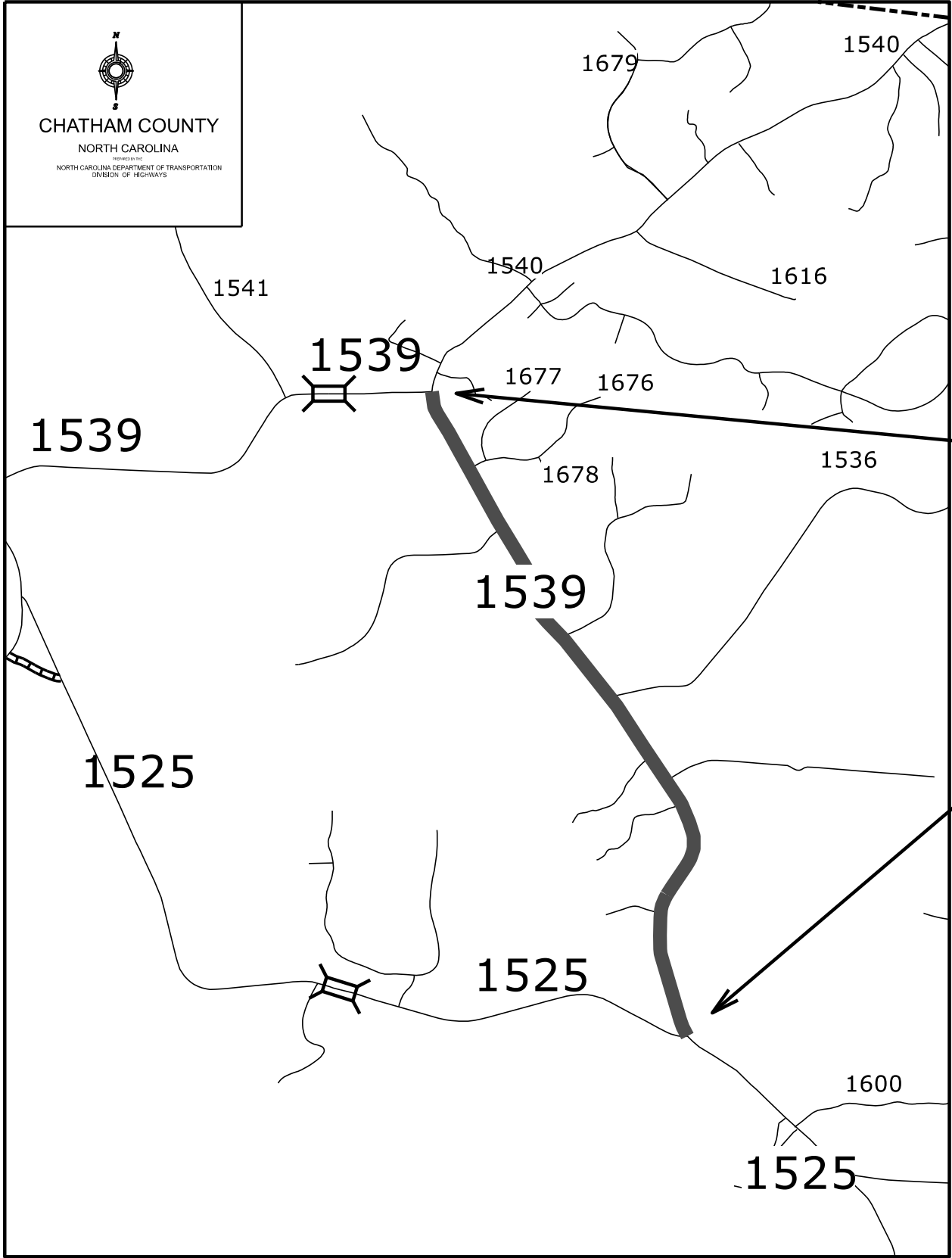
Map 11



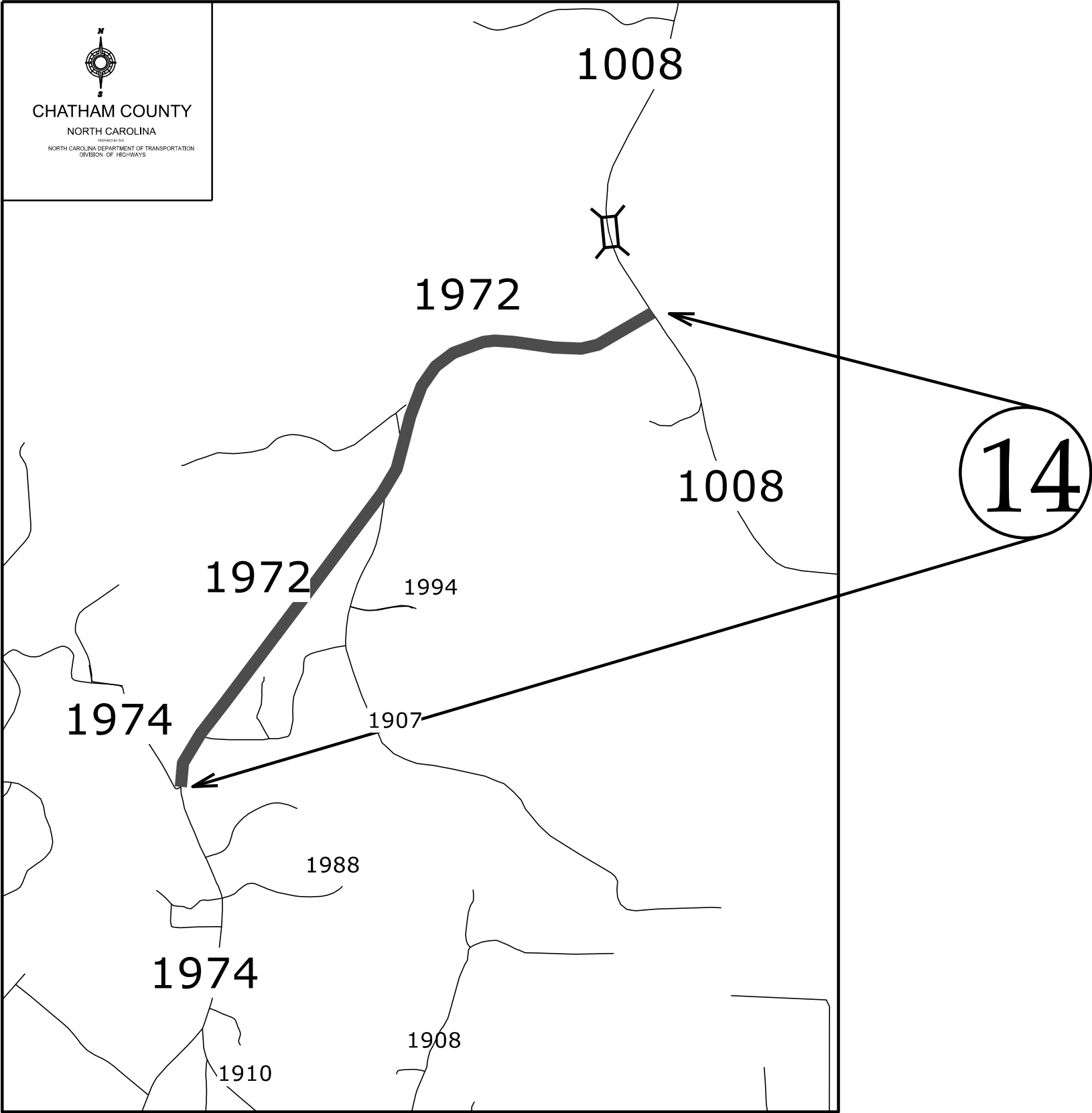
Map 12



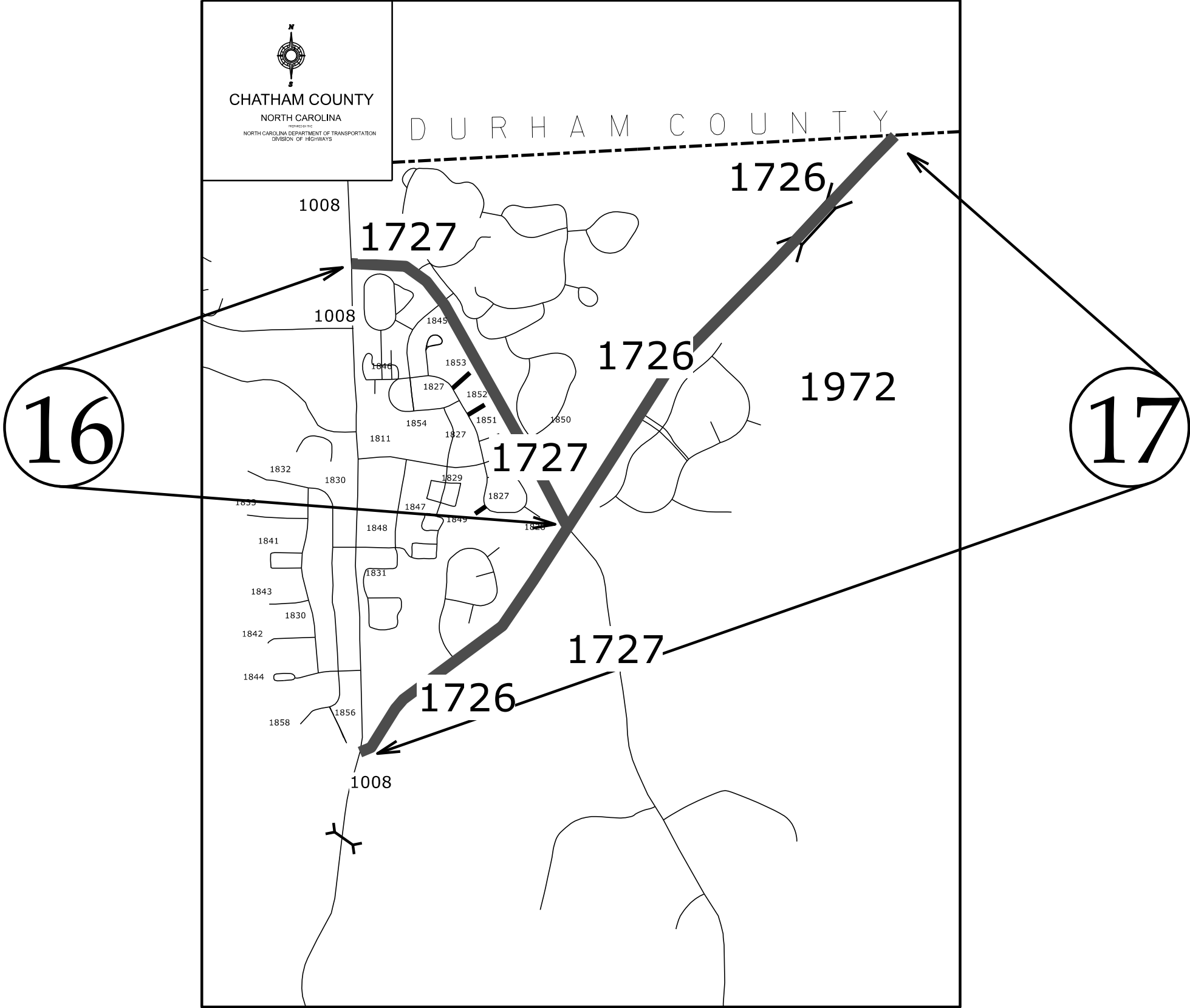
Map 13



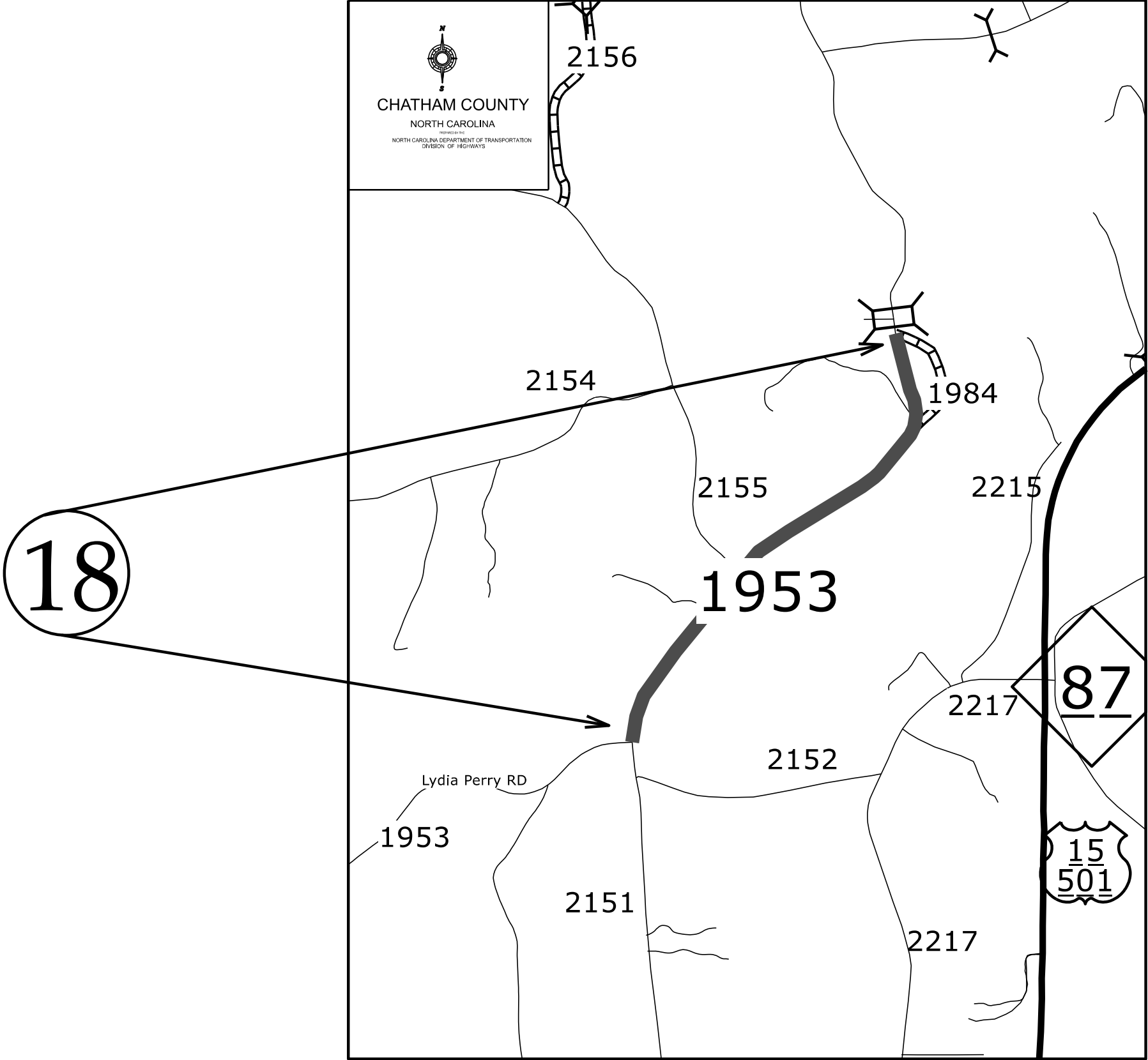
