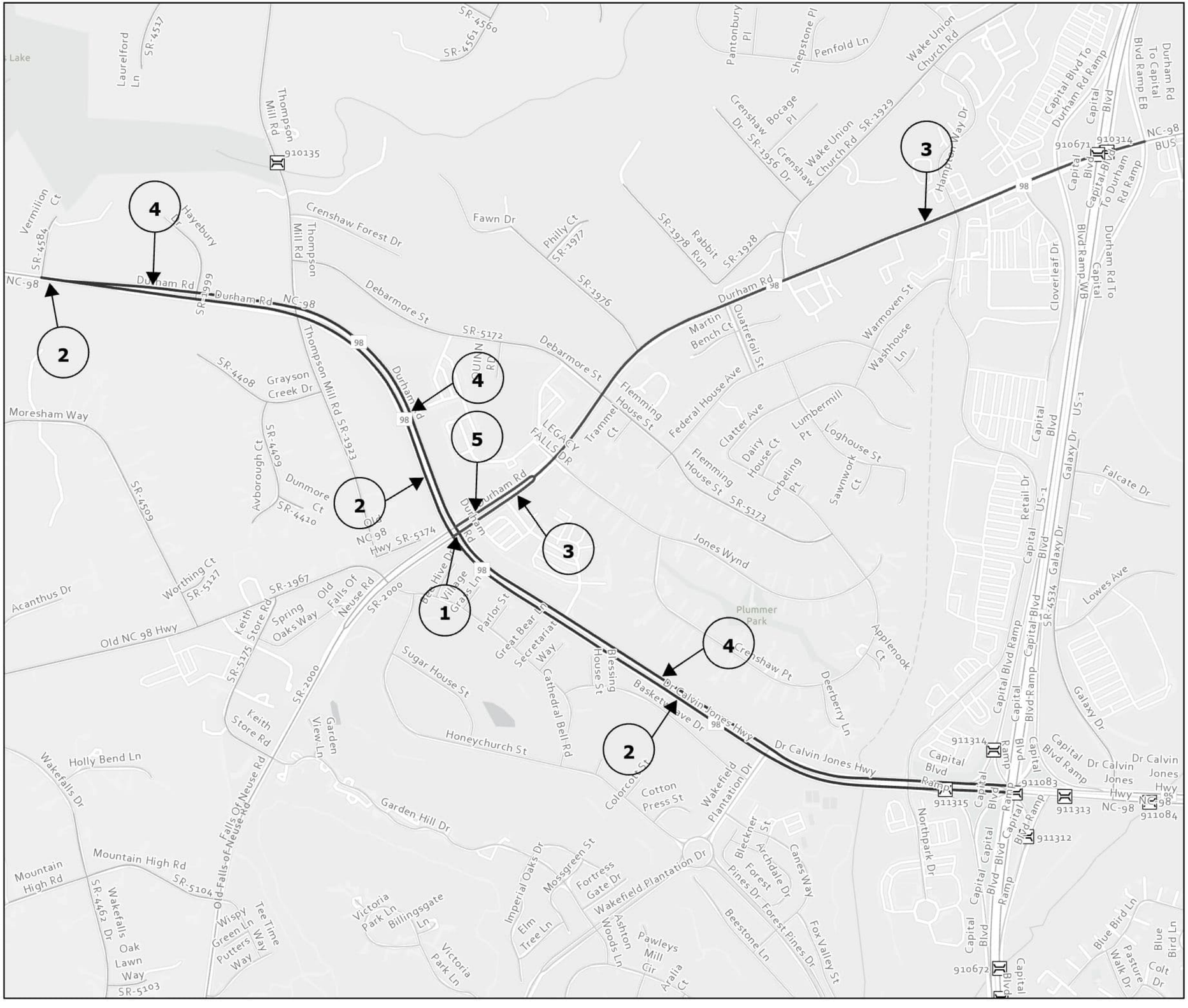

NC-98
Durham Rd
Durham Rd NC-98
Durham Rd
Durham Rd
Durham Rd
Durham Rd
Dr Calvin Jones Hwy
Dr Calvin Jones Hwy
Dr Calvin Jones Hwy
Capital Blvd
Capital Blvd
Capital Blvd

2028 N Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.08.10921, ETC.	2

Map 6 SR-3067 Inventory (T.W. Alexander Dr)
From Durham County Line
To SR-6010 (Brier Creek Pkwy)

Map 7 SR-3102 (Arco Corporate Dr)
From SR-3109 (Brier Creek Pkwy) to Pavement Joint

Map 9 SR-3067 Non-Inventory (T.W. Alexander Dr)
From SR-6010 (Brier Creek Pkwy)
To Durham County Line



2028 N Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.08.10921, ETC.	3

Map 8 SR-2013 (Gresham Lake Rd)
From SR-2012 (Litchford Rd) to US-1

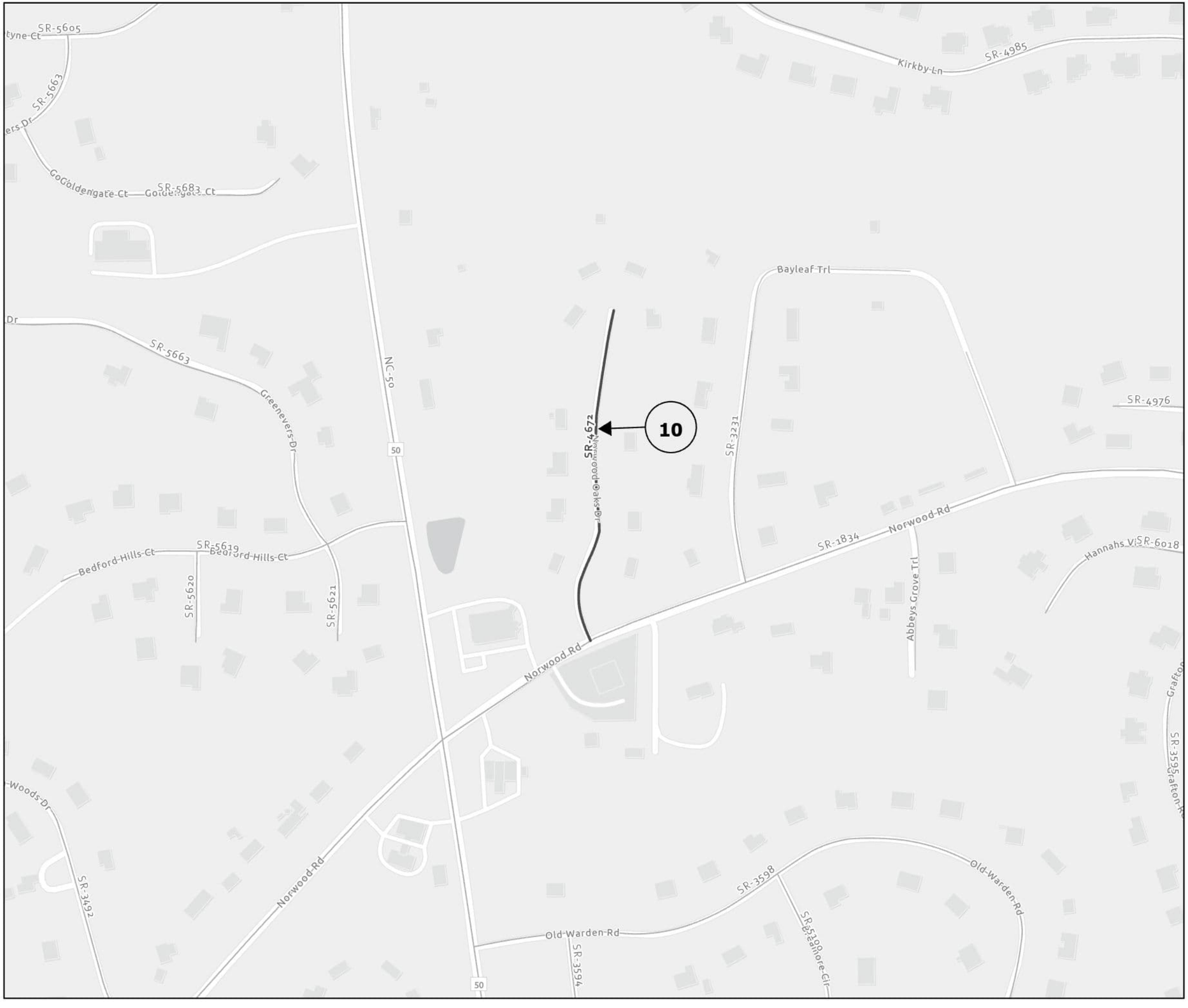
Bridge 910780 - At Grade

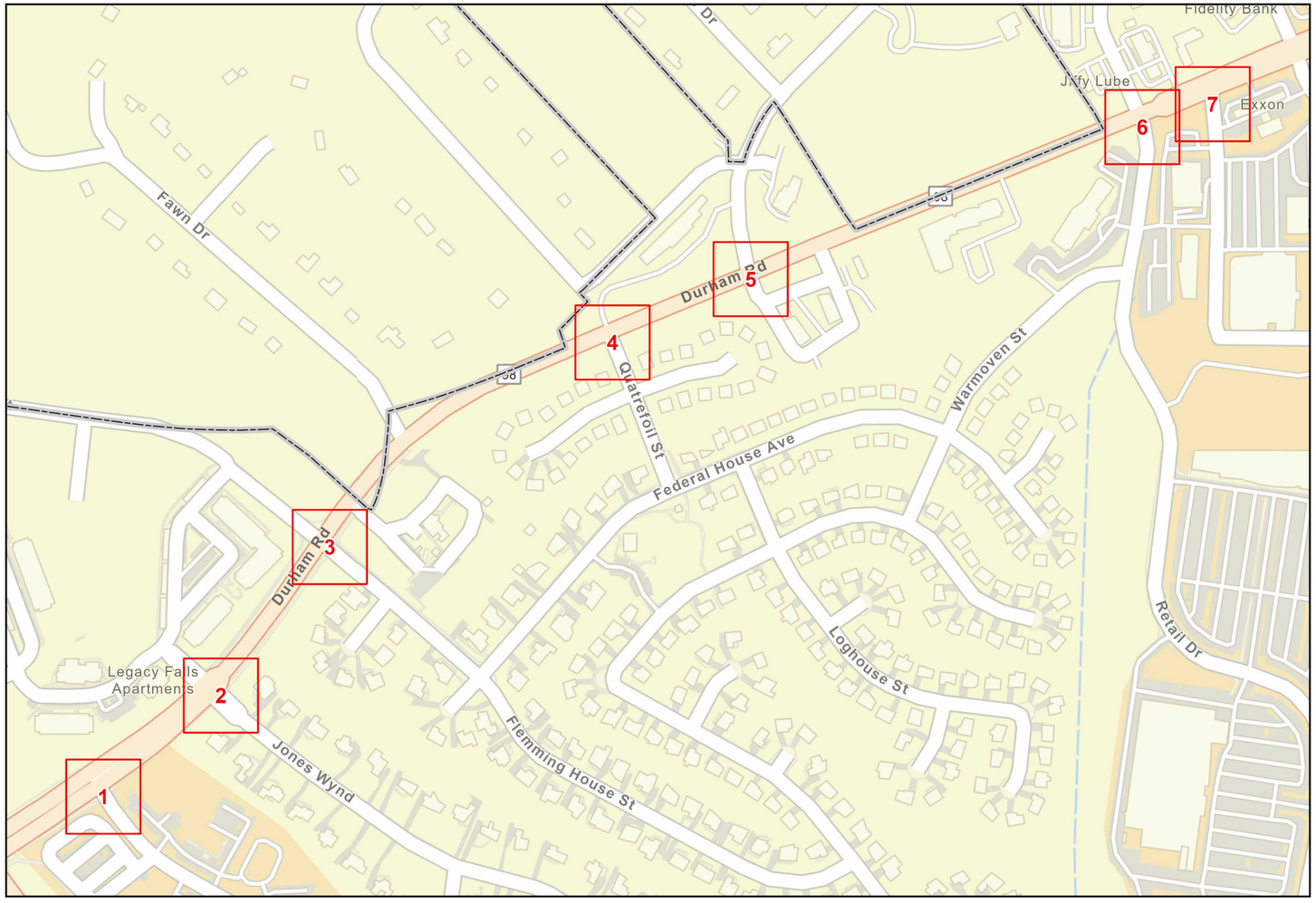
Active CSX Railroad Crossing, Mill Across

