

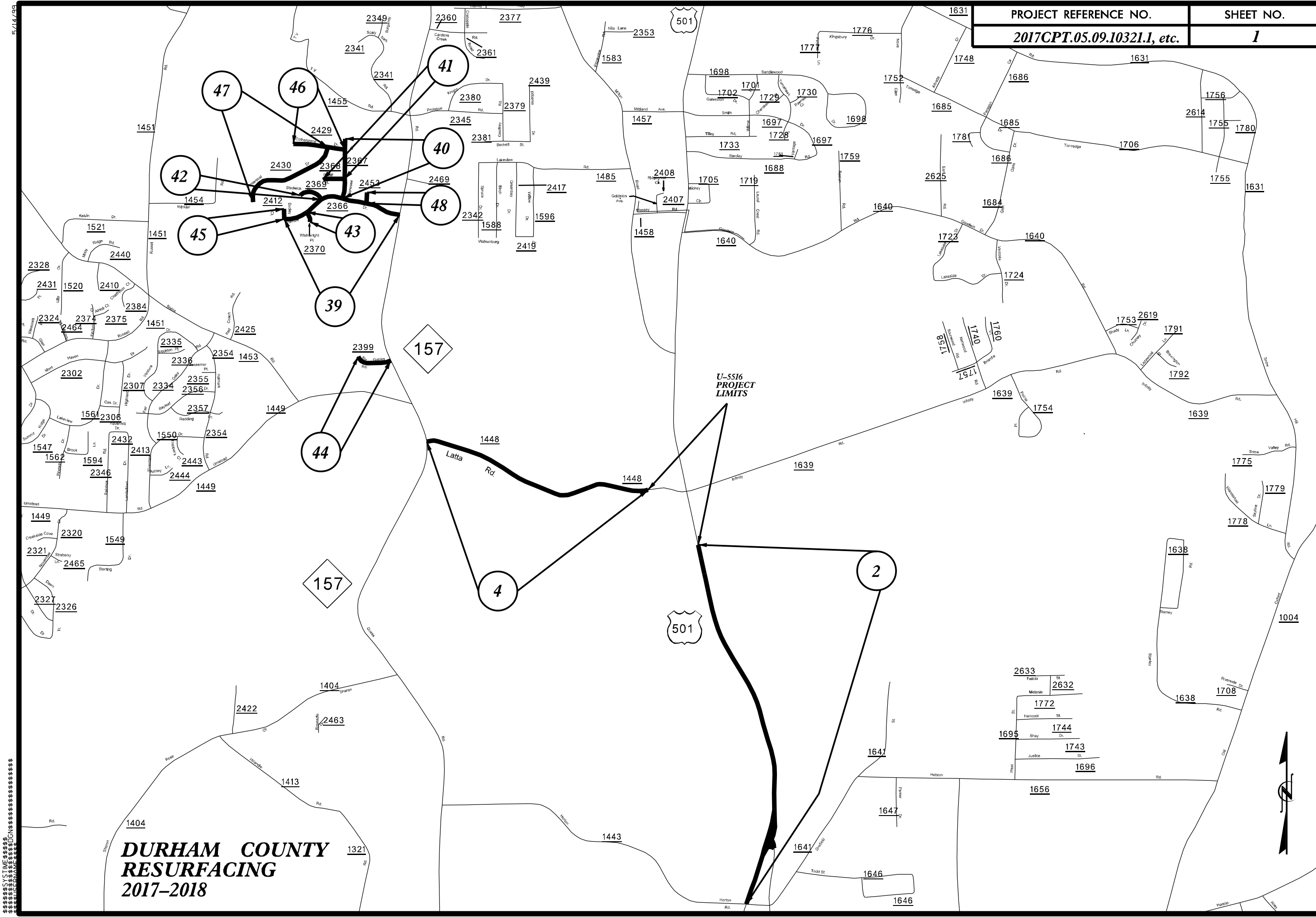
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**DURHAM COUNTY
RESURFACING
2017-2018**

U-5516
PROJECT
LIMITS

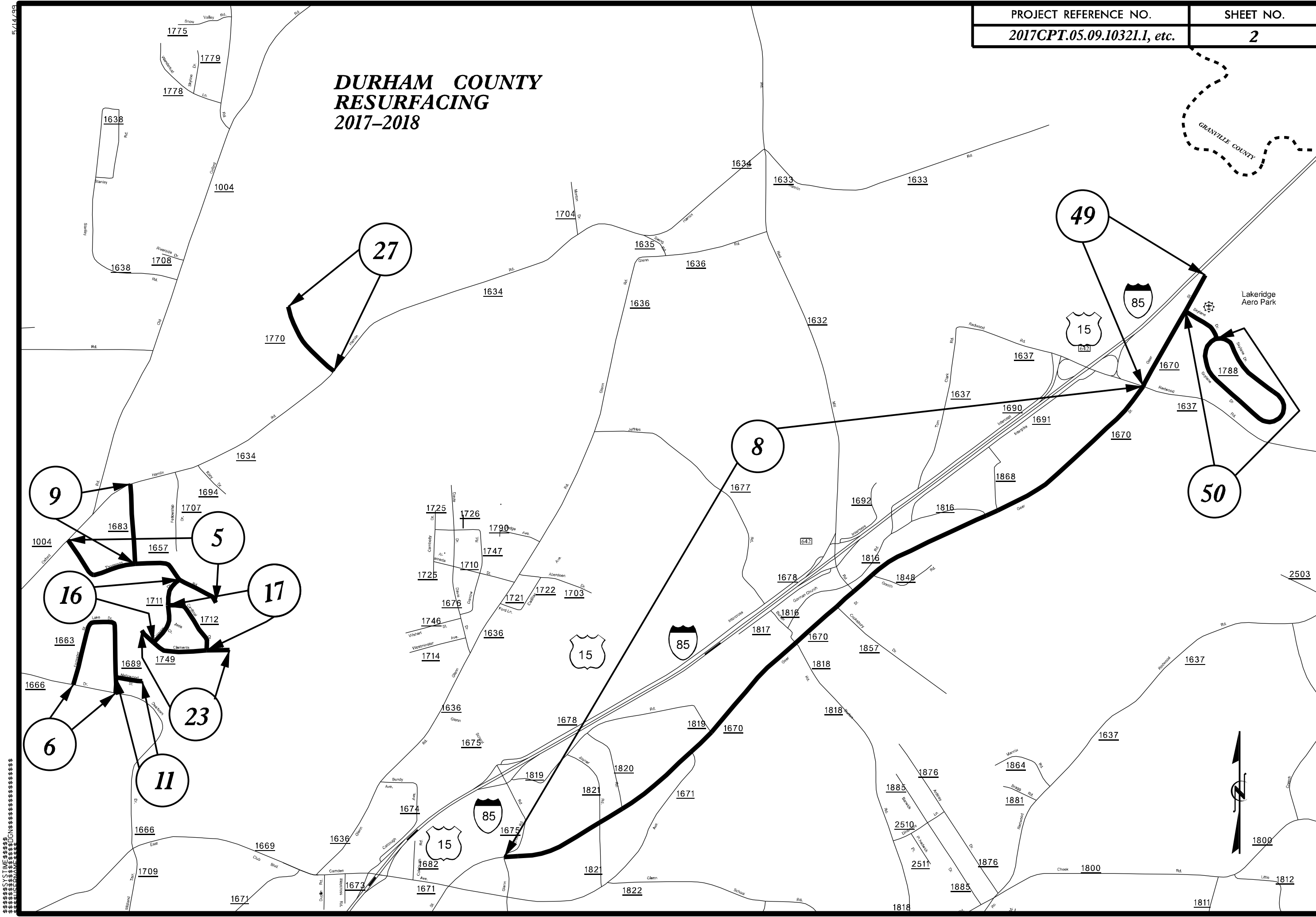


5/14/19

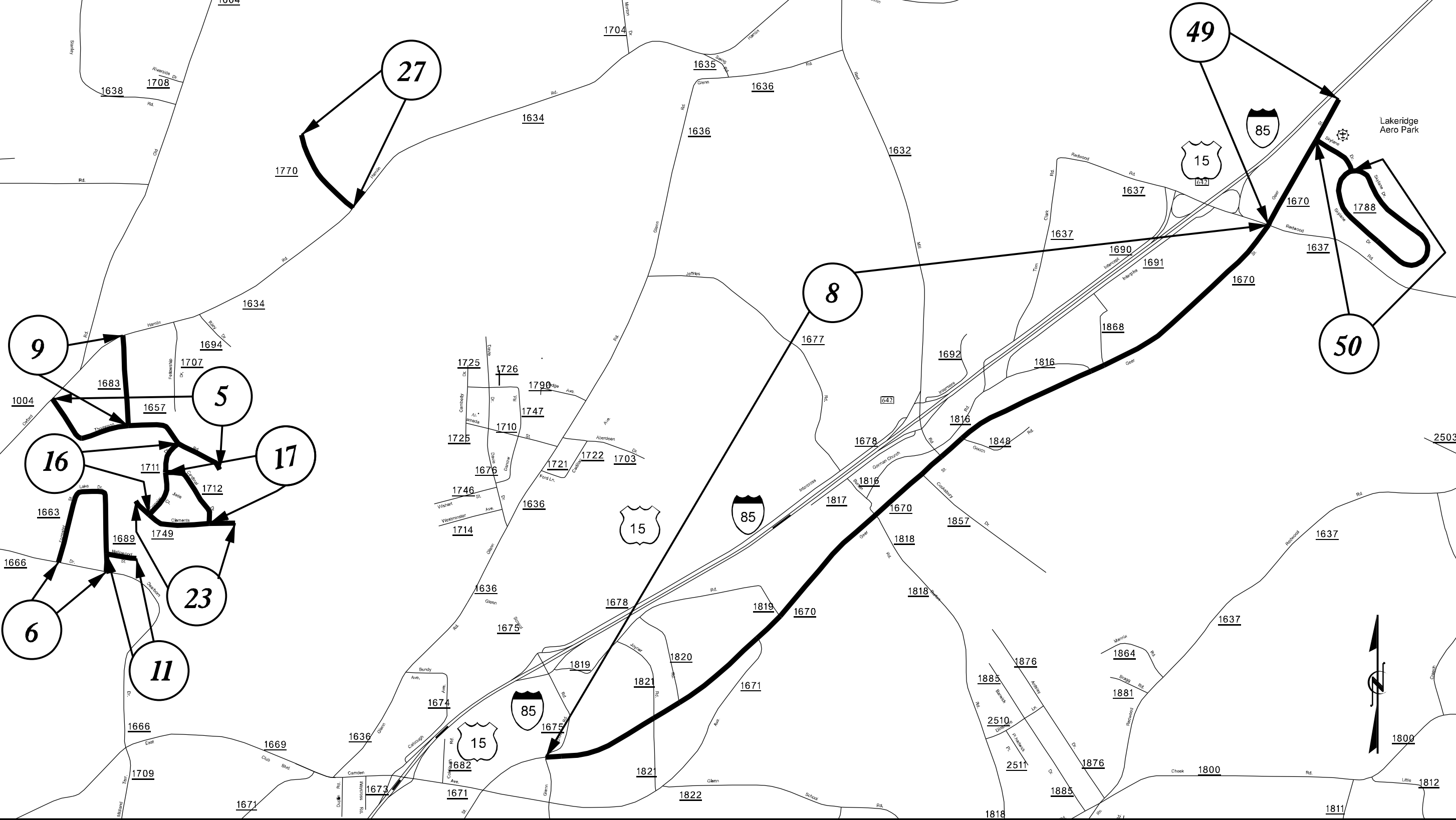
DURHAM COUNTY RESURFACING 2017-2018

GRANVILLE COUNTY

Lakeridge Aero Park



5/14/18
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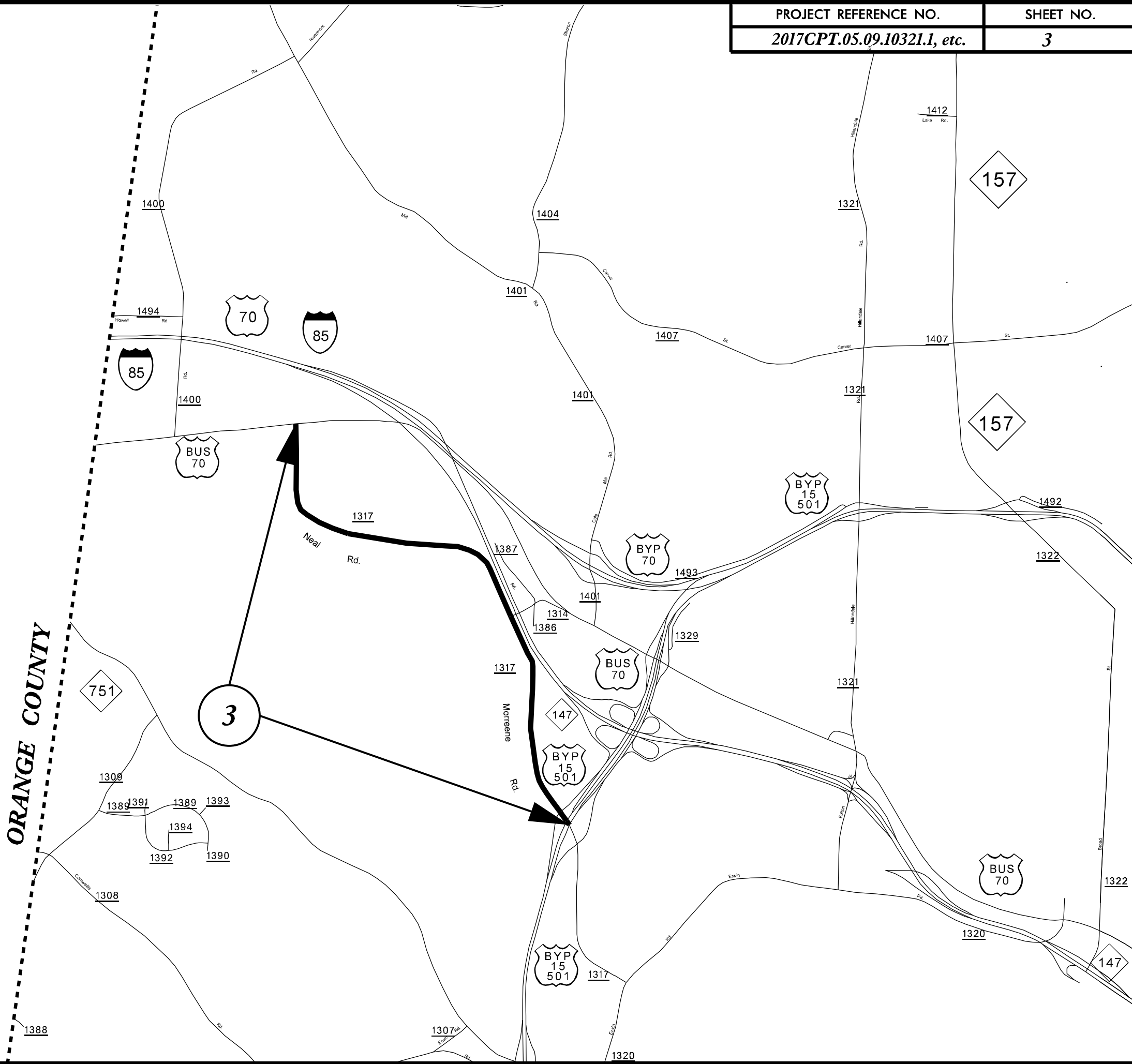


PROJECT REFERENCE NO.
2017CPT.05.09.10321.1, etc.

