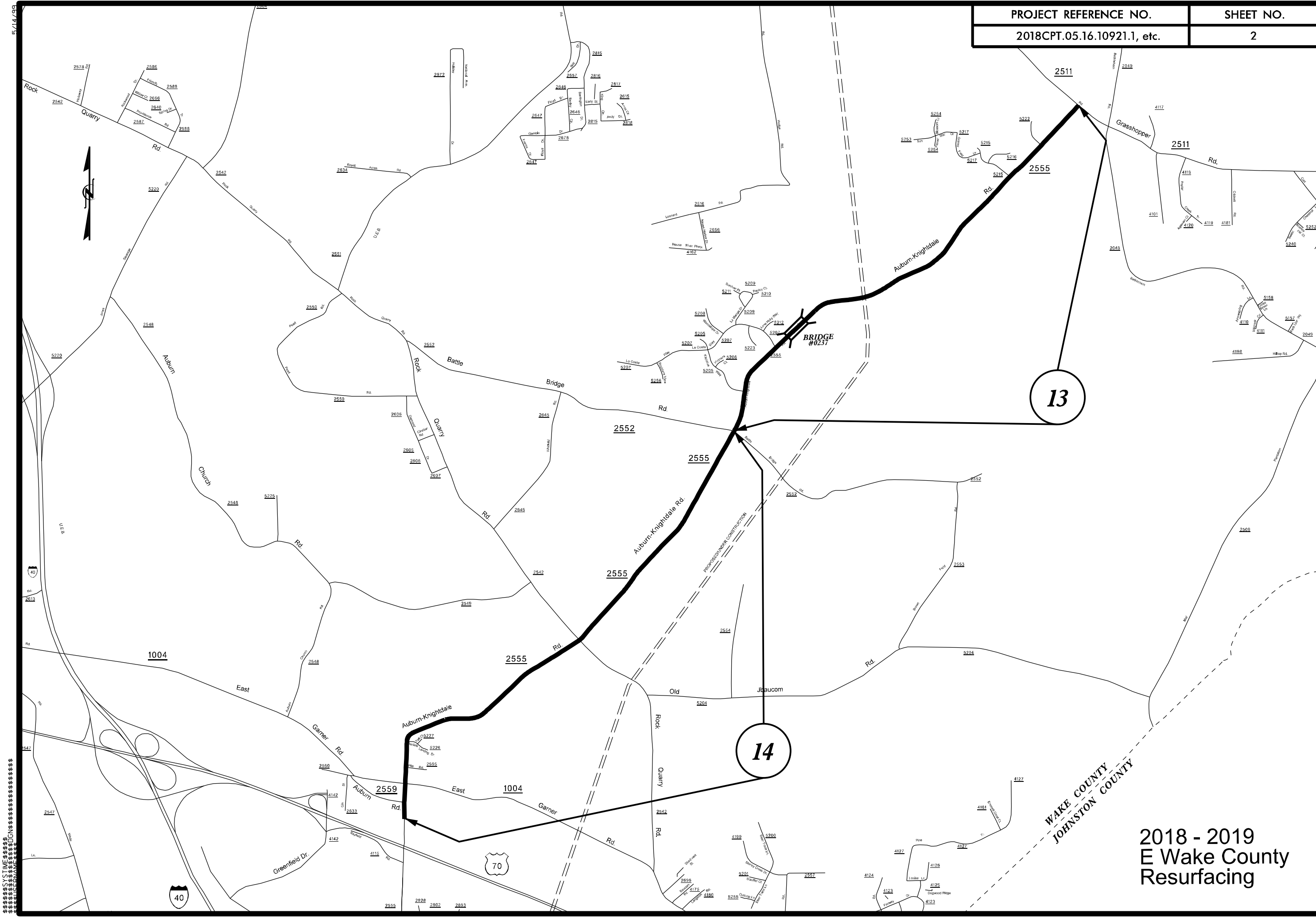


2018 - 2019
E Wake County
Resurfacing

5/14/19
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13

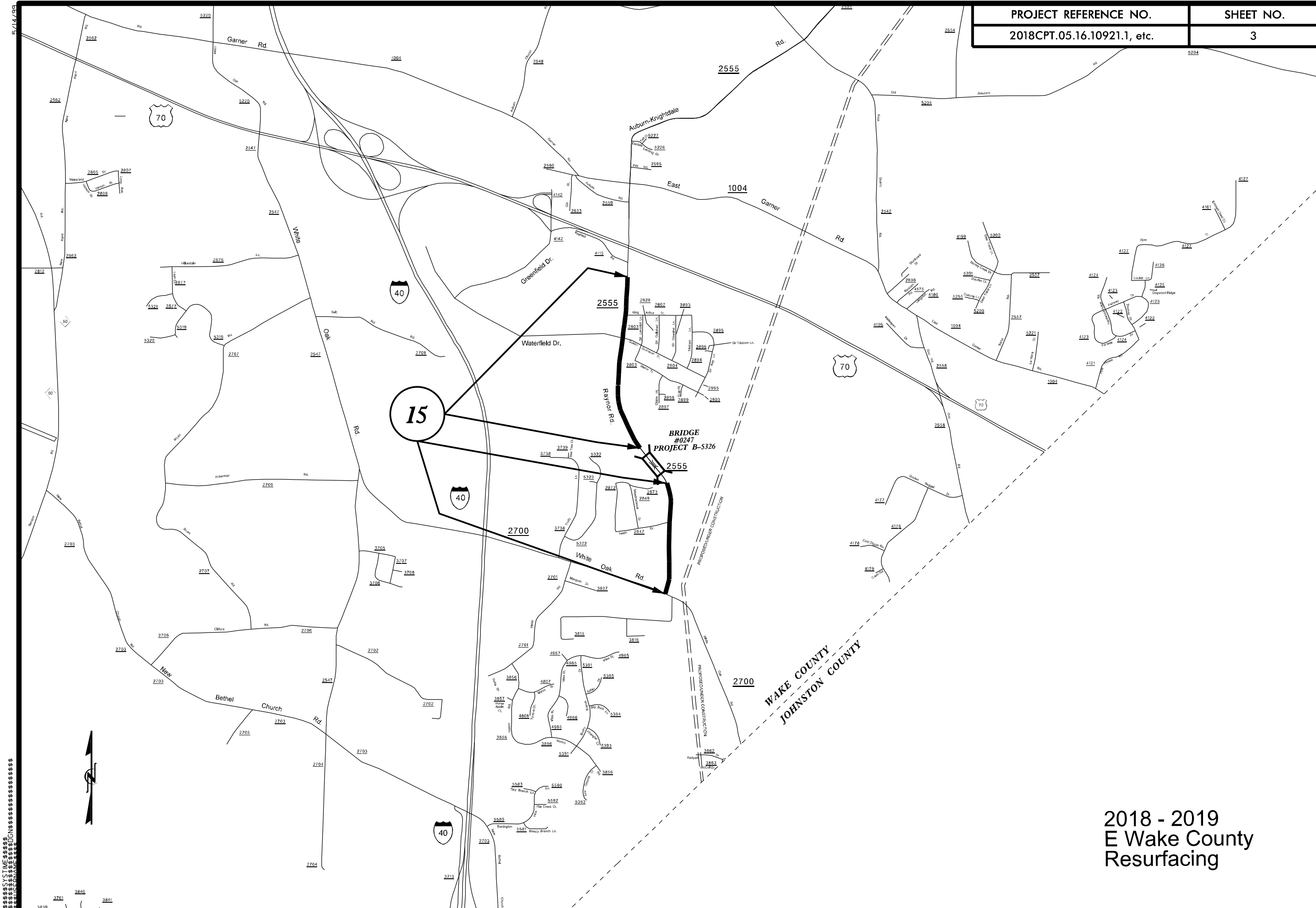
14

WAKE COUNTY
JOHNSTON COUNTY

2018 - 2019
E Wake County
Resurfacing

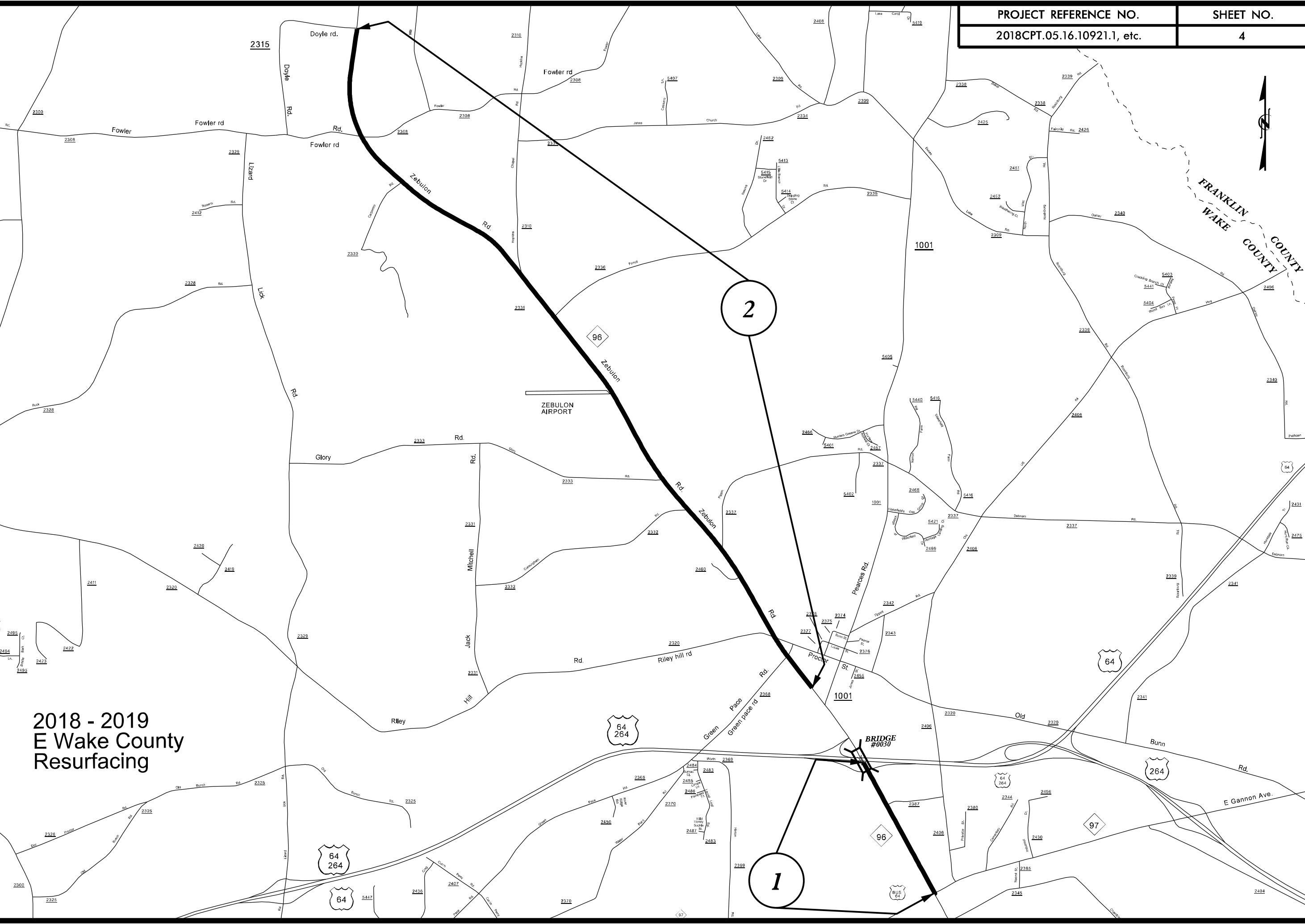
5/14/19





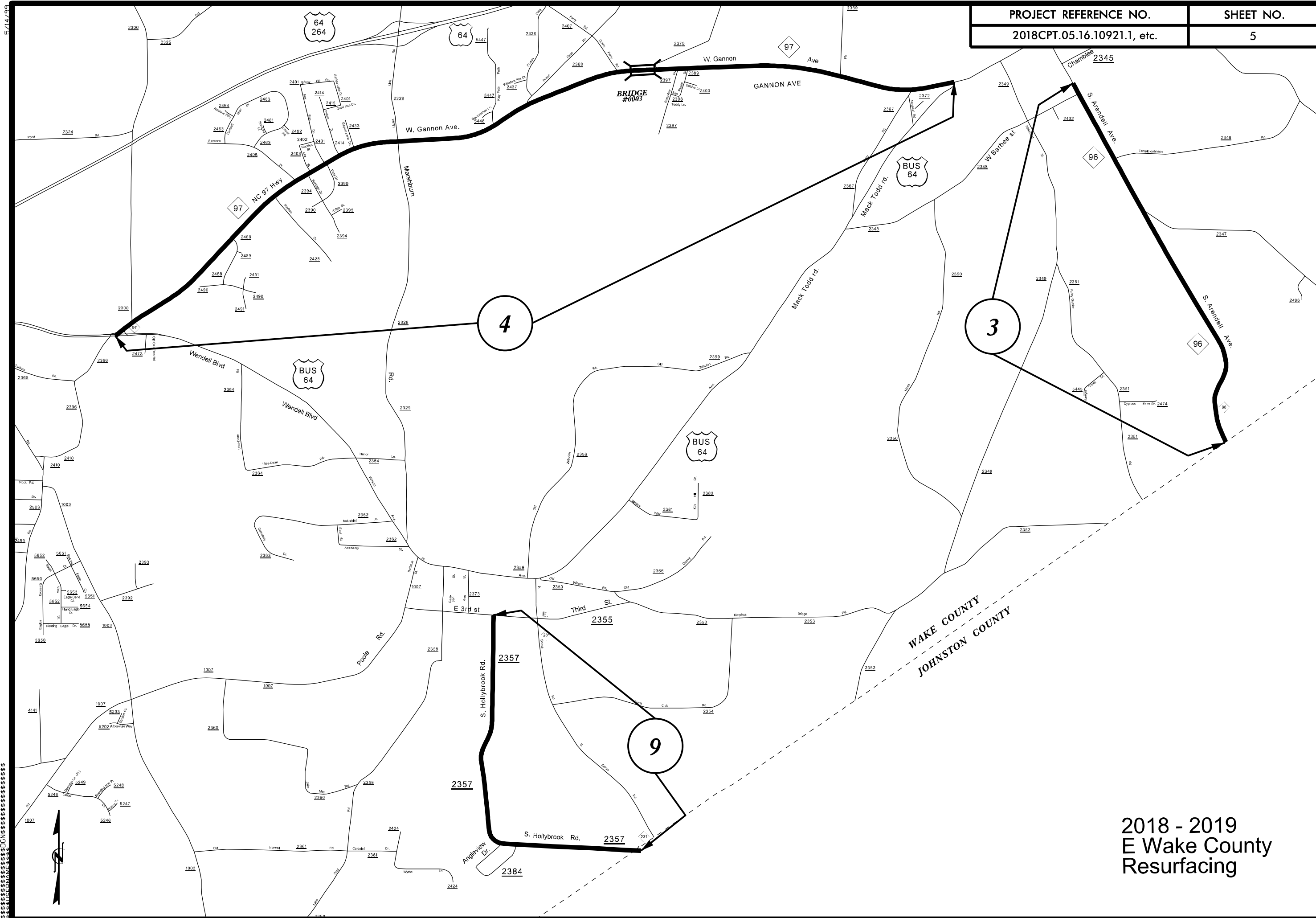
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2018 - 2019
E Wake County
Resurfacing



FRANKLIN COUNTY
WAKE COUNTY

