
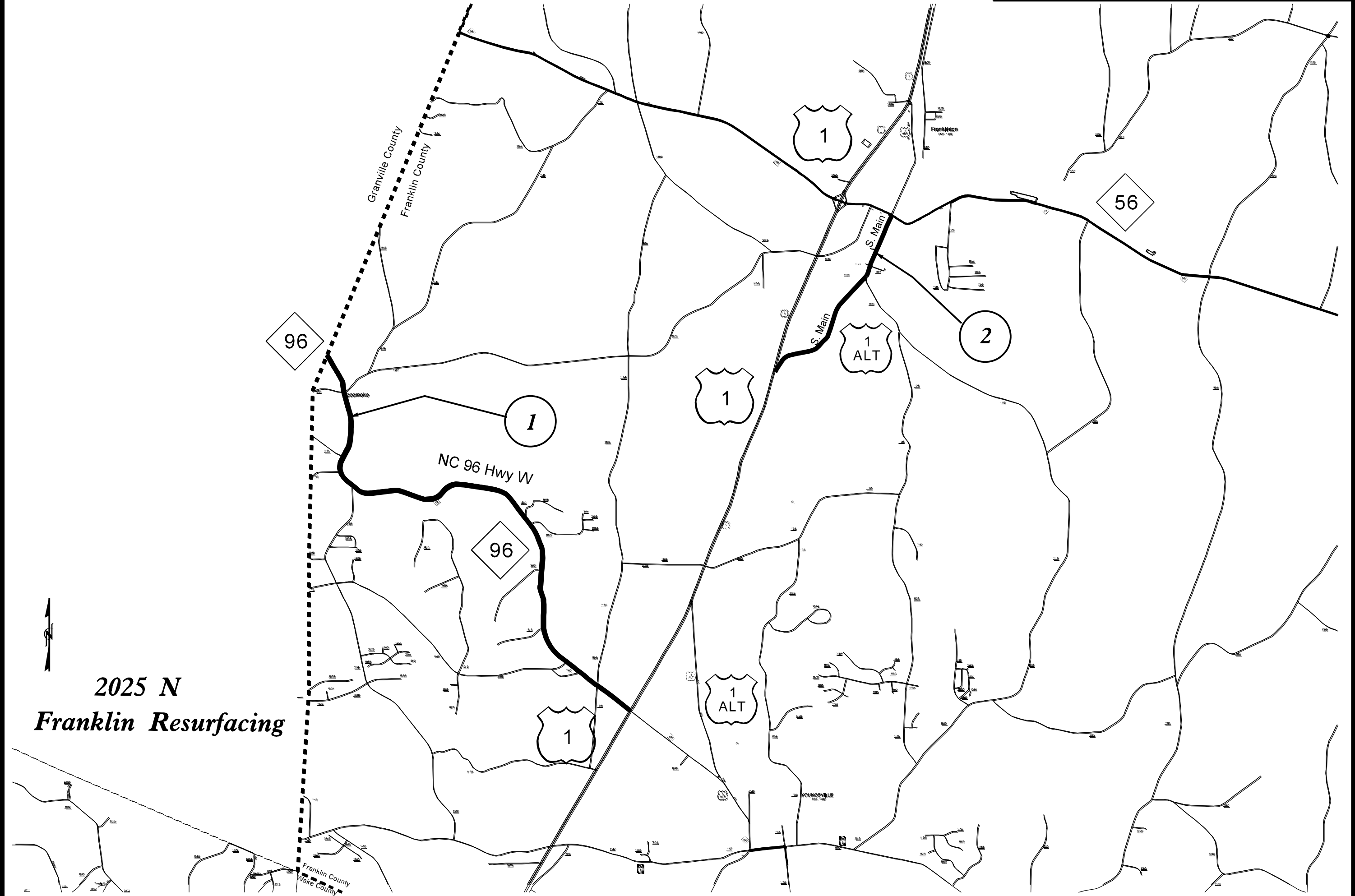
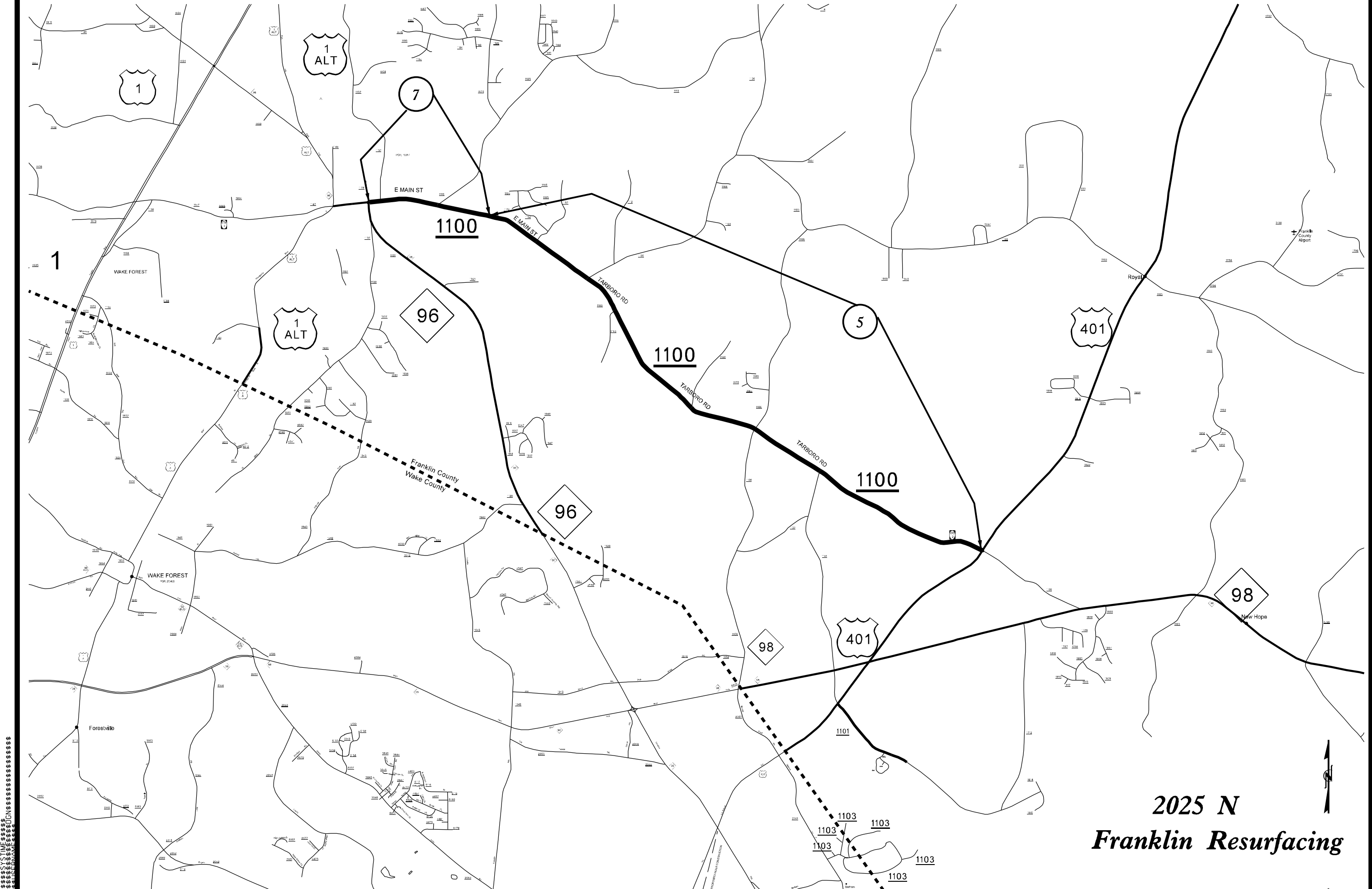


