

Wake 55	
PROJECT REFERENCE NO.	SHEET NO.
2024CPT.05.10.10321.1, ETC	<b>1</b>

Map 1 NC-55 (SB)  
From SR 2028 (T.W. Alexander Dr.) to Wake Co. Line

Map 2 NC-55 (NB)  
From Durham Co. Line to SR 2028 (T.W. Alexander Dr.)

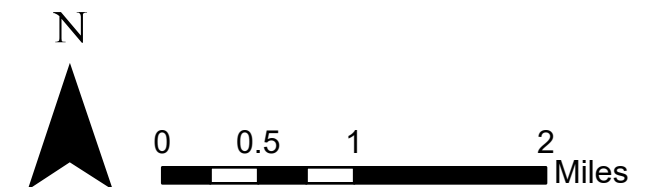
Map 3 NC-55  
From Pavement Joint to Begin Divided (Full Width)

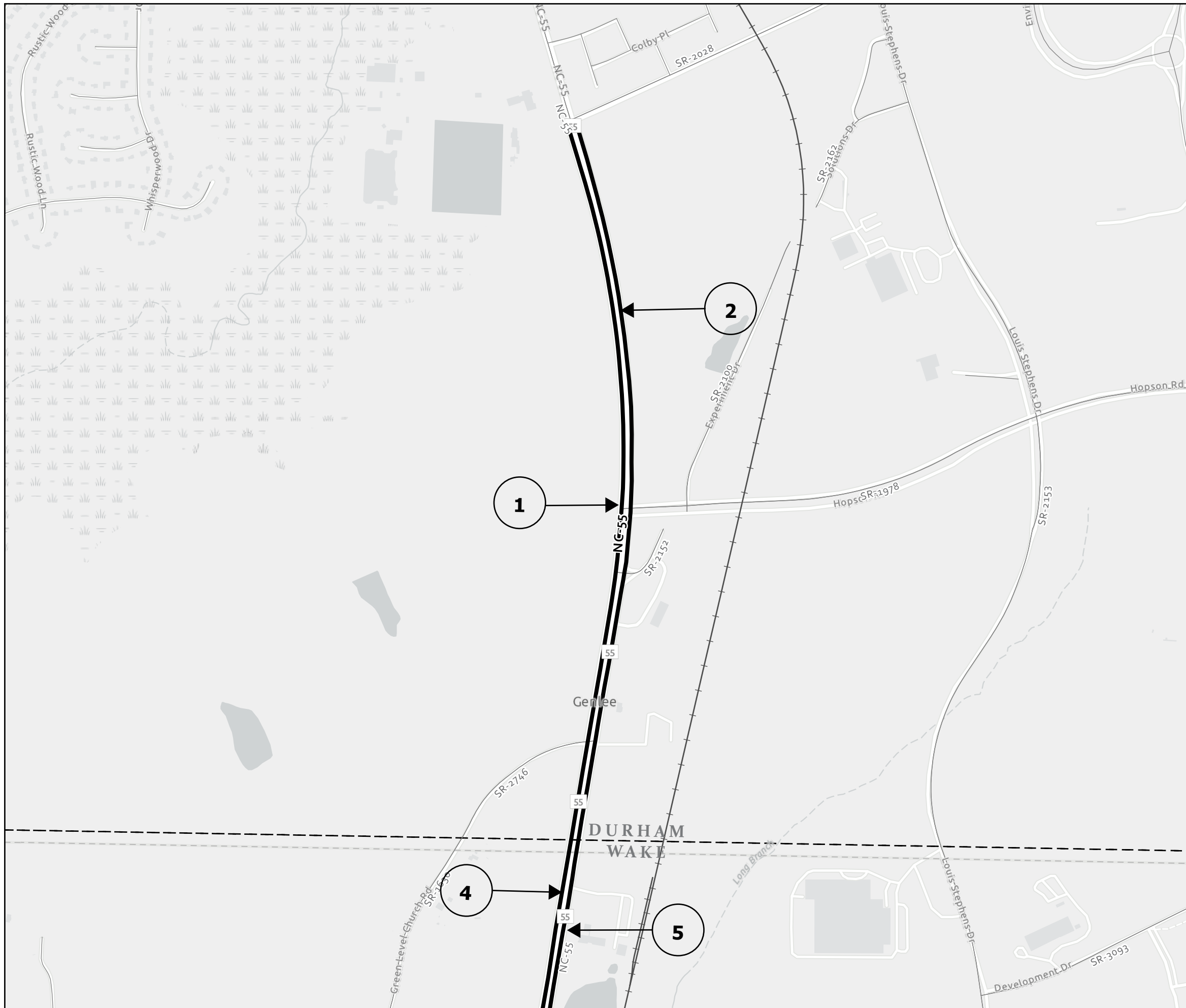
Map 4 NC-55 (SB)  
From Durham County Line to End Divided

Map 5 NC-55 (NB)  
From Begin Divided to Durham Co. Line

Bridge 1: 911017  
Mile-Post: 26.52

Bridge 2: 911018  
Mile-Post: 26.50





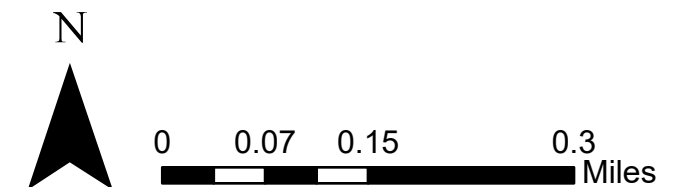
Wake 55	
PROJECT REFERENCE NO.	SHEET NO.
2024CPT.05.10.10321.1,ETC	2

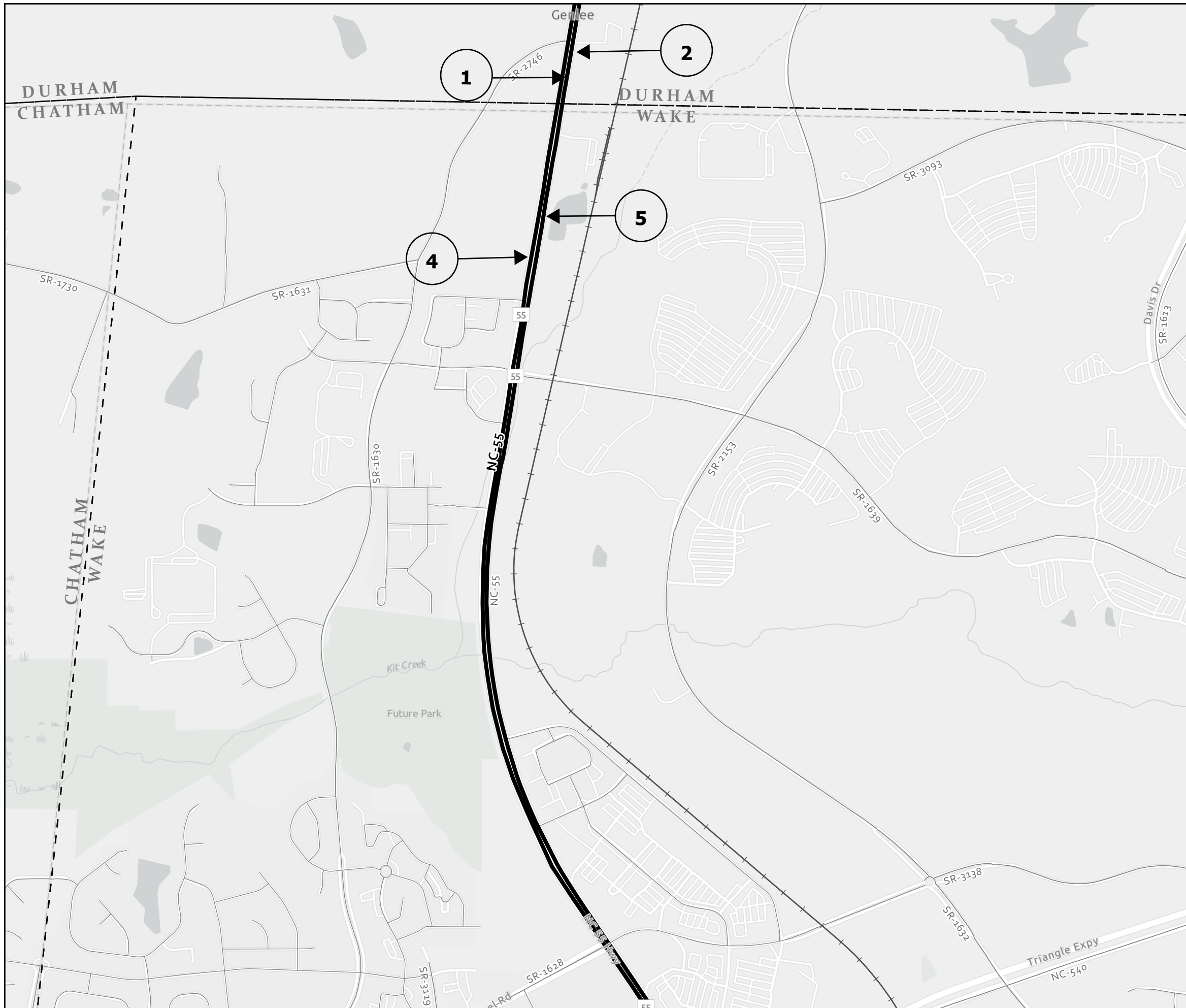
Map 1 NC-55 (SB)  
From SR 2028 (T.W. Alexander Dr.) to  
Wake Co. Line

Map 2 NC-55 (NB)  
From Durham Co. Line to SR 2028 (T.W.  
Alexander Dr.)

Map 4 NC-55 (SB)  
From Durham County Line to End Divided

Map 5 NC-55 (NB)  
From Begin Divided to Durham Co. Line





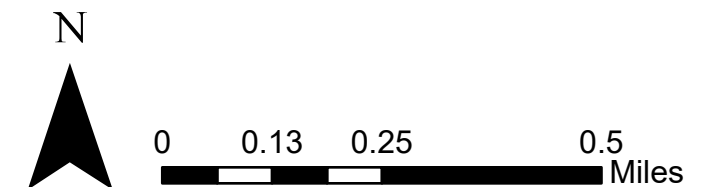
Wake 55	
PROJECT REFERENCE NO.	SHEET NO.
2024CPT.05.10.10321.1,ETC	3

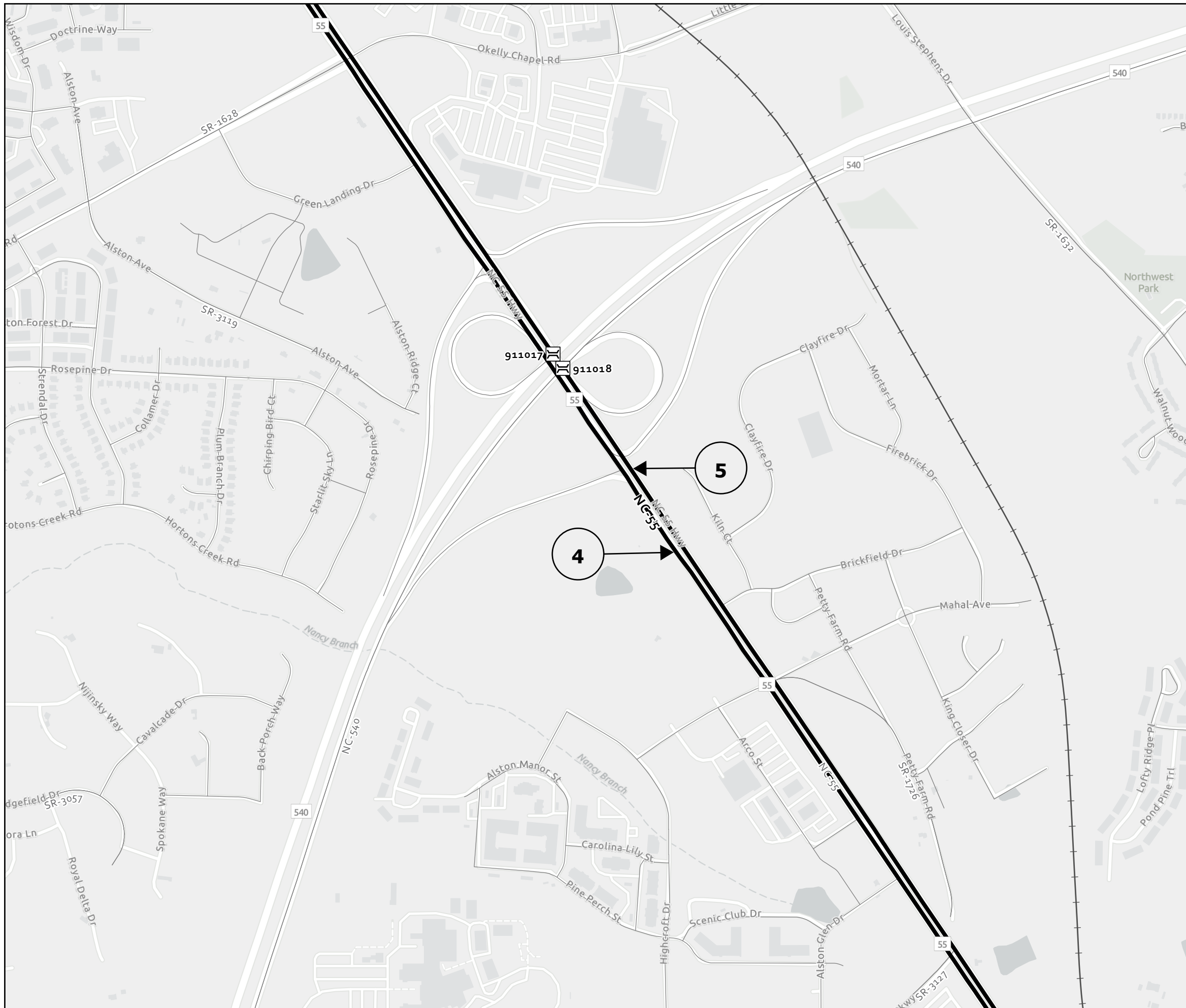
Map 1 NC-55 (SB)  
From SR 2028 (T.W. Alexander Dr.)  
to Wake Co. Line

Map 2 NC-55 (NB)  
From Durham Co. Line to SR 2028  
(T.W. Alexander Dr.)

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From Durham County Line to End Divided

Map 5 NC-55 (NB)  
From Begin Divided to Durham Co. Line





Wake 55	
PROJECT REFERENCE NO.	SHEET NO.
2024CPT.05.10.10321.1,ETC	4

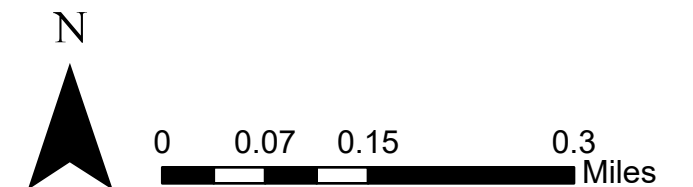
Wake County

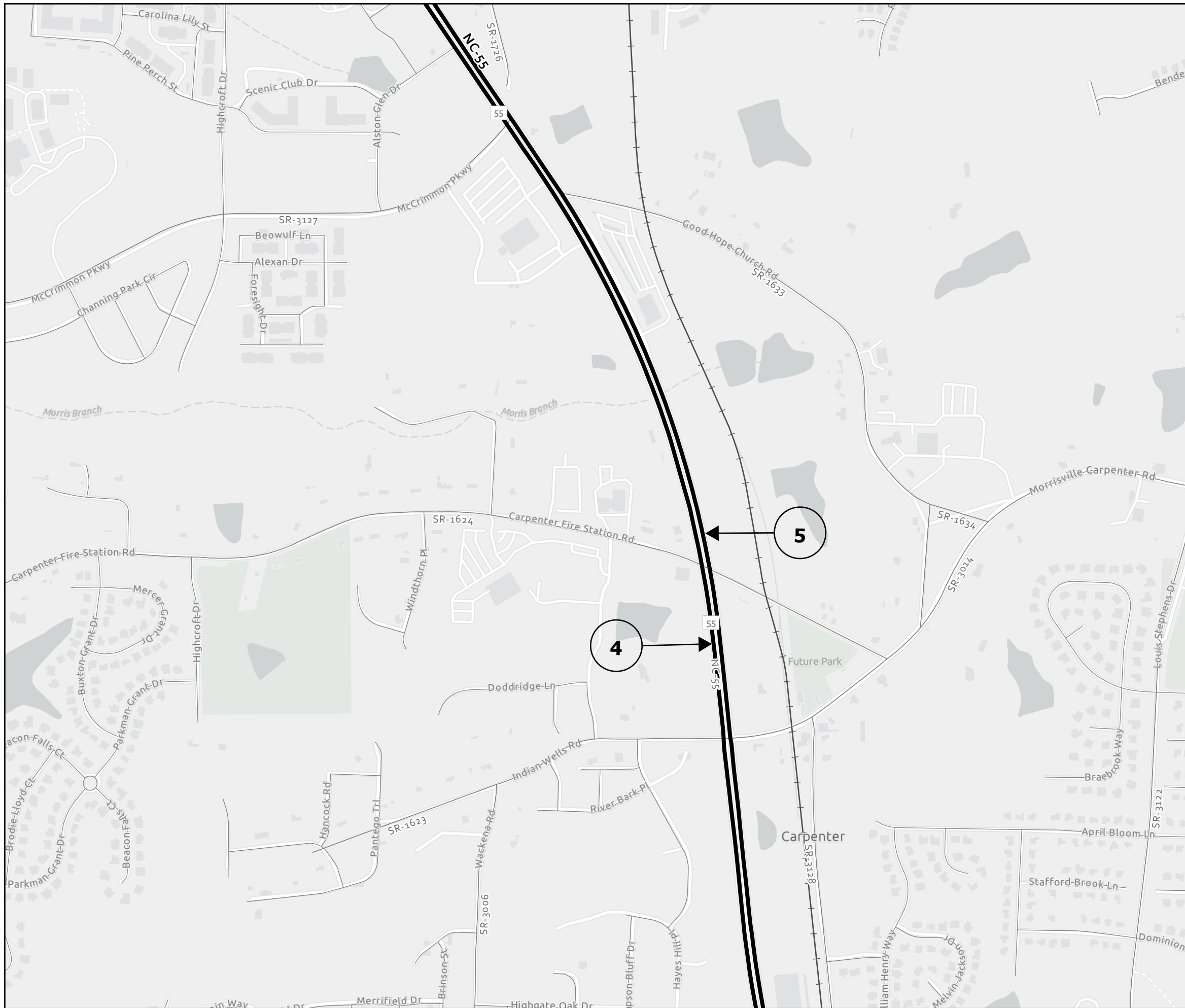
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From Durham County Line to End Divided

