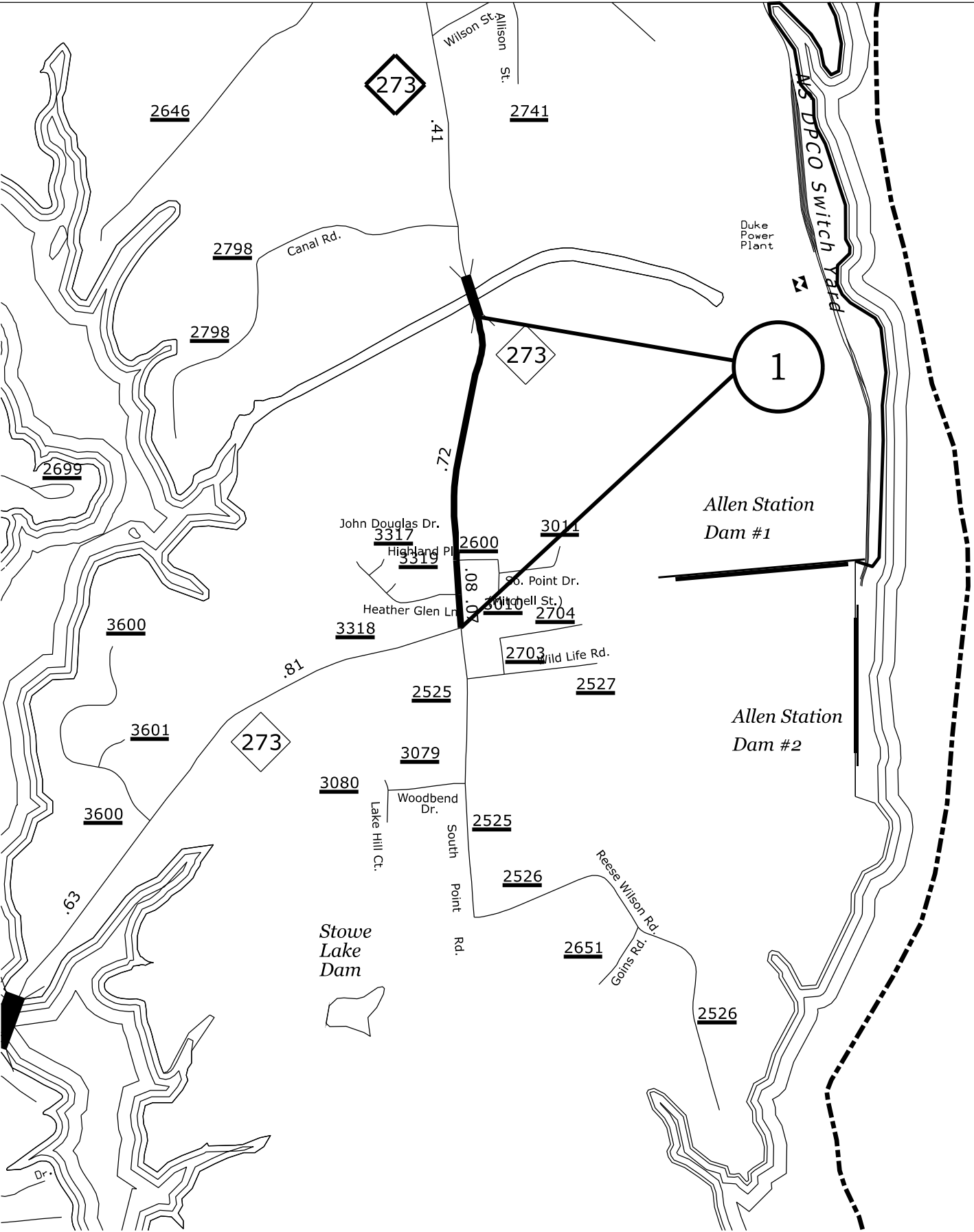


**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

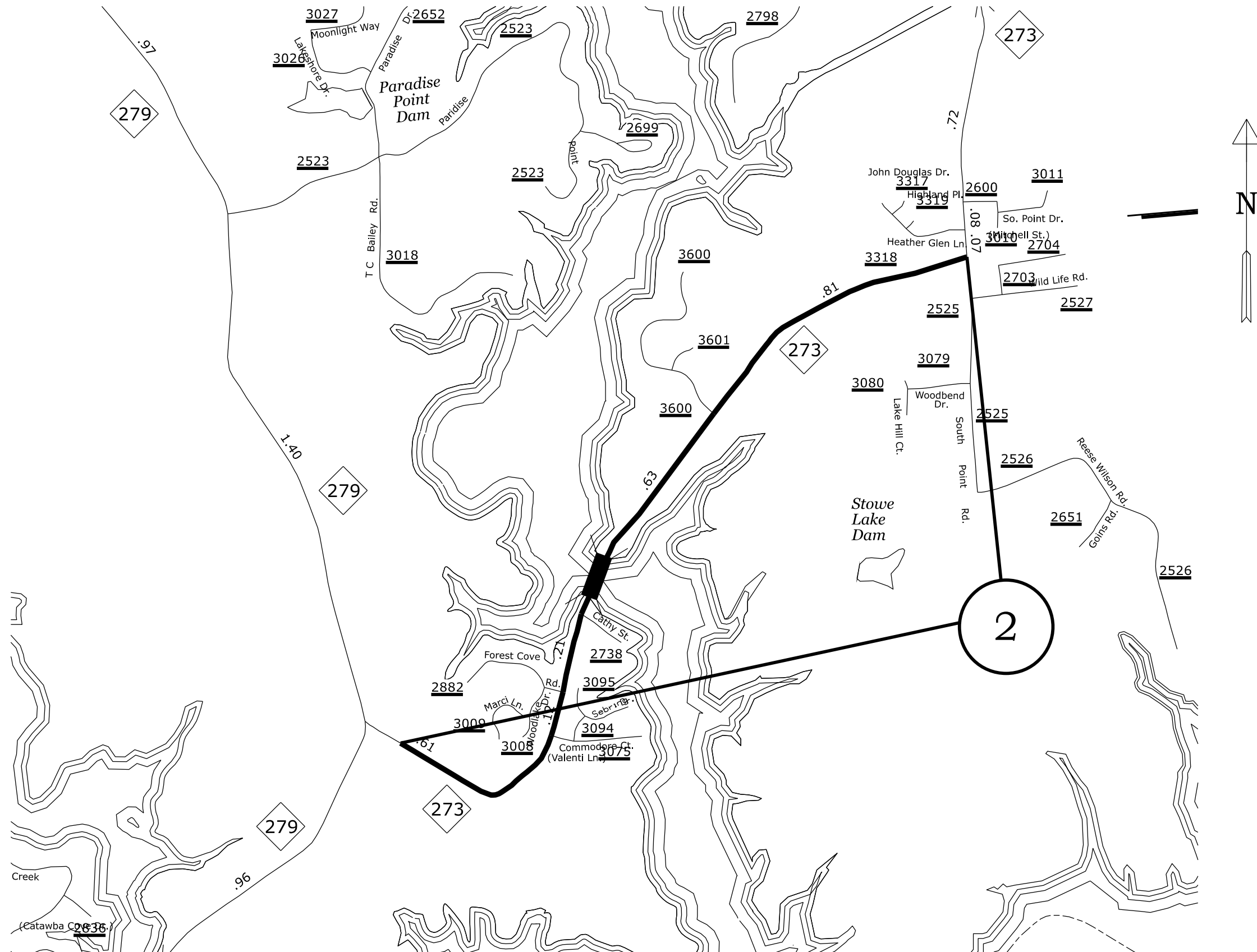
**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

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

Gaston Co. Resurfacing Map #1



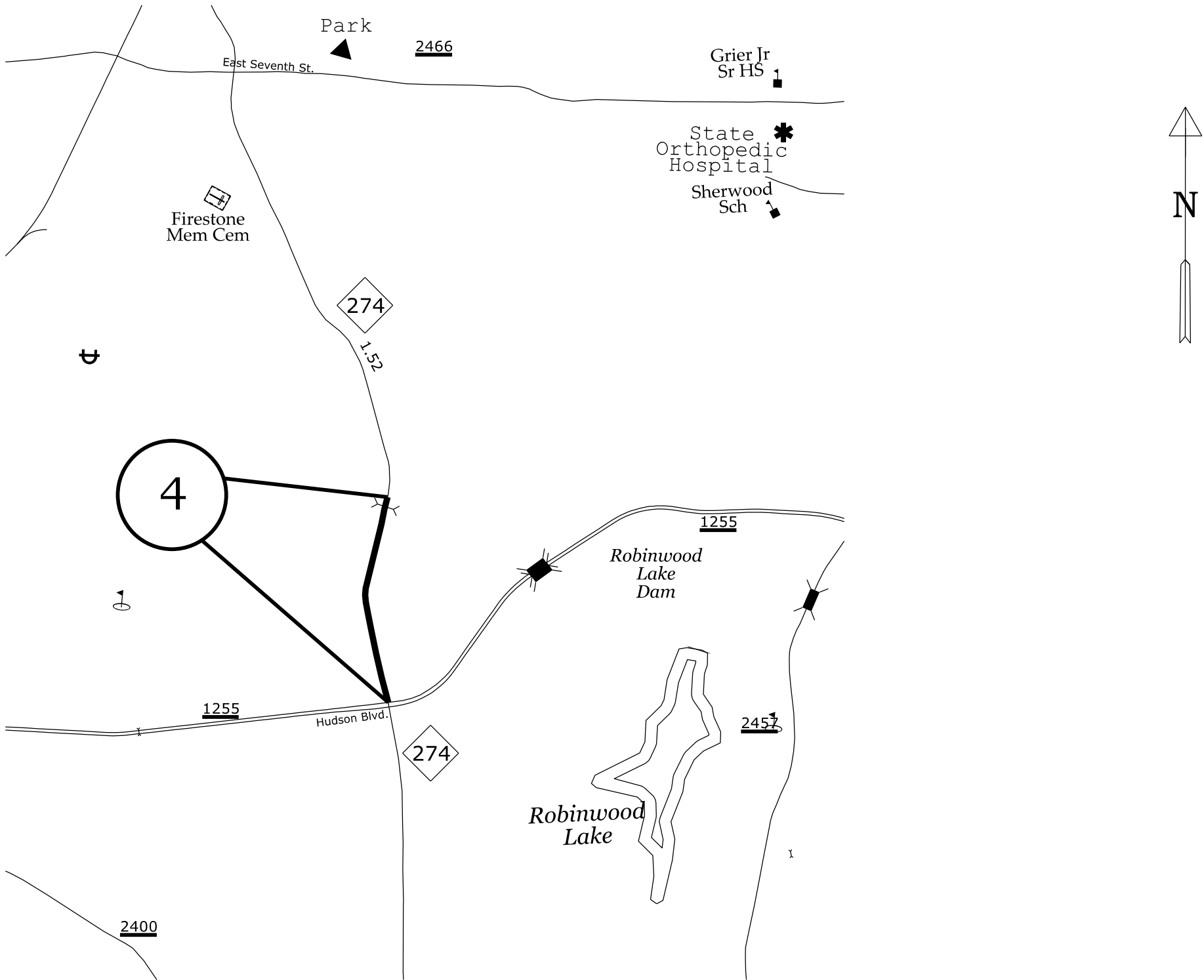
Gaston Co. Resurfacing Map #2



Gaston Co. Resurfacing Map #4

2027CPT.12.04.20361

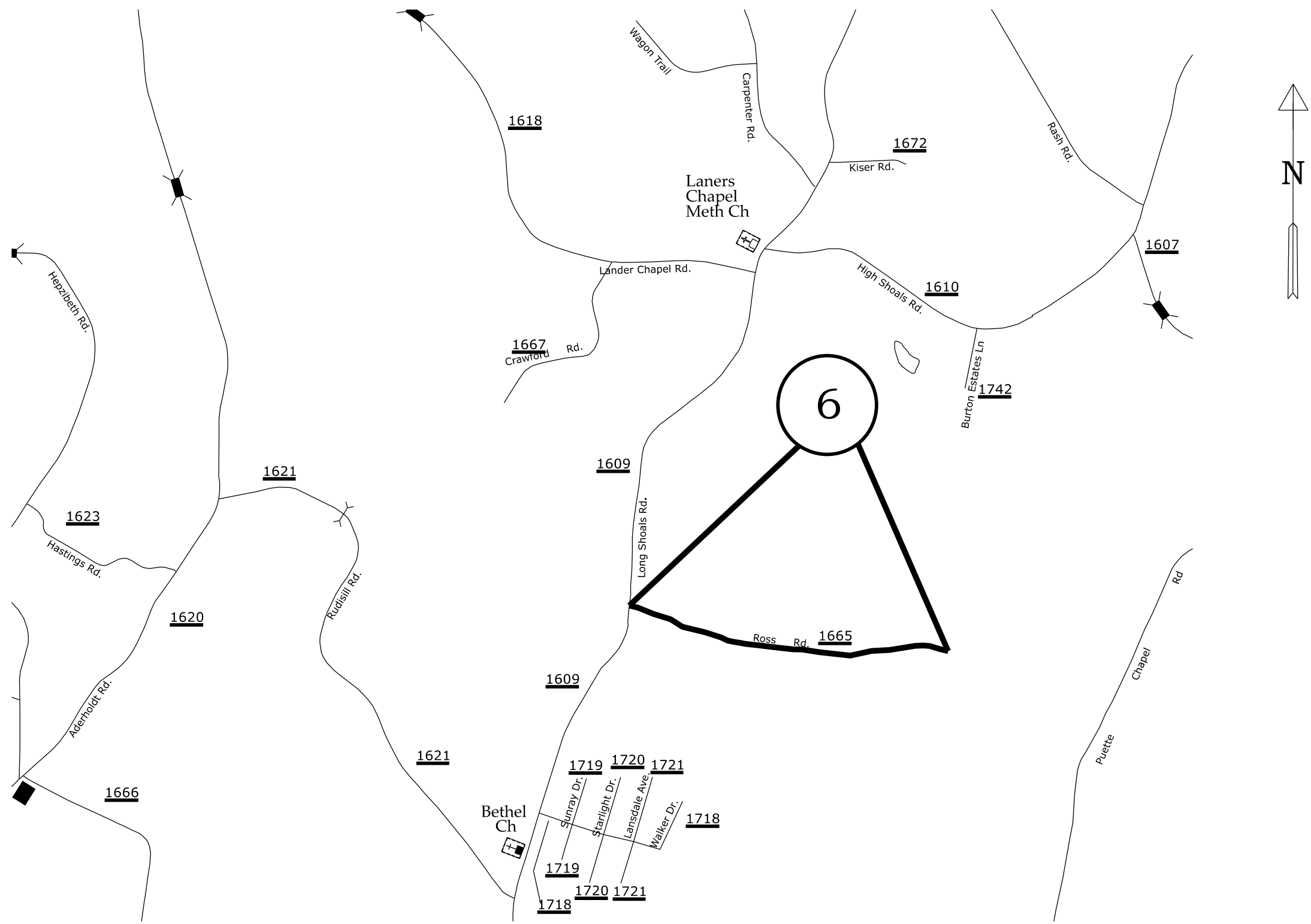
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Gaston Co. Resurfacing Map #6

