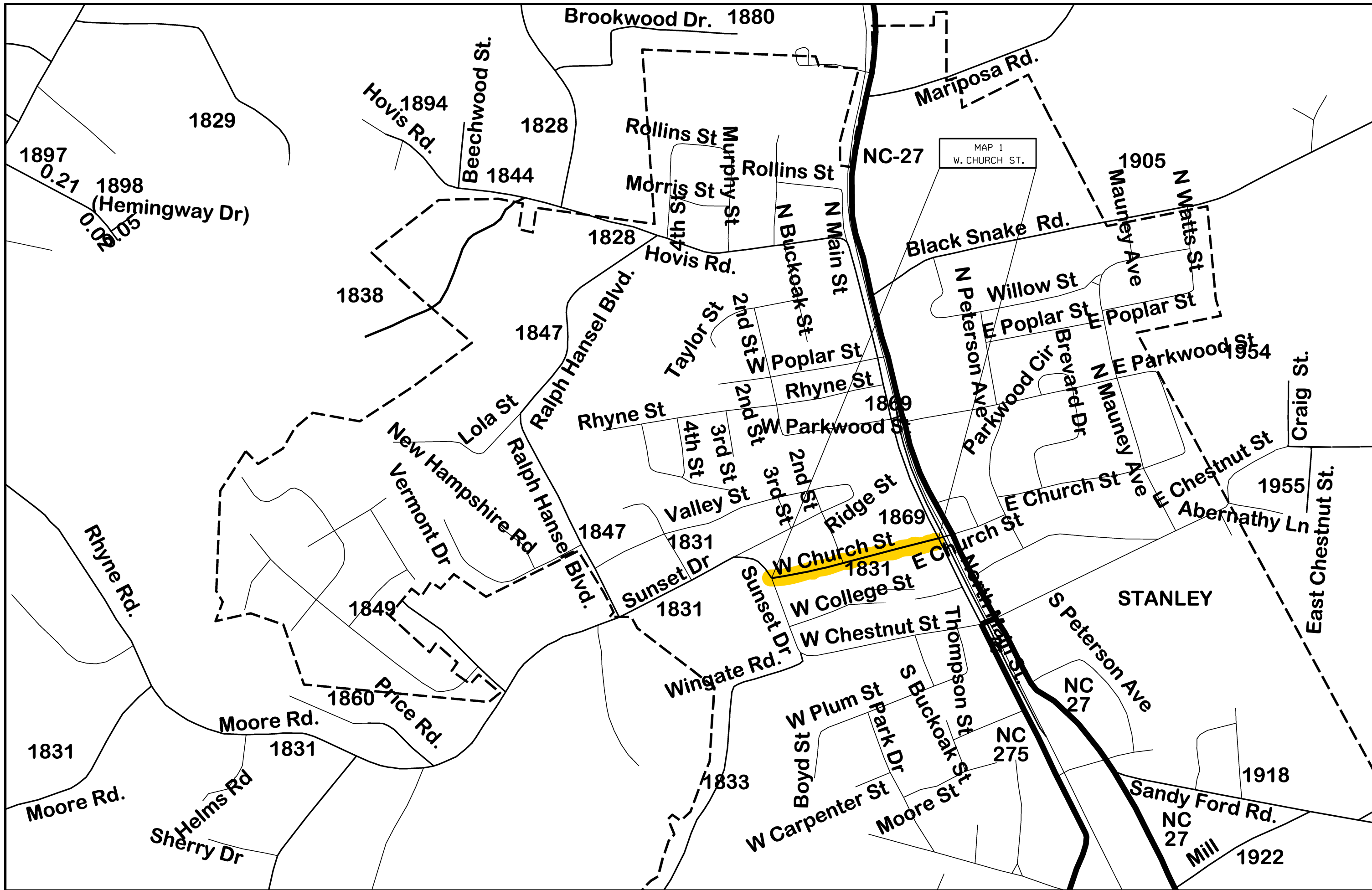
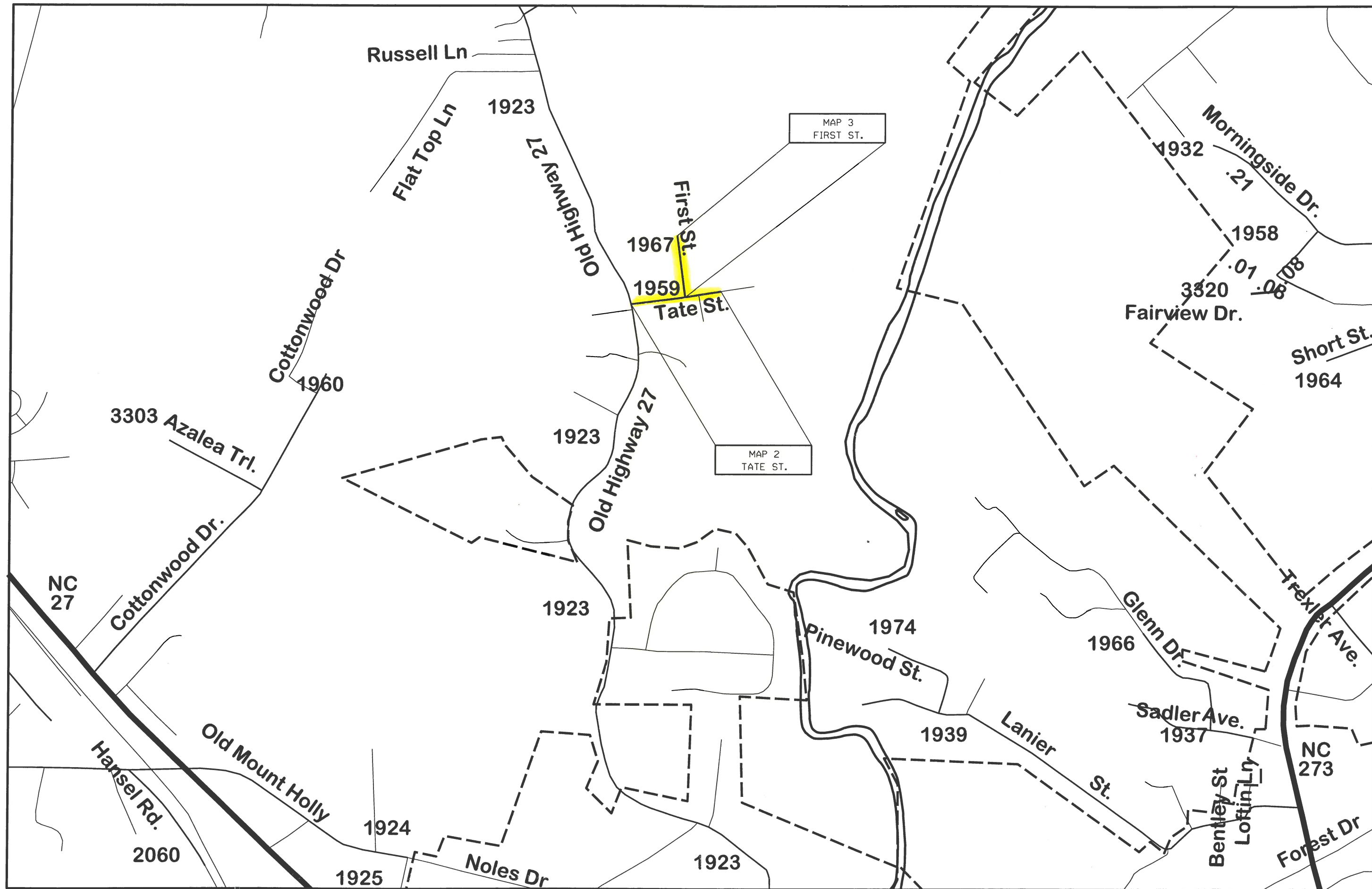


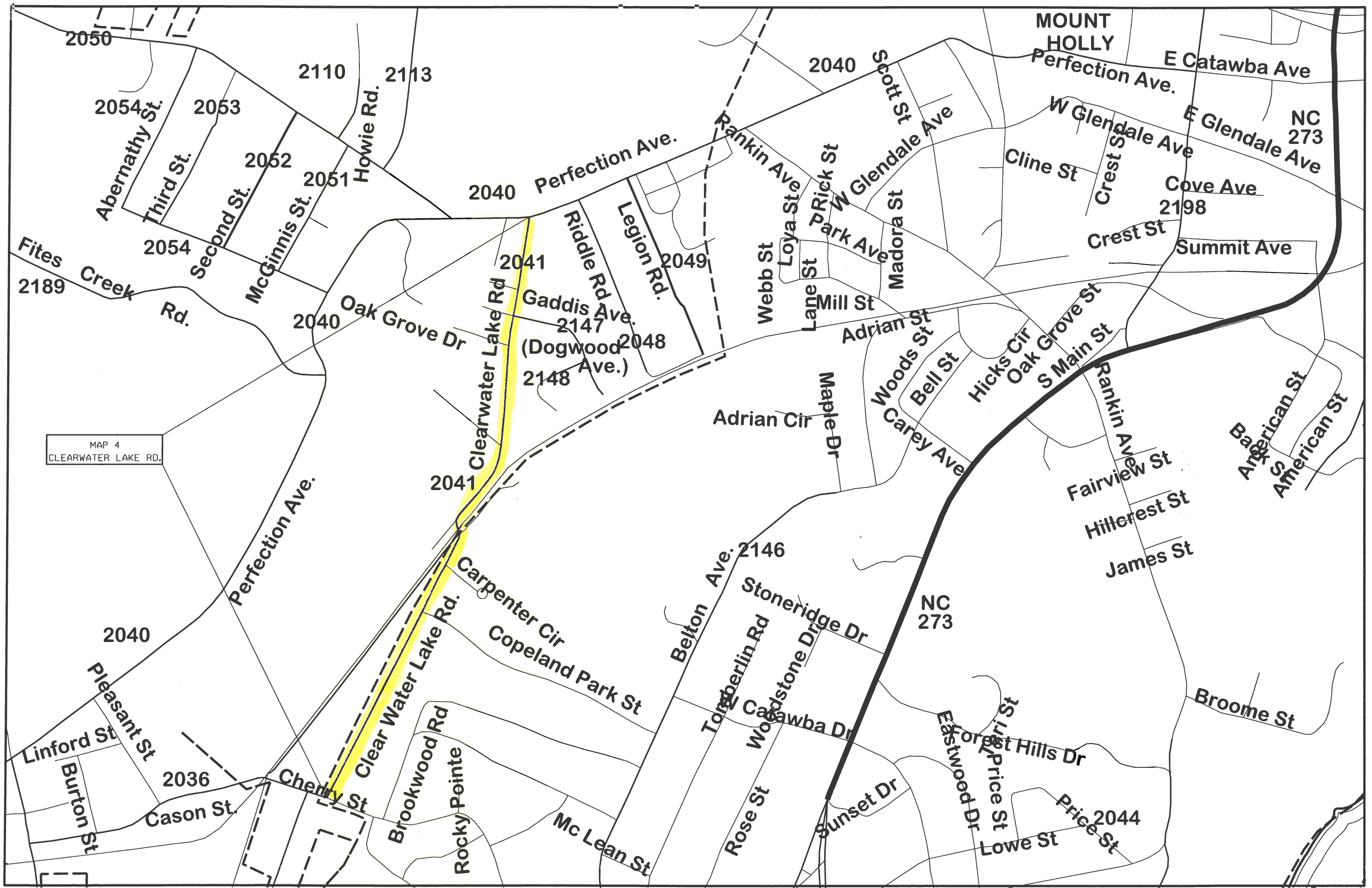
**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

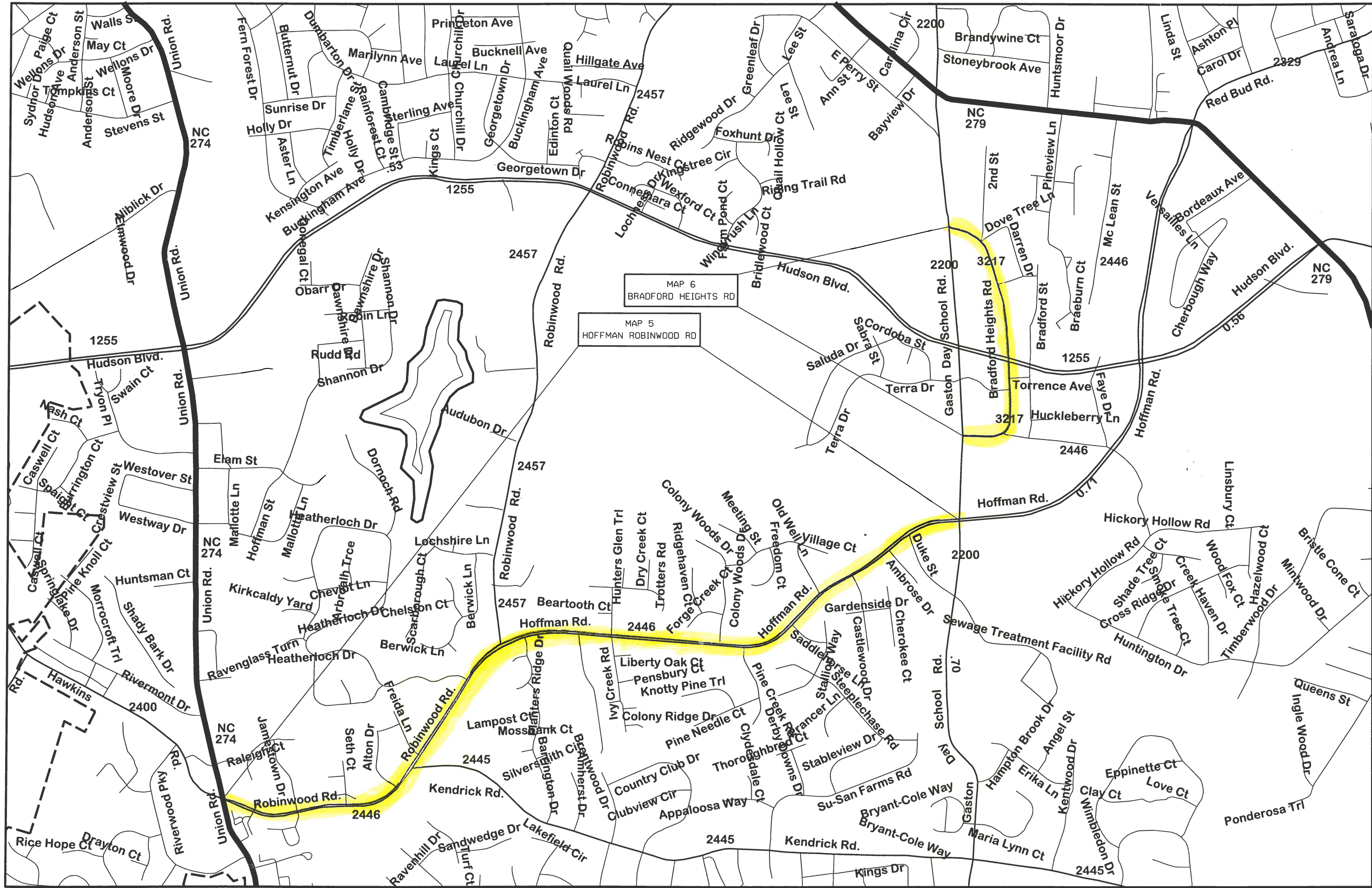
**This file or an individual page
shall not be considered a certified document.**







MAP 4
CLEARWATER LAKE RD.