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From Begin Divided to Durham Co. Line

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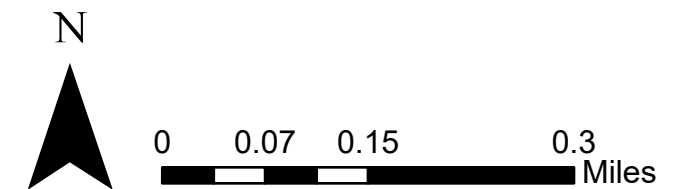


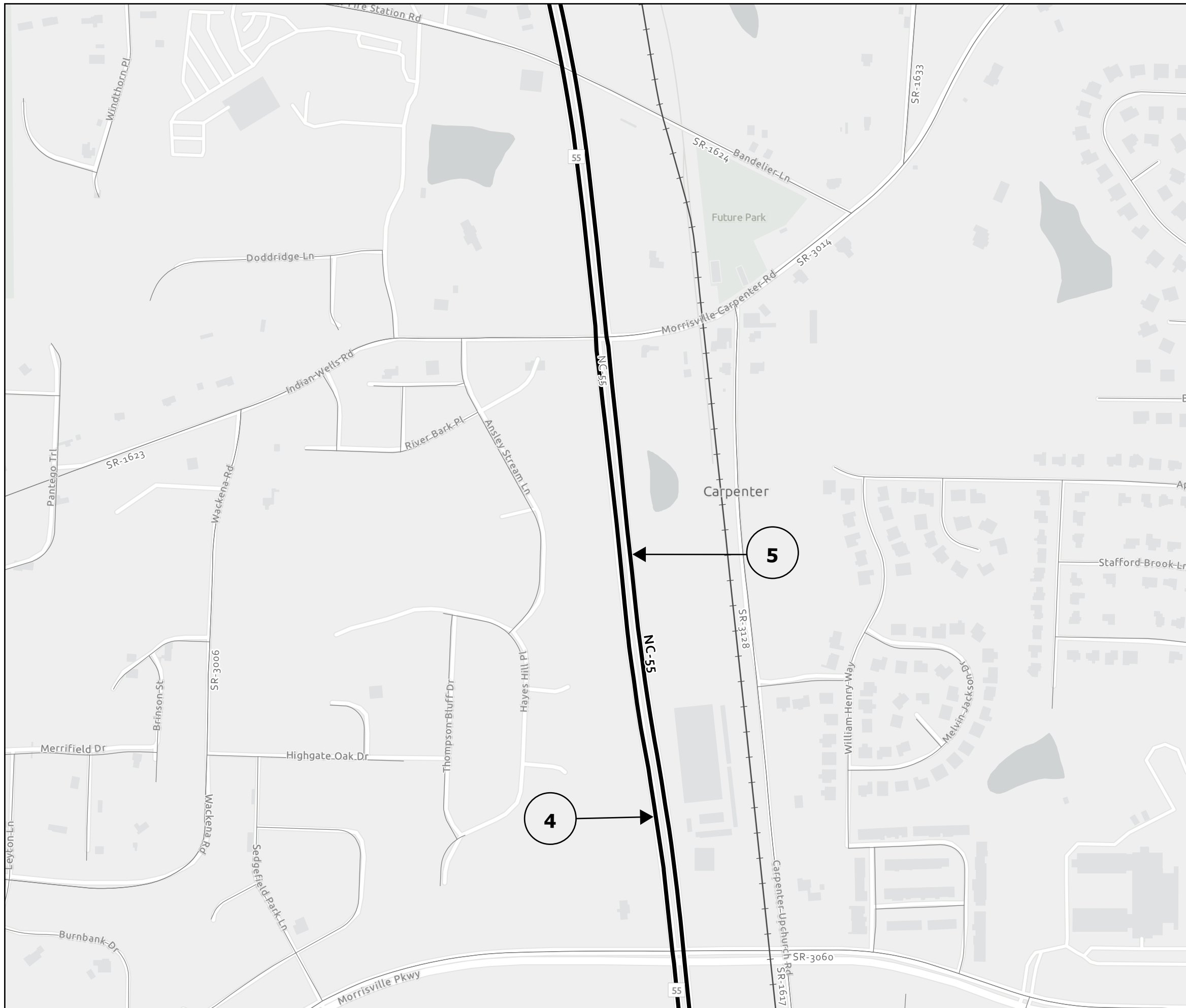
Wake 55	
PROJECT REFERENCE NO.	SHEET NO.
2024CPT.05.10.10321.1,ETC	5

Wake County

Map 4 NC-55 (SB)  
From Durham County Line to End Divided

Map 5 NC-55 (NB)  
From Begin Divided to Durham Co. Line



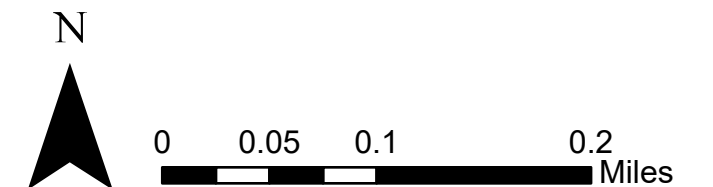


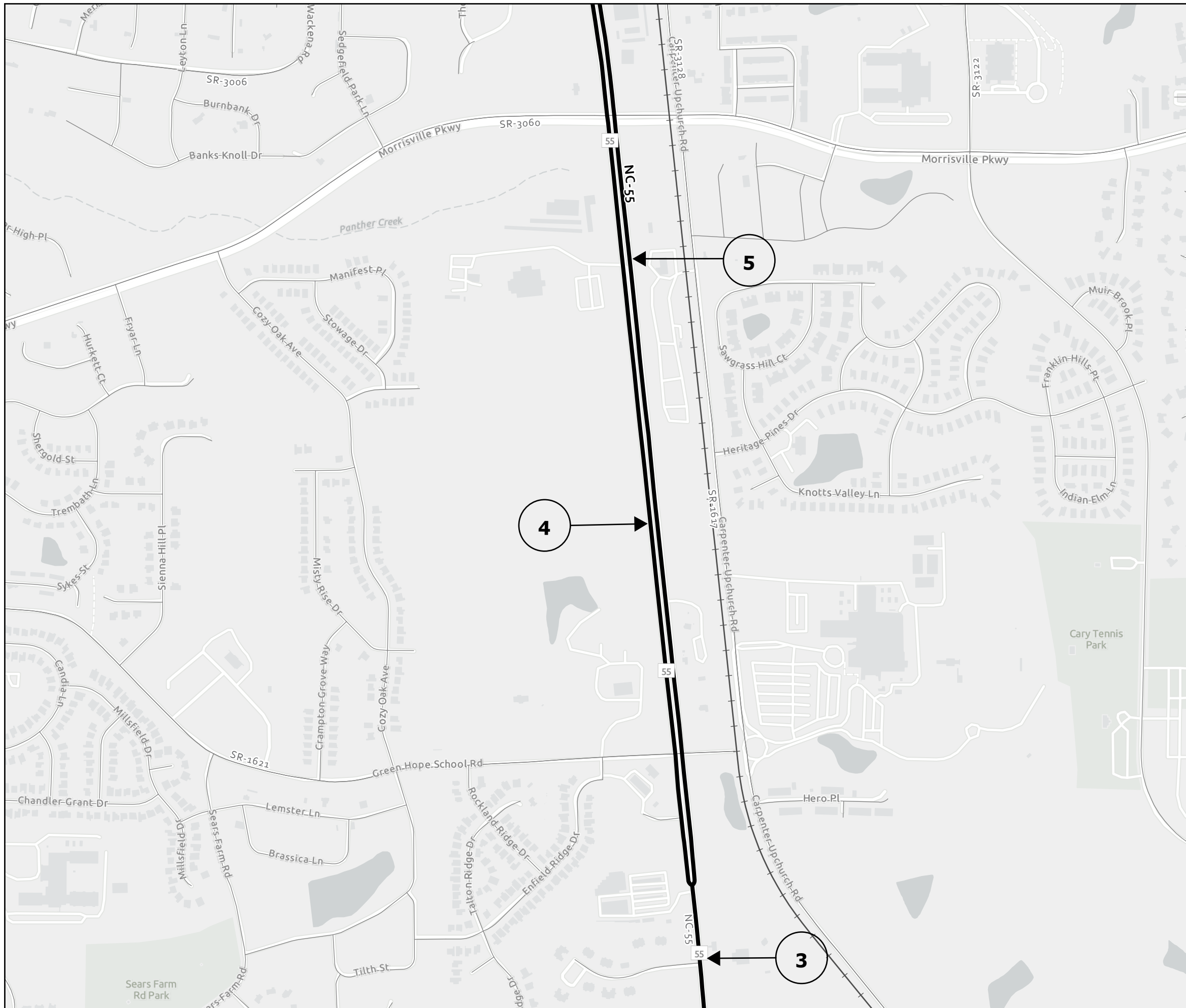
Wake 55	
PROJECT REFERENCE NO.	SHEET NO.
2024CPT.05.10.10321.1,ETC	6

Wake County

Map 4 NC-55 (SB)  
From Durham County Line to End Divided

Map 5 NC-55 (NB)  
From Begin Divided to Durham Co. Line





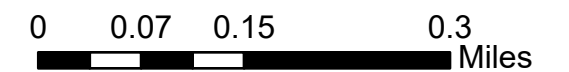
Wake 55	
PROJECT REFERENCE NO.	SHEET NO.
2024CPT.05.10.10321.1,ETC	7

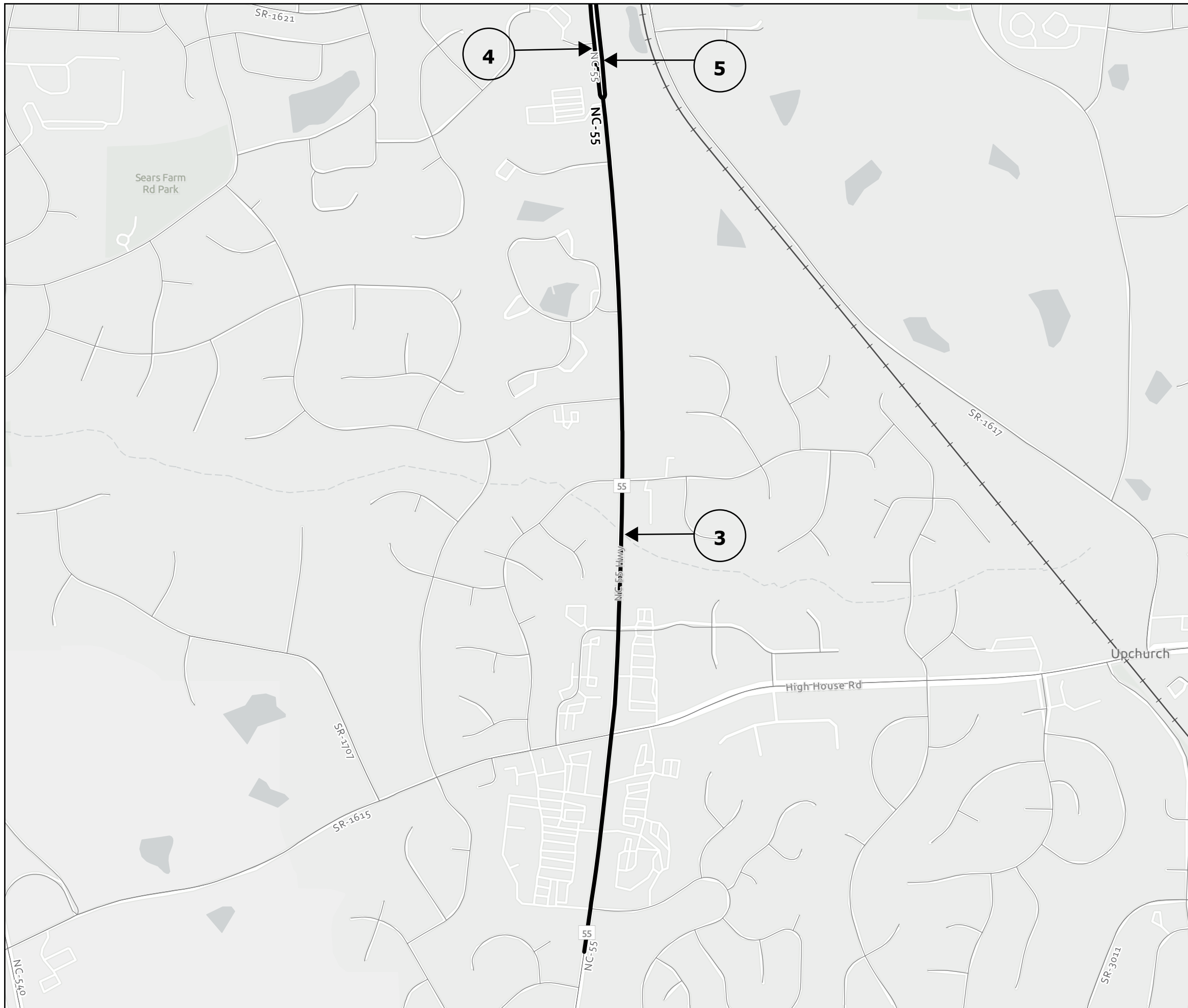
Wake County

Map 3 NC-55  
From Pavement Joint to Begin Divided  
(Full Width)

Map 4 NC-55 (SB)  
From Durham County Line to End Divided

Map 5 NC-55 (NB)  
From Begin Divided to Durham Co. Line





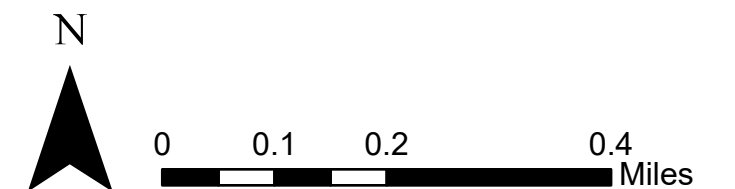
Wake 55	
PROJECT REFERENCE NO.	SHEET NO.
2024CPT.05.10.10321.1, ETC	8