2027CPT.12.04.20361

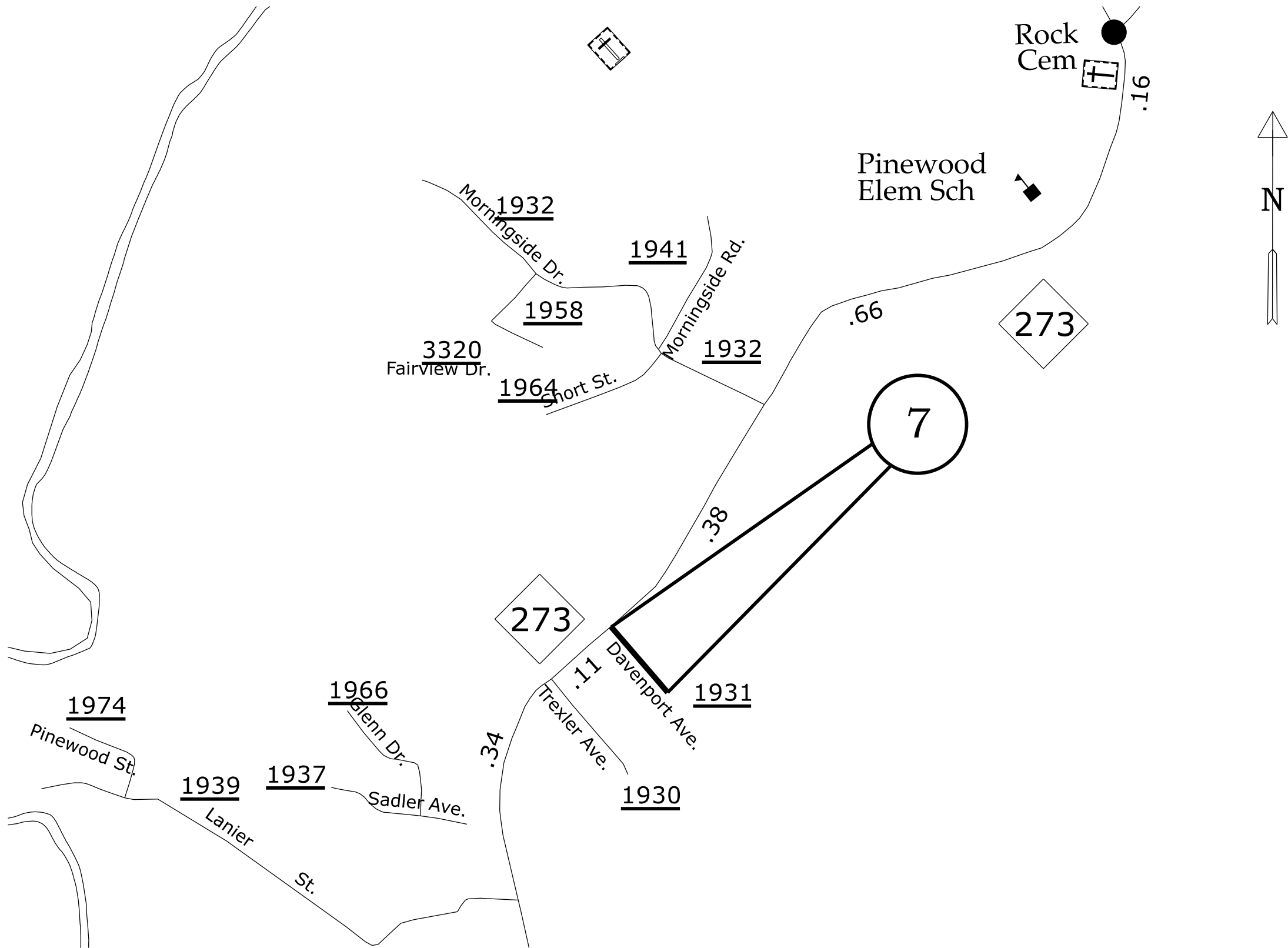
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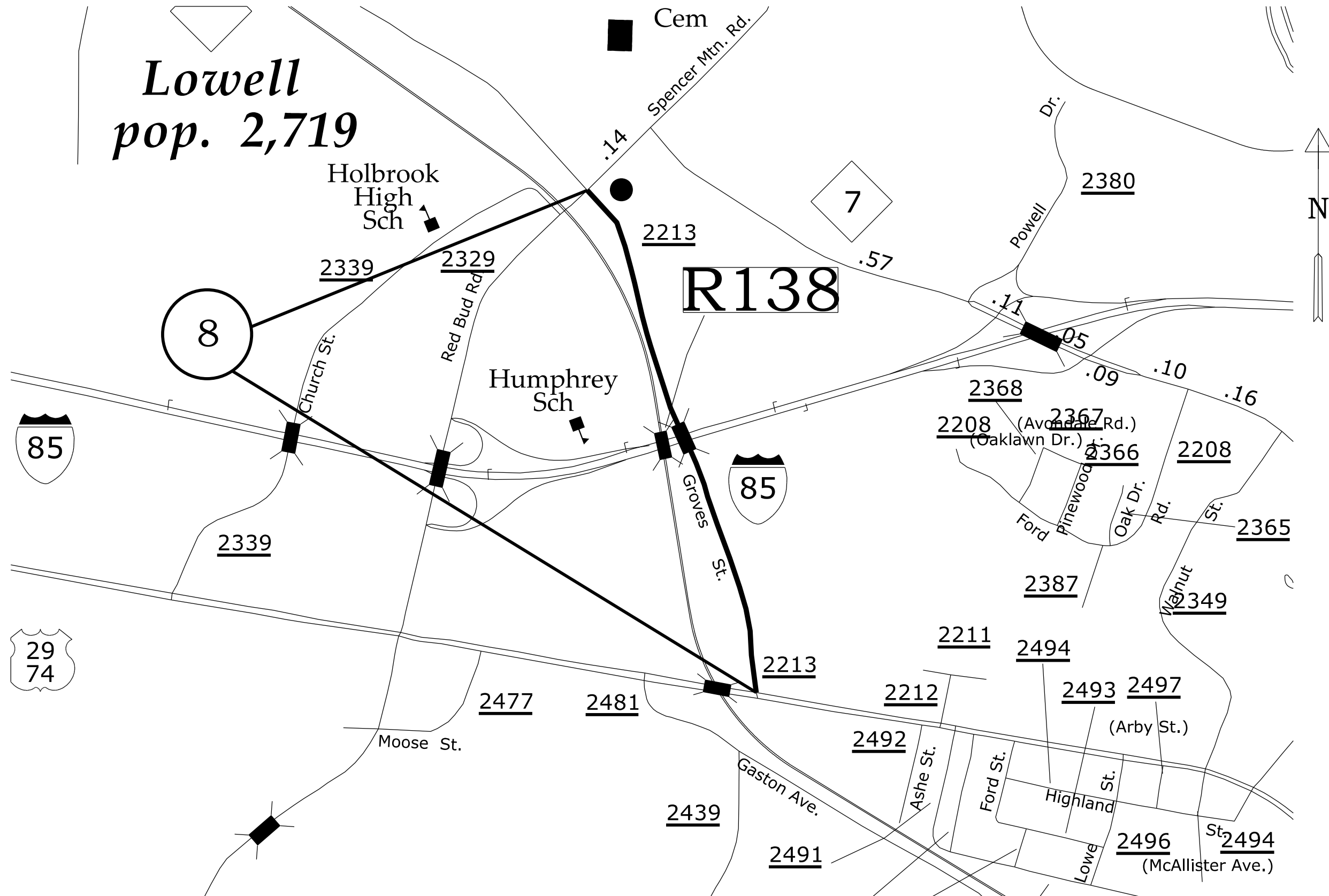
Gaston Co. Resurfacing Map #7

2027CPT.12.04.20361

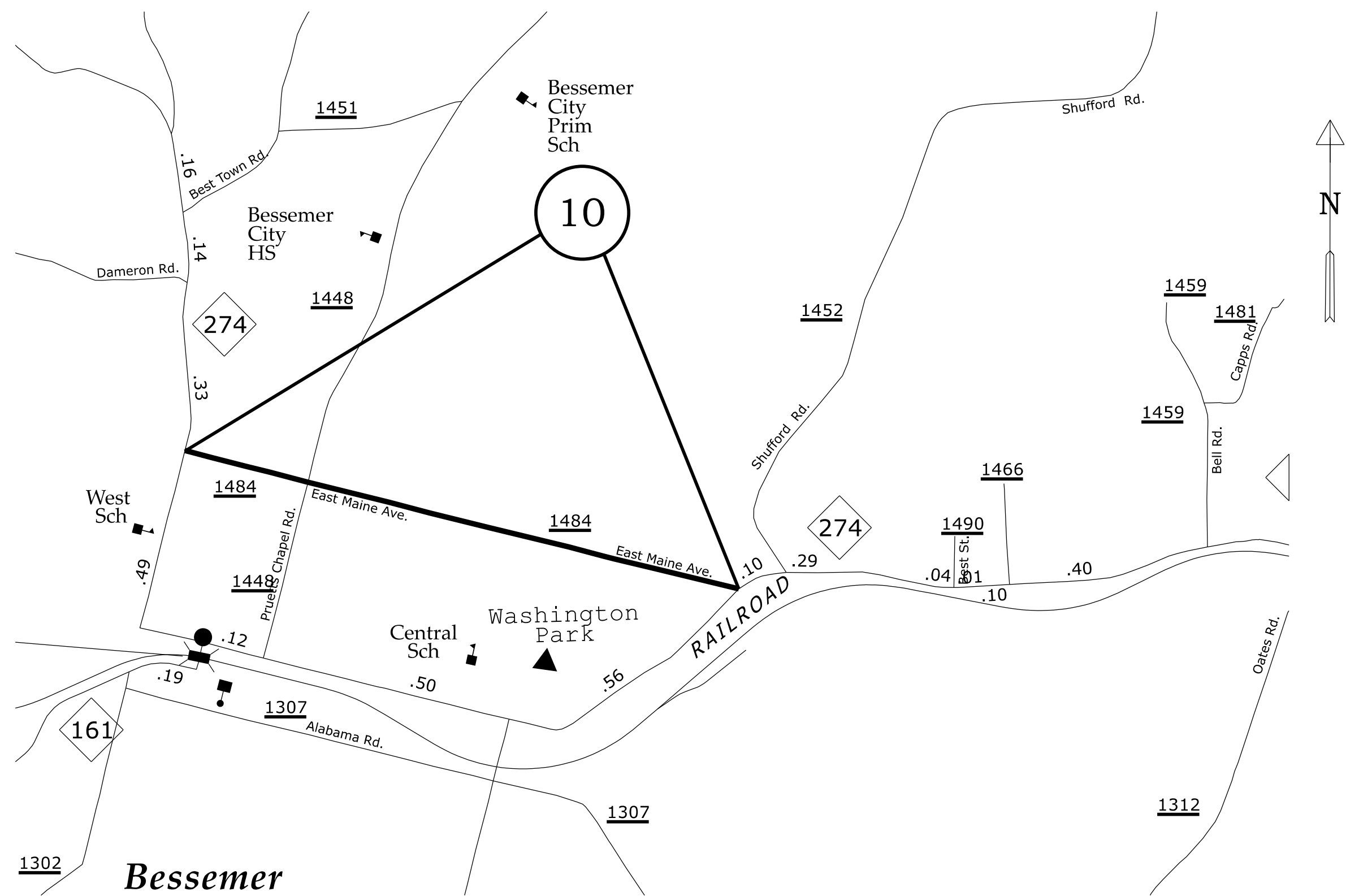
7



Gaston Co. Resurfacing Map #8

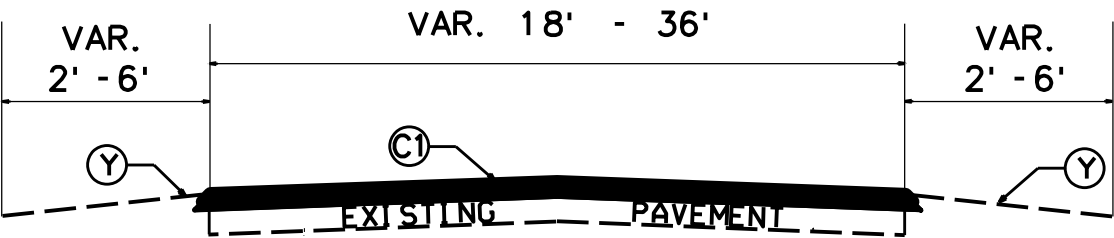


Gaston Co. Resurfacing Map #10



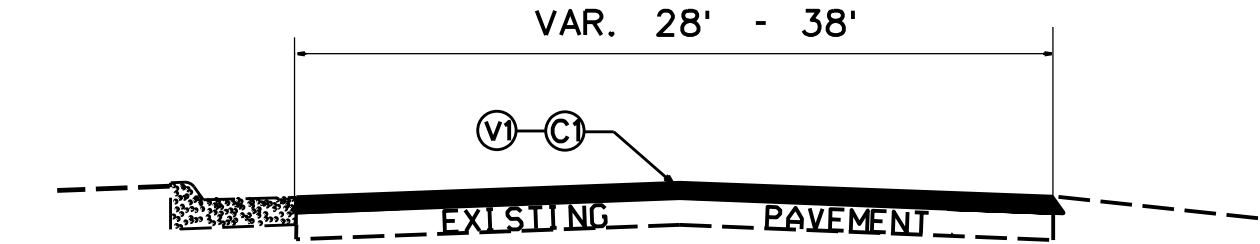
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILL ASPHALT PAVEMENT APPROX. 1-1/2" AS DIRECTED BY ENGINEER
V2	MILL ASPHALT PAVEMENT APPROX. 3" AS DIRECTED BY ENGINEER
Y	SHOULDER RECONSTRUCTION AS DIRECTED BY THE ENGINEER
Z	SHOULDER RECONSTRUCTION AS DIRECTED BY THE ENGINEER

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



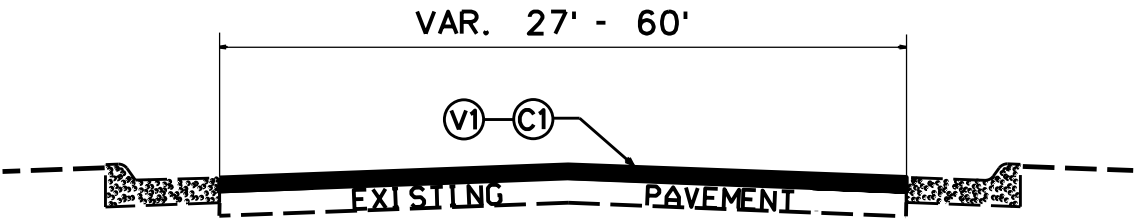
TYPICAL SECTION NO. 1

MAP 1 FROM 10+00 TO 47+48
MAP 2 FROM 10+00 TO 90+25 AND
FROM 92+36 TO 130+91
MAP 5 FROM 25+15 TO 47+50
MAP 6 FROM 10+00 TO 49+07
MAP 7 FROM 10+00 TO 16+86
MAP 8 FROM 10+80 TO 23+69 AND
FROM 36+51 TO 49+86
MAP 9 FROM 31+60 TO 140+94 AND
FROM 142+52 TO 185+82
Map 10 FROM 10+00 TO 67+02



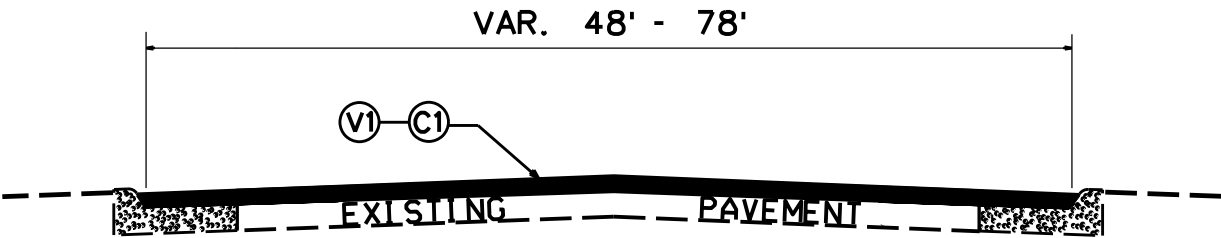
TYPICAL SECTION NO. 2

MAP 2 FROM 90+25 to 92+36
Map 9 FROM 10+00 TO 31+60



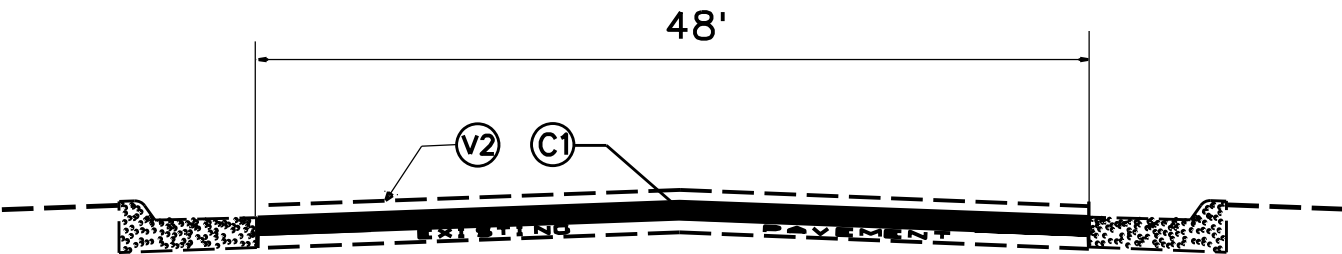
TYPICAL SECTION NO. 3

MAP 4 FROM 10+00 TO 33+50
MAP 5 FROM 57+43 TO 60+69



TYPICAL SECTION NO. 4

(MAP 3 FROM 44+57 TO 71+84
MAP 8 FROM 10+00 TO 10+80



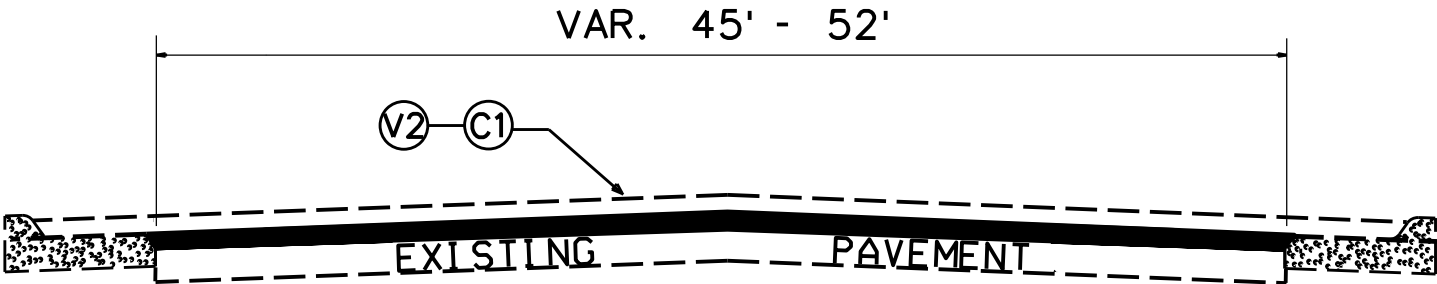
TYPICAL SECTION NO 5.