SHEET NO.
3

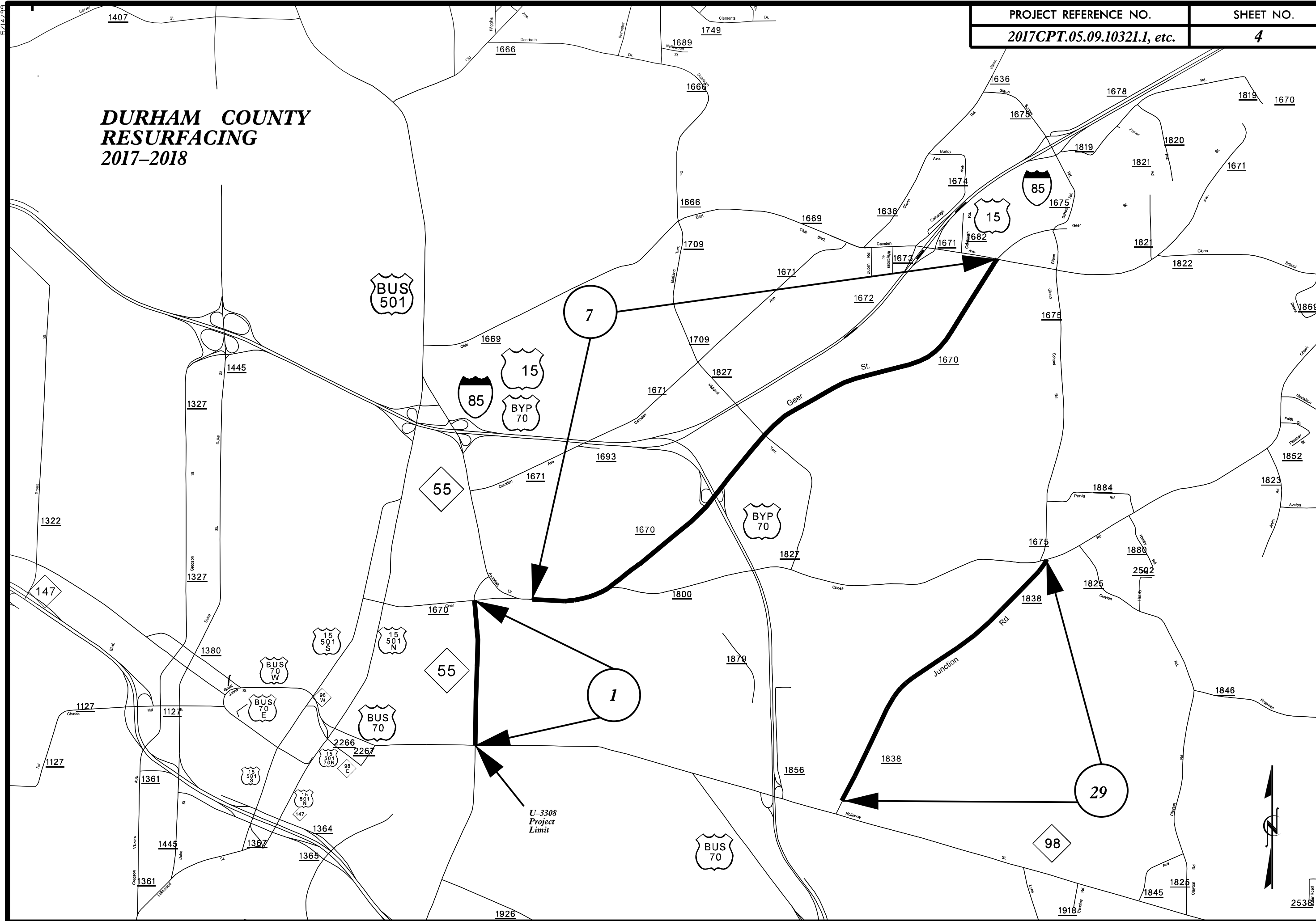
**DURHAM COUNTY
RESURFACING
2017-2018**

ORANGE COUNTY

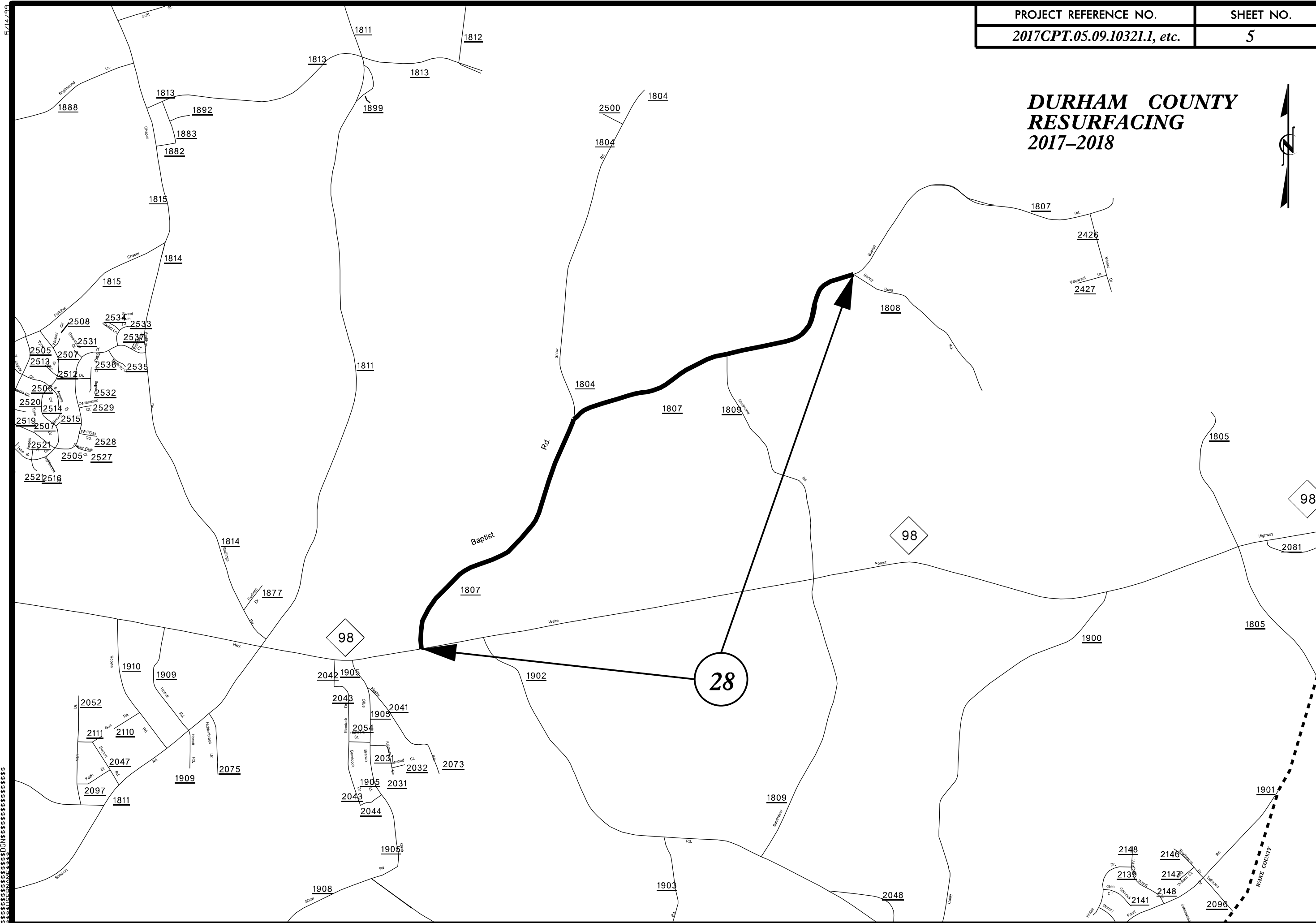


\$\$\$\$\$\$ DATE PLOTTED: 5/14/19 PLOTTER: HP DesignJet T1100e \$\$\$\$\$\$
 \$\$\$\$\$\$ DRAWN BY: JMG \$\$\$\$\$\$
 \$\$\$\$\$\$ PROJECT NO.: 2017CPT.05.09.10321.1 \$\$\$\$\$\$
 \$\$\$\$\$\$ SHEET NO.: 3 \$\$\$\$\$\$

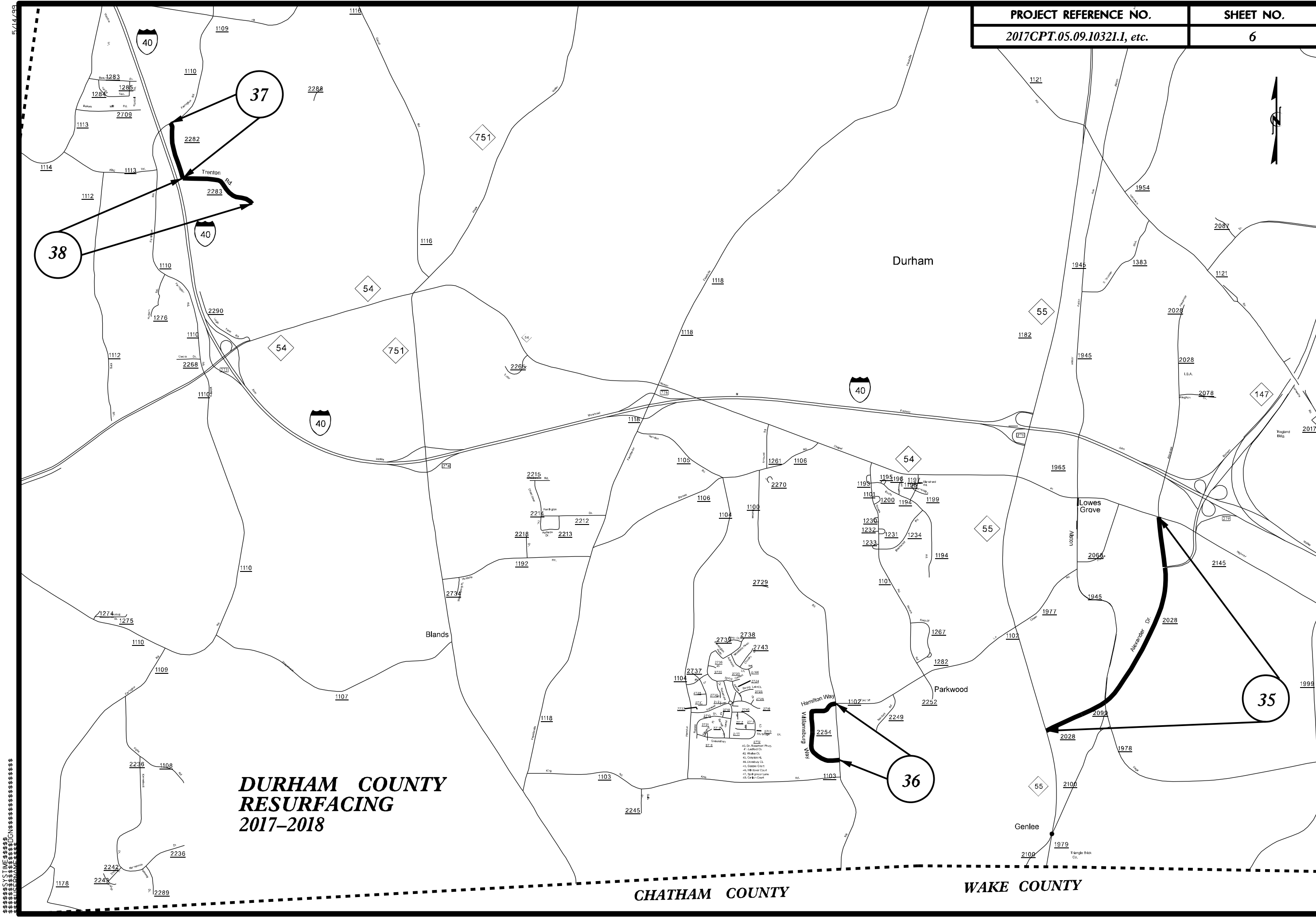
**DURHAM COUNTY
 RESURFACING
 2017-2018**



**DURHAM COUNTY
RESURFACING
2017-2018**



5/14/18
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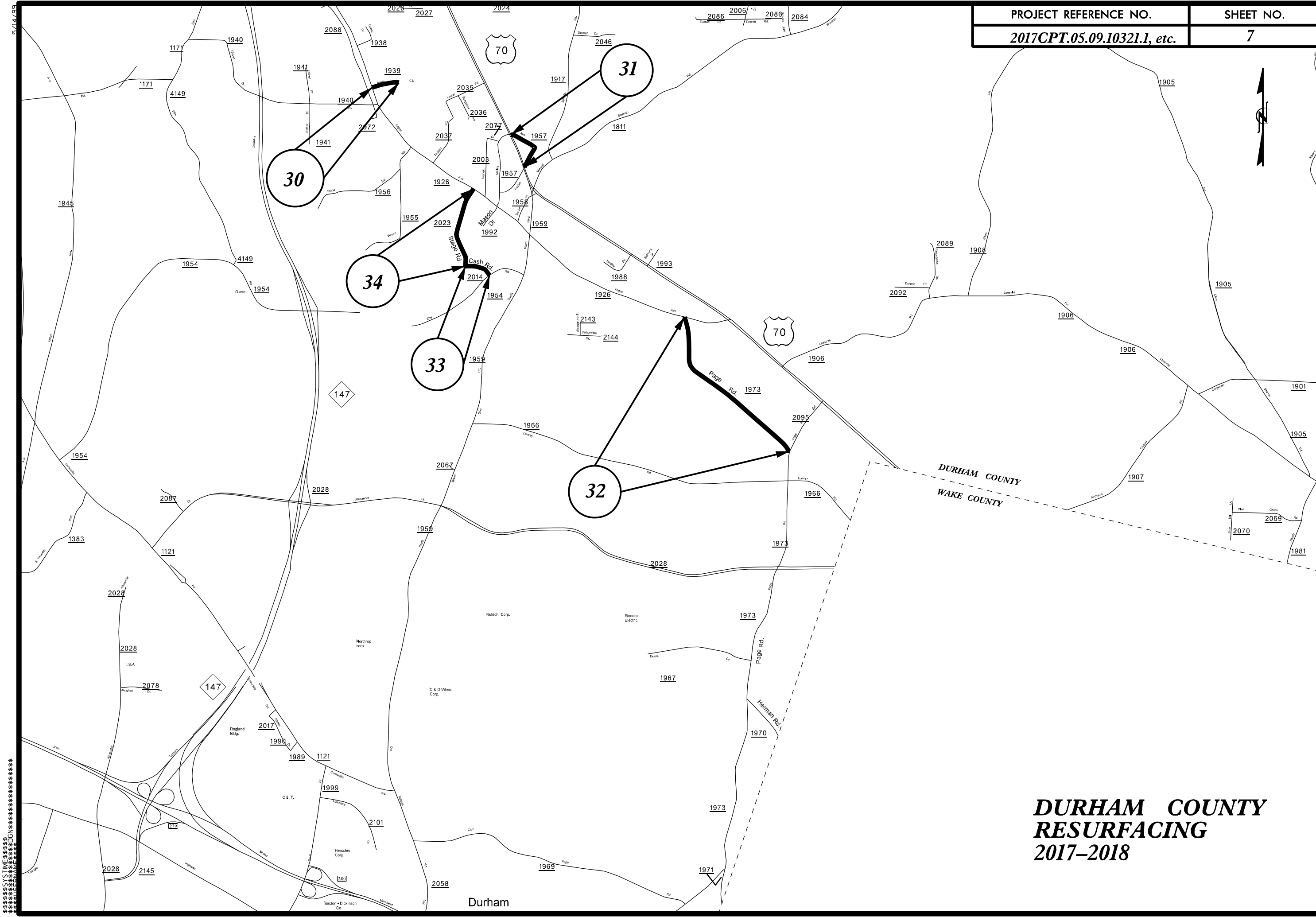