Wake County

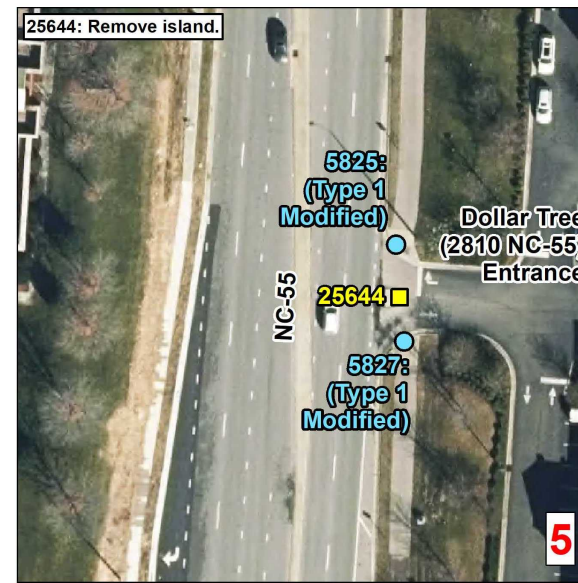
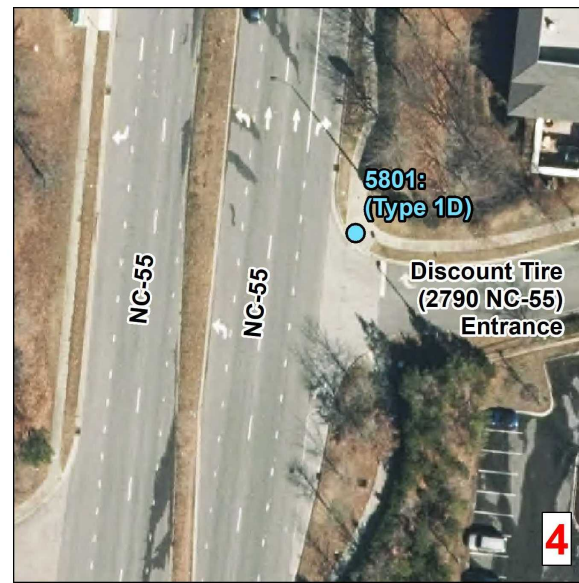
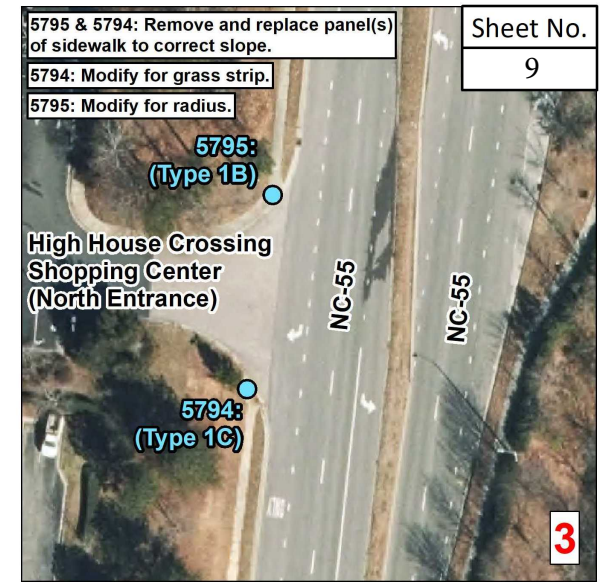
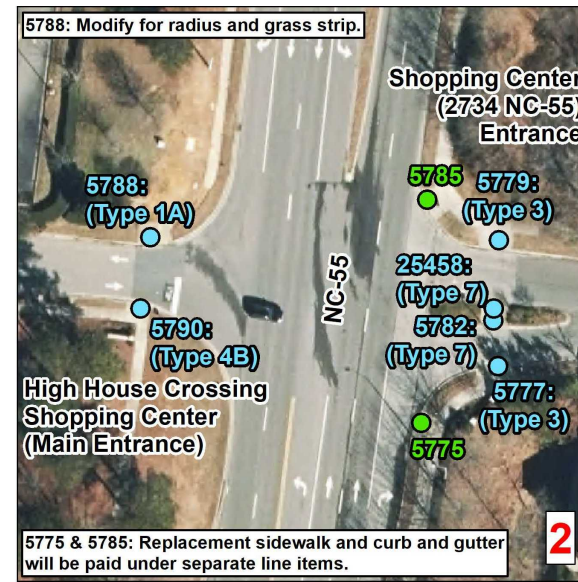
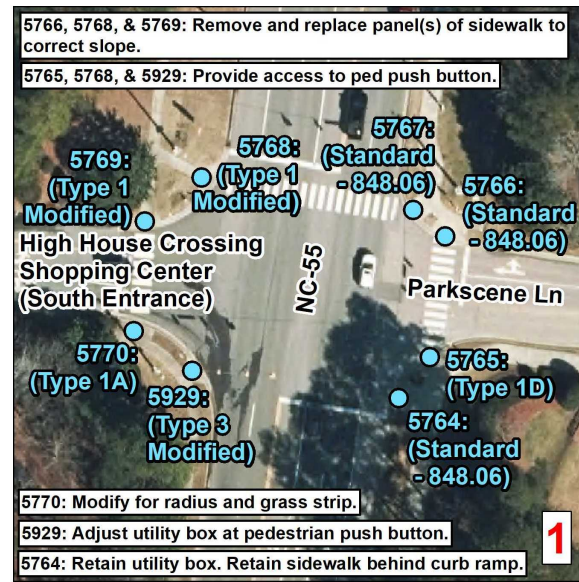
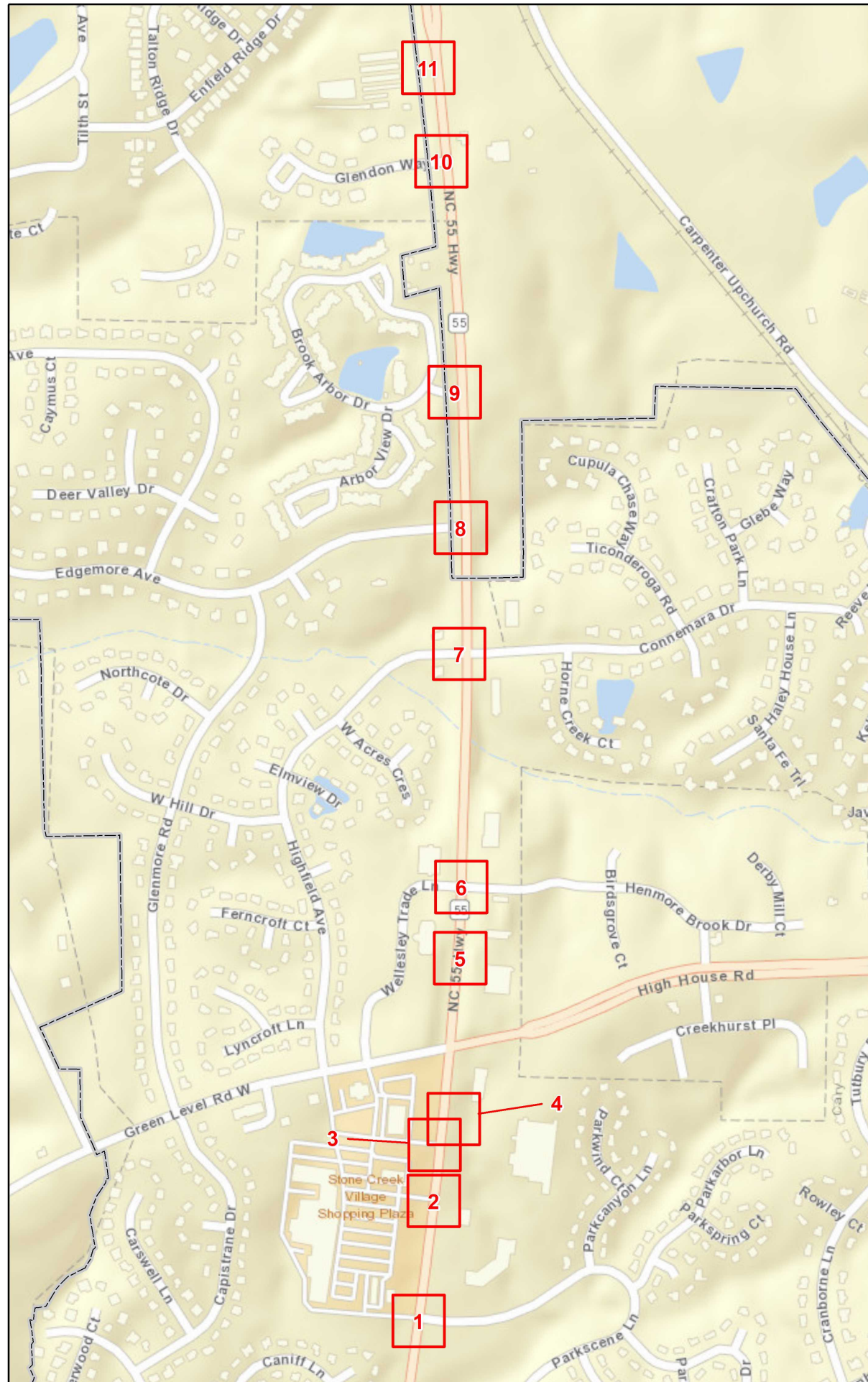
Map 3 NC-55  
From Pavement Joint to Begin Divided  
(Full Width)

Map 4 NC-55 (SB)  
From Durham County Line to End Divided

Map 5 NC-55 (NB)  
From Begin Divided to Durham Co. Line







**Curb Ramps To Be Repaired**

- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other

Municipal Boundary

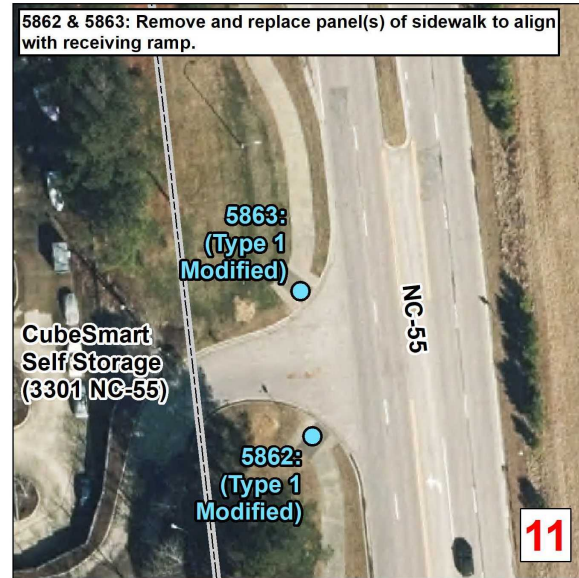
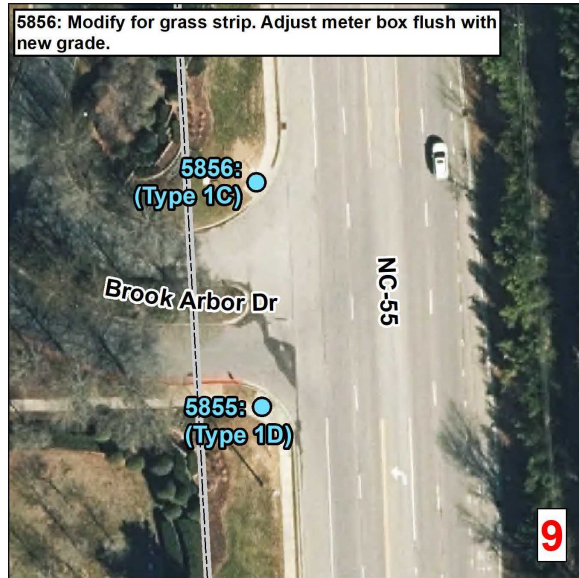
NCHPO Historic Boundary (NR and LHD)

**Wake 55**  
Project Number: 2024CPT.05.10.10921.1

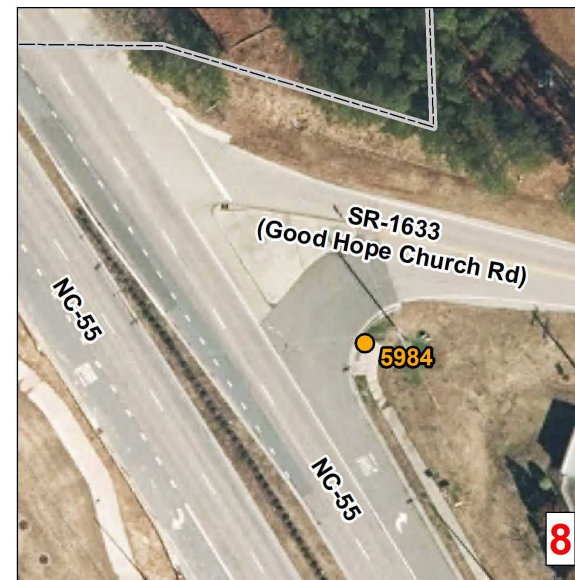
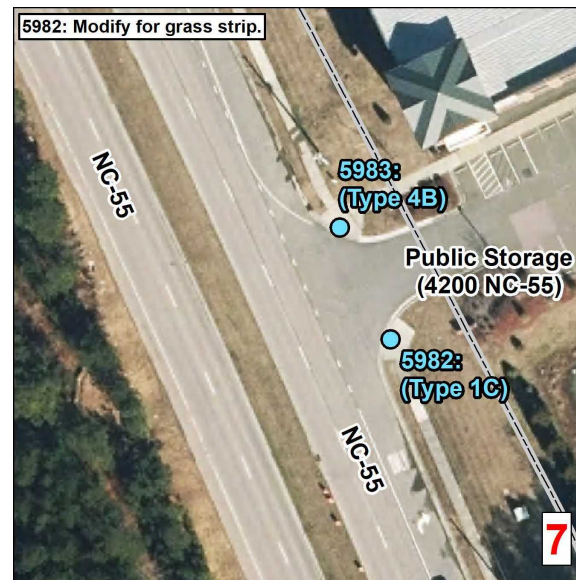
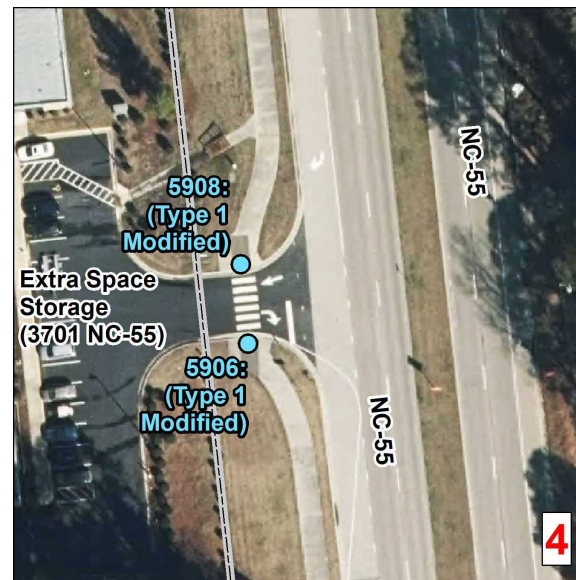
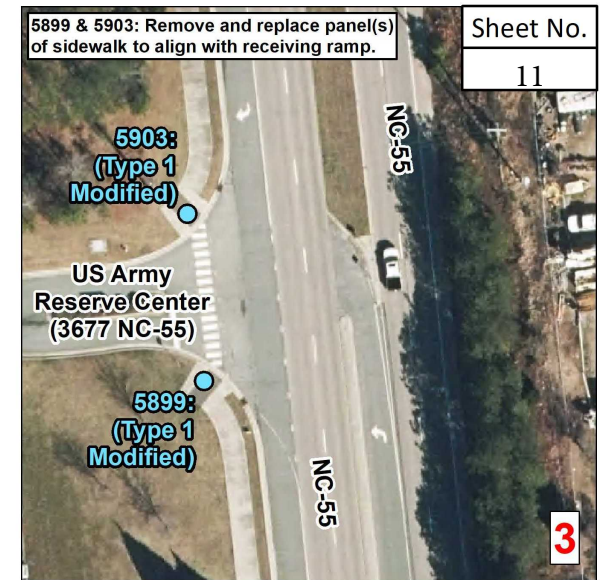
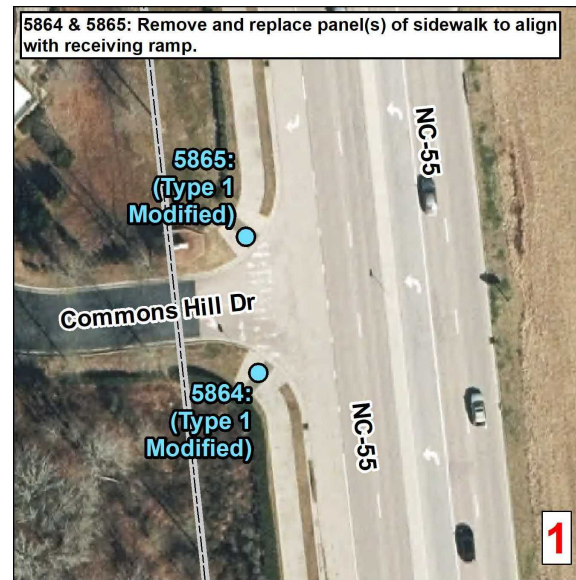
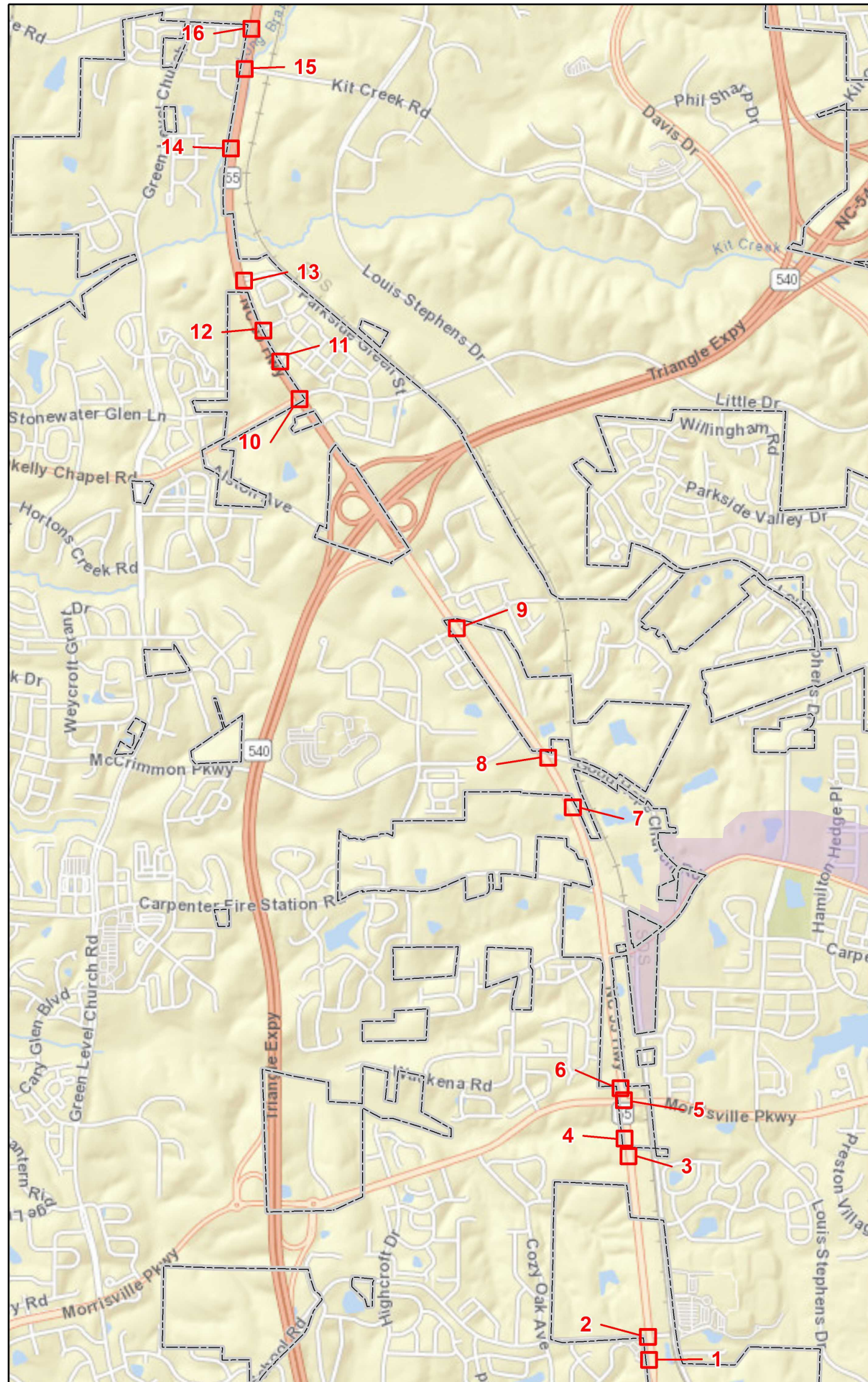
**NC 55 From**  
**Pavement Joint To Begin Divided**

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO



<p><b>Curb Ramps To Be Repaired</b></p> <ul style="list-style-type: none"> <li><span style="color: orange;">●</span> Retrofit</li> <li><span style="color: lightblue;">●</span> Remove and Replace</li> <li><span style="color: purple;">●</span> New Curb Ramp</li> <li><span style="color: green;">●</span> Remove Ramp</li> <li><span style="color: yellow;">■</span> Other</li> </ul>		
<ul style="list-style-type: none"> <li><span style="border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Municipal Boundary</li> <li><span style="background-color: #e0e0ff; display: inline-block; width: 15px; height: 10px;"></span> NCHPO Historic Boundary (NR and LHD)</li> </ul>		
<p><b>Wake 55</b>  <b>Project Number: 2024CPT.05.10.10921.1</b>  <b>NC 55 From</b>  <b>Pavement Joint To Begin Divided</b></p>		
		<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 5</p>
<p>Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO</p>		