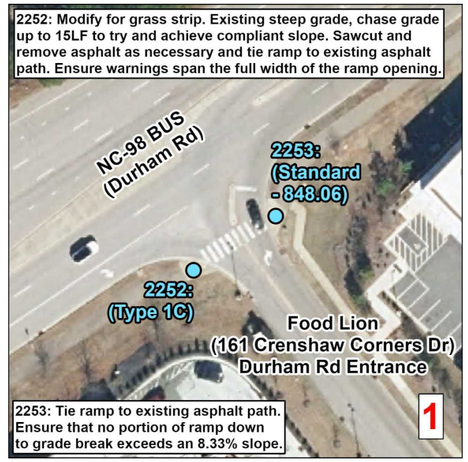

8
911120
910776
910778
910777
911121
911128
911008
910780
910645
910647
910100
911122
910997
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911123
911126
911127
911149
911003
910999
911000
911124
911005
911004
911148
911006
911263
911007
911146
911001
911002
911147
911262
910304
911151
Durant Nature Preserve
Greshams Lake
Millbrook-Exchange
I-540
I-540 WB
I-540 EB
I-540 Ramp EB
I-540 Ramp WB
SR-2013
SR-2012
SR-2014
SR-5167
SR-2179
SR-3507
SR-3555
US-1
Gresham Lake Rd
Litchford Rd
Capital Blvd
Spottswood St
Wellington Ct
Colemont Dr
Northside Dr
Overlook Rd
Triangle Plantation Dr
Erwin Ridge Rd
Old Wake Forest Rd
Town Center Dr
Durant Rd
Leslieshire Dr
Preslyn Dr
Hunting Ridge Rd
Roundrock Dr
Johnsdale Rd
Village Rd
Constitution Dr
Declaration Dr
Inverness Ct
Dunes Ct
Malvern Ct
Wingfoot Dr
Weybridge Dr
Grandview Ct
Landings Way
Upper Oaks Way
Harps Mill Rd
Fort Hill Ct
Lenox Hill Ter
Lemuel Dr
Clerestory Pl
CLINEDALE CT
Greshford Ln
Big Sky Ln
Dynasty Dr
Envoy Dr
Dukes Dr
Cluskey Way
Coxindale Dr
Hall Ct
Bremer Ct
Preserve Park Ln
Welborn St
Burwell St
Mission Ridge Rd
Capital Hills Dr
Capital Connection Dr
Homestead Dr
Leanna Pepper Ln
Homestead Heights Ln
Eads Dr
Capital Hills Dr
Cheviot Hills Dr
Reba Dr
Whisperwood Dr
N Thorncliff Pl
Jacqueline Ln
Draper Rd
Caribou Way
Town Dr
Cheaha Dr
Coda Ct
Mezzo Ln
Arpeggio Pl
Town Center Dr
Triangle Town Blvd
Roxboro St
Plantation Center Dr
Cypress Plantation Trl
Ruritania St
Ruritania Trl
Pullman Times Dr Ln
Calliope Way
Highline St
Meridien Dr
Sumner Blvd
Accabee St
Bonneau Dr
Yeamans Way
Otterburn Pl
Iehossee St
Pine Valley Rd
Rockglen Way
Narrow Valley Way
Pavilion Pl
Litchford Rd
Nichols Rd
Carruthers Ct
Tennessee Ct
Wisconsin Ct
Becky Cir
Van Huron Dr
Alco Dr
Rowland Rd
Cynrow Blvd
Pea Creek
Saddlebrook Dr
Circlebank Dr
Broomfield Way
Gumwood Ln
Claxton Rd
Litchford Cir
Manor Oaks Dr
Stetson Cir
Racine Way
Saddle Springs Ct
Hunters Way
Brook Ridge Ct
Slade Hill Rd
Royal Oaks Dr
Aspen Ct
Valley Ridge Ct
Ridge Pointe Ln
Torrey Pines Pl
Wingfoot Dr
Merion Pl
Fontana Pl
Aurora Dr
Rainwater Rd
Inverrary Ct
Prescott Pl
Venture Ct
Boscobel Rd
Thorpshire Dr
Carrington Dr
Colesbury Dr
Bellingham Cir
Litchford Rd
Kangaroo Ct
Averell Ct
Boot Ct
Canoe Ct
Cheerful Ct
Falls Valley Dr
Donnington Dr
Scouting Trl
Hiking Trl
Patriot Pl
Halfhitch Trl
Council Ct
Legging Ln
Paddle Pl
Master Ct
Jekyll Cir
Scotney Ct
Clivedon Dr
Felbrigg Dr
Powis Cir
Philmont Dr
Compass Ln
Courage Ct
Creek Rock Ln
Dawn Smoke Ct
Cliff Haven Dr
Valley Springs Pl
Camp Durant Rd
Vanburgh Ct
Carolingian Ct
Chalcombe Ct
Carisbrook Ct
Attingham Dr
Kirkstall Ct
Leeds Forest Ln
Durant Rd
SR-2006
Garvey Dr
Carilleph Ct
London Park Ct
Sayornis Ct
Hobhouse Cir
Astwell Ct
Bolo Trl
Funster Ln
Wheeling Dr
Bluebill Ct
Yucca Trl
Babble Ln
Trickle Ct
Iman Dr
Shofield Ct
Honey Berry Ct
Meadow Star Ct
Coxindale Dr
Harps Mill Woods Run
Paddle Wheel Dr
Millrace Run
Overland Trl
Dorrington Trl
Swarthmore Dr
Peddler Pl
Goudy Dr
Criswell Cres
Trace Ln
Gresham
Oakmont Pl
Wingfoot Dr
Dunes Ct
Malvern Ct
Wingfoot Dr
Merion Pl
Rainwater Rd
Grandview Ct
Hunting Ridge Rd
Landings Way
Weybridge Dr
Slade Hill Rd
Royal Oaks Dr
Aspen Ct
Valley Ridge Ct
Johnsdale Rd
Roundrock Dr
Village Rd
Pine Valley Rd
Constitution Dr
Declaration Dr
Inverness Ct
Prescott Pl
Inverrary Ct
Fontana Pl
Aurora Dr
Venture Ct
Boscobel Rd
Claxton Rd
Litchford Cir
Manor Oaks Dr
Grandview Ct
Hunting Ridge Rd
Landings Way
Upper Oaks Way
Hunters Way
Saddle Springs Ct
Brook Ridge Ct
Slade Hill Rd
Royal Oaks Dr
Aspen Ct
Valley Ridge Ct
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Prescott Pl

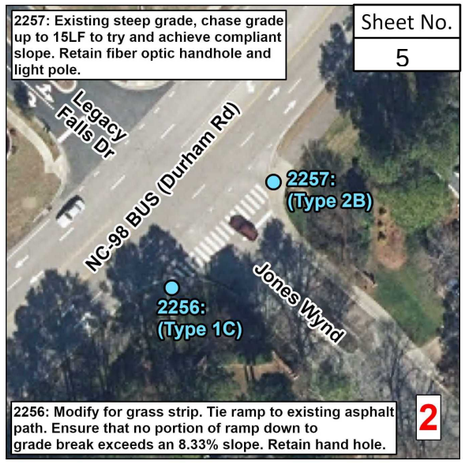
2028 N Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.08.10921, ETC.	4

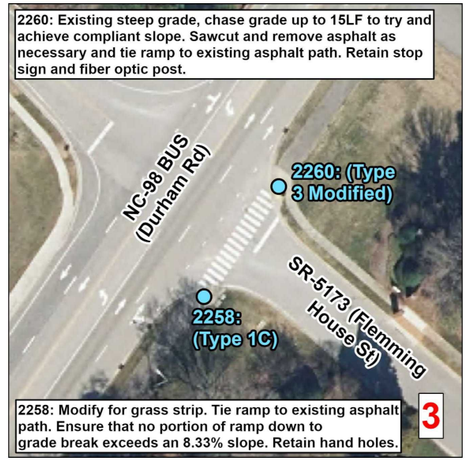
Map 10 SR-4672 (Norwood Oaks Dr)
From SR-1834 (Norwood Rd) to Cul-de-sac

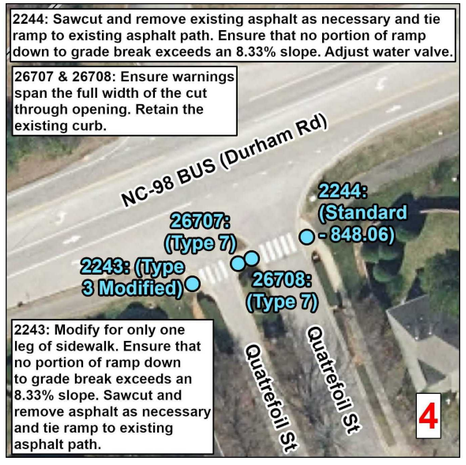


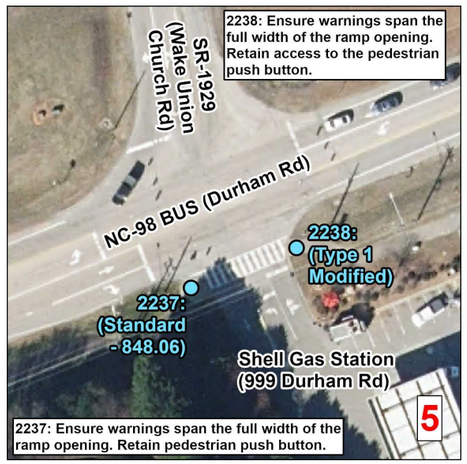


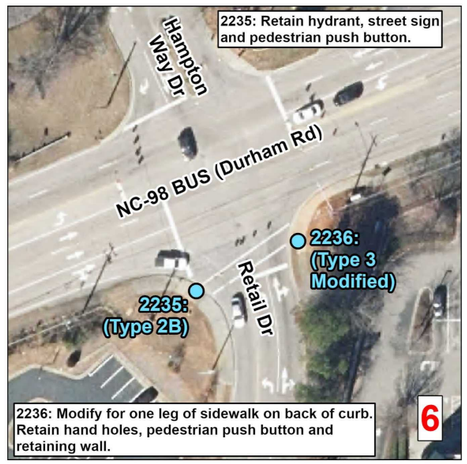














Curb Ramps To Be Repaired

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

- Municipal Boundary
- NCHPO Historic Boundary (NR and LHD)

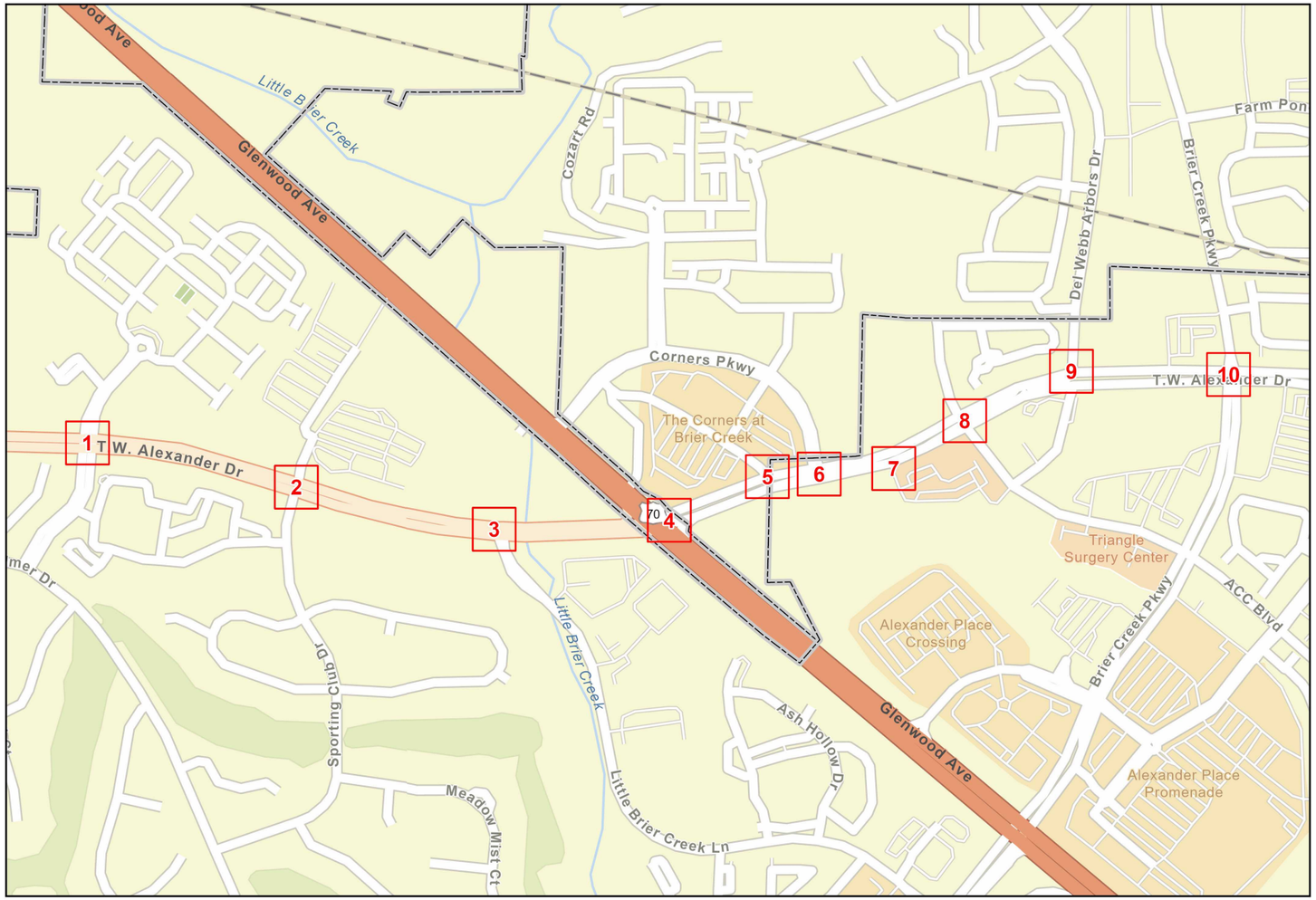
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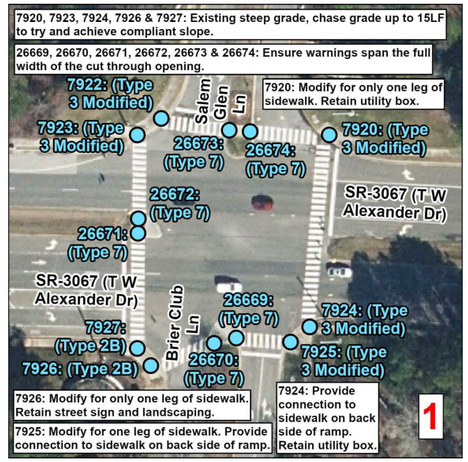
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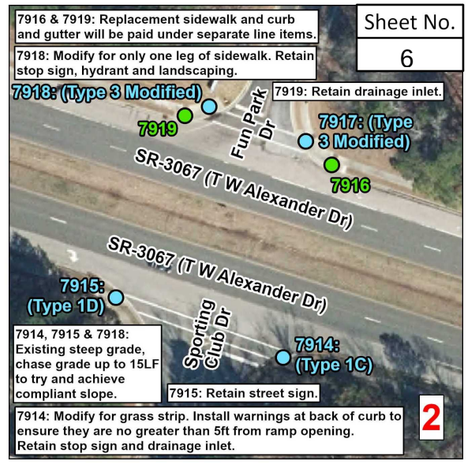
NC 98 BUS (Durham Rd)
From NC 98 To Pvmt Jt E of US1

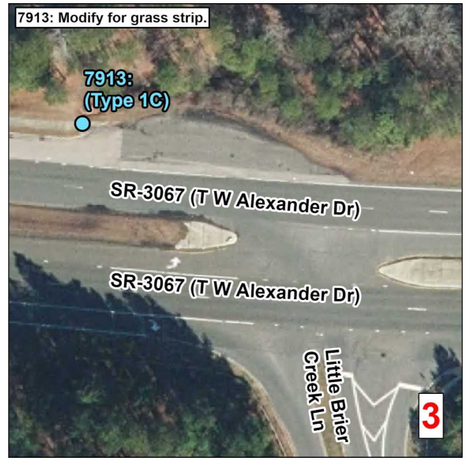
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

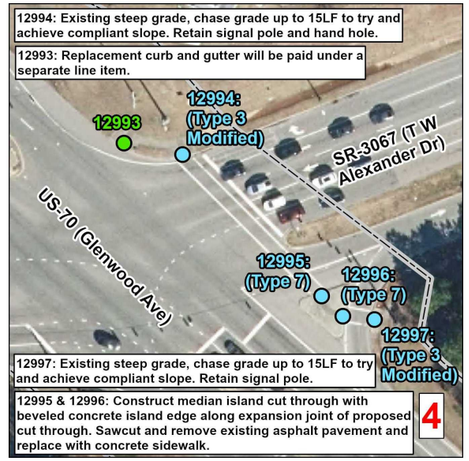
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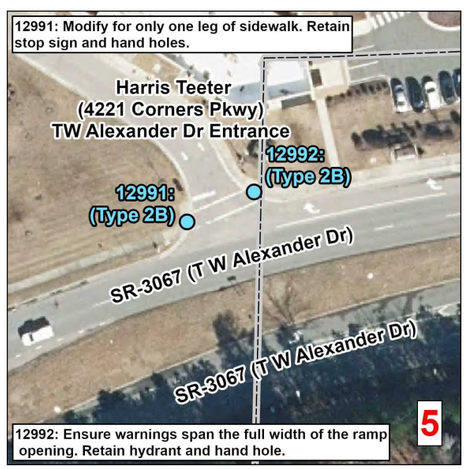