**DURHAM COUNTY
RESURFACING
2017-2018**

CHATHAM COUNTY

WAKE COUNTY

5/14/18



DURHAM COUNTY
WAKE COUNTY

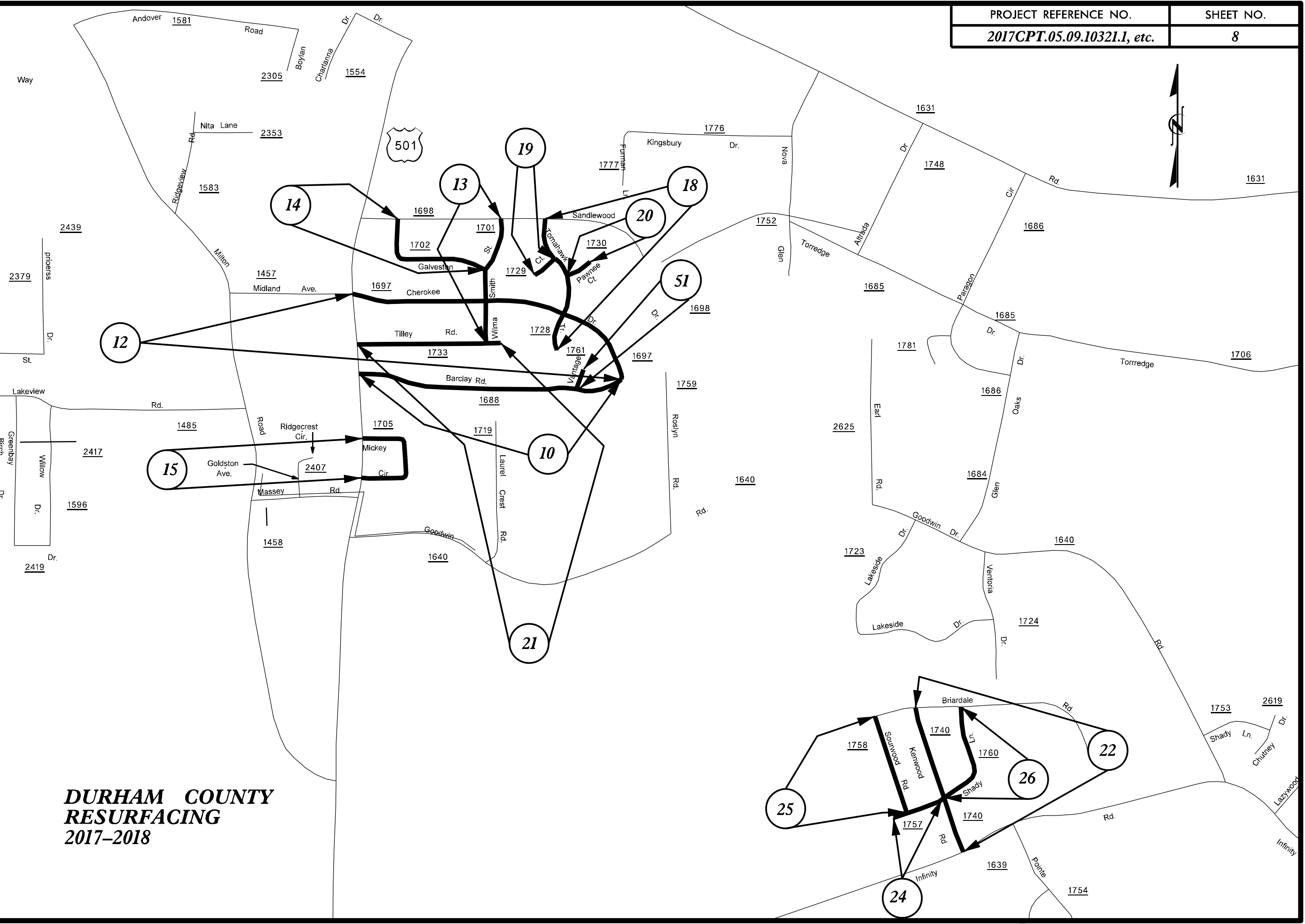
**DURHAM COUNTY
RESURFACING
2017-2018**

5/14/19

Durham



**DURHAM COUNTY
RESURFACING
2017-2018**



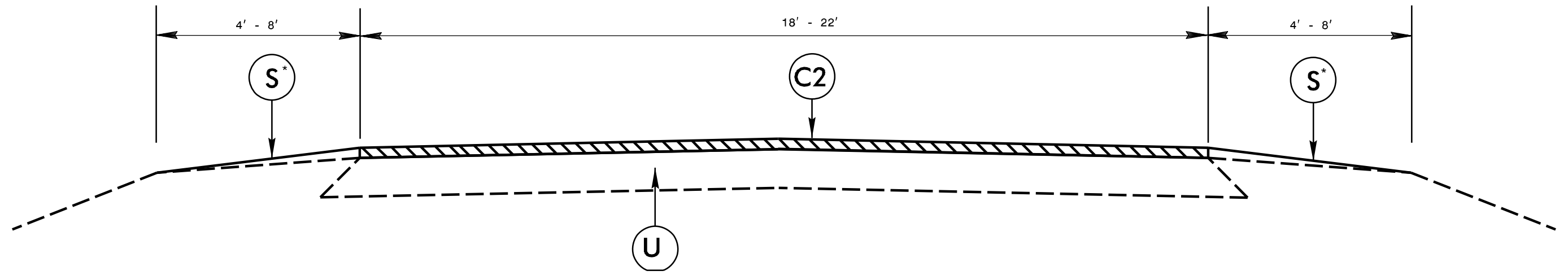
SECTION 101-30-101, NORTH CAROLINA GENERAL STATUTES

PAVEMENT SCHEDULE

PROJECT REFERENCE NO.
2017CPT.05.09J0321J, etc.

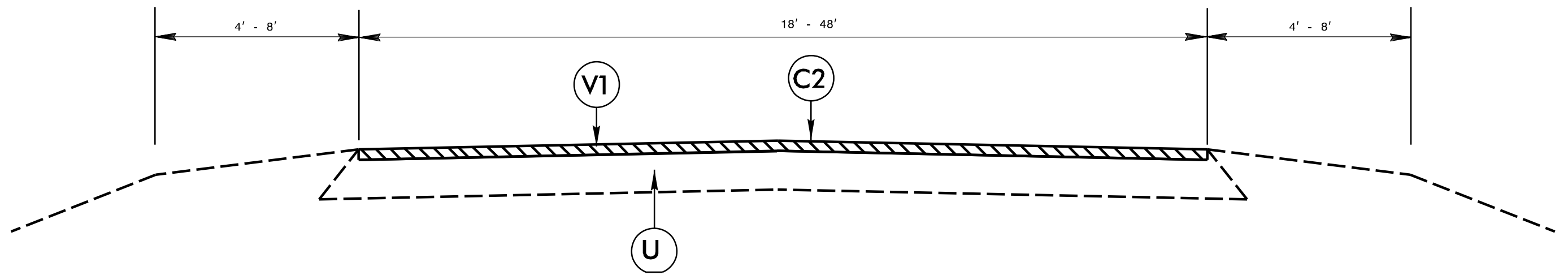
SHEET NO.
9

C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
C2	1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C3	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	1¼" MILLING
C4	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	1½" MILLING



TYPICAL SECTION NO. 1

* SHOULDER GRADING REQUIRED ON MAPS 9,37,38, AND 49



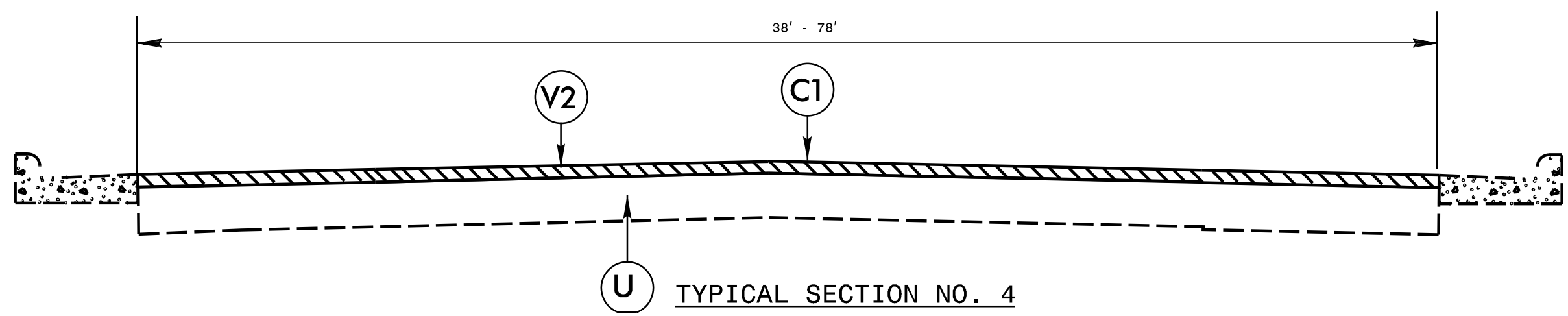
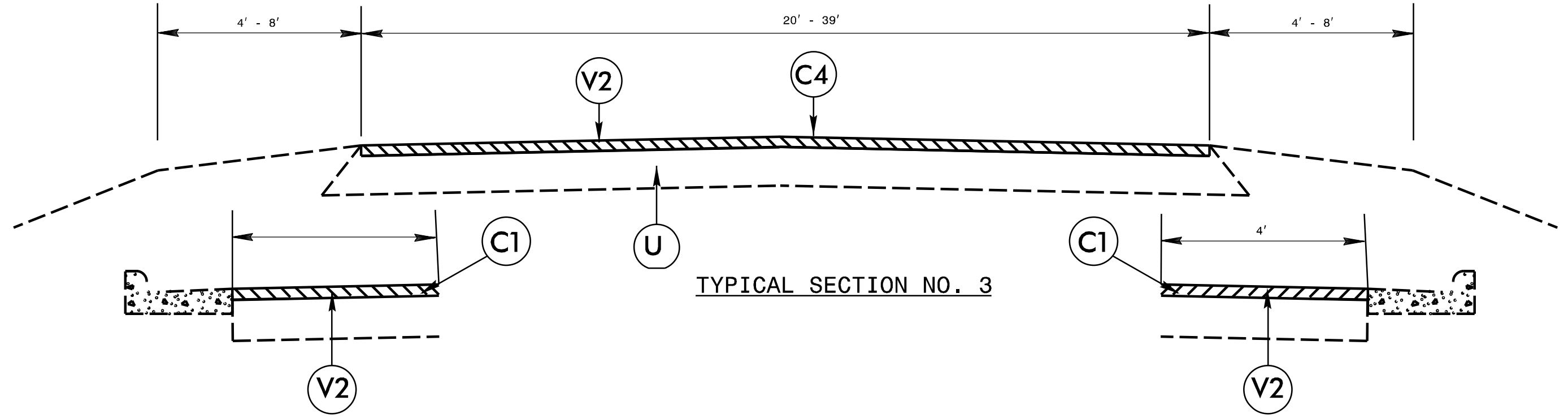
TYPICAL SECTION NO. 2

PAVEMENT SCHEDULE

PROJECT REFERENCE NO.
2017CPT.05.09.10321J, etc.

SHEET NO.
10

C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
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C3	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	1¼" MILLING
C4	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	1½" MILLING

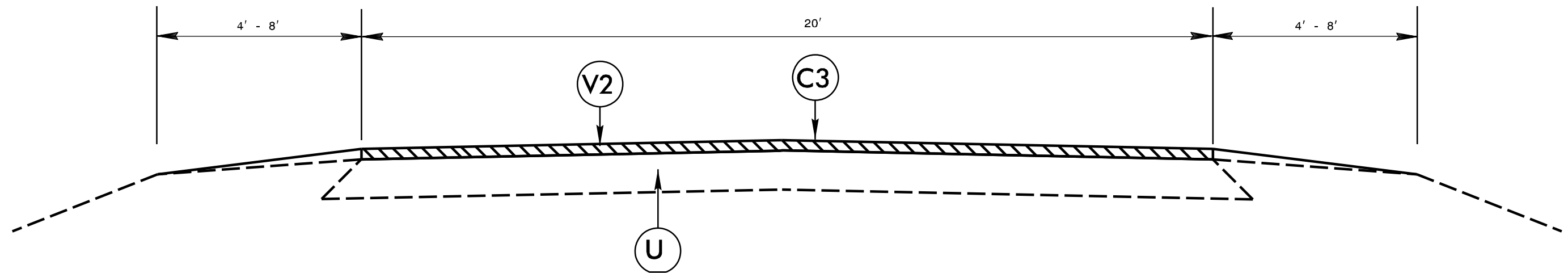


PAVEMENT SCHEDULE

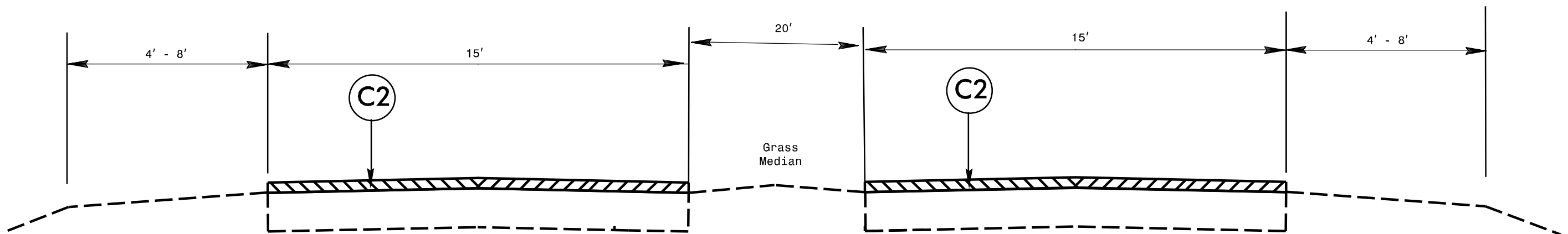
PROJECT REFERENCE NO.
2017CPT.05.09.10321J, etc.