**Curb Ramps To Be Repaired**

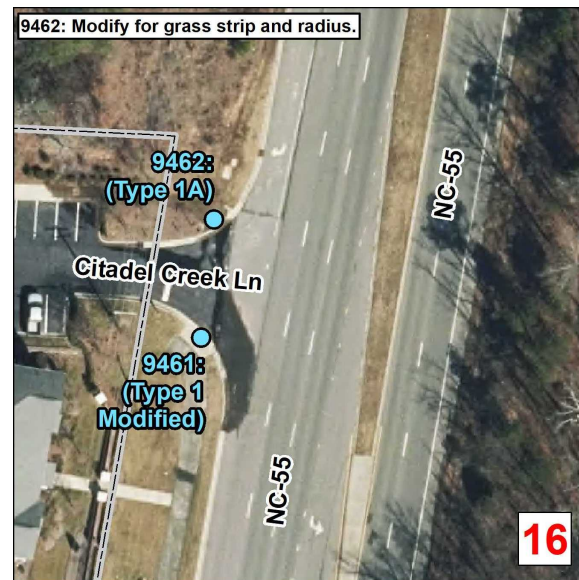
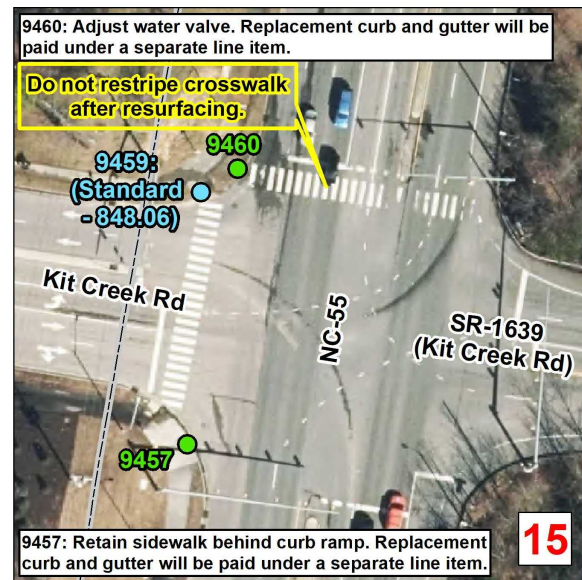
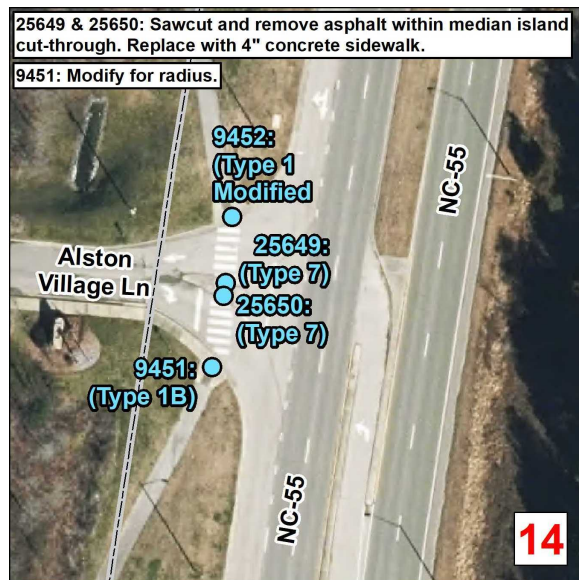
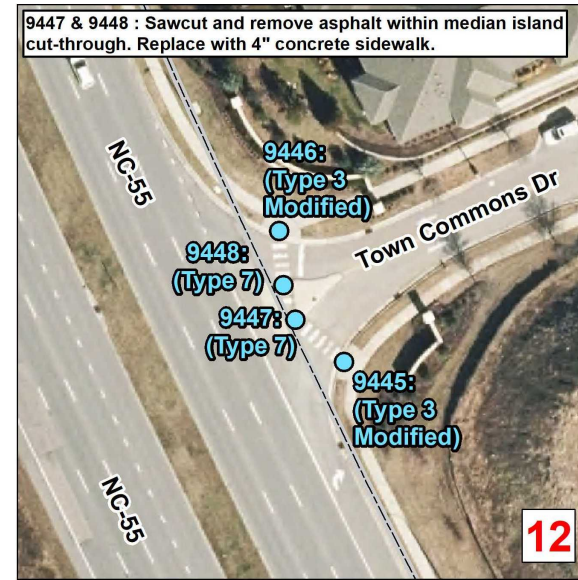
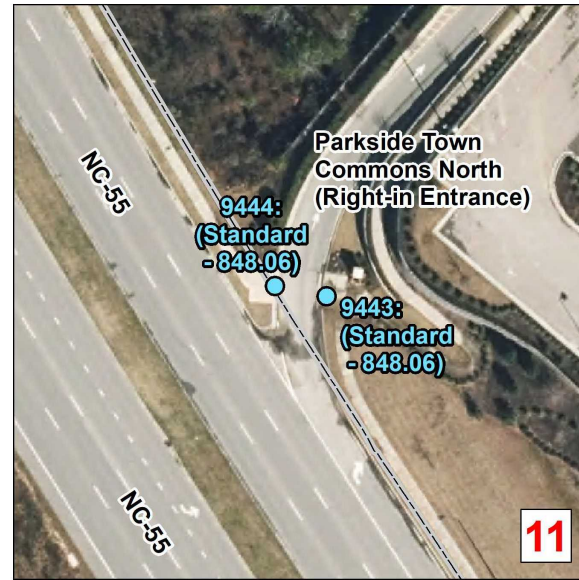
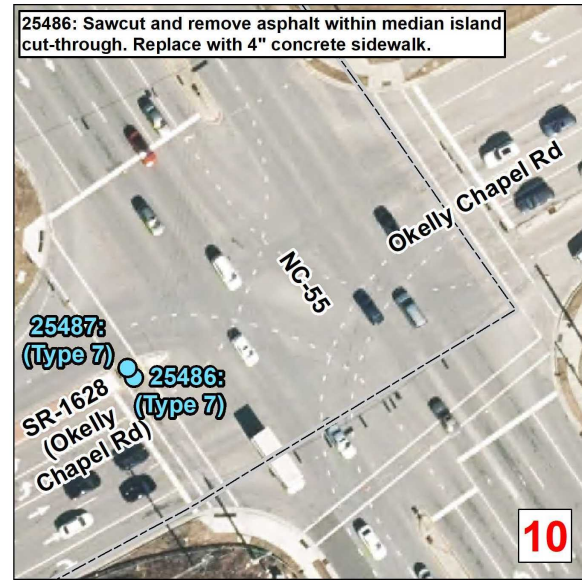
- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other

Municipal Boundary  
 NCHPO Historic Boundary (NR and LHD)

**Wake 55**  
**Project Number: 2024CPT.05.10.10921.1**  
**NC 55 From/To Begin**  
**Divided To/From Durham County**

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO



**Curb Ramps To Be Repaired**

- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other

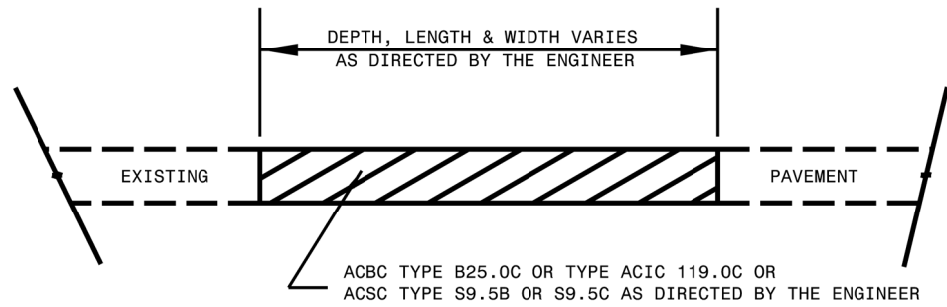
Municipal Boundary  
 NCHPO Historic Boundary (NR and LHD)

**Wake 55**  
**Project Number: 2024CPT.05.10.10921.1**  
**NC 55 From/To Begin**  
**Divided To/From Durham County**

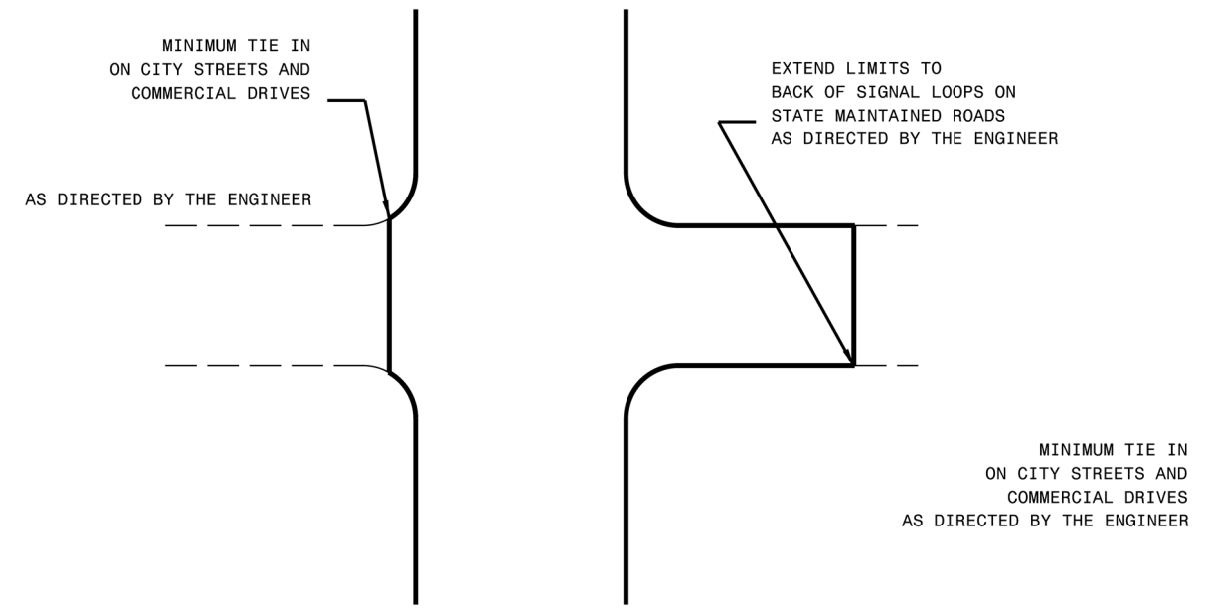
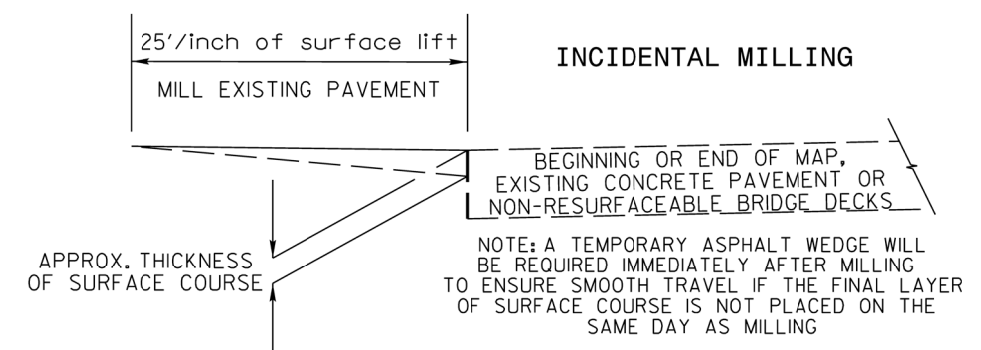
**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION**  
**DIVISION 5**

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

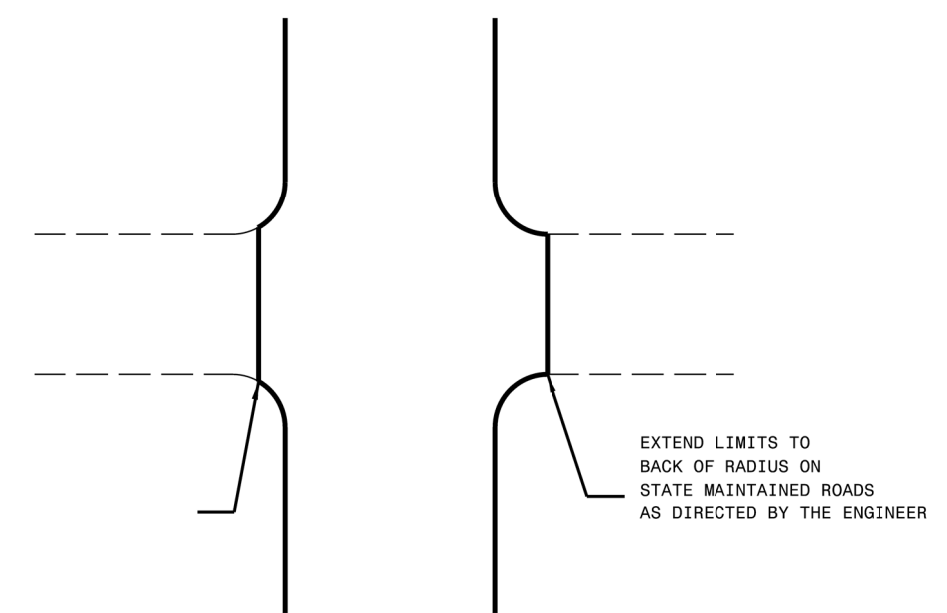




**PATCHING EXISTING PAVEMENT**  
MILLING TO BE PERFORMED PRIOR TO PATCHING



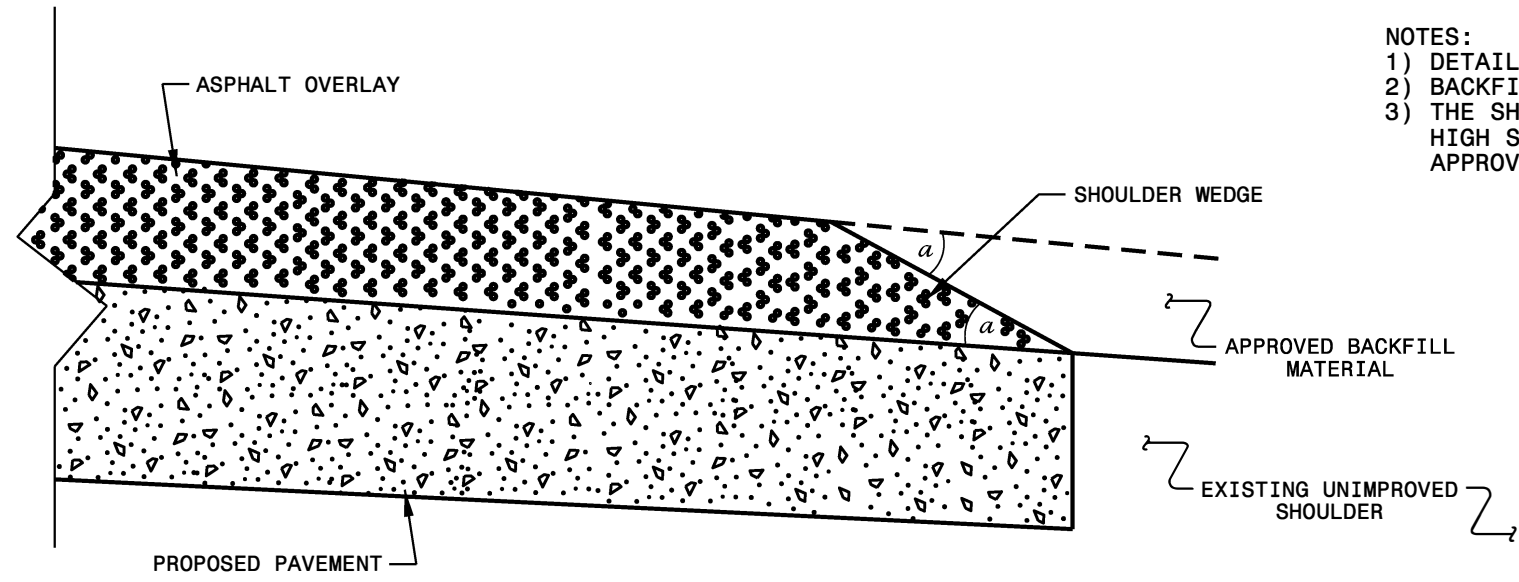
**DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES**



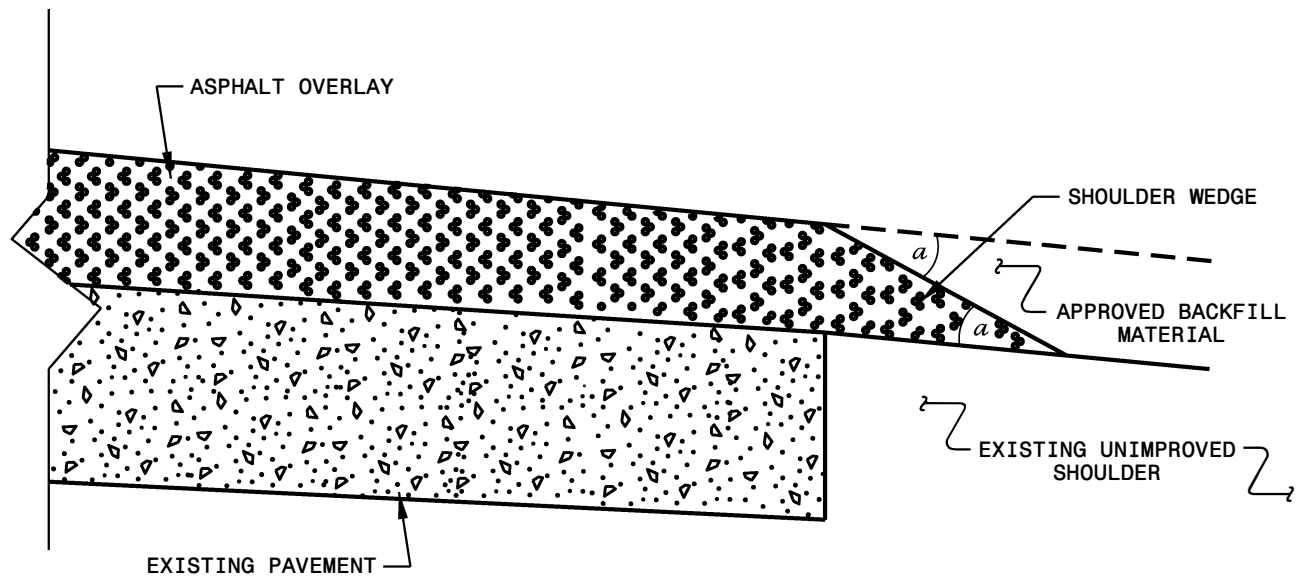
**DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES**