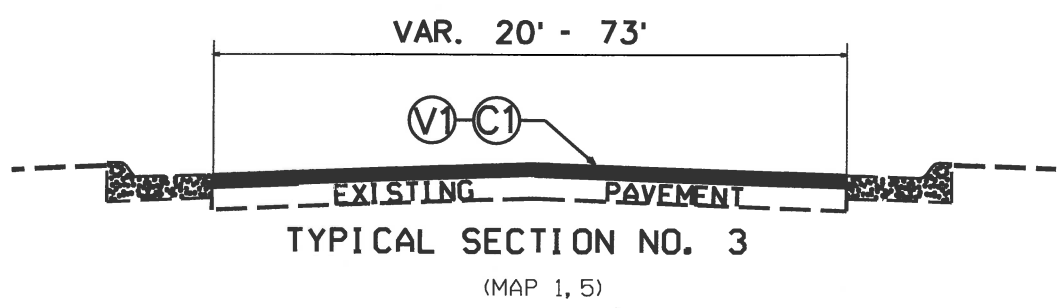
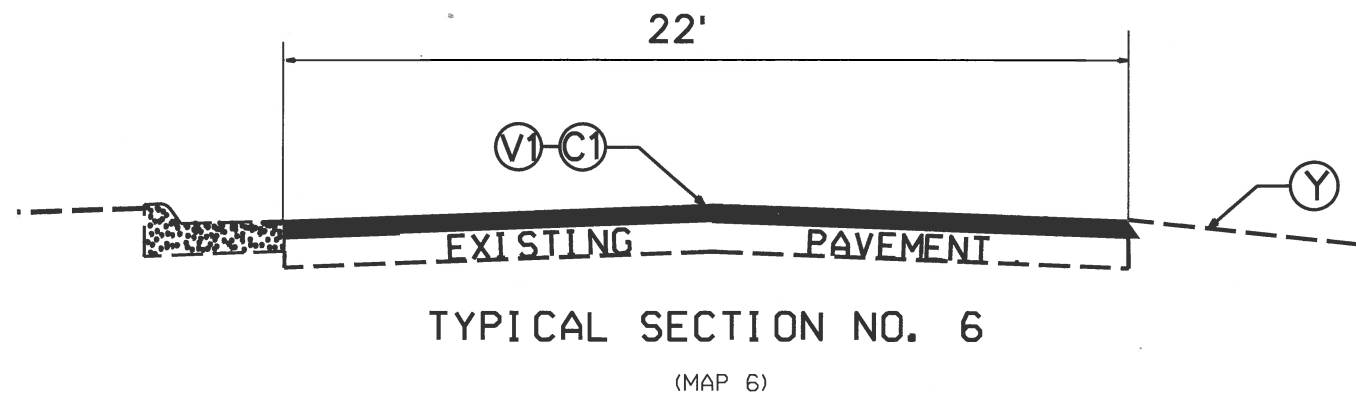
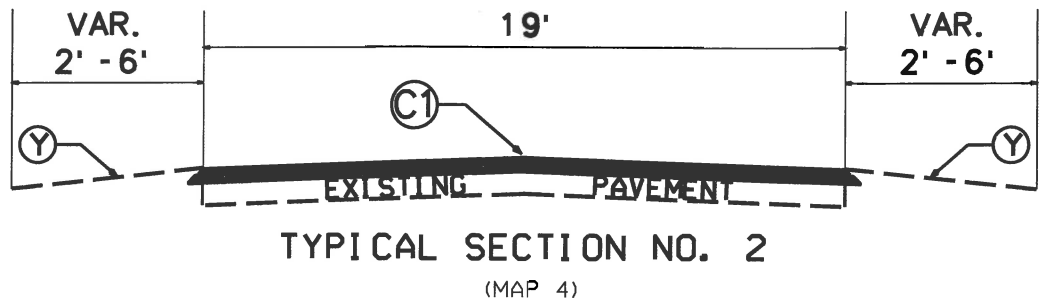
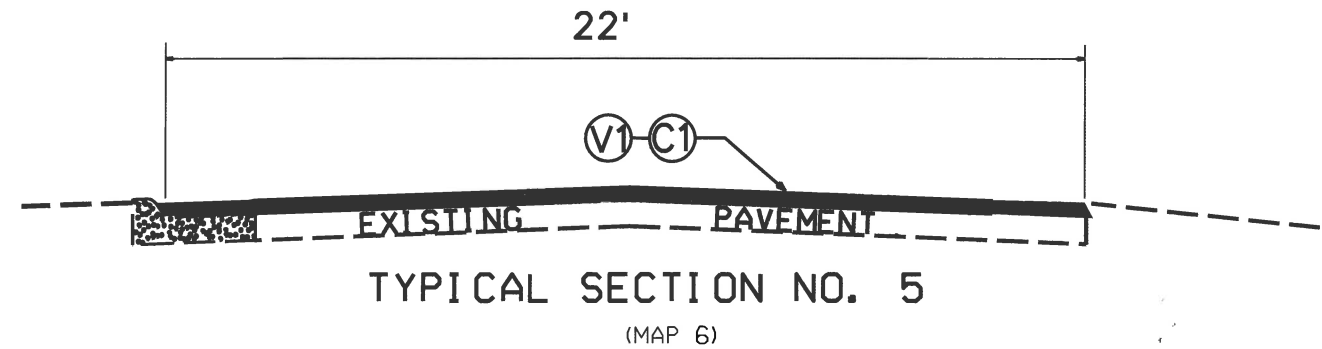
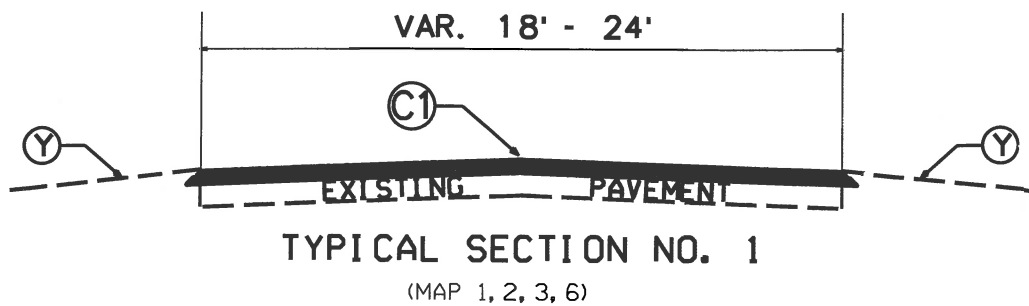
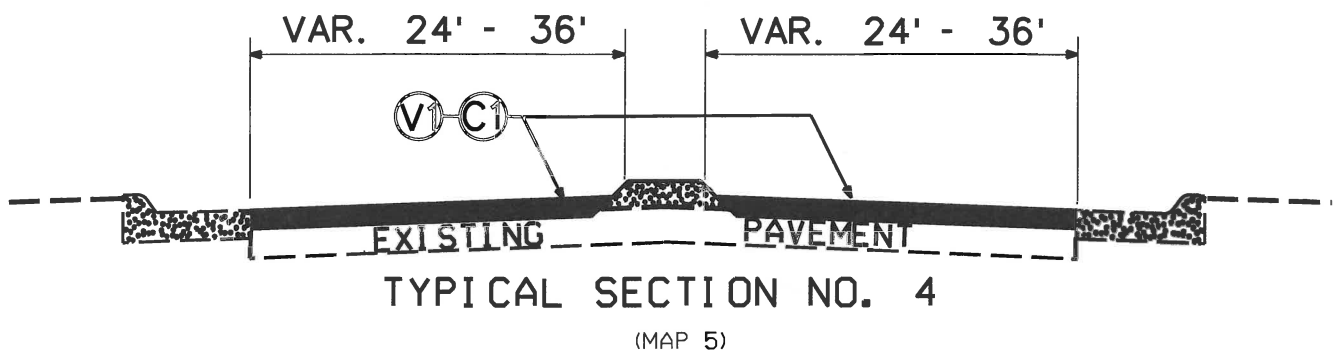


GASTON COUNTY
 2025CPT.12.07.20361

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILL ASPHALT PAVEMENT APPROX. 1-1/2" AS DIRECTED BY ENGINEER
Y	SHOULDER RECONSTRUCTION
Z	INCIDENTAL MILLING AS DIRECTED BY THE ENGINEER.

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
GASTON COUNTY 2025-2026		
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
2025CPT. 12. 07. 20361		DL00342

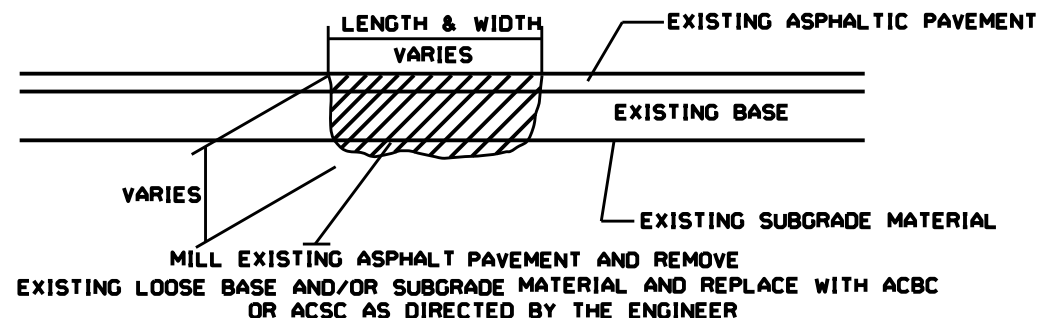
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
MILL BRIDGE APPROACHES & RXR APPROACHES 100' TO PROVIDE A SMOOTH TRANSITION AS DIRECTED.
MILL INTO GUTTER LINE WHERE SHOWN AND AS DIRECTED.
MAINTAIN PROPER CROWN FOR DRAINAGE OF THE ROAD SURFACE.



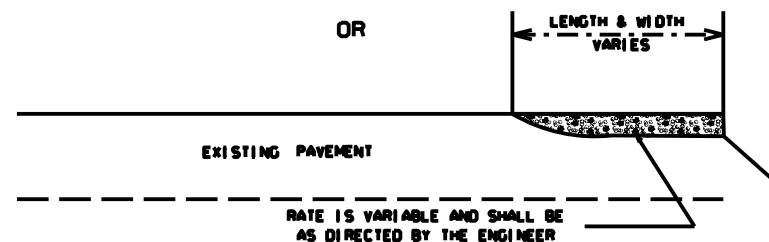
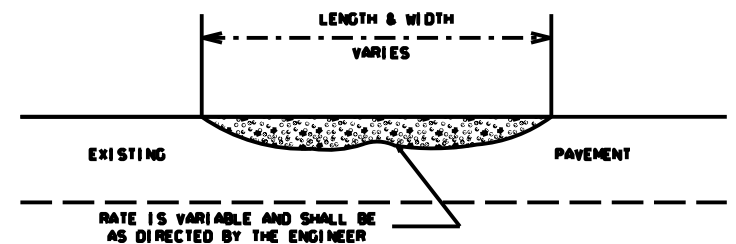
PAVEMENT SCHEDULE	
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PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
GASTON COUNTY 2025-2026		
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
2025CPT. 12.07.20361		DL00342

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
 MILL BRIDGE APPROACHES & RXR APPROACHES 100' TO PROVIDE A SMOOTH TRANSITION AS DIRECTED.
 MILL INTO GUTTER LINE WHERE SHOWN AND AS DIRECTED.
 MAINTAIN PROPER CROWN FOR DRAINAGE OF THE ROAD SURFACE.