SHEET NO.
11

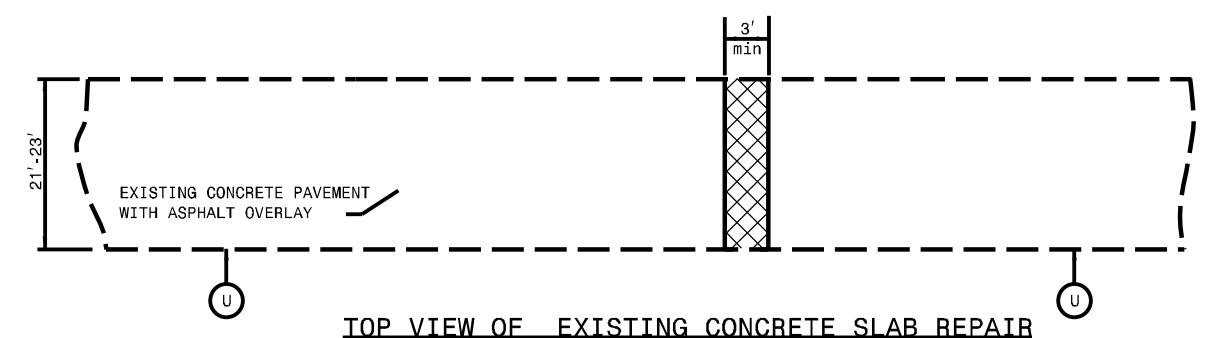
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
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C3	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	1¼" MILLING
C4	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	1½" MILLING



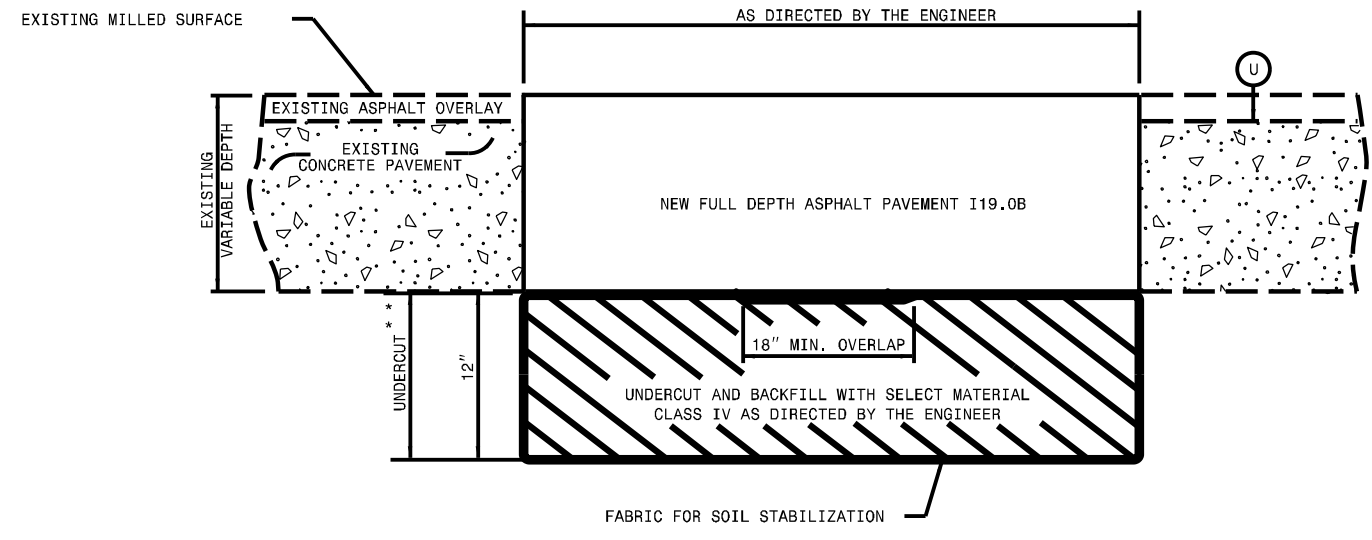
TYPICAL SECTION NO. 5



TYPICAL SECTION NO. 6

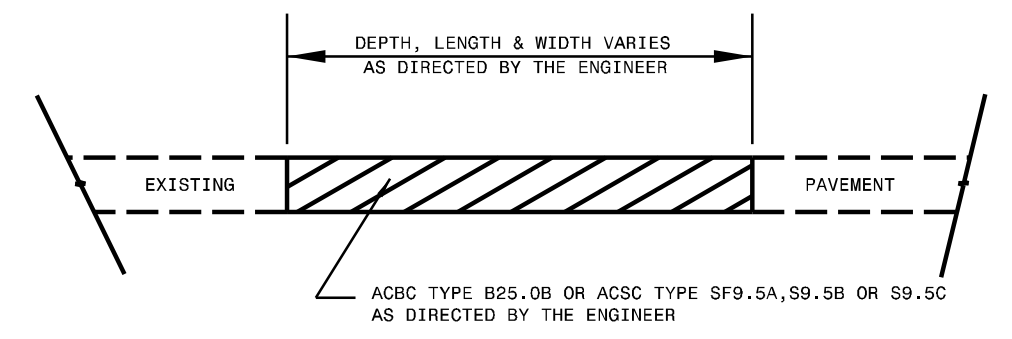


TOP VIEW OF EXISTING CONCRETE SLAB REPAIR
TO BE PERFORMED AFTER MILLING OPERATION, AS DIRECTED BY THE ENGINEER

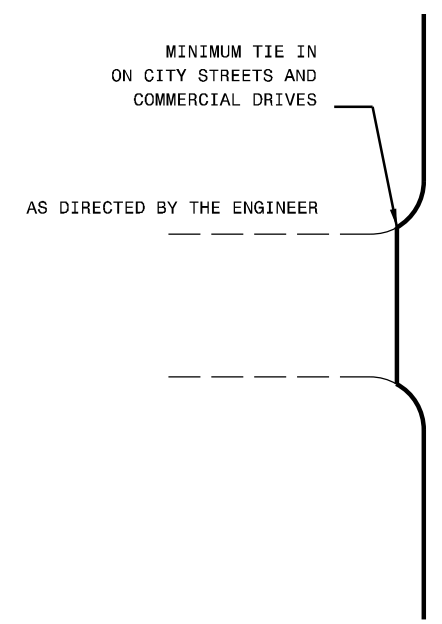
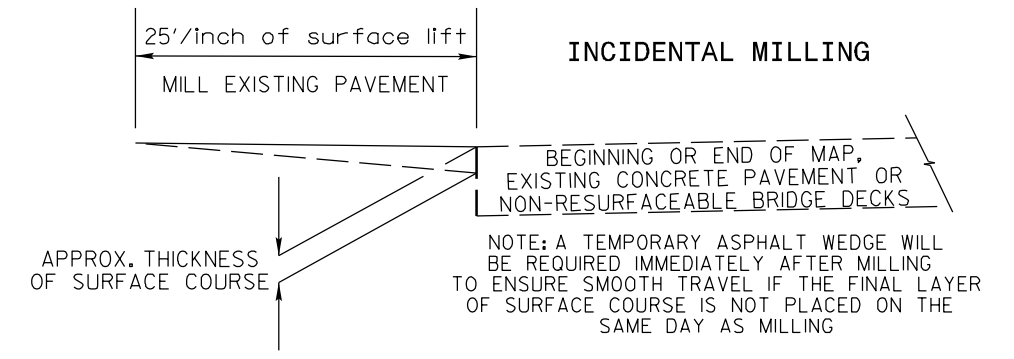


CROSS SECTION OF EXISTING CONCRETE SLAB REPAIR AFTER MILLING

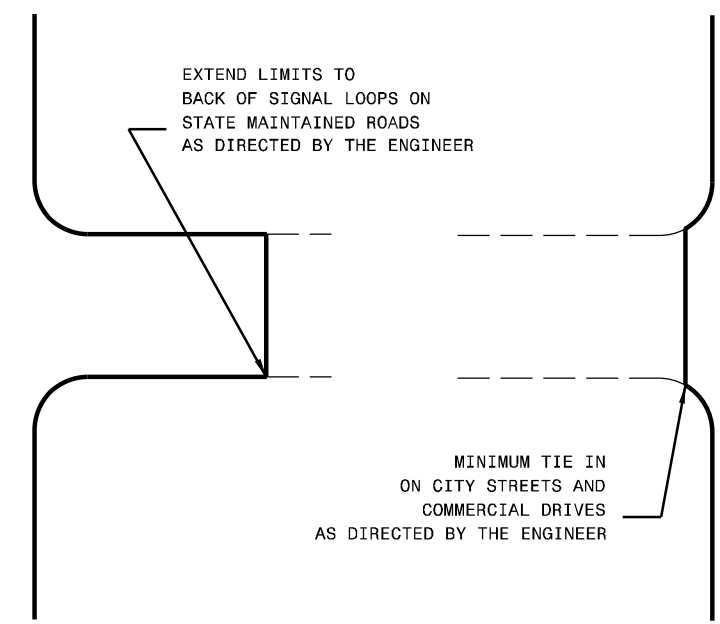
* DIMENSIONS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED
** UNDERCUT REQUIRED IN AREAS AS DIRECTED BY THE ENGINEER