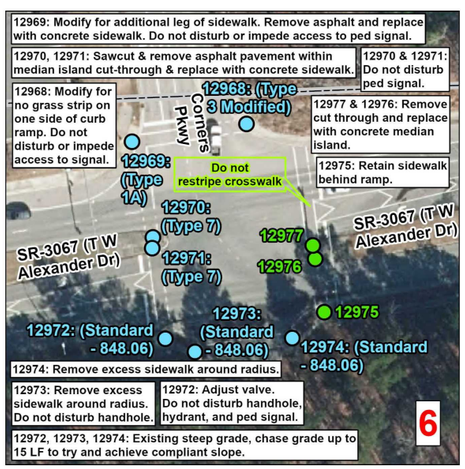


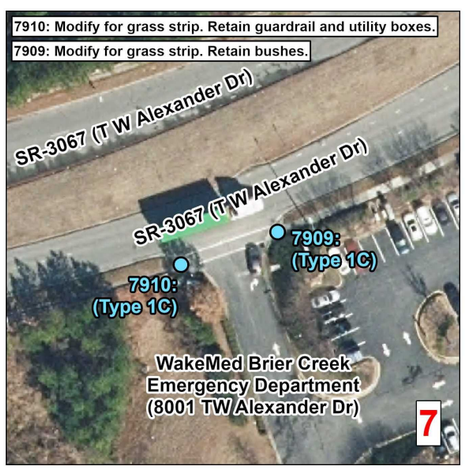


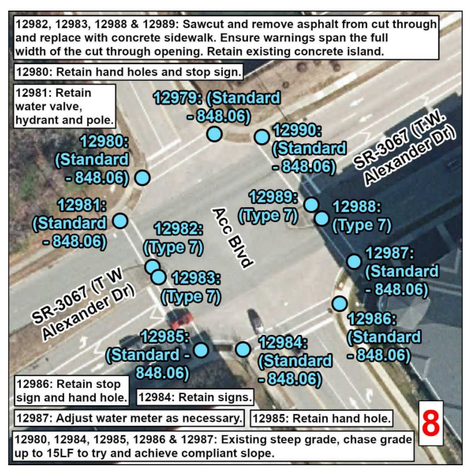












Curb Ramps To Be Repaired

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

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

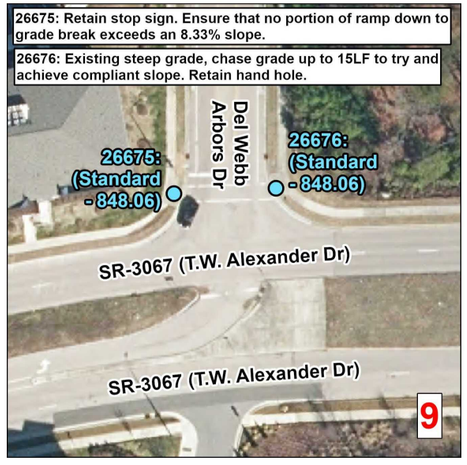
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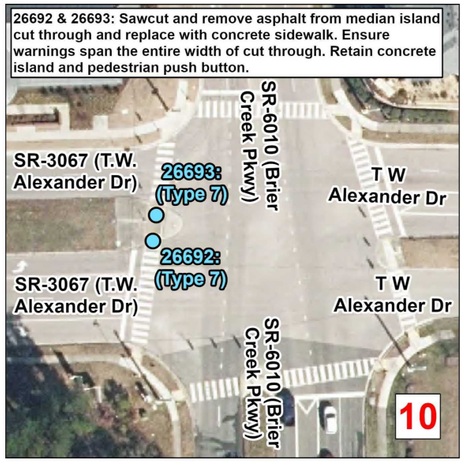
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T W Alexander Dr From/To Durham County Line To/From SR 6010

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

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





Sheet No.
7

Curb Ramps To Be Repaired

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

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

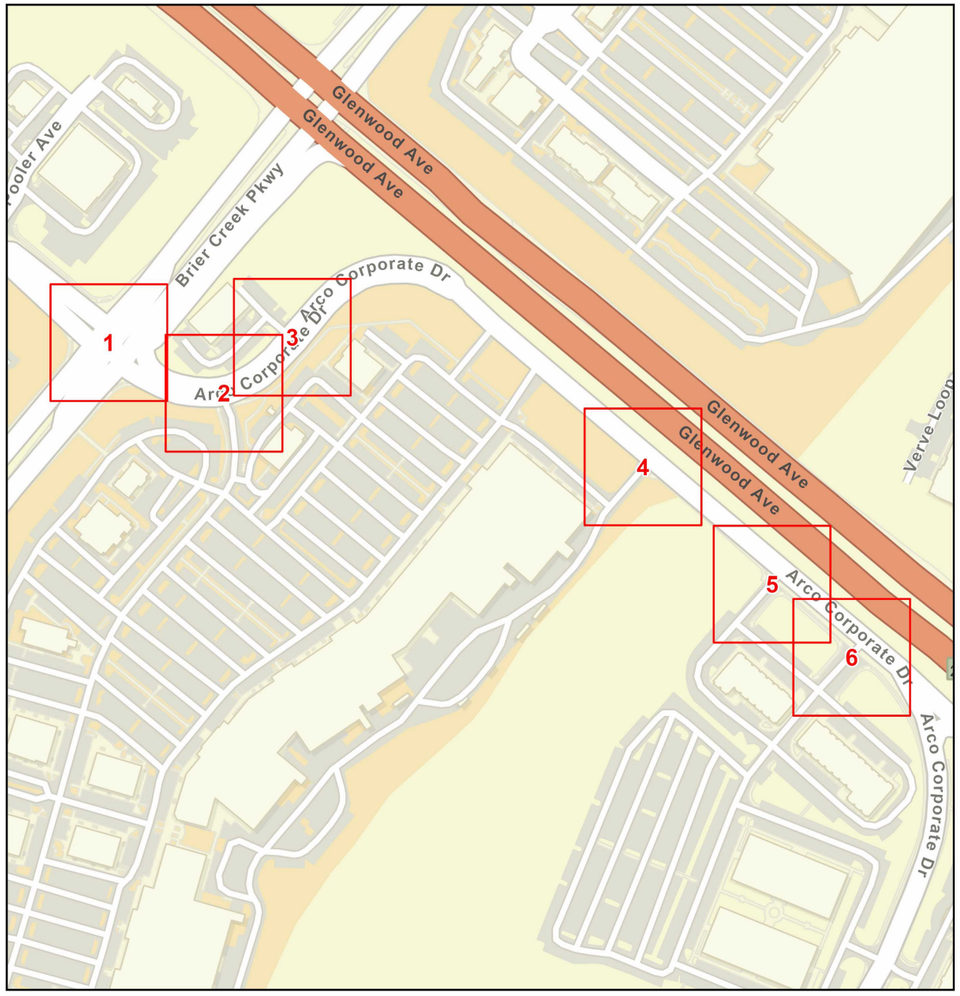
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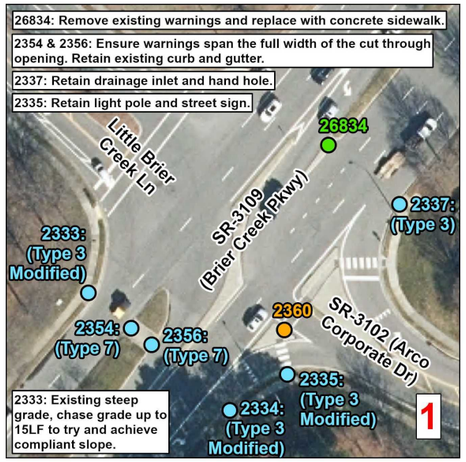
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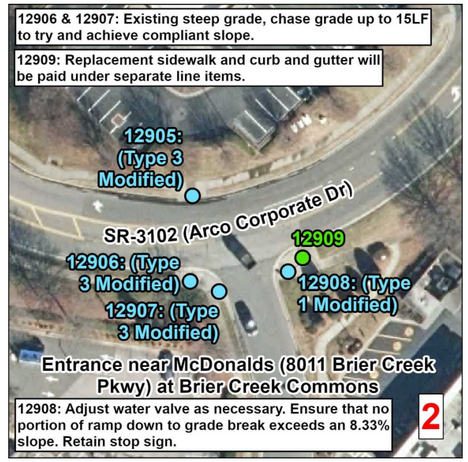
T W Alexander Dr From/To Durham County Line To/From SR 6010

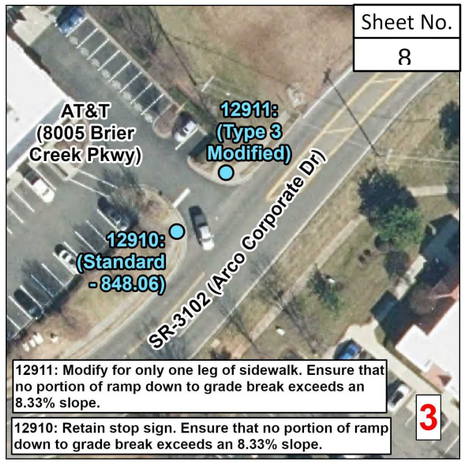
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

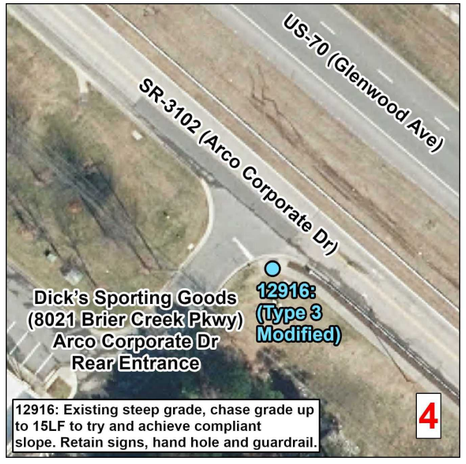
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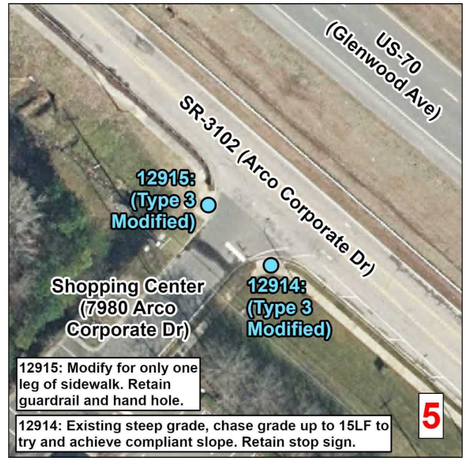














Curb Ramps To Be Repaired

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

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

N Wake

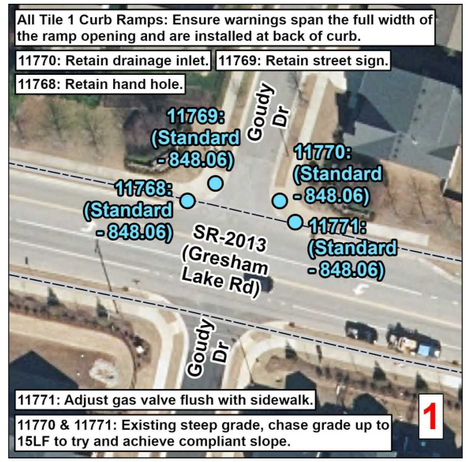
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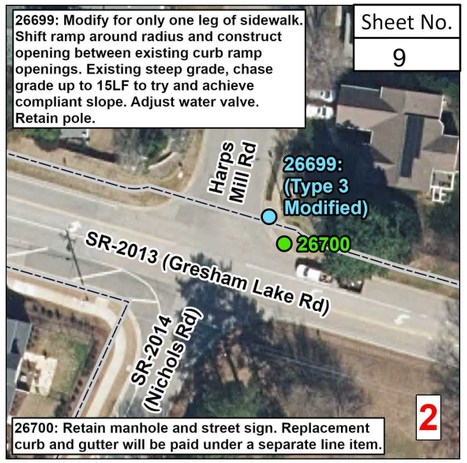
Arco Corporate Dr
From SR-3109 To Pavement Joint

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

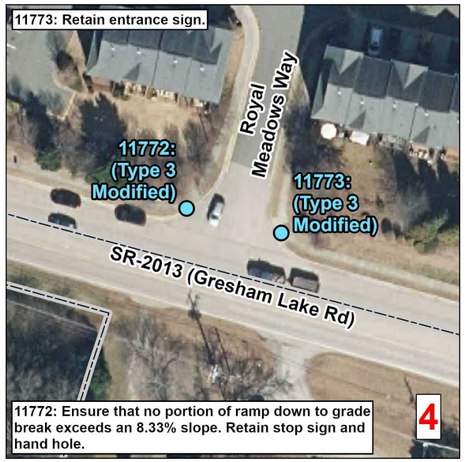
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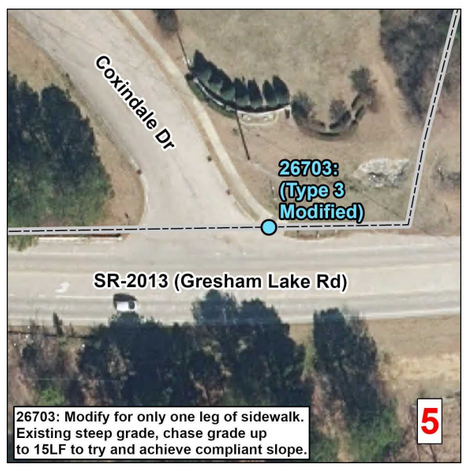






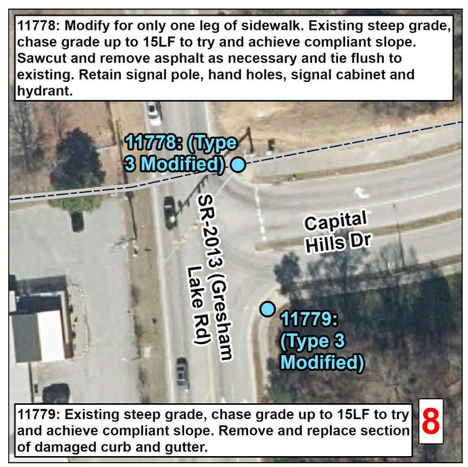












Curb Ramps To Be Repaired

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

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

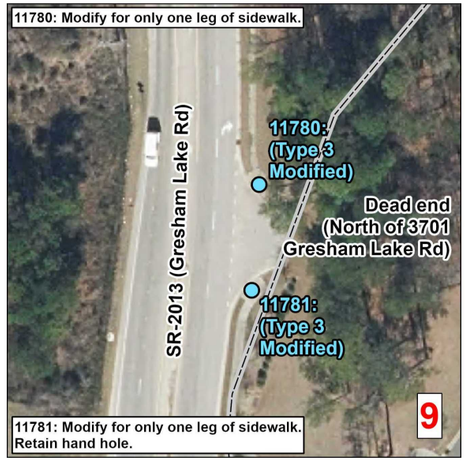
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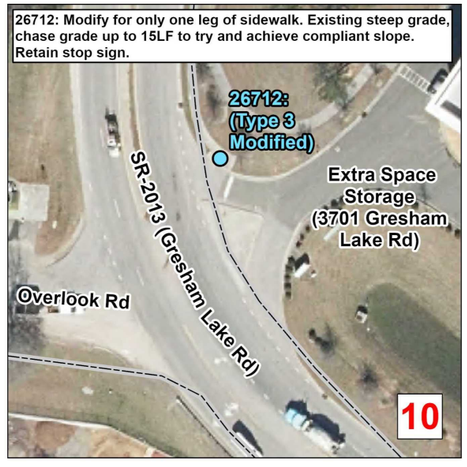
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Gresham Lake Rd
From SR 2012 To US 1

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

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





Sheet No.
10

Curb Ramps To Be Repaired

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

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

N Wake

WBS Number: 2027CPT.05.08.10921, ETC.