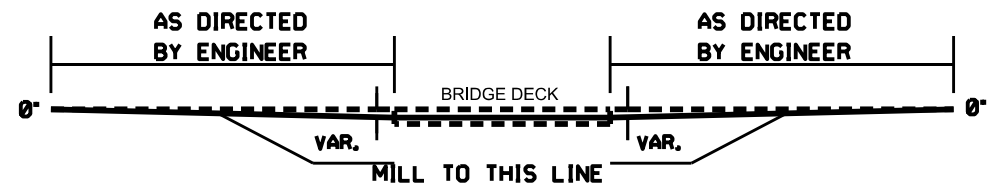


PATCHING EXISTING PAVEMENT

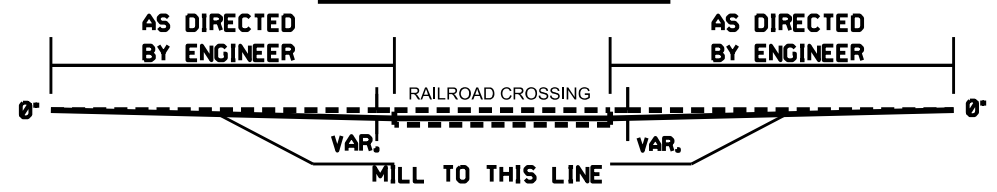


**ASPHALT CONCRETE SURFACE COURSE
 TYPE S9.5C (LEVELING COURSE)**

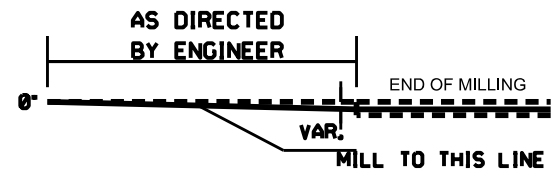
INCIDENTAL MILLING DETAILS



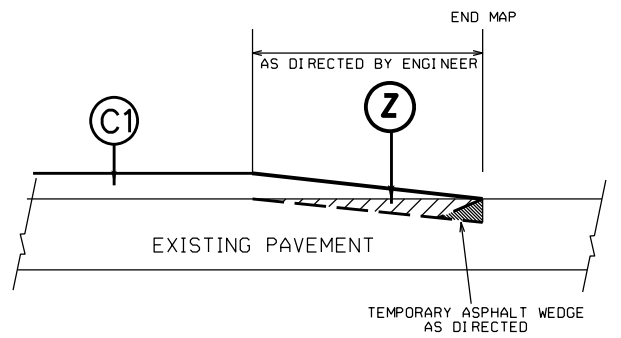
BRIDGE PROFILE



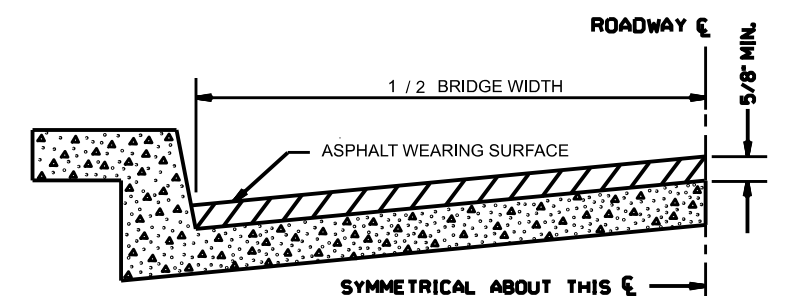
RAILROAD PROFILE



END OF MILLING PROFILE



TIE-IN MILLING DETAIL



BRIDGE HALF TYPICAL SECTION

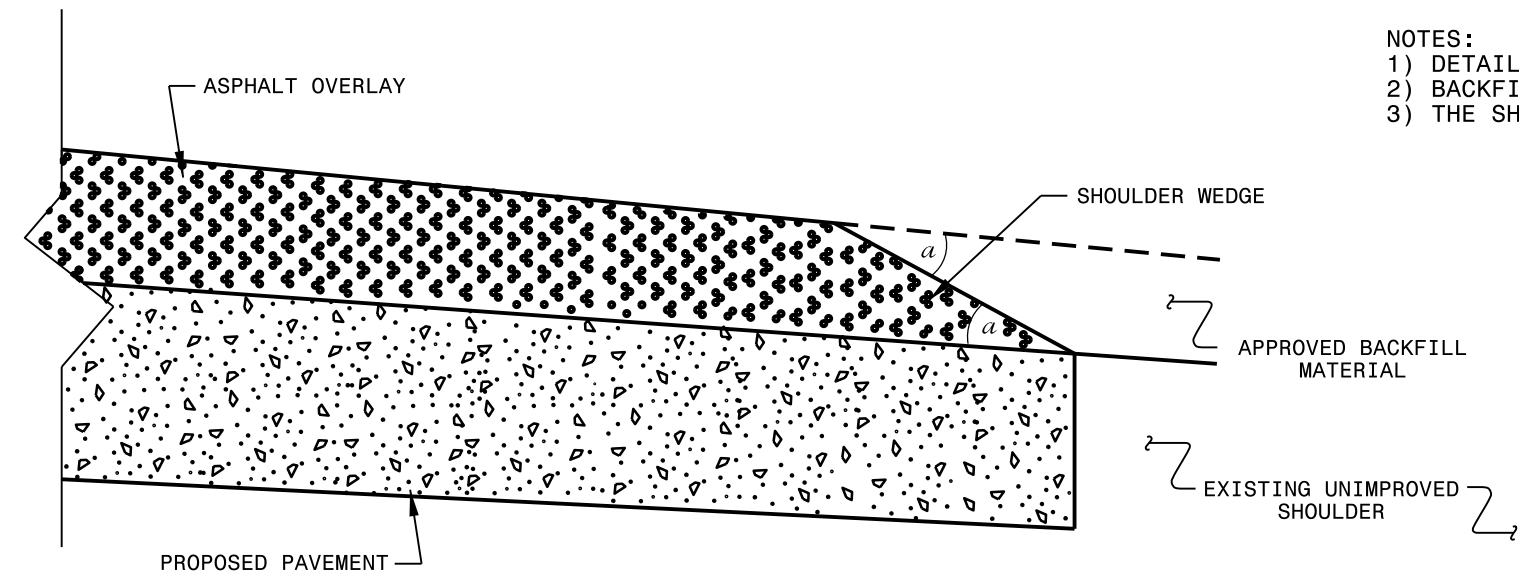
FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN.

THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. A THICKNESS OF NOT LESS THAN 5/8" SHALL BE PROVIDED. THE MAXIMUM THICKNESS SHALL PREFERABLY BE 1-1/2" UNLESS IT IS IMPRACTICAL TO PROVIDE A SMOOTH RIDING SURFACE OTHERWISE.

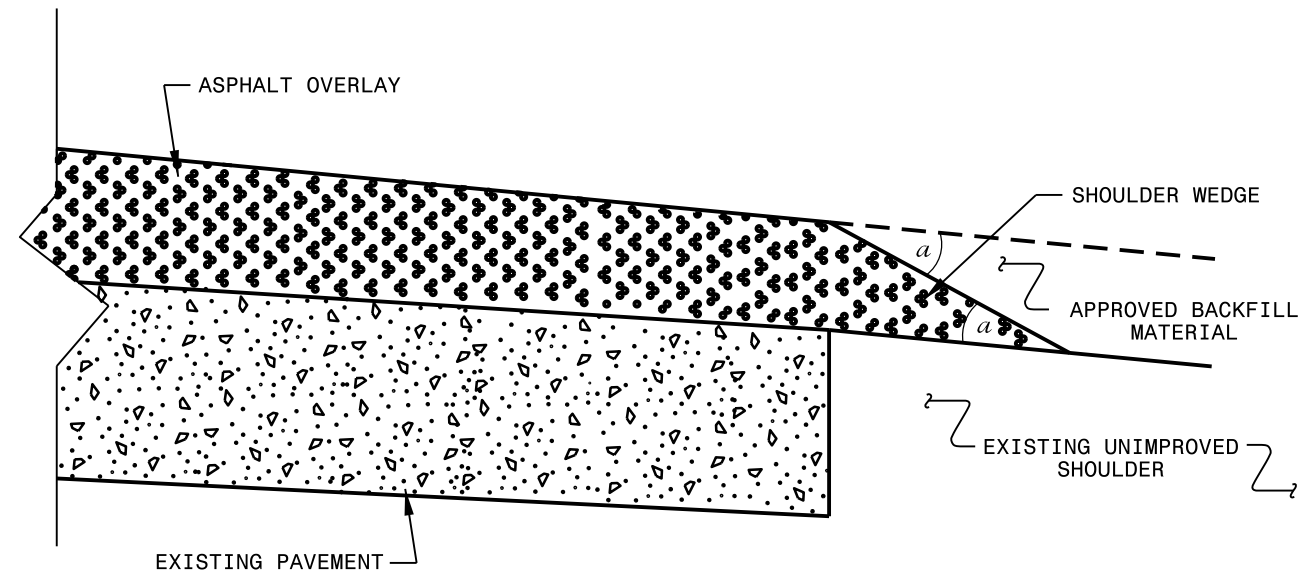
NOTES

ALL UNPAVED S.R. ROADS TO BE SURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.
 ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER.
 EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
 SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE NOTED.
 BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

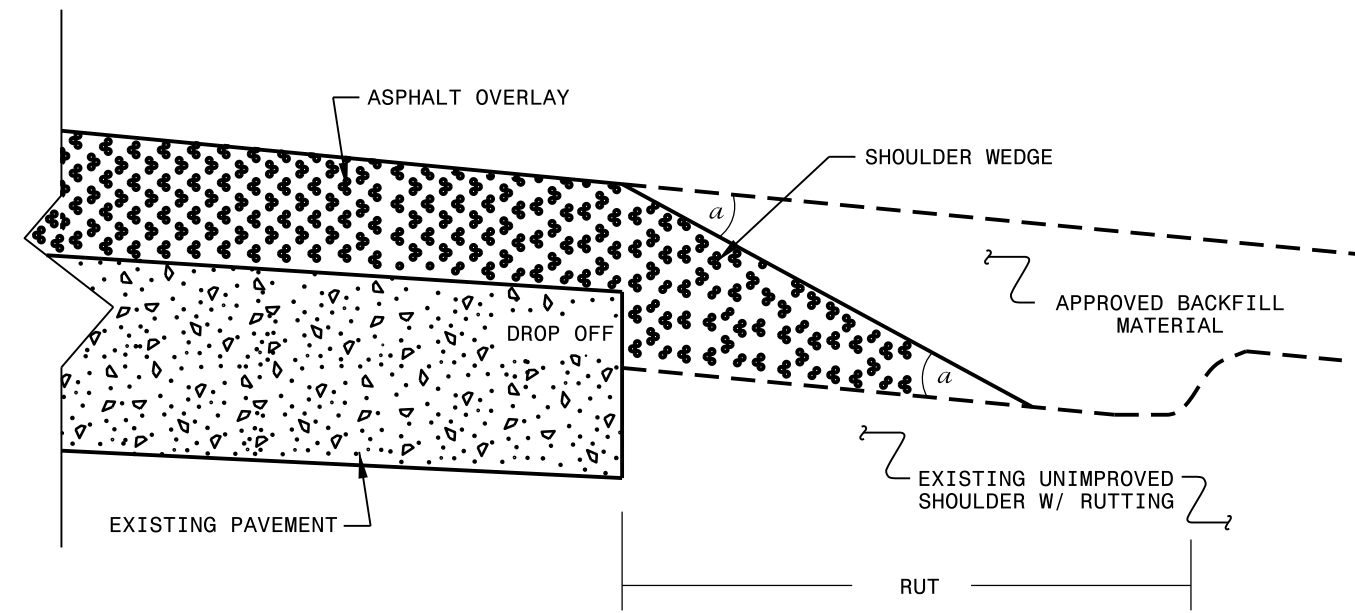
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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



SHOULDER WEDGE DETAIL
(Resurfacing Projects w/ NO Widening)



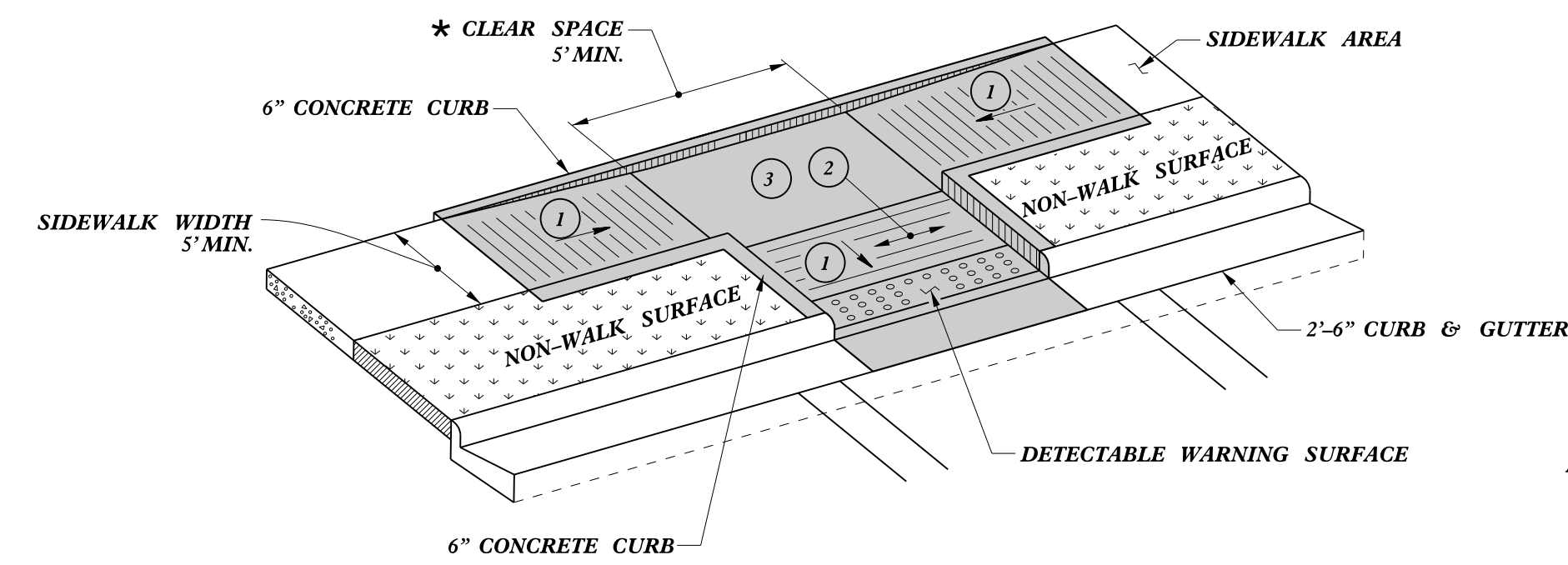
SHOULDER WEDGE DETAIL
(Resurfacing Adjacent to Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

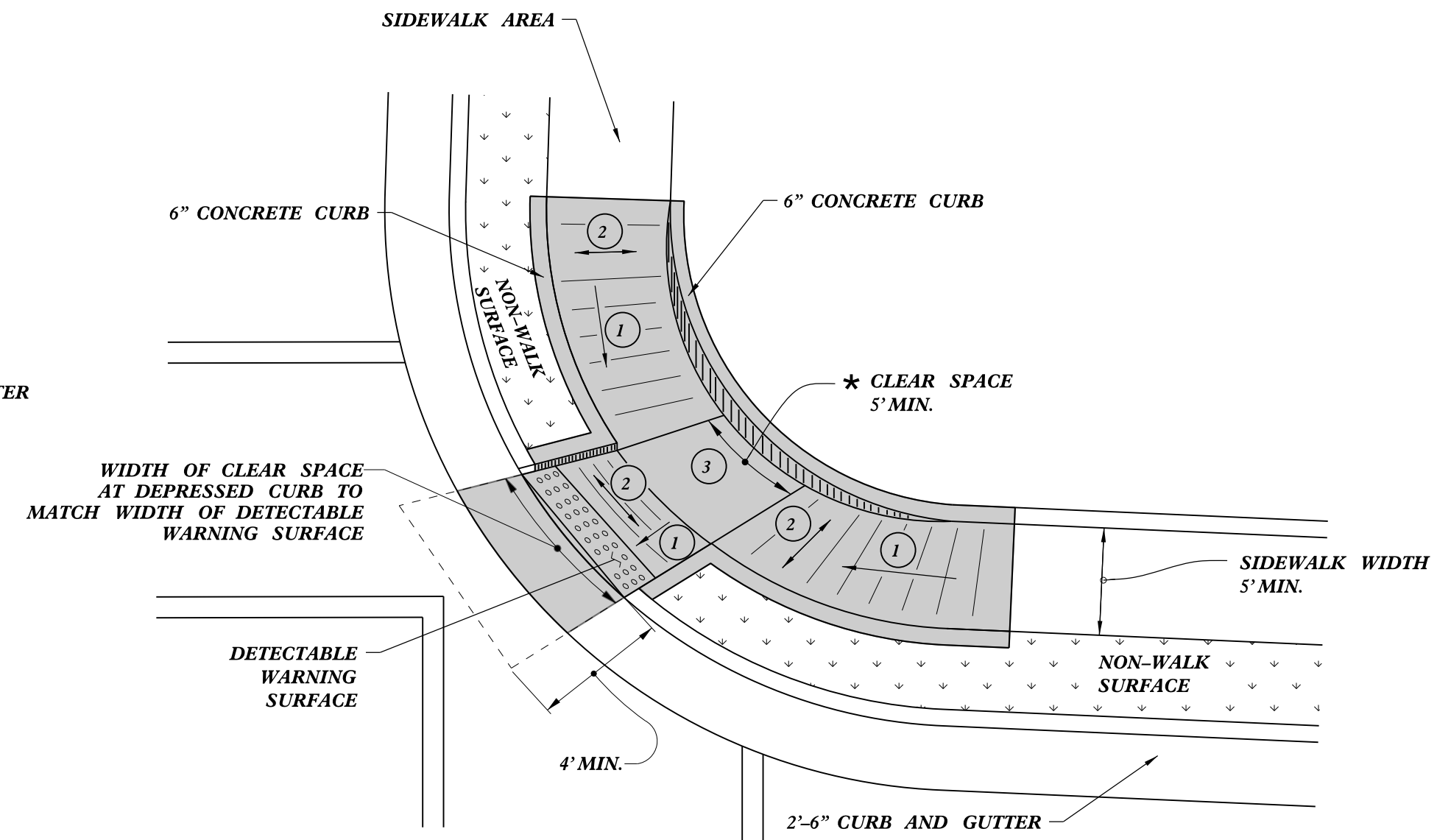
CONTRACT STANDARDS AND DEVELOPMENT UNIT			
Office 919-707-6950		FAX 919-250-4119	
SHOULDER WEDGE DETAILS			
ORIGINAL BY: T.SPELL	DATE: 7-19-11		
MODIFIED BY:	DATE: 10/16/12		
CHECKED BY:	DATE:		
FILE SPEC.: susr/details/stand/shoulderwedgedetail.dgn			

SYSTEMS DESIGN USER NAME

* - 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.