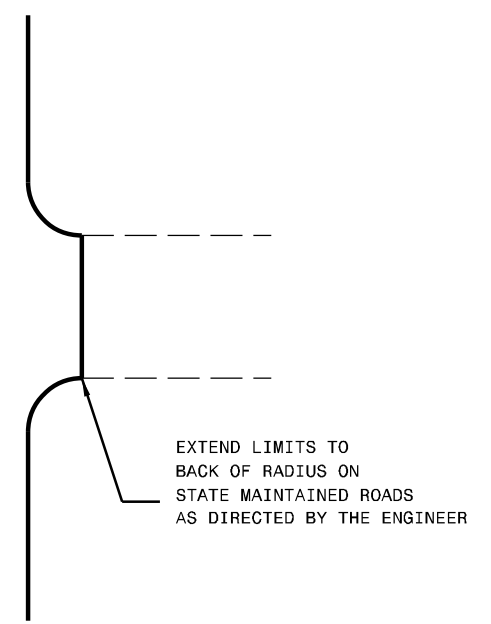
PATCHING EXISTING PAVEMENT
MILLING TO BE PERFORMED PRIOR TO PATCHING



DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES



DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES

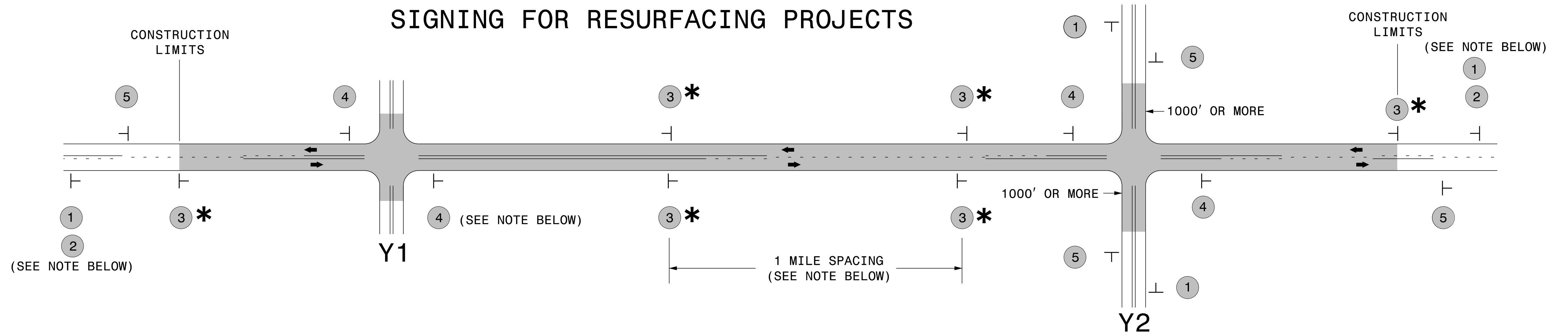


PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.05.09.10321.1, etc		

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4725000000-E						4770000000-E		4810000000-E		4820000000-E		4830000000-E		4840000000-N										4850000000-E		4900000000-N		4905000000-N	4940000000-N							
										THERMO STR ARROW 90 M EA	THERMO STR & RT ARROW 90 M EA	THERMO LT ARROW 90 M EA	THERMO RT ARROW 90 M EA	THERMO STR & LT ARROW 90 M EA	THERMO MERGE ARROW 90 M EA	4" WHITE COLD APPLIED PLASTIC, TYPE II LF	4" YELLOW COLD APPLIED PLASTIC, TYPE II LF	4" WHITE PAINT LF	4" YELLOW PAINT LF	8" YELLOW PAINT LF	16" WHITE PAINT LF	24" WHITE PAINT LF	PAINT MSG ONLY EA	PAINT MSG SCHOOL EA	PAINT MSG AHEAD EA	PAINT MSG STOP EA	PAINT MSG RXR EA	PAINT LT ARROW EA	PAINT STR & RT ARROW EA	PAINT RT ARROW EA	PAINT STR ARROW EA	PAINT MERGE ARROW EA	4" LINE REMOVAL LF	YELLOW & YELLOW MARKERS EA	CRYSTAL & RED MARKERS EA	SNOW PLOWABLE MARKERS EA	FLEXIBLE DELINEATORS (YELLOW) EA									
2017CPT.05.09.20321.1	Durham	31	SR 1957 - PEYTON AVE/MARLY AVE	US 70 - TO US 70		2	2		0.263	18																																				
TOTAL FOR MAP NO. 31																																														
2017CPT.05.09.20321.1	Durham	32	SR 1973 - PAGE RD	SR 1926 - ANGIER AVE TO SR 2095 - PAGE RD		3	2		0.964	21				2	1																															
TOTAL FOR MAP NO. 32																																														
2017CPT.05.09.20321.1	Durham	33	SR 2014 - CASH RD	SR 1954 - ELLIS RD TO SR 2023 - STAGE RD		1	2		0.15	20																																				
TOTAL FOR MAP NO. 33																																														
2017CPT.05.09.20321.1	Durham	34	SR 2023 - STAGE RD	SR 1926 - ANGIER AVE TO SR 2014 - CASH RD		1	2		0.445	21																																				
TOTAL FOR MAP NO. 34																																														
2017CPT.05.09.20321.1	Durham	35	SR 2028 - TW ALEXANDER DR	NC 54 TO NC 55		3	2		1.384	38	13	9	34	8		3	252	252																		504	2	380								
TOTAL FOR MAP NO. 35																13	9	34	8		3	252	252																		504	2	380			
2017CPT.05.09.20321.1	Durham	36	SR 2254 - WILLIAMSBURG WY/HAMILTON WY	SR 1100 - GRANDALE DR TO SR 1100 - GRANDALE DR		2	2		0.584	21																																				
TOTAL FOR MAP NO. 36																																														
2017CPT.05.09.20321.1	Durham	37	SR 2282 - TRENTON RD	SR 1110- FARRINGTON RD TO SR 2283 - TRENTON RD		1	2		0.347	22																																				
TOTAL FOR MAP NO. 37																																														
2017CPT.05.09.20321.1	Durham	38	SR 2283 - TRENTON RD	SR 2282 - TRENTON RD TO END MAINT - 1124 FEET NORTH OF YALE LN		1	2		0.427	21																																				
TOTAL FOR MAP NO. 38																																														
2017CPT.05.09.20321.1	Durham	39	SR 2366 - BRAMBLE DR	NC 157 - TO END OF PAVEMENT		1	2		0.562	20																																				
TOTAL FOR MAP NO. 39																																														
2017CPT.05.09.20321.1	Durham	40	SR 2367 - GENESEE DR	SR 2366 - BRAMBLE DR TO END OF PAVEMENT		1	2		0.262	20																																				
TOTAL FOR MAP NO. 40																																														
2017CPT.05.09.20321.1	Durham	41	SR 2368 - BARLIFF PLACE	SR 2367 - GENESEE DR TO CUL-DE-SAC		1	2		0.095	20																																				
TOTAL FOR MAP NO. 41																																														
2017CPT.05.09.20321.1	Durham	42	SR 2369 - STEDWICK PLACE	SR 2366 - BRAMBLE DR TO CUL-DE-SAC		1	2		0.102	20																																				
TOTAL FOR MAP NO. 42																																														
2017CPT.05.09.20321.1	Durham	43	SR 2370 - WAINWRIGHT CT	SR 2366 - BRAMBLE DR TO CUL-DE-SAC		1	2		0.038	20																																				
TOTAL FOR MAP NO. 43																																														
2017CPT.05.09.20321.1	Durham	44	SR 2399 - SIX GABLES RD	NC 157 TO END MAINT		5	2		0.147	20																																				
TOTAL FOR MAP NO. 44																																														
2017CPT.05.09.20321.1	Durham	45	SR 2412 - SUDLEY CT	SR 2366 - BRAMBLE DR TO CUL-DE-SAC		1	2		0.042	20																																				
TOTAL FOR MAP NO. 45																																														
2017CPT.05.09.20321.1	Durham	46	SR 2429 - COTHERSTONE DR	SR 2367 - GENESEE DR TO CUL-DE-SAC		1	2		0.225	20																																				
TOTAL FOR MAP NO. 46																																														
2017CPT.05.09.20321.1	Durham	47	SR 2430 - CENTENNIAL DR	SR 2429 - COTHERSTONE DR - TO END OF PAVEMENT		1	2		0.456	20																																				
TOTAL FOR MAP NO. 47																																														
2017CPT.05.09.20321.1	Durham	48	SR 2453 - COVEY CT	SR 2366 - BRAMBLE DR TO CUL-DE-SAC		1	2		0.043	20																																				
TOTAL FOR MAP NO. 48																																														
2017CPT.05.09.20321.1	Durham	49	SR 1670 - GEER ST	SR 1637 TO DEAD END		1	2		0.533	21																																				
TOTAL FOR MAP NO. 49																																														
2017CPT.05.09.20321.1	Durham	50	SR 1788 - SKY LANE DR	SR 1670 - GEER ST TO SR 1788 - SKY LANE DR		1&6	2		1.247	20-30																																				
TOTAL FOR MAP NO. 50																																														
2017CPT.05.09.20321.1	Durham	51	SR1761 - VANTAGE CT	FROM SR1688 - BARCLAY RD TO CUL-DE-SAC		1	2		0.041	20																																				
TOTAL FOR MAP NO. 51																																														
TOTAL FOR PROJ NO. 2017CPT.05.09.20321.1										18	19	68	17	5	1,127	1,403	105,340	60,472	384	50	175	8	18	5	8	2	17	7	6	4	2	2,530	14	14	925	5										
GRAND TOTAL										127						2,530		165,812		384		50		175		41		36		28		28		14	14	1,663	5									

SIGNING FOR RESURFACING PROJECTS



LEGEND	
	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

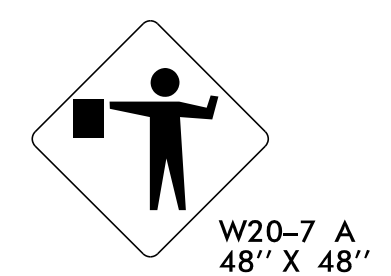
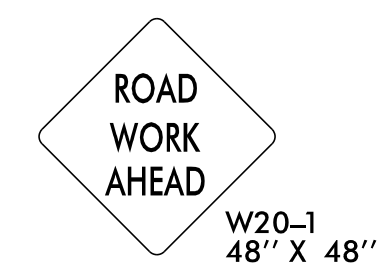
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1	 <small>W20-1 48" X 48"</small>	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.		
	2	 <small>W7-3aP 24" X 18"</small>	#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)		
	3 *	 <small>SP 13107 48" X 48"</small>	PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.		
	4	 <small>SP 13106 48" X 48"</small>	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.		
	5	 <small>G20-2 A 48" X 24"</small>	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.		

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

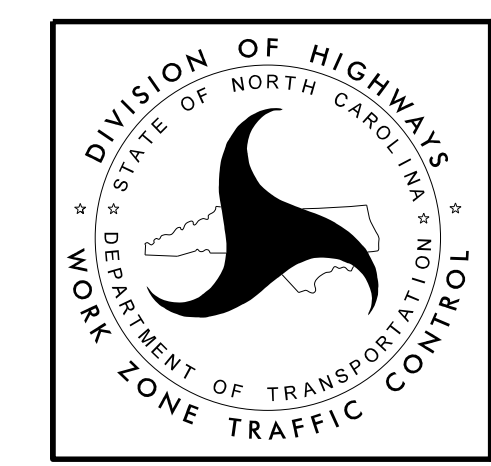
WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.



PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.

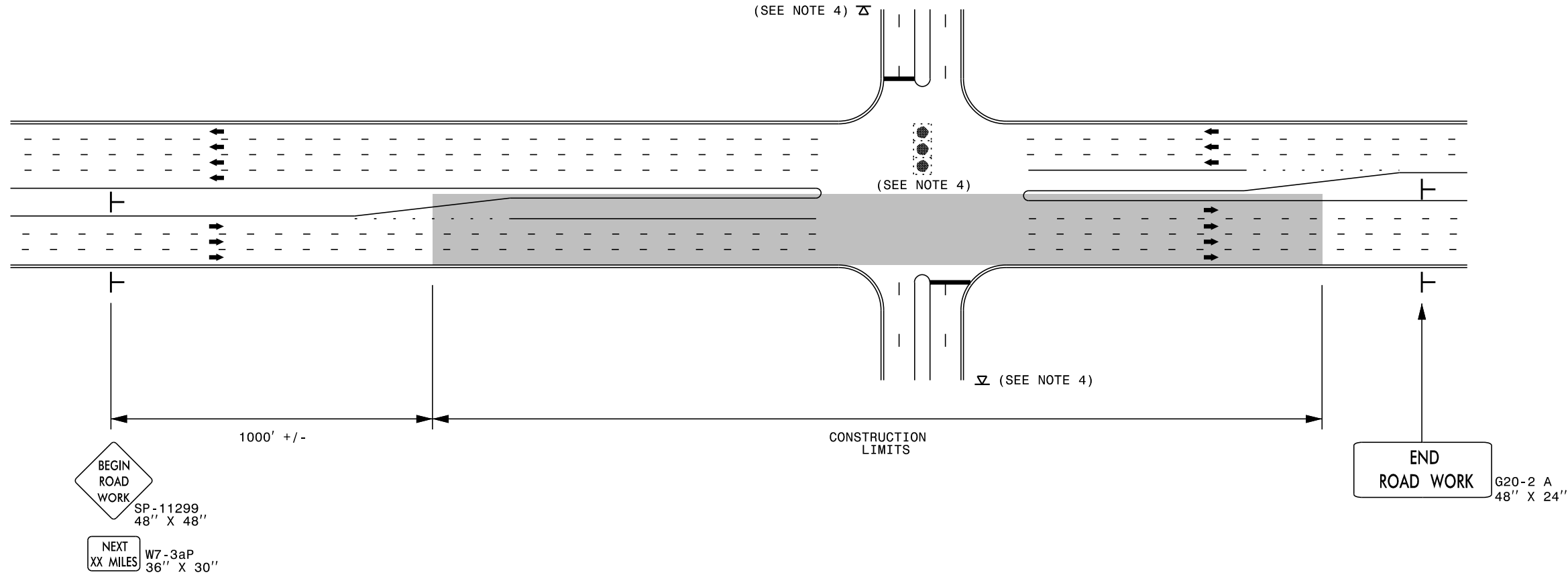
* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

SUBSTITUTE LOW/SOFT SHOULDER SIGNS BY ALTERNATING THE FOLLOWING TWO SIGNS:
 STARTING WITH "UNMARKED PAVEMENT AHEAD" (SP 06026) FOLLOWED BY "LOOSE GRAVEL" (W8-7).



**RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS**

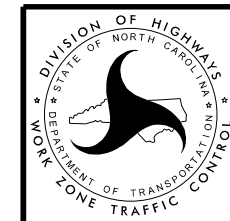
URBAN / SUBURBAN WORKZONES



NOTES:

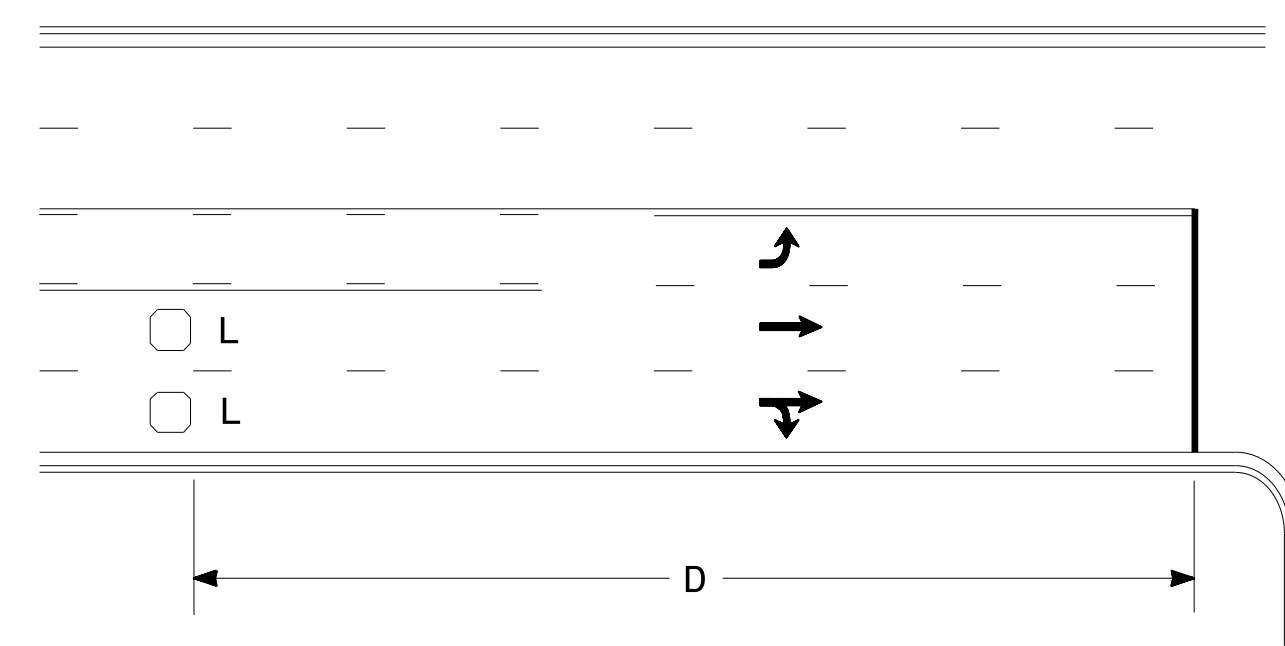
- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. 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	
└	STATIONARY SIGN
➔	DIRECTION OF TRAFFIC FLOW



**RESURFACING ADVANCE
WARNING SIGNS FOR
URBAN / SUBURBAN
FACILITIES**

High Speed Detection (≥40 mph)

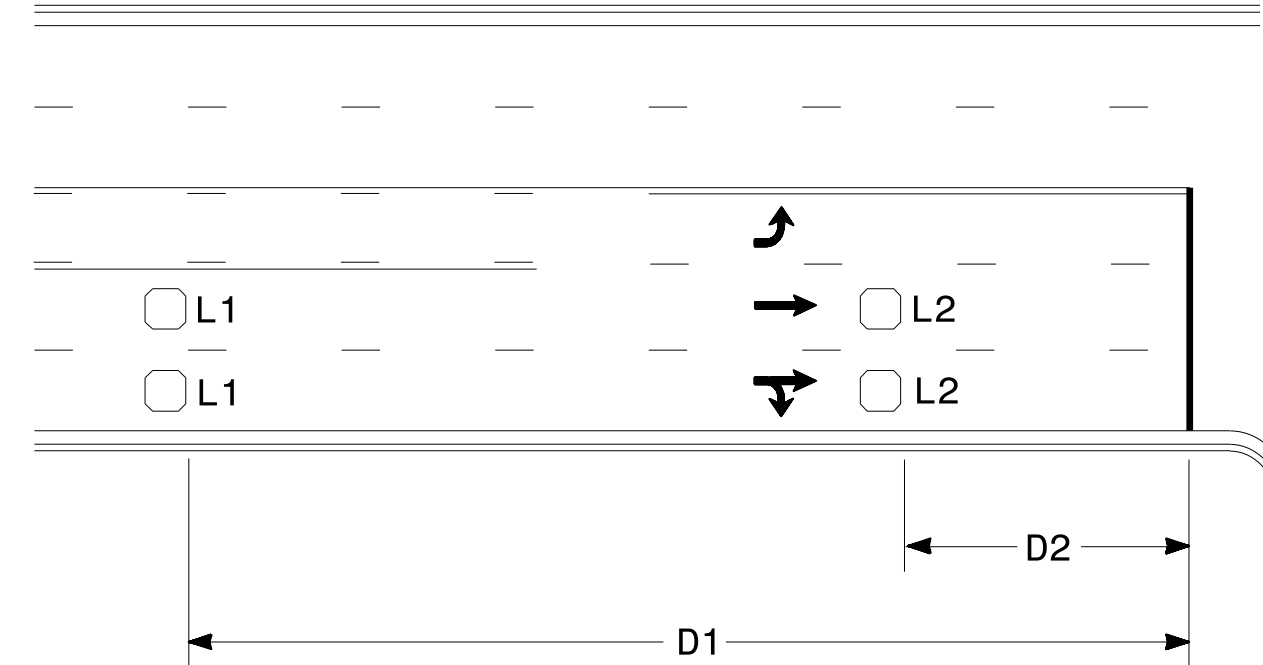


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired in series for TS1
Controllers
Wired separately for TS2,
170, and 2070L Controllers