(MAP 3 FROM 10+00 TO 44+57)

** Additional 3" milling may be required in some areas as directed.

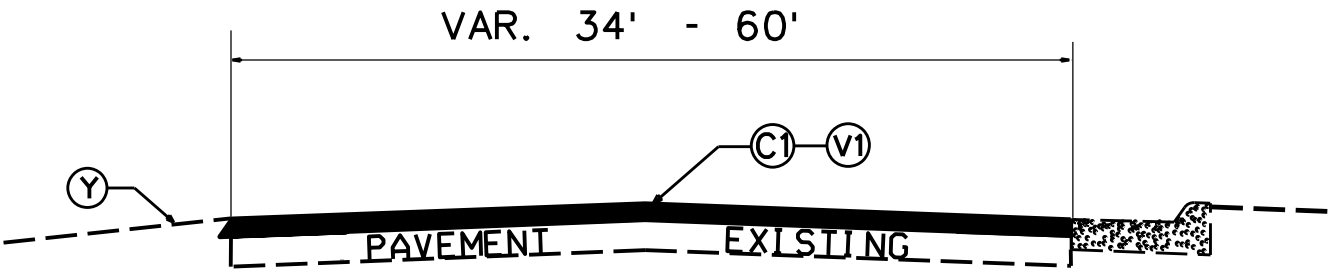
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILL ASPHALT PAVEMENT APPROX. 1-1/2" AS DIRECTED BY ENGINEER
V2	MILL ASPHALT PAVEMENT APPROX. 3" AS DIRECTED BY ENGINEER
Y	SHOULDER RECONSTRUCTION AS DIRECTED BY THE ENGINEER
Z	SHOULDER RECONSTRUCTION AS DIRECTED BY THE ENGINEER

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



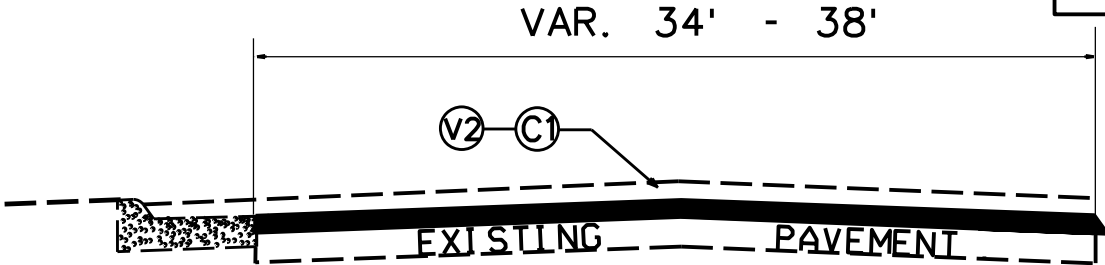
TYPICAL SECTION NO. 6
(MAP 8 FROM 27+31 TO 30+27 AND
FROM 32+81 TO 36+51 AND
FROM 49+86 TO 52+76)

Mill all existing asphalt out of curb, pave 1.5" flush with curb



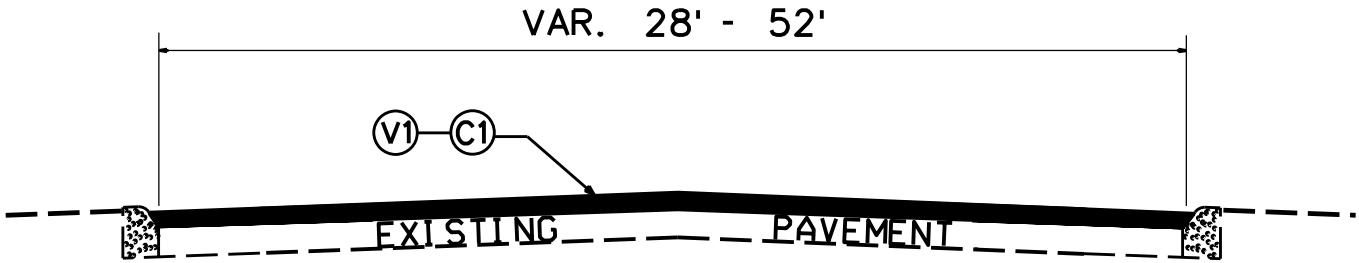
TYPICAL SECTION NO. 7
MAP 5 FROM 12+98 TO 25+15 AND
FROM 56+50 TO 57+43
MAP 10 FROM 67+02 TO 69+14

PROJ. REFERENCE NO.		SHEET NO.	TOTAL SHEETS
CLEV COUNTY 2026		12	24
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
2027CPT.12.04.10361			
2027CPT.12.04.20361			



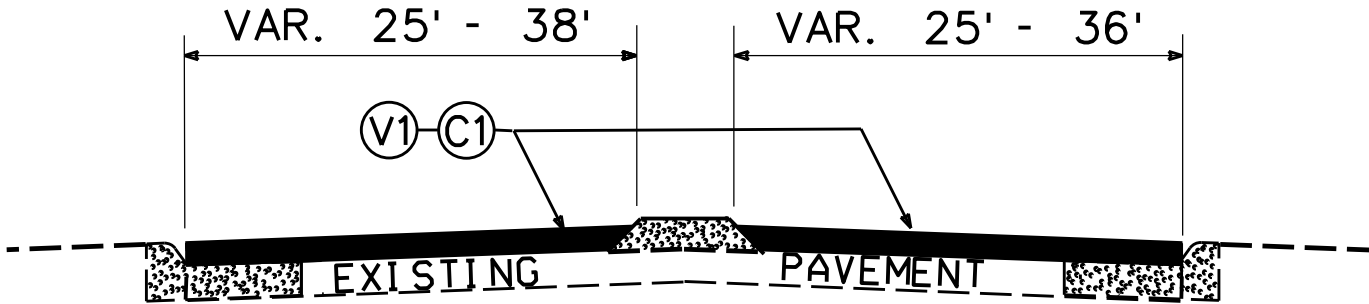
TYPICAL SECTION NO. 8
(MAP 8 FROM 23+69 TO 27+31)

Mill Asphalt out of Curb Line, place new asphalt flush with curb pan

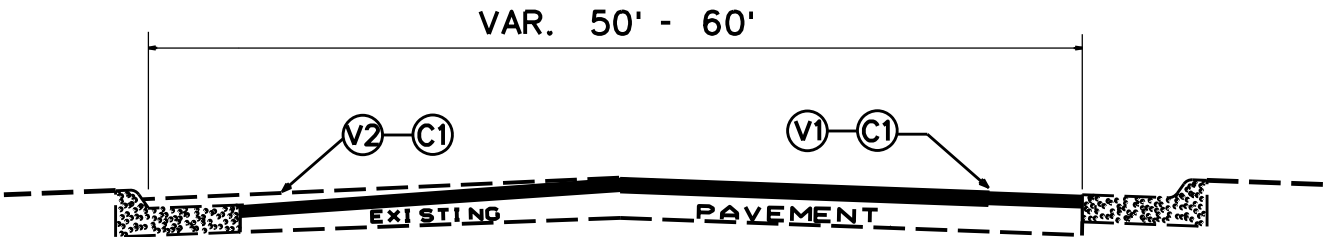


TYPICAL SECTION NO. 9
MAP 8 FROM 30+27 TO 32+81
MAP 9 FROM 140+94 TO 142+52

Typical Section meant for use of milling and resurfacing asphalt bridge decks

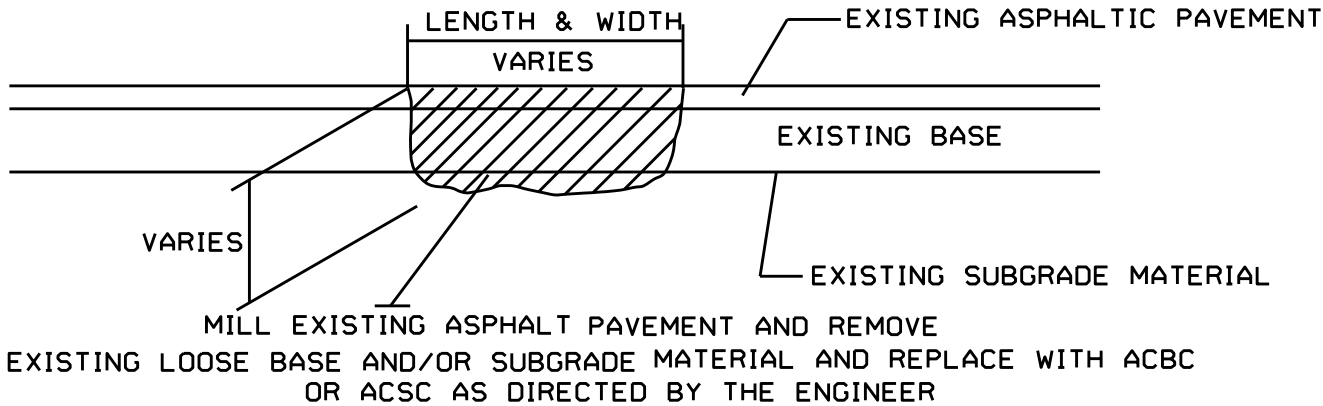


TYPICAL SECTION NO. 10
(MAP 3)
MAP 3 FROM 71+84 TO 76+00

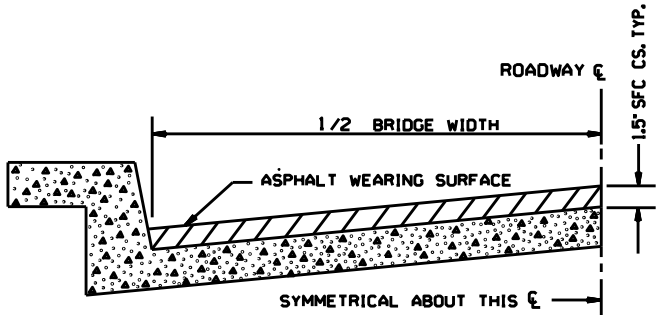


TYPICAL SECTION NO. 11
(MAP 5)
MAP 5 FROM 10+00 TO 12+98

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
CLEV COUNTY 2026	13	24
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
2026CPT. 12. 03. 10231		



PATCHING EXISTING PAVEMENT



BRIDGE HALF TYPICAL SECTION

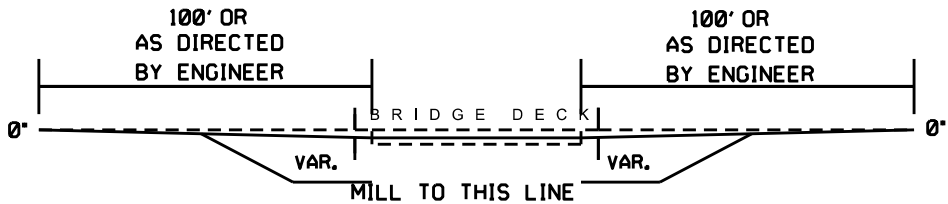
FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN.

THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. A THICKNESS OF NOT LESS THAN 1.00" SHALL BE PROVIDED. THE MAXIMUM THICKNESS SHALL PREFERABLY BE 1.5" UNLESS IT IS IMPRACTICAL TO PROVIDE A SMOOTH RIDING SURFACE OTHERWISE.