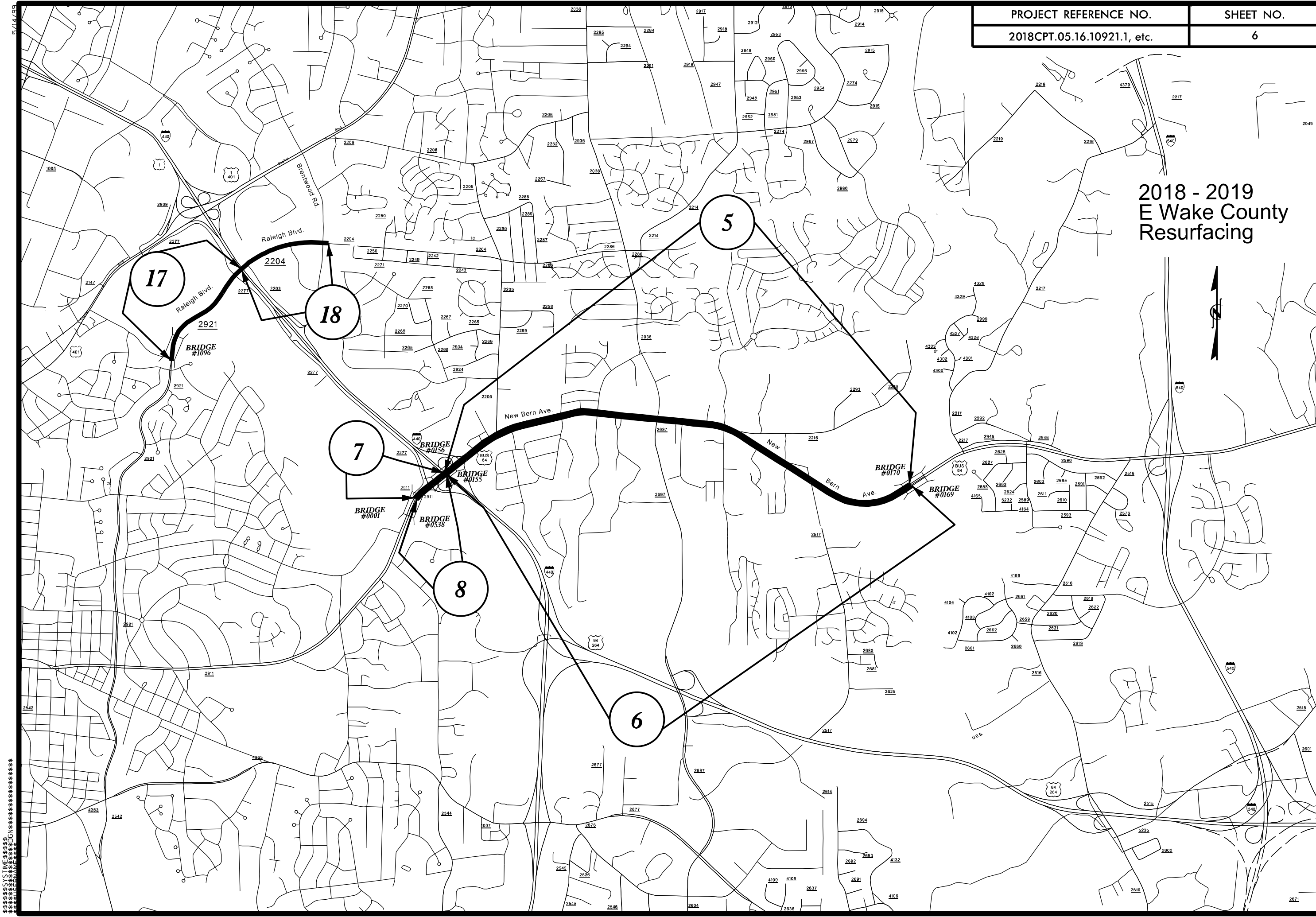
5/14/19



2018 - 2019
E Wake County
Resurfacing

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 5/14/19

2018 - 2019
E Wake County
Resurfacing



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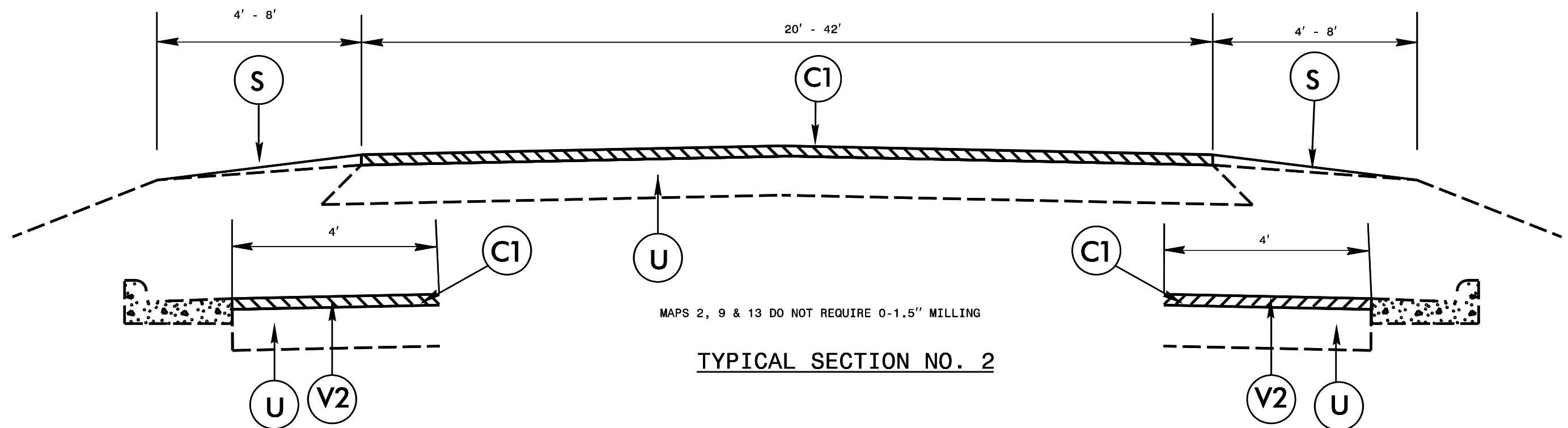
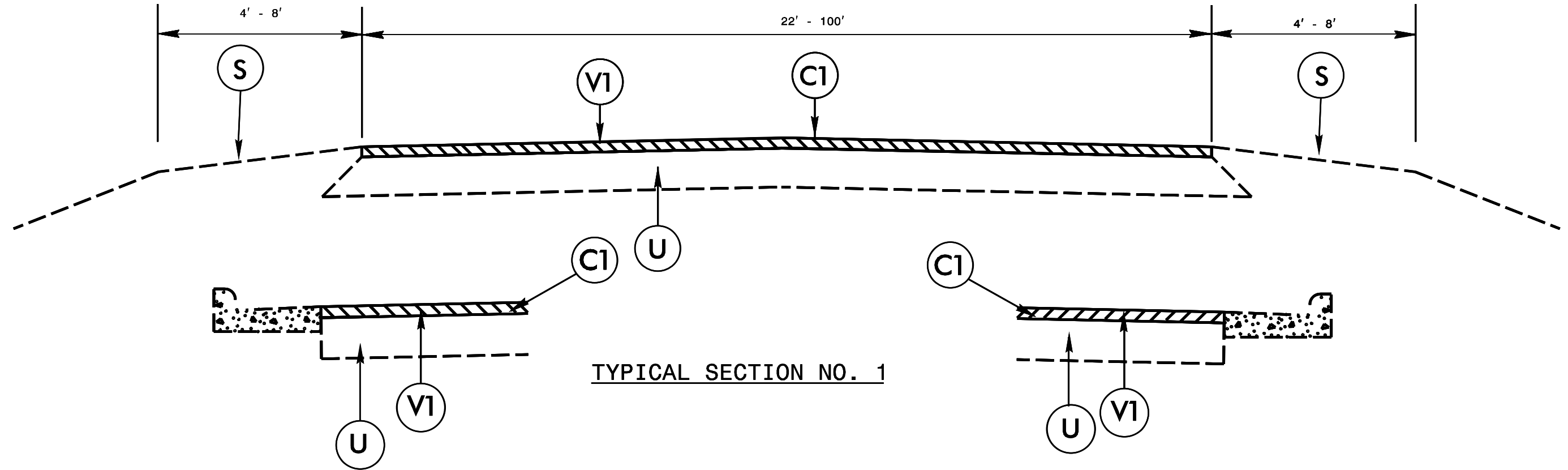
PAVEMENT SCHEDULE

S SHOULDER GRADING
ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)

PROJECT REFERENCE NO.
2018CPT.05.16.10921.1, etc.