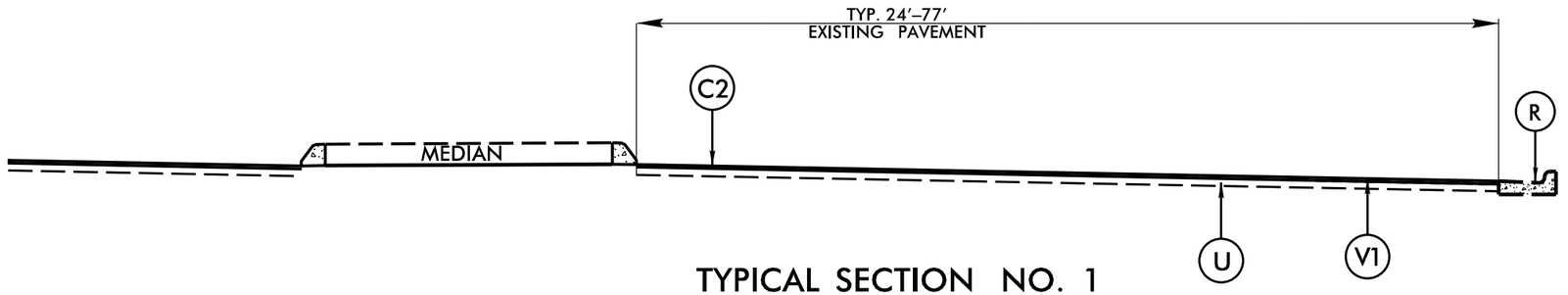
Gresham Lake Rd
From SR 2012 To US 1

NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION 5

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

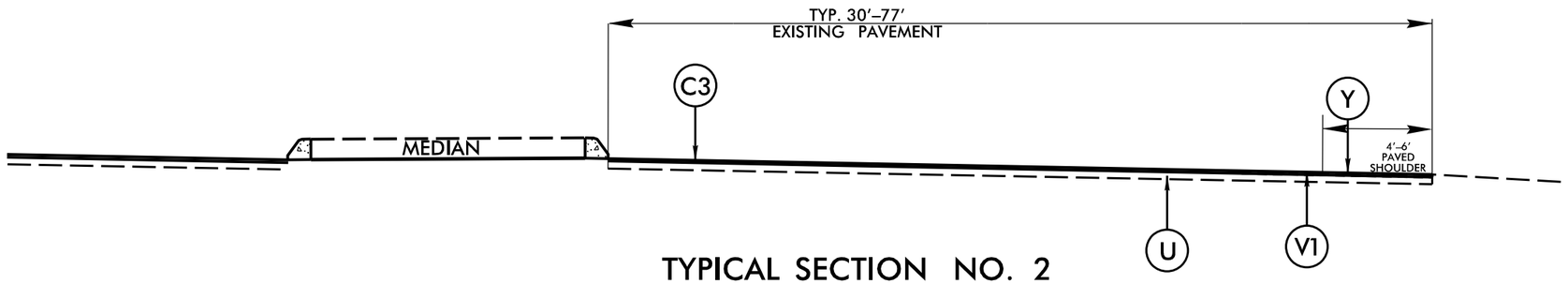
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.	T	SHOULDER RECONSTRUCTION, ASB OR BORROW REQUIRED (SEE MAP NOTE)
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	U	EXISTING SURFACE
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V1	MILLING ASPHALT PAVEMENT, 1½" DEPTH
R	EXISTING CURB AND GUTTER	Y	RUMBLE STRIPS



TYPICAL SECTION NO. 1

FULL DEPTH PATCH, MILL AND RESURFACE S9.5B
MAP NO.: 1



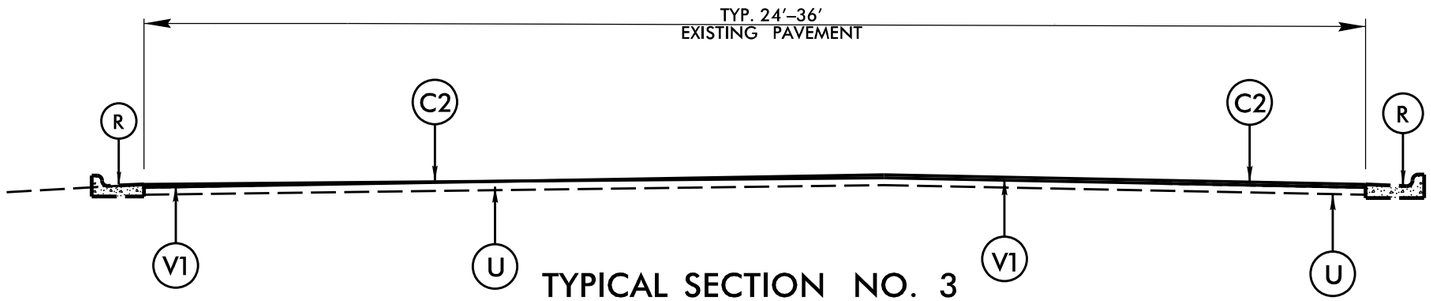
TYPICAL SECTION NO. 2

FULL DEPTH PATCH, MILL AND RESURFACE S9.5C
MAP NO's.: 2,4

WAKE COUNTY RESURFACING

PAVEMENT SCHEDULE

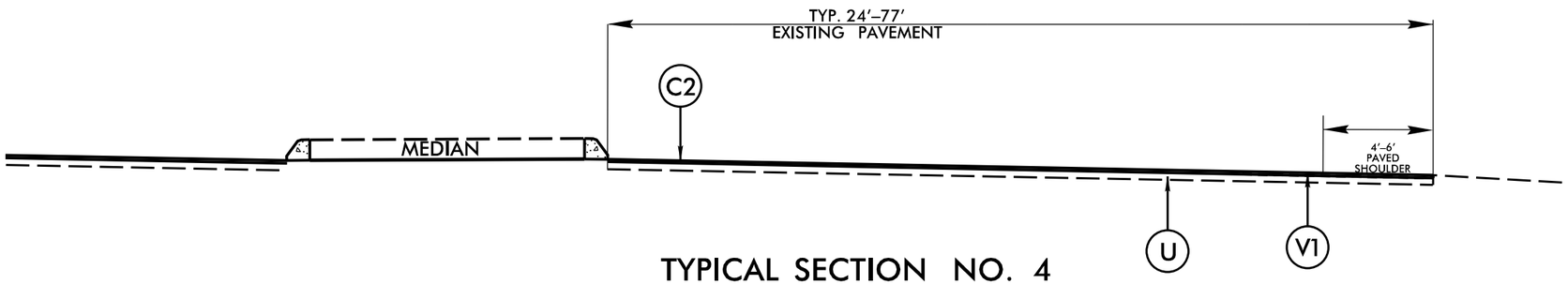
C1	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.	T	SHOULDER RECONSTRUCTION, ASB OR BORROW REQUIRED (SEE MAP NOTE)
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	U	EXISTING SURFACE
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V1	MILLING ASPHALT PAVEMENT, 1½" DEPTH
R	EXISTING CURB AND GUTTER	Y	RUMBLE STRIPS



TYPICAL SECTION NO. 3

FULL DEPTH PATCH, MILL AND RESURFACE S9.5B
MAP NO.'s: 3, 7

ON ONE SIDE OF ALIGNMENT FOR MAP 3 AND MAP 7
THERE ARE SECTIONS OF SHOULDER SECTIONSAND NOT CURB AND GUTTER



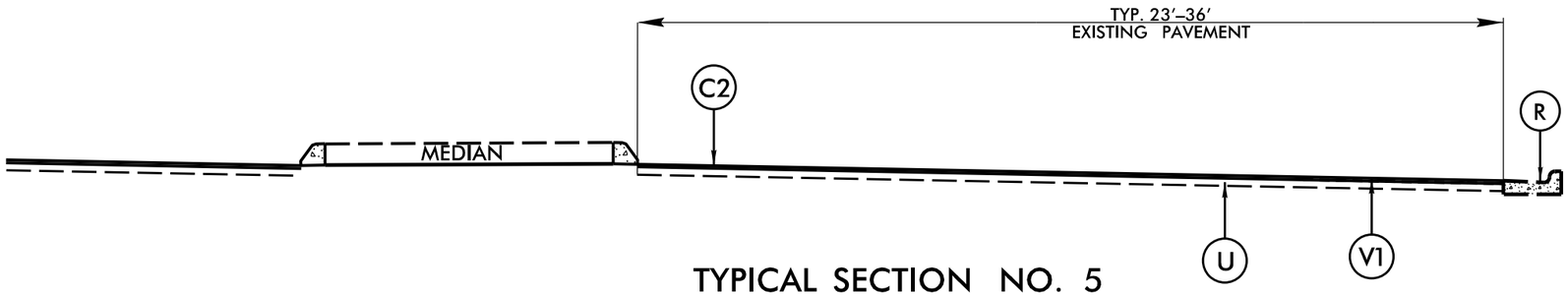
TYPICAL SECTION NO. 4

FULL DEPTH PATCH, MILL AND RESURFACE S9.5B
MAP NO.: 5

PROJECT REFERENCE NO. 2027CPT.05.08.10921, ETC.
SHEET NO. 13
Prepared in the Office of: SUMMIT

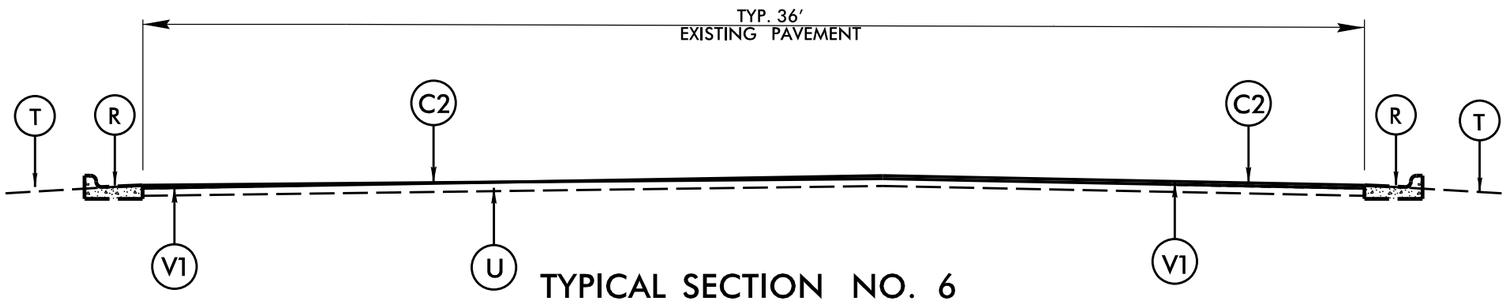
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.	T	SHOULDER RECONSTRUCTION, ASB OR BORROW REQUIRED (SEE MAP NOTE)
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	U	EXISTING SURFACE
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V1	MILLING ASPHALT PAVEMENT, 1½" DEPTH
R	EXISTING CURB AND GUTTER	Y	RUMBLE STRIPS



TYPICAL SECTION NO. 5

FULL DEPTH PATCH, MILL AND RESURFACE S9.5B
MAP NO's.: 6,9



TYPICAL SECTION NO. 6

FULL DEPTH PATCH, MILL AND RESURFACE S9.5B
MAP NO.: 8

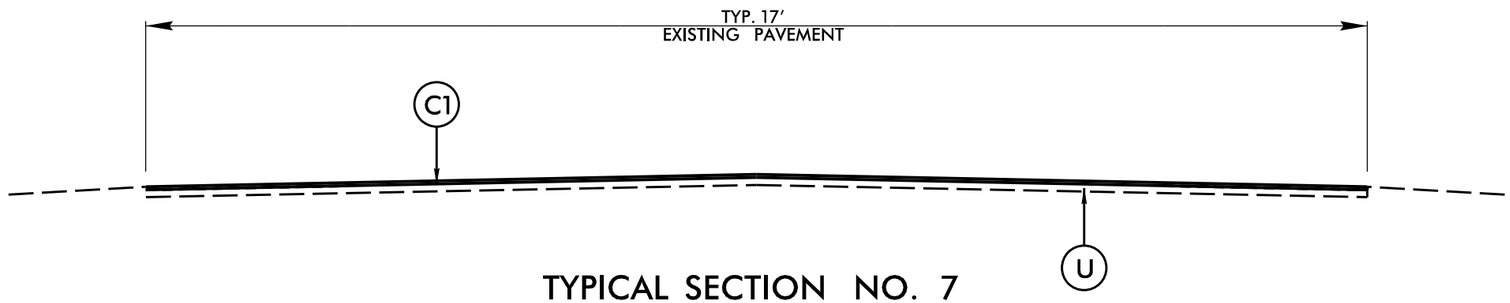
THERE ARE SECTIONS OF THIS MAP THAT HAVE SHOULDER SECTIONS AND OTHERS THAT HAVE CURB AND GUTTER SECTIONS

SHOULDER ARE RECONSTRUCTED TO THE SHOULDER POINT/HINGE POST SEEDING AND MULCHING SHALL BE PREFORMED UPON COMPLETION OF SHOULDER GRADING WHEN EARTH BORROW IS USED.

PROJECT REFERENCE NO. 2027CPT.05.08.10921, ETC.
SHEET NO. 14
Prepared in the Office of: SUMMIT

PAVEMENT SCHEDULE

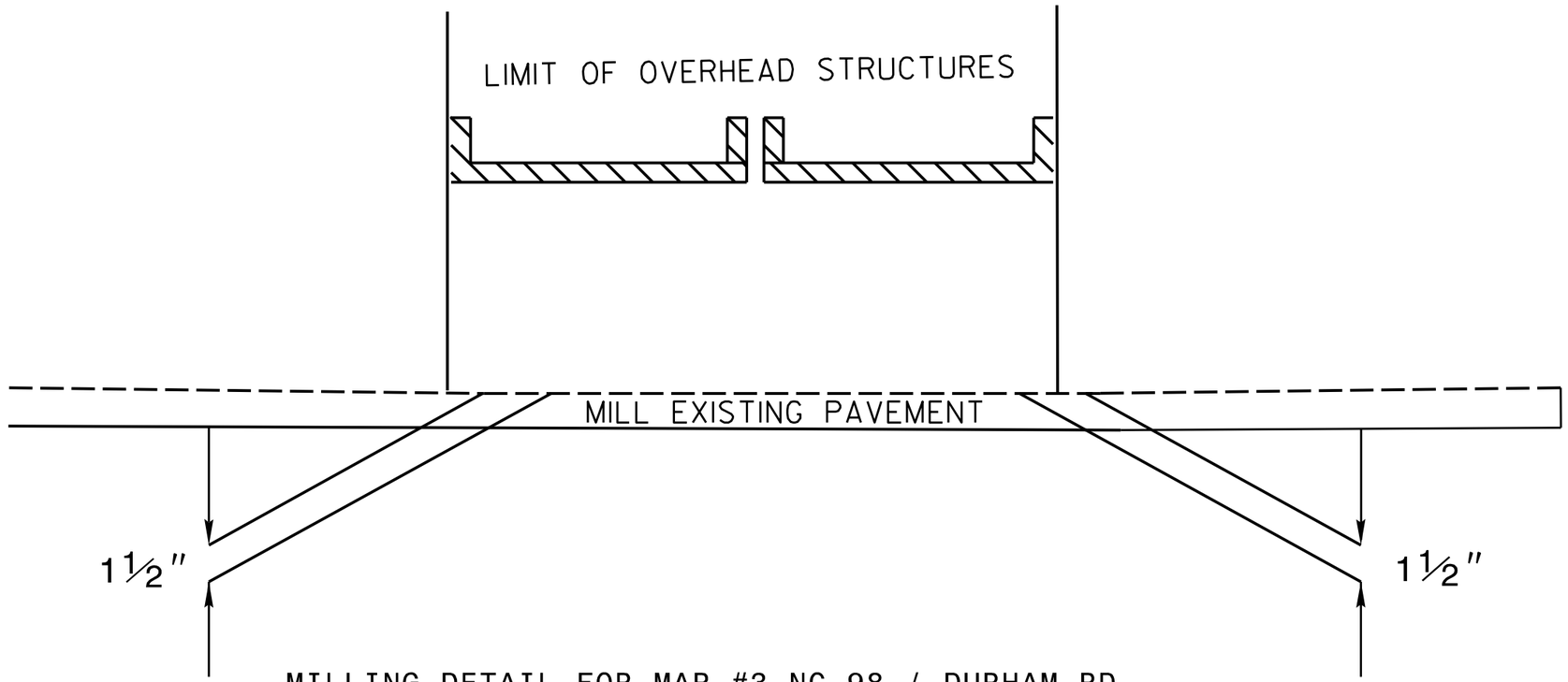
C1	PROP. APPROX. 1″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.	T	SHOULDER RECONSTRUCTION, ASB OR BORROW REQUIRED (SEE MAP NOTE)
C2	PROP. APPROX. 1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	U	EXISTING SURFACE
C3	PROP. APPROX. 1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V1	MILLING ASPHALT PAVEMENT, 1½″ DEPTH
R	EXISTING CURB AND GUTTER	Y	RUMBLE STRIPS