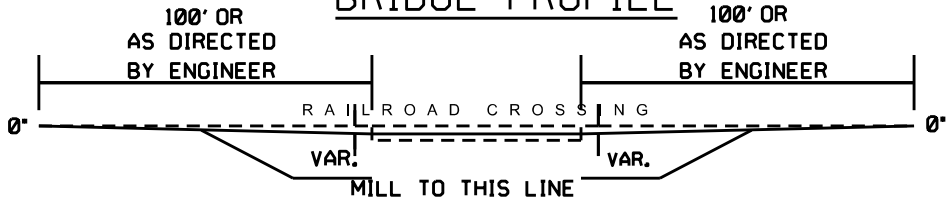
NOTES

BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

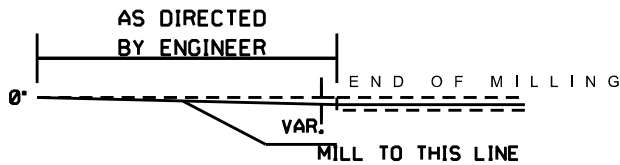
INCIDENTAL MILLING DETAILS



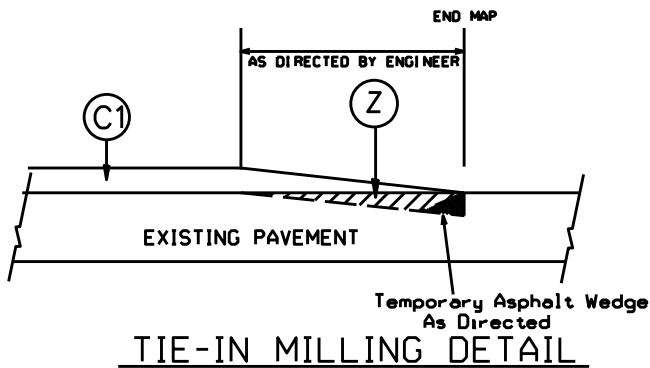
BRIDGE PROFILE



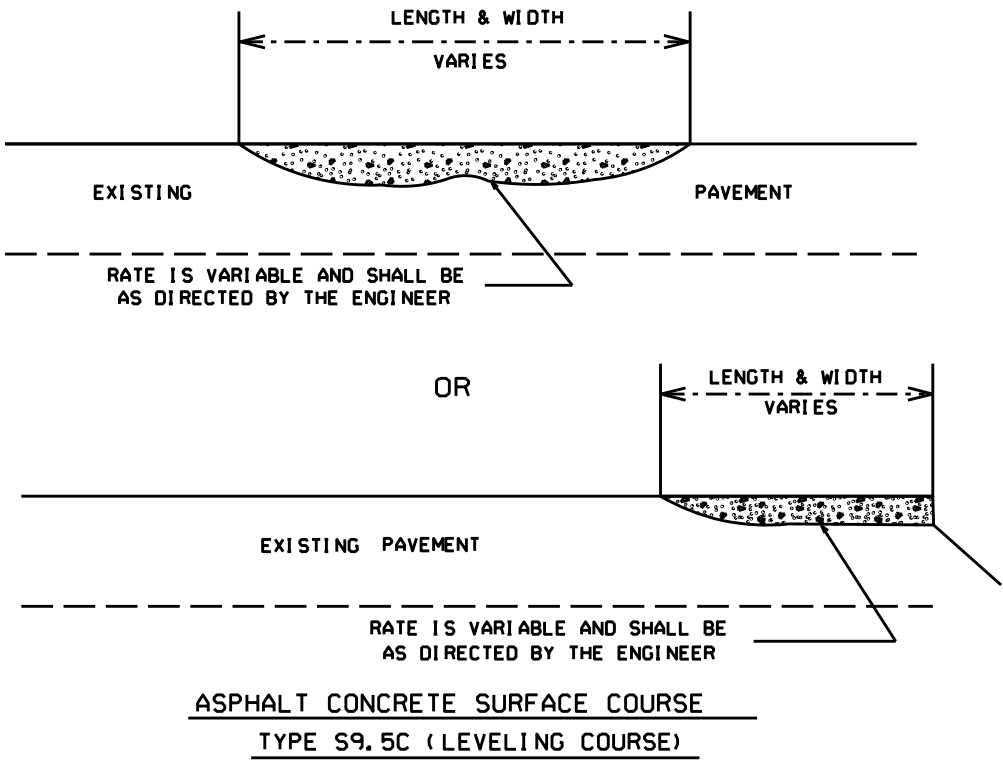
RAILROAD PROFILE



END OF MILLING PROFILE



TIE-IN MILLING DETAIL

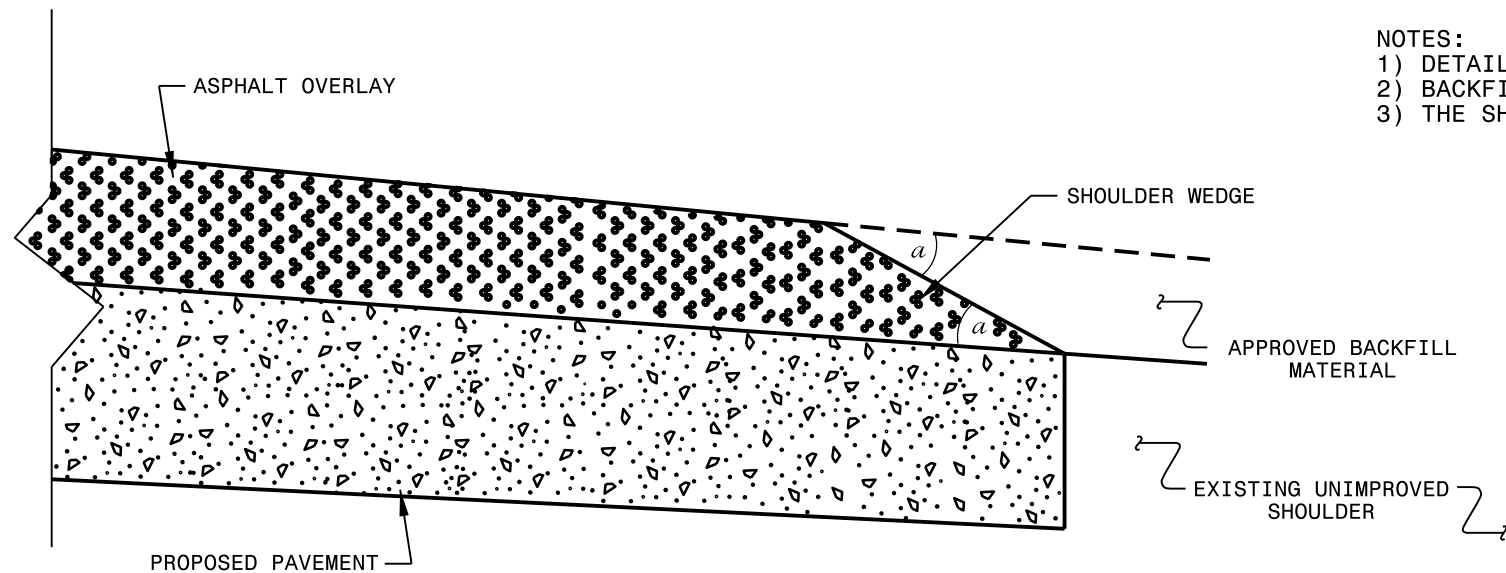


- NOTES:
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
 2. MILL BRIDGE APPROACHES & RXR APPROACHES 100' TO PROVIDE A SMOOTH TRANSITION AS DIRECTED.
 3. MILL INTO GUTTER LINE WHERE SHOWN AND AS DIRECTED.
 4. MAINTAIN PROPER CROWN FOR DRAINAGE OF THE ROAD SURFACE.

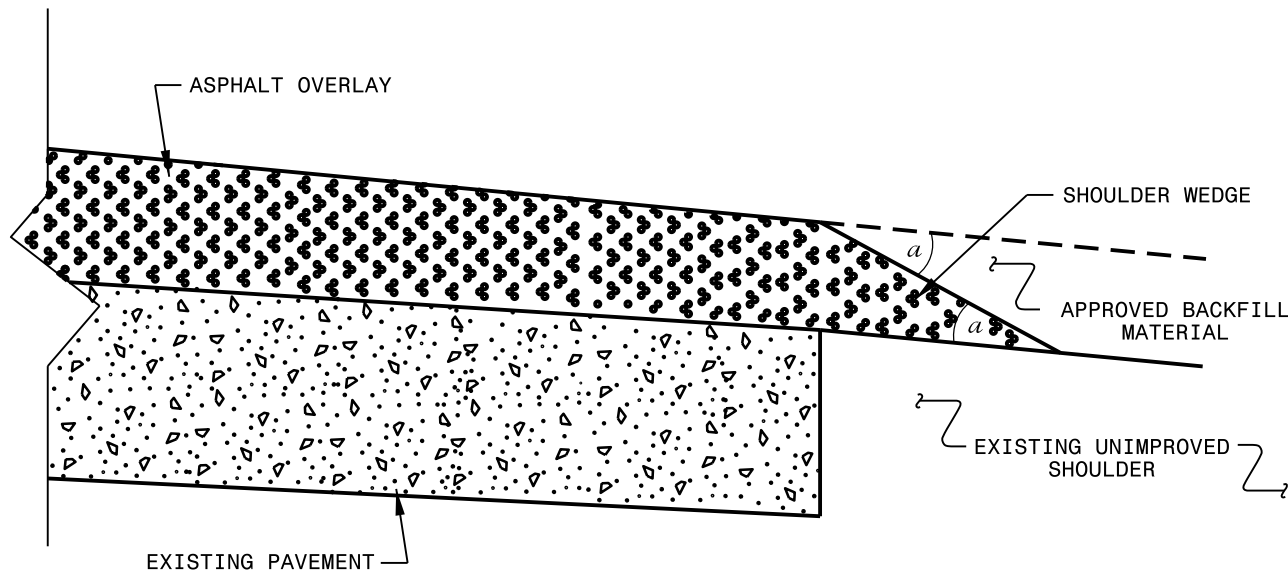
PAVEMENT SCHEDULE

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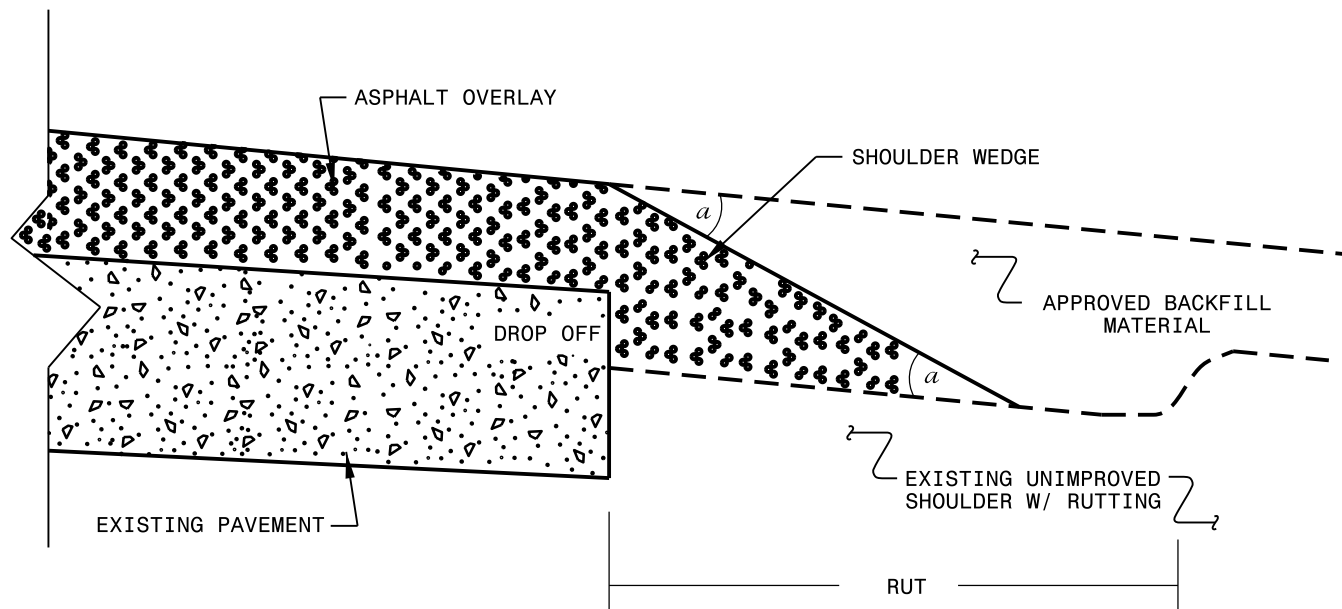
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFD AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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



SHOULDER WEDGE DETAIL
(Resurfacing Projects w/ NO Widening)



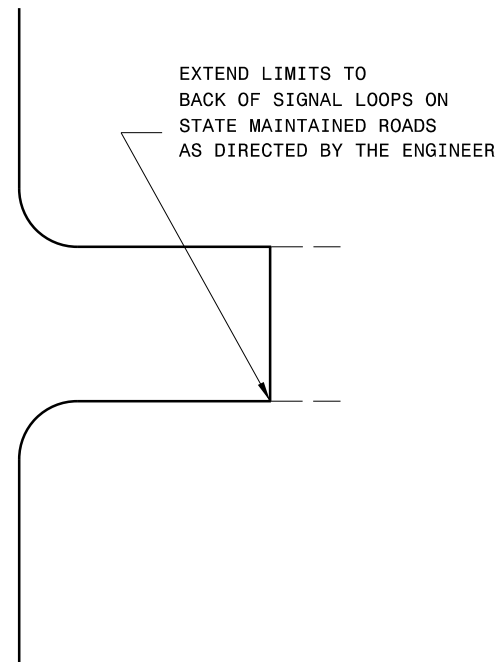
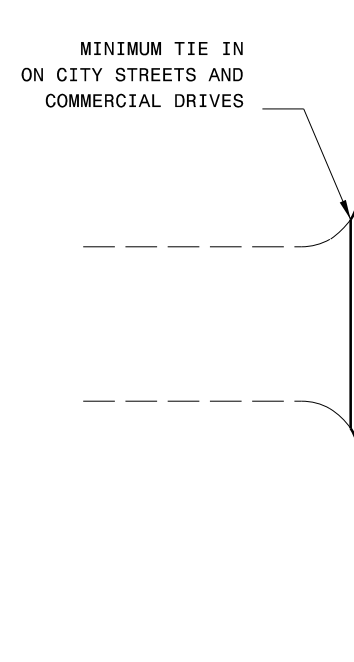
SHOULDER WEDGE DETAIL
(Resurfacing Adjacent to
Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

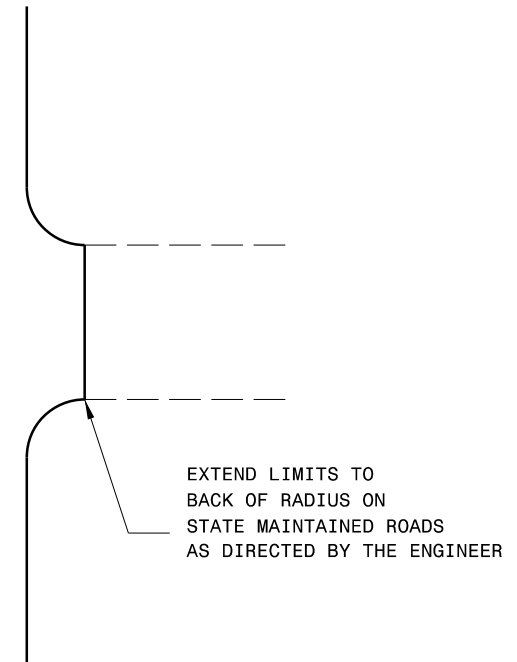
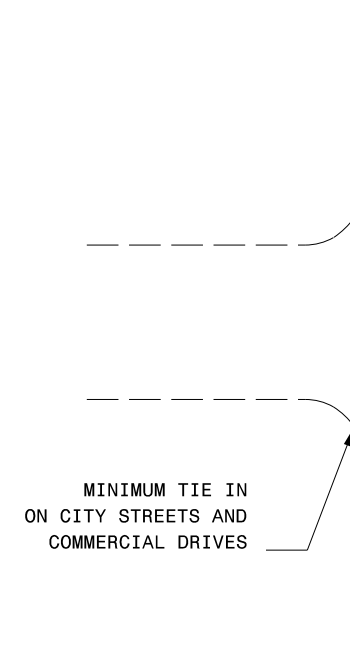
**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

**SHOULDER WEDGE
DETAILS**

ORIGINAL BY: T.SPELL DATE: 7-19-11
MODIFIED BY: DATE: 10/16/12
CHECKED BY: DATE:
FILE SPEC.: s:\usr\details\stand\shoulderwedgedetail.dgn

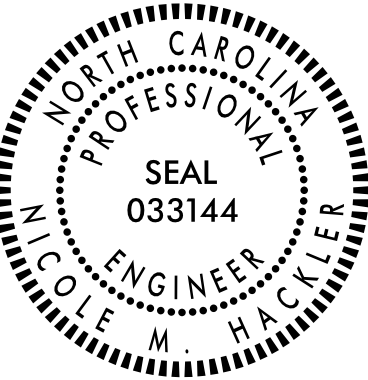
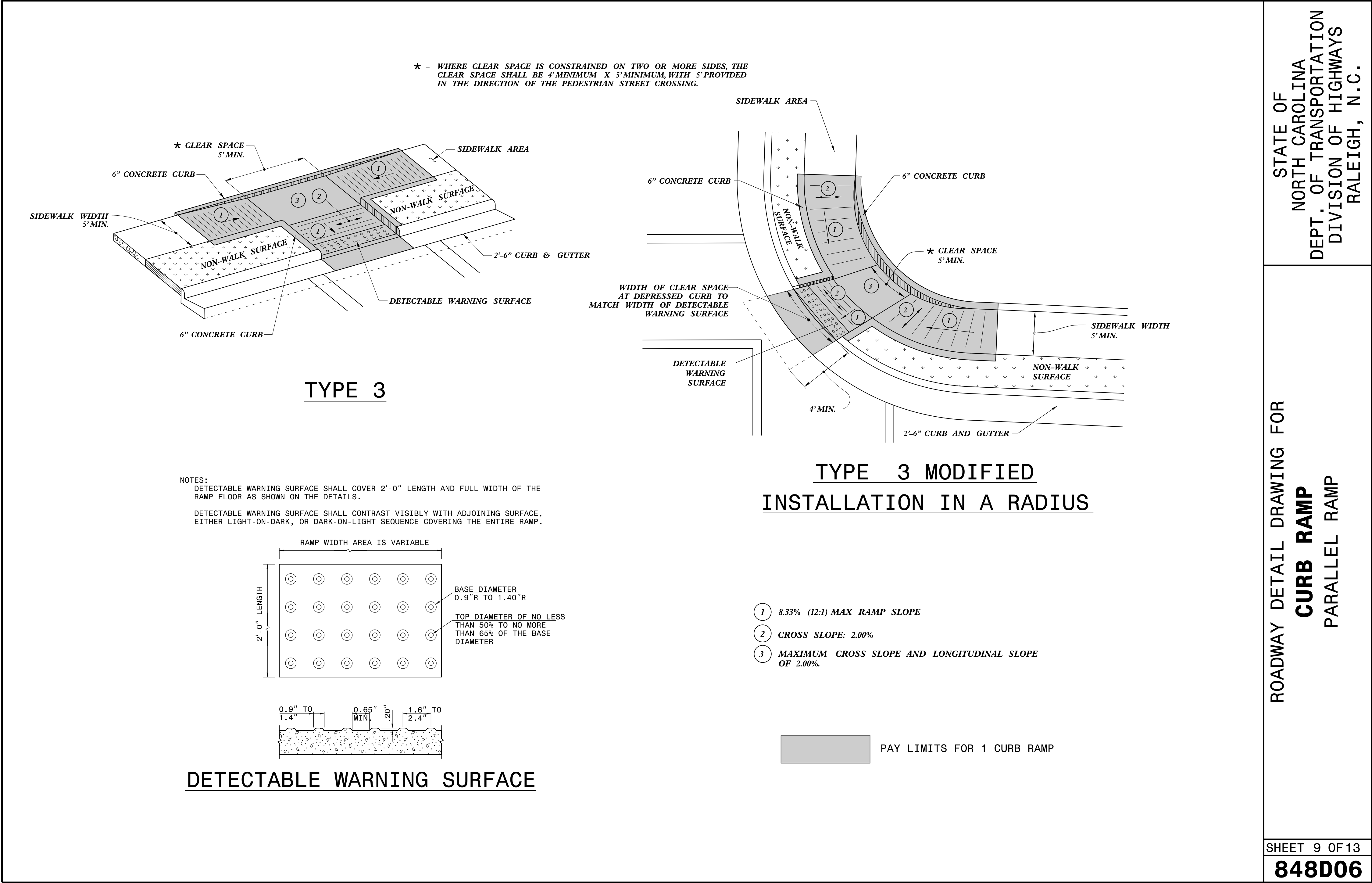