Map 14



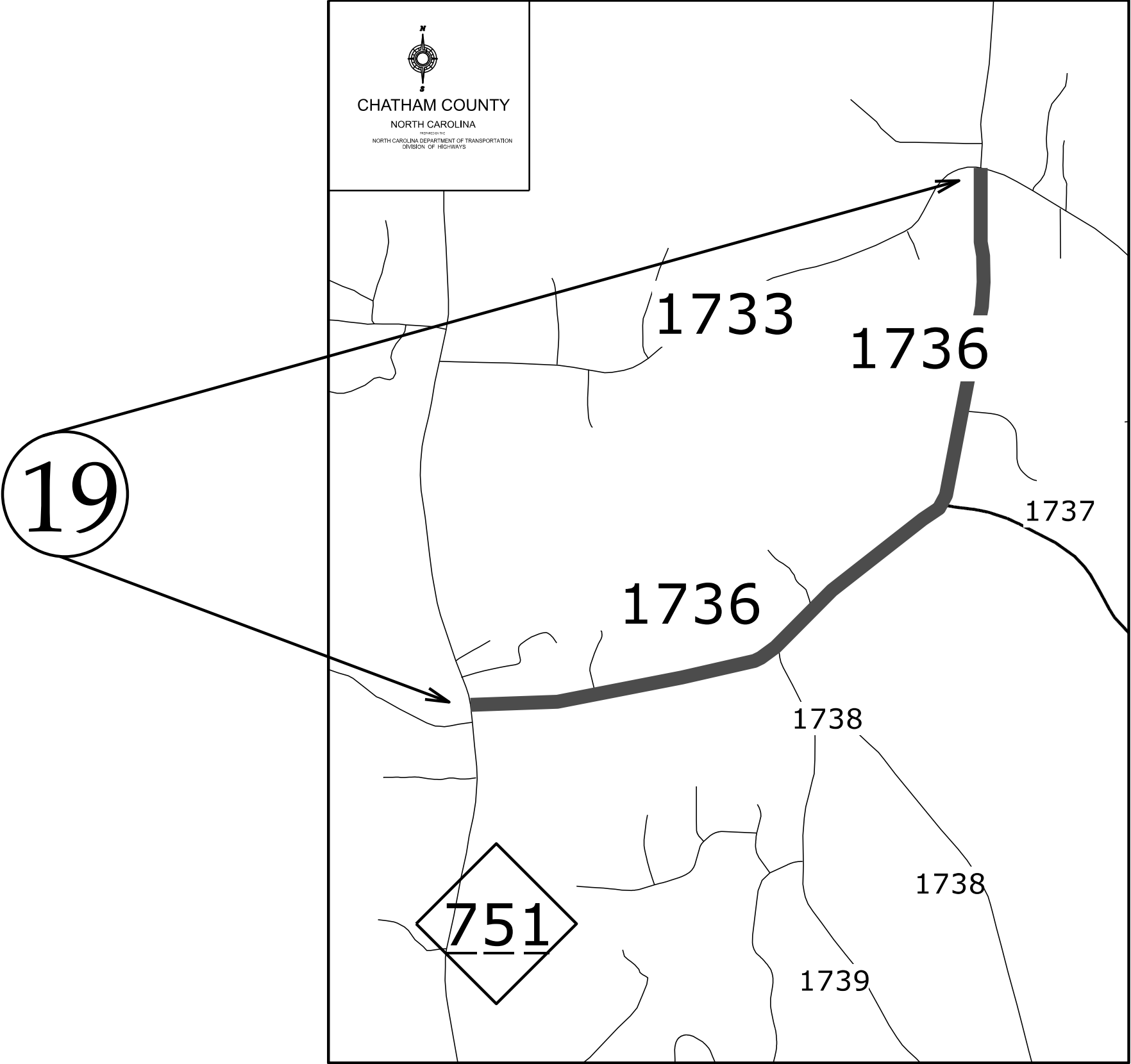
Map 16 & 17



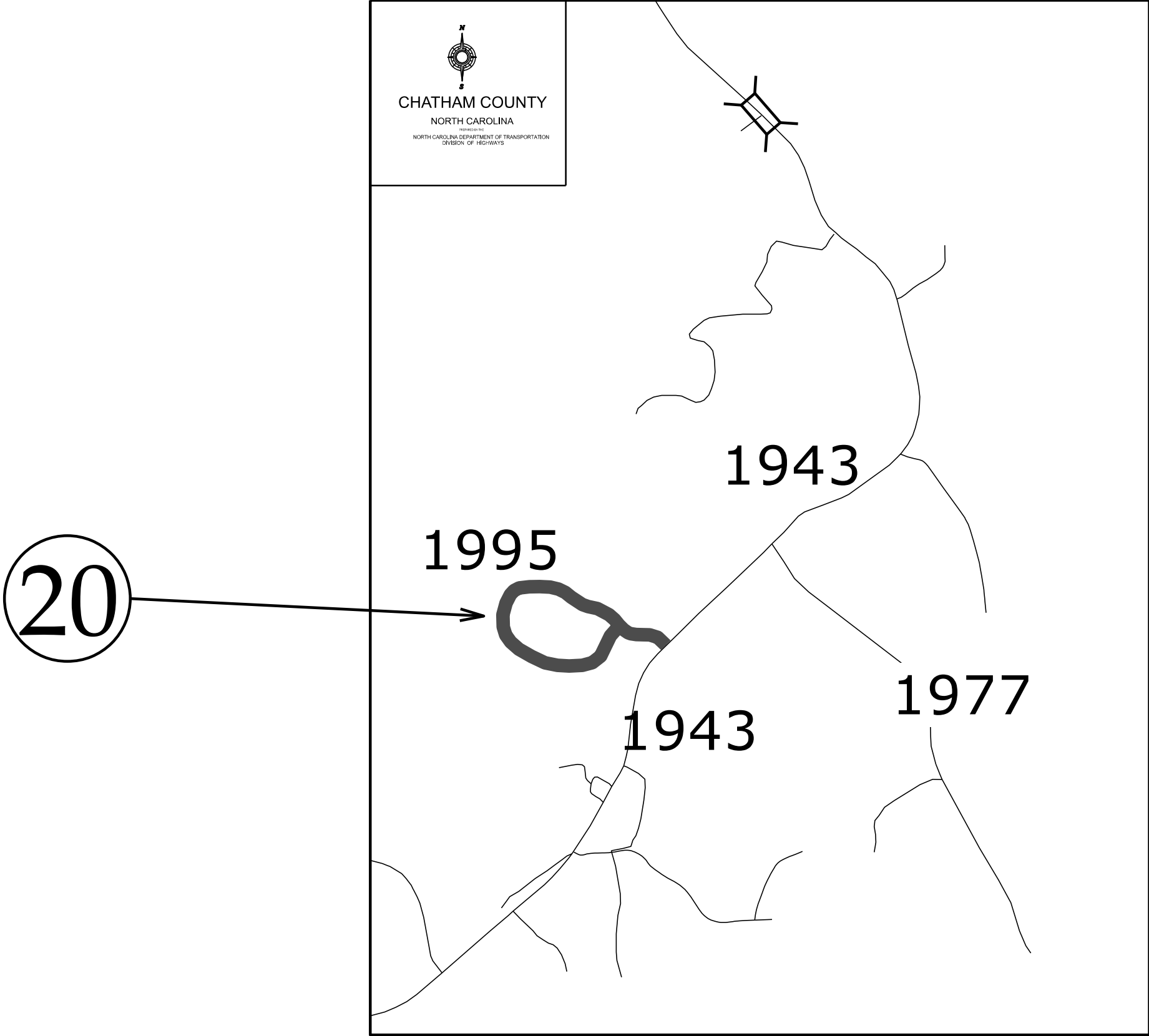
Map 18



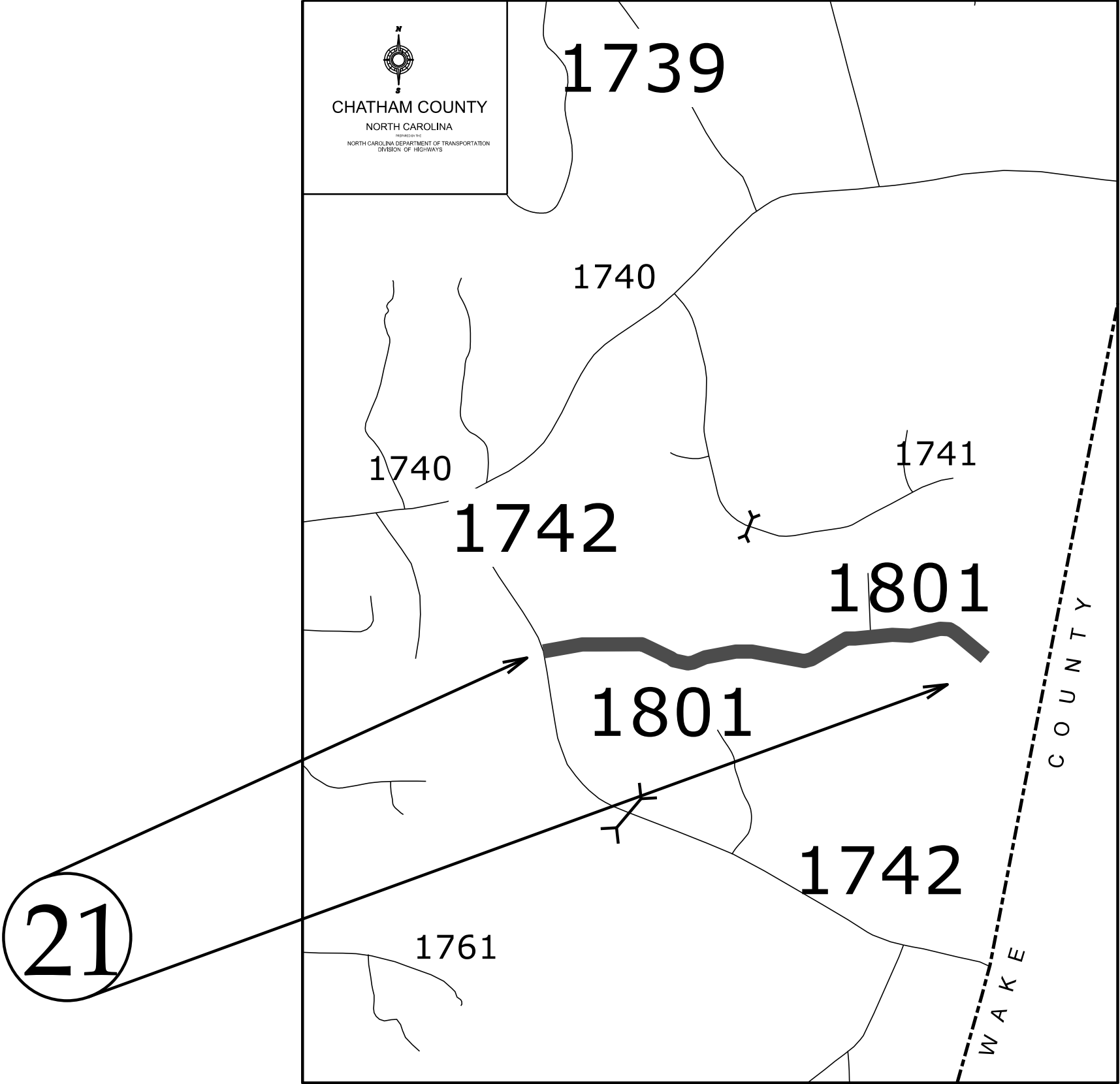
Map 19