Volume Density Operation

OR

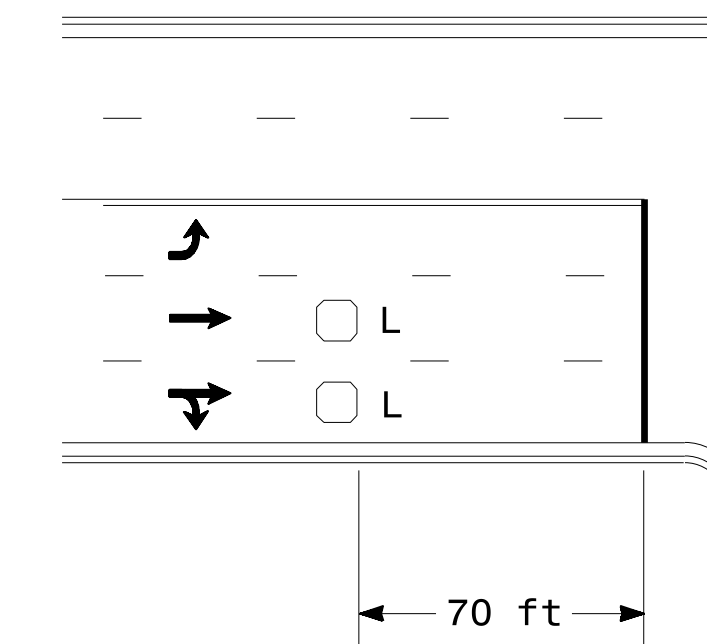


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series
L2 = 6ft X 6ft
Wired in series

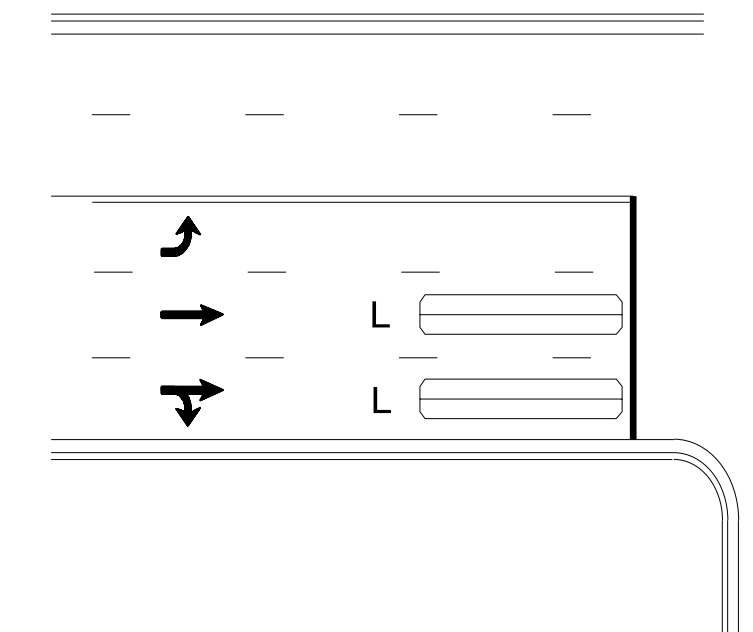
"Stretch" Operation

Low Speed Detection (≤35 mph)



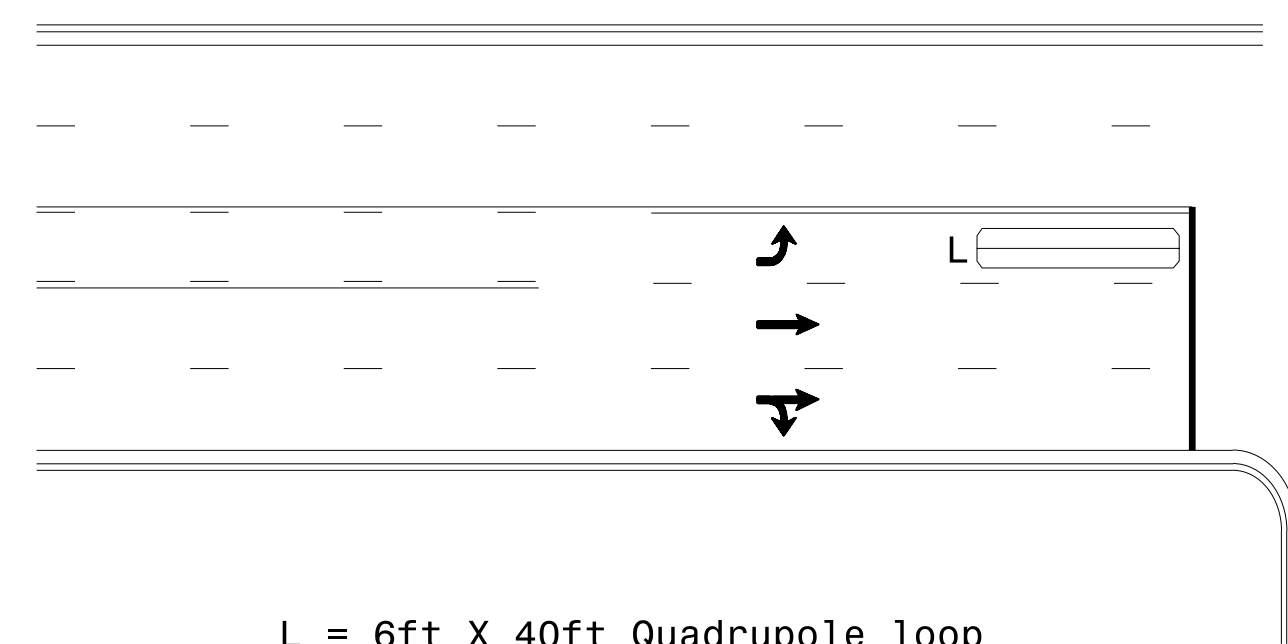
L = 6ft X 6ft
Wired in series

OR



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

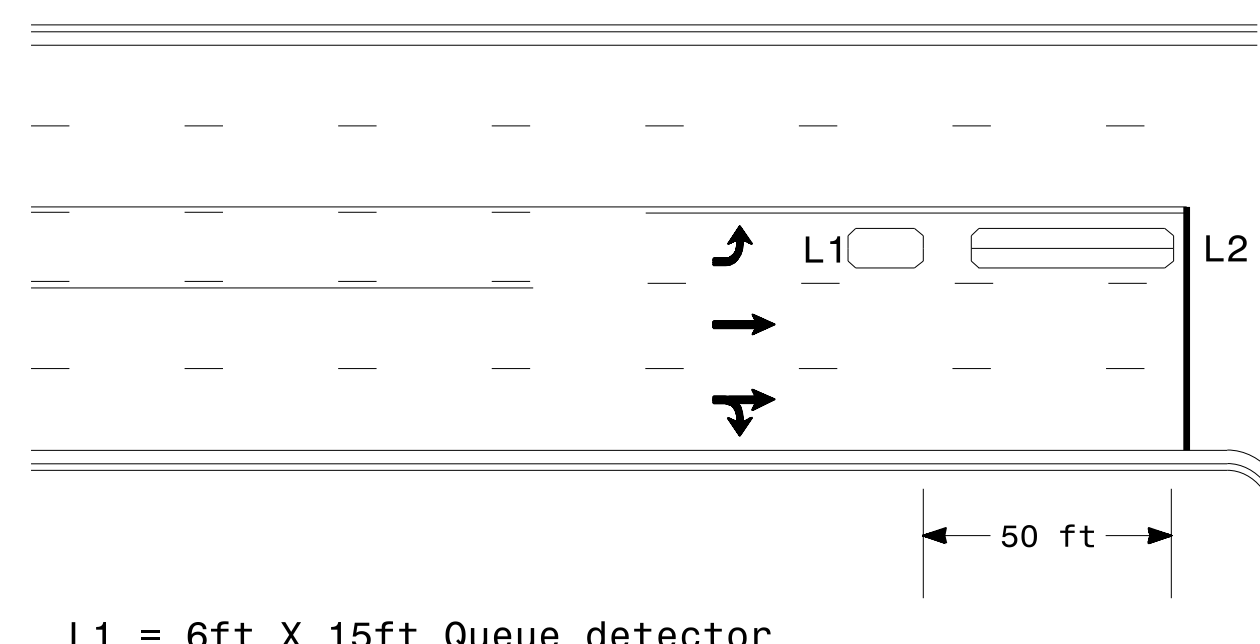
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

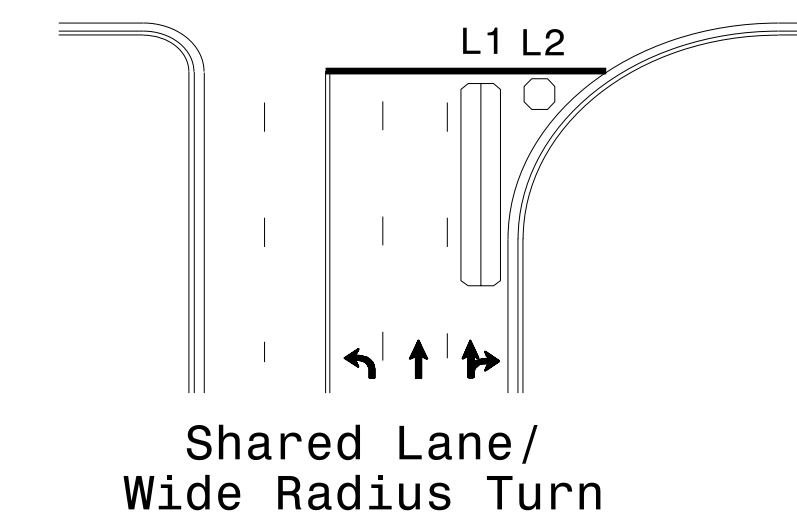
OR



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

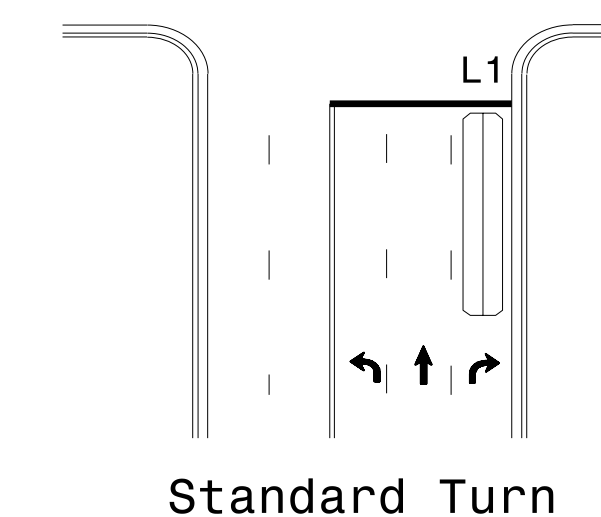
Queue Loop Detection

Right Turn Lane Detection

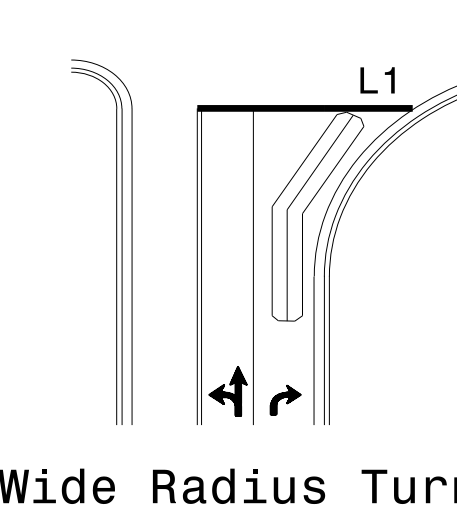


Shared Lane/
Wide Radius Turn

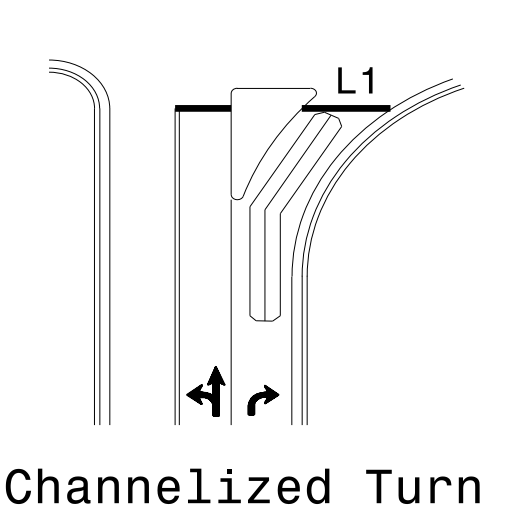
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