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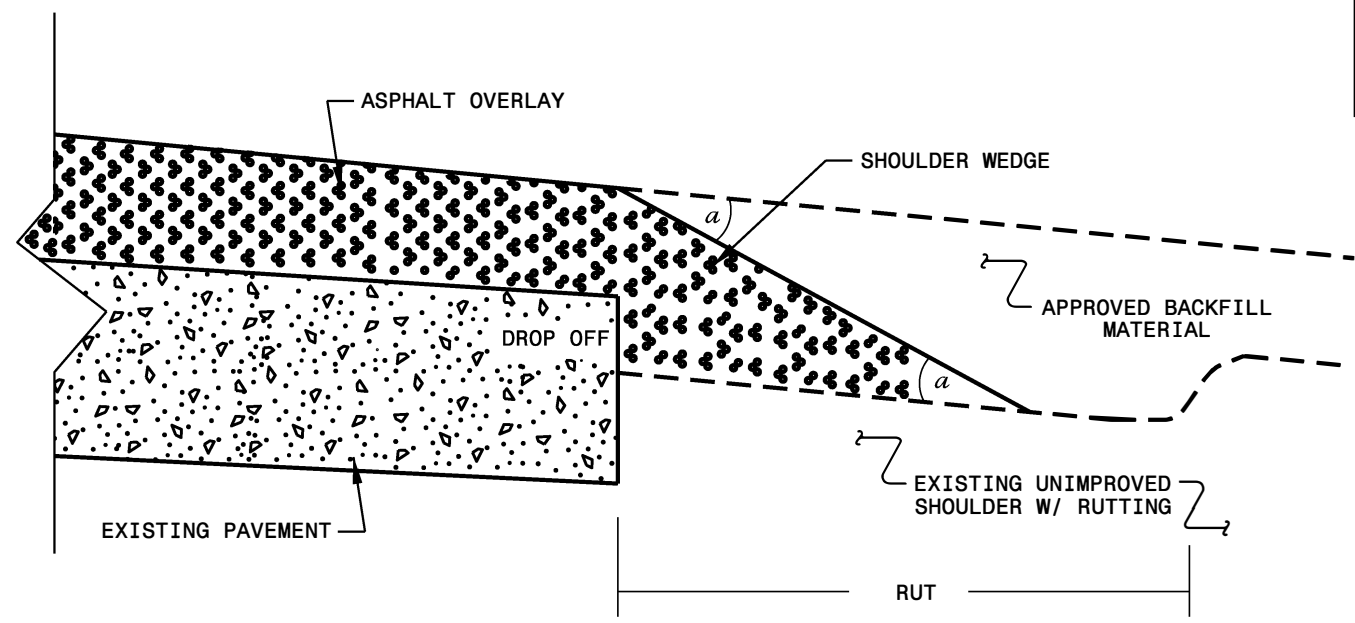
- NOTES:  
 1) DETAIL DOES NOT APPLY TO OGAFD AND ULTRA-THIN BONDED WEARING COURSE.  
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.  
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ Widening or with Existing Paved Shoulder having no dropoffs)



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ NO Widening)



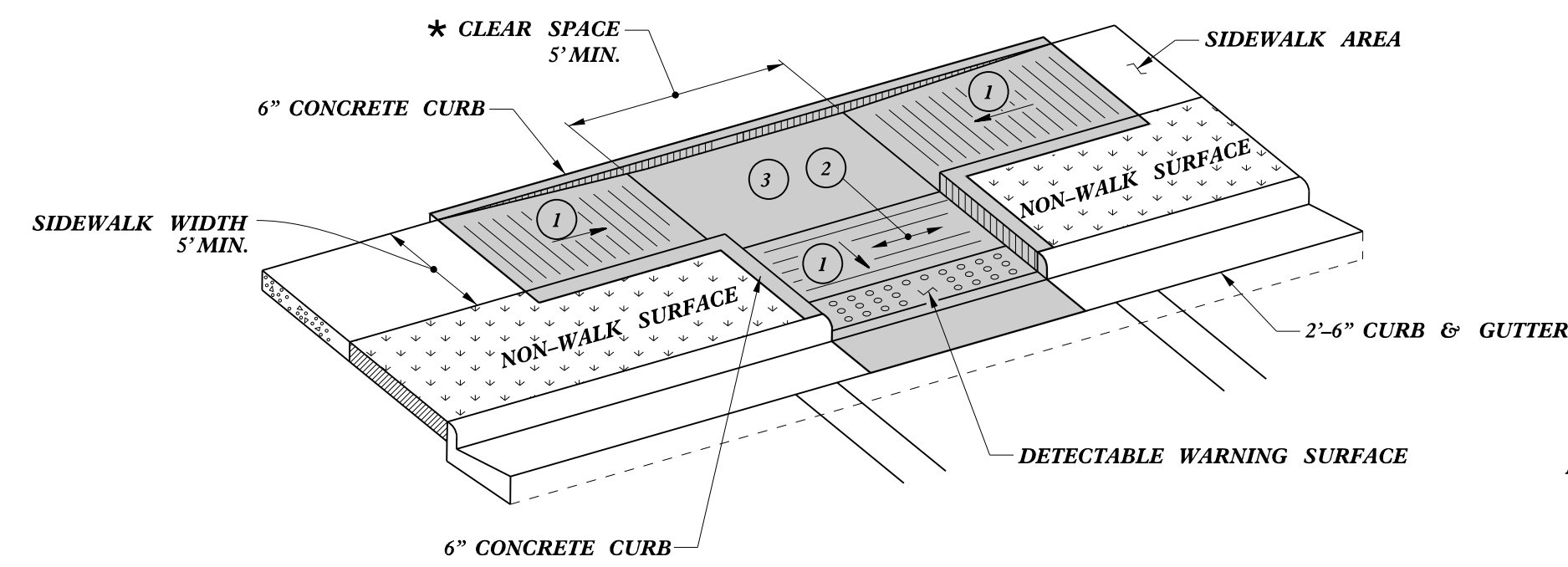
**SHOULDER WEDGE DETAIL**  
 (Resurfacing Adjacent to Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

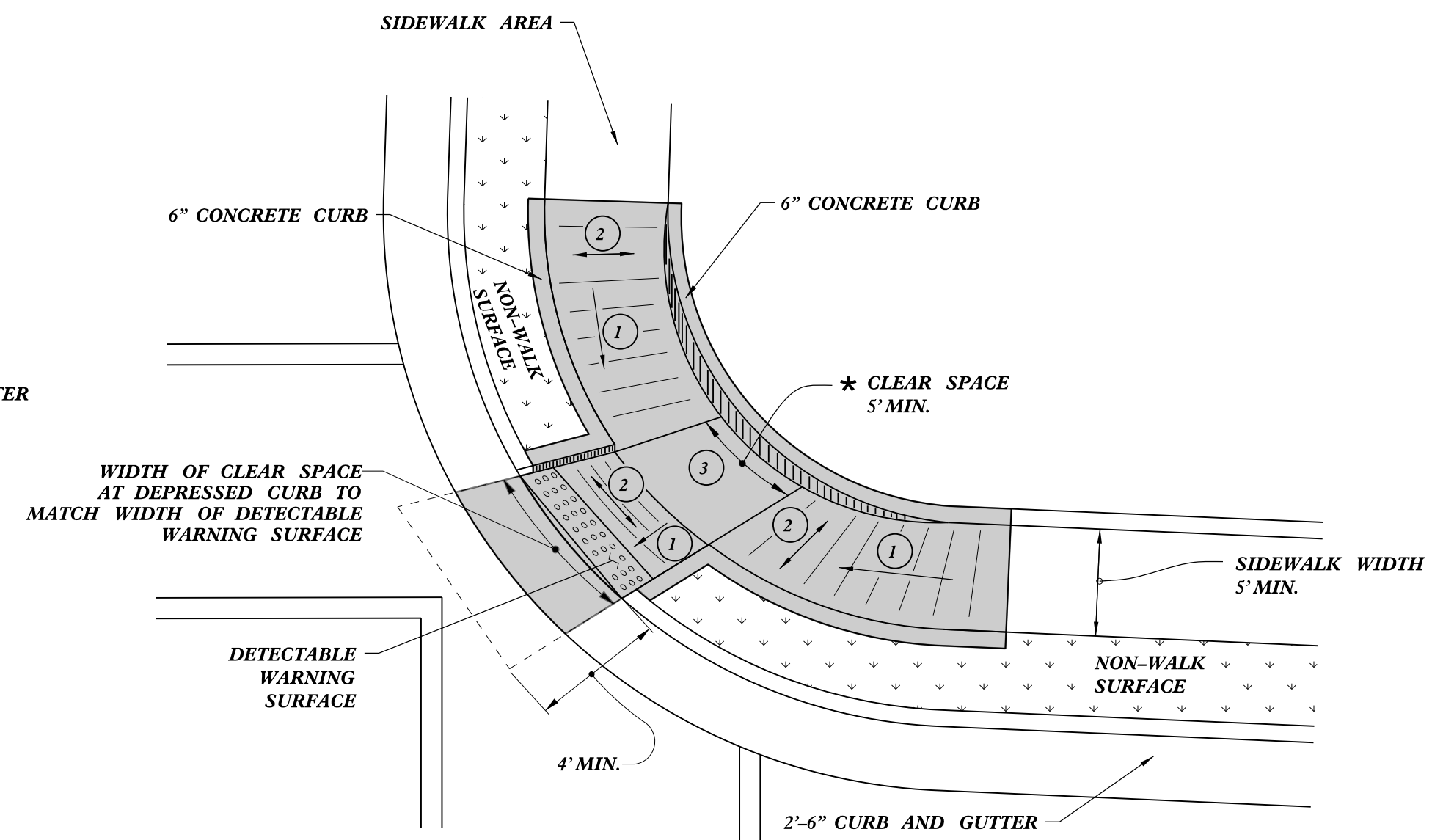
<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950	FAX 919-250-4119
<b>SHOULDER WEDGE DETAILS</b>	
ORIGINAL BY: T.SPELL	DATE: 7-19-11
MODIFIED BY:	DATE: 2/2/16
CHECKED BY:	DATE:
FILE SPEC.: s:usr/details/stand/shoulderwedgedetail.dgn	

22-MAN-2018-0941  
 S:\Contracts\2018\Resurfacing Projects\Division 4\I-5937 Wilson March 2018\Revised Shoulder Wedge Detail.dgn  
 P:\piper\an\USD\2018\2018-09-14

\* - WHERE CLEAR SPACE IS CONSTRAINED ON TWO OR MORE SIDES, THE CLEAR SPACE SHALL BE 4' MINIMUM X 5' MINIMUM, WITH 5' PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.

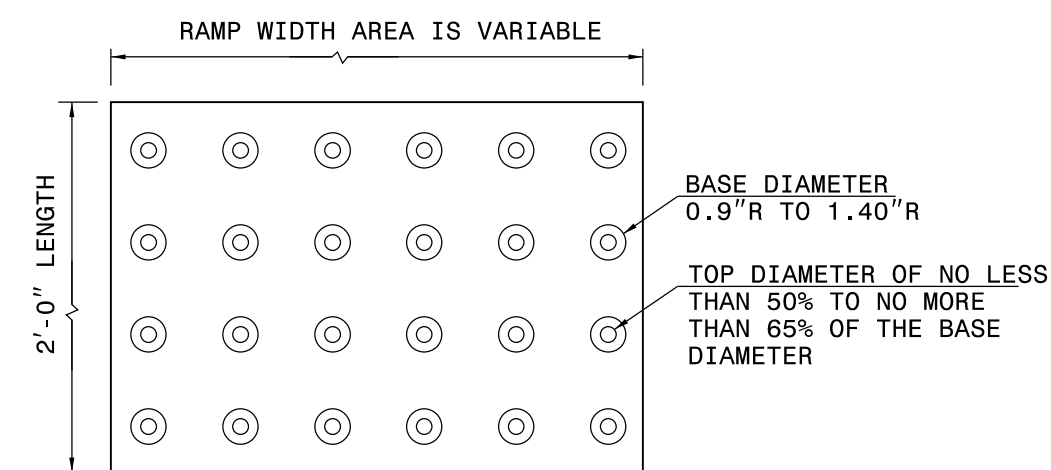


**TYPE 3**

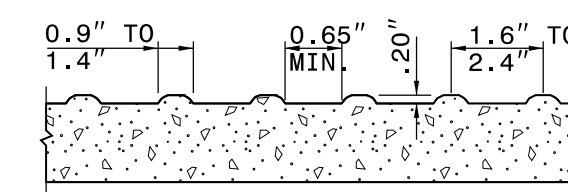


**TYPE 3 MODIFIED  
INSTALLATION IN A RADIUS**

NOTES:  
 1. DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.  
 2. DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