TYPICAL DETAIL OF PROJECT LIMITS AT
SIGNALIZED Y LINES



TYPICAL DETAIL OF PROJECT LIMITS AT
UNSIGNALIZED Y LINES

[illegible]

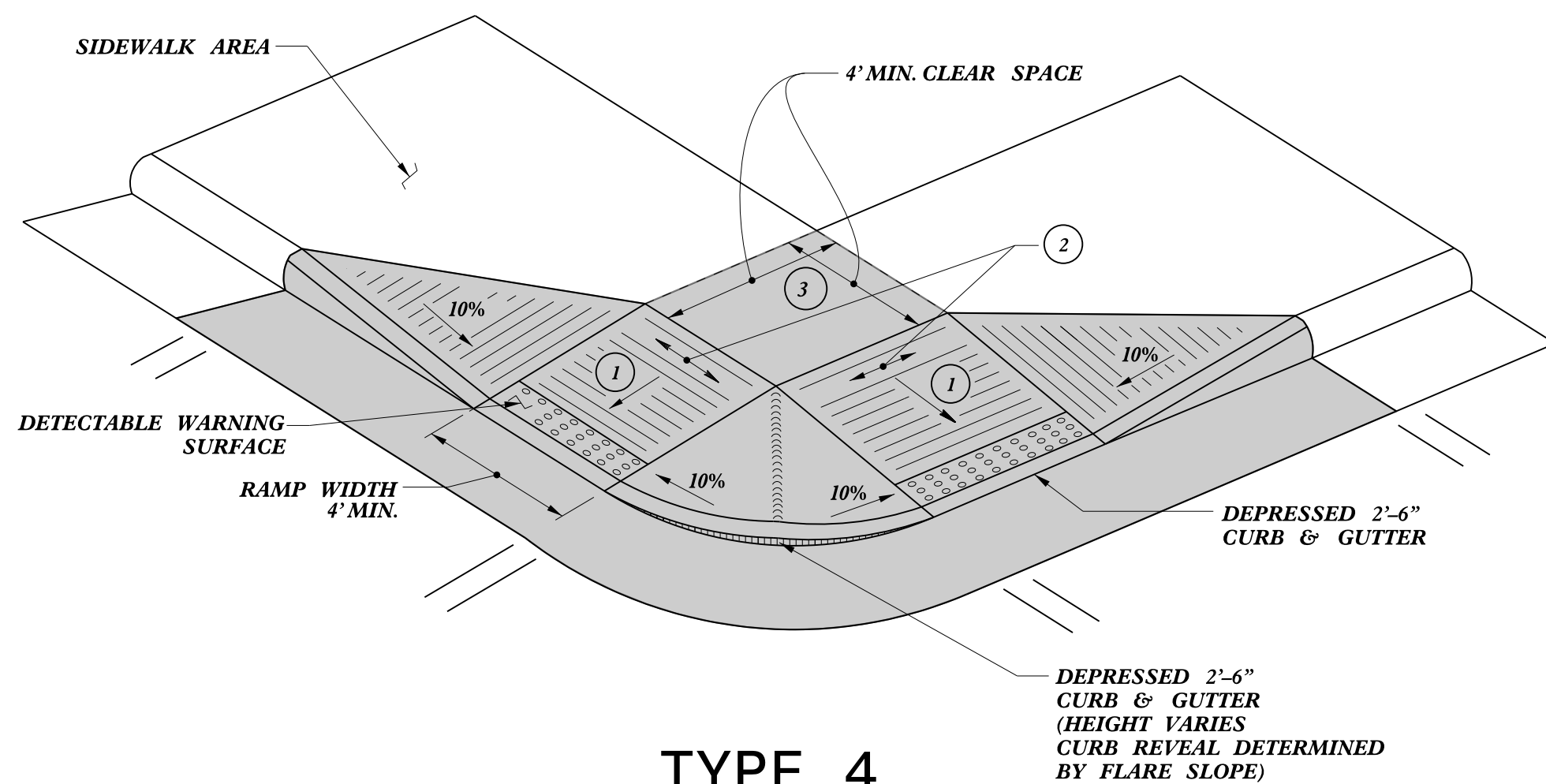


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

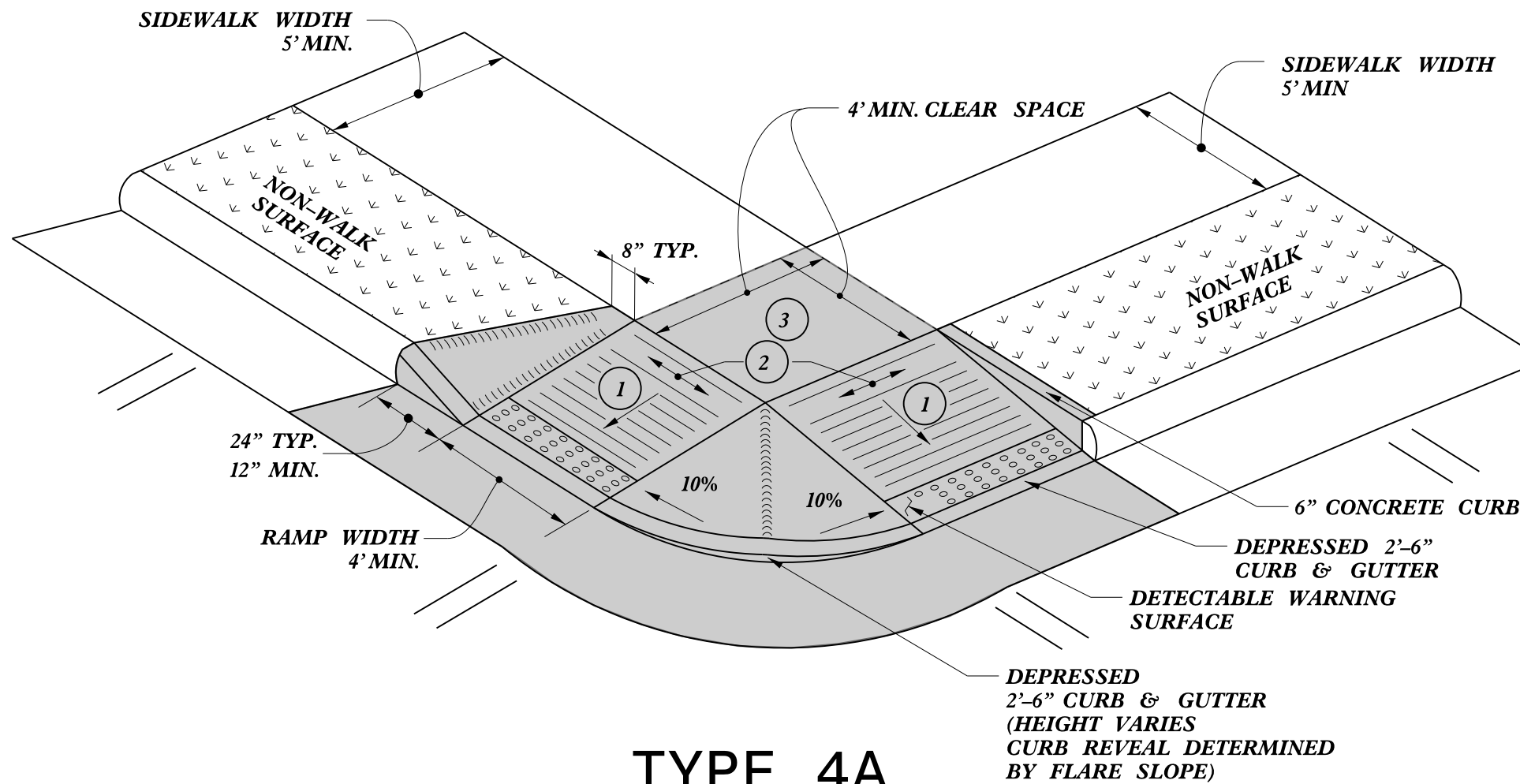
CONTRACTS STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

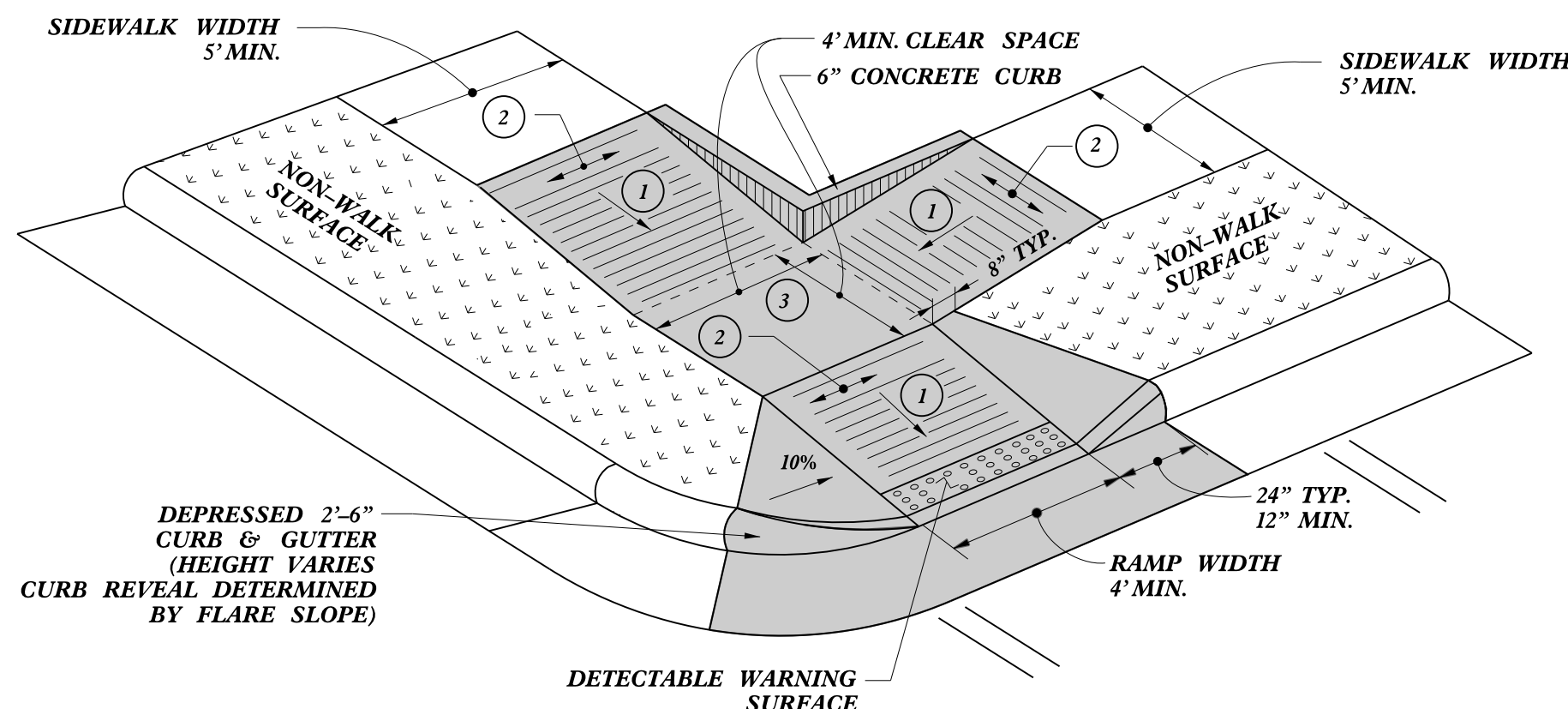
ORIGINAL BY: S.CALHOUN DATE: 12-22-2023
MODIFIED BY: DATE:
CHECKED BY: DATE:
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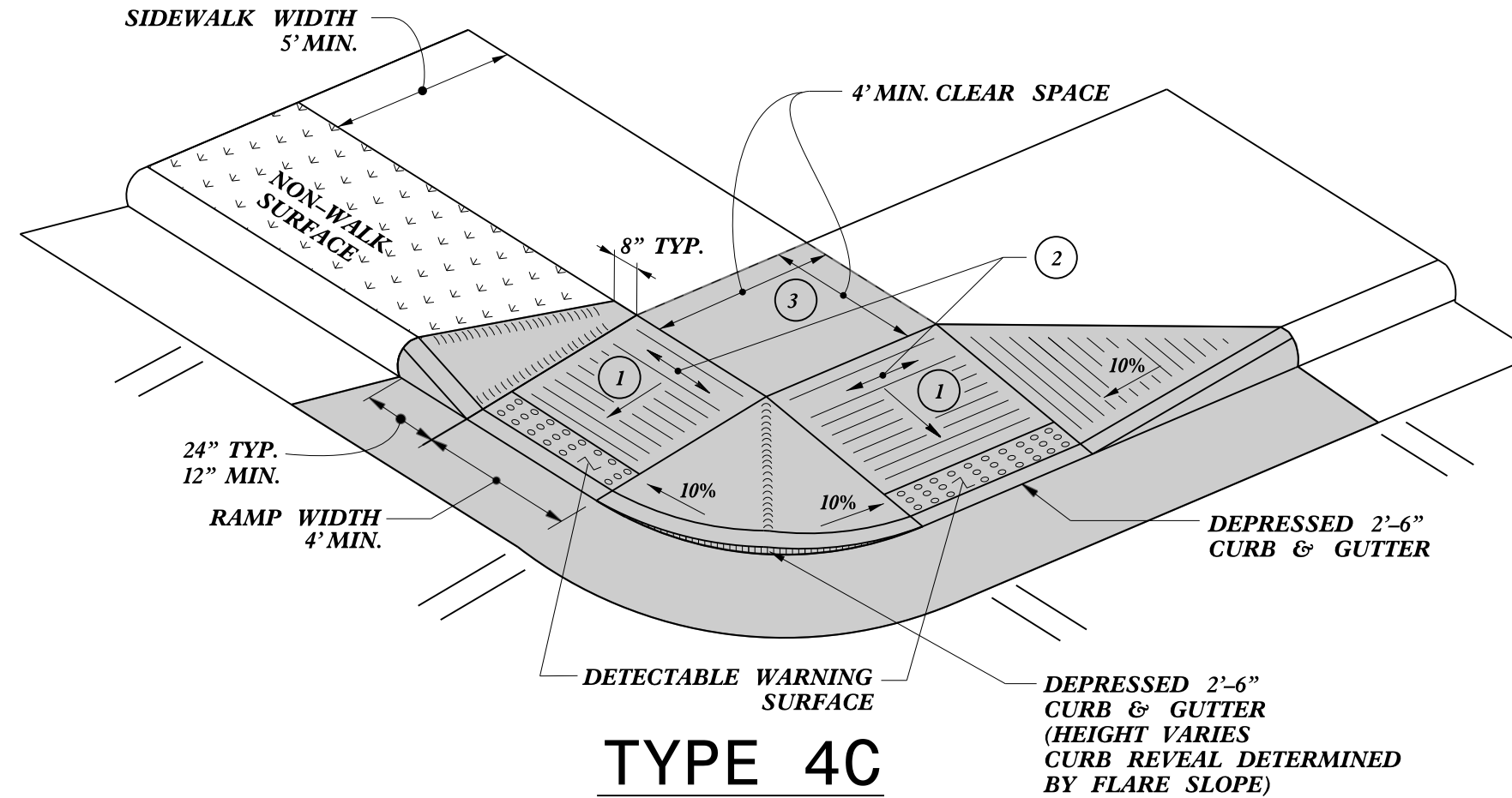
TYPE 4