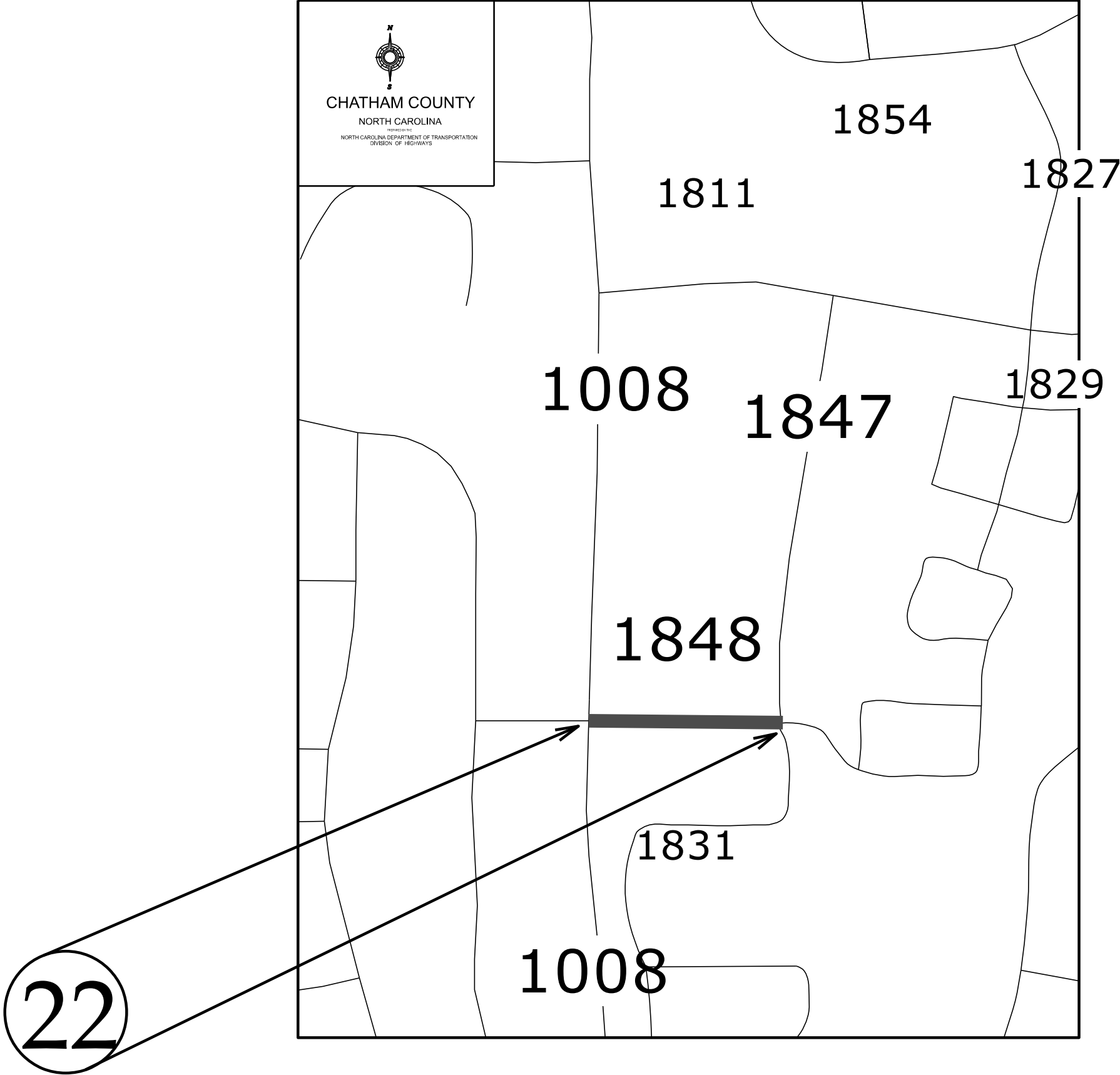
Map 20

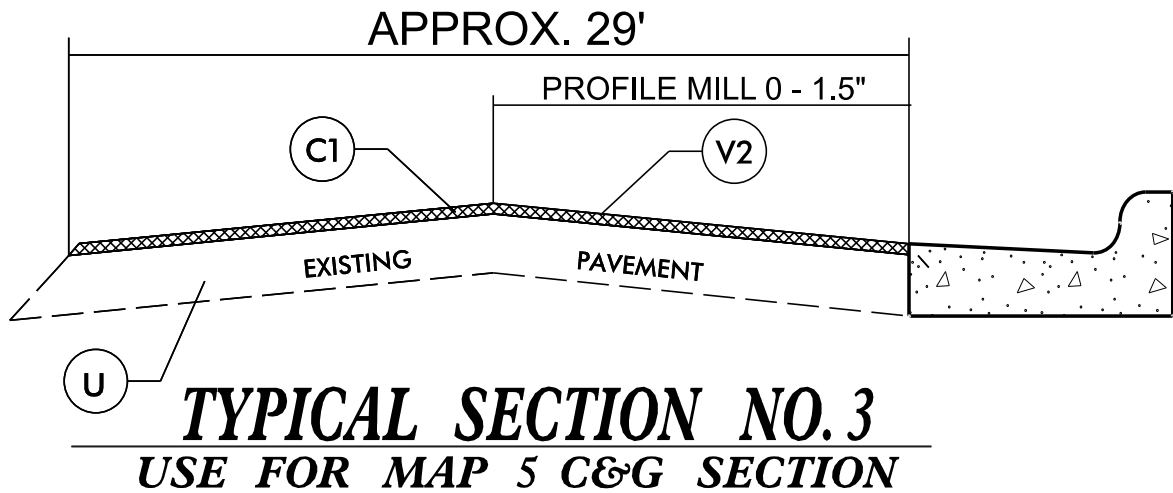
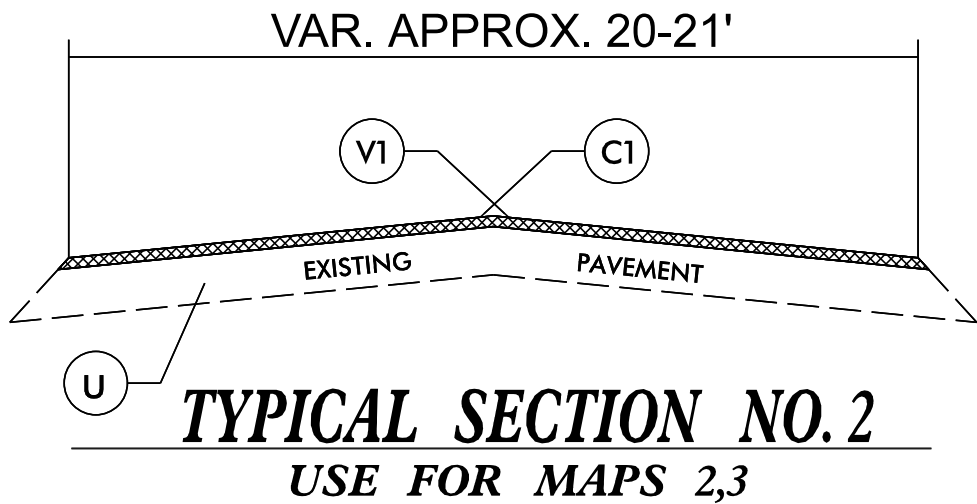
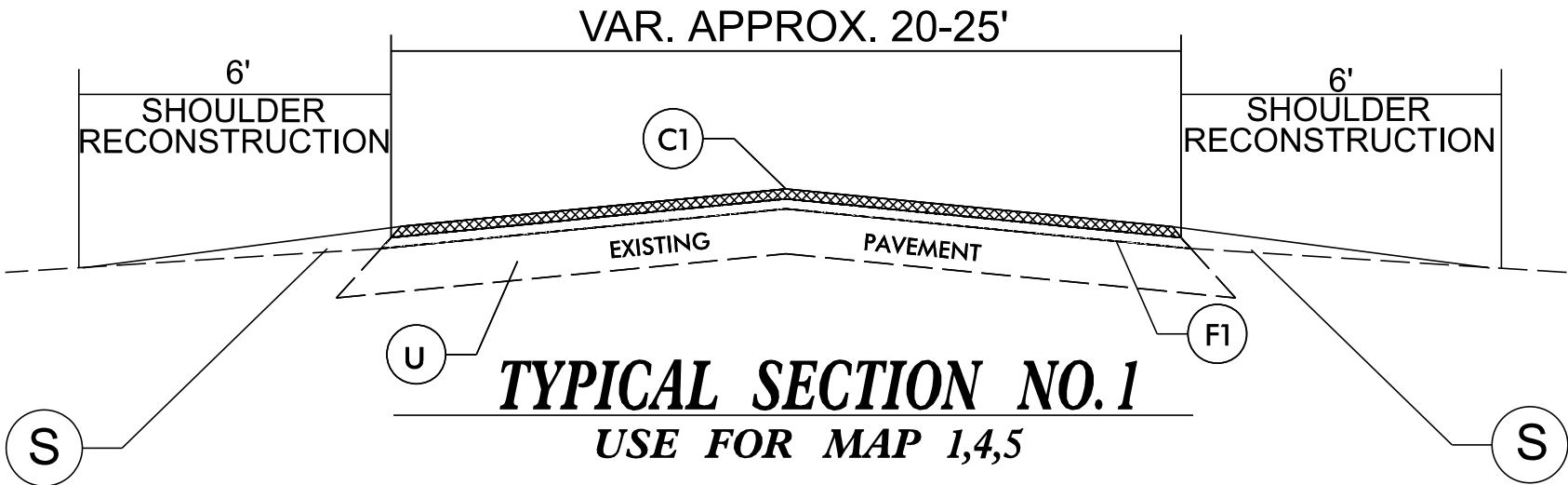