5/14/25


2025 N
Franklin Resurfacing



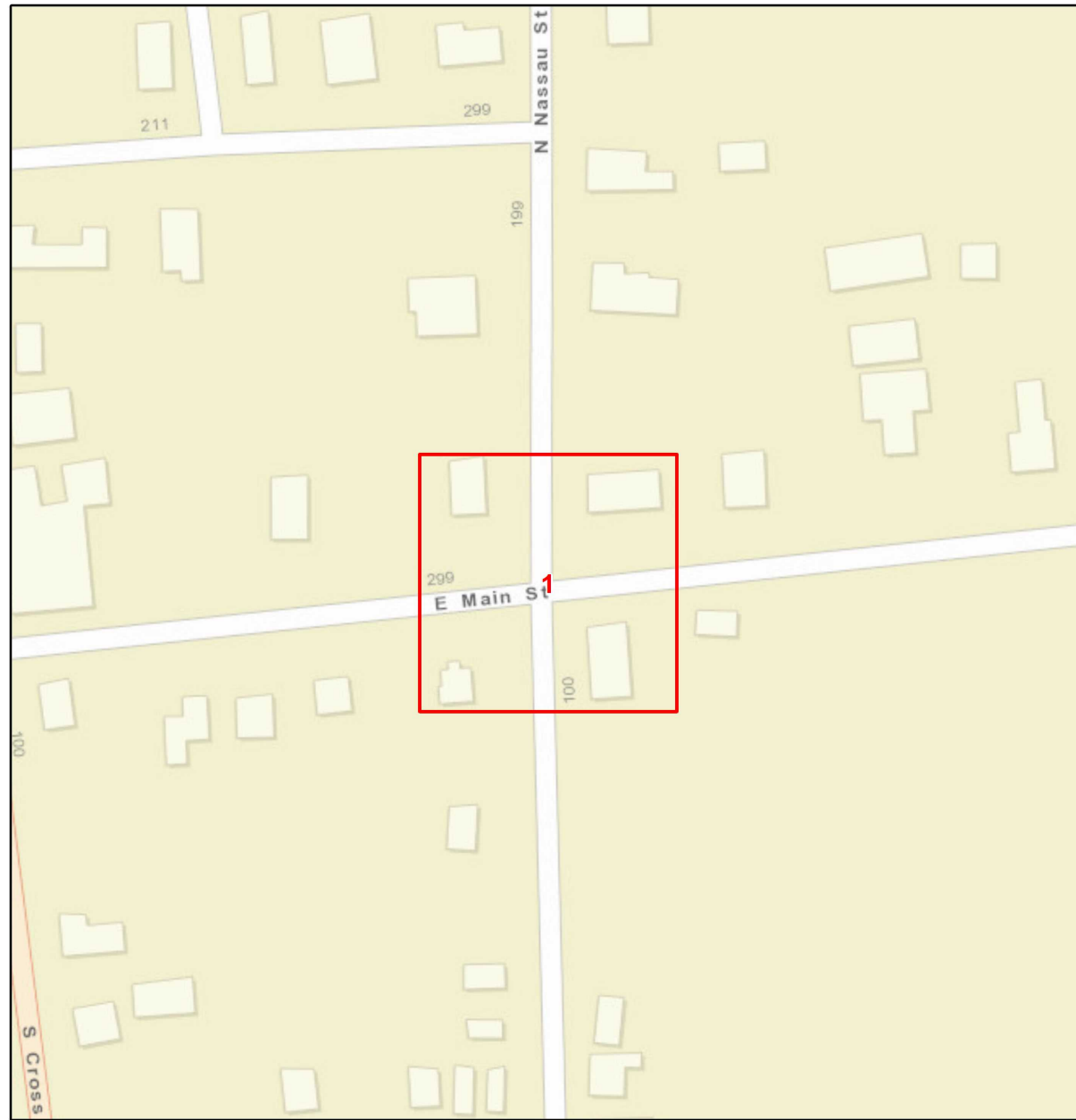
SYSTEMS
 DESIGN
 CONSULTANTS
 LLC



**2025 N
Franklin Resurfacing**

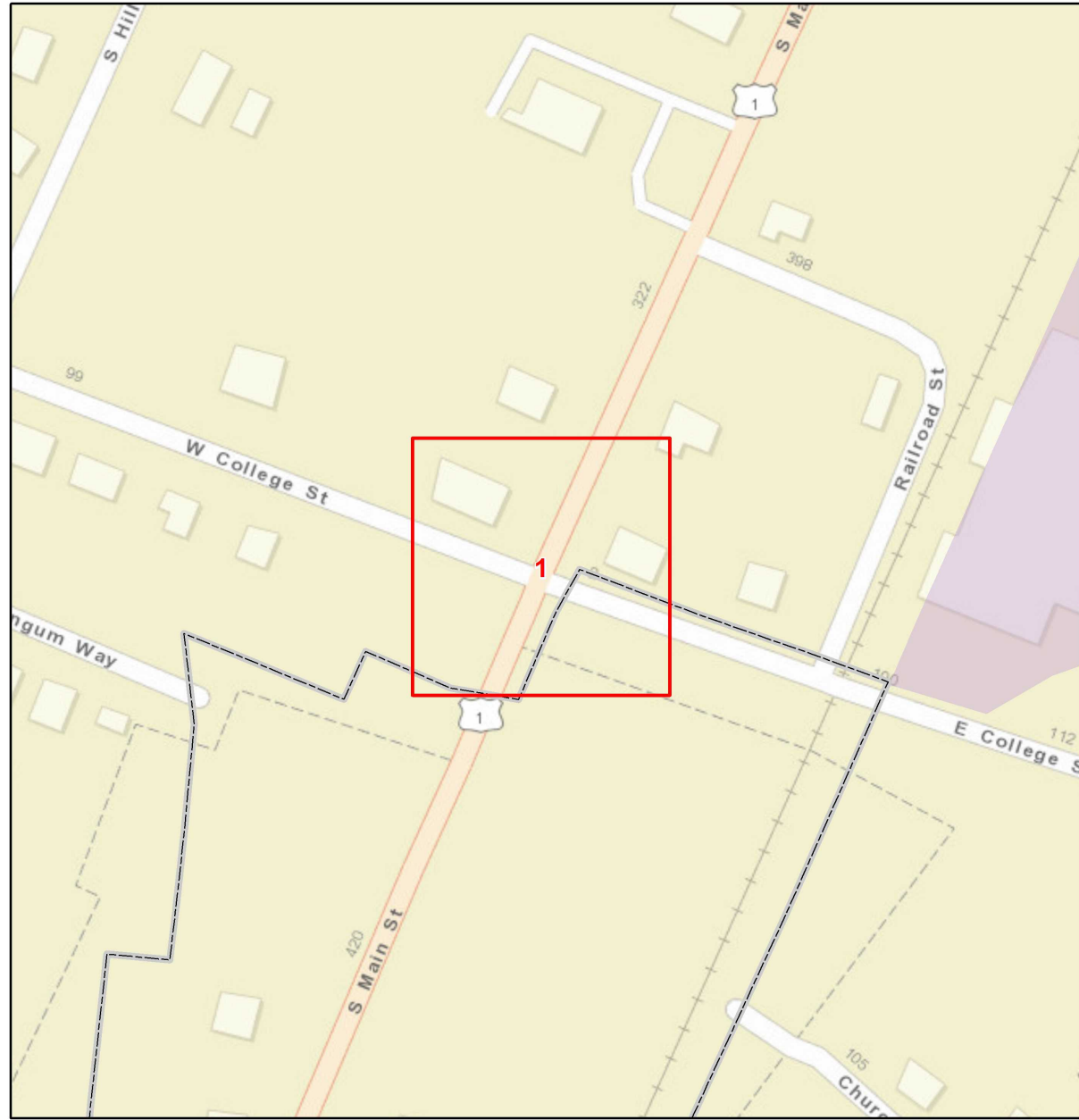


5/14/25
C:\PROJECTS\2024\2024CPT.05.04.10351.1\DRAWINGS\2025 N Franklin Resurfacing.dwg





1608: Tie curb and gutter of ramp into the new curb and gutter that is to be built along E. Main St as part of the resurfacing work.


Curb Ramps To Be Repaired		
	Retrofit	
	Remove and Replace	
	New Curb Ramp	
	Remove Ramp	
	Municipal Boundary	
	NCHPO Historic Boundary (NR and LHD)	
2025 N Frank		
WBS: 2024CPT.05.04.20351.1		
E Main St From Begin Curb and Gutter To Pvmt Jt. east of S Cross St		
	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 5	