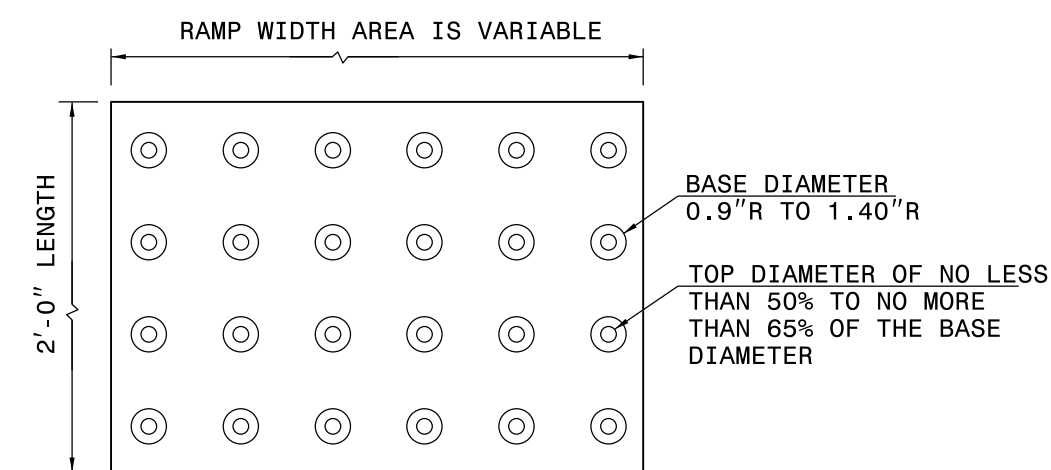


TYPE 3



**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 DETAIL DRAWING FOR
CURB RAMP
PARALLEL RAMP

SHEET 9 OF 13
848D06

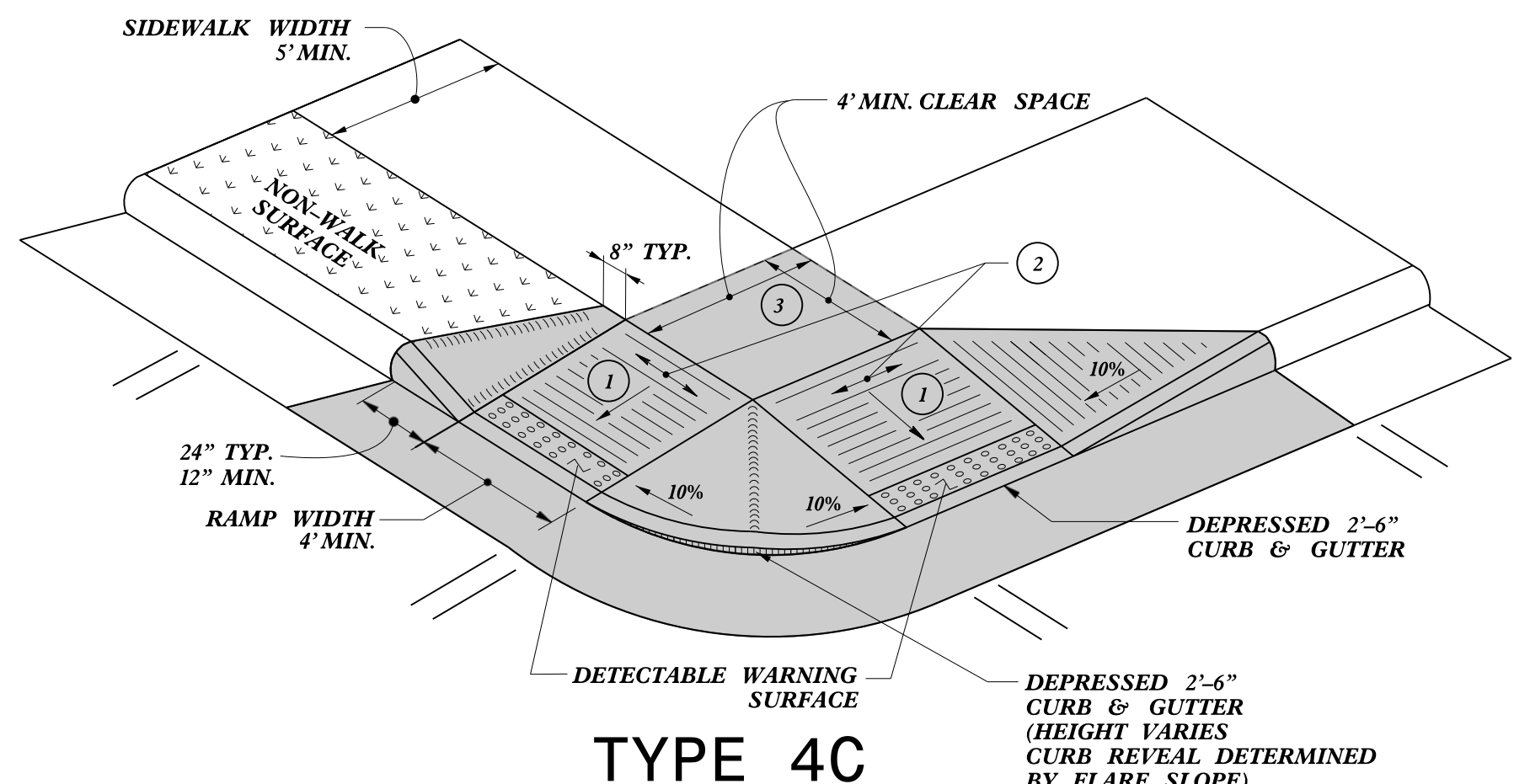
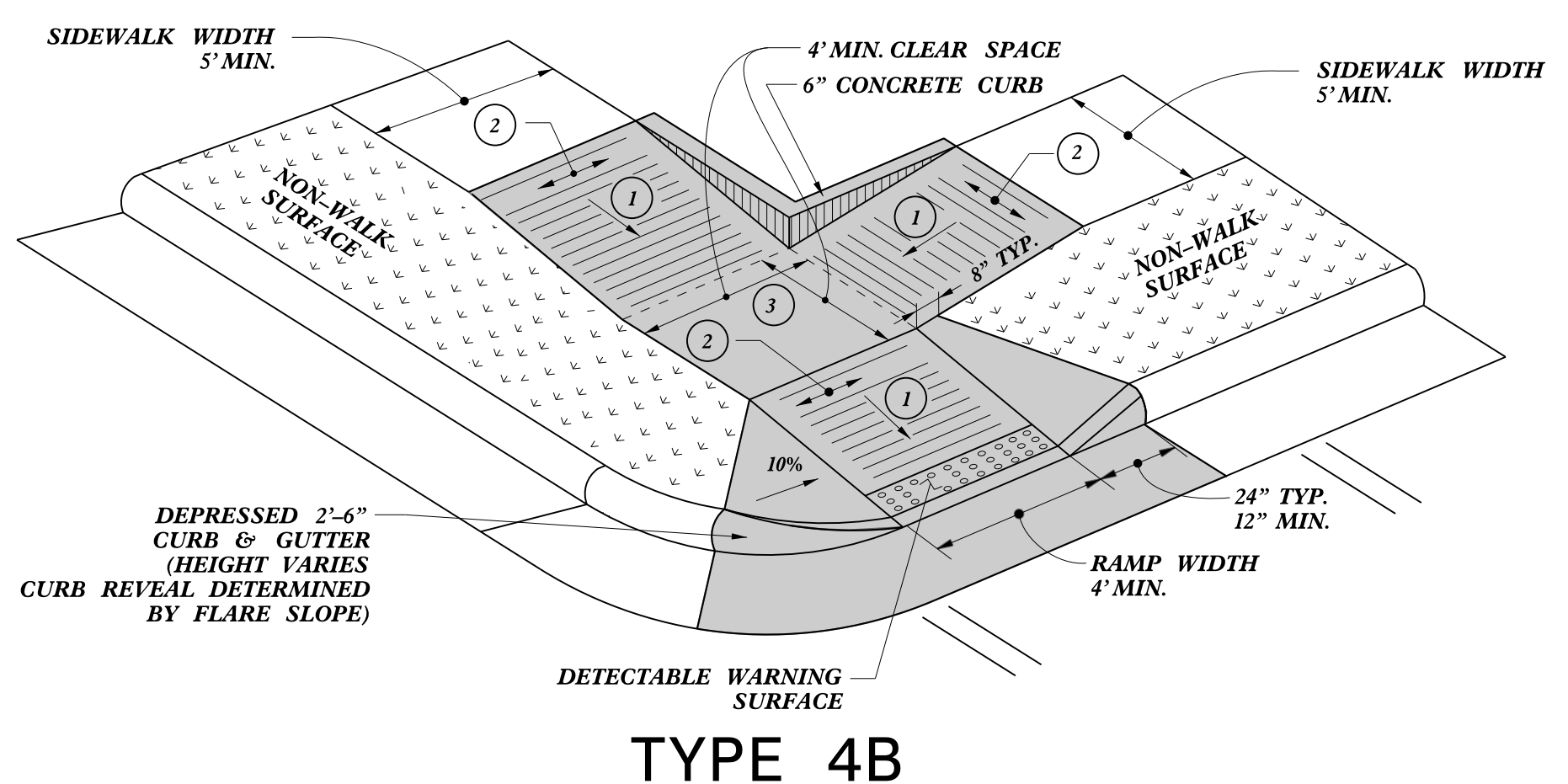
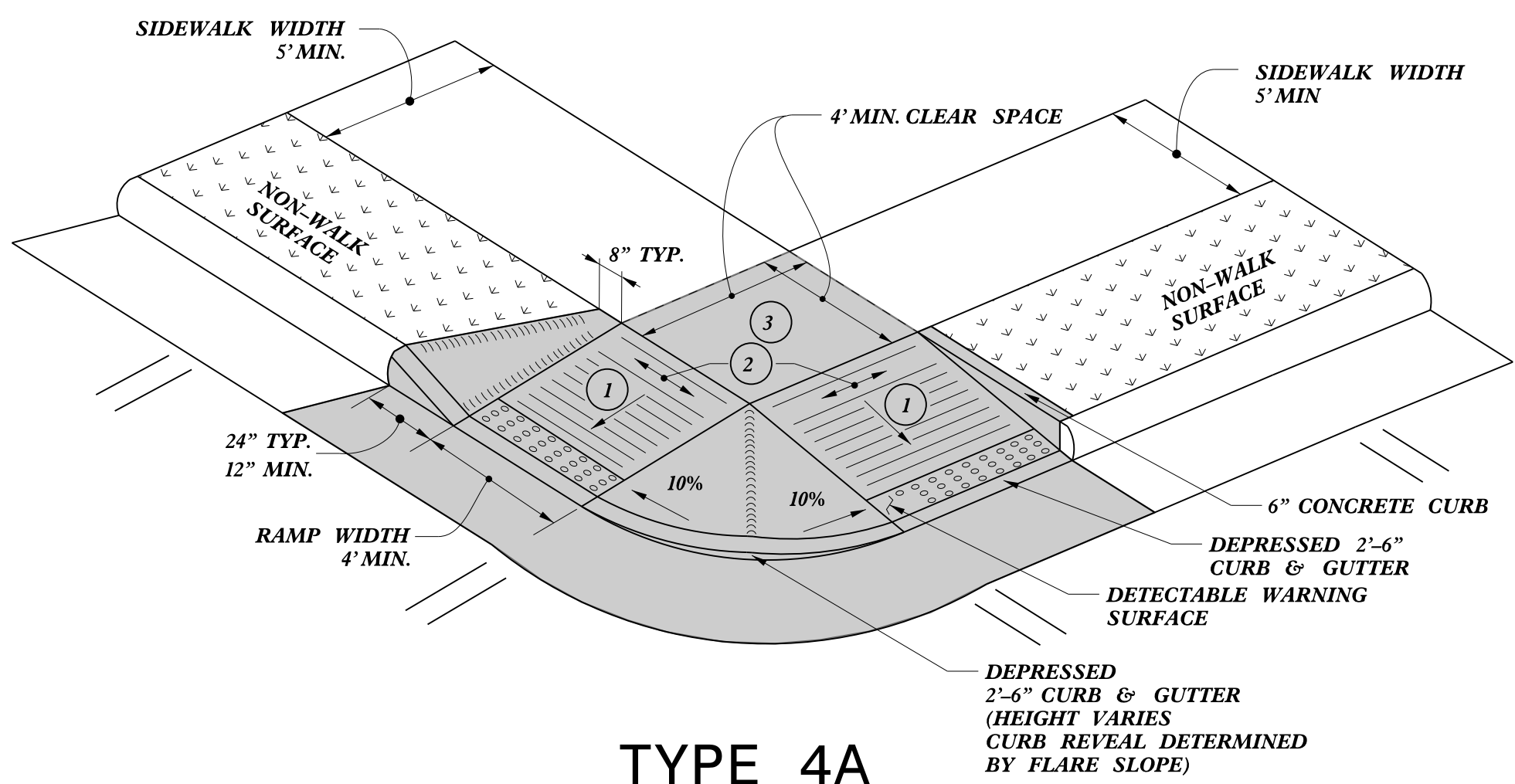
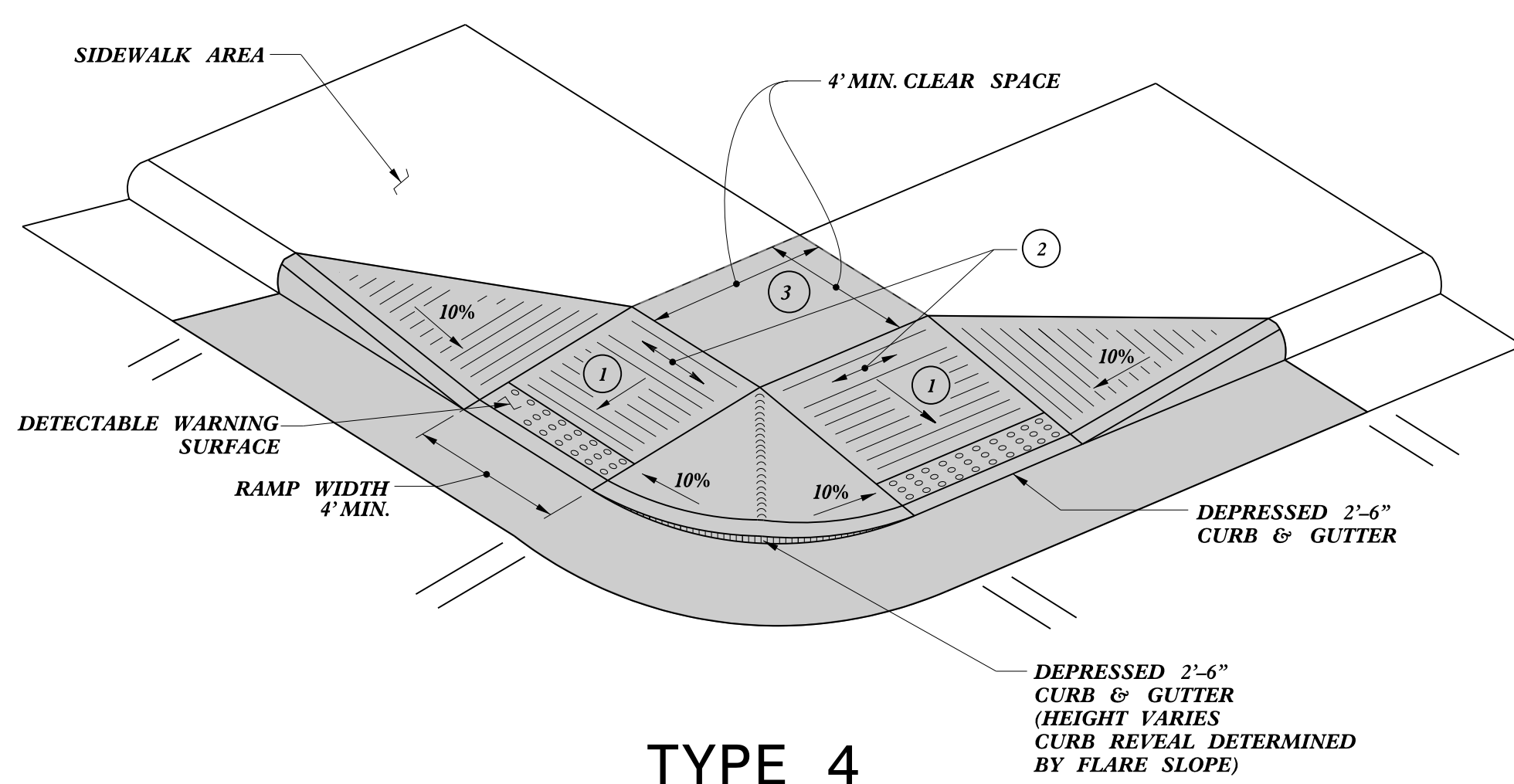