Map 21

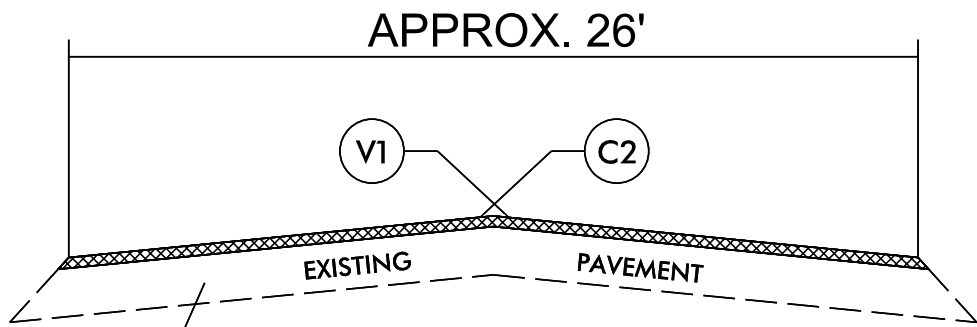


Map 22

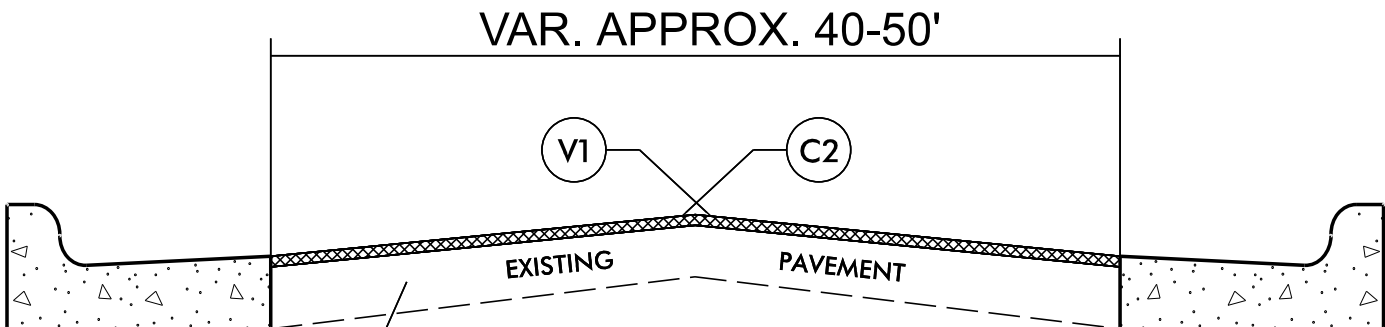




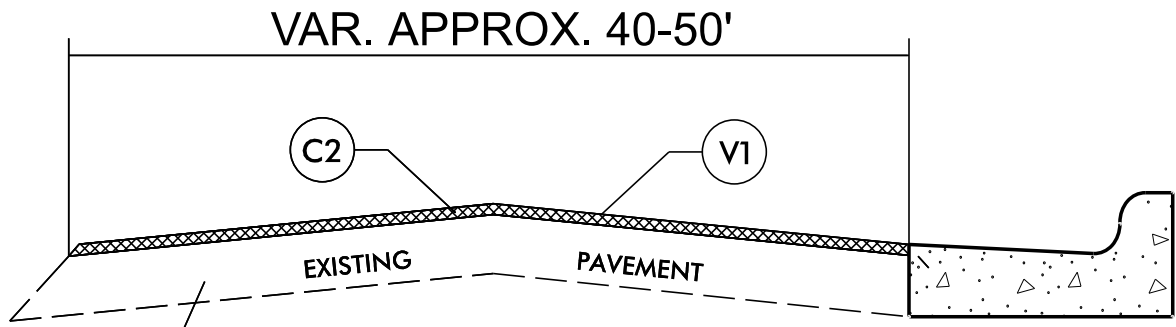
PAVEMENT SCHEDULE	
B	BORROW EXCAVATION
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
C4	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 220 LBS. PER SQ. YD.
C5	PROP. APPROX. 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
F1	PROP. ASPHALT SURFACE TREATMENT, MAT COAT #67 STONE
S	AGGREGATE SHOULDER BORROW
U	EXISTING PAVEMENT
V1	MILLING 1.5" IN DEPTH
V2	PROFILE MILL 0 - 1.5"



TYPICAL SECTION NO. 4
USE FOR MAP 6

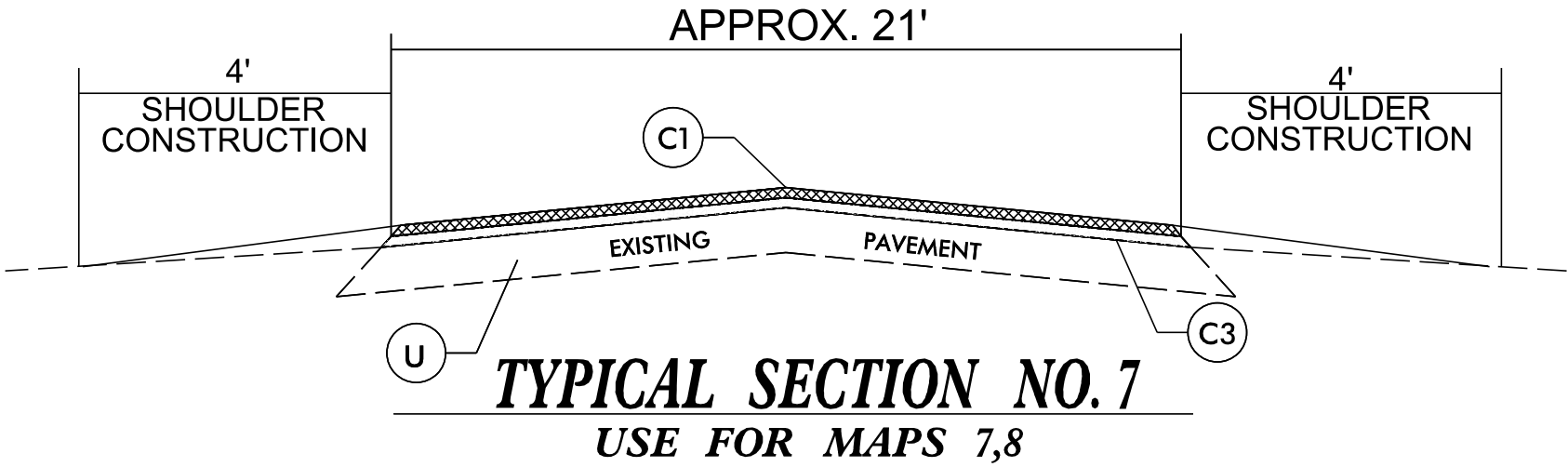


TYPICAL SECTION NO. 5
USE FOR MAP 6 C&G SECTION.

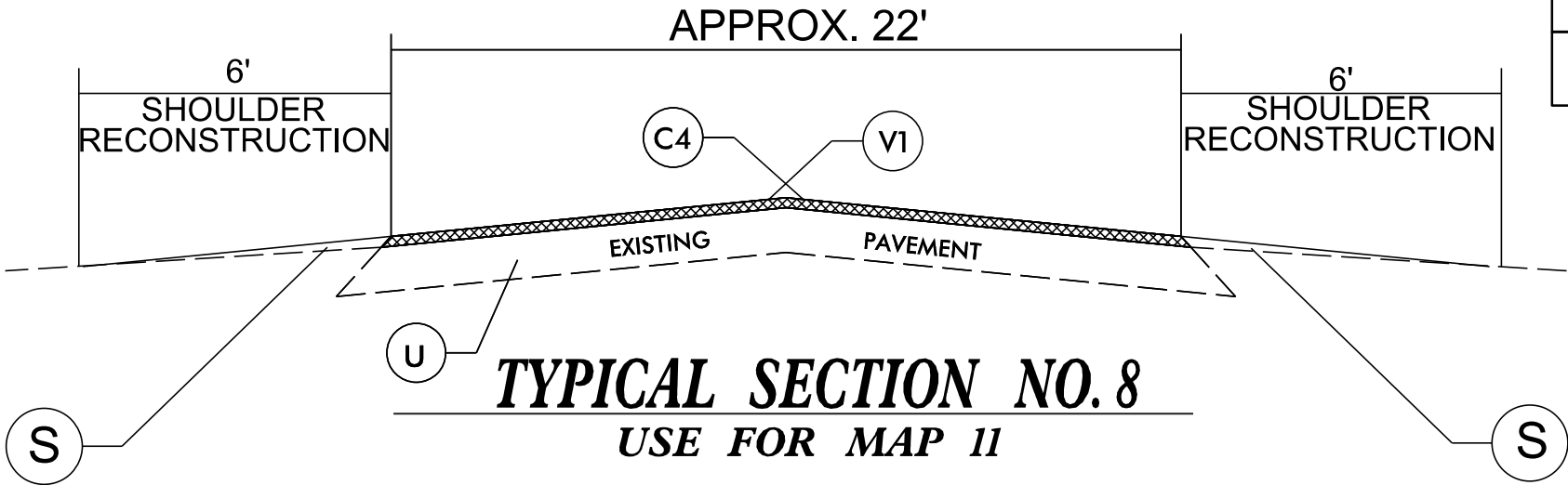


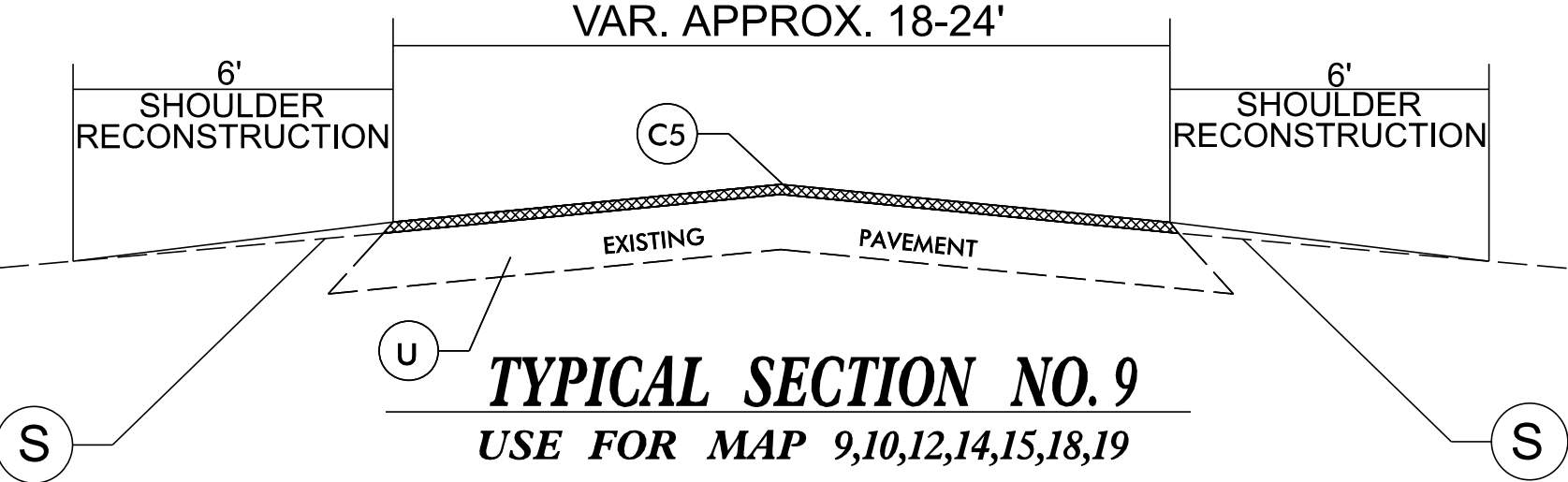
TYPICAL SECTION NO. 6
USE FOR MAP 6 C&G SECTION

PAVEMENT SCHEDULE	
B	BORROW EXCAVATION
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
C4	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 220 LBS. PER SQ. YD.
C5	PROP. APPROX. 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
F1	PROP. ASPHALT SURFACE TREATMENT, MAT COAT #67 STONE
S	AGGREGATE SHOULDER BORROW
U	EXISTING PAVEMENT
V1	MILLING 1.5" IN DEPTH
V2	PROFILE MILL 0 - 1.5"