<small>Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO</small>		



Curb Ramps To Be Repaired


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

 Municipal Boundary
 NCHPO Historic Boundary (NR and LHD)



2025 N Frank
WBS: 2024CPT.05.04.10351.1

US 1 Alt From US 1
To Pavement Joint South of NC 56


 NORTH CAROLINA DEPARTMENT
 OF TRANSPORTATION
 DIVISION 5

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

PAVEMENT SCHEDULE

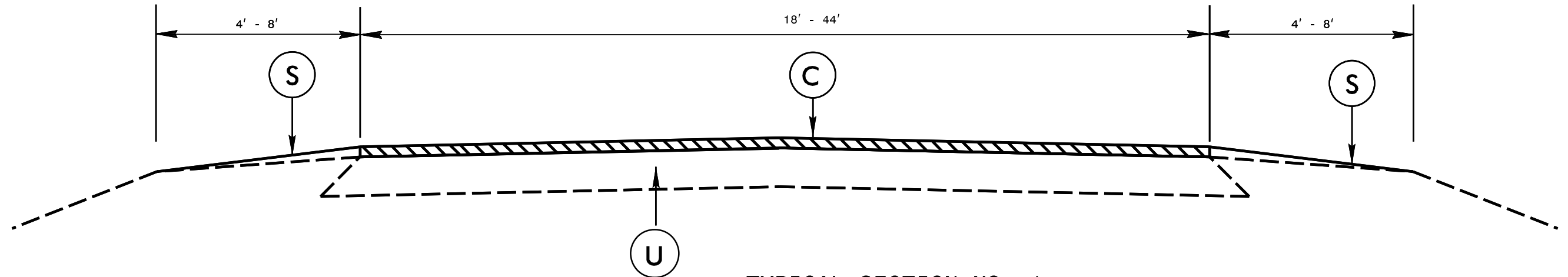
		U	EXISTING PAVEMENT
C	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	1½" MILLING
S	SHOULDER RECONSTRUCTION	V2	0" - 1 ½" MILLING

PROJECT REFERENCE NO.

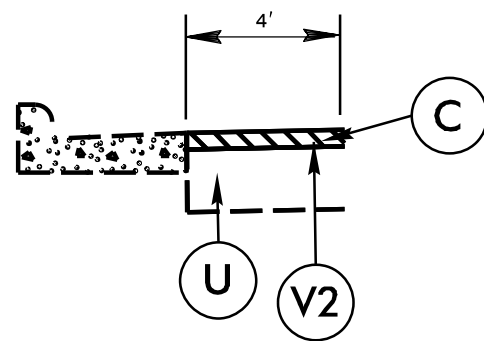
SHEET NO.

2024CPT.05.04.10351.1, ETC.

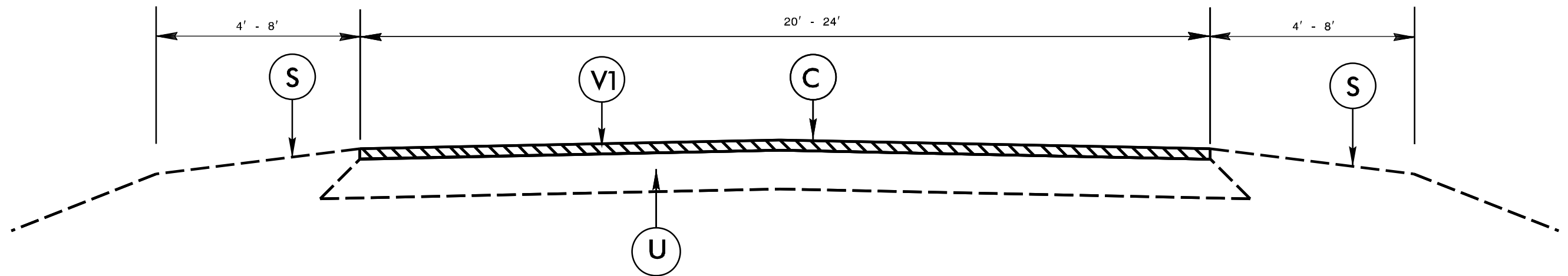
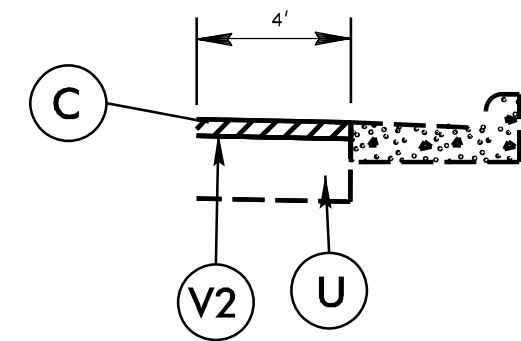
7