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

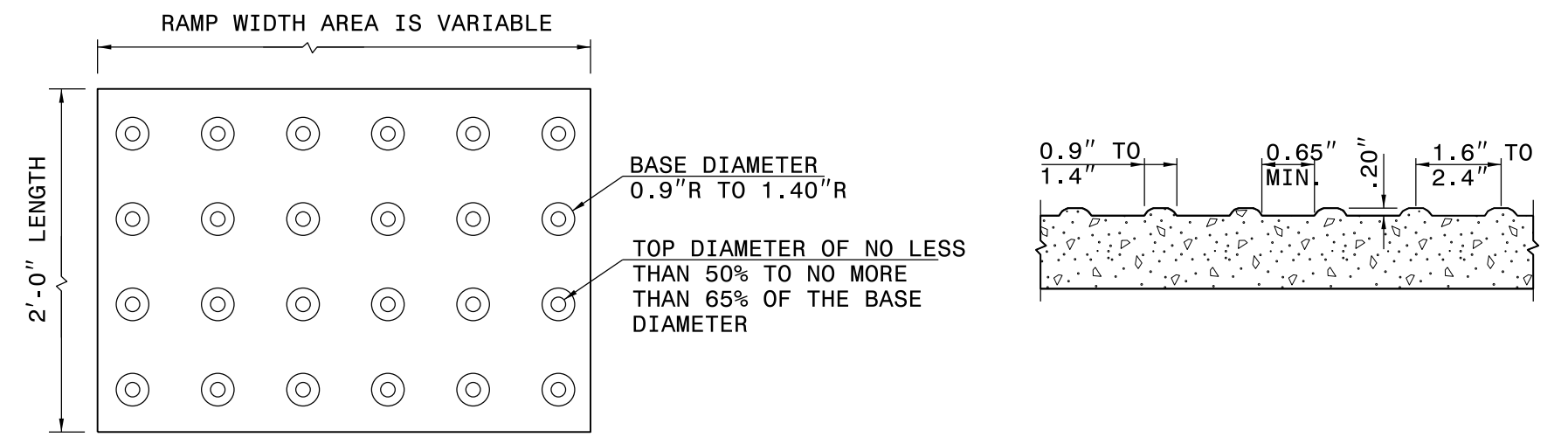
**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 12-22-2023
 MODIFIED BY: DATE: _____
 CHECKED BY: DATE: _____
 FILE SPEC.: special_details\nmhackler\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 DETAIL DRAWING FOR
CURB RAMP
 SHARED LANDING



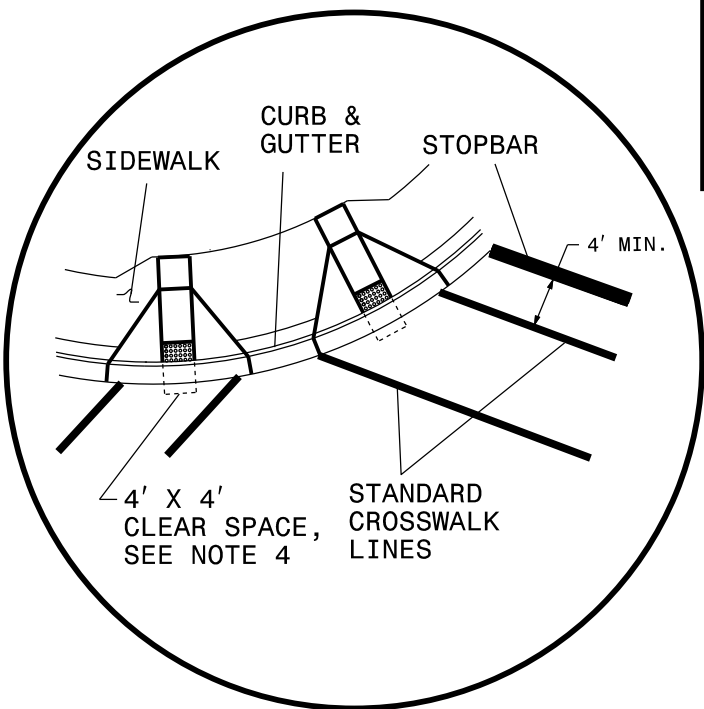
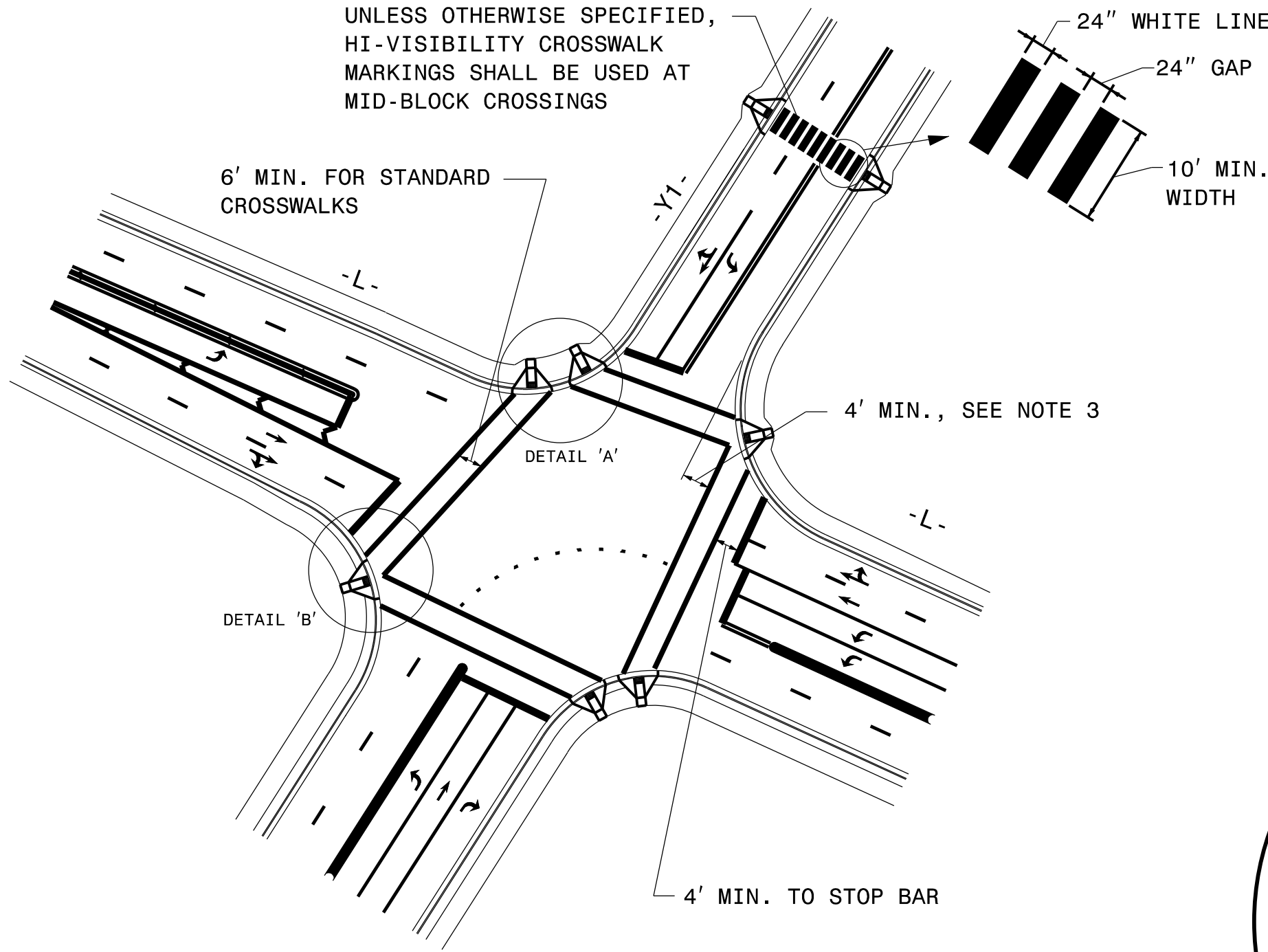
SHEET 10 OF 13
848D06

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

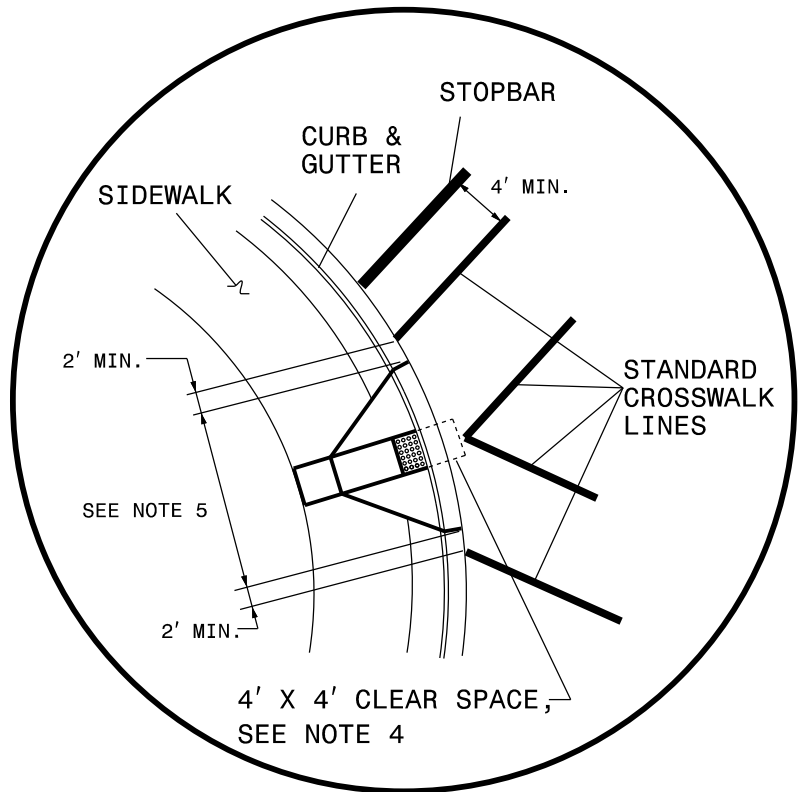
CONTRACTS STANDARDS AND DEVELOPMENT UNIT
 Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

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



DETAIL 'A'- DUAL CURB RAMPS



DETAIL 'B'- SINGLE DIAGONAL CURB RAMP

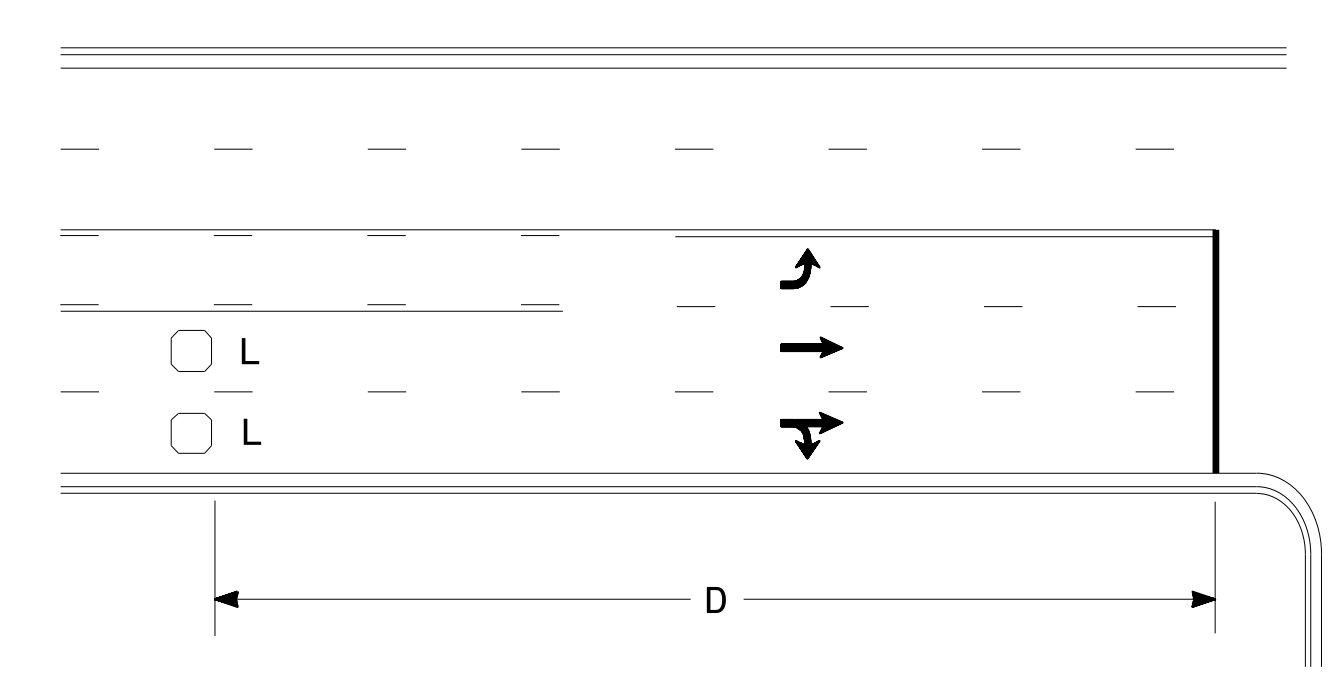
GUIDANCE DETAIL FOR CROSSWALK MARKINGS

NOTES:

1. USE THE DETAILS ABOVE AND THE FOLLOWING NOTES FOR GUIDANCE IN PLACING CROSSWALK MARKINGS NOT STATIONED ON THE DETAIL SHEETS OR WHEN FIELD ADJUSTMENTS REQUIRED MOVING STATIONED MARKINGS AS DIRECTED BY THE ENGINEER. REFER TO NCDOT ROADWAY STANDARD DRAWINGS, MUTCD AND ADA STANDARDS FOR ADDITIONAL GUIDANCE.
2. THE CROSSWALK MARKINGS SHOWN ON THE ABOVE DETAILS ARE FOR REFERENCE ONLY. ONLY INSTALL CROSSWALK MARKINGS WHERE SHOWN ON THE DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER. THE CROSSWALK MARKING TYPE, STANDARD OR HI-VISIBILITY, SHALL BE INSTALL AS SPECIFIED ON THE DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER.
3. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL IS 4' MIN.
4. BEYOND THE BOTTOM GRADE BRAKE, A CLEAR SPACE OF 4' X 4' MINIMUM SHALL BE PROVIDED WITHIN THE MARKINGS.
5. SINGLE DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 2 FEET LONG MINIMUM LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING, SEE DETAIL 'B'.
6. CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST NCDOT ROADWAY STANDARD DRAWINGS.