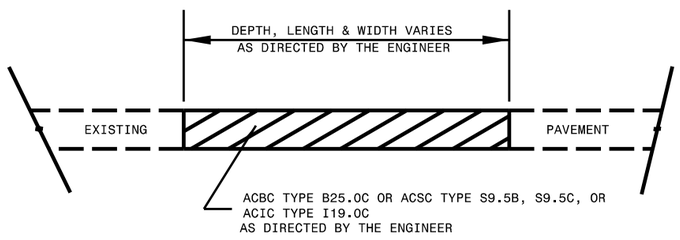
TYPICAL SECTION NO. 7

RESURFACE S9.5B
MAP NO: 10

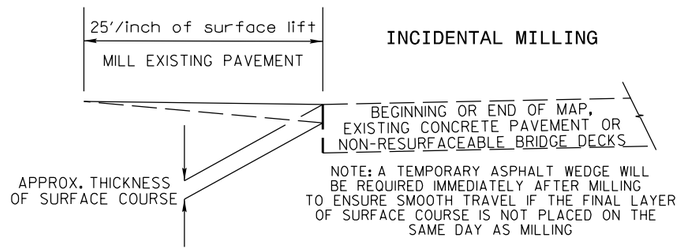
PROJECT REFERENCE NO. 2027CPT.05.08.10921, ETC.
SHEET NO. 15
Prepared in the Office of: SUMMIT



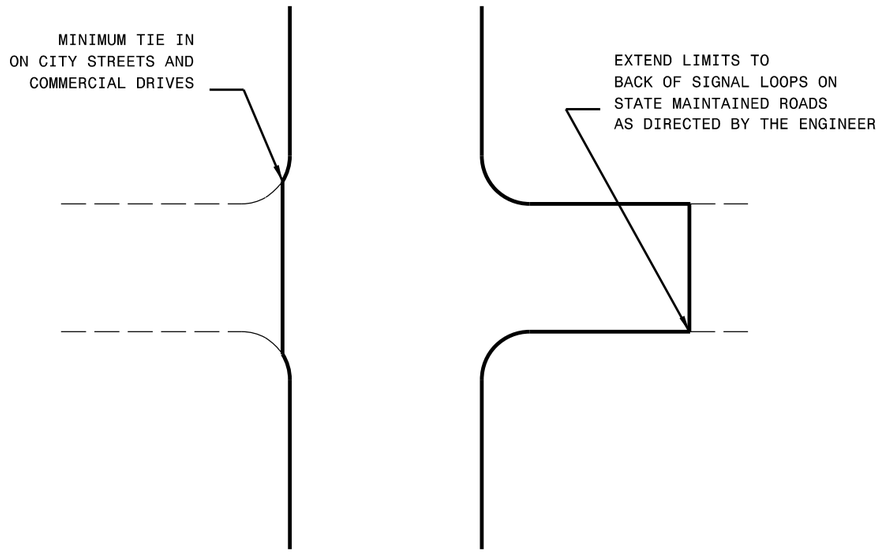
MILLING DETAIL FOR MAP #3 NC 98 / DURHAM RD.
MILL & FILL 1½" EXISTING PAVEMENT UNDER US-1 OVERHEAD STRUCTURES 910671 AND 910314 TO MAINTAIN VERTICAL CLEARANCE



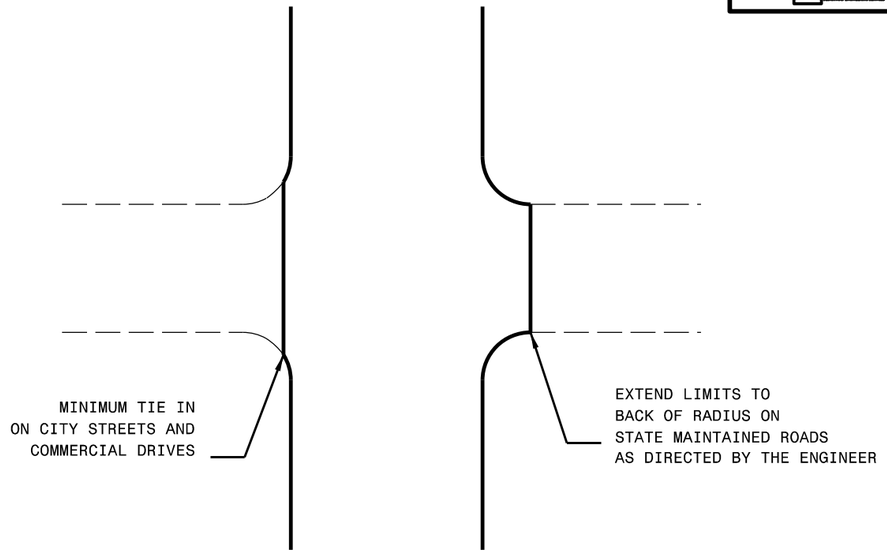
PATCHING EXISTING PAVEMENT
MILLING TO BE PERFORMED PRIOR TO PATCHING



PROJECT REFERENCE NO. 2027CPT.05.08.10921, ETC.
SHEET NO. 16
Prepared in the Office of: SUMMIT
NC FIRM LICENSE No. P-0339
527 Executive Court
Raleigh, N.C. 27609
PHONE 733-3305 FAX 733-8016



TYPICAL DETAIL OF PROJECT LIMITS AT
SIGNALIZED Y LINES



TYPICAL DETAIL OF PROJECT LIMITS AT
UNSIGNALIZED Y LINES

ADDITIONAL INTERSECTIONS (NON-TYPICAL)

Extend paving limits to back of radius
or loop on the following intersections:

MAP#	STREET NAME	COMMENTS
N/A		

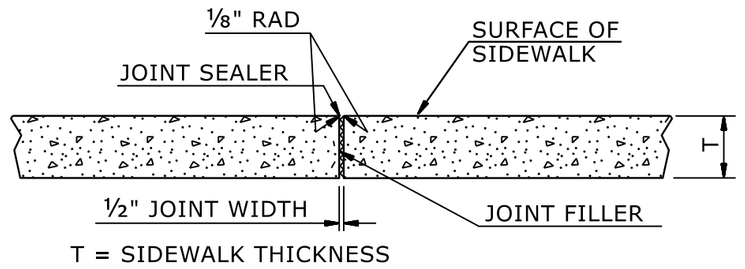
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.08.10921 etc.	17

NOTES:

CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.

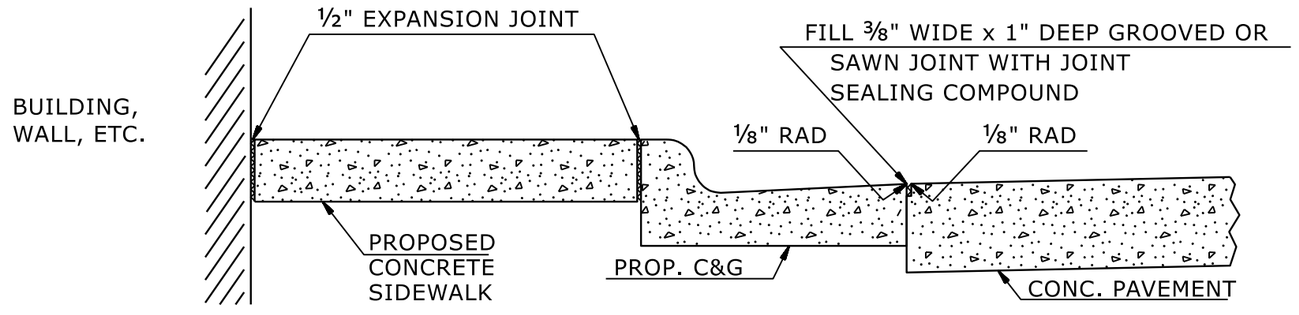
PLACE A GROOVE JOINT 1" DEEP WITH ⅛" RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE ½" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A ½" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.

SEE STD. DWG. 848.06 FOR CURB RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



T = SIDEWALK THICKNESS

TRANSVERSE EXPANSION JOINT IN SIDEWALK



DETAILS SHOWING JOINTS IN CONCRETE SIDEWALK

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

ROADWAY DETAIL DRAWING FOR

CONCRETE SIDEWALK

SHEET 1 OF 1

848D01

NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE M HACKLER

Signed by: Nicole M Hackler 5884323034164C5...

9/9/2026

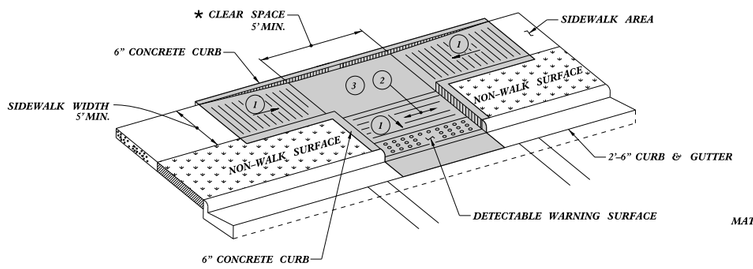
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

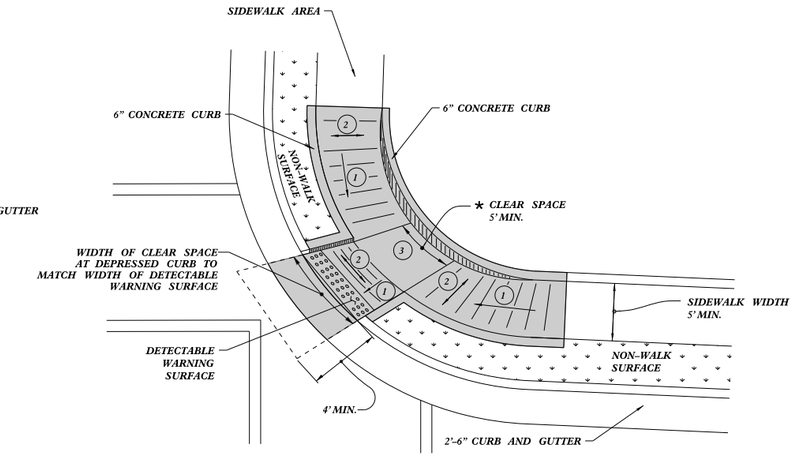
SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.:

* – *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.*



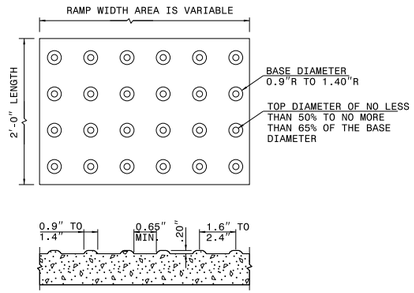
TYPE 3



TYPE 3 MODIFIED
INSTALLATION IN A RADIUS

NOTES:
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 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 OF13

848D06

NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE M. HACKLER

Signed by:
Nicole M Hackler
5884323D34164C5...
9/9/2026

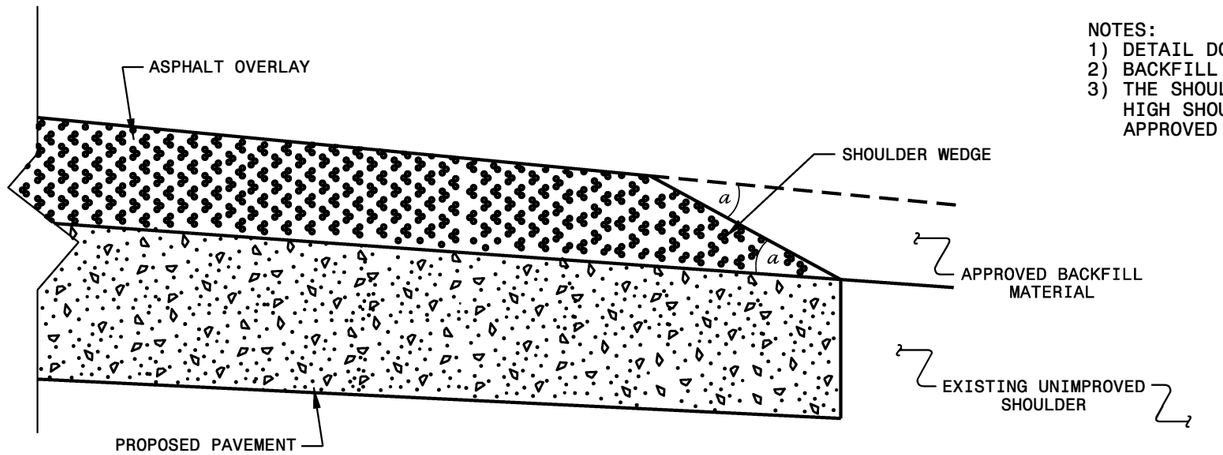
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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\D0609.dgn

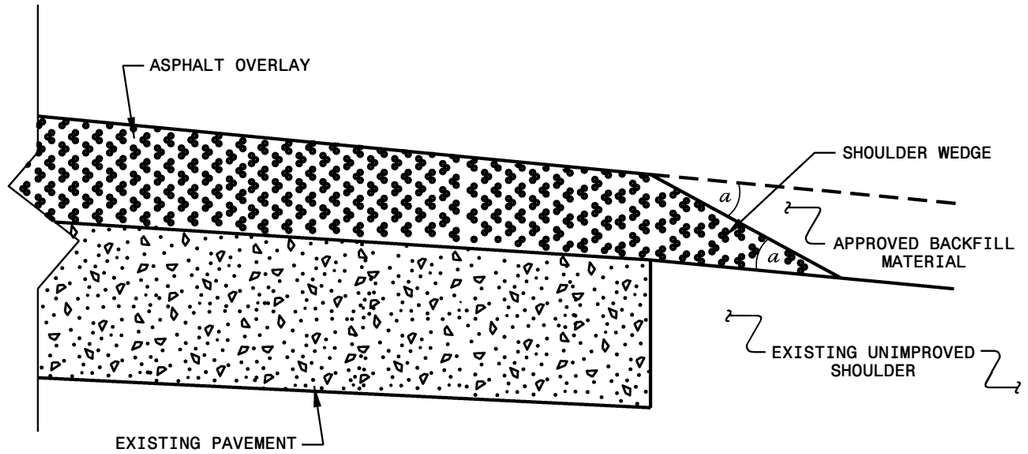
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.08.10921 etc.	19



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

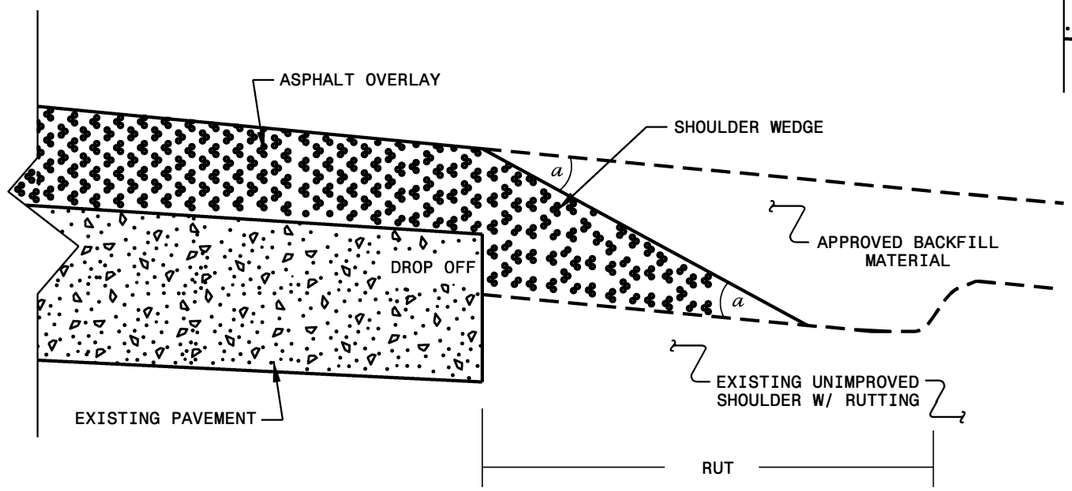
SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ Widening or with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ NO Widening)