TYPICAL SECTION NO. 1



* 0" - 1 ½" MILLING (Only on map # 1)

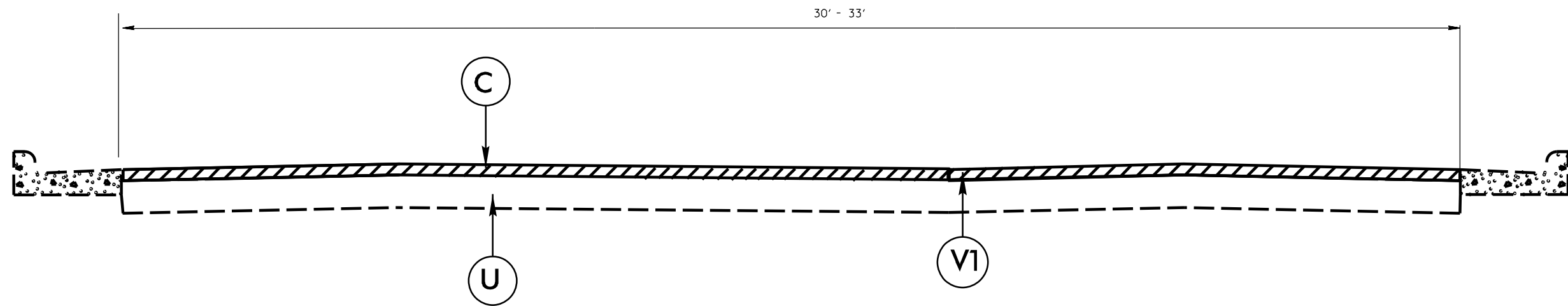


TYPICAL SECTION NO. 2

PAVEMENT SCHEDULE

		U	EXISTING PAVEMENT
C	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	1½" MILLING
S	SHOULDER RECONSTRUCTION	V2	0" - 1 ½" MILLING

<i>PROJECT REFERENCE NO.</i>	<i>SHEET NO.</i>
2024CPT.05.04.10351.1, ETC.	8



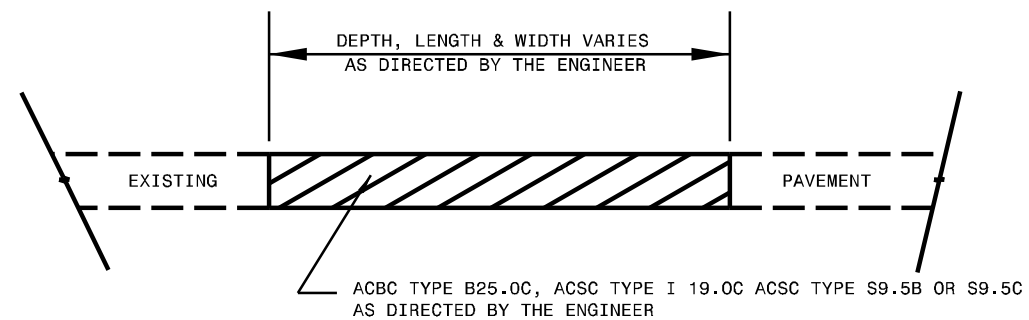
TYPICAL SECTION NO. 3

*on map # 7 Remove and Replace 50' Curb and Gutter at STA 5+80 to 6+00 and at STA 7+00 to 7+30

*on map # 7 Remove and Replace 362' (Rock) Curb and Gutter at STA 7+08 to 10+70

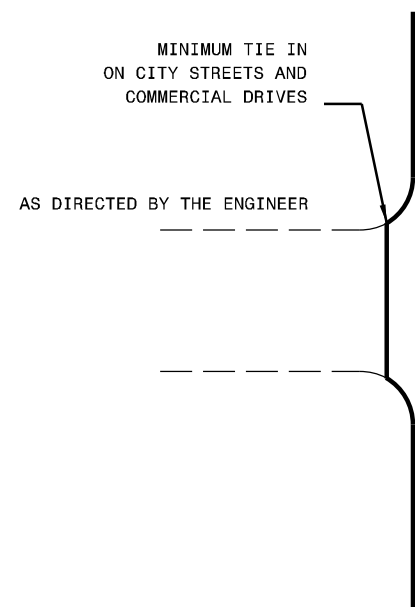
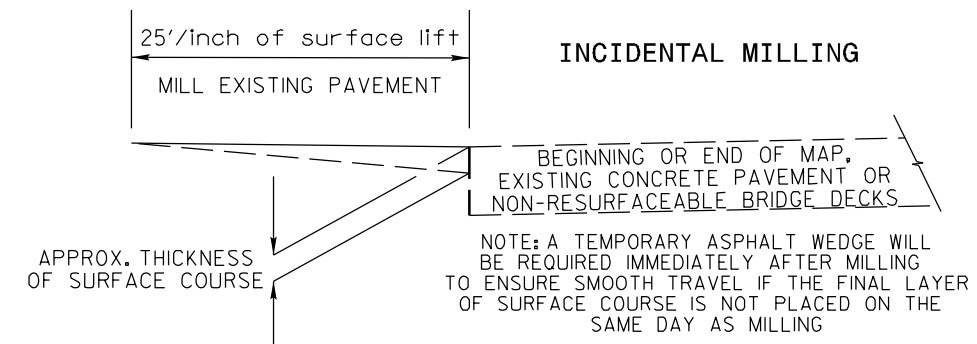
NOTES