SHEET NO.
7

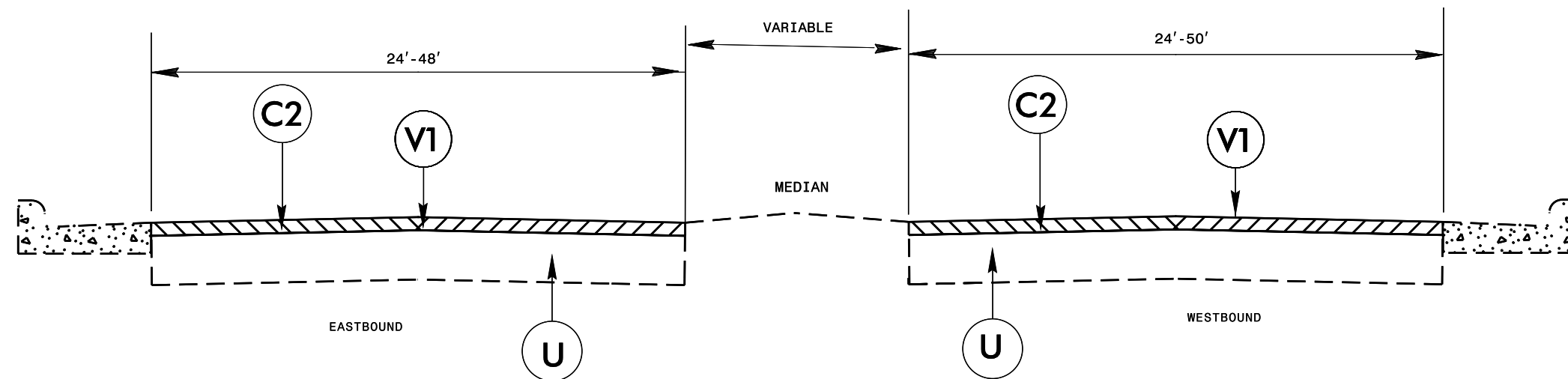
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	0-1½" MILLING (AS DIRECTED BY THE ENGINEER)
V1	1½" MILLING		



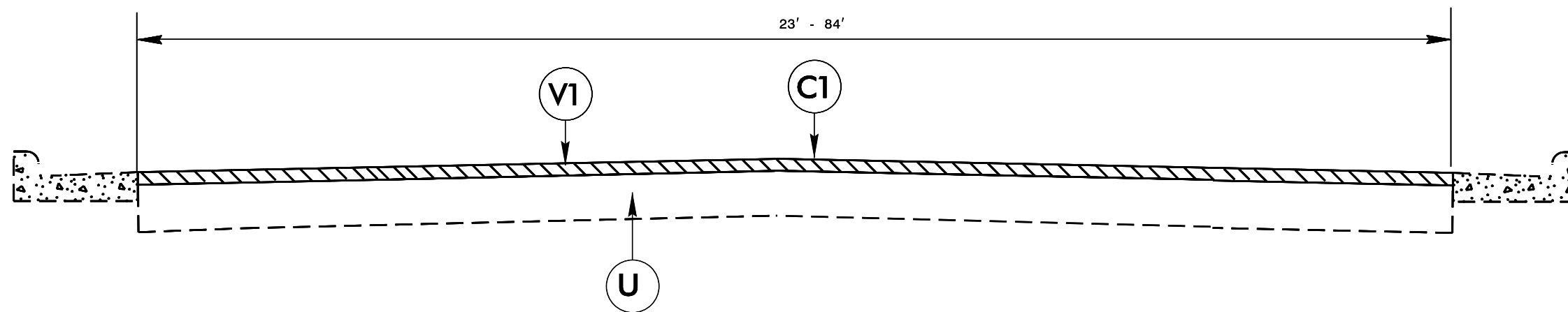
PAVEMENT SCHEDULE

		S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	0-1½" MILLING (AS DIRECTED BY THE ENGINEER)
V1	1½" MILLING		

PROJECT REFERENCE NO.	SHEET NO.
2018CPT.05.16.10921.1, etc.	8



TYPICAL SECTION NO. 3



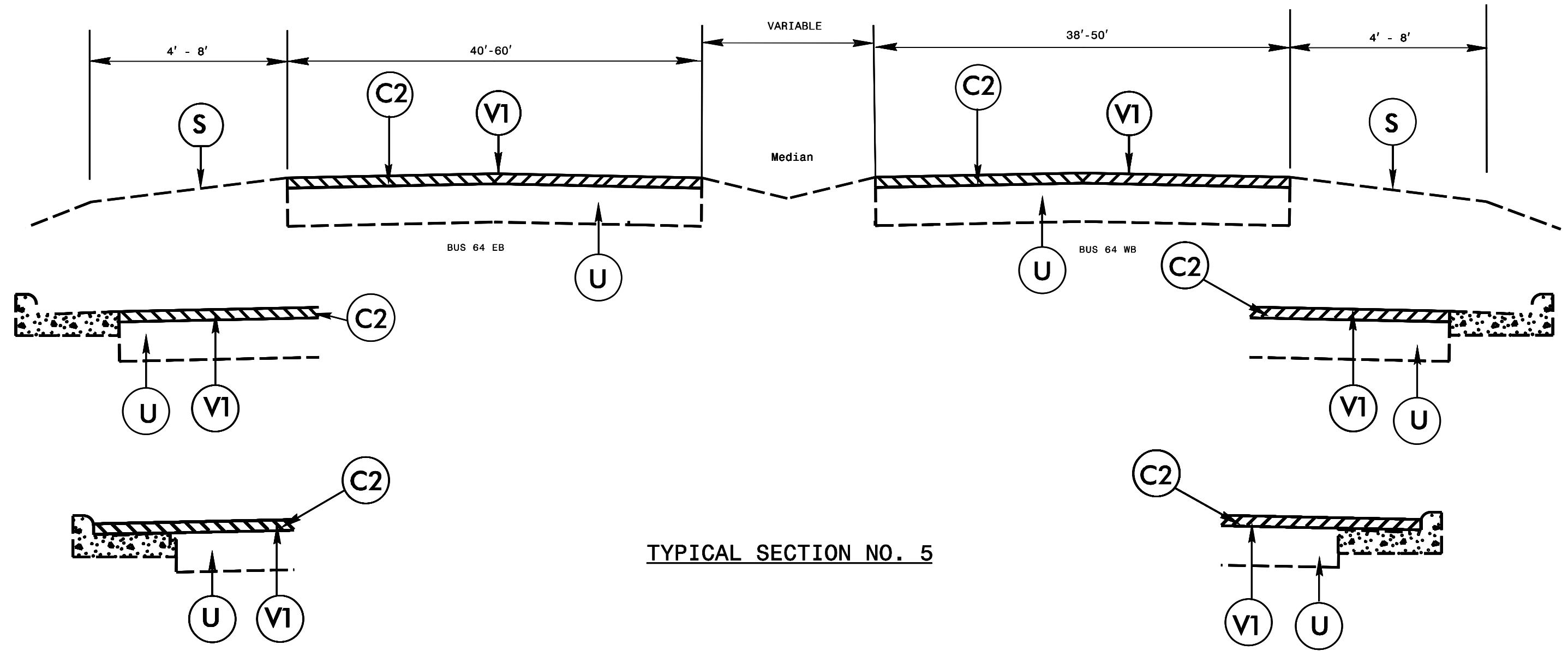
TYPICAL SECTION NO. 4

PAVEMENT SCHEDULE

		S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	0-1½" MILLING (AS DIRECTED BY THE ENGINEER)
V1	1½" MILLING		

PROJECT REFERENCE NO.
2018CPT.05.16.10921.1, etc.

SHEET NO.
9



TYPICAL SECTION NO. 5

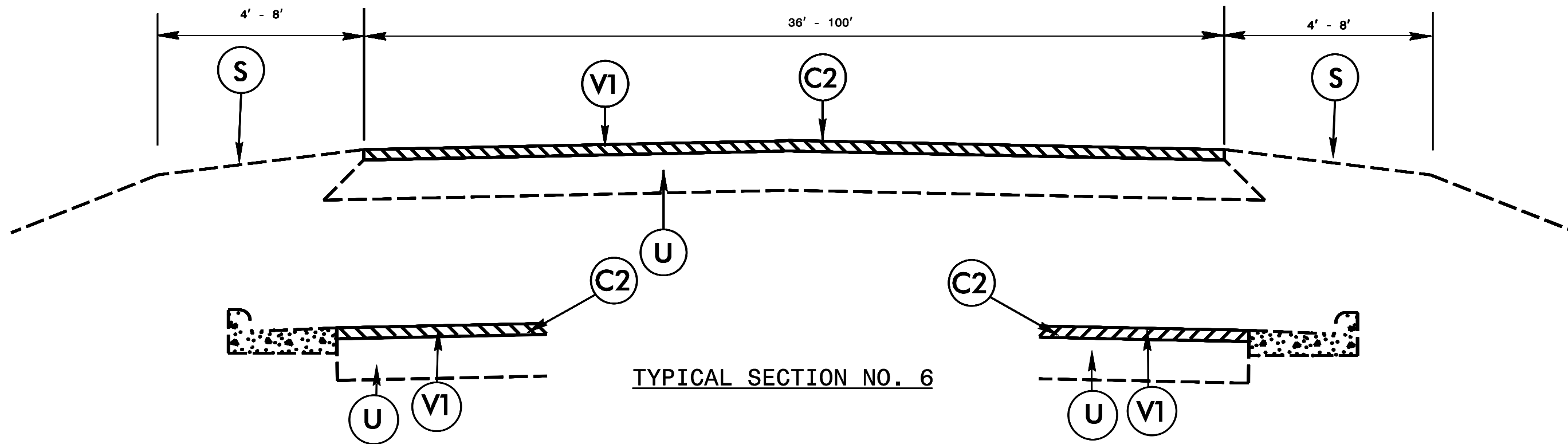
PAVEMENT SCHEDULE

S SHOULDER GRADING
ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)

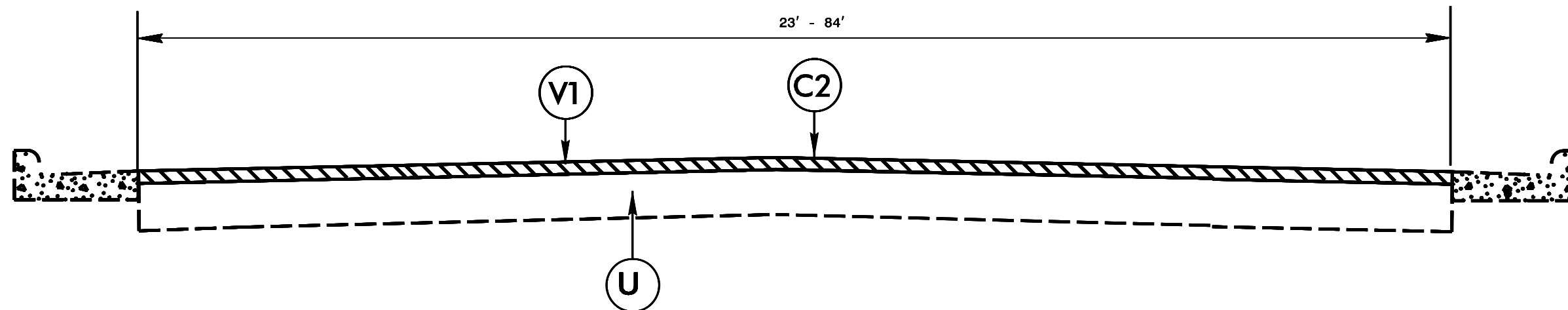
PROJECT REFERENCE NO.
2018CPT.05.16.10921.1, etc.