SHOULDER WEDGE DETAIL

(Resurfacing Adjacent to Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

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

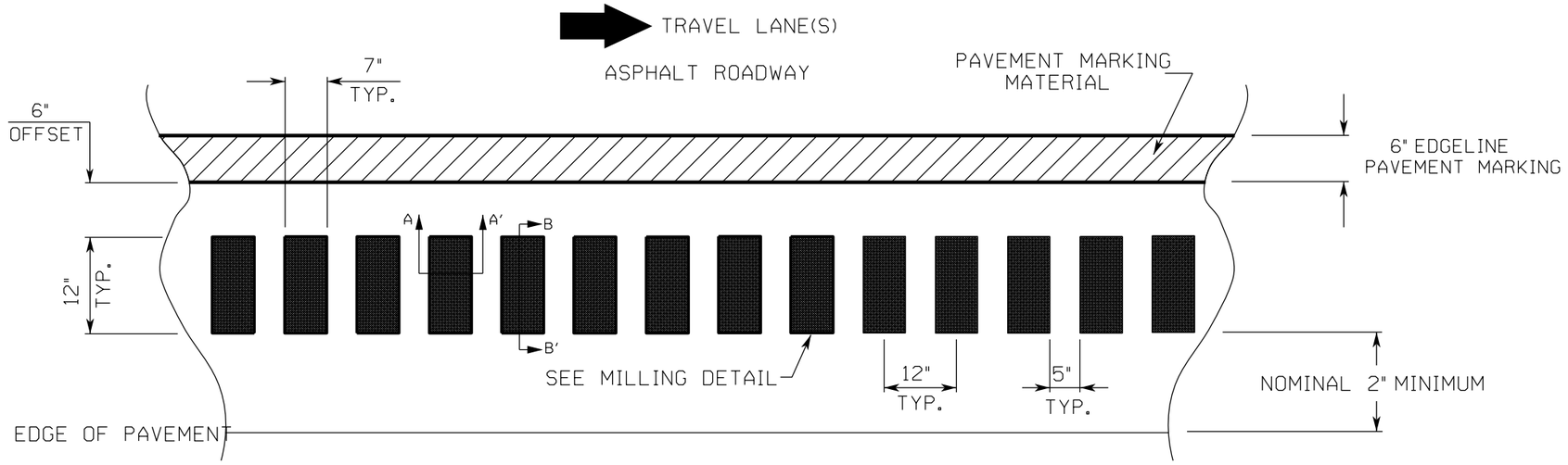
SHOULDER WEDGE DETAILS

ORIGINAL BY:	T.SPELL	DATE:	7-19-11
MODIFIED BY:		DATE:	2/2/16
CHECKED BY:		DATE:	
FILE SPEC.:	s:usr/details/stand/shoulderwedgedetail.dgn		

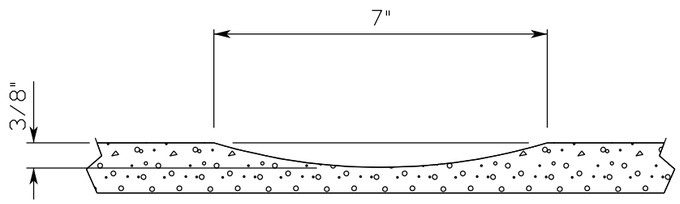
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pjporter AT CSD-292592

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.08.10921 etc.	20

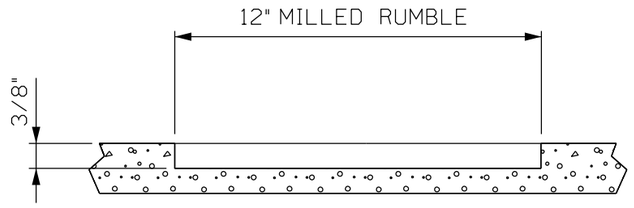
See Table 1 within Rumble Strip Policy for Design Guidance



MILLING DETAIL:



SECTION A-A'



SECTION B-B'

REFERENCE DRAWING ID: Trad.Strip

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

ROADWAY DETAIL DRAWING FOR RUMBLE STRIPS / STRIPES TRADITIONAL SHOULDER RUMBLE STRIP

SHEET 1 OF 9

Signed by:
Benjamin Lowry
1574E192203B45D...

10/26/2026

NORTH CAROLINA PROFESSIONAL SEAL 052544 ENGINEER BENJAMIN LOWRY

CONTRACTS STANDARDS AND DEVELOPMENT UNIT
Office 919-707-8950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: C. SIMPSON DATE: 04-24-2025
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.:

ADA SUMMARY OF QUANTITIES - NC 98 BUS (DURHAM RD) FROM NC 98 TO PVMT JT E OF US1

Municipality:	**Wake Forest**
WBS Number:	2027CPT.05.08.10921, ETC.
County:	**Wake**

Sheet No.
21

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 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2612300000-N (EA) Retrofit Existing Concrete Curb Ramps	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
2252	1	NC-98 BUS (Durham Rd)	Food Lion (161 Crenshaw Corners Dr) Durham Rd Entrance	6											1		Type 1C - 848.06
2253	1	NC-98 BUS (Durham Rd)	Food Lion (161 Crenshaw Corners Dr) Durham Rd Entrance												1		Standard - 848.06
2256	2	NC-98 BUS (Durham Rd)	Jones Wynd												1		Type 1C - 848.06
2257**	2	NC-98 BUS (Durham Rd)	Jones Wynd												1		Type 2B - 848.06
2258	3	NC-98 BUS (Durham Rd)	SR-5173 (Flemming House St)												1		Type 1C - 848.06
2260	3	NC-98 BUS (Durham Rd)	SR-5173 (Flemming House St)	7											1		Type 3 Modified - 848D0609
2243	4	NC-98 BUS (Durham Rd)	Quatrefoil St	12											1		Type 3 Modified - 848D0609
2244	4	NC-98 BUS (Durham Rd)	Quatrefoil St	6							1				1		Standard - 848.06
26707	4	NC-98 BUS (Durham Rd)	Quatrefoil St												1		Type 7 - 848.06
26708	4	NC-98 BUS (Durham Rd)	Quatrefoil St												1		Type 7 - 848.06
2237	5	NC-98 BUS (Durham Rd)	Shell Gas Station (999 Durham Rd)												1		Standard - 848.06
2238**	5	NC-98 BUS (Durham Rd)	Shell Gas Station (999 Durham Rd)												1		Type 1 Modified - 848.06
2235	6	NC-98 BUS (Durham Rd)	Retail Dr												1		Type 2B - 848.06
2236	6	NC-98 BUS (Durham Rd)	Retail Dr												1		Type 3 Modified - 848D0609
26711	7	NC-98 BUS (Durham Rd)	Walgreens (941 Durham Rd)												1		Type 3 Modified - 848D0609
-	-	-	-	-	4*	-	60*	-	15*	*10	-	-	-	-	-	-	
Sub-Total for NC 98 BUS (Durham Rd) From NC 98 To Pvmt Jt E of US1				**31**	**4**	**0**	**60**	**0**	**15**	**10**	**1**	**0**	**0**	**0**	**15**	**0**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - T W ALEXANDER DR FROM/TO DURHAM COUNTY LINE TO/FROM SR 6010

Municipality:	**Raleigh** **Durham** **Outside Municipality**
WBS Number:	2027CPT.05.08.10921, ETC.
County:	**Wake**

Sheet No.
22

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 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2612300000-N (EA) Retrofit Existing Concrete Curb Ramps	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
12991**	5	SR-3067 (T W Alexander Dr)	Harris Teeter (4221 Corners Pkwy) TW Alexander Dr Entrance												1		Type 2B - 848.06
12992	5	SR-3067 (T W Alexander Dr)	Harris Teeter (4221 Corners Pkwy) TW Alexander Dr Entrance												1		Type 2B - 848.06
12968**	6	SR-3067 (T W Alexander Dr)	Corners parkway												1		Type 3 Modified - 848D0609
12969**	6	SR-3067 (T W Alexander Dr)	Corners parkway	8				8							1		Type 1A - 848.06
12970	6	SR-3067 (T W Alexander Dr)	Corners parkway	4											1		Type 7 - 848.06
12971	6	SR-3067 (T W Alexander Dr)	Corners parkway	4											1		Type 7 - 848.06
12972	6	SR-3067 (T W Alexander Dr)	Corners parkway								1				1		Standard - 848.06
12973	6	SR-3067 (T W Alexander Dr)	Corners parkway							6					1		Standard - 848.06
12974	6	SR-3067 (T W Alexander Dr)	Corners parkway							6					1		Standard - 848.06
12975	6	SR-3067 (T W Alexander Dr)	Corners parkway			16										1	Remove Ramp
12976	6	SR-3067 (T W Alexander Dr)	Corners parkway									4	2			1	Remove Ramp
12977	6	SR-3067 (T W Alexander Dr)	Corners parkway									4	2			1	Remove Ramp
7909	7	SR-3067 (TW Alexander Dr)	WakeMed Brier Creek Emergency Department (8001 TW Alexander Dr)												1		Type 1C - 848.06
7910	7	SR-3067 (TW Alexander Dr)	WakeMed Brier Creek Emergency Department (8001 TW Alexander Dr)												1		Type 1C - 848.06
12979	8	SR-3067 (T W Alexander Dr)	Acc Blvd												1		Standard - 848.06
12980	8	SR-3067 (T W Alexander Dr)	Acc Blvd												1		Standard - 848.06
12981	8	SR-3067 (T W Alexander Dr)	Acc Blvd												1		Standard - 848.06
12982	8	SR-3067 (T W Alexander Dr)	Acc Blvd	3											1		Type 7 - 848.06
12983	8	SR-3067 (T W Alexander Dr)	Acc Blvd	3											1		Type 7 - 848.06
12984	8	SR-3067 (T W Alexander Dr)	Acc Blvd												1		Standard - 848.06
12985	8	SR-3067 (T W Alexander Dr)	Acc Blvd												1		Standard - 848.06
12986	8	SR-3067 (T W Alexander Dr)	Acc Blvd												1		Standard - 848.06
Sub-Total				**22**	**0**	**16**	**0**	**8**	**0**	**12**	**1**	**8**	**4**	**0**	**19**	**3**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - T W ALEXANDER DR FROM/TO DURHAM COUNTY LINE TO/FROM SR 6010

Municipality:	**Raleigh** **Durham** **Outside Municipality**
WBS Number:	2027CPT.05.08.10921, ETC.
County:	**Wake**

Sheet No.
23

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 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2612300000-N (EA) Retrofit Existing Concrete Curb Ramps	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
7920	1	SR-3067 (T W Alexander Dr)	Salem Glen Ln												1		Type 3 Modified - 848D0609
7922	1	SR-3067 (T W Alexander Dr)	Salem Glen Ln												1		Type 3 Modified - 848D0609
7923	1	SR-3067 (T W Alexander Dr)	Salem Glen Ln												1		Type 3 Modified - 848D0609
7924	1	SR-3067 (T W Alexander Dr)	Brier Club Ln						3						1		Type 3 Modified - 848D0609
7925	1	SR-3067 (T W Alexander Dr)	Brier Club Ln												1		Type 3 Modified - 848D0609
7926	1	SR-3067 (T W Alexander Dr)	Brier Club Ln												1		Type 2B - 848.06
7927	1	SR-3067 (T W Alexander Dr)	Brier Club Ln												1		Type 2B - 848.06
26669	1	SR-3067 (T W Alexander Dr)	Brier Club Ln												1		Type 7 - 848.06
26670	1	SR-3067 (T W Alexander Dr)	Brier Club Ln												1		Type 7 - 848.06
26671	1	SR-3067 (T W Alexander Dr)	Brier Club Ln												1		Type 7 - 848.06
26672	1	SR-3067 (T W Alexander Dr)	Salem Glen Ln												1		Type 7 - 848.06
26673	1	SR-3067 (T W Alexander Dr)	Salem Glen Ln												1		Type 7 - 848.06
26674	1	SR-3067 (T W Alexander Dr)	Salem Glen Ln												1		Type 7 - 848.06
7914	2	SR-3067 (T W Alexander Dr)	Sporting Club Dr												1		Type 1C - 848.06
7915	2	SR-3067 (T W Alexander Dr)	Sporting Club Dr												1		Type 1D - 848.06
7916	2	SR-3067 (T W Alexander Dr)	Fun Park Dr			22		10								1	Remove Ramp
7917	2	SR-3067 (T W Alexander Dr)	Fun Park Dr												1		Type 3 Modified - 848D0609
7918	2	SR-3067 (T W Alexander Dr)	Fun Park Dr												1		Type 3 Modified - 848D0609
7919	2	SR-3067 (T W Alexander Dr)	Fun Park Dr			19		9								1	Remove Ramp
7913	3	SR-3067 (T W Alexander Dr)	Little Brier Creek Ln												1		Type 1C - 848.06
12993	4	SR-3067 (T W Alexander Dr)	US-70 (Glenwood Ave)			19										1	Remove Ramp
12994	4	SR-3067 (T W Alexander Dr)	US-70 (Glenwood Ave)												1		Type 3 Modified - 848D0609
12995	4	SR-3067 (T W Alexander Dr)	US-70 (Glenwood Ave)	10									4		1		Type 7 - 848.06
12996	4	SR-3067 (T W Alexander Dr)	US-70 (Glenwood Ave)	10									4		1		Type 7 - 848.06
12997	4	SR-3067 (T W Alexander Dr)	US-70 (Glenwood Ave)												1		Type 3 Modified - 848D0609
Sub-Total				**20**	**0**	**60**	**0**	**19**	**3**	**0**	**0**	**0**	**8**	**0**	**22**	**3**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - T W ALEXANDER DR FROM/TO DURHAM COUNTY LINE TO/FROM SR 6010

Municipality:	**Raleigh** **Durham** **Outside Municipality**
WBS Number:	2027CPT.05.08.10921, ETC.
County:	**Wake**

Sheet No.
24

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 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2612300000-N (EA) Retrofit Existing Concrete Curb Ramps	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
12987	8	SR-3067 (T W Alexander Dr)	Acc Blvd								1				1		Standard - 848.06
12988	8	SR-3067 (T W Alexander Dr)	Acc Blvd												1		Type 7 - 848.06
12989	8	SR-3067 (T W Alexander Dr)	Acc Blvd												1		Type 7 - 848.06
12990	8	SR-3067 (T W Alexander Dr)	Acc Blvd												1		Standard - 848.06
26675	9	SR-3067 (T W Alexander Dr)	Del Webb Arbors Dr												1		Standard - 848.06
26676	9	SR-3067 (T W Alexander Dr)	Del Webb Arbors Dr												1		Standard - 848.06
26692**	10	SR-3067 (T W Alexander Dr)	SR-6010 (Brier Creek Pkwy)	10											1		Type 7 - 848.06
26693**	10	SR-3067 (T W Alexander Dr)	SR-6010 (Brier Creek Pkwy)	10											1		Type 7 - 848.06
-	-	-	-	-	14*	-	196*	-	70*	-	-	-	-	-	-	-	
Sub-Total				**20**	**14**	**0**	**196**	**0**	**70**	**0**	**1**	**0**	**0**	**0**	**8**	**0**	
Sub-Total for T W Alexander Dr From/To Durham County Line To/From SR 6010				**62**	**14**	**76**	**196**	**27**	**73**	**12**	**2**	**8**	**12**	**0**	**49**	**6**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - ARCO CORPORATE DR FROM SR-3109 TO PAVEMENT JOINT