TYPE 4A

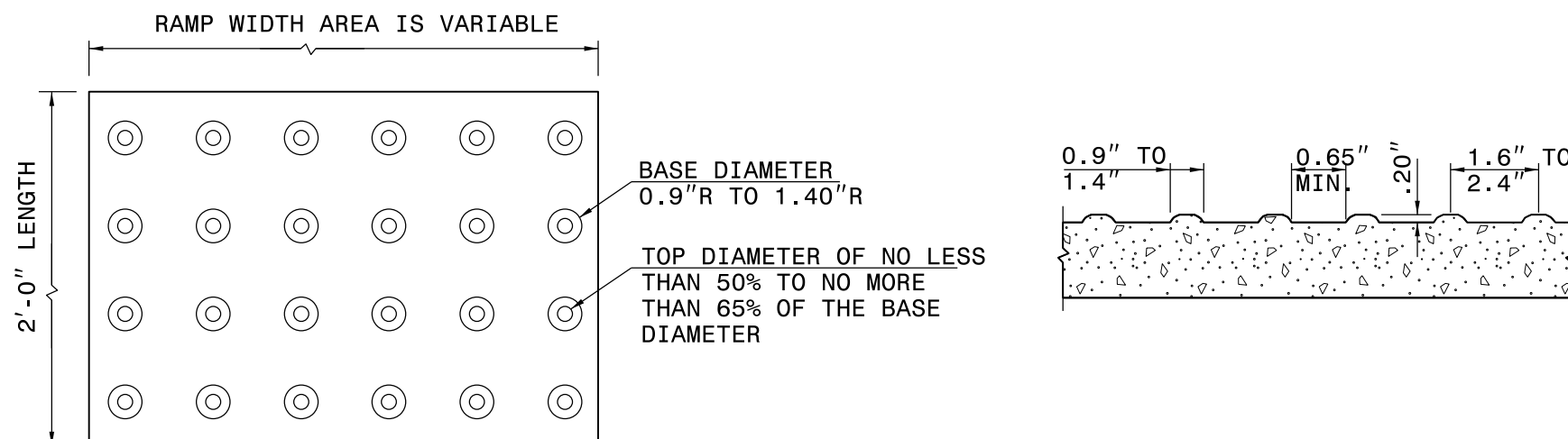


TYPE 4B



TYPE 4C

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

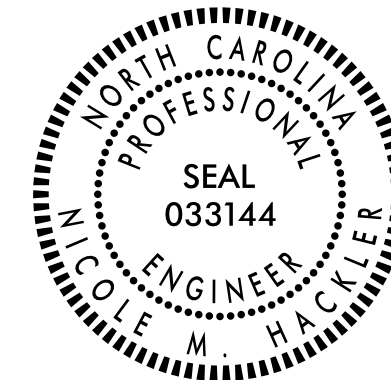
- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%

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

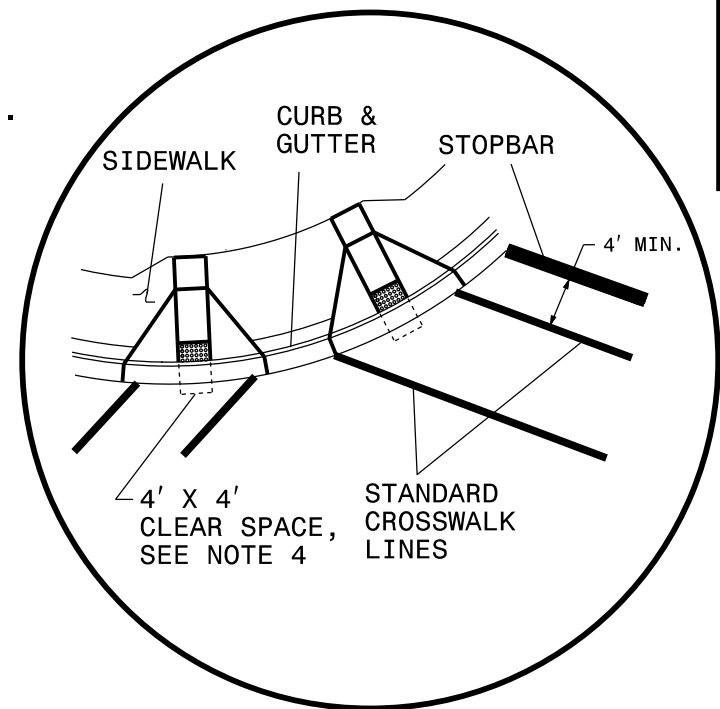
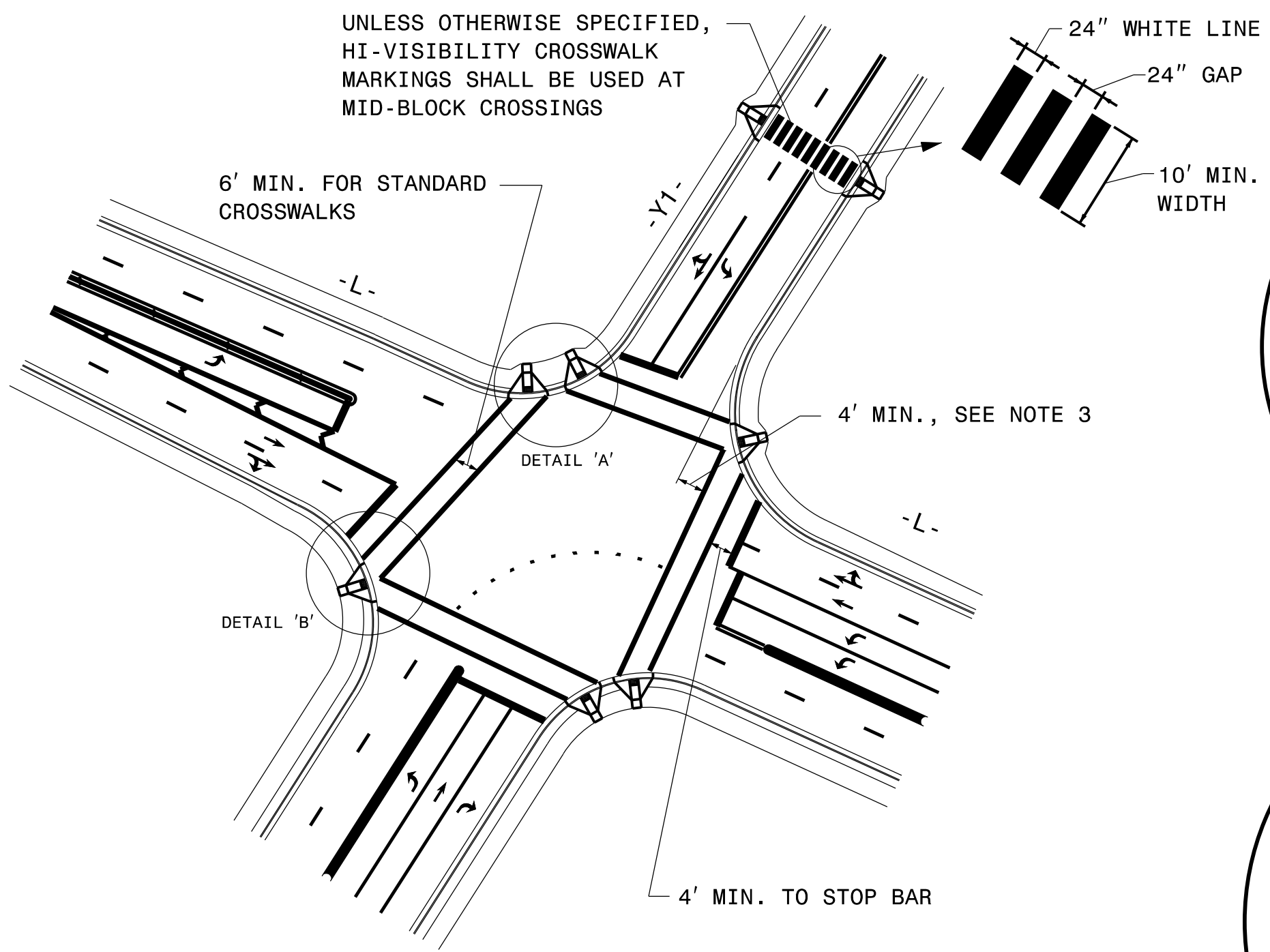


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UNLESS ALL SIGNATURES COMPLETED

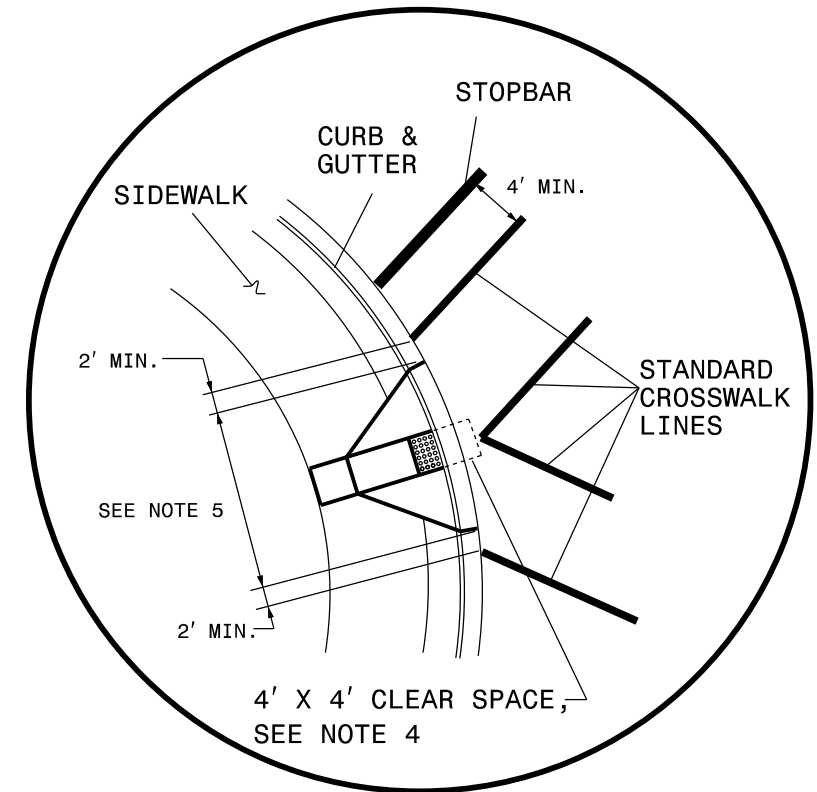
CONTRACTS STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

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\$\$\$\$\$
\$\$\$\$\$DON\$\$\$\$\$
\$\$\$\$\$SERNAME\$\$\$\$\$

PROJECT NO.	SHEET NO.	TOTAL NO.
2027CPT.12.04.10361, 2027CPT.12.04.20361		

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LENGTH	WIDTH	BEGI	END	0255000000-E	1220000000-E	1245000000-E	1297000000-E	1330000000-E	1523000000-E	1524000000-E	1575000000-E	1704000000-E	2374000000-N	2612300000-N	2612500000-N	2800000000-N	2815000000-N	2830000000-N	2845000000-N	2846000000-N	5255000000-N	7324000000-N	7444000000-E	7456100000-E		
							MI	FT	N	MP	MP	AGGREGATE SHOULDER BORROW	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTI ON	1½" MILLING	3" MILLING	INCIDENTAL MILLING	SURFACE COURSE, \$9.5C	LEVELING COURSE, \$9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	FRAME WITH GRATE & HOOD, STD 840.03, TYPE **	RETROFIT EXISTING CONCRETE CURB RAMPS	REMOVE AND REPLACE CONCRETE CURB RAMPS	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 (STD)	INDUCTIVE LOOP	LEAD IN CABLE (14-2)
2027CPT.12.04.10361	Gaston	1	NC-273 (S. POINT RD)	SR-2525 TO CANAL BRIDGE	1	2	0.710	27	2.370	3.080	270	20	1.41		324	989	90	71	150														
TOTAL FOR MAP NO. 1							0.710				270	20	1.41		324	989	90	71	150														
2027CPT.12.04.10361	Gaston	2	NC-273 ARMSTRONG RD	PVMT JOINT 325' EAST OF NC-279 TO SR-2525	1,2	2	2.290	24-36	0.080	2.370	870	20	4.58	961	376	3,043	284	222	535														
TOTAL FOR MAP NO. 2							2.290				870	20	4.58	961	376	3,043	284	222	535														
2027CPT.12.04.10361	Gaston	3	NC-273 (PARK STREET)	FROM US29/74 TO SR-2594	4,5	4	1.250	48-78	6.700	7.950				19,157	19,820		3,272	224	650	2	2	37	1	1	6	2			1	2,400	500		
TOTAL FOR MAP NO. 3							1.250							19,157	19,820		3,272	224	650	2	2	37	1	1	6	2			1	2,400	500		
2027CPT.12.04.10361	Gaston	4	NC-274 (UNION RD)	FROM SR-1255 TO SOUTH RADIUS OFNIBLICK DR	3	5	0.445	48-60	8.175	8.620				16,597		1,479		96	175			2						14	4		425	50	
TOTAL FOR MAP NO. 4							0.445							16,597		1,479		96	175			2						14	4		425	50	
2027CPT.12.04.10361	Gaston	5	NC-273 R.L STOWE	FROM SR-2594 TO SR-2534	1,3,7	2	0.960	24-48	5.750	6.710	246		1.28	8,534		1,538	80	103	150									1	550	150			
TOTAL FOR MAP NO. 5							0.960				246		1.28	8,534		1,538	80	103	150									1	550	150			
TOTAL FOR PROJ NO. 2027CPT.12.04.10361							5.655				1,386	40	7.27	45,249	19,820	700	10,321	454	716	1,660	2	2	39	1	1	7	16	4		2	3,375	700	
2027CPT.12.04.20361	Gaston	6	SR-1665 / ROSS RD	FROM SR-1609 TO STATE MAINTENANCE ENDS SIGN	1	2	0.740	19	0.000	0.740	281	40	1.48		30	697	131	52	70														
TOTAL FOR MAP NO. 6							0.740				281	40	1.48		30	697	131	52	70														
2027CPT.12.04.20361	Gaston	7	SR-1931 / DAVENPORT RD	FROM NC-273 TO DEAD END	1	2	0.130	18	0.000	0.130	52	25	0.27		60	116	51	12	50														
TOTAL FOR MAP NO. 7							0.130				52	25	0.27		60	116	51	12	50														
2027CPT.12.04.20361	Gaston	8	SR-2213 / GROVES ST	FROM US29/74 TO NC-7	1,6,8,9	2	0.810	22-52	0.000	0.810	231		1.22	1,542	7,539	50	1,253	80	88	190			2	1	1	21	4			1	425	50	
TOTAL FOR MAP NO. 8							0.810				231		1.22	1,542	7,539	50	1,253	80	88	190			2	1	1	21	4			1	425	50	
2027CPT.12.04.20361	Gaston	9	SR-2435 / UNION NEW HOPE RD	FROM NC-274 TO NC-279	1,2,9	2	3.330	24-36	0.000	3.330	1,159	35	6.10	7,700		510	4,196	140	299	900											264	50	
TOTAL FOR MAP NO. 9							3.330				1,159	35	6.10	7,700		510	4,196	140	299	900												264	50
2027CPT.12.04.20361	Gaston	10	SR-1484 / MAINE AVE	FROM NC-274 TO NC-274	1,7	2	1.120	24-36	0.000	1.120	425	10	2.24	786		360	1,406	215	108	255						7	3			1	792	50	
TOTAL FOR MAP NO. 10							1.120				425	10	2.24	786		360	1,406	215	108	255							7	3			1	792	50
TOTAL FOR PROJ NO. 2027CPT.12.04.20361							6.130				2,148	110	11.31	10,028	7,539	1,010	7,668	617	559	1,465			2	1	1	28	7			2	1,481	150	
GRAND TOTAL							11.785				3,534	150	18.58	55,277	27,359	1,710	17,989	1,071	1,275	3,125	2	2	41	2	2	35	23	4	1	4	4,856	850	