SHEET NO.
10

C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	0-1½" MILLING (AS DIRECTED BY THE ENGINEER)
V1	1½" MILLING		



TYPICAL SECTION NO. 6



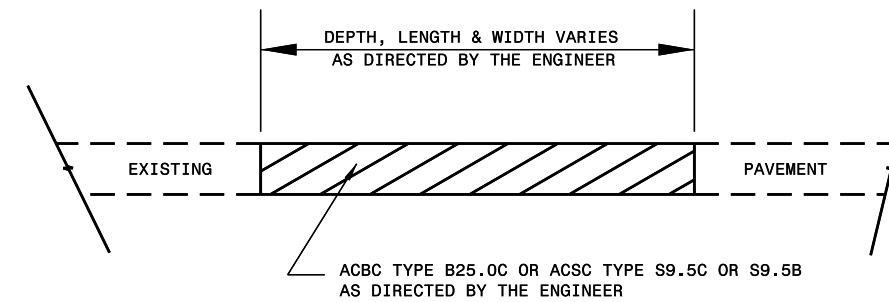
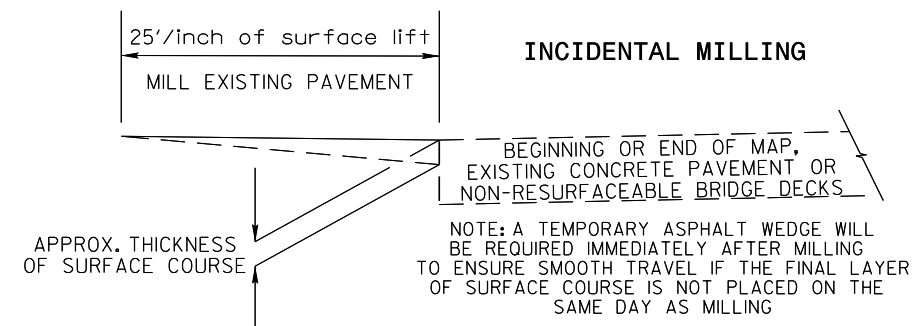
TYPICAL SECTION NO. 7

PAVEMENT SCHEDULE

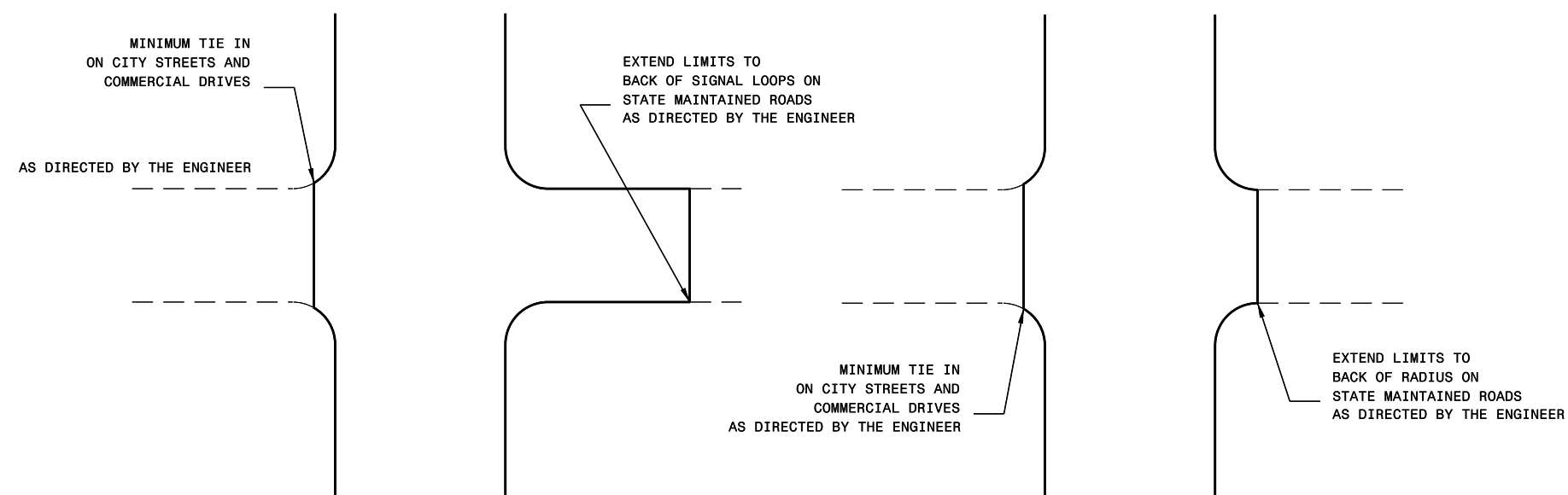
		S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	0-1½" MILLING (AS DIRECTED BY THE ENGINEER)
V1	1½" MILLING		

PROJECT REFERENCE NO.	SHEET NO.
2018CPT.05.16.10921.1, etc.	11

NOTE
 ALL UNPAVED S.R. ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.
 ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADIUS OR AS DIRECTED BY THE ENGINEER.
 EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
 BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.



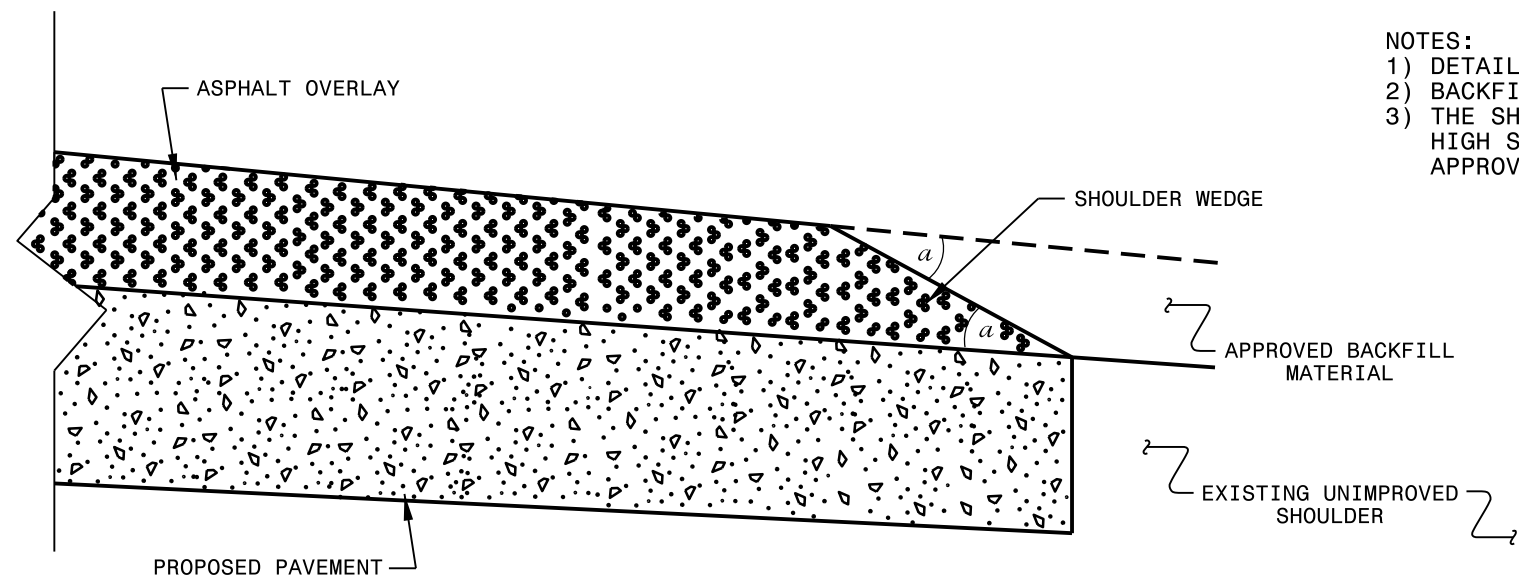
PATCHING EXISTING PAVEMENT
 MILLING TO BE PERFORMED PRIOR TO PATCHING



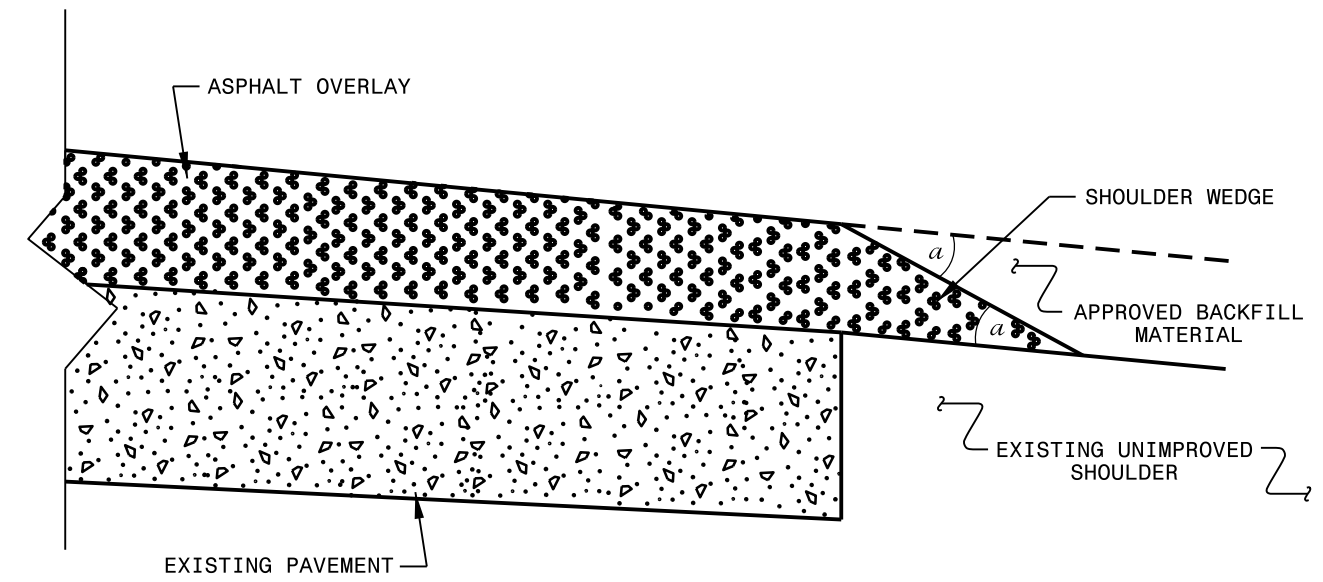
DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES

DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES

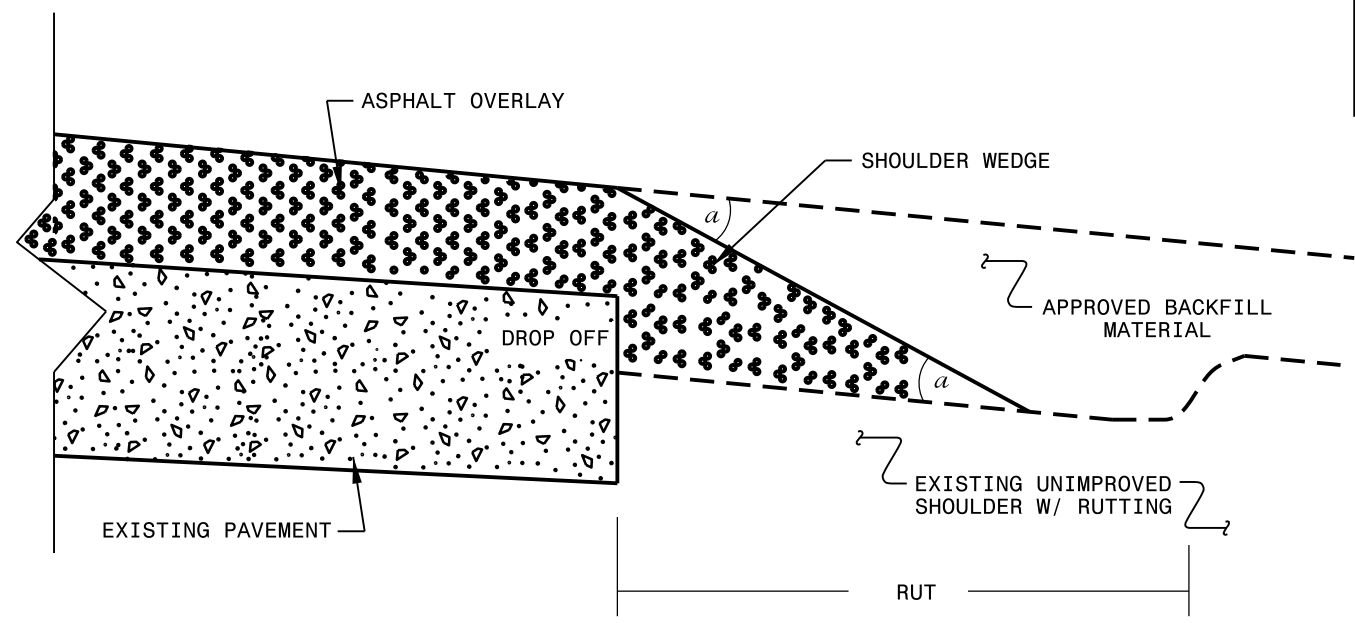
- NOTES:
 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