Municipality:	**Raleigh**
WBS Number:	2027CPT.05.08.10921, ETC.
County:	**Wake**

Sheet No.
25

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 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2612300000-N (EA) Retrofit Existing Concrete Curb Ramps	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
2333	1	SR-3109 (Brier Creek Pkwy)	Little Brier Creek Ln												1		Type 3 Modified - 848D0609
2334	1	SR-3109 (Brier Creek Pkwy)	SR-3102 (Arco Corporate Dr)												1		Type 3 Modified - 848D0609
2335	1	SR-3109 (Brier Creek Pkwy)	SR-3102 (Arco Corporate Dr)												1		Type 3 Modified - 848D0609
2337	1	SR-3109 (Brier Creek Pkwy)	SR-3102 (Arco Corporate Dr)												1		Type 3 - 848D0609
2354	1	SR-3109 (Brier Creek Pkwy)	Little Brier Creek Ln												1		Type 7 - 848.06
2356	1	SR-3109 (Brier Creek Pkwy)	SR-3102 (Arco Corporate Dr)												1		Type 7 - 848.06
2360	1	SR-3109 (Brier Creek Pkwy)	SR-3102 (Arco Corporate Dr)											1			Retrofit Warnings
26834	1	SR-3109 (Brier Creek Pkwy)	SR-3102 (Arco Corporate Dr)					7								1	Remove Ramp
12905	2	SR-3102 (Arco Corporate Dr)	Entrance near McDonalds (8011 Brier Creek Pkwy) at Brier Creek Commons												1		Type 3 Modified - 848D0609
12906	2	SR-3102 (Arco Corporate Dr)	Entrance near McDonalds (8011 Brier Creek Pkwy) at Brier Creek Commons												1		Type 3 Modified - 848D0609
12907	2	SR-3102 (Arco Corporate Dr)	Entrance near McDonalds (8011 Brier Creek Pkwy) at Brier Creek Commons												1		Type 3 Modified - 848D0609
12908	2	SR-3102 (Arco Corporate Dr)	Entrance near McDonalds (8011 Brier Creek Pkwy) at Brier Creek Commons								1				1		Type 1 Modified - 848.06
12909	2	SR-3102 (Arco Corporate Dr)	Entrance near McDonalds (8011 Brier Creek Pkwy) at Brier Creek Commons			16										1	Remove Ramp
12910	3	SR-3102 (Arco Corporate Dr)	AT&T (8005 Brier Creek Pkwy)												1		Standard - 848.06
12911	3	SR-3102 (Arco Corporate Dr)	AT&T (8005 Brier Creek Pkwy)												1		Type 3 Modified - 848D0609
12916	4	SR-3102 (Arco Corporate Dr)	Dick's Sporting Goods (8021 Brier Creek Pkwy) Arco Corporate Dr Rear Entrance												1		Type 3 Modified - 848D0609
Sub-Total				**0**	**0**	**16**	**0**	**7**	**0**	**0**	**1**	**0**	**0**	**1**	**13**	**2**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - ARCO CORPORATE DR FROM SR-3109 TO PAVEMENT JOINT

Municipality:	**Raleigh**
WBS Number:	2027CPT.05.08.10921, ETC.
County:	**Wake**

Sheet No.
26

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 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2612300000-N (EA) Retrofit Existing Concrete Curb Ramps	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
12914	5	SR-3102 (Arco Corporate Dr)	Shopping Center (7980 Arco Corporate Dr)												1		Type 3 Modified - 848D0609
12915	5	SR-3102 (Arco Corporate Dr)	Shopping Center (7980 Arco Corporate Dr)												1		Type 3 Modified - 848D0609
12912	6	SR-3102 (Arco Corporate Dr)	Shopping Center (7990 Arco Corporate Dr)												1		Type 3 Modified - 848D0609
12913	6	SR-3102 (Arco Corporate Dr)	Shopping Center (7990 Arco Corporate Dr)												1		Type 3 Modified - 848D0609
-	-	-	-	-	5*	-	68*	-	30*	-	-	-	-	-	-	-	
Sub-Total				**0**	**5**	**0**	**68**	**0**	**30**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	
-	-	-	-	-	5*	-	68*	-	30*	-	-	-	-	-	-	-	
Sub-Total				**0**	**5**	**0**	**68**	**0**	**30**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	
Sub-Total for Arco Corporate Dr From SR-3109 To Pavement Joint				**0**	**5**	**16**	**68**	**7**	**30**	**0**	**1**	**0**	**0**	**1**	**17**	**2**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - GRESHAM LAKE RD FROM SR 2012 TO US 1

Municipality:	**Raleigh** **Outside Municipality**
WBS Number:	2027CPT.05.08.10921, ETC.
County:	**Wake**

Sheet No.
27

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 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2612300000-N (EA) Retrofit Existing Concrete Curb Ramps	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
11768	1	SR-2013 (Gresham Lake Rd)	Goudy Dr												1		Standard - 848.06
11769	1	SR-2013 (Gresham Lake Rd)	Goudy Dr												1		Standard - 848.06
11770	1	SR-2013 (Gresham Lake Rd)	Goudy Dr												1		Standard - 848.06
11771	1	SR-2013 (Gresham Lake Rd)	Goudy Dr								1				1		Standard - 848.06
26699	2	SR-2013 (Gresham Lake Rd)	Harps Mill Rd								1				1		Type 3 Modified - 848D0609
26700	2	SR-2013 (Gresham Lake Rd)	Harps Mill Rd			20										1	Remove Ramp
26701	3	SR-2013 (Gresham Lake Rd)	Gresham Trace Ln			22										1	Remove Ramp
26702	3	SR-2013 (Gresham Lake Rd)	Gresham Trace Ln												1		Type 3 Modified - 848D0609
11772	4	SR-2013 (Gresham Lake Rd)	Royal Meadows Way												1		Type 3 Modified - 848D0609
11773	4	SR-2013 (Gresham Lake Rd)	Royal Meadows Way												1		Type 3 Modified - 848D0609
26703	5	SR-2013 (Gresham Lake Rd)	Coxindale Dr												1		Type 3 Modified - 848D0609
11774	6	SR-2013 (Gresham Lake Rd)	Gresham Hills Dr			20										1	Remove Ramp
11775	6	SR-2013 (Gresham Lake Rd)	Gresham Hills Dr												1		Type 2B - 848.06
11776	6	SR-2013 (Gresham Lake Rd)	Gresham Hills Dr												1		Type 3 Modified - 848D0609
11777	6	SR-2013 (Gresham Lake Rd)	Gresham Hills Dr			22		11								1	Remove Ramp
26704	7	SR-2013 (Gresham Lake Rd)	Business (3200 Gresham Lake Rd)												1		Type 3 Modified - 848D0609
26833	7	SR-2013 (Gresham Lake Rd)	Business (3200 Gresham Lake Rd)			22										1	Remove Ramp
11778	8	SR-2013 (Gresham Lake Rd)	Capital Hills Dr	8											1		Type 3 Modified - 848D0609
11779	8	SR-2013 (Gresham Lake Rd)	Capital Hills Dr				6								1		Type 3 Modified - 848D0609
11780	9	SR-2013 (Gresham Lake Rd)	Dead end (North of 3701 Gresham Lake Rd)												1		Type 3 Modified - 848D0609
11781	9	SR-2013 (Gresham Lake Rd)	Dead end (North of 3701 Gresham Lake Rd)												1		Type 3 Modified - 848D0609
26712	10	SR-2013 (Gresham Lake Rd)	Extra Space Storage (3701 Gresham Lake Rd)												1		Type 3 Modified - 848D0609
-	-	-	-	-	5*	-	68*	-	51*	-	-	-	-	-	-	-	
Sub-Total for Gresham Lake Rd From SR 2012 To US 1				**8**	**5**	**106**	**74**	**11**	**51**	**0**	**2**	**0**	**0**	**0**	**17**	**5**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - TOTALS

WBS Number:	2027CPT.05.08.10921, ETC.
County:	Wake

Sheet No.
28

WBS Number	County	Municipality	Resurfacing Route	4447000000-E (LF) Pedestrian Channelizing Devices	4600000000-N (EA) Generic Traffic Control Item - Pedestrian Transport Service (Per Trip)	4600000000-N (EA) Generic Traffic Control Item - Audible Warning Devices	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 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2612300000-N (EA) Retrofit Existing Concrete Curb Ramps	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps
2027CPT.05.08.10921	Wake	Wake Forest	NC 98 BUS (Durham Rd) From NC 98 To Pvmt Jt E of US1	30	5	2	31	4	0	60	0	15	10	1	0	0	0	15	0
2027CPT.05.08.20921	Wake	Raleigh Durham Outside Municipality	T W Alexander Dr From/To Durham County Line To/From SR 6010	60	10	2	62	14	76	196	27	73	12	2	8	12	0	49	6
2027CPT.05.08.20921	Wake	Raleigh	Arco Corporate Dr From SR-3109 To Pavement Joint	30	5	2	0	5	16	68	7	30	0	1	0	0	1	17	2
2027CPT.05.08.20921	Wake	Raleigh Outside Municipality	Gresham Lake Rd From SR 2012 To US 1	30	5	2	8	5	106	74	11	51	0	2	0	0	0	17	5
GRAND TOTAL				**150**	**25**	**8**	**101**	**28**	**198**	**398**	**45**	**169**	**22**	**6**	**8**	**12**	**1**	**98**	**13**

Notes: (1) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (2) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

PROJECT NO.	SHEET NO.	TOTAL NO.
2027CPT.05.08.10921, ETC.	29	

SUMMARY OF QUANTITIES

									0156000000-E	1220000000-E	1245000000-E	1260000000-E	1297000000-E	1330000000-E	1519000000-E	1523000000-E	1575000000-E	1704000000-E	1841000000-E	2549000000-E	2591000000-E	2612300000-N	2612500000-N	2655000000-E	2738000000-E			2752000000-E	2759000000-N	2845000000-N	4600000000-N		7444000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH	WIDTH	REMOVAL OF EXISTING ASPHALT PAVEMENT	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	1½" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5B	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	MILLED RUMBLE STRIPS (ASPHALT CONCRETE)	2'-6" CONCRETE CURB & GUTTER	4" CONCRETE SIDEWALK	RETROFIT EXISTING CONCRETE CURB RAMPS	REMOVE AND REPLACE CONCRETE CURB RAMPS	5" MONOLITHIC CONCRETE ISLANDS	REMOVE AND REPLACE 4" CONCRETE SIDEWALK	REMOVE 4" CONCRETE SIDEWALK	REMOVE AND REPLACE 5" MONOLITHIC CONCRETE ISLANDS	REMOVE AND REPLACE 2'-6" CONCRETE CURB & GUTTER	REMOVE CONCRETE CURB RAMPS	ADJUSTMENT OF METER BOXES OR VALVE BOXES	GENERIC TRAFFIC CONTROL ITEM PEDESTRIAN TRANSPORT SERVICE (PER TRIP)	GENERIC TRAFFIC CONTROL ITEM AUDIBLE WARNING DEVICES	INDUCTIVE LOOP SAWCUT
						MI	FT	SY	TONS	SMI	TON	SY	SY	TONS	TONS	TON	TONS	LF	LF	SY	EA	EA	SY	SY	SY	SY	LF	EA	EA	EA	EA	LF
2027CPT.05.08.10921	Wake	1	NC-98 BUS E / OLD FALLS OF NEUSE RD/DURHAM RD	FROM NC 98 TO END DIVIDED HWY	1	0.129	24					5,111	49	469		31	6															
		2	NC-98 E / DURHAM RD/DR CALVIN JONES HWY	FROM VERMILION CT TO BRIDGE JOINT	2	1.744	28					39,367	738		3,706	222	70	17,616															1,200
		3	NC-98 BUS E / DURHAM RD	FROM END DIVIDED HWY TO PVMT JT E OF US1	3	1.062	60	31.0				38,949	410	3,572		234	44						15.0		15	10		60		5	5	2	2,040
		4	NC-98 W / DR CALVIN JONES HWY/DURHAM RD	FROM BRIDGE JOINT TO END DIVIDED HWY	2	1.598	35					33,909	656		3,194	192	69	15,974															1,176
		5	NC-98 BUS W / DURHAM RD	FROM BEGIN DIVIDED HWY TO NC-98	4	0.140	24					2,542	57	236		16	6													1			882
TOTAL FOR PROJ NO. 2027CPT.05.08.10921						**4.673**		**31.0**				**119,878**	**1,910**	**4,277**	**6,900**	**695**	**195**	**33,590**				**15.0**		**15**	**10**		**60**		**6**	**5**	**2**	**5,298**
2027CPT.05.08.20921	Wake	6	SR-3067 / T W ALEXANDER DR/T.W. ALEXANDER DR	FROM DURHAM COUNTY LINE TO SR 6010	5	1.784	23	62.0				40,986	770	3,790		250	86		76	27		49.0	8	73	12	12	196	6	22	10	2	1,068
		7	SR-3102 / ARCO CORPORATE DR	FROM SR-3109 TO PAVEMENT JOINT	3	0.425	24					8,782	164	812		60	142		16	7	1	17.0		30			68	2	5	5	2	
		8	SR-2013 / GRESHAM LAKE RD	FROM SR 2012 TO US 1	6	1.671	36	8.0	45	1.77	164	39,547	721	3,655		241	76		106	11		17.0		51			74	5	7	5	2	1,344
		9	SR-3067 / T.W. ALEXANDER DR/T W ALEXANDER DR	FROM SR 6010 TO DURHAM COUNTY LINE	5	1.733	36					37,724	746	3,492		231	82												15			1,200
TOTAL FOR PROJ NO. 2027CPT.05.08.20921						**5.613**		**70.0**	**45**	**1.77**	**164**	**127,039**	**2,401**	**11,749**		**782**	**386**		**198**	**45**	**1**	**83.0**	**8**	**154**	**12**	**12**	**338**	**13**	**49**	**20**	**6**	**3,612**
2027CPT.05.08.20922	Wake	10	SR-4672 / NORWOOD OAKS DR	FROM SR 1834 TO CUL-DE-SAC	7	0.197	20						82	144		10	8															
TOTAL FOR PROJ NO. 2027CPT.05.08.20922						**0.197**							**82**	**144**		**10**	**8**															
GRAND TOTAL						**10.483**		**101.0**	**45**	**1.77**	**164**	**246,917**	**4,393**	**16,170**	**6,900**	**1,487**	**589**	**33,590**	**198**	**45**	**1**	**98.0**	**8**	**169**	**22**	**12**	**398**	**13**	**55**	**25**	**8**	**8,910**

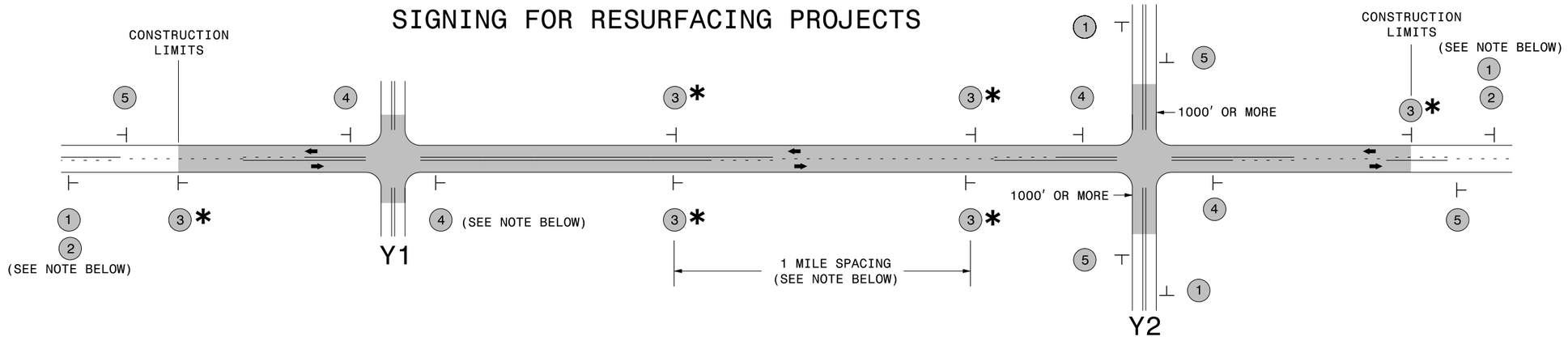
PROJECT NO.	SHEET NO.	TOTAL NO.
2027CPT.05.08.10921, ETC.	30	