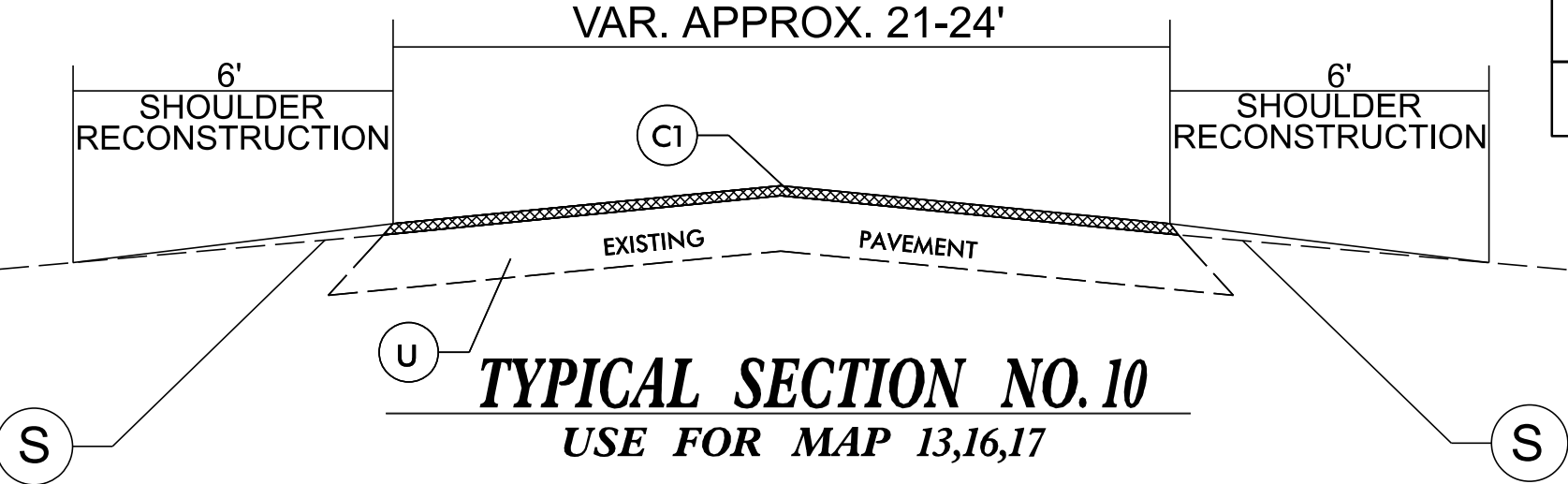


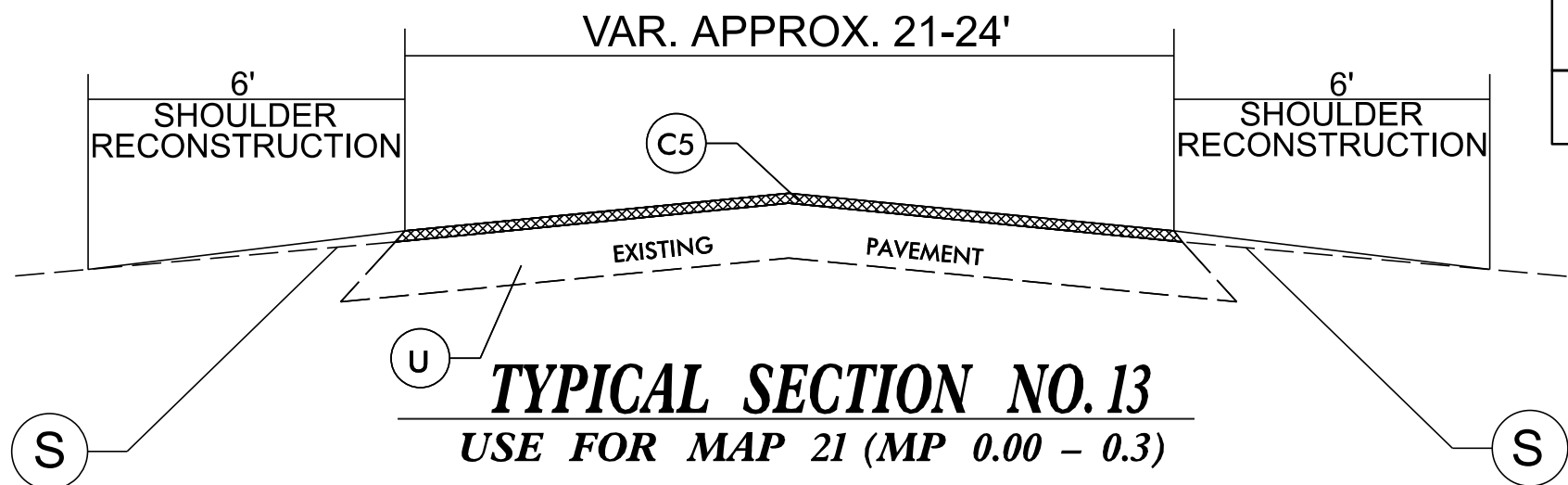
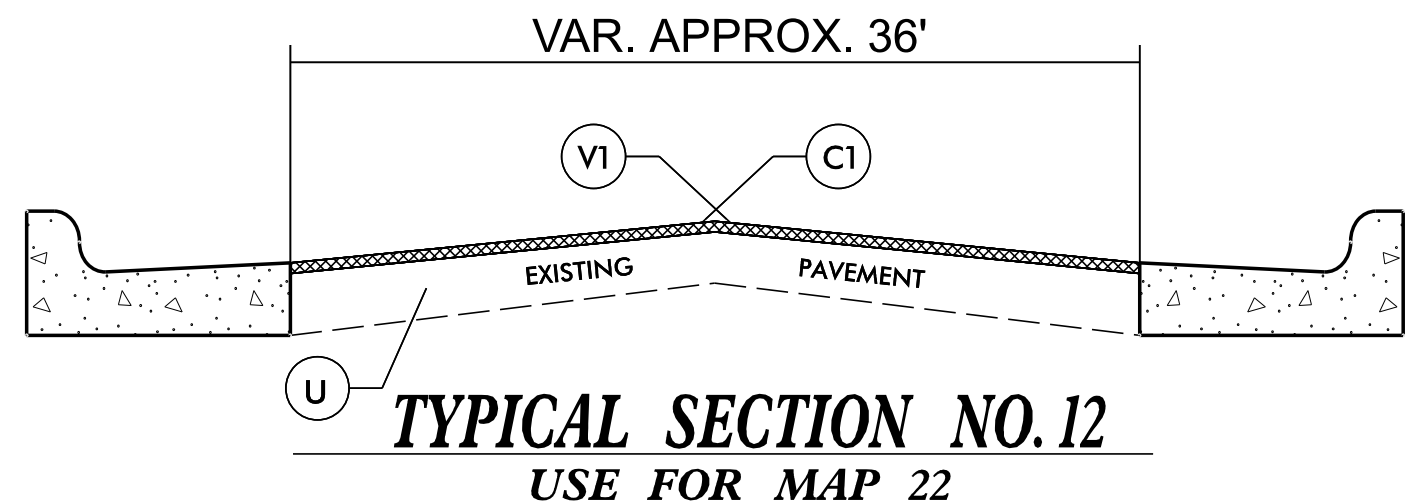
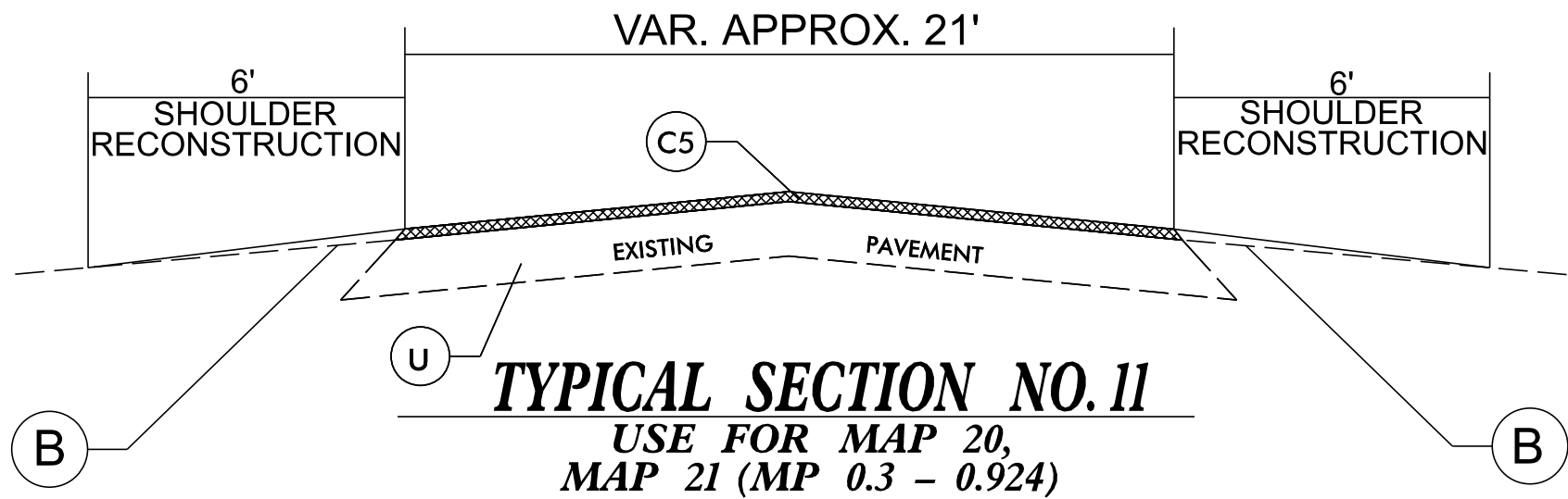
PAVEMENT SCHEDULE	
B	BORROW EXCAVATION
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
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F1	PROP. ASPHALT SURFACE TREATMENT, MAT COAT #67 STONE
S	AGGREGATE SHOULDER BORROW
U	EXISTING PAVEMENT
V1	MILLING 1.5" IN DEPTH
V2	PROFILE MILL 0 - 1.5"





PAVEMENT SCHEDULE	
B	BORROW EXCAVATION
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
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C4	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 220 LBS. PER SQ. YD.
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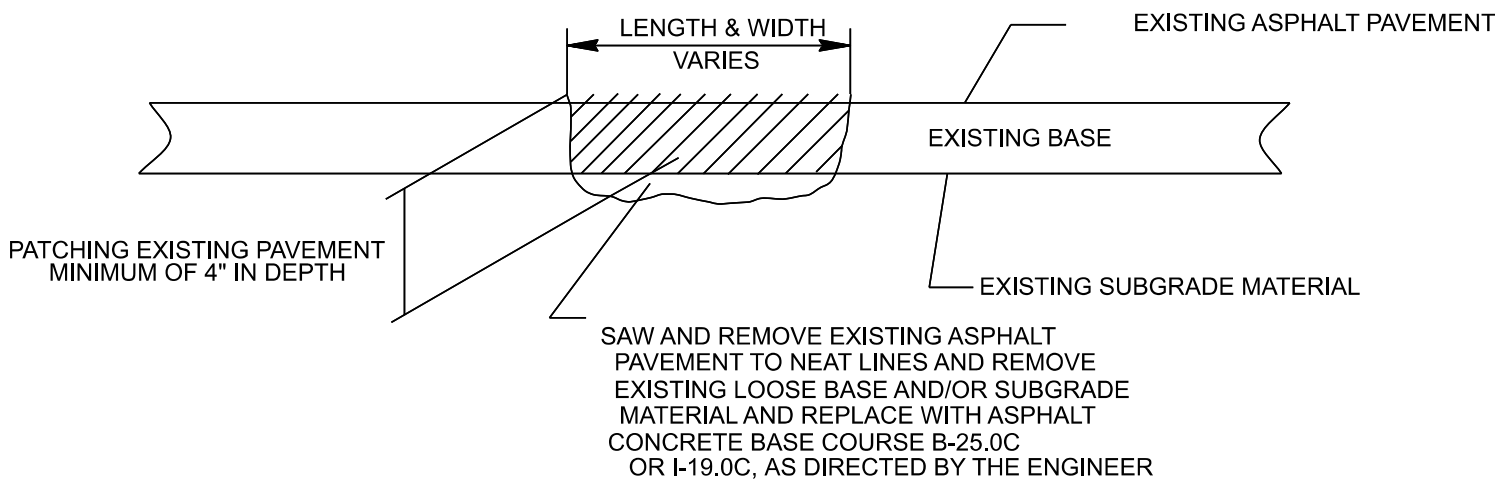