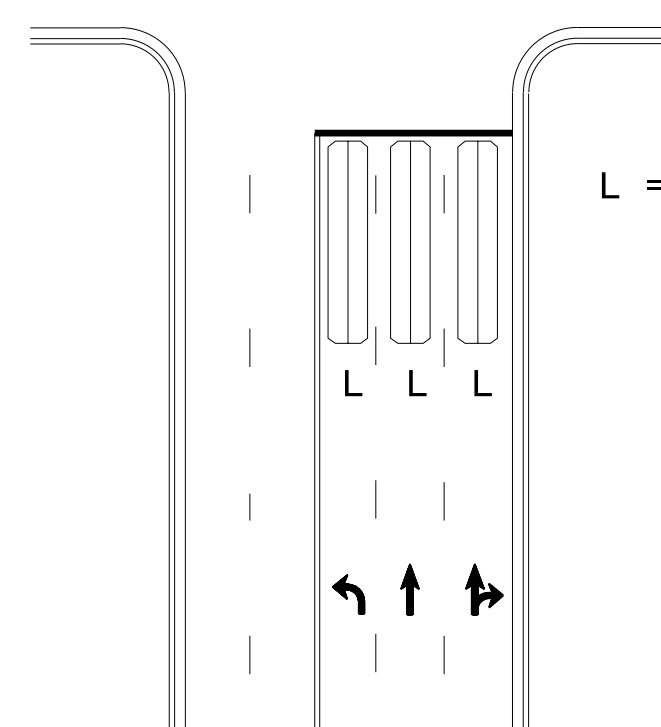


Wide Radius Turn



Channelized Turn

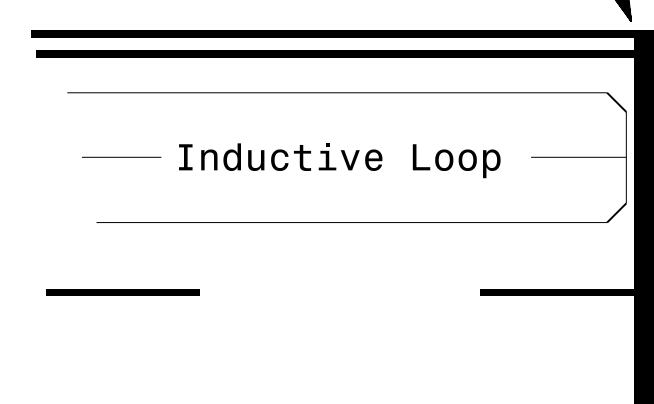
Side Street Detection



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

Presence Loop Placement at Stop Lines

Locate loop slightly
behind leading
edge of stop line



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

750 N. Greenfield Pkwy, Garner, NC 27529

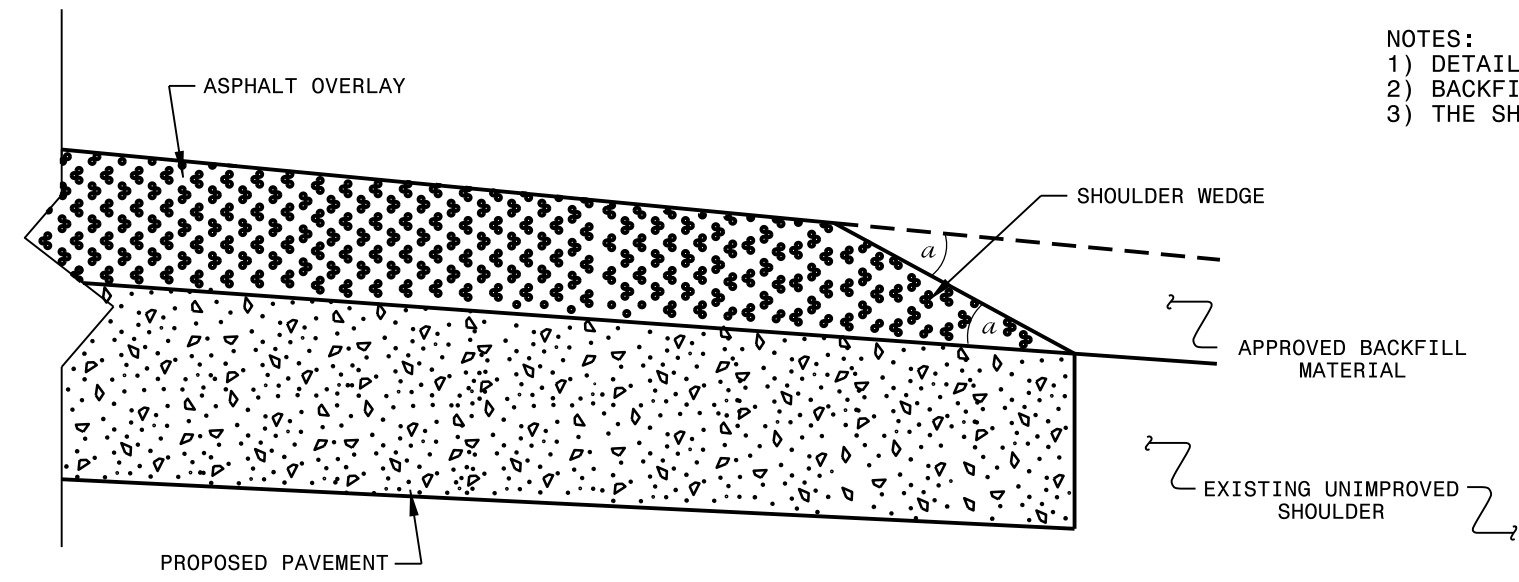
Typical Signal Loop Locations

PLAN DATE: January 2015	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:
REVISIONS	INIT. DATE

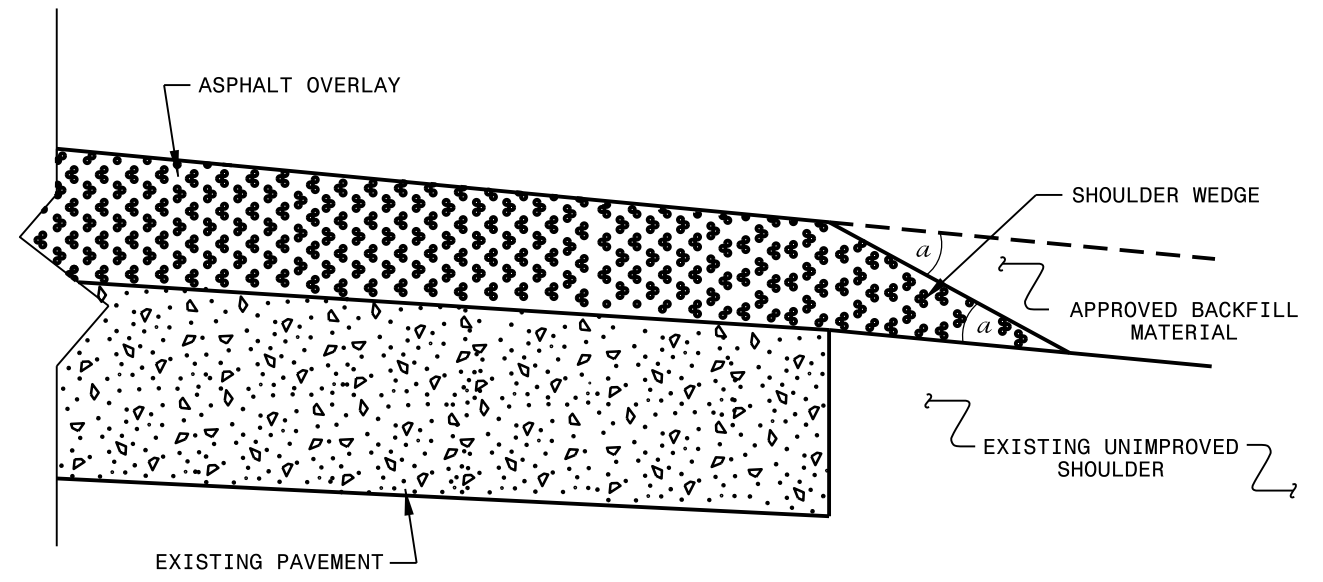
SEAL
NORTH CAROLINA
PROFESSIONAL ENGINEER
PAMELA L. ALEXANDER
23489

DocuSigned by:
P. Alexander
1/30/2015 10:44:44 AM

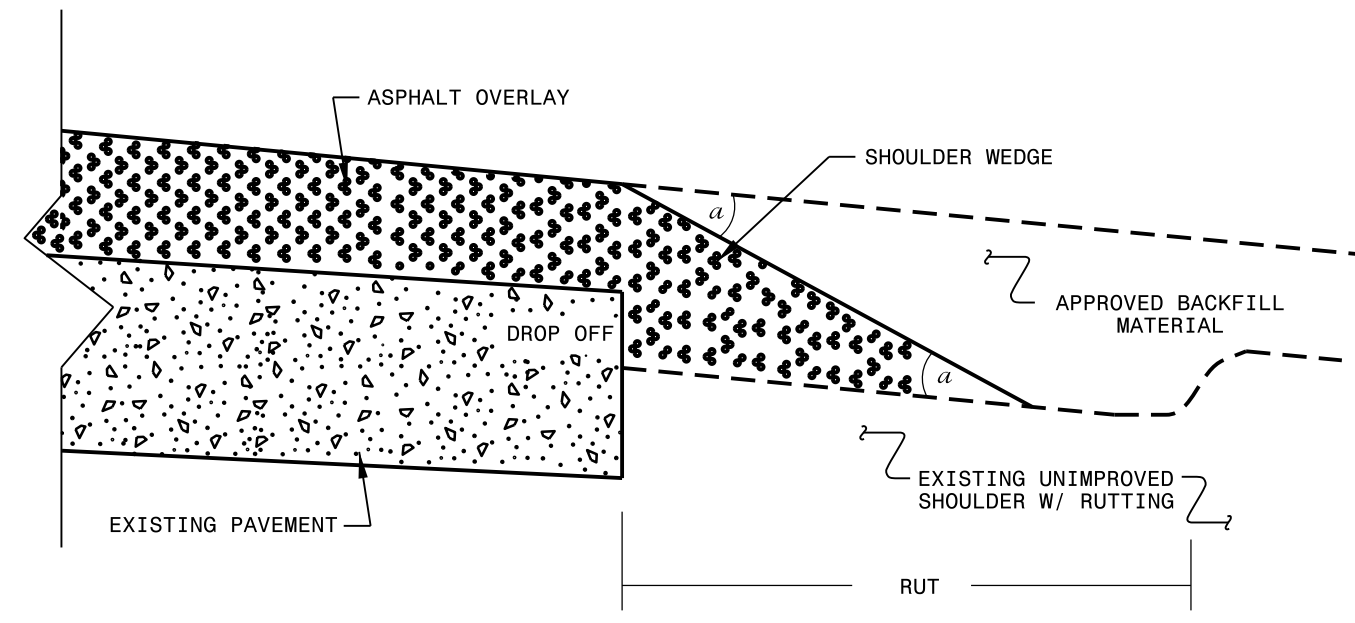
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFD AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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.: susr/details/stand/shoulderwedgedetail.dgn			

SYSTEMS DESIGN
 USER NAME

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

SOIL STABILIZATION TIMEFRAMES

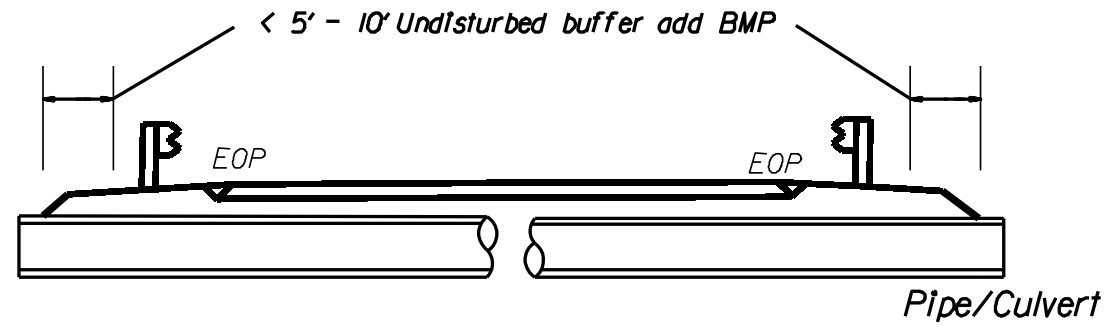
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.

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

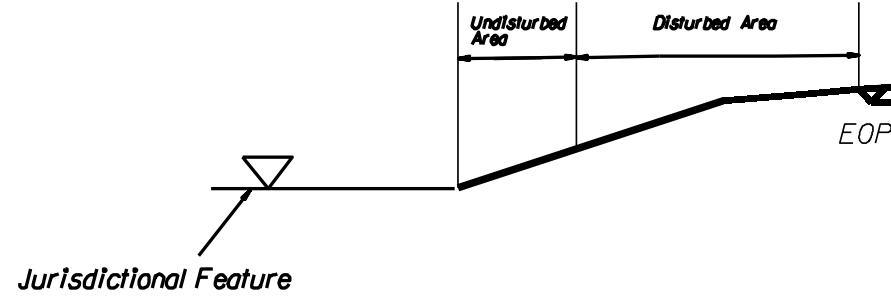
BMP Options: Wattle, Silt Fence, or Hardened Aggregate.

EROSION CONTROL DETAIL

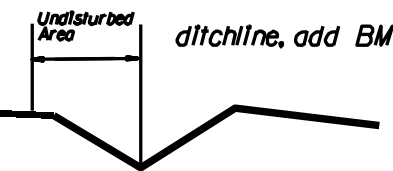
PROJECT REFERENCE NO. 1-1111	SHEET NO. 10-11/01/11
RDW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



< 5' - 10' Undisturbed buffer from jurisdictional feature add BMP



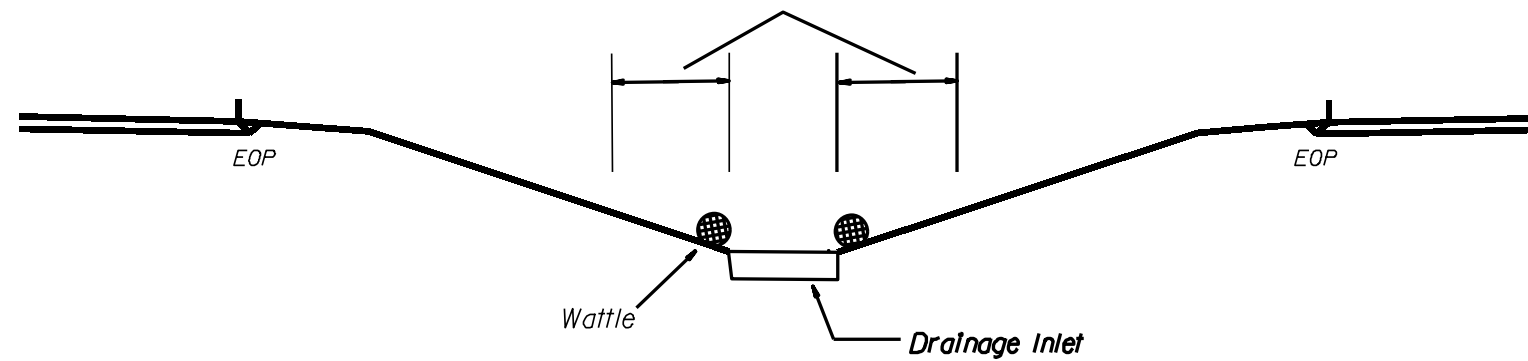
< 5' - 10' Undisturbed buffer from ditchline, add BMP



Use BMP's if shoulders and/or front slopes and/or ditchline and/or back slopes are disturbed