PROJECT NO.		TOTAL NO.
2027CPT.12.04.10361,		
2027CPT.12.04.20361		

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LENGTH	WIDTH	BEGIN MP	END MP	4413000000-E WORK ZONE ADVANCE/GEN ERAL WARNING SIGNING	4447000000-E PEDESTRIAN CHANNELIZIN G DEVICES	4457000000-N TEMPORARY TRAFFIC CONTROL	4685000000-E 4" X 90 M WHITE THERMO		4695000000-E 8" X 90 M WHITE THERMO		4700000000-E 12" X 90 M YELLOW THERMO	4709000000-E 24" X 90 M YELLOW THERMO	4720000000-E THERMO MSG SCHOOL (90 MILS)	THERMO LT ARROW 90 M	THERMO RT ARROW 90 M	4725000000-E THERMO STR ARROW 90 M		THERMO STR & RT ARROW 90 M	THERMO STR & LT ARROW 90 M	4810000000-E 4" WHITE PAINT		4" YELLOW PAINT	4835000000-E 24" WHITE PAINT	4845000000-E PAINT STR & LT ARROW	4895000000-N H-SHAPED POLYCARBONAT E MARKERS
							MI	FT			SF	LF	LS	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
2027CPT.12.04.10361	Gaston	1	NC-273 (S. POINT RD)	SR-2525 TO CANAL BRIDGE	1	2	0.71	27	2.37	3.08	160		*	7,445	7,445																	49
TOTAL FOR MAP NO. 1							0.71				160		*	7,445	7,445																	49
2027CPT.12.04.10361	Gaston	2	NC-273 ARMSTRONG RD	PVMT JOINT 325' EAST OF NC-279 TO SR-2525	1,2	2	2.29	24-36	0.08	2.37	160		*	25,206	30,474			456	32		7	1								5	152	
TOTAL FOR MAP NO. 2							2.29				160		*	25,206	30,474			456	32		7	1								5	152	
2027CPT.12.04.10361	Gaston	3	NC-273 (PARK STREET)	FROM US29/74 TO SR-2594	4,5	4	1.25	48-78	6.7	7.95	160	70	*	3,705	12,597	330			1,008	6	5	3	6	10	9			250			261	
TOTAL FOR MAP NO. 3							1.25				160	70	*	3,705	12,597	330			1,008	6	5	3	6	10	9			250			261	
2027CPT.12.04.10361	Gaston	4	NC-274 (UNION RD)	FROM SR-1255 TO 330' NORTH OF NIBLICK DRIVE	3	5	0.445	48-60	8.175	8.62	160		*	1,665	5,619	200		35	48		16		2	2						10	129	
TOTAL FOR MAP NO. 4							0.445				160		*	1,665	5,619	200		35	48		16		2	2						10	129	
2027CPT.12.04.10361	Gaston	5	NC-273 R.L STOWE	FROM SR-2594 TO SR-2534	1,3,7	2	0.96	24-48	5.75	6.71	160		*		11,682	75	159		256		6	3			2	1		100		92		
TOTAL FOR MAP NO. 5							0.96				160		*		11,682	75	159		256		6	3			2	1		100		92		
TOTAL FOR PROJ NO. 2027CPT.12.04.10361											800	70	*	38,021	67,817	605	159	491	1,344	6	34	7	8	14	10		350	15	683			
														105,838		764							73									
2027CPT.12.04.20361	Gaston	6	SR-1665 / ROSS RD	FROM SR-1609 TO STATE MAINTENANCE ENDS SIGN	1	2	0.74	19	0	0.74	160		*														15,500	15,500	40			
TOTAL FOR MAP NO. 6							0.74				160		*														15,500	15,500	40			
2027CPT.12.04.20361	Gaston	7	SR-1931 / DAVENPORT RD	FROM NC-273 TO DEAD END	1	2	0.13	18	0	0.13	160		*																			
TOTAL FOR MAP NO. 7							0.13				160		*																			
2027CPT.12.04.20361	Gaston	8	SR-2213 / GROVES ST	FROM US29/74 TO NC-7	1,6,8,9	2	0.81	22-52	0	0.81	160		*	6,417	8,638				159		2	1		2								
TOTAL FOR MAP NO. 8							0.81				160		*	6,417	8,638				159		2	1		2								
2027CPT.12.04.20361	Gaston	9	SR-2435 / UNION NEW HOPE RD	FROM NC-274 TO NC-279	1,2,9	2	3.33	24-36	0	3.33	160		*	33,476	37,103			90	32		4	2		2						240		
TOTAL FOR MAP NO. 9							3.33				160		*	33,476	37,103			90	32		4	2		2							240	
2027CPT.12.04.20361	Gaston	10	SR-1484 / MAINE AVE	FROM NC-274 TO NC-274	1,7	2	1.12	24-36	0	1.12	160		*	12,091	12,322						1	1		2						72		
TOTAL FOR MAP NO. 10							1.12				160		*	12,091	12,322						1	1		2							72	
TOTAL FOR PROJ NO. 2027CPT.12.04.20361							6.13				800		*	51,984	58,063			90	191		7	4		2	4		15,500	15,500	40		312	
														110,047									17			31,000						
GRAND TOTAL							11.785				1600	70	1	90,005	125,880	605	159	581	1,535	6	41	11	10	18	10	15,500	15,500	390	15	995		
														215,885		764						90			31,000							

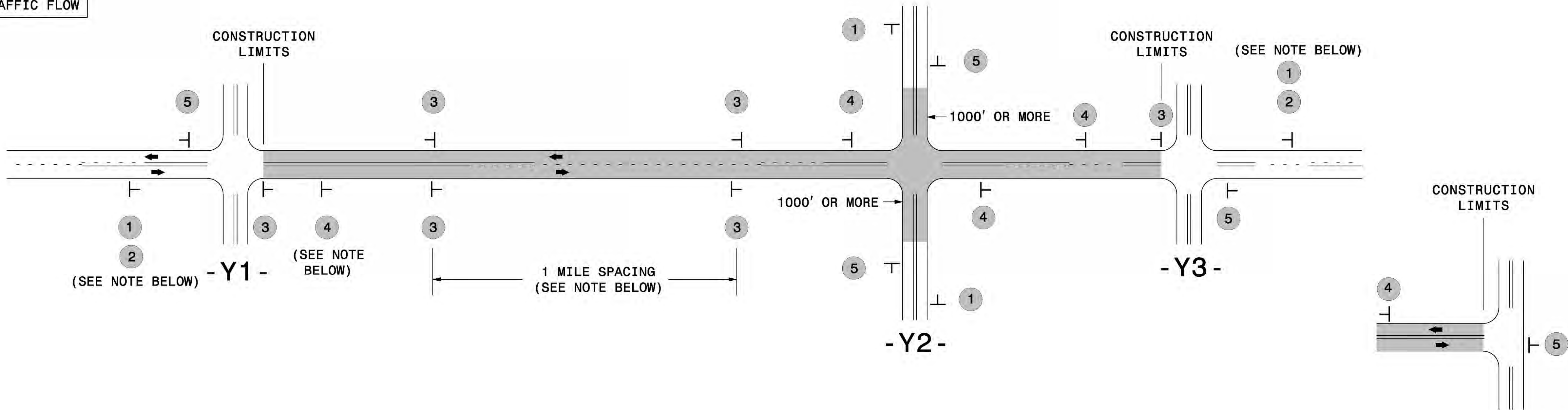
SUMMARY OF CURB RAMP QUANTITIES								Proj. #	DL00394
								Sheet #	One
WBS No.	Division	County	Major Route	Minor Route	Retrofit Existing Curb Ramp (EA)	Concrete Curb Ramp (EA)	Remove and Replace Concrete Curb Ramp (EA)	Quadrant (NE,SE,NW, SW)	Alternate Replacement Type
2027CPT.12.04.10361	12	Gaston	Map 4- NC 274 Union Road	Skating Rink Drive			2	E	Type 1
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Walgreens Driveway			2	E	Type 1D
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Brewer Street			1	NE	Type 1
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Brewer Street			1	SE	Type 1 Modified
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Spruce Street			1	NE	Type 1D
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Spruce Street			1	SE	Type 1D
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Spruce Street			1	NW	Type 1D
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Spruce Street			1	SW	Type 1D
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Sterling Street			1	NE	Type 1 Modified
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Sterling Street			1	SE	Type 1 Modified
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Planetree Drive			1	NE	Type 1 Modified
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Caromont/ENT Drive			2	W	Retrofit
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	E Woodrow Avenue			1	NW	Type 1D
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	E Woodrow Avenue			1	SW	Type 1D
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	South State Bank Driveways			4	E	Type 1 Modified
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Church Street			1	SE	Type 2B
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Church Street			1	NE	Type 1D
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Ervin Street			1	NW	Type 1D
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Ervin Street			1	SW	Type 1 Modified
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Brook Street			1	NE	Type 1
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Brook Street			1	SE	Type 1
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Parkdale Drive			1	NE	Type 1
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Parkdale Drive			1	SE	Type 1
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Ewing Drive			1	NE	Type 2B
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Ewing Drive			1	W	Type 3
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Ewing Drive			1	SE	Type 1
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	John Limerick Fire Station			2	E	Type 1
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Fort William Ave			1	SW	Type 3 Modified
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Fort William Ave			1	NW	Type 3 Modified
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Belmont Savings Bank Driveway	2			E	Retrofit
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	McLean Ave			1	NE	Type 1 Modified
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Catawba Street (NC-7)			1	NW	Type 1 Modified
2027CPT.12.04.10361	12	Gaston	Map 3 - NC 273 Park Street/Keener Blvd	Catawba Street (NC-7)			1	SW	Type 2B
2027CPT.12.03.20361	12	Gaston	Map 8 - SR-2213 Groves Street	Mill Street			2	NE & SW	Type 2
					2	0	41		

SIGNING FOR RESURFACING PROJECTS

LEGEND

STATIONARY SIGN

DIRECTION OF TRAFFIC FLOW



TEE INTERSECTION

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1 2 ROAD WORK AHEAD W20-1 48" X 48" 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 CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)	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, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.
	3 LOW/SOFT SHOULDER SP 13107 48" X 48" - 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 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. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.	
	5 END ROAD WORK G20-2 A 48" X 24" 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.	
LESS 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.	

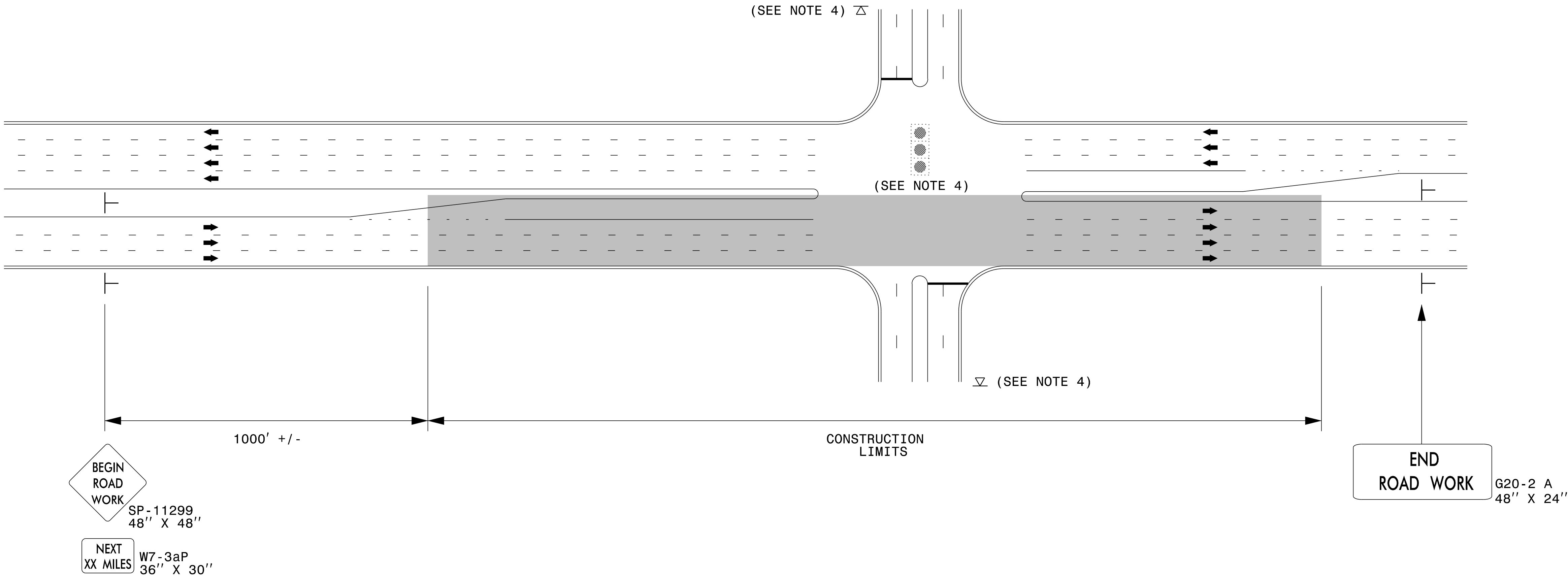
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

AD



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

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

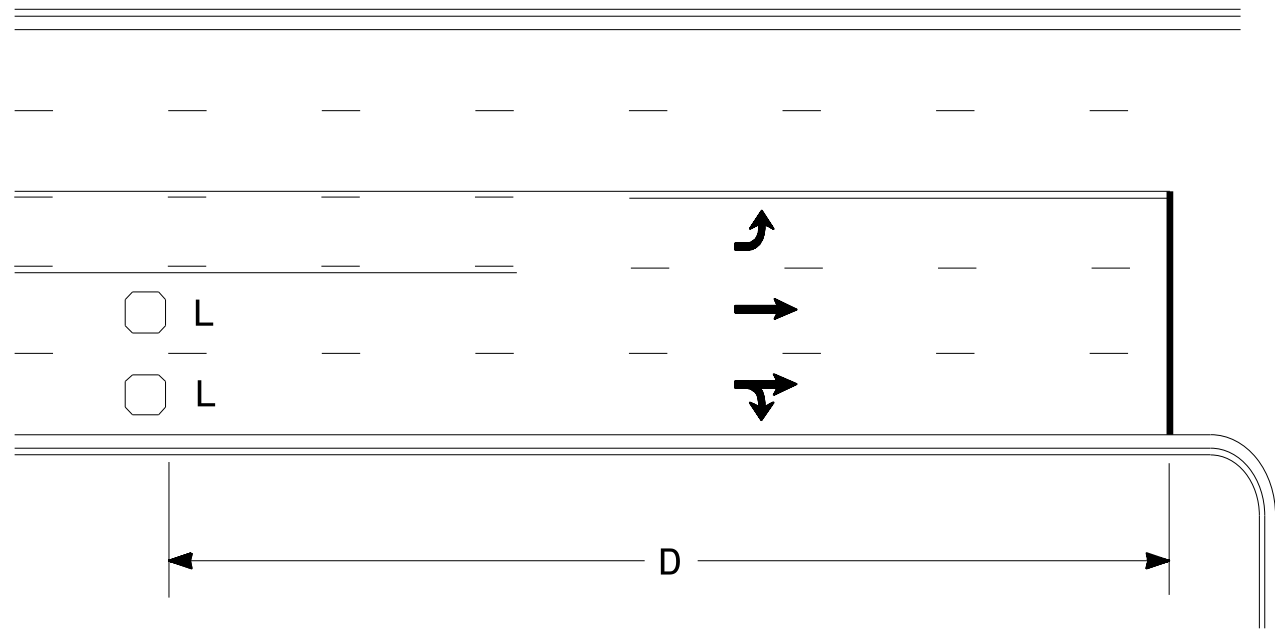
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

High Speed Detection
(≥35 mph)