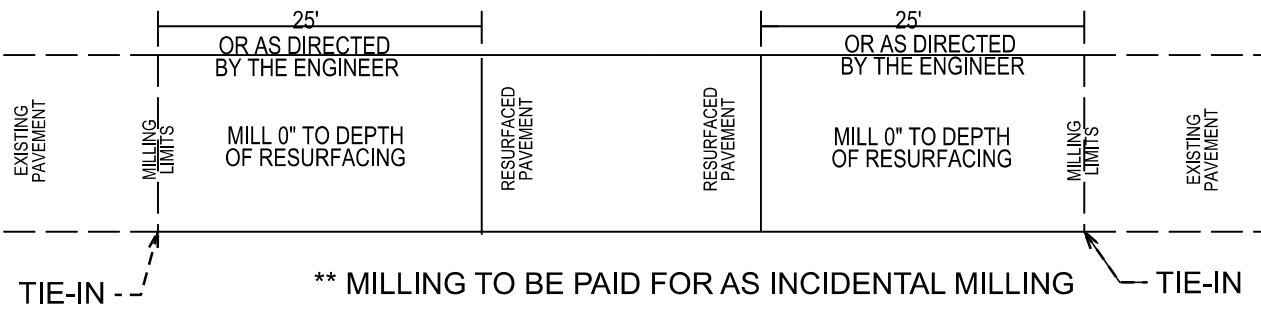
PAVEMENT SCHEDULE	
B	BORROW EXCAVATION
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
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S	AGGREGATE SHOULDER BORROW
U	EXISTING PAVEMENT
V1	MILLING 1.5" IN DEPTH
V2	PROFILE MILL 0 - 1.5"

DETAILS

DETAILS OF PATCHING EXISTING PAVEMENT PRIOR TO RESURFACING & AST



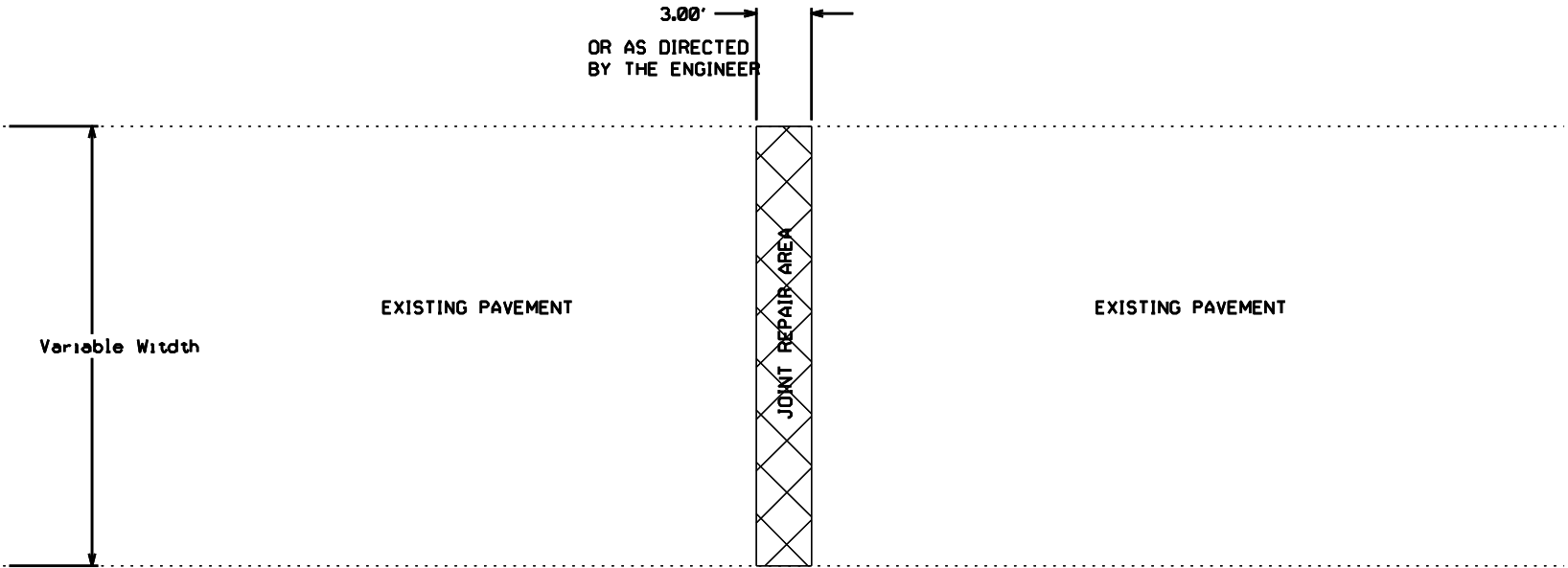
PAVEMENT TIE-IN DETAIL



NOTE: PAVE TO THE BACK OF RADIUS RETURN AT SR 1847 (MORING DRIVE) ON MAP 22 , SR 1848.
TO INCLUDE THE INTERSECTION OF SR 1848 & 1847.

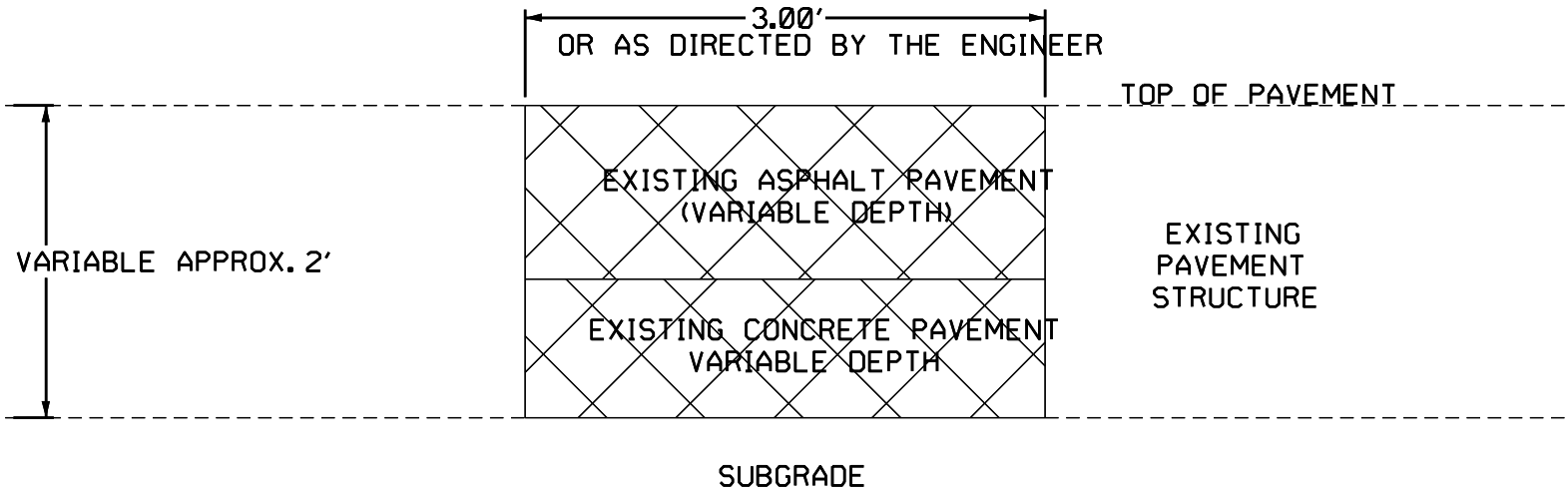
JOINT REPAIR DETAIL

JOINT SCHEDULE	
MAP	# JOINTS
#6 US 64	20



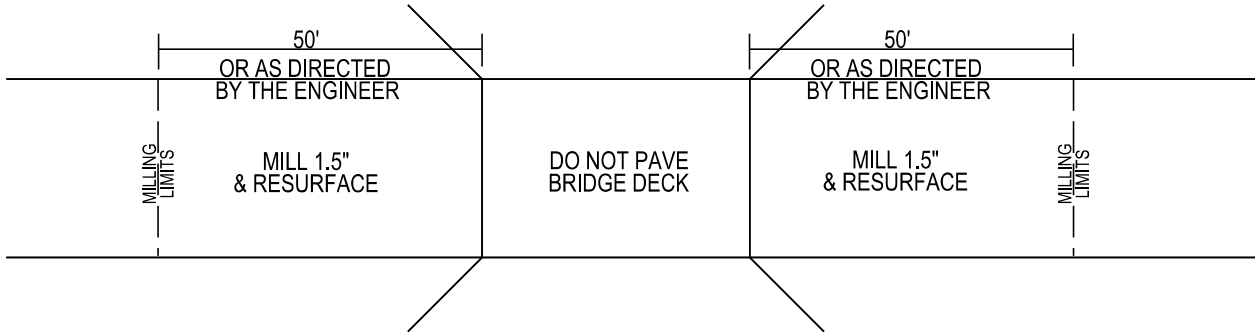
CONTRACTOR SHALL COORDINATE WITH RESIDENT ENGINEER’S OFFICE FOR LOCATION OF JOINTS TO BE REPAIRED.

CROSS-SECTION



NOTE:
REMOVE ASPHALT AND CONCRETE AT JOINT LOCATIONS AS DIRECTED BY THE ENGINEER (BY SAWING CLEAN JOINTS).
REMOVE A TOTAL WIDTH OF 3' (APPROX. 1.5' EACH SIDE OF JOINT).
REMOVE AND REPLACE WITH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C.
THERE WILL BE NO DIRECT PAY FOR THIS WORK AS IT WILL BE CONSIDERED INCIDENTAL TO TO THE LINE ITEM, JOINT REPAIR (TONNAGE)