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

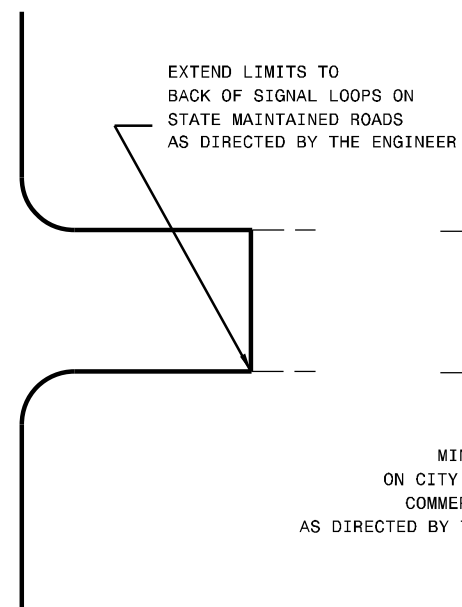


PATCHING EXISTING PAVEMENT

MILLING TO BE PERFORMED PRIOR TO PATCHING

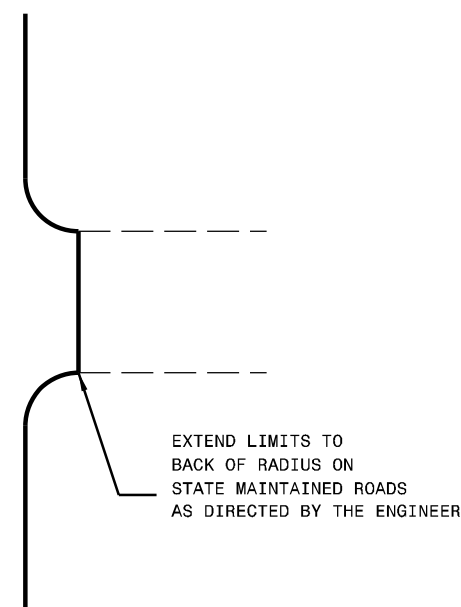


DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES

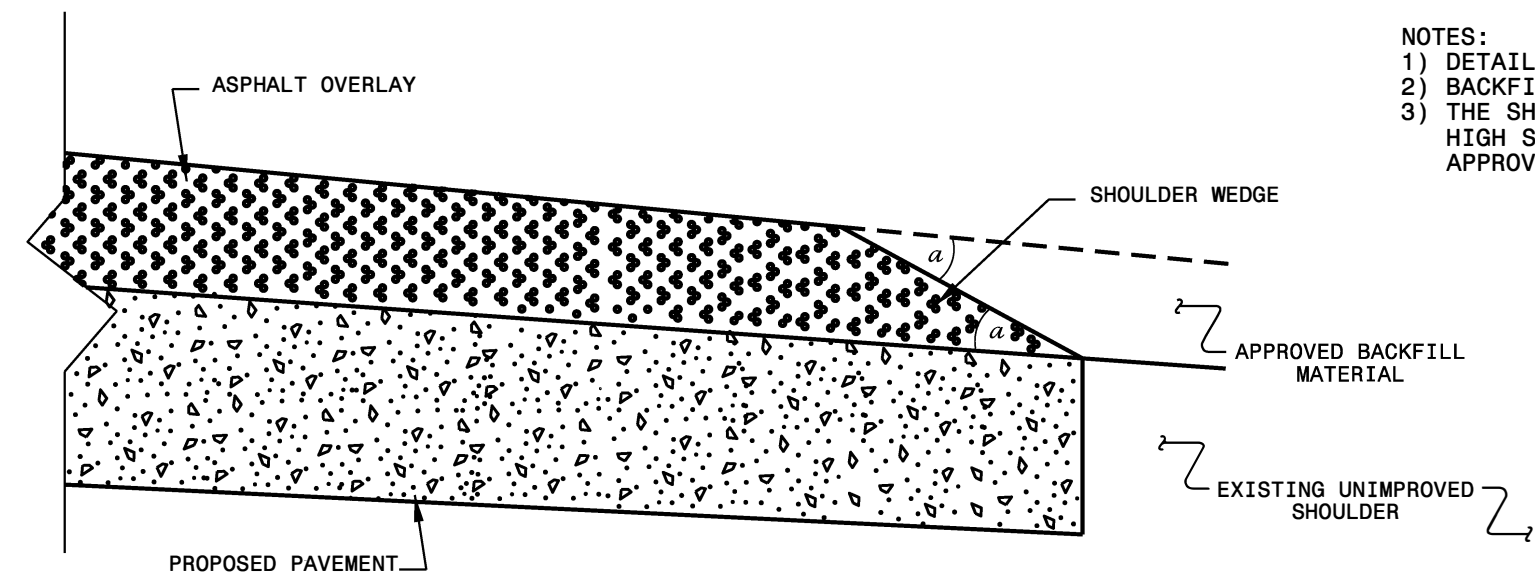


MINIMUM TIE IN ON CITY STREETS AND COMMERCIAL DRIVES AS DIRECTED BY THE ENGINEER

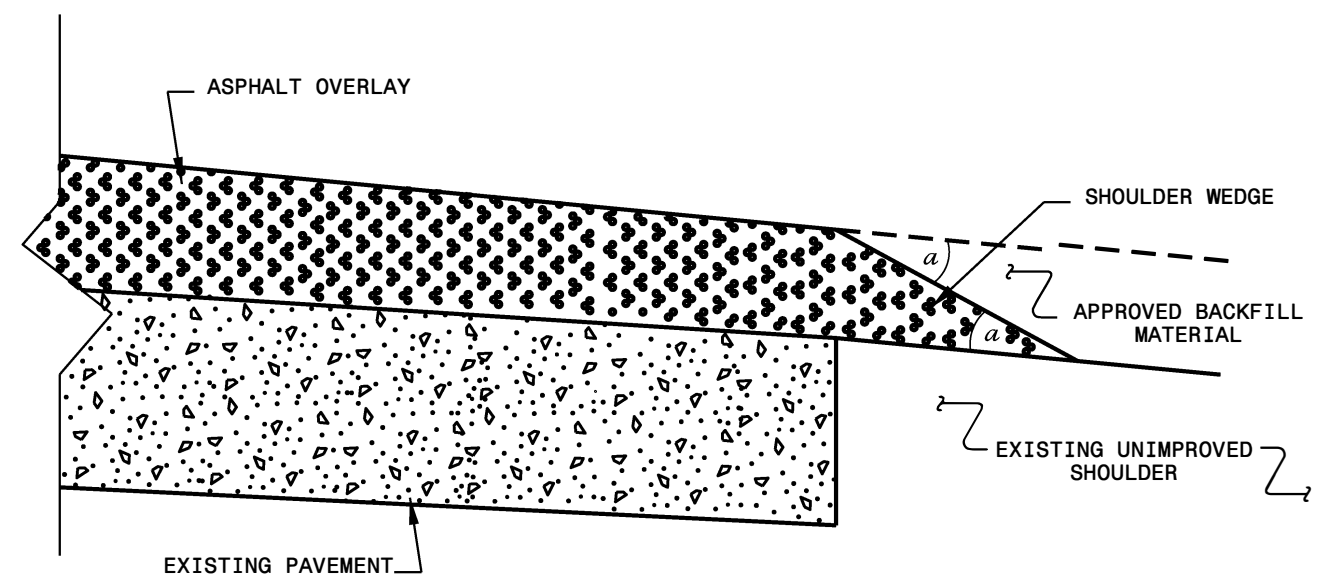
DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES