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.: szusr/details/stand/shoulderwedgedetail.dgn		

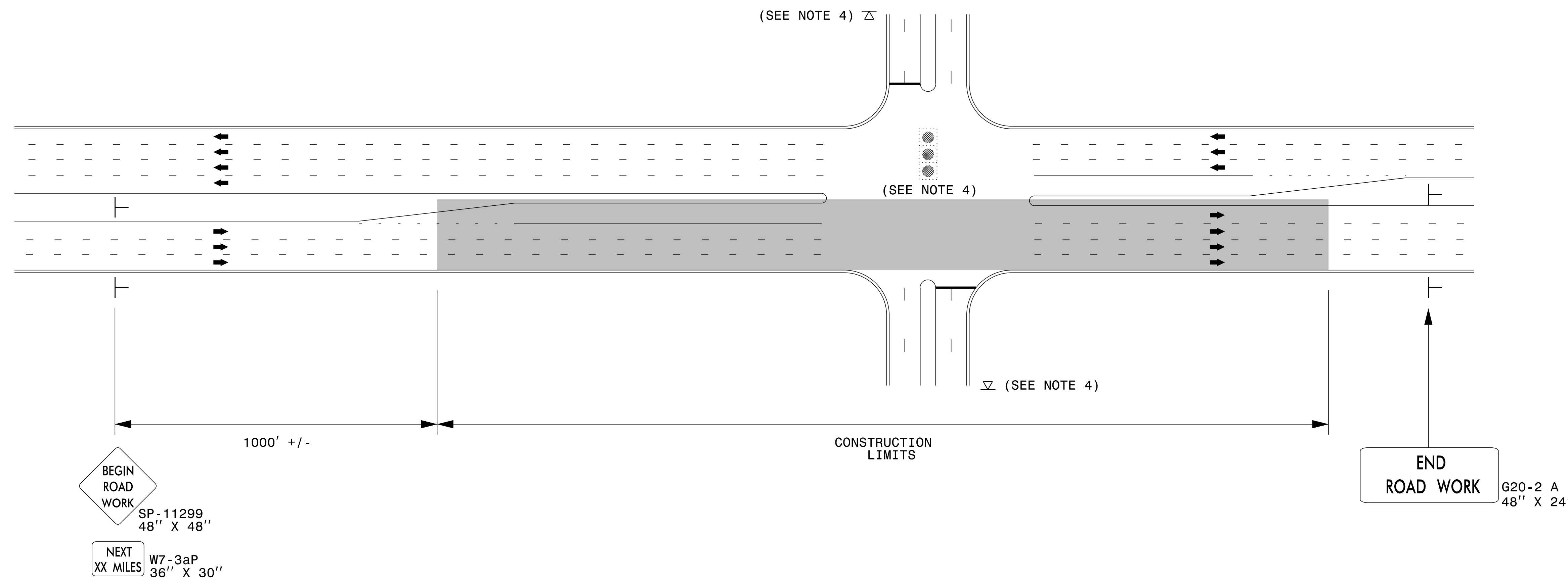
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PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.05.16.10921.1,etc.	13	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANE S	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BORROW	AGGREGATE SHOULDER BORROW (ASB)	SHOULDER GRADING	INCIDENTAL STONE BASE	1½" MILLING	0" TO 1.5" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5B	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	ADJ. OF DROPPINGS	ADJ. OF MANHOLES	ADJ. OF METER OR VALVE BOXES	TEMP. SILT FENCE	WATTLE	SEED & MULCHING	INDUCTIVE LOOP SAW-CUT		
									MI	FT	CY	TON	SMI	TONS	SY	SY	SY	TONS	TONS	TON	TONS	EA	EA	EA	LF	LF	AC	LF		
2018CPT.05.16.10921.1	Wake	1	BUS 64/NC 96 - N ARENDELL AVE	NC 97 - E GANNON AVE TO US 64/264	4	4	NO	NO	0.78	40-68					19,903		142	1,729		116	100		4	17				1,660		
		2	NC 96 - ZEBULON RD / N ARENDELL AVE	.1 MI N OF SR 1001 - PEARCES RD TO SR 2315 - DOYLE RD	2	2	NO	NO	4.237	25	212	407	8.47	212				3,912	5,771		387	250	1	2	12	308	780	3.00		
		3	NC 96 - S ARENDELL AVE	JOHNSTON CO TO RR TRACKS	2	2	NO	NO	2.1	25-42	142	68	3.55	89			3,312	1,181	3,012		202	100		5	1	206	520	2.00		
		4	NC 97 - NC 97 HWY/W GANNON AVE	US 64 BUS - WENDELL BLVD TO US 64 BUS - MACK TODD RD	2	2	NO	NO	4.82	24-32	376	181	9.00	235			549	2,817	7,301		489	250		3	3	547	1,370	5.00		
		5	BUS 64 WB - NEW BERN AVE	BRIDGE # 0170 TO I - 440	5	3	NO	NO	2.663	40-50	185			3.69	92	73,155			262		6,493	390	100				268	680	2.68	2,116
		6	BUS 64 EB - NEW BERN AVE	I - 440 TO BRIDGE # 0169	5	3	NO	NO	2.668	40-60	190			3.81	95	72,345			980		6,485	389	100				277	700	2.77	2,260
TOTAL FOR PROJ NO. 2018CPT.05.16.10921.1									17.268		1,105	656	28.52	723	165,403	3,861	9,294	17,813	12,978	1,973	900	1	14	33	1,606	4,050	15.45	6,036		
2018CPT.05.16.20921.1	Wake	7	SR 2911 - WB NEW BERN AVE	I-440 - TO BRIDGE # 0001	5	3	NO	NO	0.27	38-50	14		0.28	7	7,502		731		728	44	50				20	60	0.20	472		
		8	SR 2911 - EB NEW BERN AVE	BRIDGE # 0538 TO I- 440	5	3	NO	NO	0.27	50-60	14			0.27	7	9,466		316		865	52	50				20	50	0.20	890	
		9	SR 2357 - S HOLLYBROOK AVE	SR 2355 - E THIRD ST TO JOHNSTON CO	2	2	NO	NO	2.042	20	163	87	4.08	102					222	2,108		141	100		4	12	238	600	2.38	
		10	SR 2537 - CREECH RD	SR 2564 - SANDERFORD RD TO SR 2542 - ROCK QUARRY RD	1	2	NO	NO	0.87	26-40	19			0.37	9	17,580		1,107	1,624		109	45				27	70	0.27	408	
		11	SR 2542 - ROCK QUARRY RD	SR 2537 - CREECH RD TO WCPS DR.	6	2	NO	NO	1.05	52-100	53			1.05	26	37,318			1,779		3,449	207	50				76	200	0.76	
		12	SR 2542 - ROCK QUARRY RD	SR 2537 -CREECH RD TO SR 2544 - SUNNYBROOK RD	6	2	NO	NO	1.07	36-65	85	41	2.14	53	37,390				111		3,315	199	55				124	320	1.00	993
		13	SR 2555 - AUBURN-KNIGHTDALE RD	SR 2511 - GRASSHOPPER RD TO SR 2552 - BATTLE BRIDGE RD	2	2	NO	NO	2.6	22-31	130	250	5.20	130					760	2,991		200	130				189	480	2.00	
		14	SR 2555 - AUBURN-KNIGHTDALE RD	SR 2552 - BATTLE BRIDGE RD TO 800 FEET BEFORE US 70	1	2	NO	NO	2.86	22-35	143	275	5.72	143	37,449				864	3,337		224	145				208	520	2.08	
		15	SR 2555 - RAYNOR RD	SR 2700 - WHITE OAK RD TO 800 FEET SOUTH OF US 70	2	2	NO	NO	1.52	25-40	11	21	0.43	11			6,132	437	1,983		133	90					16	40	0.16	
		16	SR 2604 - EVA MAE DR	SR 5233 - OLD POOLE RD TO END MAINT	4	2	NO	NO	0.23	23-34							3,289			298		20	30							
		17	SR 2921 - RALEIGH BLVD	BRIDGE # 1096 - TO I - 440	4	4	NO	NO	0.593	52-84							20,958		1,198	1,923		129	107							986
		18	SR 2204 - RALEIGH BLVD	I 440 TO JOINT EAST OF BRENTWOOD RD	4	5	NO	NO	0.494	52-75							18,768		565	1,678		112	195							1,034
		19	SR 2921 - ROCK QUARRY RD	WCPS DR. TO SR 2921 - S RALEIGH BLVD	7,3	2	NO	NO	0.331	64-100							16,762		429		1,518	91	40							1,266
TOTAL FOR PROJ NO. 2018CPT.05.16.20921.1									14.200		632	674	19.54	488	206,482	6,132	8,648	15,942	9,875	1,661	1,087		4	12	918	2,340	9.05	6,049		
GRAND TOTAL									31.468		1,737	1,330	48.06	1,211	371,885	9,993	17,942	33,755	22,853	3,634	1,987	1	18	45	2,524	6,390	24.50	12,085		

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



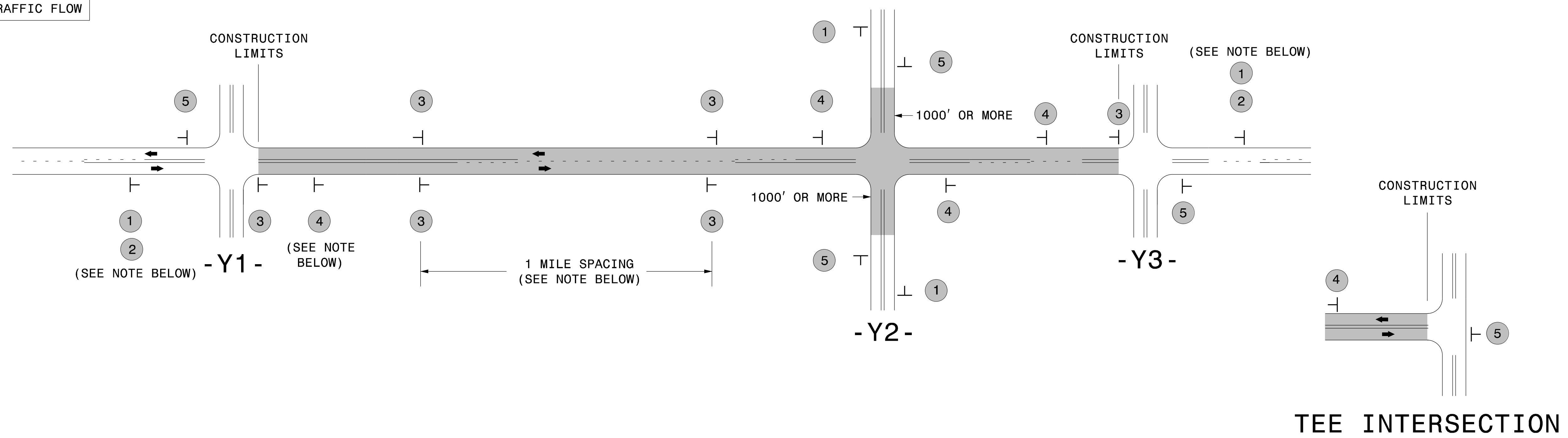
**RESURFACING ADVANCE
WARNING SIGNS FOR
URBAN / SUBURBAN
FACILITIES**

SIGNING FOR RESURFACING PROJECTS

LEGEND

┆ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

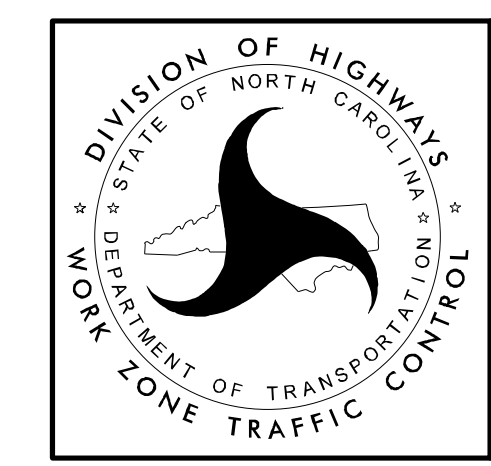
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1		PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> LESS THAN 1000' OF RESURFACING ALONG -Y- LINE SUBDIVISION ROADS DEAD END ROADS <p>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.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> PLACED 500' IN ADVANCE OF FLAGGER. </div> <div style="text-align: center;"> PLACED 250' IN ADVANCE OF FLAGGER. </div> </div>
	2		#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		- 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		- 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		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.