\$\$\$\$\$SYTIME\$\$\$\$\$
 \$\$\$DCON\$\$\$\$\$
 \$\$\$USERNAME\$\$\$\$\$

High Speed Detection (≥40 mph)

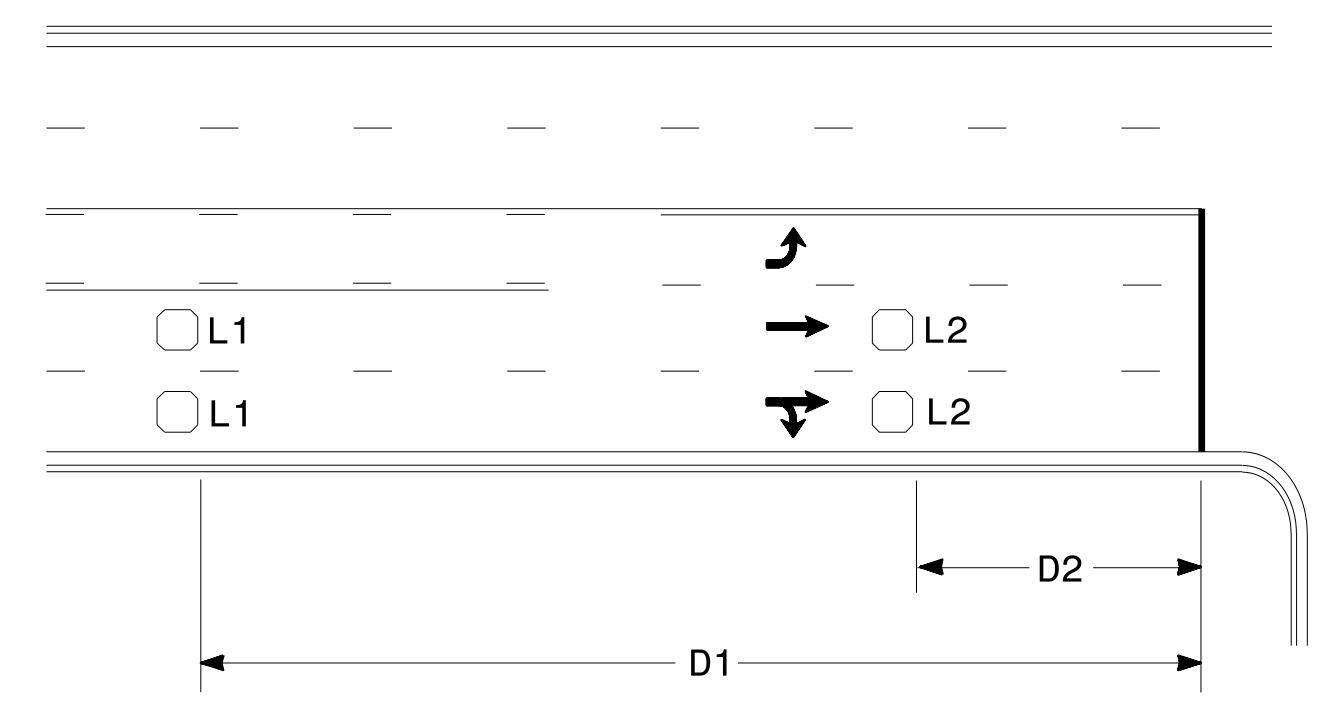


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

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

Volume Density Operation

OR

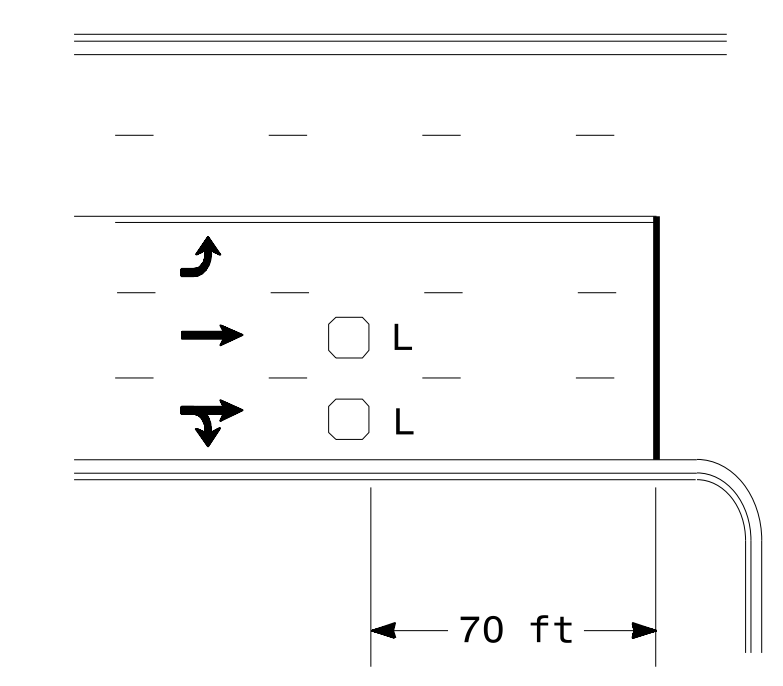


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

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

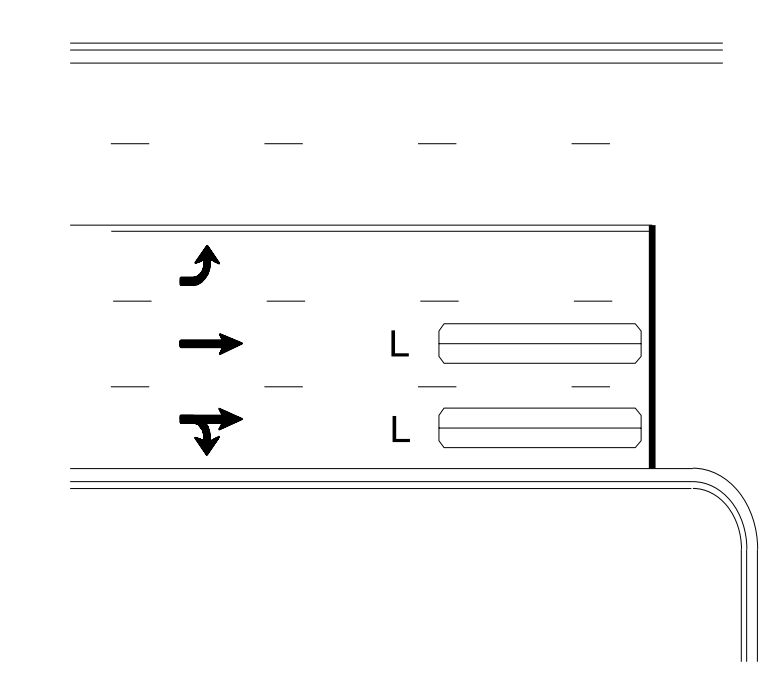
"Stretch" Operation

Low Speed Detection (≤35 mph)



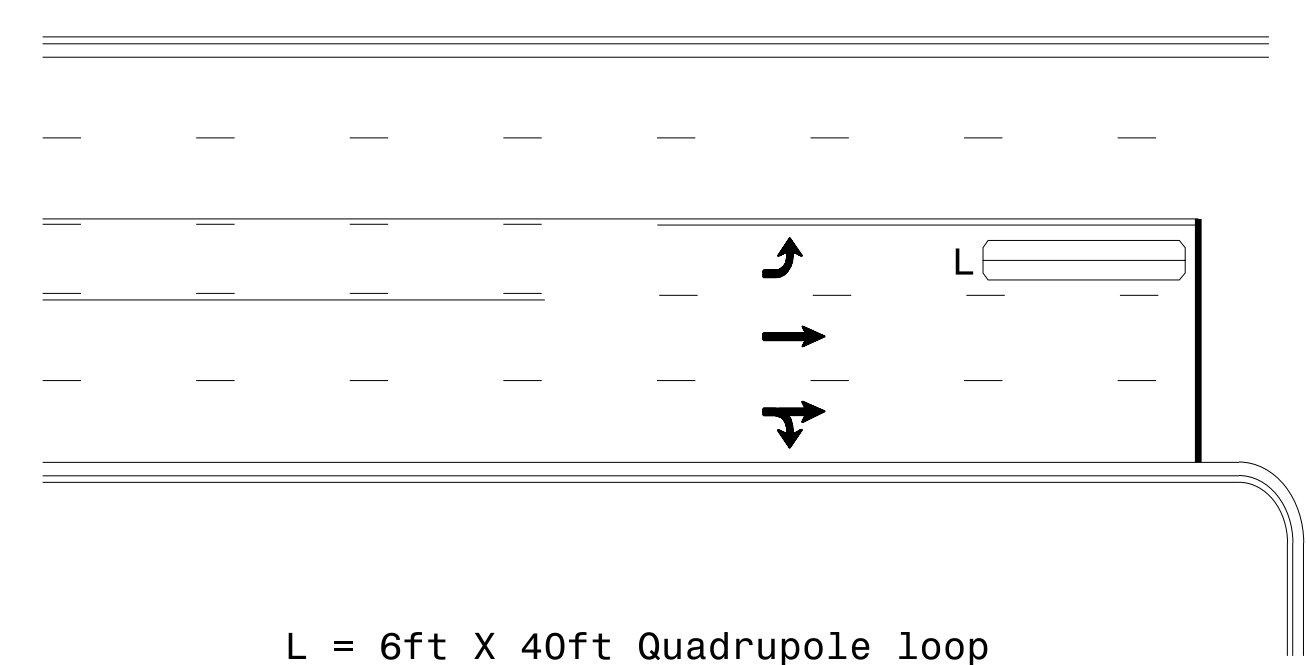
L = 6ft X 6ft
Wired in series

OR



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

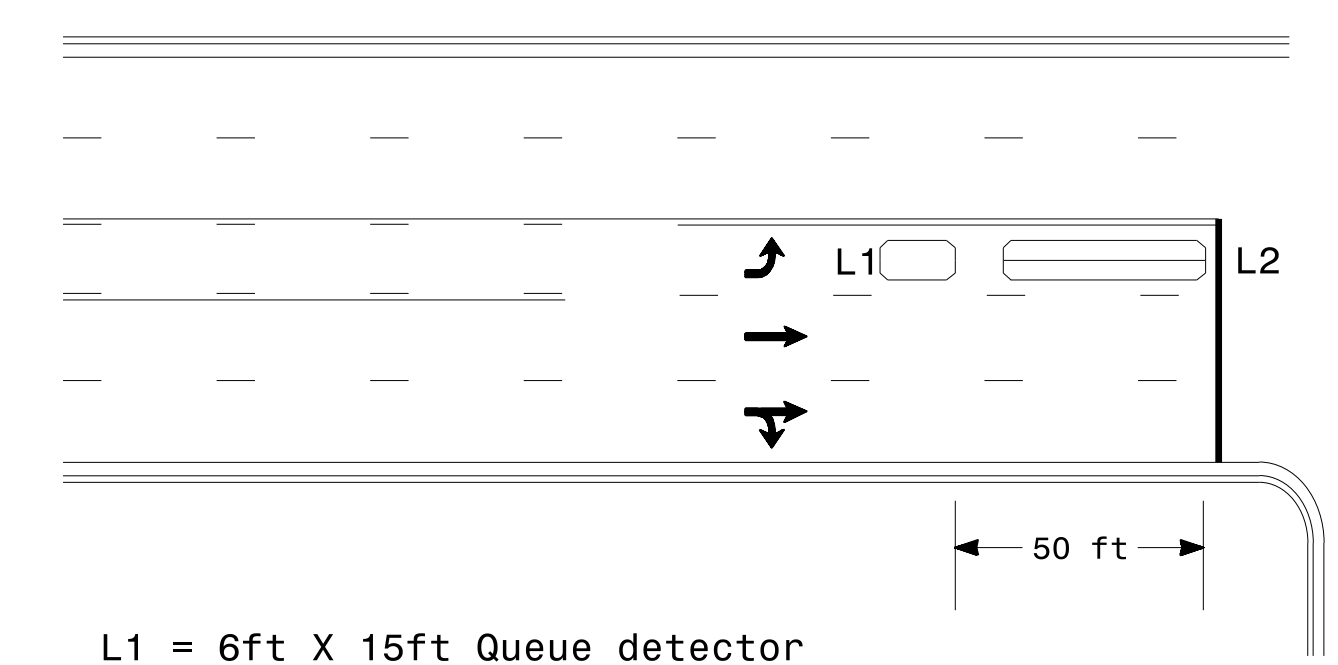
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