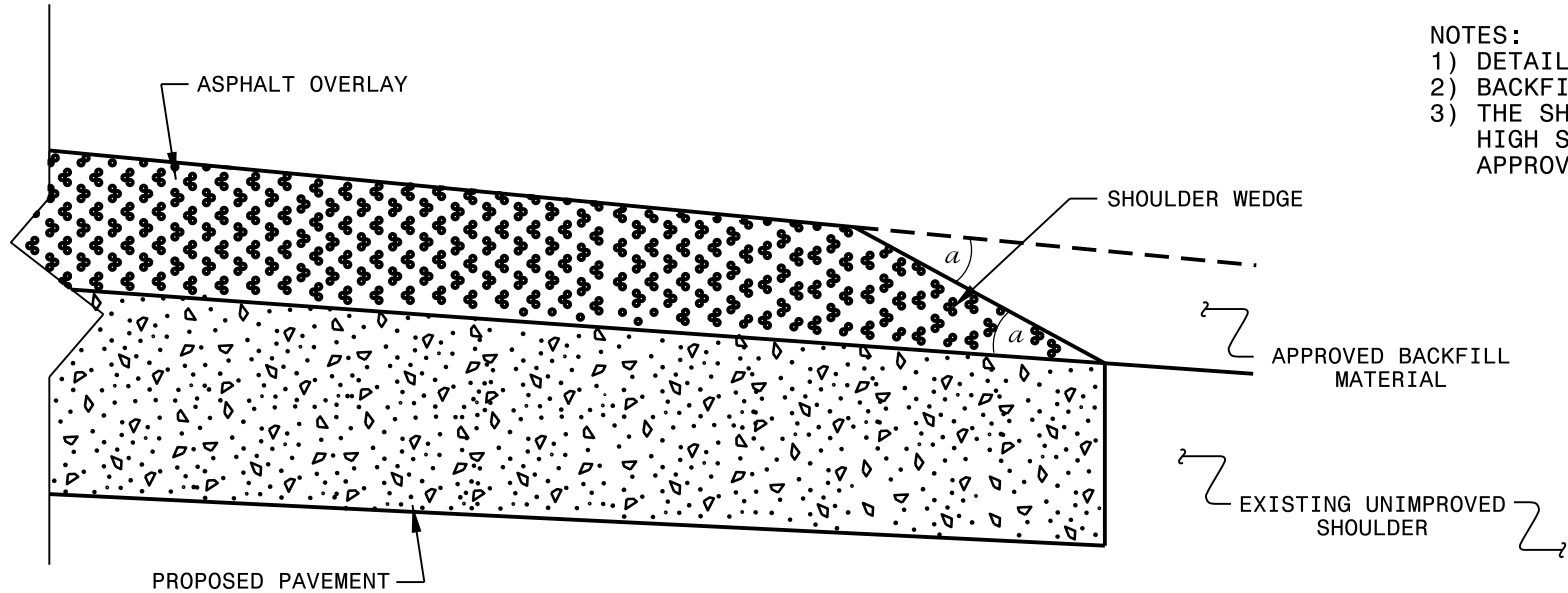
BRIDGE DETAILS



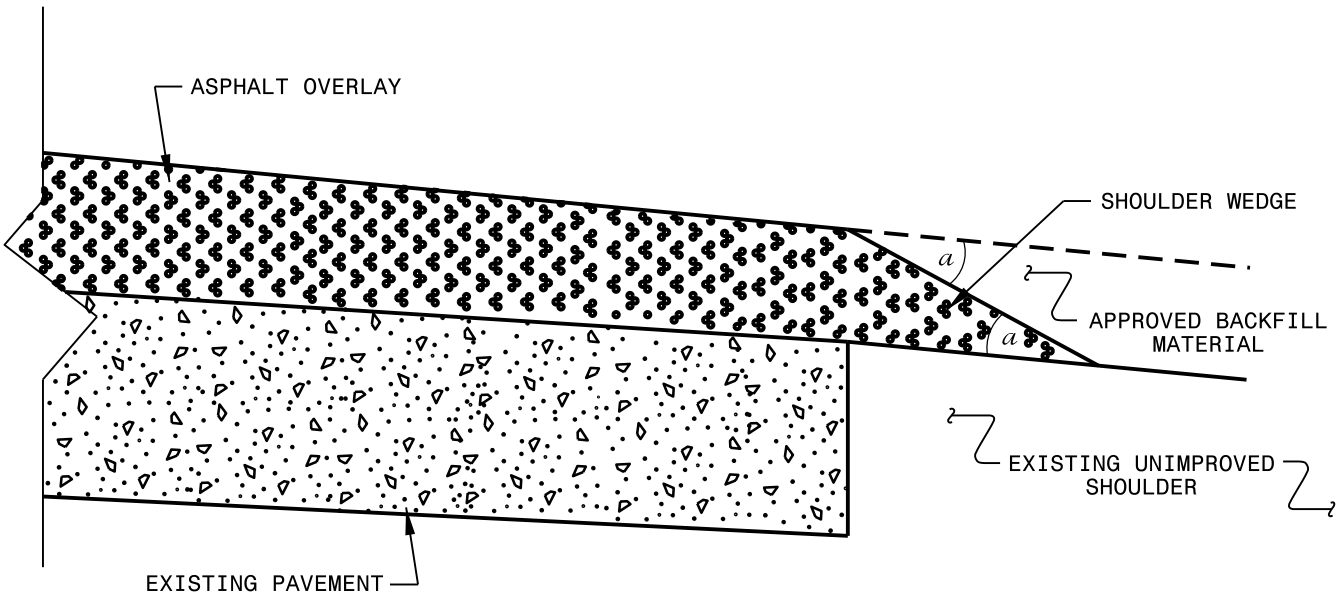
BRIDGE DRAWING FOR MAP 5 & 17
NC 902 BRIDGE #20
SR 1726 OLD FARRINGTON RD BRIDGE #64

* MILLING SHALL BE PAID FOR UNDER INCIDENTAL MILLING

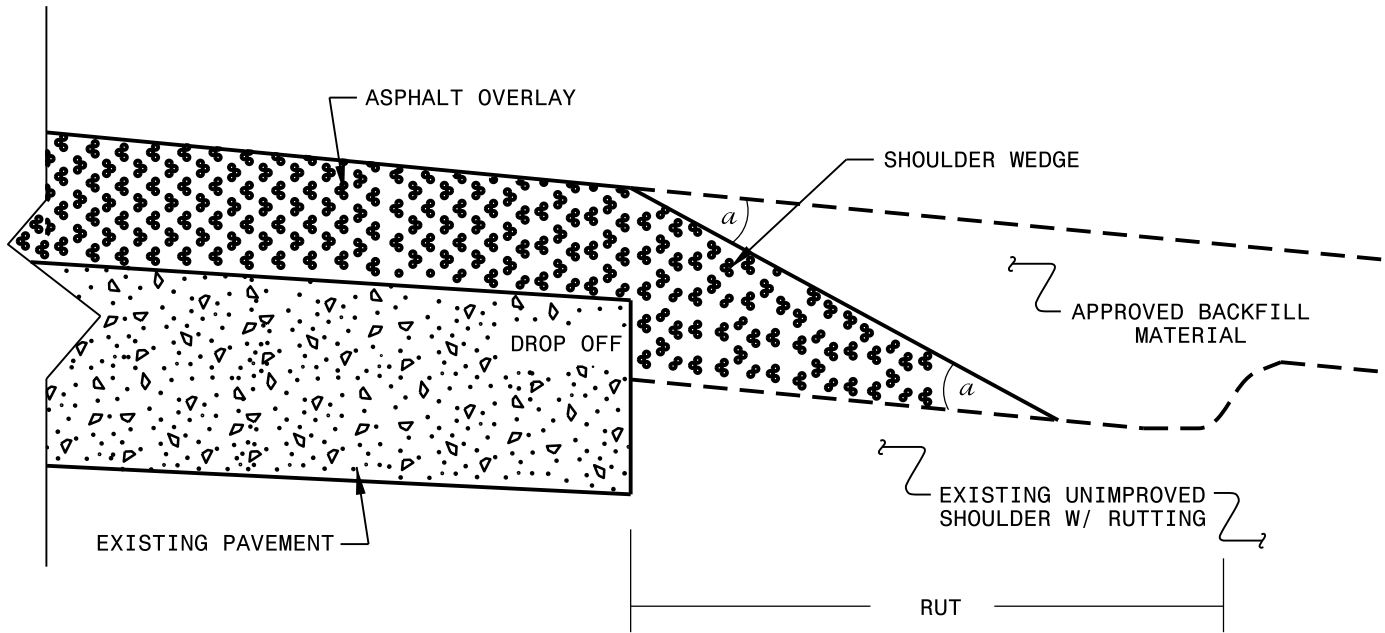
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAF C AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



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	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PROJECT NO.	SHEET NO.	TOTAL NO.
2026CPT.08.06.10191, 2026CPT.08.06.20191	25	

SUMMARY OF QUANTITIES

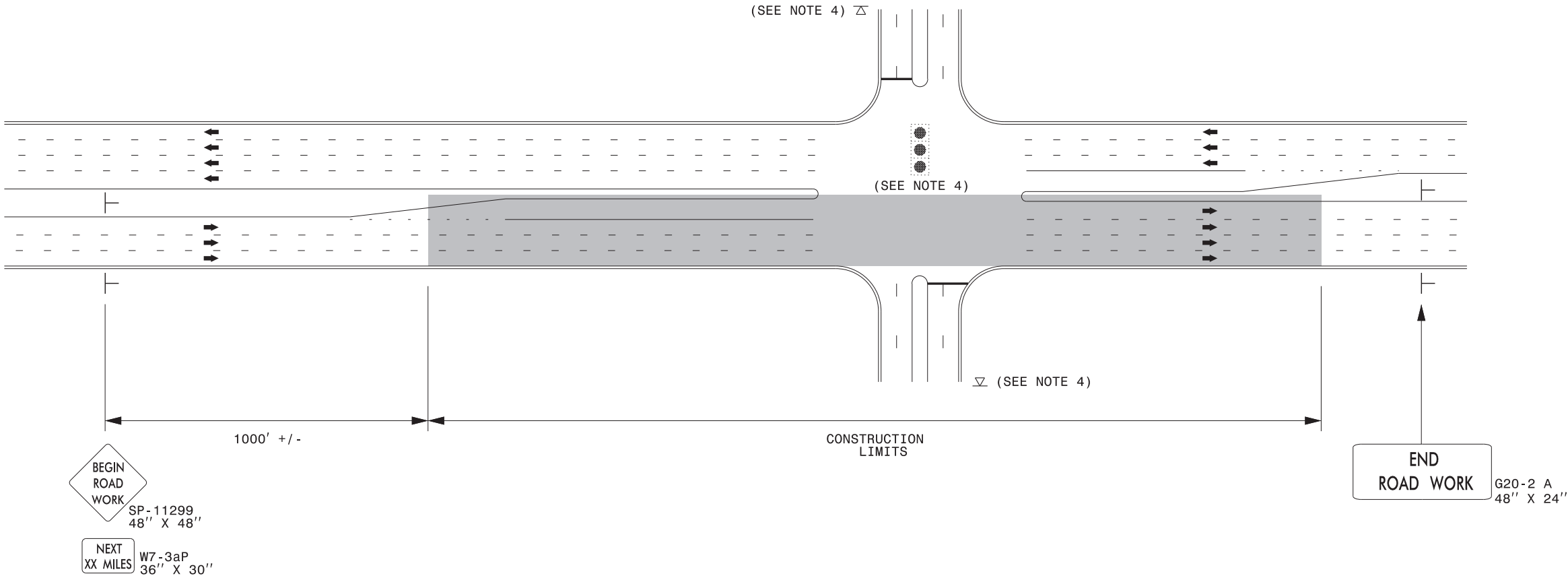
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	0106000000-E BORROW EXCAVATION	1220000000-E INCIDENTAL STONE BASE	1243000000-E SHOULDER CONSTRUCTION	1245000000-E SHOULDER RECONSTRUCTION	1260000000-E AGGREGATE SHOULDER BORROW	1297000000-E 1.5" MILLING	1308000000-E 0" TO 1.5" MILLING	1330000000-E INCIDENTAL MILLING	1503000000-E INTERMEDIATE COURSE, 119.0C	1519000000-E SURFACE COURSE, \$9.58	1523000000-E SURFACE COURSE, \$9.5C	1575000000-E ASPHALT BINDER FOR PLANT MIX	1704000000-E PATCHING EXISTING PAVEMENT	1775000000-E ASPHALT SURFACE TREATMENT, MATCOAT, #67 STONE	1838000000-E EMULSION FOR ASPHALT SURFACE TREATMENT	1860000000-E GENERIC PAVING ITEM - JOINT REPAIR	2612000000-E 6" DRIVEWAYS	2830000000-N ADJUST MANHOLES	2845000000-N ADJUST METER OR VALVE BOX	6000000000-E TEMPORARY SILT FENCE	6030000000-E MATTING (EROSION CONTROL)	6071012000-E COIR FIBER WATTLE	6084000000-E SEED & MULCHING	6090000000-E SEED FOR REPAIR SEEDING	6093000000-E FERTILIZER FOR REPAIR SEEDING	7060000000-E SIGNAL CABLE	7444000000-E INDUCTIVE LOOP SAWCUT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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PROJECT NO.	SHEET NO.	TOTAL NO.
2026CPT.08.06.10191.	26	
2026CPT.08.06.20191		

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	4413000000-E	4457000000-N	4510000000-N	4688000000-E		4695000000-E	4700000000-E	4704000000-E	4709000000-E	4720000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725000000-E	4725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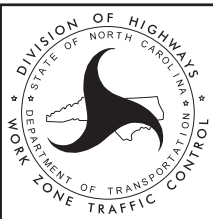
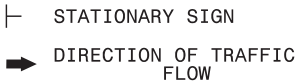
URBAN / SUBURBAN WORKZONES



NOTES:

- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 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) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
- 4) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.
- 5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
- 6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
- 7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 8) 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 WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS.THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND



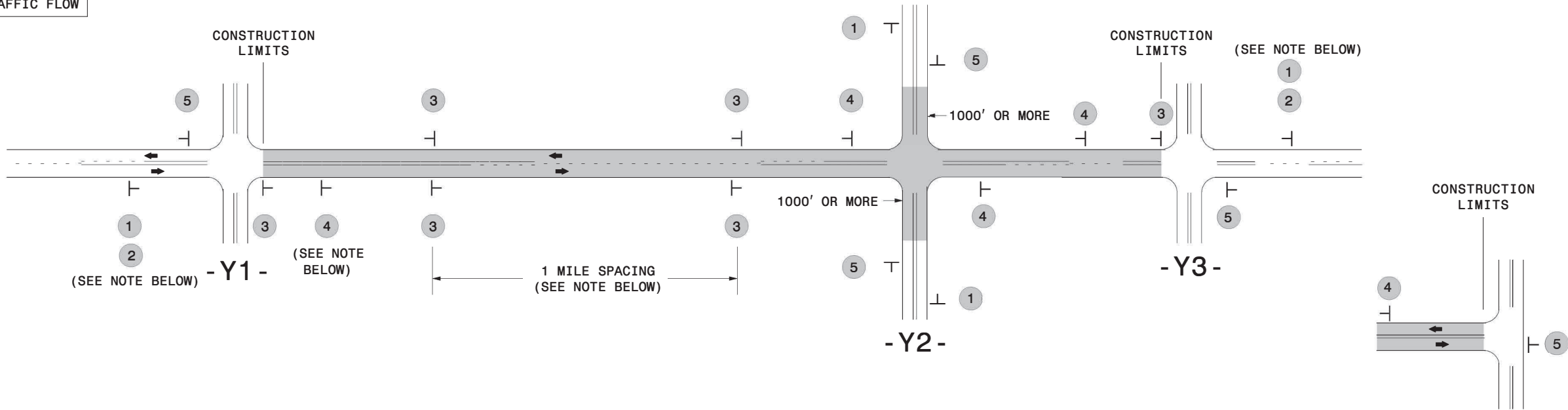
RESURFACING ADVANCE
WARNING SIGNS FOR
URBAN / SUBURBAN
FACILITIES

SIGNING FOR RESURFACING PROJECTS

LEGEND

STATIONARY SIGN

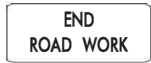
DIRECTION OF TRAFFIC FLOW



TEE INTERSECTION

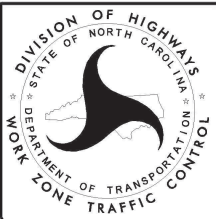
MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1  W20-1 48" X 48" 2  W7-3aP 24" X 18" <td> 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) </td> <td rowspan="5"> 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.  W20-1 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER.  W20-7 A 48" X 48" PLACED 250' IN ADVANCE OF FLAGGER. </td>	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)	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.  W20-1 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER.  W20-7 A 48" X 48" PLACED 250' IN ADVANCE OF FLAGGER.
	3  SP 13107 48" X 48" <td> - PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER. </td>	- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.	
	4  SP 13106 48" X 48" <td> - 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. </td>	- 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  G20-2 A 48" X 24" <td> PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION. </td>	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.		
LESS 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.		