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

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

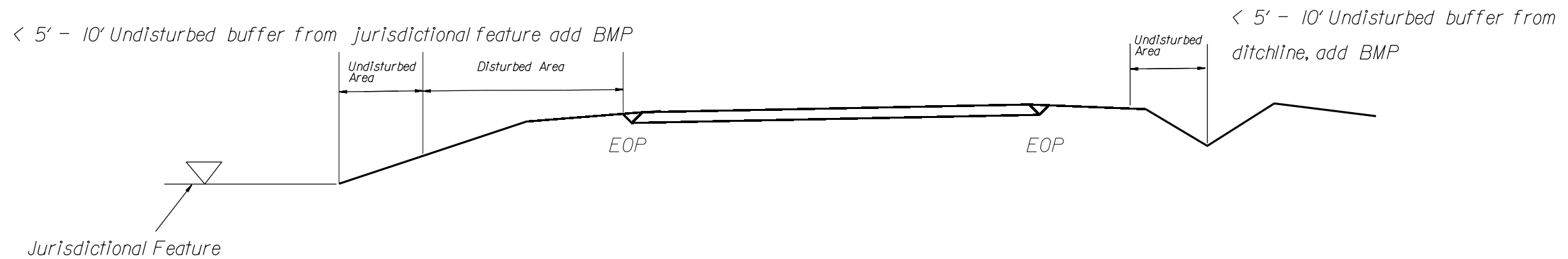
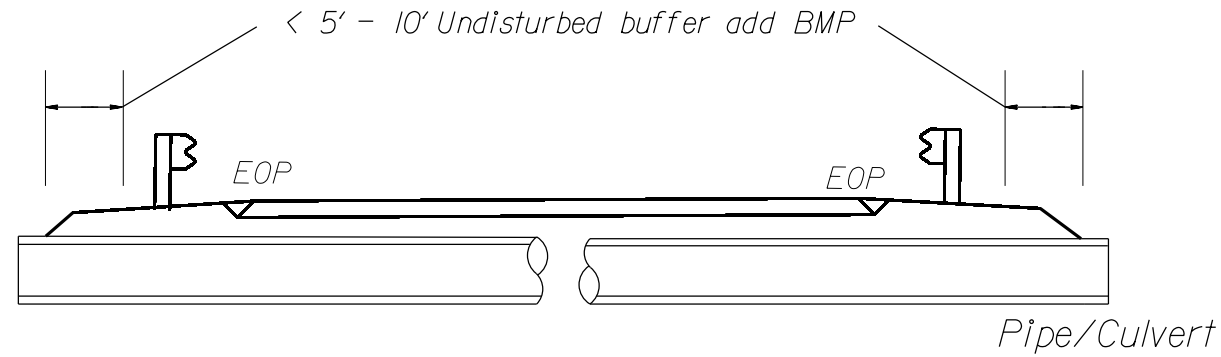
SOIL STABILIZATION TIMEFRAMES

<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.

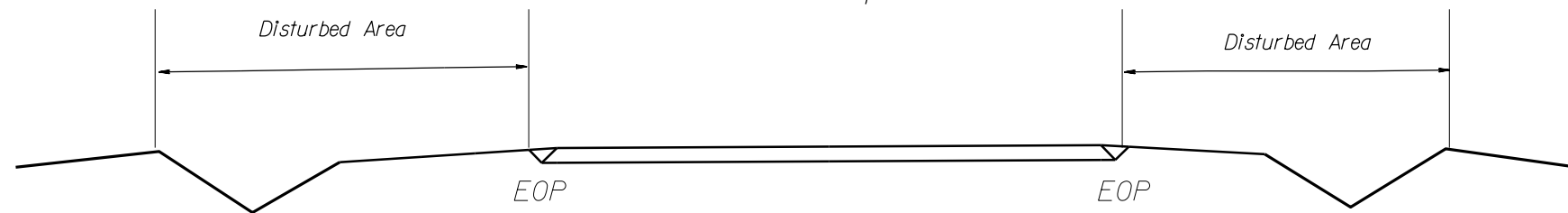
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle, Silt Fence or Hardened Aggregate.

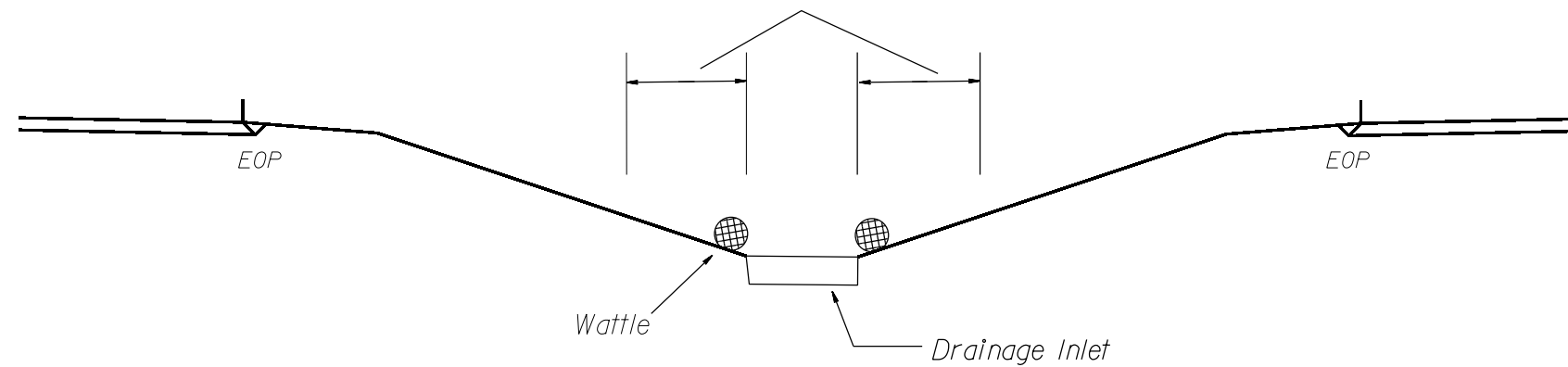
EROSION CONTROL DETAIL



Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed

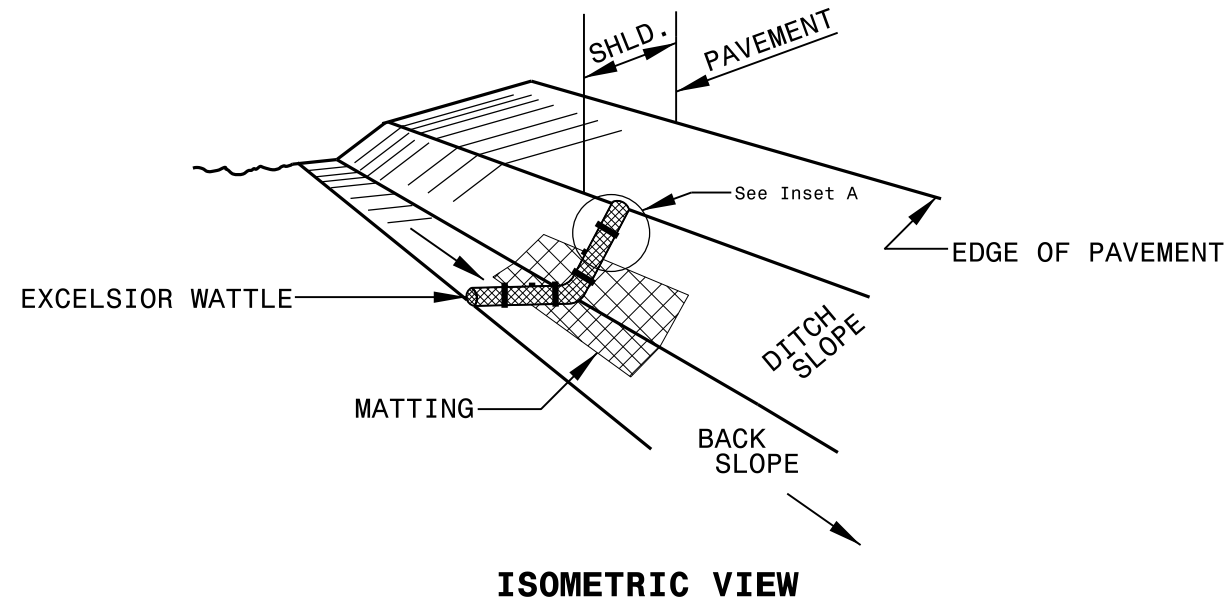


< 5' - 10' Undisturbed buffer from inlet, add wattle



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.