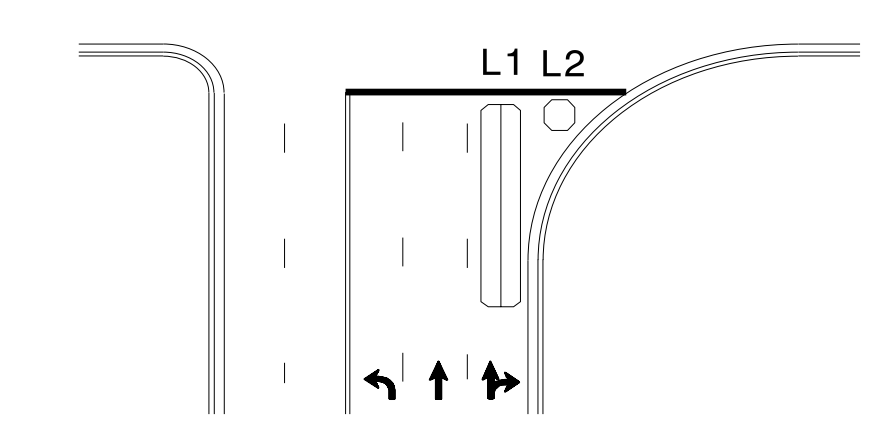
OR



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

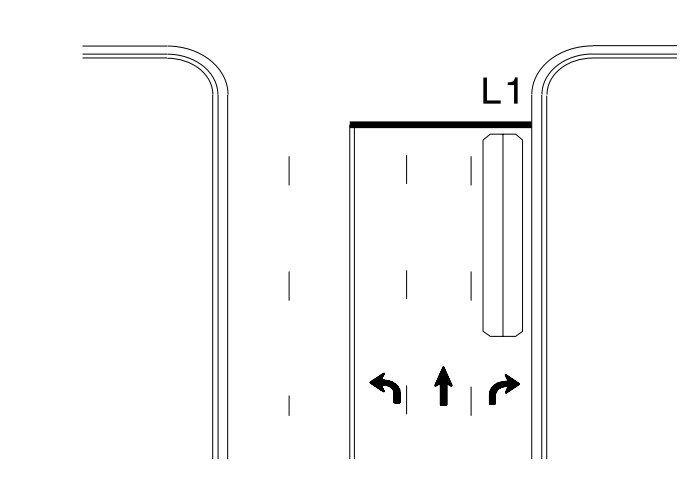
Queue Loop Detection

Right Turn Lane Detection

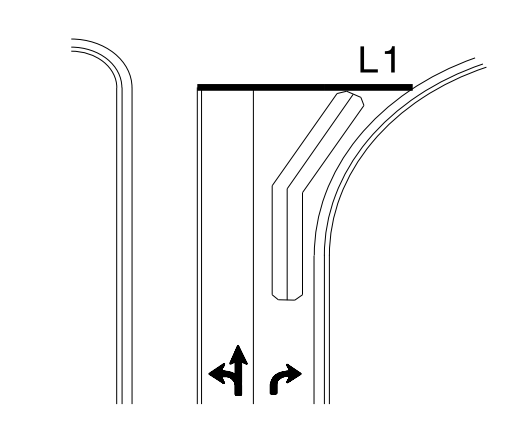


Shared Lane/
Wide Radius Turn

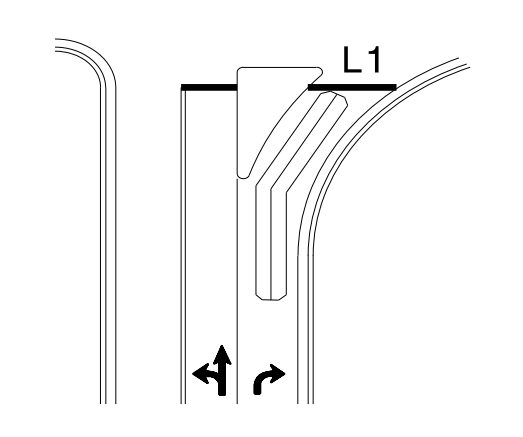
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

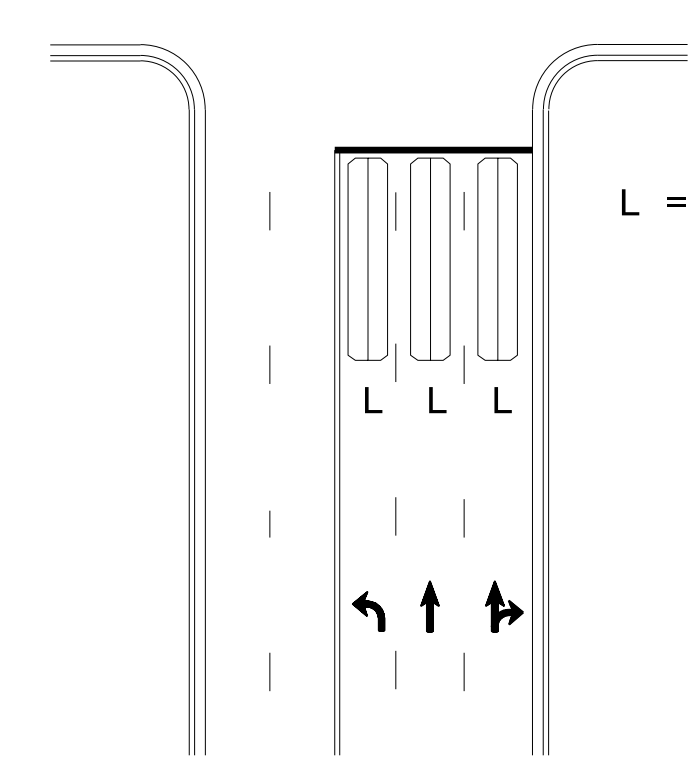


Wide Radius Turn



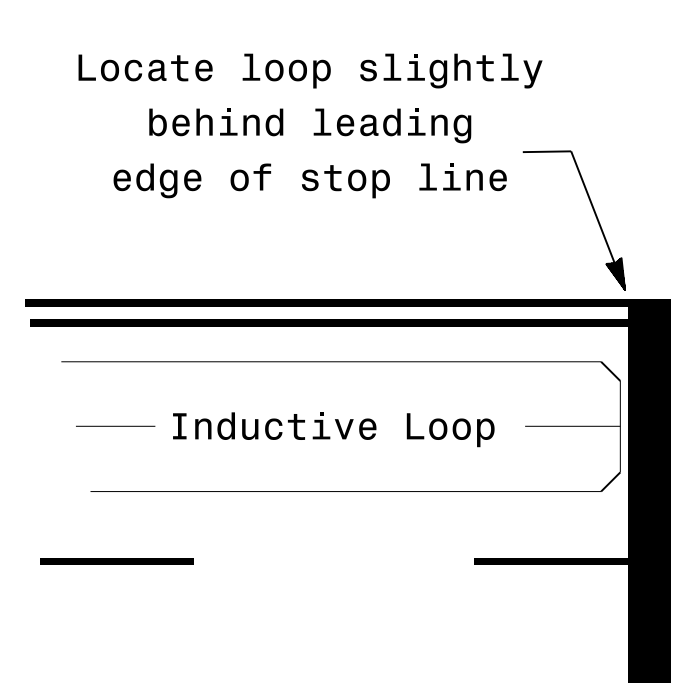
Channelized Turn

Side Street Detection



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

Presence Loop Placement at Stop Lines



Locate loop slightly
behind leading
edge of stop line

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

Recommended Number of Turns

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

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

Quadrupole loops: Use 2-4-2 turns
6' X 15' Loops:
Lead-in < 150', use 2 turns
Lead-in > 150', use 3 turns

750 N. Greenfield Pkwy, Garner, NC 27529

Typical Signal Loop Locations

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

SCALE: N/A

SEAL

1/30/2015

3D:\1116-2015_12\319
 S:\1116\1116\SIG\1116_Signal\Loop\Region\loop\ypj\ca\2015.cgm
 paalexander

PROJECT NO.	SHEET NO.	TOTAL NO.
2025CPT.12.07.20361		

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BEGIN MP	END MP	0255000000-E	1220000000-E	1245000000-E	1297000000-E	1330000000-E	1523000000-E	1524000000-E	1575000000-E	1704000000-E	2612300000-N	2612500000-N									
														AGGREGATE SHOULDER BORROW	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	1½" MILLING	INCIDENTAL MILLING	SURFACE COURSE, \$9.5C	LEVELING COURSE, \$9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	RETROFIT EXISTING CURB RAMP	REMOVE & REPLACE CONCRETE CURB RAMPS									
														TON	TONS	SMI	SY	SY	TONS	TONS	TONS	TONS	EA	EA									
														MI	FT																		
2025CPT.12.07.20361	Gaston	1	SR-1831 / W CHURCH ST	FROM SR-1831 / SUNSET DR TO SR-1869 / N MAIN ST	1	2	2WU	NO	NO	0.16 0.10	20 VAR. 20-32	1.75	2.01	80		0.32	2,000	200	342	34	27	93		2									
TOTAL FOR MAP NO. 1														0.26		80		0.32	2,000	200	342	34	27	93		2							
2025CPT.12.07.20361	Gaston	2	SR-1959 / TATE ST	FROM SR-1923 / OLD NC 27 HWY TO DEAD END	1	2	2WU	NO	NO	0.12	20	0	0.12	60	45	0.24		70	131	6	9	13											
TOTAL FOR MAP NO. 2														0.12		60	45	0.24		70	131	6	9	13									
2025CPT.12.07.20361	Gaston	3	SR-1967 / FIRST ST	FROM SR-1959 / TATE ST TO DEAD END	1	2	2WU	NO	NO	0.1	18	0	0.1	60	45	0.20			98	5	7	10											
TOTAL FOR MAP NO. 3														0.1		60	45	0.20			98	5	7	10									
2025CPT.12.07.20361	Gaston	4	SR-2041 / CLEARWATER LAKE RD	FROM SR-2040 / W CATAWBA AVE TO SR-2036 / CHERRY ST	2	2	2WU	NO	NO	0.97	19	0	0.97	500	233	1.94		1,056	1,006	212	89	352											
TOTAL FOR MAP NO. 4														0.97		500	233	1.94		1,056	1,006	212	89	352									
2025CPT.12.07.20361	Gaston	5	SR-2446 / HOFFMAN / ROBINWOOD RD	FROM SR-2200 / GASTON DAY SCHOOL RD TO NC-274 / UNION RD	3 4	VARIES	MU	NO	NO	2.07 0.13	VAR. 50-73 60	1.37	3.57						76,459	6,436	965	523	1,802	3	23								
TOTAL FOR MAP NO. 5														2.2								76,459	6,436	965	523	1,802	23						
2025CPT.12.07.20361	Gaston	6	SR-3217 / BRADFORD HEIGHTS RD	FROM SR-2200 / GASTON DAY SCH RD TO SR-2200 / ARMSTRONG PARK RD	1 5 6	2	2WU	NO	NO	0.09 0.49 0.19	VAR. 20-24 22 22	0	0.77	40	70	0.18		9,655	600	924	120	71	204	4	12								
TOTAL FOR MAP NO. 6														0.77		40	70	0.18	9,655	600	924	120	71	204		12							
TOTAL FOR PROJ NO. 2025CPT.12.07.20361														4.42		740	393	2.88	88,114	1,926	8,937	1,342	726	2,474		37							
GRAND TOTAL														4.42		740	393	2.88	88,114	1,926	8,937	1,342	726	2,474	7	37							

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BEGIN MP	END MP	2800000000-N	2815000000-N	2830000000-N	2845000000-N	2846000000-N	5255000000-N	7324000000-N	7444000000-E	7456000000-E			
														ADJ. OF CATCH BASIN	ADJ. OF DROP INLET	ADJ. OF MANHOLES	ADJ. OF METER OR VALVE BOX	ADJUSTMENT OF OVERSIZED MANHOLES	PORTABLE LIGHTING	JUNCTION BOX (STANDARD SIZE)	INDUCTIVE LOOP SAWCUT	LEAD-IN CABLE (14-2)			
														EA	EA	EA	EA	EA	LS	EA	LF	LF			
														MI	FT										
2025CPT.12.07.20361	Gaston	1	SR-1831 / W CHURCH ST	FROM SR-1831 / SUNSET DR TO SR-1869 / N MAIN ST	1	2	2WU	NO	NO	0.16 0.10	20 VAR. 20-32	1.75	2.01												
TOTAL FOR MAP NO. 1														0.26				4							
2025CPT.12.07.20361	Gaston	2	SR-1959 / TATE ST	FROM SR-1923 / OLD NC 27 HWY TO DEAD END	1	2	2WU	NO	NO	0.12	20	0	0.12												
TOTAL FOR MAP NO. 2														0.12											
2025CPT.12.07.20361	Gaston	3	SR-1967 / FIRST ST	FROM SR-1959 / TATE ST TO DEAD END	1	2	2WU	NO	NO	0.1	18	0	0.1												
TOTAL FOR MAP NO. 3														0.1											
2025CPT.12.07.20361	Gaston	4	SR-2041 / CLEARWATER LAKE RD	FROM SR-2040 / W CATAWBA AVE TO SR-2036 / CHERRY ST	2	2	2WU	NO	NO	0.97	19	0	0.97												
TOTAL FOR MAP NO. 4														0.97				1	2	2					
2025CPT.12.07.20361	Gaston	5	SR-2446 / HOFFMAN / ROBINWOOD RD	FROM SR-2200 / GASTON DAY SCHOOL RD TO NC-274 / UNION RD	3 4	VARIES	MU	NO	NO	2.07 0.13	VAR. 50-73 60	1.37	3.57												
TOTAL FOR MAP NO. 5														2.2				36	42	1	1	2	2,000	800	
2025CPT.12.07.20361	Gaston	6	SR-3217 / BRADFORD HEIGHTS RD	FROM SR-2200 / GASTON DAY SCH RD TO SR-2200 / ARMSTRONG PARK RD	1 5 6	2	2WU	NO	NO	0.09 0.49 0.19	VAR. 20-24 22 22	0	0.77	10	1	8	3								
TOTAL FOR MAP NO. 6														0.77		10	1	8	3						
TOTAL FOR PROJ NO. 2025CPT.12.07.20361														4.42		10	2	50	47	1	1	2	2,000	800	
GRAND TOTAL														4.42		10	2	50	47	1	1	2	2,000	800	

PROJECT NO.	SHEET NO.	TOTAL NO.
2025CPT.12.07.20361		

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	441300000-E	444700000-N	445700000-N	451000000-N	468500000-E		469500000-E		470400000-E	470900000-E	472000000-E				
												WORK ZONE ADV/GEN WARNING SIGNS	PEDESTRIAN CHANNELIZING DEVICES	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	4" X 90 M YELLOW THERMO	4" X 90 M WHITE THERMO	8" X 90 M WHITE THERMO	8" X 90 M YELLOW THERMO	16" X 90 M WHITE THERMO	24" X 90 M WHITE THERMO	THERMO MSG RXR 90 M	THERMO MSG ONLY 90 M	THERMO MSG SCHOOL 90 M		
												SF	LF	LS	HR	LF	LF	LF	LF	LF	LF	EA	EA	EA		
2025CPT.12.07.20361	Gaston	1	SR-1831 / W CHURCH ST	FROM SR-1831 / SUNSET DR TO SR-1869 / N MAIN ST	1	2	2WU	0.16 0.10	20 VAR. 20-32	1.75	2.01	84	10					84			21					
TOTAL FOR MAP NO. 1												84	10													
2025CPT.12.07.20361	Gaston	2	SR-1959 / TATE ST	FROM SR-1923 / OLD NC 27 HWY TO DEAD END	1	2	2WU	0.12	20	0	0.12	84														
TOTAL FOR MAP NO. 2												84														
2025CPT.12.07.20361	Gaston	3	SR-1967 / FIRST ST	FROM SR-1959 / TATE ST TO DEAD END	1	2	2WU	0.1	18	0	0.1	84														
TOTAL FOR MAP NO. 3												84														
2025CPT.12.07.20361	Gaston	4	SR-2041 / CLEARWATER LAKE RD	FROM SR-2040 / W CATAWBA AVE TO SR-2036 / CHERRY ST	2	2	2WU	0.97	19	0	0.97	84							100	88	4					
TOTAL FOR MAP NO. 4												84								100	88	4				
2025CPT.12.07.20361	Gaston	5	SR-2446 / HOFFMAN / ROBINWOOD RD	FROM SR-2200 / GASTON DAY SCHOOL RD TO NC-274 / UNION RD	3	VARIABLE	MU	2.07 0.13	VAR. 50-73 60	1.37	3.57	420	20													
TOTAL FOR MAP NO. 5												420	20													
2025CPT.12.07.20361	Gaston	6	SR-3217 / BRADFORD HEIGHTS RD	FROM SR-2200 / GASTON DAY SCH RD TO SR-2200 / ARMSTRONG PARK RD	1 5 6	2	2WU	0.09 0.49 0.19	VAR. 20-24 22 22	0	0.77	84	20								100					
TOTAL FOR MAP NO. 6												84	20													
TOTAL FOR PROJ NO. 2025CPT.12.07.20361												840	50	1	100	28,301	6,853	1,064	190	100	564	4,000	4	12		
GRAND TOTAL												840	50	1	100	28,301	6,853	1,064	190	100	564	4,000	4	12		