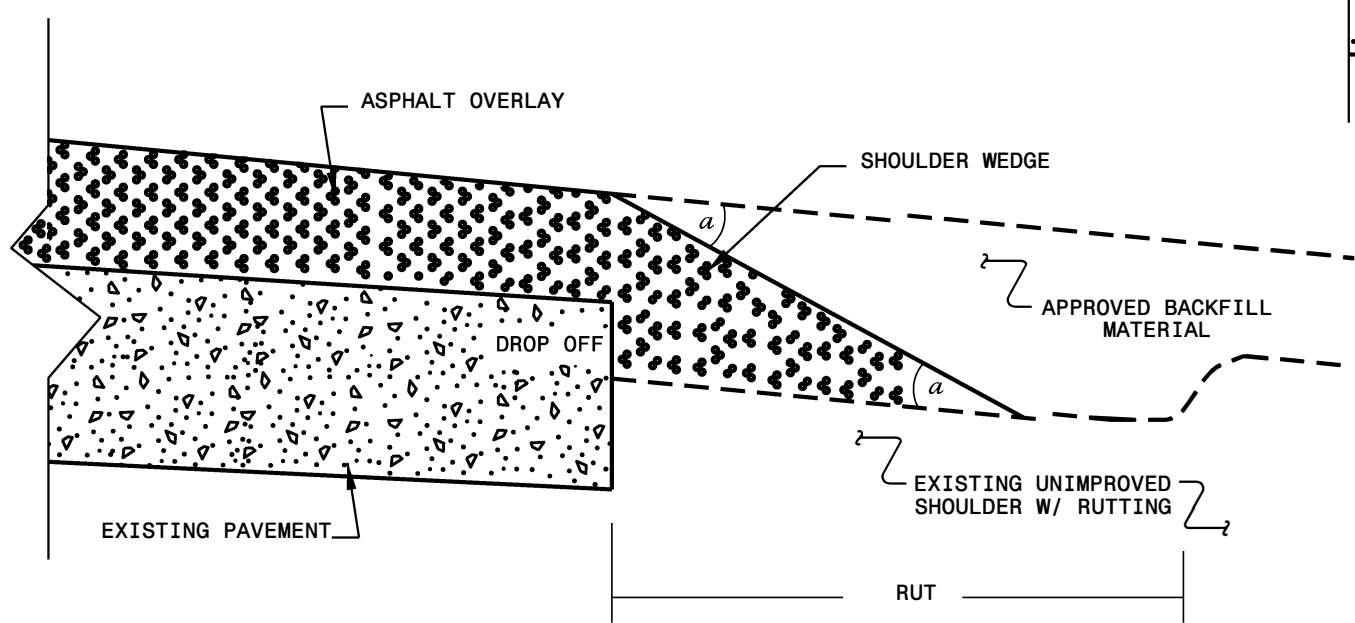
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



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



SHOULDER WEDGE DETAIL
 (Resurfacing Projects w/ NO Widening)

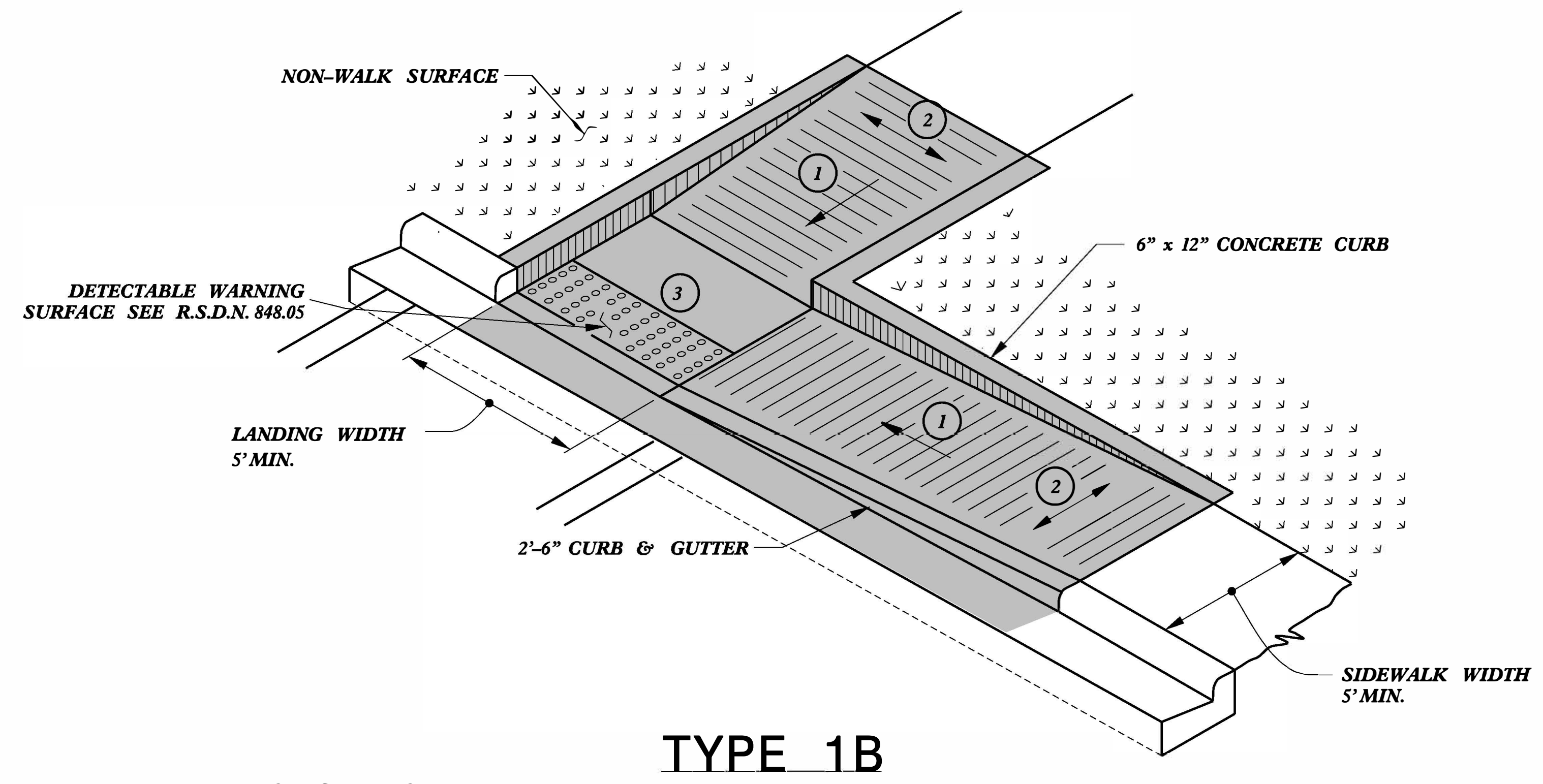


SHOULDER WEDGE DETAIL
 (Resurfacing Adjacent to
 Rutted Shoulder)