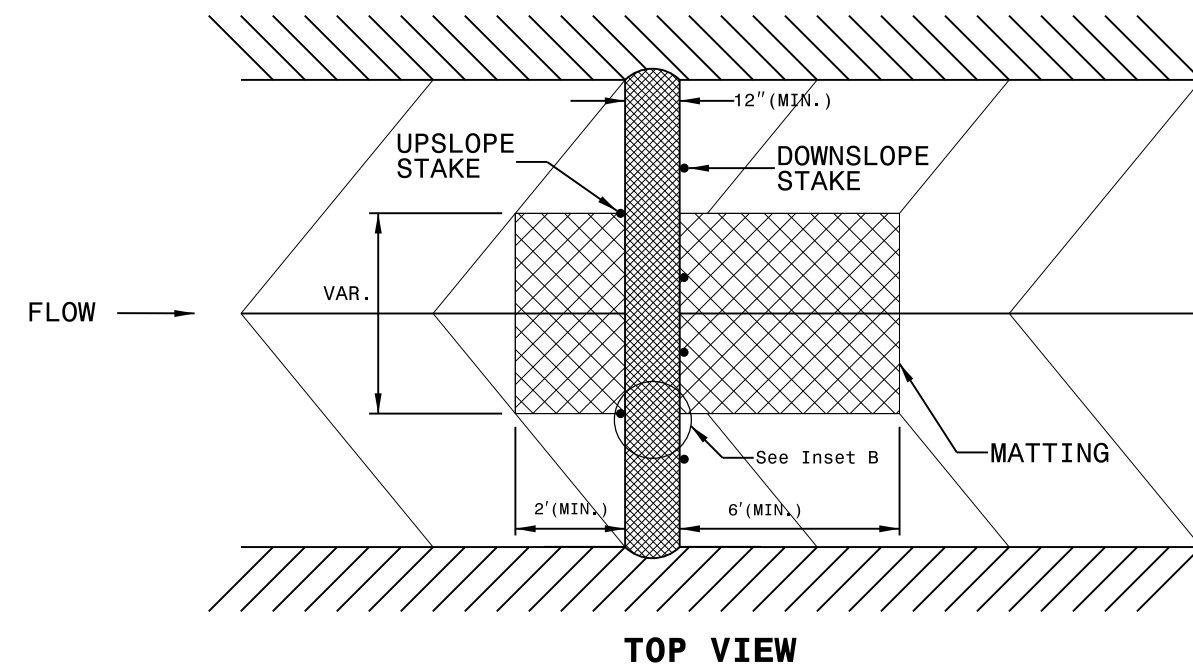
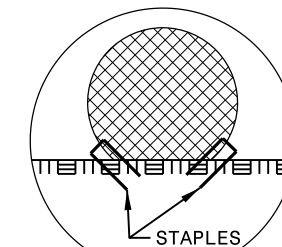
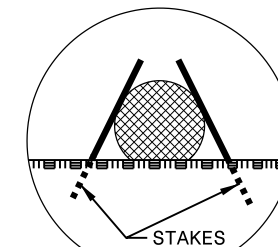
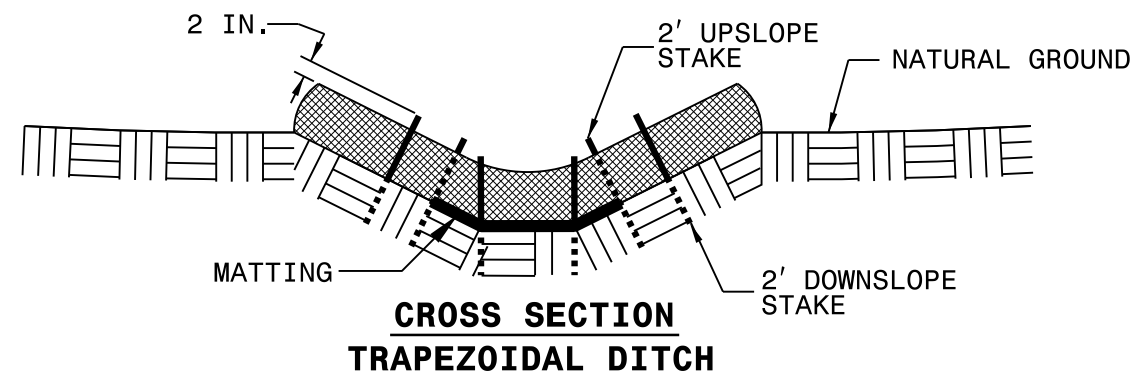
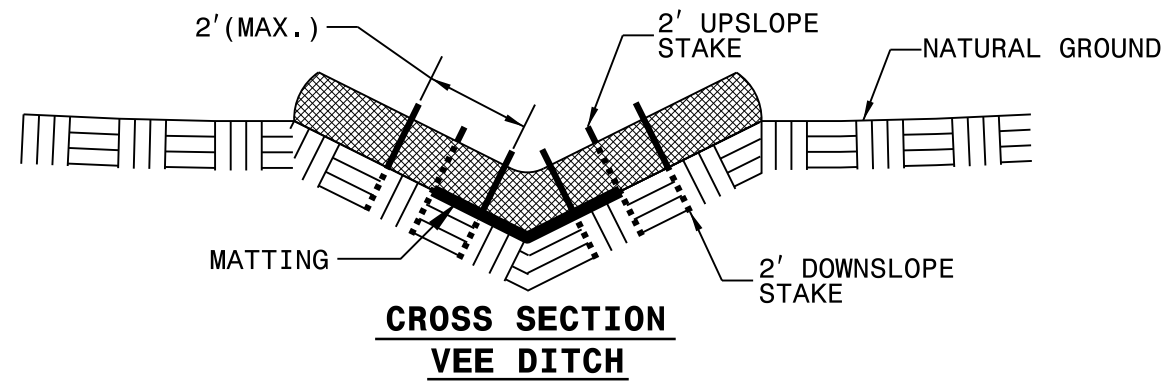
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

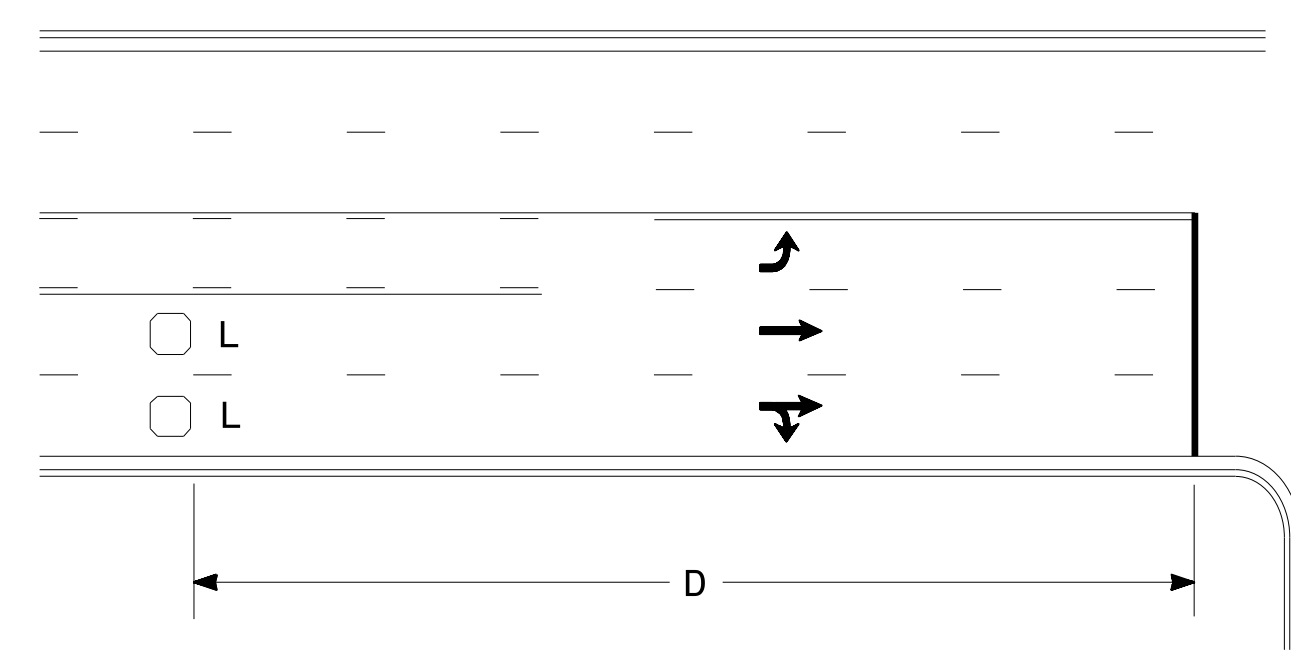
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



High Speed Detection (≥40 mph)

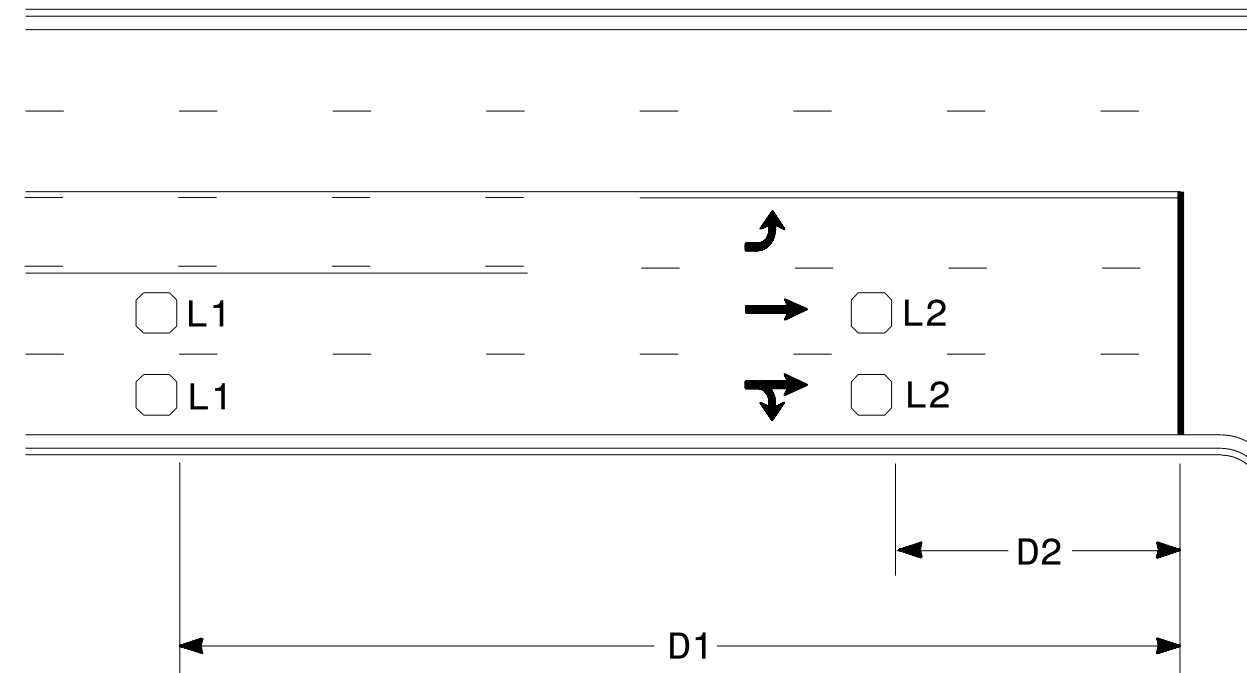


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

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

Volume Density Operation

OR

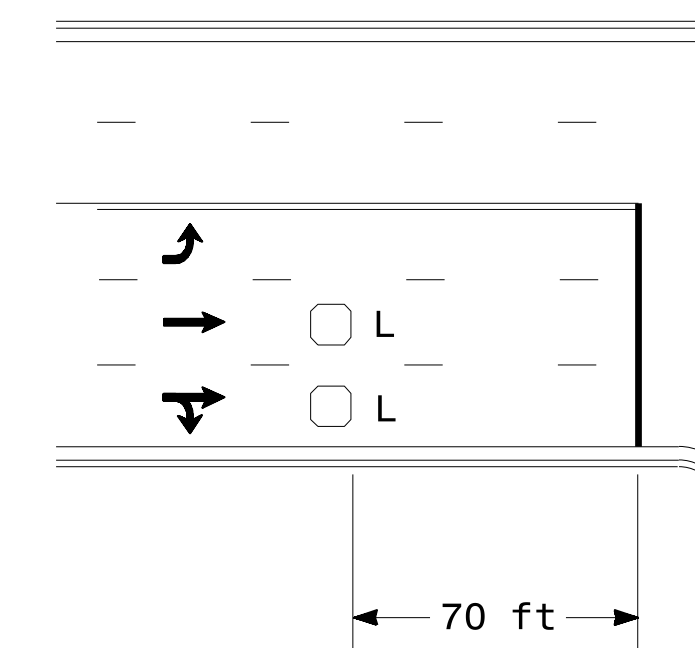


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

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

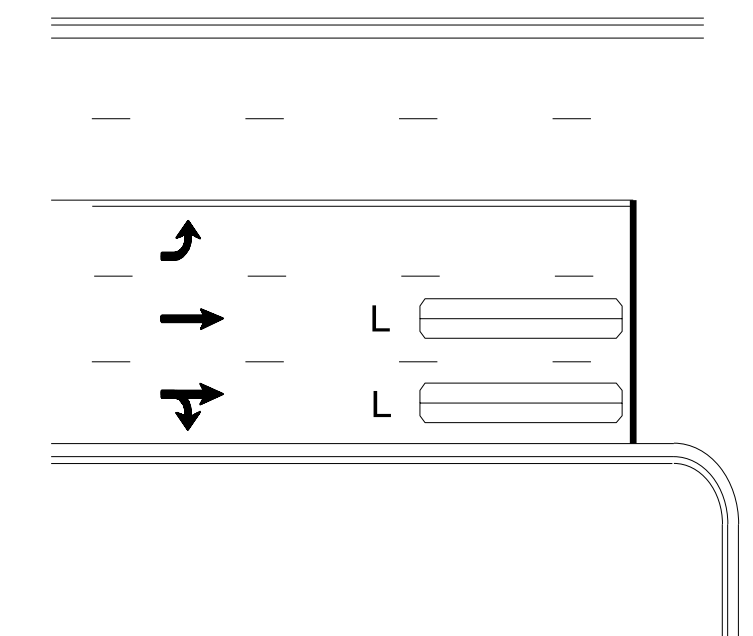
"Stretch" Operation

Low Speed Detection (≤35 mph)