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	472500000-E				481000000-E		482000000-E	483500000-E	484000000-N		484500000-N	489500000-N
												THERMO STR ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO LT ARROW 90 M	THERMO RT ARROW 90 M	4" YELLOW PAINT	4" WHITE PAINT	8" WHITE PAINT	24" WHITE PAINT	PAINT MSG SCHOOL	PAINT MSG ONLY	PAINT LT ARROW	POLYCARBONATE H-SHAPED MARKER
												EA	EA	EA	EA	LF	LF	LF	LF	EA	EA	EA	EA
2025CPT.12.07.20361	Gaston	1	SR-1831 / W CHURCH ST	FROM SR-1831 / SUNSET DR TO SR-1869 / N MAIN ST	1	2	2WU	0.16 0.10	20 VAR. 20-32	1.75	2.01		3	3			5,595	4,100					
TOTAL FOR MAP NO. 1													3	3			5,595	4,100					
2025CPT.12.07.20361	Gaston	2	SR-1959 / TATE ST	FROM SR-1923 / OLD NC 27 HWY TO DEAD END	1	2	2WU	0.12	20	0	0.12												
TOTAL FOR MAP NO. 2																							
2025CPT.12.07.20361	Gaston	3	SR-1967 / FIRST ST	FROM SR-1959 / TATE ST TO DEAD END	1	2	2WU	0.1	18	0	0.1												
TOTAL FOR MAP NO. 3																							
2025CPT.12.07.20361	Gaston	4	SR-2041 / CLEARWATER LAKE RD	FROM SR-2040 / W CATAWBA AVE TO SR-2036 / CHERRY ST	2	2	2WU	0.97	19	0	0.97					20,874	20,874						
TOTAL FOR MAP NO. 4																	20,874	20,874					
2025CPT.12.07.20361	Gaston	5	SR-2446 / HOFFMAN / ROBINWOOD RD	FROM SR-2200 / GASTON DAY SCHOOL RD TO NC-274 / UNION RD	3	VARIABLE	MU	2.07 0.13	VAR. 50-73 60	1.37	3.57	2	4	13	6	28,301	6,853	100	355	12	4	24	462
TOTAL FOR MAP NO. 5												2	4	13	6	28,301	6,853	100	355	12	4	24	462
2025CPT.12.07.20361	Gaston	6	SR-3217 / BRADFORD HEIGHTS RD	FROM SR-2200 / GASTON DAY SCH RD TO SR-2200 / ARMSTRONG PARK RD	1 5 6	2	2WU	0.09 0.49 0.19	VAR. 20-24 22 22	0	0.77					16,570	9,235						
TOTAL FOR MAP NO. 6																16,570	9,235						
TOTAL FOR PROJ NO. 2025CPT.12.07.20361												2	7	19	6	71,340	41,062	100	355	12	4	24	462
GRAND TOTAL												2	7	19	6	71,340	41,062	100	355	12	4	24	462

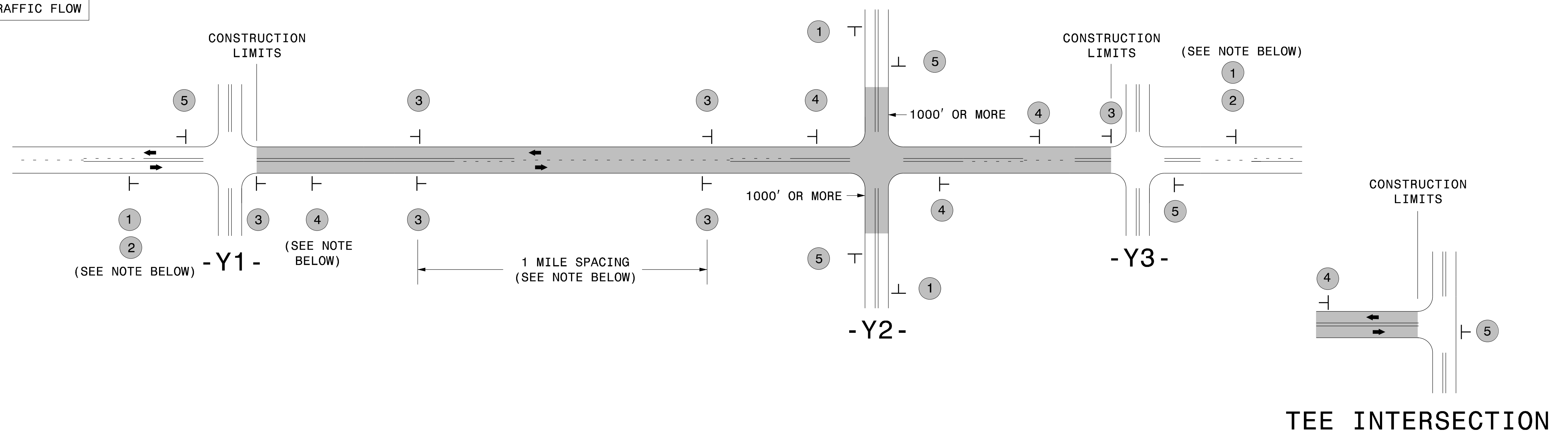
SUMMARY OF CURB RAMP QUANTITIES								Proj. #	2025CPT.12.07.20361
								Sheet #	
WBS No.	Division	County	Major Route	Minor Route	Proposed Concrete Curb Ramps (EA)	Retrofit Existing Concrete Curb Ramp (EA)	Remove and Replace Existing Curb Ramp (EA)	Quadrant (NE,SE,NW, SW)	Proposed Replacement Type
2025CPT.12.07.20361	12	Gaston	SR 1831 (W.CHURCH ST.)	SR 1828 (W. MAIN ST.)			1	NW	Type 2B
2025CPT.12.07.20361	12	Gaston	SR 1831 (W.CHURCH ST.)	SR 1828 (W. MAIN ST.)			1	SW	Type 2B
2025CPT.12.07.20361	12	Gaston	SR 2446 (ROBINWOOD RD.)	NC 274 (UNION RD)		1		NE	RETAIN
2025CPT.12.07.20361	12	Gaston	SR 2446 (ROBINWOOD RD.)	JAMESTOWN RD.			1	NW	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (ROBINWOOD RD.)	JAMESTOWN RD.			1	NE	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (ROBINWOOD RD.)	SETH CT.			1	NE	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (ROBINWOOD RD.)	SETH CT.			1	NW	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (ROBINWOOD RD.)	JONDON CT.			1	SE	Type 1
2025CPT.12.07.20361	12	Gaston	SR 2446 (ROBINWOOD RD.)	ALTON DR.			1	NE	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (ROBINWOOD RD.)	ALTON DR.			1	NW	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (ROBINWOOD RD.)	FREIDA LN.			1	NE	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (ROBINWOOD RD.)	FREIDA LN.			1	NW	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (ROBINWOOD RD.)	HEATHERLOCH DR.			1	NE	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (ROBINWOOD RD.)	HEATHERLOCH DR.			1	NW	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	HERITAGE COMMONS			1	NE	TYPE 3 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	HERITAGE COMMONS			1	NW	TYPE 3 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	HUNTERS GLEN TR.			1	NE	TYPE 2 B
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	HUNTERS GLEN TR.			1	NW	TYPE 3 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	DAFFODIL CT.			1	NE	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	DAFFODIL CT.			1	NW	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	COLONY WOODS DR.			1	NE	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	COLONY WOODS DR.			1	NW	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	ELKHART CIR.			1	NE	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	ELKHART CIR.			1	NW	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	OLD WELL LN.			1	NE	TYPE 1 MODIFIED
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	OLD WELL LN.			1	NW	TYPE 2B
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	SR 2200 (GASTON DAY)		1		NW	RETAIN
2025CPT.12.07.20361	12	Gaston	SR 2446 (HOFFMAN RD.)	SR 2200 (GASTON DAY)		1		SW	RETAIN
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	SR 2200 (GASTON DAY)		1		NE	RETAIN
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	SR 2200 (GASTON DAY)		1		SE	RETAIN
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	TITMAN RD.			1	NW	TYPE 1
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	TORRENCE AVE.			1	NE	TYPE 1
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	TORRENCE AVE.			1	SE	TYPE 1
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	HUDSON BLVD.			2	SE	TYPE 2
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	HUDSON BLVD.			2	NE	TYPE 2
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	BROWN ST.			1	SE	TYPE 1
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	BROWN ST.			1	NE	TYPE 1
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	FIRST ST.			1	SE	TYPE 1
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	FIRST ST.			1	NE	TYPE 1
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	DOVE TREE LN. / 2ND AVE.			1	SE	TYPE 1
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	SR 2200 (ARMSTRONG PARK)		1		NE	RETAIN
2025CPT.12.07.20361	12	Gaston	SR 3217 (BRADFORD HTS. RD.)	SR 2200 (ARMSTRONG PARK)		1		SE	RETAIN
Project Grand Total					0	7	37		

SIGNING FOR RESURFACING PROJECTS

LEGEND

┆ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1		PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <p>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> PLACED 500' IN ADVANCE OF FLAGGER. </div> <div style="text-align: center;"> PLACED 250' IN ADVANCE OF FLAGGER. </div> </div>
	2		#2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)	
	3		- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.	
	4		- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. - DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. - INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. - FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. - A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.	
	5		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.	

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.

MAPS LESS THAN 2 MILES

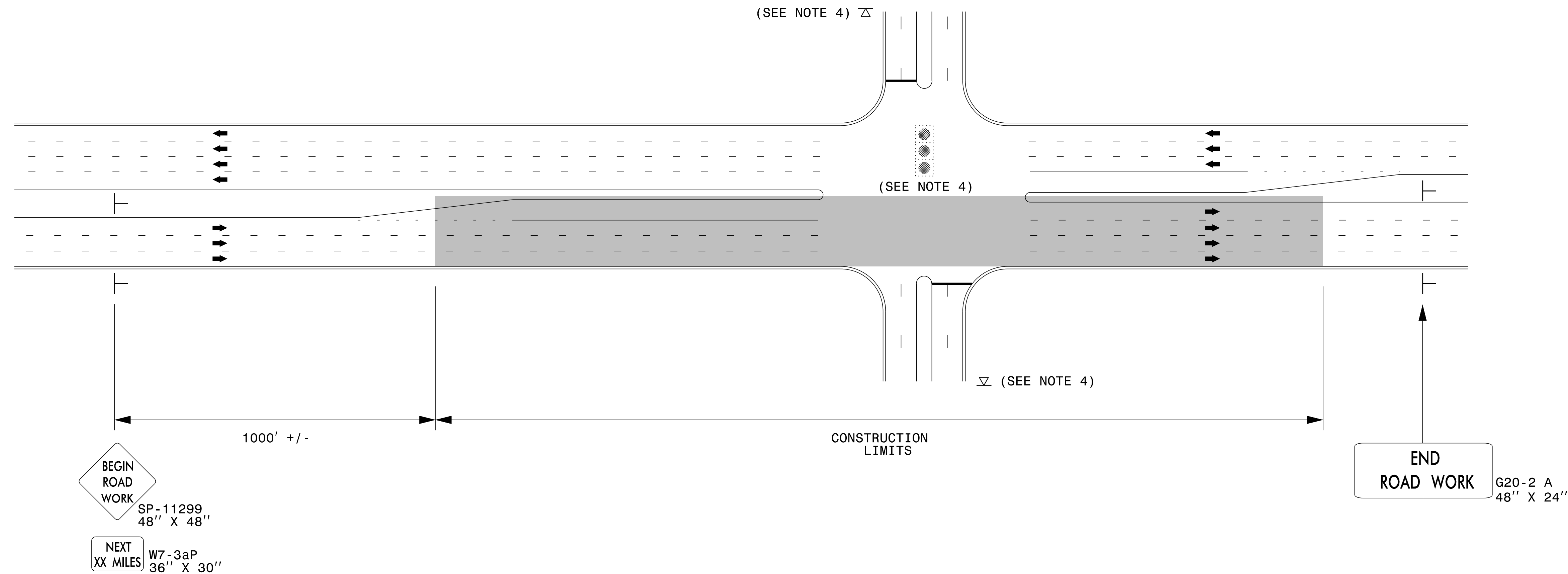
FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.



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

5/15/2017 S:\TUX\WZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn User:kadai

URBAN / SUBURBAN WORKZONES



NOTES:

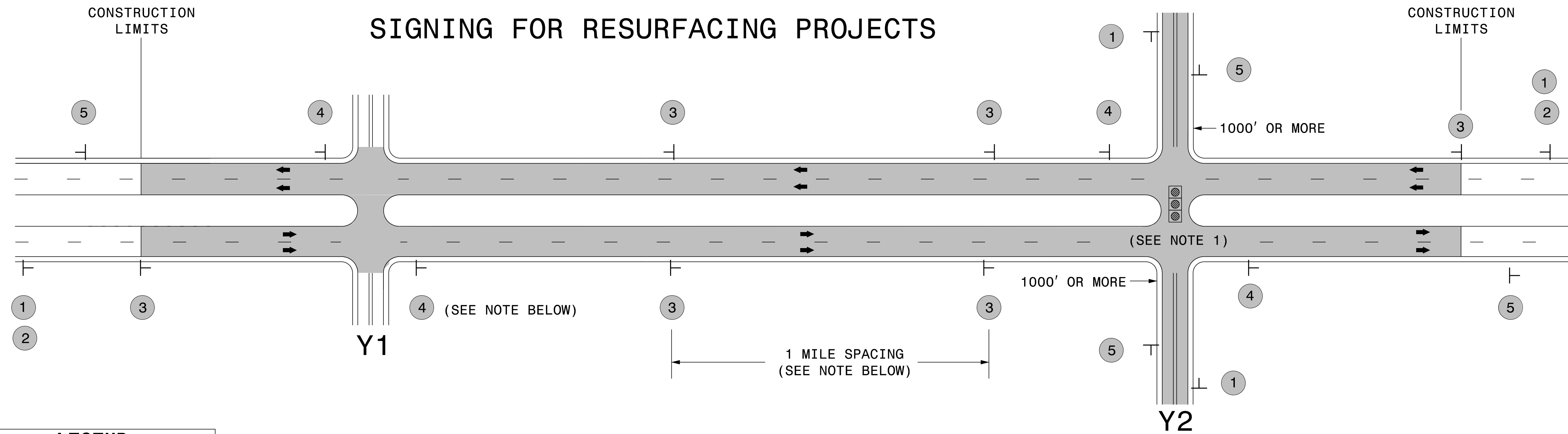
- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT.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

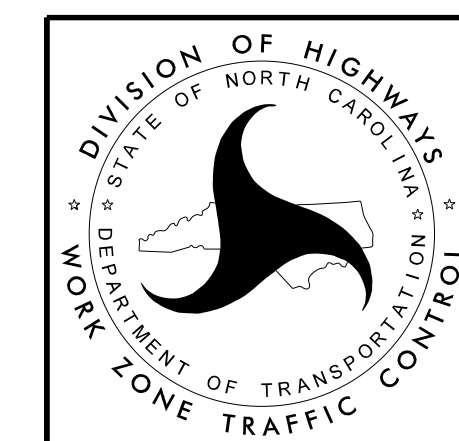


LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

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"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <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;"> <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>NOTES:</p> <ol style="list-style-type: none"> 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.
		<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>	



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