AD

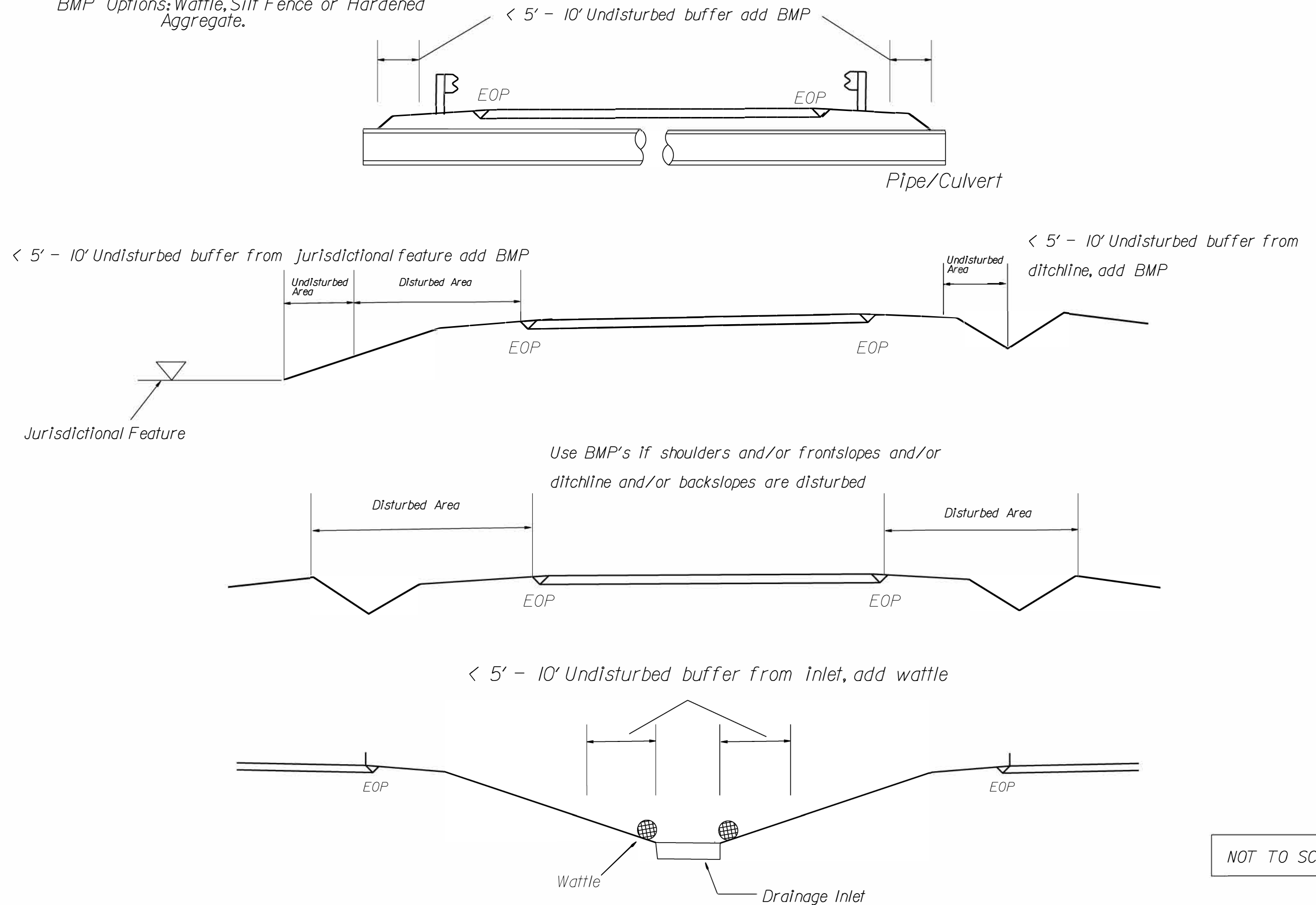


ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2-LANE ROADWAY
RESURFACING

NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

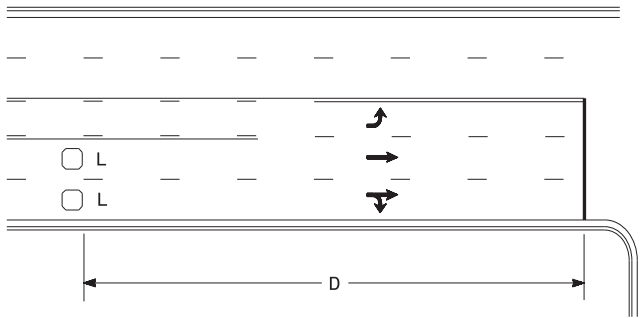
BMP Options: Wattle, Silt Fence or Hardened Aggregate.

EROSION CONTROL DETAIL



NOT TO SCALE

High Speed Detection
(≥35 mph)

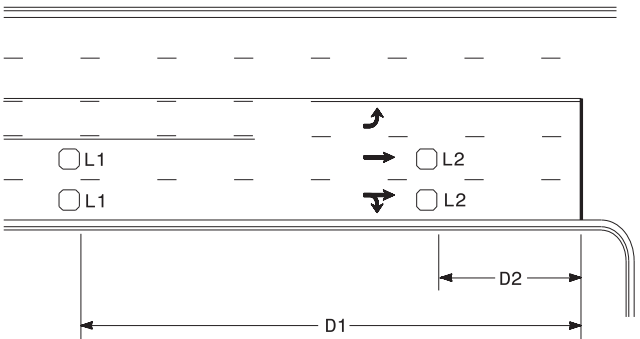


Speed Limit mph	D ft
35	200
40	250
45	300
50	355
55	420
60	475
65	550

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



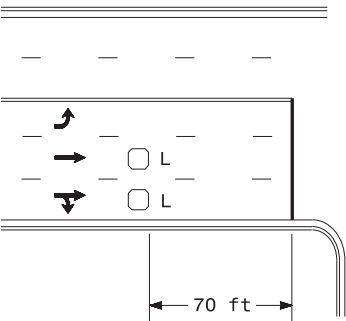
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110
60	475	120
65	550	130

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

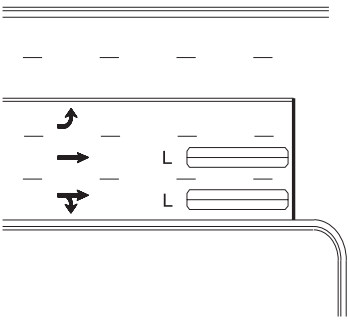
"Stretch" Operation

Low Speed Detection
(≤35 mph)



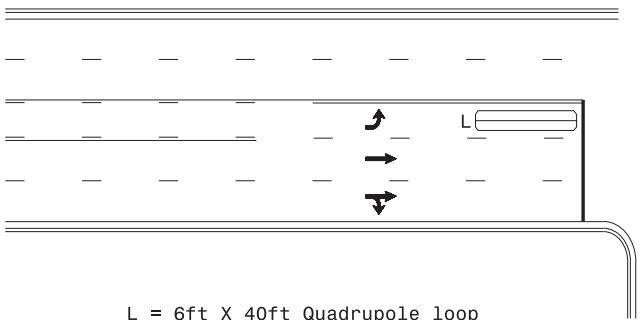
L = 6ft X 6ft
Wired in series

OR



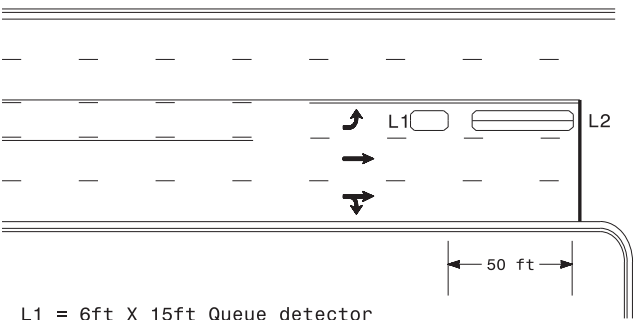
L = 6ft X 40ft
Quadrupole loop, wired separately

Left Turn Lane Detection



Presence Loop Detection

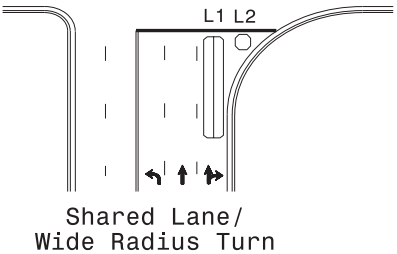
OR



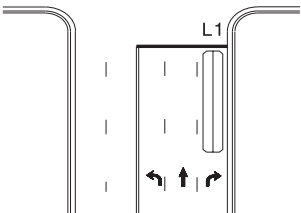
L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

Queue Loop Detection

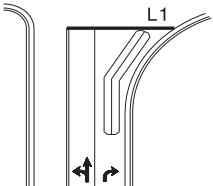
Right Turn Lane Detection



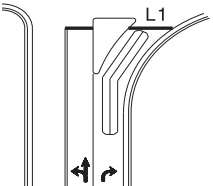
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

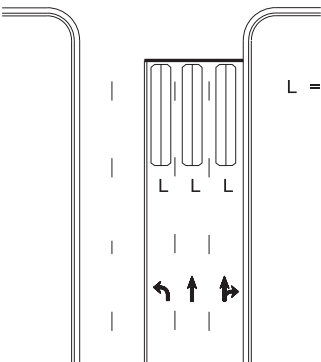


Wide Radius Turn



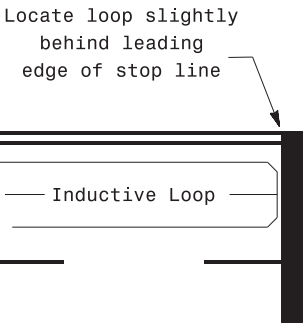
Channelized Turn

Side Street Detection



L = 6ft X 40ft
Quadrupole loop
Wired to separate
detectors/channels

Presence Loop Placement at Stop Lines



Note:
Loop may be located in advance of stop line under any of the following conditions:
1) stop line is greater than 15' from edge of intersecting roadway
2) loop detects a permissive or protected/permissive left turn
3) for an exclusive right turn lane

Recommended Number of Turns

Single 6' X 6' loop
(when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns

6' X 15' Loops:
Lead-in < 150', use 2 turns
Lead-in > 150', use 3 turns

Prepared in the Offices of:

TRANSPORTATION MOBILITY AND SAFETY DIVISION

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

Signal Design Section

750 N. Greenfield Pkwy, Garner, NC 27529

PLAN DATE: September 2025

REVIEWED BY:

PREPARED BY: J.A. Lohr

REVIEWED BY:

SCALE: N/A

REVISIONS:

INIT. DATE

SEAL

NORTH CAROLINA

PROFESSIONAL ENGINEER

026486

ROBERT J. ZIEGLER

11/25/2025

SIG. INVENTORY NO.