**DETECTABLE WARNING SURFACE**



- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%

PAY LIMITS FOR 1 CURB RAMP

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

ROADWAY STANDARD DRAWING FOR  
**CURB RAMP**  
 PARALLEL RAMP

SHEET 9 OF 13  
**848D06**



DocuSigned by:  
 Nicole M. Hinkle  
 01/02/2024 4:05 PM

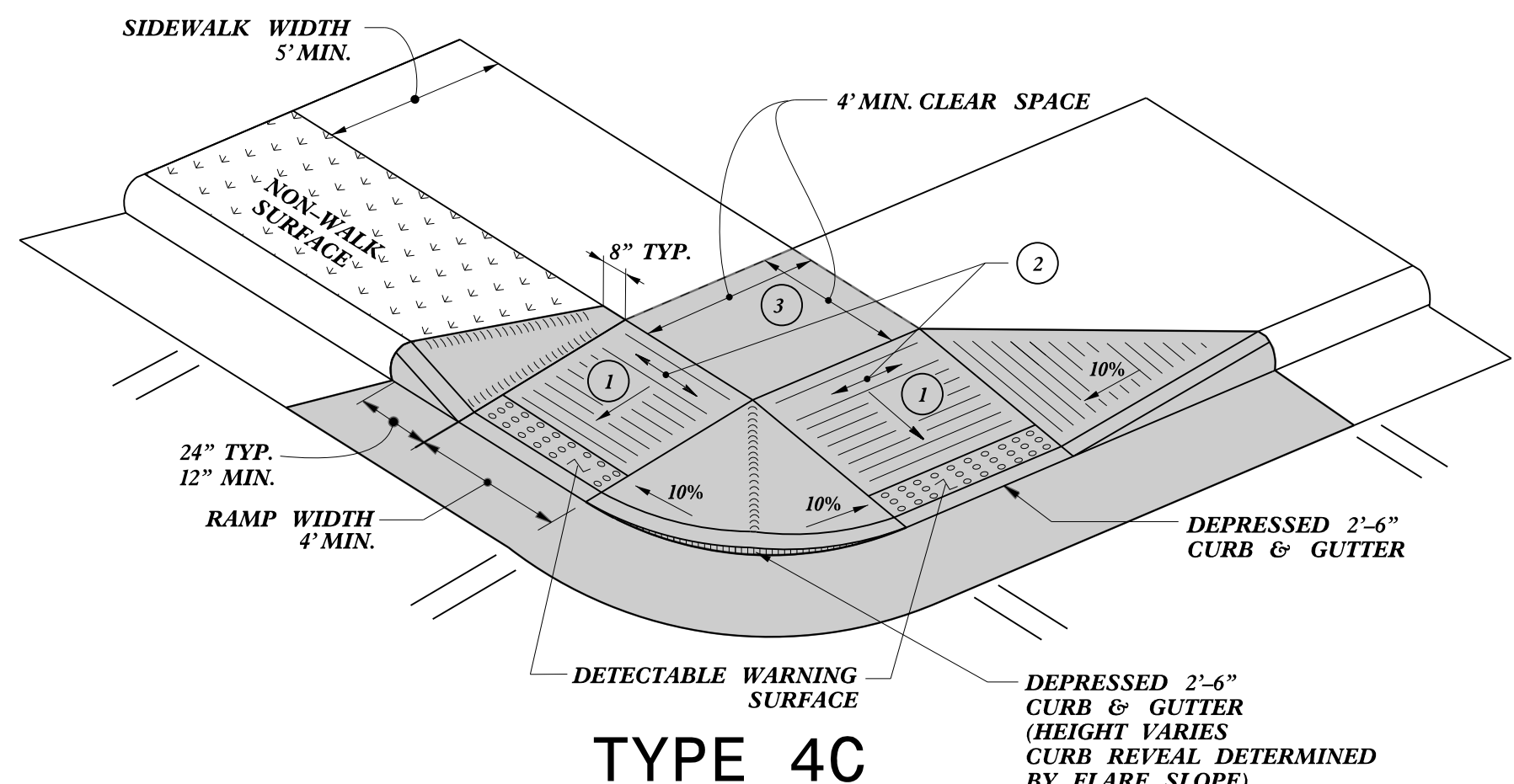
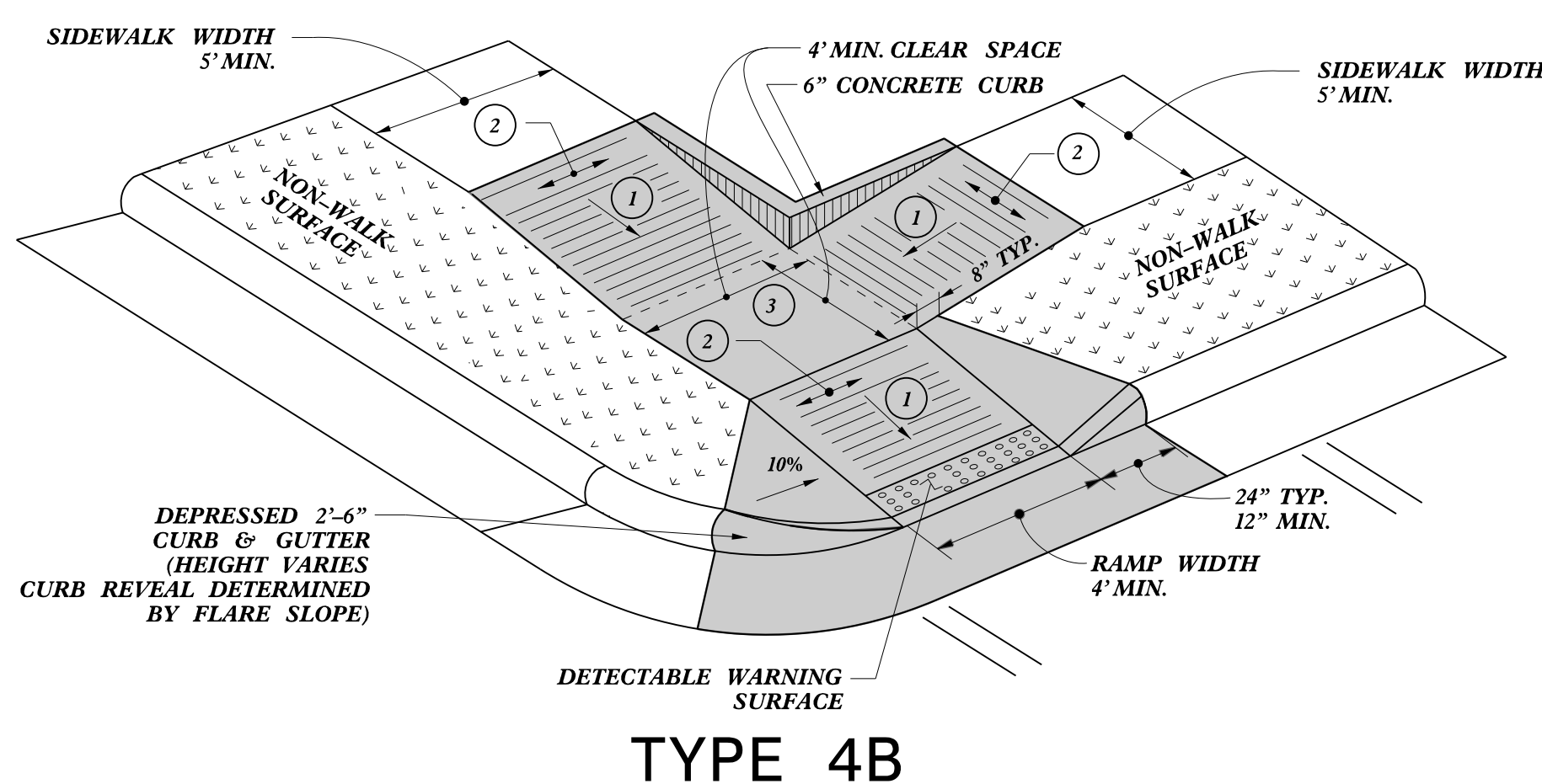
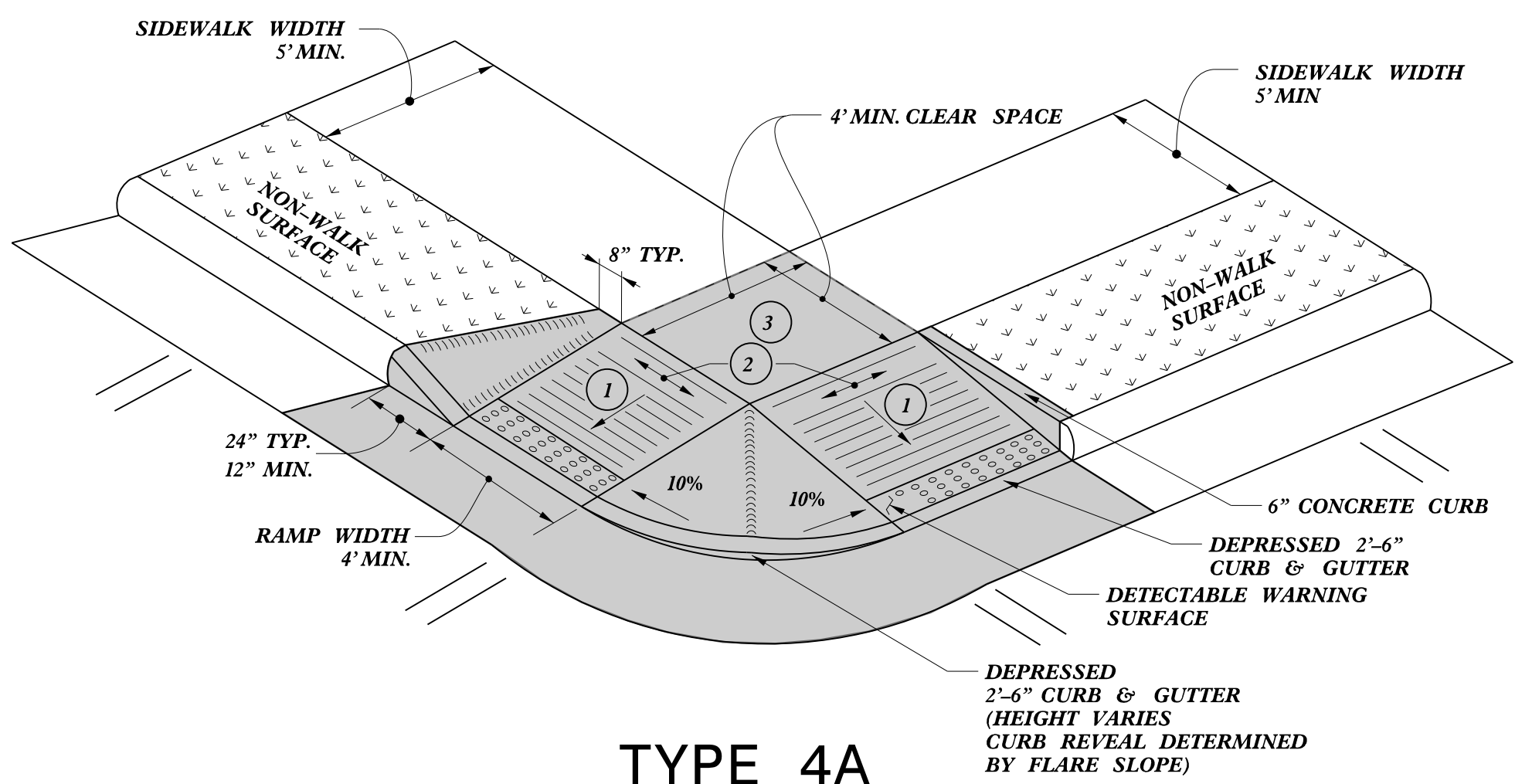
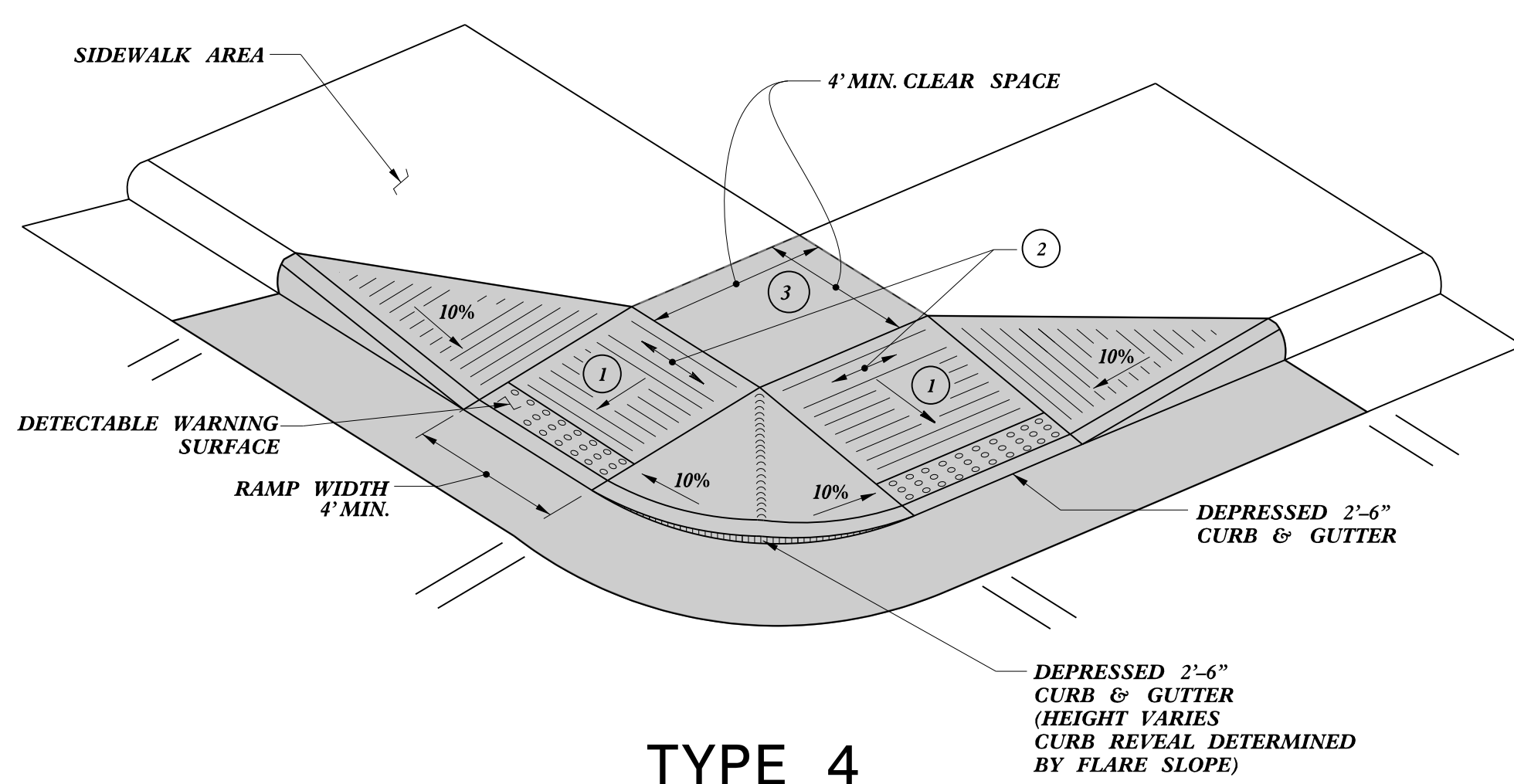
DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

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

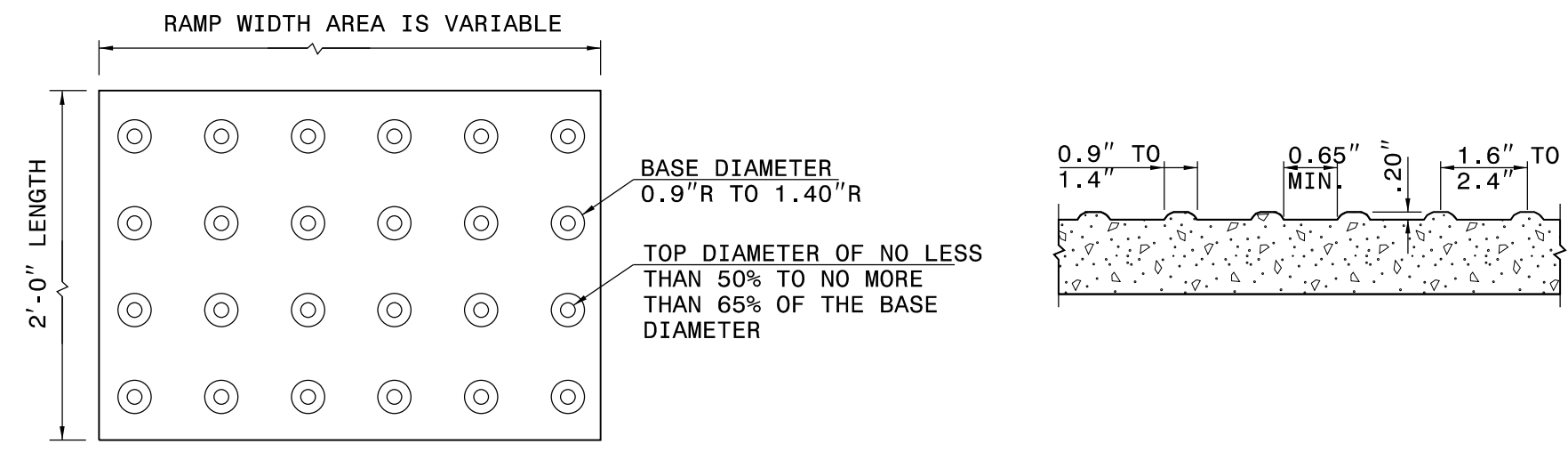
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ORIGINAL BY: S.CALHOUN DATE: 12-22-2023  
 MODIFIED BY: DATE:  
 CHECKED BY: DATE:  
 FILE SPEC.: special\_details\nmhackler\0609.dgn





NOTES:  
 DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.  
 DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



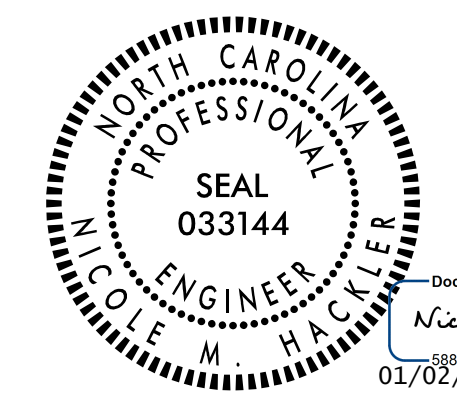
**DETECTABLE WARNING SURFACE**

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%

PAY LIMITS FOR 1 OR 2 CURB RAMPS (CALCULATE BASED ON NUMBER OF SETS OF DETECTABLE WARNING SURFACES)

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

ROADWAY STANDARD DRAWING FOR  
**CURB RAMP**  
 SHARED LANDING



SHEET 10 OF 13  
**848D06**

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

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

**SEE TITLE BLOCK**

ORIGINAL BY: S.CALHOUN DATE: 12-22-2023  
 MODIFIED BY: DATE:  
 CHECKED BY: DATE:  
 FILE SPEC.: special\_details\nmhackler\848D0610.dgn

ADA SUMMARY OF QUANTITIES - TOTALS

Project Number: 2024CPT.05.10.10921.1  
 County: Wake

Sheet No.  
 16

Project Number	County	Municipality	Resurfacing Route	4447000000-E (LF) Pedestrian Channelizing Devices	4600000000-N (EA) Generic Traffic Control Item - Pedestrian Transport Service	4600000000-N (EA) Generic Traffic Control Item - Audible Warning Device	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove and Replace Curb & Gutter	2752000000-E (LF) Remove Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove and Replace Sidewalk	2738000000-E (SY) Remove Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Sign Erection, relocate Type E (Ground Mounted)	2738000000-E (SY) Remove Island	2759000000-N (EA) Retrofit Curb Ramp Detectable Warnings	2612500000-N (EA) Remove and Replace Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Curb Ramps
Wake 55	Wake	Cary Outside Municipality	NC 55 From Pavement Joint To Begin Divided	60	10	2	0	1	124	12	13	59	75	3	1	2	2	6	0	29	2	6
Wake 55	Wake	Cary Outside Municipality	NC 55 From/To Begin Divided To/From Durham County				55	0	48	0	0	5	64	0	0	0	0	0	5	28	0	3
<b>GRAND TOTAL</b>				<b>60</b>	<b>10</b>	<b>2</b>	<b>55</b>	<b>1</b>	<b>172</b>	<b>12</b>	<b>13</b>	<b>64</b>	<b>139</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>5</b>	<b>57</b>	<b>2</b>	<b>9</b>

ADA SUMMARY OF QUANTITIES - NC 55 FROM PAVEMENT JOINT TO BEGIN DIVIDED

Municipality:	Cary
Project Number:	2024CPT.05.10.10921.1
County:	Wake
	Outside Municipality

Sheet No.	17
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Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove and Replace Curb & Gutter	2752000000-E (LF) Remove Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove and Replace Sidewalk	2738000000-E (SY) Remove Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Sign Erection, relocate Type E (Ground Mounted)	2738000000-E (SY) Remove Island	2759000000-N (EA) Retrofit Curb Ramp Detectable Warnings	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Curb Ramps	Improvement Type	
5764	1	NC-55	Parkscene Ln																	Standard - 848.06
5765	1	NC-55	Parkscene Ln						3											Type 1D - 848.06
5766	1	NC-55	Parkscene Ln							3										Standard - 848.06
5767	1	NC-55	Parkscene Ln																	Standard - 848.06
5768	1	NC-55	High House Crossing Shopping Center (South Entrance)						3	3										Type 1 Modified - 848.06
5769	1	NC-55	High House Crossing Shopping Center (South Entrance)							3										Type 1 Modified - 848.06
5770	1	NC-55	High House Crossing Shopping Center (South Entrance)																	Type 1A - 848.06
5929	1	NC-55	High House Crossing Shopping Center (South Entrance)						3				1							Type 3 Modified - 848D06
5775	2	NC-55	Shopping Center (2734 NC-55)			15			9									1		Remove Ramp
5777	2	NC-55	Shopping Center (2734 NC-55)																1	Type 3 - 848D06
5779	2	NC-55	Shopping Center (2734 NC-55)							6									1	Type 3 - 848D06
5782	2	NC-55	Shopping Center (2734 NC-55)																1	Type 7 - 848.06
5785	2	NC-55	Shopping Center (2734 NC-55)			15			6										1	Remove Ramp
5788	2	NC-55	High House Crossing Shopping Center (Main Entrance)			12													1	Type 1A - 848.06
5790	2	NC-55	High House Crossing Shopping Center (Main Entrance)			12				6									1	Type 4B - 848D06
25458	2	NC-55	Shopping Center (2734 NC-55)																1	Type 7 - 848.06
5794	3	NC-55	High House Crossing (North Entrance)							6									1	Type 1C - 848.06
5795	3	NC-55	High House Crossing (North Entrance)							6									1	Type 1B - 848.06
5801	4	NC-55	Discount Tire (2790 NC-55) Entrance																1	Type 1D - 848.06
5825	5	NC-55	Dollar Tree (2810 NC-55) Entrance																1	Type 1 Modified - 848.06
5827	5	NC-55	Dollar Tree (2810 NC-55) Entrance																1	Type 1 Modified - 848.06
25644	5	NC-55	Dollar Tree (2810 NC-55) Entrance		1										6					Other
5831	6	NC-55	Henmore Brook Dr																1	Type 1 Modified - 848.06
5833	6	NC-55	Henmore Brook Dr			15													1	Remove Ramp
5836	6	NC-55	Wellesley Trade Ln			15			8										1	Remove Ramp
5839	6	NC-55	Wellesley Trade Ln																1	Type 1A - 848.06
5844	7	NC-55	Highfield Ave									1							1	Type 1C - 848.06
5845	7	NC-55	Highfield Ave			15			9										1	Remove Ramp
25647	7	NC-55	Highfield Ave					8						1					1	Type 1A - 848.06
5853	8	NC-55	Edgemore Ave			15			9										1	Remove Ramp
5854	8	NC-55	Edgemore Ave				12		9	3									1	Type 1C - 848.06
25651	8	NC-55	Edgemore Ave											1					1	Type 3 Modified - 848D06
5855	9	NC-55	Brook Arbor Dr							6									1	Type 1D - 848.06
5856	9	NC-55	Brook Arbor Dr			10		5		6	3		1						1	Type 1C - 848.06
5860	10	NC-55	Glendon Way							3									1	Type 1A - 848.06
5861	10	NC-55	Glendon Way							6									1	Type 3 Modified - 848D06
5862	11	NC-55	CubeSmart Self Storage (3301 NC-55)							9									1	Type 1 Modified - 848.06
5863	11	NC-55	CubeSmart Self Storage (3301 NC-55)							9									1	Type 1 Modified - 848.06
<b>Sub-Total for NC 55 From Pavement Joint To Begin Divided</b>				<b>0</b>	<b>1</b>	<b>124</b>	<b>12</b>	<b>13</b>	<b>59</b>	<b>75</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>0</b>	<b>29</b>	<b>2</b>	<b>6</b>	

Note: ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.