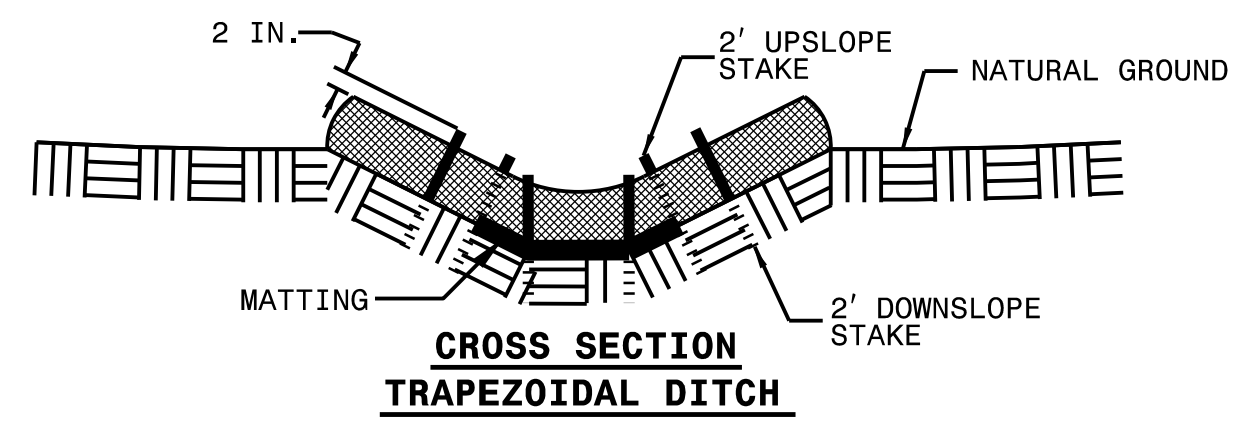
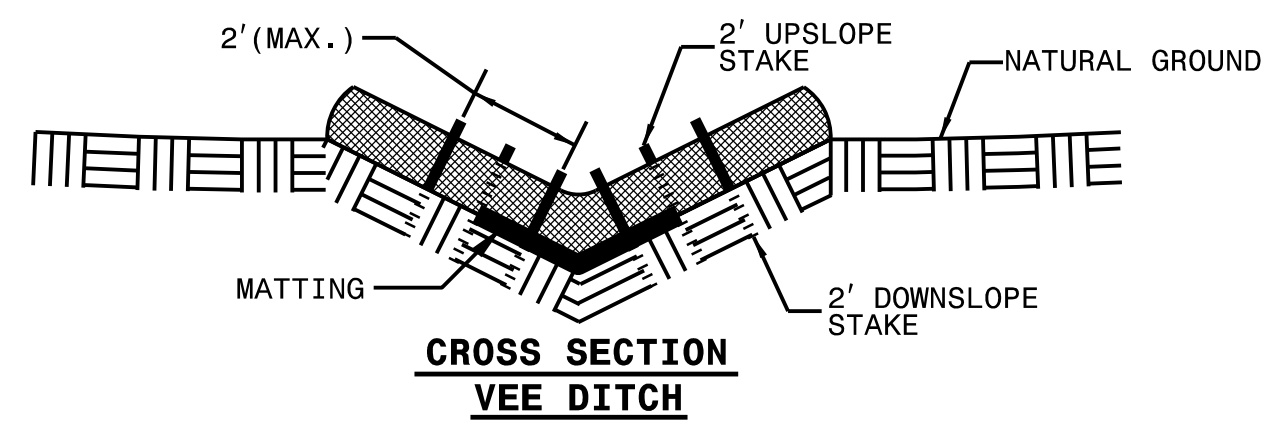
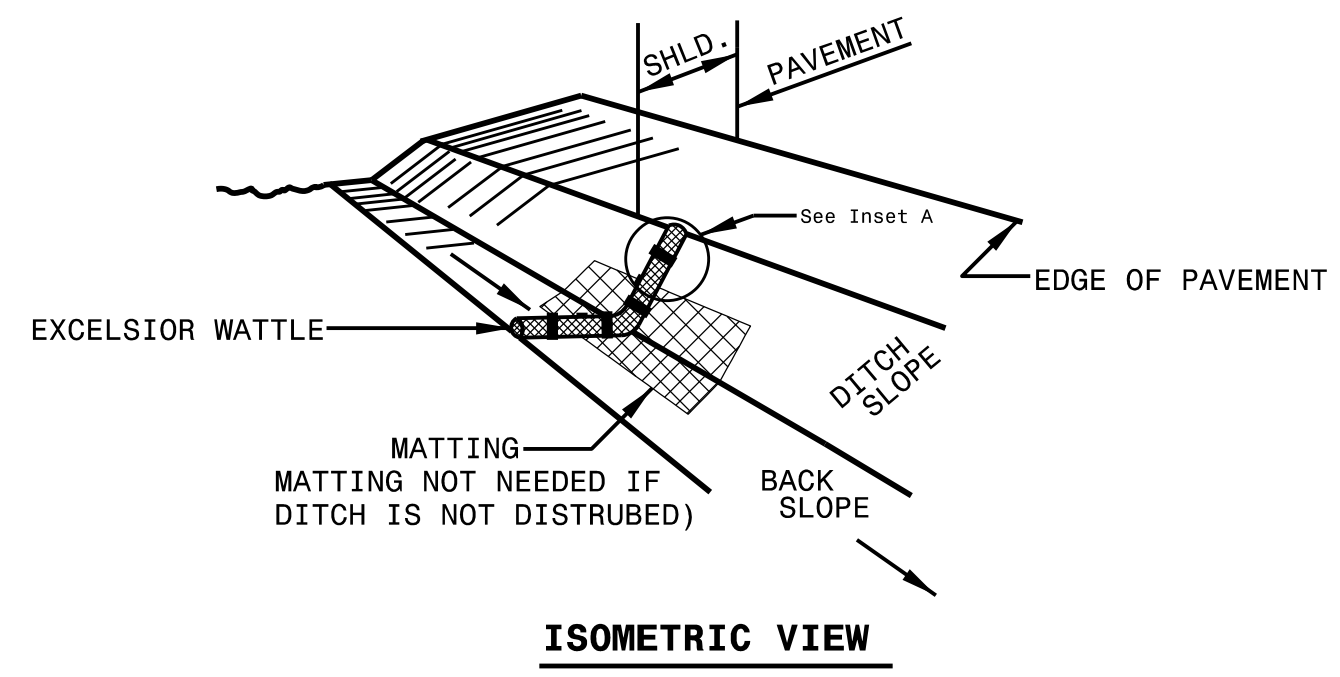


< 5' - 10' Undisturbed buffer from Inlet, add wattle



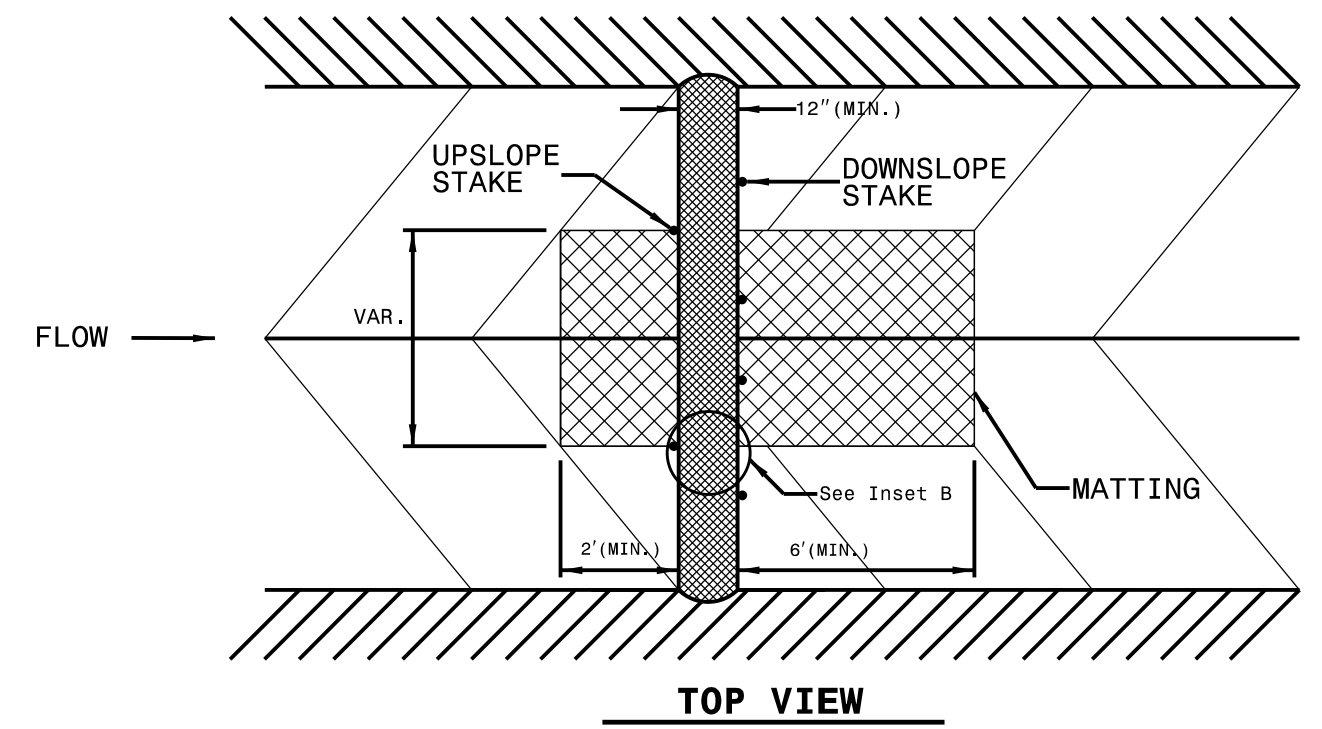
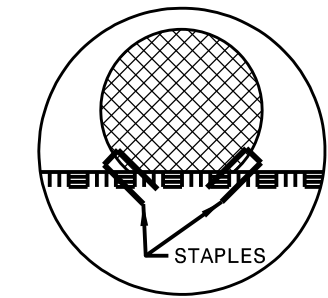
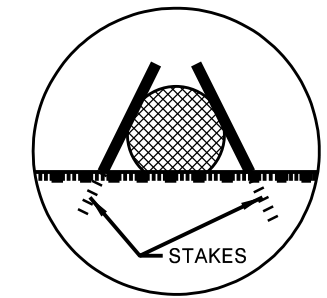
NOT TO SCALE

WATTLE DETAIL

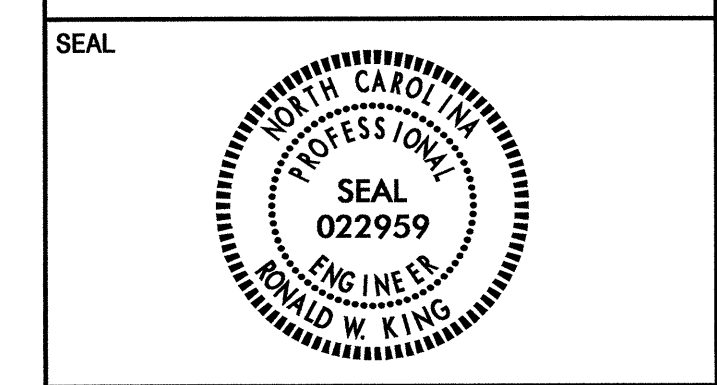


NOTES:

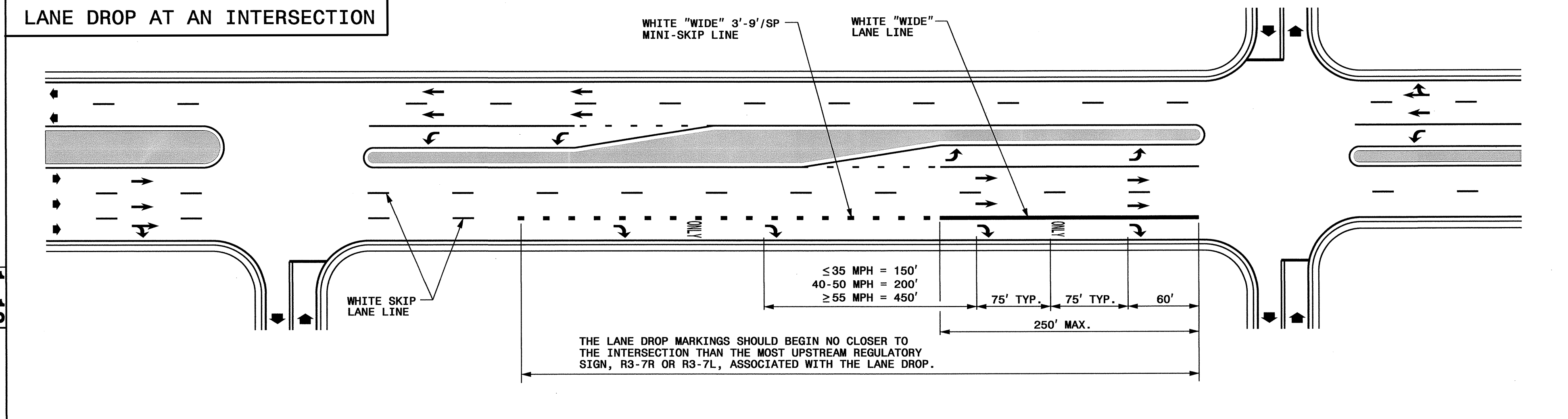
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- IF DITCH WILL BE DISTURBED, INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



APPROVED: *RW*
 DATE: 3/6/12

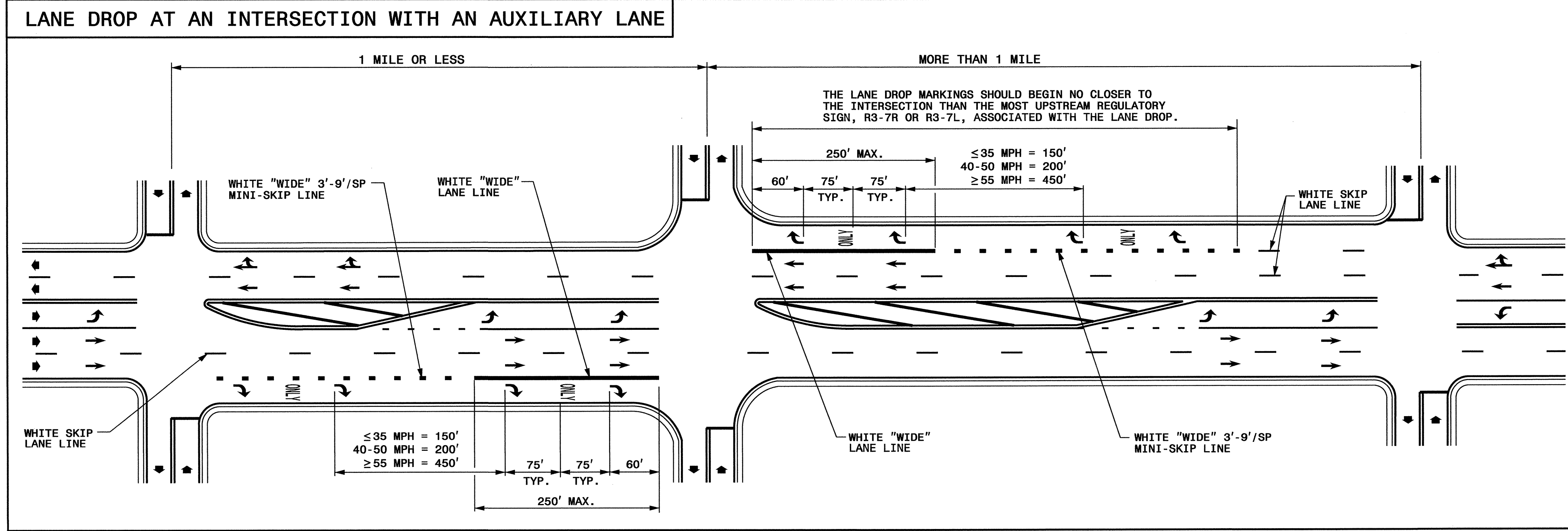


STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.
 1-12



STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.
 1-12

ENGLISH DETAIL DRAWING FOR
 PAVEMENT MARKINGS
 LANE DROPS



ENGLISH DETAIL DRAWING FOR
 PAVEMENT MARKINGS
 LANE DROPS

- GENERAL NOTES:
- 1- USE THE GUIDANCE SHOWN ON THE ABOVE DETAILS IN CONJUNCTION WITH INTERSECTION GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.04.
 - 2- LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.

LEGEND	
W = WIDTH OF TRAVEL LANE	ONLY PAVEMENT MARKING SYMBOLS & CHARACTERS
➔ DIRECTION OF TRAFFIC FLOW	

SHEET 1 OF 3
 1205D06

SHEET 1 OF 3
 1205D06

REVISED PAVEMENT MARKING
 ROADWAY STANDARD DRAWING

08-MAR-2012 11:09
 C:\Users\Standard\Drawings\Standard Drawings\2012 Standard Drawings\Group\PM\2012 Standard Drawings\1205D06\Revised 9-14-11_Scaled.dgn
 DISTORSES AT 1:22:44:74