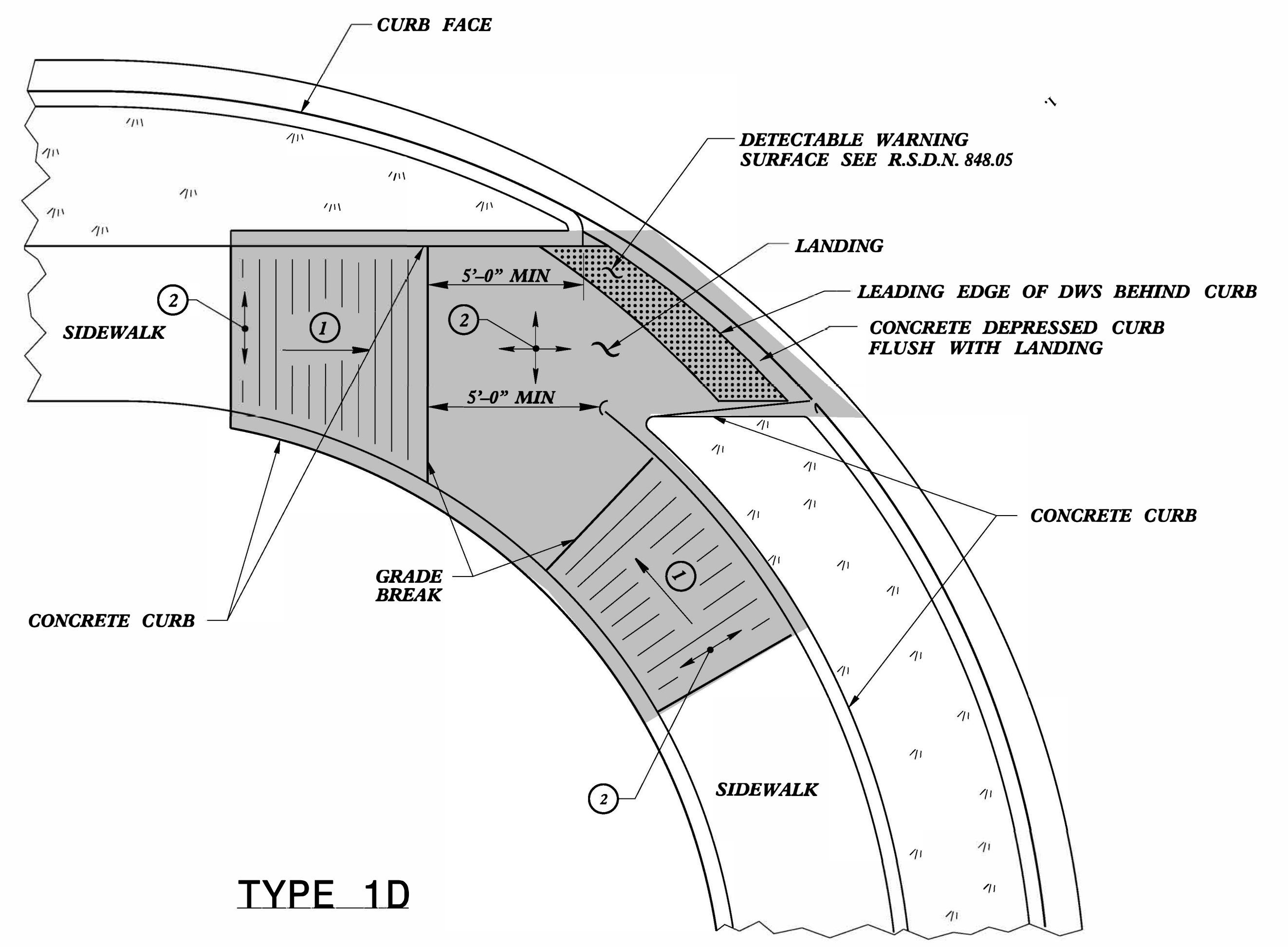
- SHOULDER WEDGE ANGLE = 30°

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

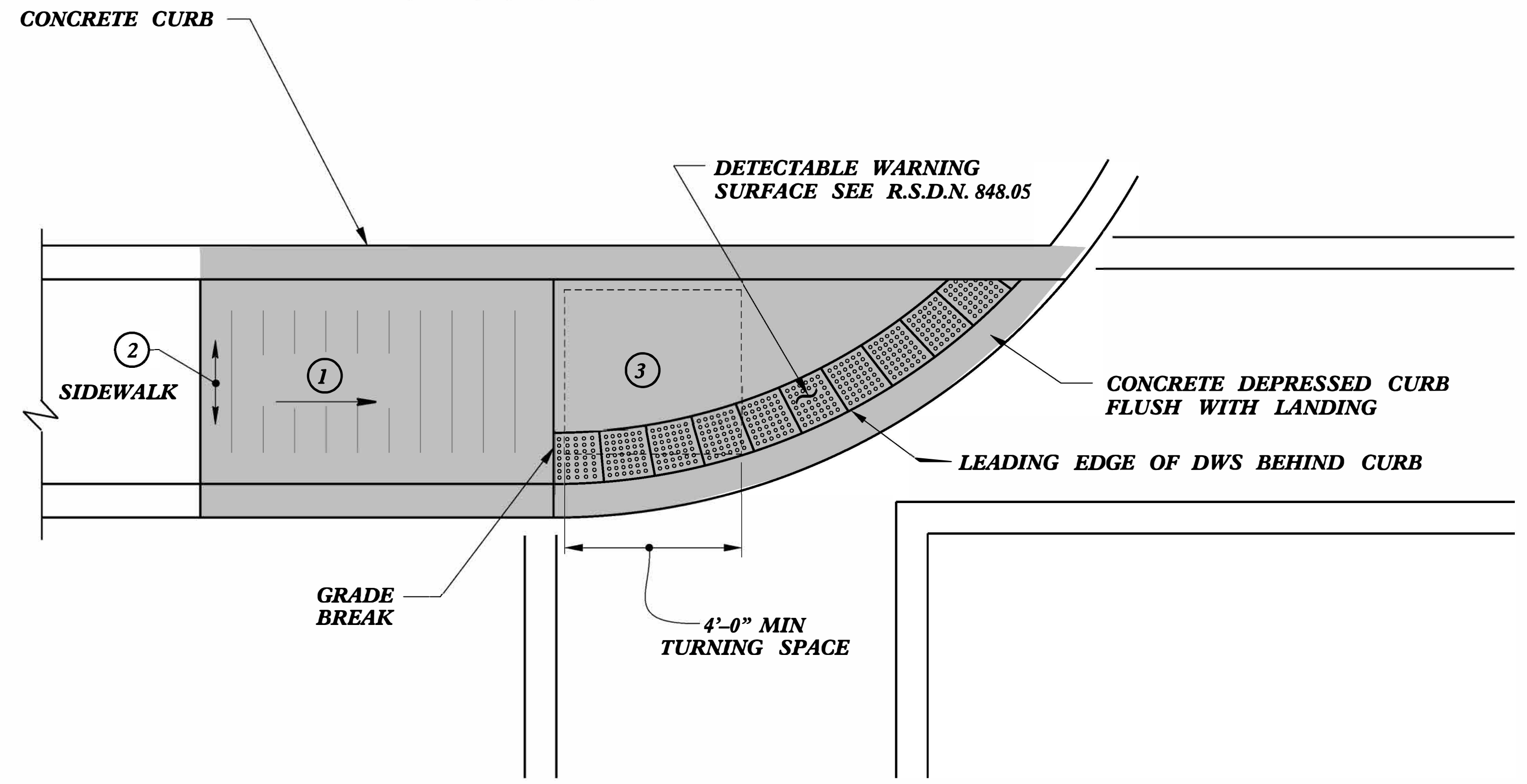
22-JAN-2016 09:41
 S:\usr\details\stand\Shoulderwedge\detail.dgn
 p:\porter-
 41-5937 Wilson March 2018\Revised Shoulder Wedge Detail.dgn



TYPE 1B



TYPE 1D



TYPE 1C

- ① 8.33% (12:1) MAX RAMP SLOPE
- ② CROSS SLOPE: 2.00%
- ③ CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