ADA SUMMARY OF QUANTITIES - NC 55 FROM/TO BEGIN DIVIDED TO/FROM DURHAM COUNTY

Municipality:	Cary
Project Number:	2024CPT.05.10.10921.1
County:	Wake
Outside Municipality:	

Sheet No.	18
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Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove and Replace Curb & Gutter	2752000000-E (LF) Remove Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove and Replace Sidewalk	2738000000-E (SY) Remove Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Sign Erection, relocate Type E (Ground Mounted)	2738000000-E (SY) Remove Island	2759000000-N (EA) Retrofit Curb Ramp Detectable Warnings	2612500000-N (EA) Remove and Replace Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Curb Ramps	Improvement Type
5864	1	NC-55	Commons Hill Dr						9								1			Type 1 Modified - 848.06
5865	1	NC-55	Commons Hill Dr						9								1			Type 1 Modified - 848.06
5889	2	NC-55	SR-1621 (Green Hope School Rd)													1				Retrofit Warnings
5891	2	NC-55	SR-1621 (Green Hope School Rd)													1				Retrofit Warnings
5899	3	NC-55	US Army Reserve Center (3677 NC-55)						9								1			Type 1 Modified - 848.06
5903	3	NC-55	US Army Reserve Center (3677 NC-55)						9								1			Type 1 Modified - 848.06
5906	4	NC-55	Extra Space Storage (3701 NC-55)						9								1			Type 1 Modified - 848.06
5908	4	NC-55	Extra Space Storage (3701 NC-55)						9								1			Type 1 Modified - 848.06
5930	5	NC-55	SR-3060 (Morrisville Pkwy)						3								1			Standard - 848.06
5931	5	NC-55	SR-3060 (Morrisville Pkwy)			15												1		Remove Ramp
25645	5	NC-55	SR-3060 (Morrisville Pkwy)													1				Retrofit Warnings
25646	5	NC-55	SR-3060 (Morrisville Pkwy)													1				Retrofit Warnings
25648	6	NC-55	Business Entrance (3761 NC-55)						7								1			Type 1 Modified - 848.06
5982	7	NC-55	Public Storage (4200 NC-55)														1			Type 1C - 848.06
5983	7	NC-55	Public Storage (4200 NC-55)														1			Type 4B - 848D06
5984	8	NC-55	SR-1633 (Good Hope Church Rd)													1				Retrofit Warnings
25479	9	NC-55	Mahal Ave						2								1			Type 3 - 848D06
25486	10	NC-55	SR-1628 (Okelly Chapel Rd)	6													1			Type 7 - 848.06
25487	10	NC-55	SR-1628 (Okelly Chapel Rd)	6													1			Type 7 - 848.06
9443	11	NC-55	Parkside Town Commons North (Right-in Entrance)														1			Standard - 848.06
9444	11	NC-55	Parkside Town Commons North (Right-in Entrance)														1			Standard - 848.06
9445	12	NC-55	Town Commons Dr														1			Type 3 Modified - 848D06
9446	12	NC-55	Town Commons Dr														1			Type 3 Modified - 848D06
9447	12	NC-55	Town Commons Dr	10													1			Type 7 - 848.06
9448	12	NC-55	Town Commons Dr	10													1			Type 7 - 848.06
9449	13	NC-55	Parkside Green St														1			Standard - 848.06
9450	13	NC-55	Parkside Green St														1			Standard - 848.06
9451	14	NC-55	Alston Village Ln														1			Type 1B - 848.06
9452	14	NC-55	Alston Village Ln														1			Type 1 Modified - 848.06
25649	14	NC-55	Alston Village Ln	3													1			Type 7 - 848.06
25650	14	NC-55	Alston Village Ln	4													1			Type 7 - 848.06
9457	15	NC-55	Kit Creek Rd			15												1		Remove Ramp
9459	15	NC-55	Kit Creek Rd														1			Standard - 848.06
9460	15	NC-55	Kit Creek Rd			18												1		Remove Ramp
9461	16	NC-55	Citadel Creek Ln	16					3								1			Type 1 Modified - 848.06
9462	16	NC-55	Citadel Creek Ln														1			Type 1A - 848.06
<b>Sub-Total for NC 55 From/To Begin Divided To/From Durham County</b>				<b>55</b>	<b>0</b>	<b>48</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>28</b>	<b>0</b>	<b>3</b>	

Note: ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.

ADA SUMMARY OF QUANTITIES - NC 55 FROM/TO BEGIN DIVIDED TO/FROM DURHAM COUNTY

Municipality:	Cary Outside Municipality
Project Number:	2024CPT.05.10.10921.1
County:	Wake

Sheet No.	18
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Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove and Replace Curb & Gutter	2752000000-E (LF) Remove Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove and Replace Sidewalk	2738000000-E (SY) Remove Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Sign Erection, relocate Type E (Ground Mounted)	2738000000-E (SY) Remove Island	2759000000-N (EA) Retrofit Curb Ramp Detectable Warnings	2612500000-N (EA) Remove and Replace Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Curb Ramps	Improvement Type
5864	1	NC-55	Commons Hill Dr						9								1			Type 1 Modified - 848.06
5865	1	NC-55	Commons Hill Dr						9								1			Type 1 Modified - 848.06
5889	2	NC-55	SR-1621 (Green Hope School Rd)													1				Retrofit Warnings
5891	2	NC-55	SR-1621 (Green Hope School Rd)													1				Retrofit Warnings
5899	3	NC-55	US Army Reserve Center (3677 NC-55)						9								1			Type 1 Modified - 848.06
5903	3	NC-55	US Army Reserve Center (3677 NC-55)						9								1			Type 1 Modified - 848.06
5906	4	NC-55	Extra Space Storage (3701 NC-55)						9								1			Type 1 Modified - 848.06
5908	4	NC-55	Extra Space Storage (3701 NC-55)						9								1			Type 1 Modified - 848.06
5930	5	NC-55	SR-3060 (Morrisville Pkwy)						3								1			Standard - 848.06
5931	5	NC-55	SR-3060 (Morrisville Pkwy)			15												1		Remove Ramp
25645	5	NC-55	SR-3060 (Morrisville Pkwy)													1				Retrofit Warnings
25646	5	NC-55	SR-3060 (Morrisville Pkwy)													1				Retrofit Warnings
25648	6	NC-55	Business Entrance (3761 NC-55)						7								1			Type 1 Modified - 848.06
5982	7	NC-55	Public Storage (4200 NC-55)														1			Type 1C - 848.06
5983	7	NC-55	Public Storage (4200 NC-55)														1			Type 4B - 848.06
5984	8	NC-55	SR-1633 (Good Hope Church Rd)													1				Retrofit Warnings
25479	9	NC-55	Mahal Ave						2								1			Type 3 - 848.06
25486	10	NC-55	SR-1628 (Okelly Chapel Rd)	6													1			Type 7 - 848.06
25487	10	NC-55	SR-1628 (Okelly Chapel Rd)	6													1			Type 7 - 848.06
9443	11	NC-55	Parkside Town Commons North (Right-in Entrance)														1			Standard - 848.06
9444	11	NC-55	Parkside Town Commons North (Right-in Entrance)														1			Standard - 848.06
9445	12	NC-55	Town Commons Dr														1			Type 3 Modified - 848.06
9446	12	NC-55	Town Commons Dr														1			Type 3 Modified - 848.06
9447	12	NC-55	Town Commons Dr	10													1			Type 7 - 848.06
9448	12	NC-55	Town Commons Dr	10													1			Type 7 - 848.06
9449	13	NC-55	Parkside Green St														1			Standard - 848.06
9450	13	NC-55	Parkside Green St														1			Standard - 848.06
9451	14	NC-55	Alston Village Ln														1			Type 1B - 848.06
9452	14	NC-55	Alston Village Ln														1			Type 1 Modified - 848.06
25649	14	NC-55	Alston Village Ln	3													1			Type 7 - 848.06
25650	14	NC-55	Alston Village Ln	4													1			Type 7 - 848.06
9457	15	NC-55	Kit Creek Rd			15												1		Remove Ramp
9459	15	NC-55	Kit Creek Rd														1			Standard - 848.06
9460	15	NC-55	Kit Creek Rd			18												1		Remove Ramp
9461	16	NC-55	Citadel Creek Ln	16					3								1			Type 1 Modified - 848.06
9462	16	NC-55	Citadel Creek Ln														1		3	Type 1A - 848.06
<b>Sub-Total for NC 55 From/To Begin Divided To/From Durham County</b>				<b>55</b>	<b>0</b>	<b>48</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>28</b>	<b>0</b>	<b>3</b>	

Note: ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.

PROJECT NO.	SHEET NO.	TOTAL NO.
2024CPT.05.10.10321.1, ETC		19

## SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	0156000000-E	1297000000-E	1330000000-E	1523000000-E	1575000000-E	1704000000-E	2549000000-E	2591000000-E	2605000000-N	2612500000-N	2738000000-E			
											REMOVAL OF EXISTING ASPHALT PAVEMENT	1½" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	2'-6" CURB & GUTTER	4" CONCRETE SIDEWALK	CONCRETE CURB RAMPS	REMOVE AND REPLACE CONCRETE CURB RAMPS	GENERIC PAVING ITEM, REMOVE AND REPLACE SIDEWALK	GENERIC PAVING ITEM, REMOVE ISLAND		
											MI	FT	SY	SY	SY	TONS	TON	TONS	LF	SY	EA	EA	SY	SY
2024CPT.05.10.10321.1	Durham	1	NC-55 S / NC 55 HWY	FROM SR 2028 TO WAKE COUNTY	1	2	NO	NO	0.843	36-56		15,177	5,855	1,767	90	15								
		2	NC-55 N / NC 55 HWY	FROM DURHAM COUNTY TO SR 2028	1	2	NO	NO	0.843	30-56		16,584	3,535	1,692	92	15								
<b>TOTAL FOR PROJ NO. 2024CPT.05.10.10321.1</b>									<b>1.686</b>			<b>31,761</b>	<b>9,390</b>	<b>3,459</b>	<b>182</b>	<b>30</b>								
2024CPT.05.10.10921.1	Wake	3	NC-55 N / NC 55 HWY	FROM PAVEMENT JOINT TO BEGIN DIVIDED	2	2	NO	NO	1.222	60-95		38,875	9,638	4,079	264	15	124	59	2	29	75	6		
		4	NC-55 S / NC 55 HWY	FROM DURHAM COUNTY TO END DIVIDED	1	2	NO	NO	4.984	36-70		102,051	26,614	10,812	1,280	30								
		5	NC-55 N / NC 55 HWY	FROM BEGIN DIVIDED TO DURHAM COUNTY	1	2	NO	NO	4.984	24-80	55.0	100,698	27,967	10,814	641	30	48	5		28				
<b>TOTAL FOR PROJ NO. 2024CPT.05.10.10921.1</b>									<b>11.19</b>		<b>55.0</b>	<b>241,624</b>	<b>64,219</b>	<b>25,705</b>	<b>2,185</b>	<b>75</b>	<b>172</b>	<b>64</b>	<b>2</b>	<b>57</b>	<b>75</b>	<b>6</b>		
<b>GRAND TOTAL</b>									<b>12.88</b>		<b>55.0</b>	<b>273,385</b>	<b>73,609</b>	<b>29,164</b>	<b>2,367</b>	<b>105</b>	<b>172</b>	<b>64</b>	<b>2</b>	<b>57</b>	<b>75</b>	<b>6</b>		

PROJECT NO.	SHEET NO.	TOTAL NO.
2024CPT.05.10.10321.1, ETC		20

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	2738000000-E		2752000000-E			2759000000-N		2830000000-N	2845000000-N	4116100000-N	5255000000-N	7444000000-E	4600000000-N		
									LENGTH	WIDTH	GENERIC PAVING ITEM REMOVE SIDEWALK	GENERIC PAVING ITEM, RMV AND REPLACE 2' 6" C&G	GENERIC PAVING ITEM, REMOVE CURB & GUTTER	GENERIC PAVING ITEM, REMOVE CURB RAMP	GENERIC PAVING ITEM, RETROFIT CURB RAMP DETECTABLE WARNINGS	ADJUST MANHOLES	ADJUST METER OR VALVE BOX	SIGN ERECTION, RELOCATE, TYPE **** (GROUND MOUNTED) (E)	PORTABLE LIGHTING	INDUCTIVE LOOP SAWCUT	GENERIC TRAFFIC CONTROL ITEM PEDESTRIAN TRANSPORT SERVICE	GENERIC TRAFFIC CONTROL ITEM AUDIBLE WARNING DEVICES	
									MI	FT	SY	LF	LF	EA	EA	EA	EA	EA	LS	LF	EA	EA	
2024CPT.05.10.10321.1	Durham	1	NC-55 S / NC 55 HWY	FROM SR 2028 TO WAKE COUNTY	1	2	NO	NO	0.843	36-56									*	600			
		2	NC-55 N / NC 55 HWY	FROM DURHAM COUNTY TO SR 2028	1	2	NO	NO	0.843	30-56											540		
<b>TOTAL FOR PROJ NO. 2024CPT.05.10.10321.1</b>									<b>1.686</b>									<b>1.00</b>	<b>1,140</b>				
2024CPT.05.10.10921.1	Wake	3	NC-55 N / NC 55 HWY	FROM PAVEMENT JOINT TO BEGIN DIVIDED	2	2	NO	NO	1.222	60-95	3	13	12	6		1	2	2.00		1,128			
		4	NC-55 S / NC 55 HWY	FROM DURHAM COUNTY TO END DIVIDED	1	2	NO	NO	4.984	36-70										*	2,400	10	2
		5	NC-55 N / NC 55 HWY	FROM BEGIN DIVIDED TO DURHAM COUNTY	1	2	NO	NO	4.984	24-80	64				3	5					3,024		
<b>TOTAL FOR PROJ NO. 2024CPT.05.10.10921.1</b>									<b>11.19</b>		<b>67</b>	<b>13</b>	<b>12</b>	<b>9</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>2.00</b>	<b>1.00</b>	<b>6,552</b>	<b>10</b>	<b>2</b>	
<b>GRAND TOTAL</b>									<b>12.88</b>		<b>67</b>	<b>13</b>	<b>12</b>	<b>9</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>2.00</b>	<b>1.00</b>	<b>7,692</b>	<b>10</b>	<b>2</b>	

PROJECT NO.	SHEET NO.	TOTAL NO.
2024CPT.05.10.10321.1, ETC		21

### THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4510000000-N	4685000000-E		4695000000-E	4700000000-E		4709000000-E
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	8" X 90 M WHITE THERMO	12" X 90 M WHITE THERMO	12" X 90 M YELLOW THERMO	24" X 90 M WHITE THERMO
										SF	LS	HR	LF	LF	LF			LF
2024CPT.05.10.10321.1	Durham	1	NC-55 S / NC 55 HWY	FROM SR 2028 TO WAKE COUNTY	1	2		0.843	36-56	78	*	120	4,750	1,020	680			40
		2	NC-55 N / NC 55 HWY	FROM DURHAM COUNTY TO SR 2028	1	2		0.843	30-56	80		120	5,412	1,020	180			90
<b>TOTAL FOR PROJ NO. 2024CPT.05.10.10321.1</b>								<b>1.69</b>		<b>158</b>	<b>1.00</b>	<b>240</b>	<b>10,162</b>	<b>2,040</b>	<b>860</b>			<b>130</b>
													<b>12,202</b>					
2024CPT.05.10.10921.1	Wake	3	NC-55 N / NC 55 HWY	FROM PAVEMENT JOINT TO BEGIN DIVIDED	2	2		1.222	60-95	137	*	80	5,610	9,380	1,274	90		1,530
		4	NC-55 S / NC 55 HWY	FROM DURHAM COUNTY TO END DIVIDED	1	2		4.984	36-70	558		320	21,147	3,655	4,252			736
		5	NC-55 N / NC 55 HWY	FROM BEGIN DIVIDED TO DURHAM COUNTY	1	2		4.984	24-80	558		320	29,214	3,655	3,826		108	871
<b>TOTAL FOR PROJ NO. 2024CPT.05.10.10921.1</b>								<b>11.19</b>		<b>1,253</b>	<b>1.000</b>	<b>720</b>	<b>55,971</b>	<b>16,690</b>	<b>9,352</b>	<b>90</b>	<b>108</b>	<b>3,137</b>
													<b>72,661</b>					
<b>GRAND TOTAL</b>								<b>12.88</b>		<b>1,411</b>	<b>1.00</b>	<b>960</b>	<b>66,133</b>	<b>18,730</b>	<b>10,212</b>	<b>90</b>	<b>108</b>	<b>3,267</b>
													<b>84,863</b>					