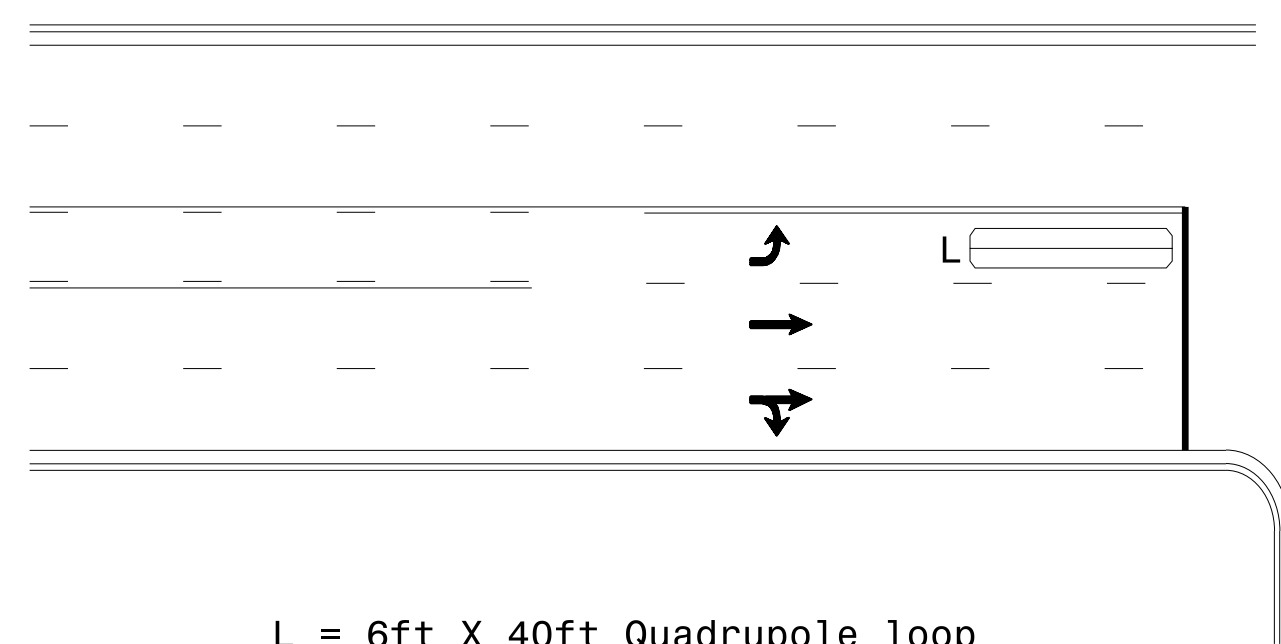
L = 6ft X 6ft
Wired in series

OR



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

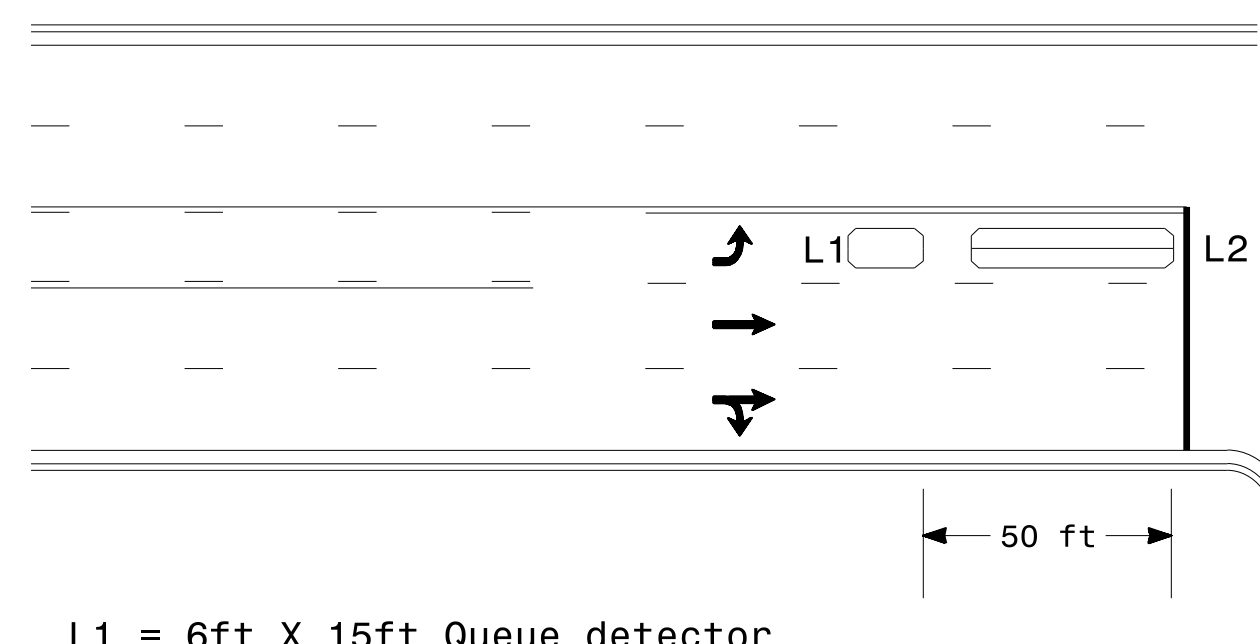
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

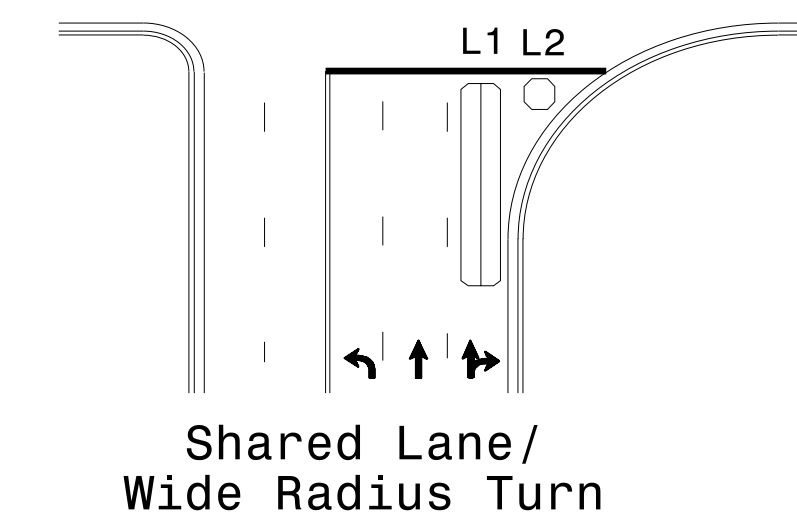
OR



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

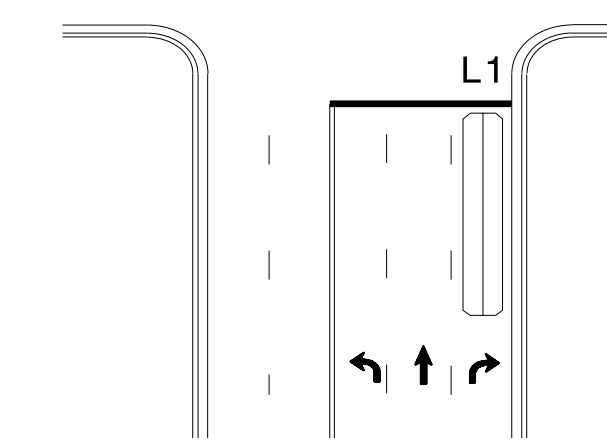
Queue Loop Detection

Right Turn Lane Detection

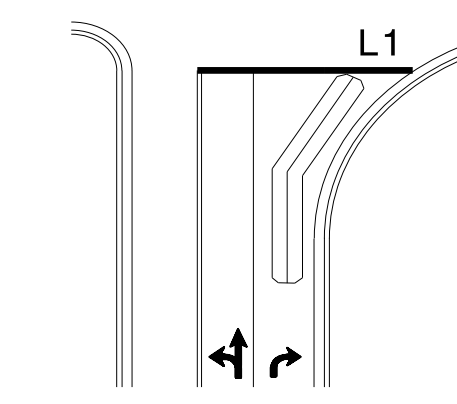


Shared Lane/
Wide Radius Turn

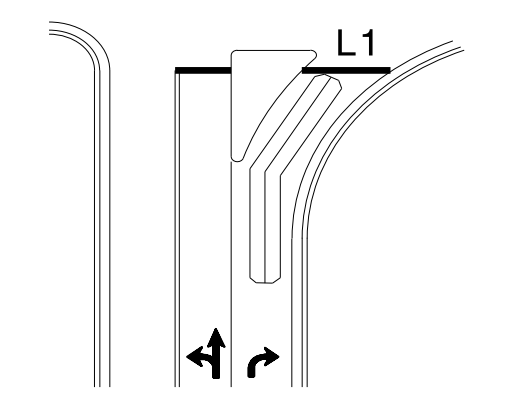
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

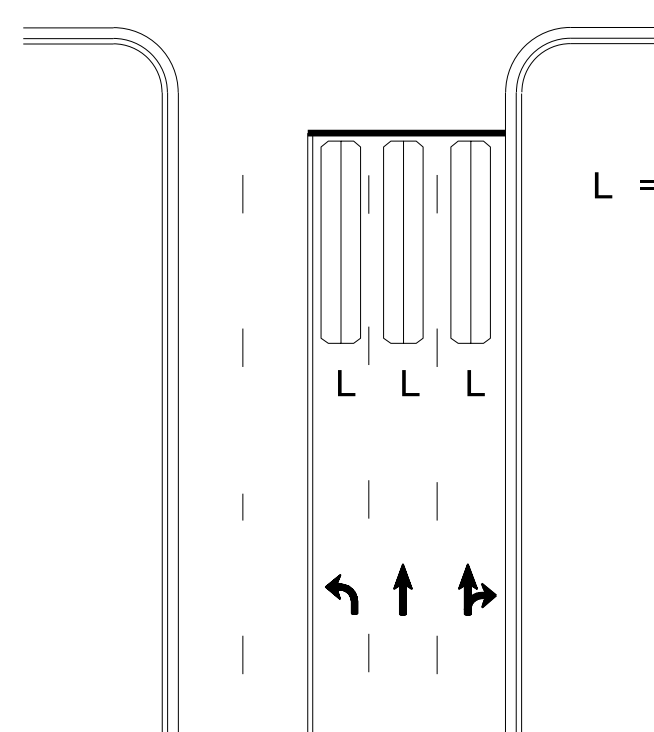


Wide Radius Turn



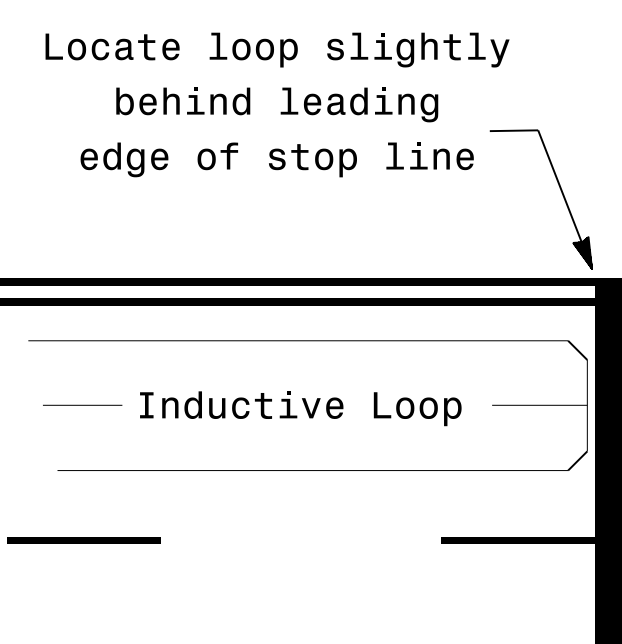
Channelized Turn

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

Prepared In the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE
N/A

Typical Signal Loop Locations

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

SEAL

DocuSigned by:
P. Alexander
1/30/2015 10:44:44 AM
SIG. INVENTORY NO.