THERMOPLASTIC AND PAINT QUANTITIES

									4413000000-E	4447000000-E	4457000000-N	4510000000-N	4685000000-E		4688000000-E		4695000000-E	4700000000-E	4704000000-E	4709000000-E	4720000000-E		4725000000-E				4770000000-E		4850000000-E	4890000000-E	4905100000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH	WIDTH		WORK ZONE ADVANCE/GENERAL WARNING SIGNING	PEDESTRIAN CHANNELIZING DEVICES	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	6" X 90 M WHITE THERMO	6" X 90 M YELLOW THERMO	8" X 90 M YELLOW THERMO	12" X 90 M YELLOW THERMO	16" X 90 M WHITE THERMO	24" X 90 M WHITE THERMO	THERMO MSG ONLY 90 M	THERMO MSG RXR 90 M	THERMO RT ARROW 90 M	THERMO STR ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO LT ARROW 90 M	4" YELLOW COLD APPLIED PLASTIC, TYPE II	4" WHITE COLD APPLIED PLASTIC, TYPE II	4" LINE REMOVAL	YIELD LINE THERMOPLASTIC PAVEMENT MARKING	POLYCARBONATE H MARKERS
						MI	FT		SF	LF	LS	HR	LF	LF	LF	LF	LF	LF		LF	EA	EA	EA	EA	EA	EA	LF	LF	LF	LF	EA
2027CPT.05.08.10921	Wake	1	NC-98 BUS E / OLD FALLS OF NEUSE RD/DURHAM RD	FROM NC 98 TO END DIVIDED HWY	1	0.129	24		17						1,388	150							2	1	1						12
		2	NC-98 E / DURHAM RD/DR CALVIN JONES HWY	FROM VERMILION CT TO BRIDGE JOINT	2	1.744	28		196			160			17,726	450				250			8	25	4	28					130
		3	NC-98 BUS E / DURHAM RD	FROM END DIVIDED HWY TO PVMT JT E OF US1	3	1.062	60		118	30		200			12,196	11,088	100			450			10	46	10	34					80
		4	NC-98 W / DR CALVIN JONES HWY/DURHAM RD	FROM BRIDGE JOINT TO END DIVIDED HWY	2	1.598	35		192			160			17,421	450		60		225	8		12	18		18					130
		5	NC-98 BUS W / DURHAM RD	FROM BEGIN DIVIDED HWY TO NC-98	4	0.14	24		16			40			1,506	500				100	4		15	8		7					12
TOTAL FOR PROJ NO. 2027CPT.05.08.10921						**4.673**			**539**	**30**		**560**			**50,237**	**12,638**	**100**	**60**		**1,025**	**12**		**47**	**98**	**15**	**87**					**364**
													62,875								**12**		**247**								
2027CPT.05.08.20921	Wake	6	SR-3067 / T W ALEXANDER DR/T.W. ALEXANDER DR	FROM DURHAM COUNTY LINE TO SR 6010	5	1.784	23		200	60		160	23,496							350	4		22	10	4	18					
		7	SR-3102 / ARCO CORPORATE DR	FROM SR-3109 TO PAVEMENT JOINT	3	0.425	24		52	30			3,036	5,343			200			64			2	6		4				30	
		8	SR-2013 / GRESHAM LAKE RD	FROM SR 2012 TO US 1	6	1.671	36		199	30	*	120	25,700	23,364				350	100	234	4	4	4	4	2	42	660	660	1,320		
		9	SR-3067 / T.W. ALEXANDER DR/T W ALEXANDER DR	FROM SR 6010 TO DURHAM COUNTY LINE	5	1.733	36		200			160	23,496							398	8		16	14		20					
TOTAL FOR PROJ NO. 2027CPT.05.08.20921						**5.613**			**651**	**120**		**440**	**75,728**	**28,707**			**200**	**350**	**100**	**1,046**	**16**	**4**	**44**	**34**	**6**	**84**	**660**	**660**	**1,320**	**30**	
													104,435								**20**		**168**				**1,320**			**30**	
2027CPT.05.08.20922	Wake	10	SR-4672 / NORWOOD OAKS DR	FROM SR 1834 TO CUL-DE-SAC	7	0.197	20		23																						
TOTAL FOR PROJ NO. 2027CPT.05.08.20922						**0.197**			**23**																						
GRAND TOTAL						**10.483**			**1,213**	**150**	**1.000**	**1,000**	**75,728**	**28,707**	**50,237**	**12,638**	**300**	**410**	**100**	**2,071**	**28**	**4**	**91**	**132**	**21**	**171**	**660**	**660**	**1,320**	**30**	**364**
													104,435		**62,875**						**32**		**415**				**1,320**			**30**	

PROJ. REFERENCE NO.	SHEET NO.
2027CPT.05.08.10921, ETC.	TMP-1

SIGNING FOR RESURFACING PROJECTS



LEGEND
- ⊢ STATIONARY SIGN
- ⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1 — ROAD WORK AHEAD W20-1 48″ X 48″

2 — NEXT XX MILES W7-3aP 24″ X 18″

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

#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)

3* — LOW/SOFT SHOULDER SP 13107 48″ X 48″

PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.

4 — ROAD UNDER CONST SP 13106 48″ X 48″

THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500′ +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500′ OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.

5 — END ROAD WORK G20-2 A 48″ X 24″

PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS.

-Y- LINE SIGNING

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000′ OF RESURFACING ALONG -Y- LINE
2) SUBDIVISION ROADS
3) DEAD END ROADS

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

ROAD WORK AHEAD W20-1 48″ X 48″ — PLACED 500′ IN ADVANCE OF FLAGGER.

W20-7 A 48″ X 48″ — PLACED 250′ IN ADVANCE OF FLAGGER.

* 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).

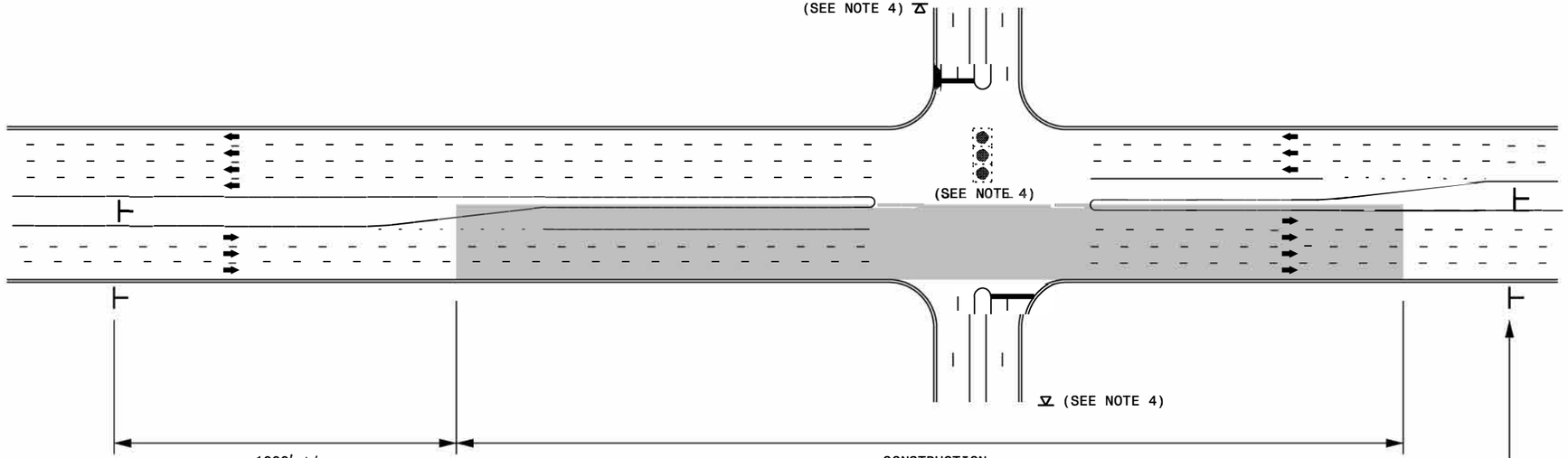
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS

6/3/2014
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User:rmgarrett

PROJ. REFERENCE NO.	SHEET NO.
2027CPT.05.08.10921, ETC.	TMP-2

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

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

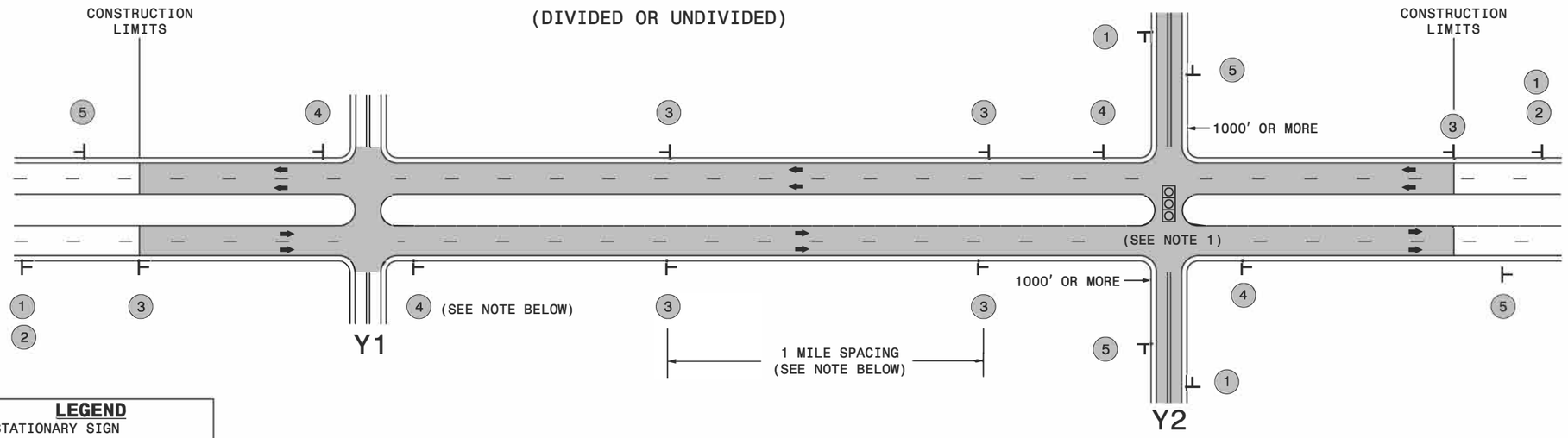
RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

2/24/2014
S:\TMU\WZTC\Resurfacing\2013Resurfacing\2013Documents\New Proc Edures_05_09_2013\Resurfacing_AdvWarn_UrSu.dgn

PROJ. REFERENCE NO.	SHEET NO.
2027CPT.05.08.10921, ETC.	TMP-3

SIGNING FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS WITH SHOULDER SECTIONS

(DIVIDED OR UNDIVIDED)



LEGEND

⊢ STATIONARY SIGN

⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1 — ROAD WORK AHEAD W20-1 48″ X 48″

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

2 — NEXT XX MILES W7-3aP 24″ X 18″

#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)

3 — LOW SOFT SHOULDER SP 13107 48″ X 48″

PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.

4 — ROAD UNDER CONST SP 13106 48″ X 48″

THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500′ +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500′ OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.

5 — END ROAD WORK G20-2 A 48″ X 24″

PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS.

-Y- LINE SIGNING

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000′ OF RESURFACING ALONG -Y- LINE
2) SUBDIVISION ROADS
3) DEAD END ROADS

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

ROAD WORK AHEAD W20-1 48″ X 48″ — PLACED 500′ IN ADVANCE OF FLAGGER.

W20-7 A 48″ X 48″ — PLACED 250′ IN ADVANCE OF FLAGGER.

NOTES:

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.

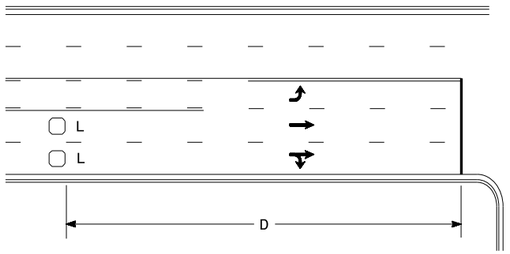
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

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

2/24/2014
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User:rmgarrett

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.08.10921, ETC.	SIG-1

High Speed Detection
(≥35 mph)

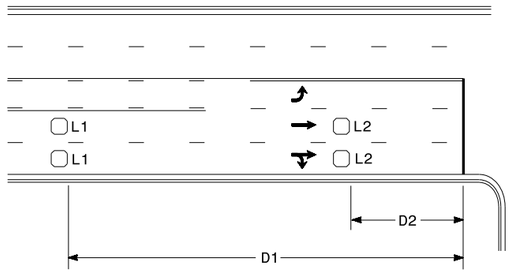


Speed Limit mph	D ft
35	200
40	250
45	300
50	355
55	420
60	475
65	550

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



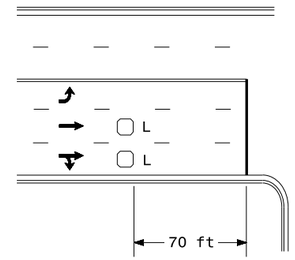
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110
60	475	120
65	550	130

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

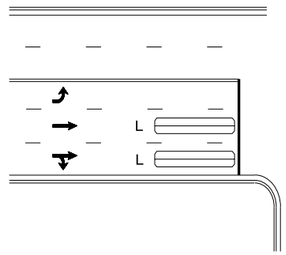
"Stretch" Operation

Low Speed Detection
(≤35 mph)



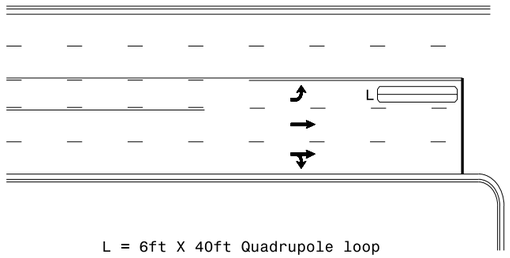
L = 6ft X 6ft
Wired in series

OR



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

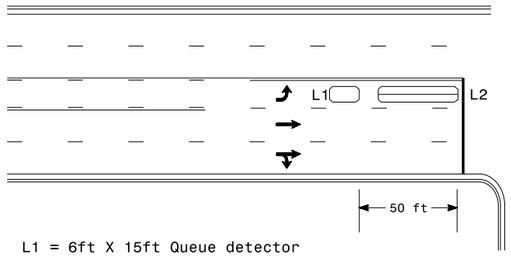
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

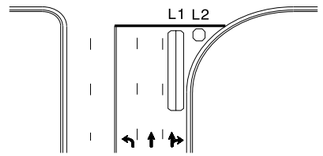
OR



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

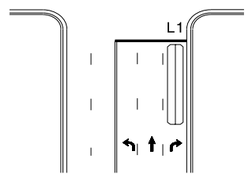
Queue Loop Detection

Right Turn Lane Detection

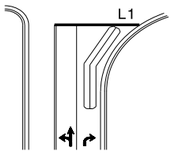


Shared Lane/
Wide Radius Turn

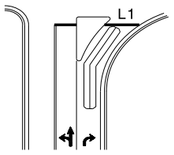
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

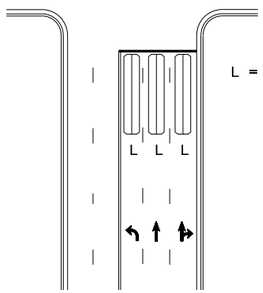


Wide Radius Turn



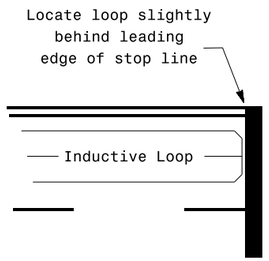
Channelized Turn

Side Street Detection



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

Presence Loop Placement at Stop Lines



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

Recommended Number of Turns

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

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

Quadrupole loops: Use 2-4-2 turns

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

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

Typical Signal Loop Locations

PLAN DATE: September 2025 | REVIEWED BY:
PREPARED BY: J.A. Lohr | REVIEWED BY:

SCALE: N/A

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA
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ENGINEER
ROBERT J. ZIEMBA
DocuSigned by: 11/25/2025
DATE
SIG. INVENTORY NO.

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jalohr