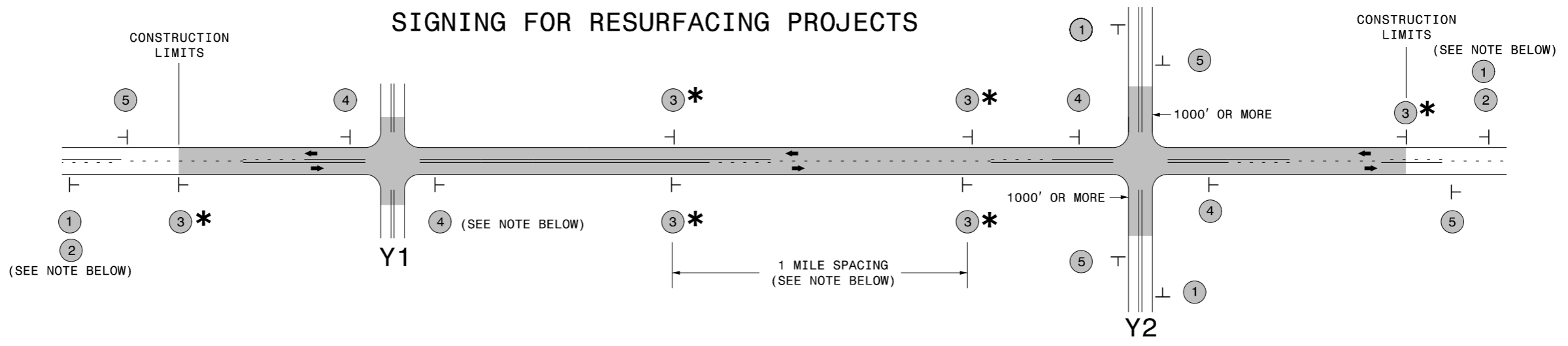


PROJECT NO.	SHEET NO.	TOTAL NO.
2024CPT.05.10.10321.1, ETC		22

## THERMOPLASTIC AND PAINT Q U A N T I T I E S

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	472000000-E			472500000-E				490510000-N	444700000-E		
										THERMO MSG ONLY 90 M	THERMO MSG BUS 90 M	THERMO MSG LANE 90 M	THERMO LT ARROW 90 M	THERMO STR ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO MERGE ARROW 90 M	NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKER	PEDESTRIAN CHANNELIZING DEVICES	
										EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
2024CPT.05.10.10321.1	Durham	1	NC-55 S / NC 55 HWY	FROM SR 2028 TO WAKE COUNTY	1	2		0.843	36-56				5	4	2			185		
		2	NC-55 N / NC 55 HWY	FROM DURHAM COUNTY TO SR 2028	1	2		0.843	30-56				6	8	6			178		
<b>TOTAL FOR PROJ NO. 2024CPT.05.10.10321.1</b>								<b>1.69</b>			<b>11</b>	<b>12</b>	<b>8</b>	<b>31</b>			<b>363</b>			
2024CPT.05.10.10921.1	Wake	3	NC-55 N / NC 55 HWY	FROM PAVEMENT JOINT TO BEGIN DIVIDED	2	2		1.222	60-95	8	3	4	36	19	22			930		
		4	NC-55 S / NC 55 HWY	FROM DURHAM COUNTY TO END DIVIDED	1	2		4.984	36-70	48			42	38	33	6	8	1,194	60	
		5	NC-55 N / NC 55 HWY	FROM BEGIN DIVIDED TO DURHAM COUNTY	1	2		4.984	24-80	8			53	43	38		2	1,186		
<b>TOTAL FOR PROJ NO. 2024CPT.05.10.10921.1</b>								<b>11.19</b>			<b>64</b>	<b>3</b>	<b>4</b>	<b>131</b>	<b>100</b>	<b>93</b>	<b>6</b>	<b>10</b>	<b>3,310</b>	<b>60</b>
<b>GRAND TOTAL</b>								<b>12.88</b>			<b>64</b>	<b>3</b>	<b>4</b>	<b>142</b>	<b>112</b>	<b>101</b>	<b>6</b>	<b>10</b>	<b>3,673</b>	<b>60</b>
											<b>71</b>			<b>371</b>						

# SIGNING FOR RESURFACING PROJECTS



**LEGEND**  
 | STATIONARY SIGN  
 ← DIRECTION OF TRAFFIC FLOW

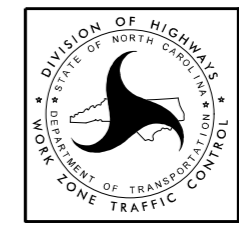
## MAINLINE (-L-) SIGNING

## -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	 	<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#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)</p>	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <li>LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>SUBDIVISION ROADS</li> <li>DEAD END ROADS</li> </ol> <p>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.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">   <small>W20-1 48" X 48"</small> </div> <div style="text-align: center;">   <small>W20-7 A 48" X 48"</small> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
		<p>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.</p>	
		<p>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.</p>	
		<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>	

### \* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

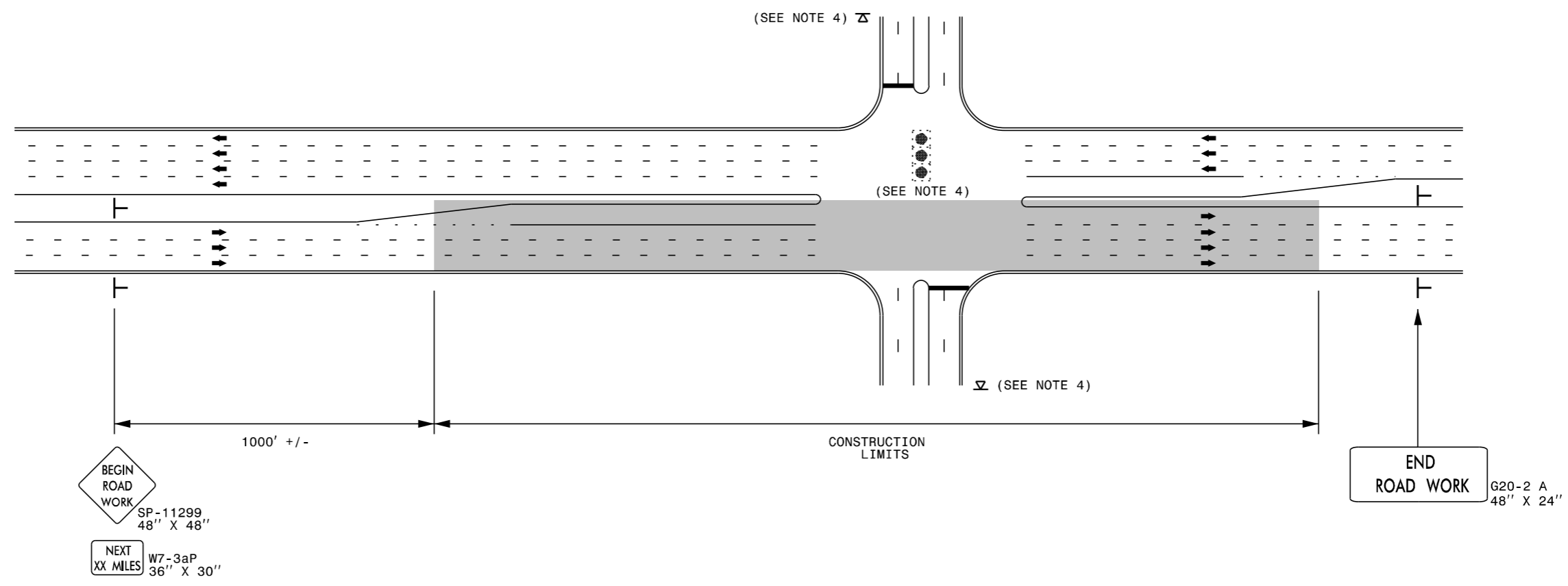
SUBSTITUTE LOW/SOFT SHOULDER SIGNS BY ALTERNATING THE FOLLOWING TWO SIGNS: STARTING WITH "UNMARKED PAVEMENT AHEAD" (SP 06026) FOLLOWED BY "LOOSE GRAVEL" (W8-7).



RESURFACING  
 ADVANCE WARNING SIGNS  
 FOR  
 RURAL AND SUBURBAN  
 2 LANE ROADWAYS

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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**

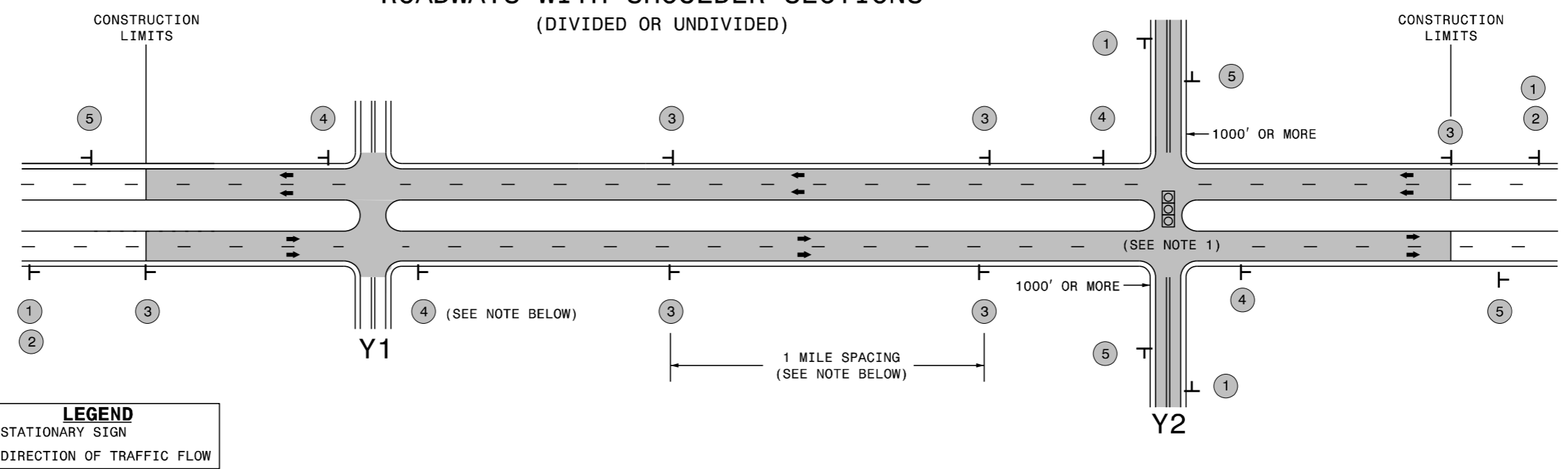
└ STATIONARY SIGN

➔ DIRECTION OF TRAFFIC FLOW

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

2/24/2014 S:\T\U\WZTC\Resurfacing\2013\Documents\New\_Procedures\_05\_09\_2013\Resurfacing\_AdvWarn\_UrSub.dgn

## SIGNING FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS WITH SHOULDER SECTIONS (DIVIDED OR UNDIVIDED)



### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

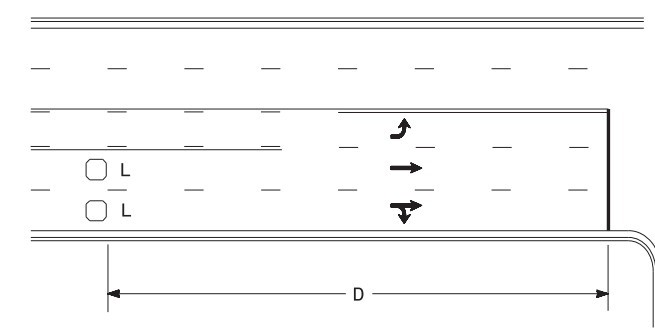
<b>SIGNING NOTES AND PLACEMENT PER DIRECTION</b>	1	 W20-1 48" X 48"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.		
	2	 W7-3aP 24" X 18"	#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)		
	3	 SP 13107 48" X 48"	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	 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.		
5	 G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.	<p><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</b></p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <p>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.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">                   W20-1                  48" X 48"             </div> <div style="text-align: center;">                   W20-7 A                  48" X 48"             </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p> <p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>1) 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.</li> </ol>		



**RESURFACING  
ADVANCE WARNING SIGNS  
FOR RURAL AND SUBURBAN  
MULTI-LANE ROADWAYS  
W/ SHOULDER SECTIONS**

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 User:mgarrrett

### High Speed Detection (≥40 mph)

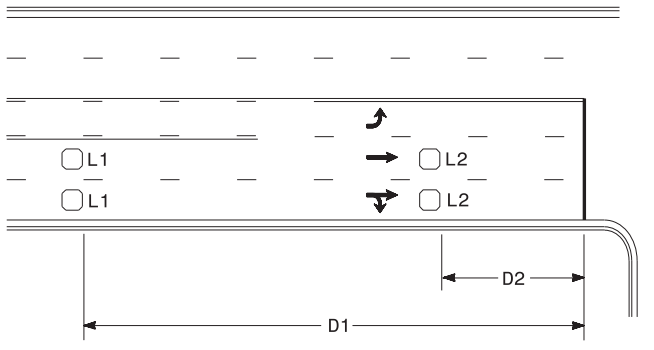


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft  
Wired separately

Volume Density Operation

OR

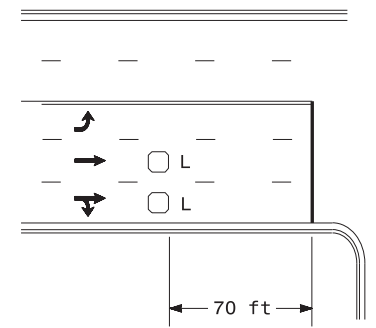


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

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

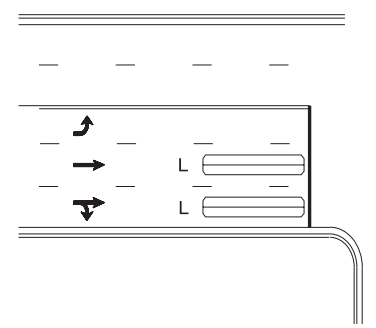
"Stretch" Operation

### Low Speed Detection (≤35 mph)



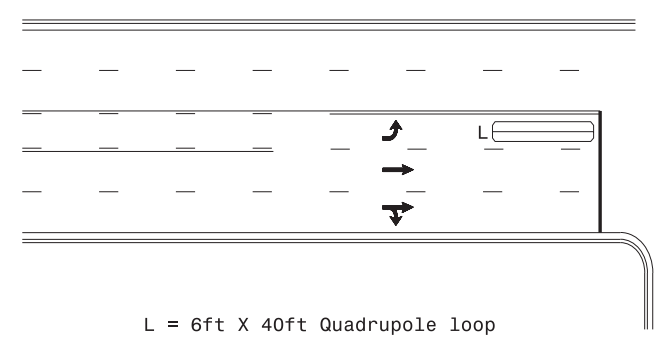
L = 6ft X 6ft  
Wired in series

OR



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

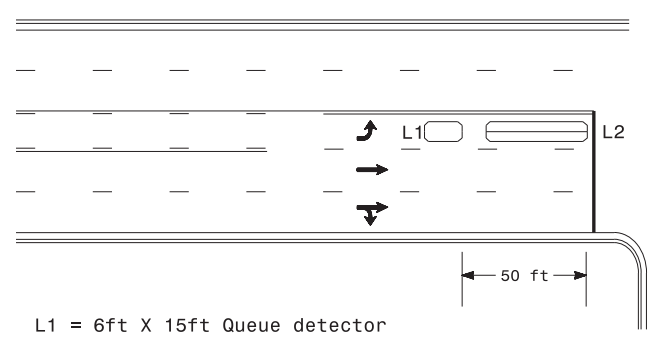
### Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

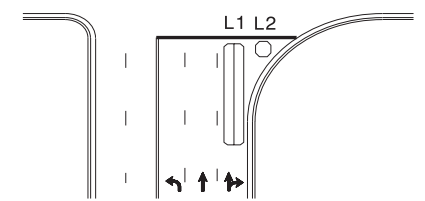
OR



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

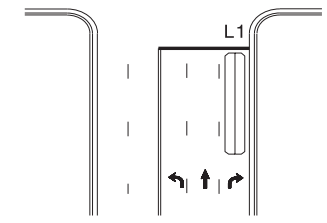
Queue Loop Detection

### Right Turn Lane Detection

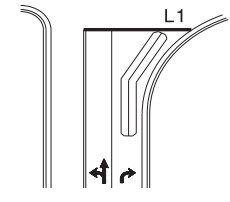


Shared Lane/  
Wide Radius Turn

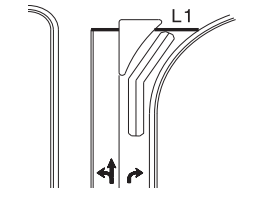
L1 = 6ft X 40ft Quadrupole loop  
L2 = 6ft X 6ft [Minimum] Presence loop  
Wired separately



Standard Turn

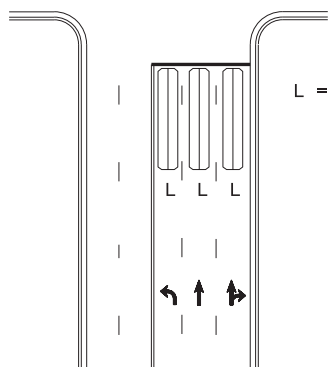


Wide Radius Turn



Channelized Turn

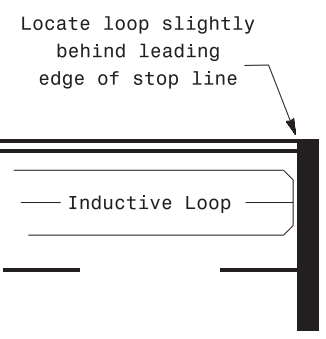
### Side Street Detection



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

Presence Loop Detection

### 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

	<p>Typical Signal Loop Locations</p>	
	<p>PLAN DATE: September 2020</p>	<p>REVIEWED BY: JPG</p>
<p>PREPARED BY: PLA</p>	<p>REVIEWED BY:</p>	<p>SCALE: N/A</p>
<p>REVISIONS</p>	<p>INIT. DATE</p>	<p>DATE</p>
<p>9/8/2020</p>	<p>DATE</p>	<p>SIG. INVENTORY NO.</p>

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