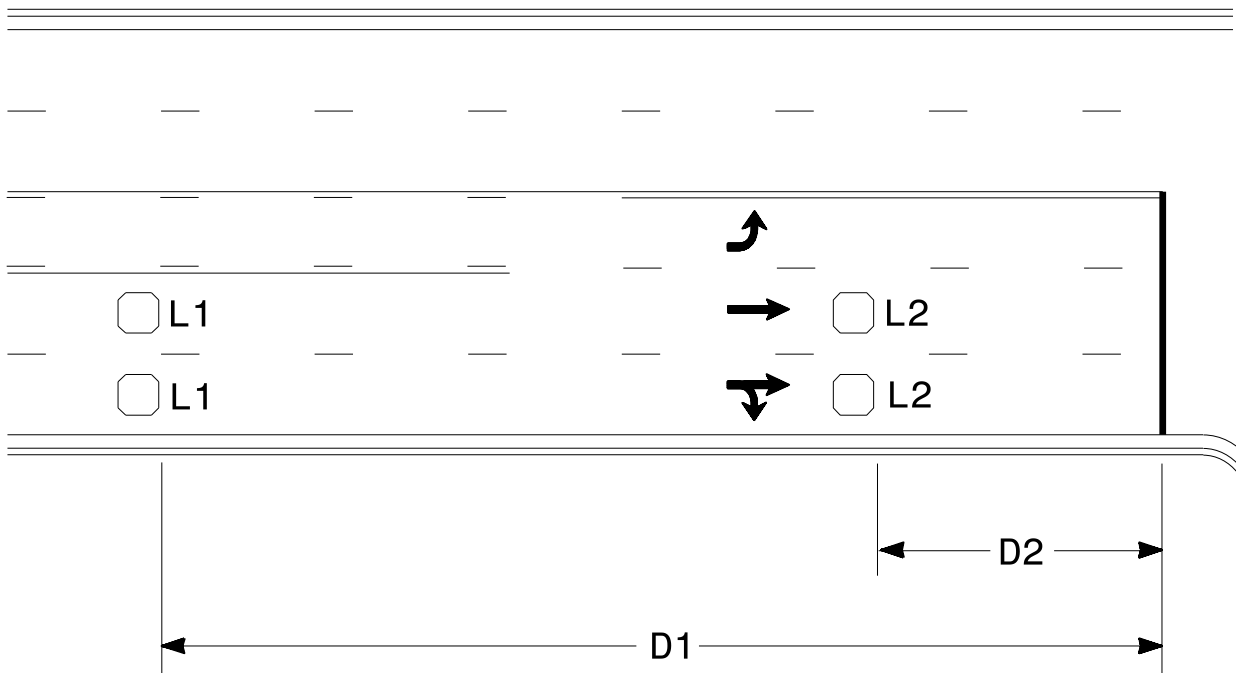


Speed Limit mph	D ft
35	200
40	250
45	300
50	355
55	420
60	475
65	550

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



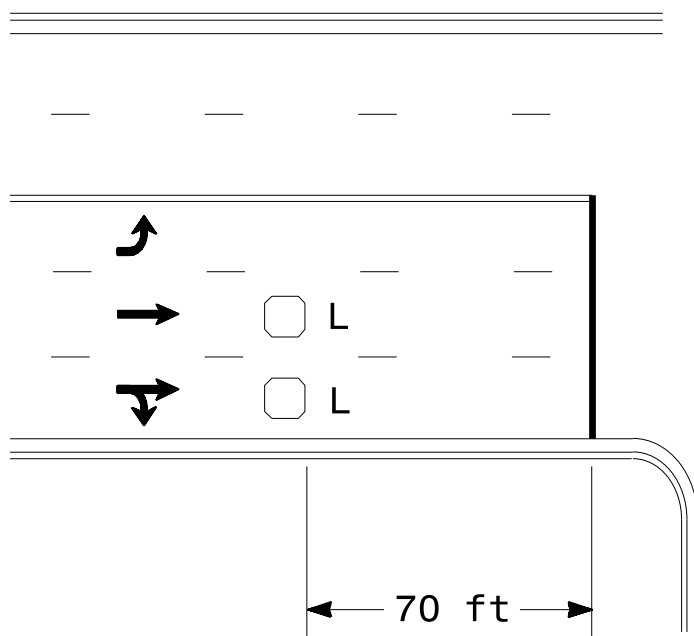
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110
60	475	120
65	550	130

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

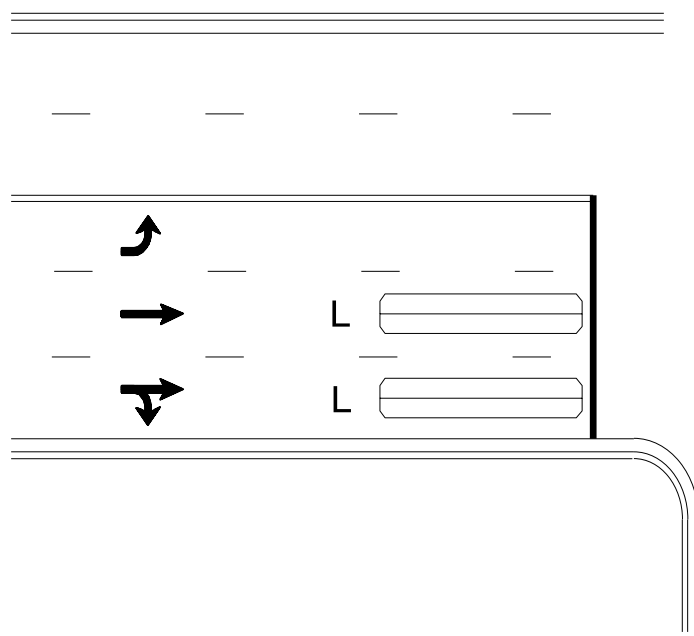
"Stretch" Operation

Low Speed Detection
(≤35 mph)



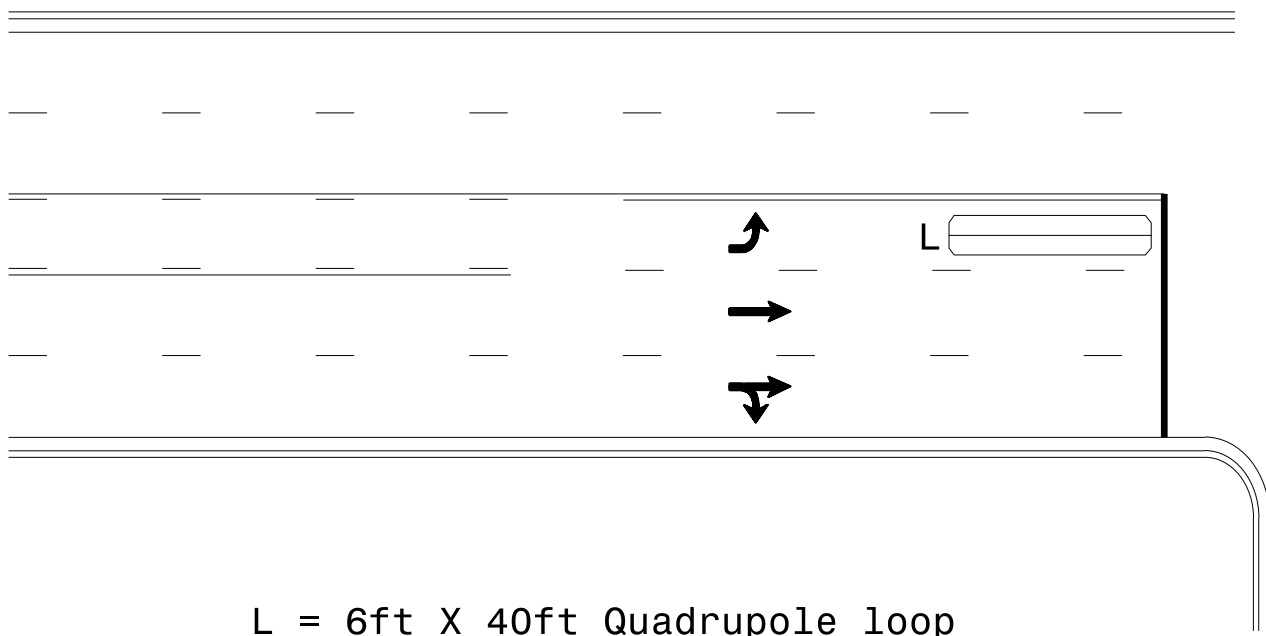
L = 6ft X 6ft
Wired in series

OR



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

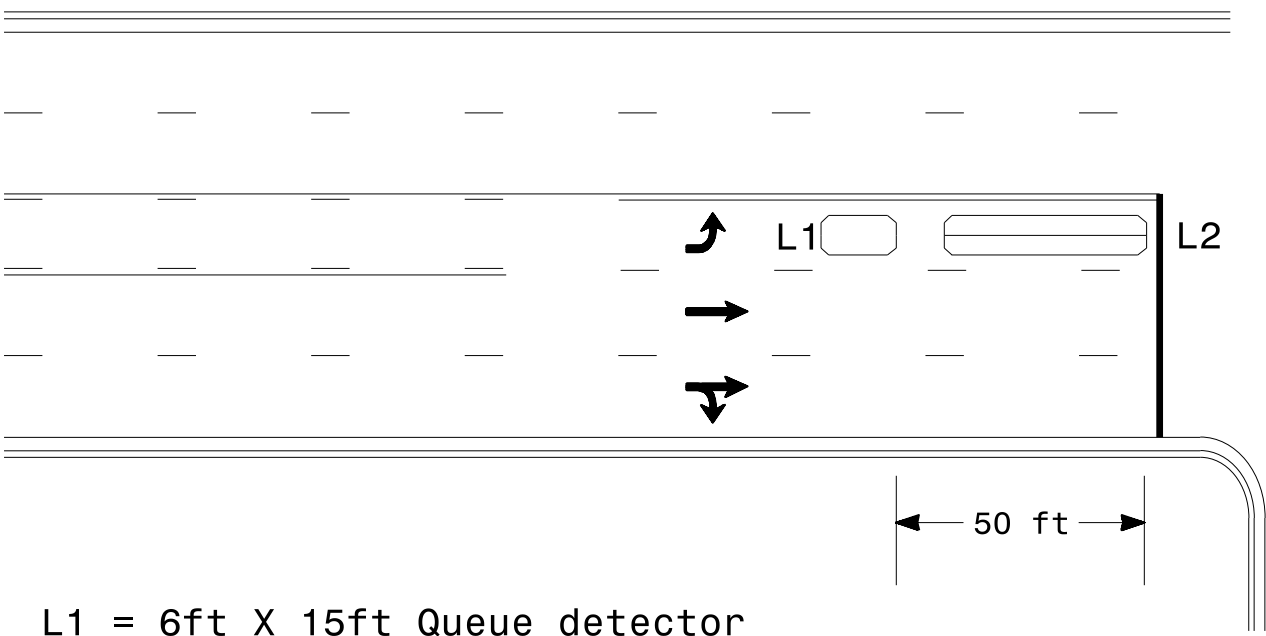
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

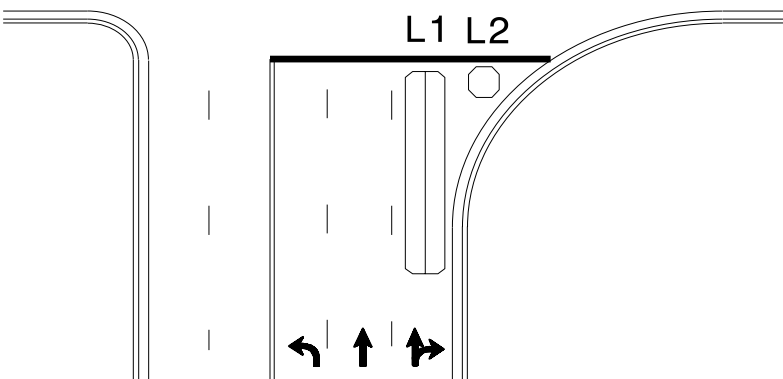
OR



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

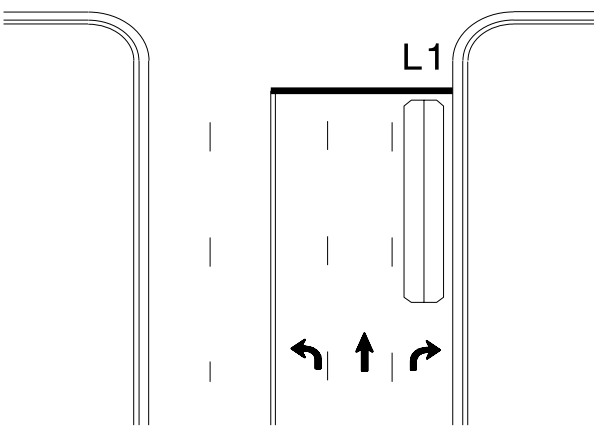
Queue Loop Detection

Right Turn Lane Detection

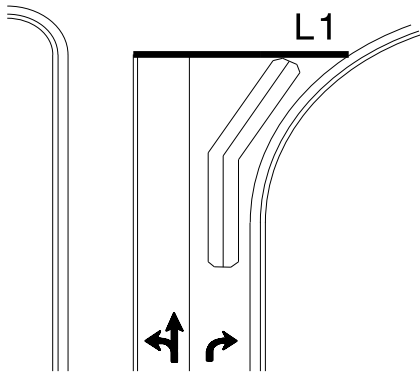


Shared Lane/
Wide Radius Turn

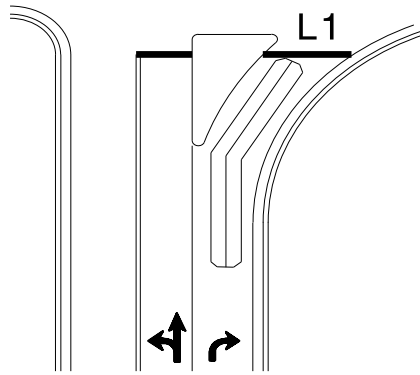
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

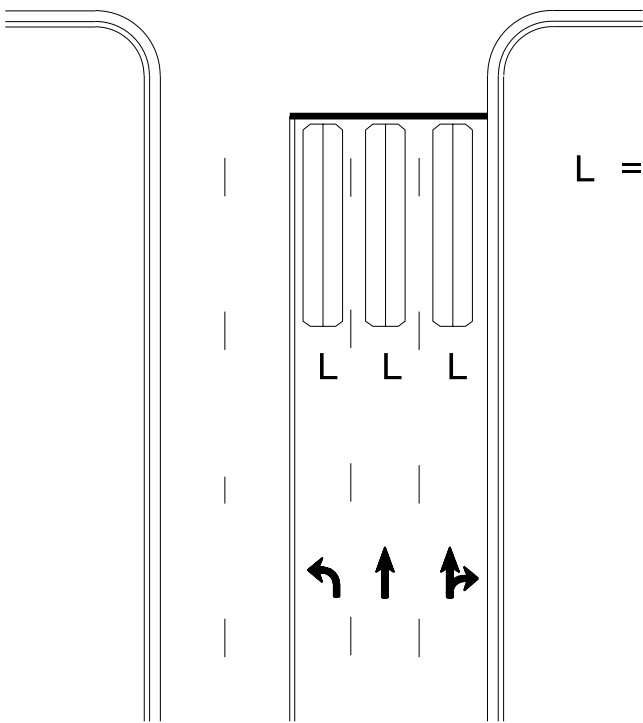


Wide Radius Turn



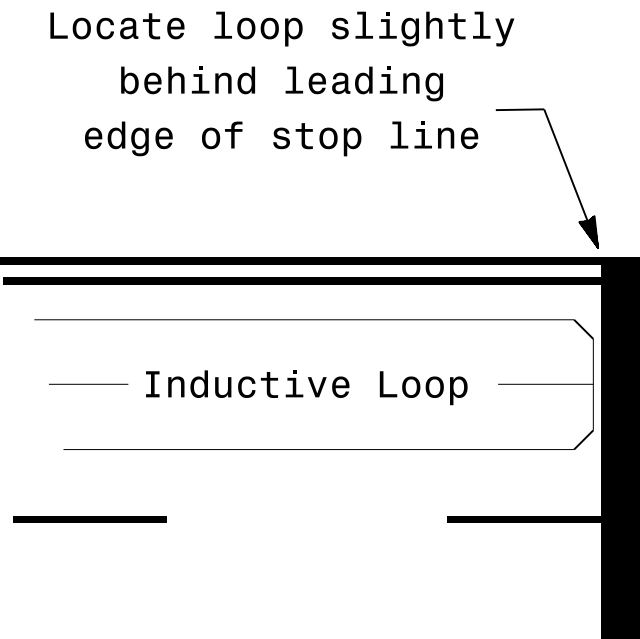
Channelized Turn

Side Street Detection



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

Presence Loop Placement at Stop Lines



Locate loop slightly
behind leading
edge of stop line

Inductive Loop

- 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

DEPARTMENT OF TRANSPORTATION

SIGNAL DESIGN SECTION

750 N. Greenfield Pkwy, Garner, NC 27529

PLAN DATE: September 2025

REVIEWED BY:

PREPARED BY: J.A. Lohr

REVIEWED BY:

REVISIONS

INIT.

DATE

SCALE

N/A

Typical Signal Loop Locations

11/25/2025

DATE

SEAL

NORTH CAROLINA

PROFESSIONAL ENGINEER

ROBERT J. ZIEMBA

18084860274A484

SIG. INVENTORY NO.