PAY LIMITS FOR 1 CURB RAMP

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES




DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

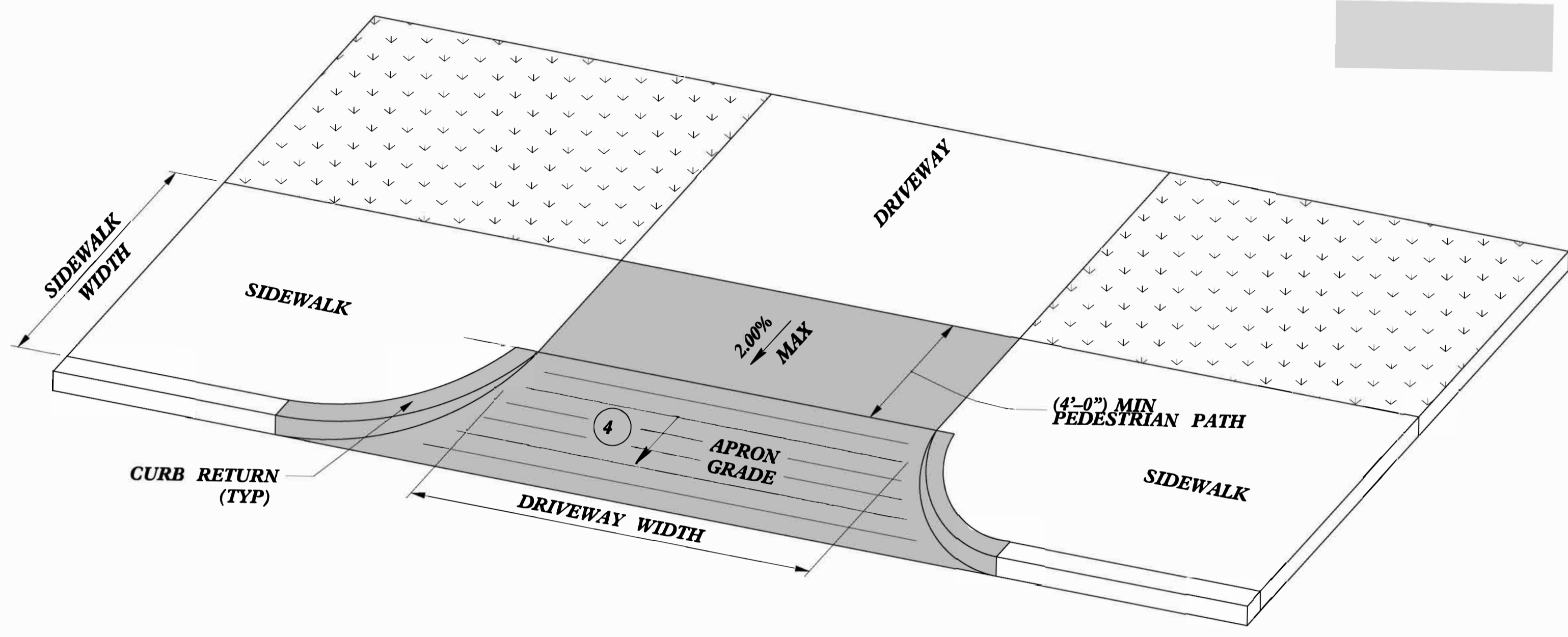
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950 FAX 919-250-4119	
CURB RAMPS	
Directional Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dwg	

5/14/99

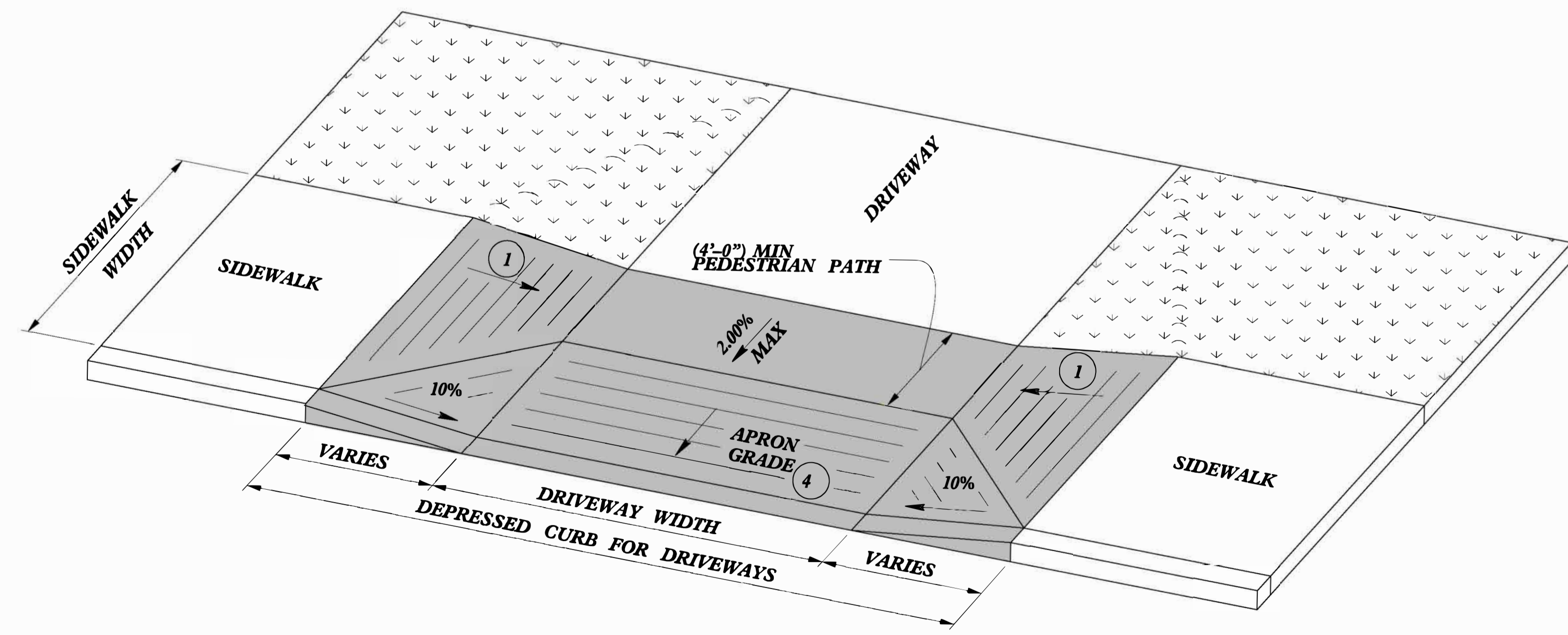
5/14/99

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 4 8.00% MAX CHANGE IN GRADE BETWEEN ROAD SURFACE AND DRIVEWAY

 PAY LIMITS FOR 1 CURB RAMP



**DRIVEWAY APRON
OPTION 1**



**DRIVEWAY APRON
OPTION 2**

-SEE ROADWAY DETAIL DRAWING 848.05 FOR DETECTABLE WARNING SURFACE AND FOR RAMP NOTES.
-SEE ROADWAY STANDARD DRAWING 848.02 FOR CONCRETE DRIVEWAYS.

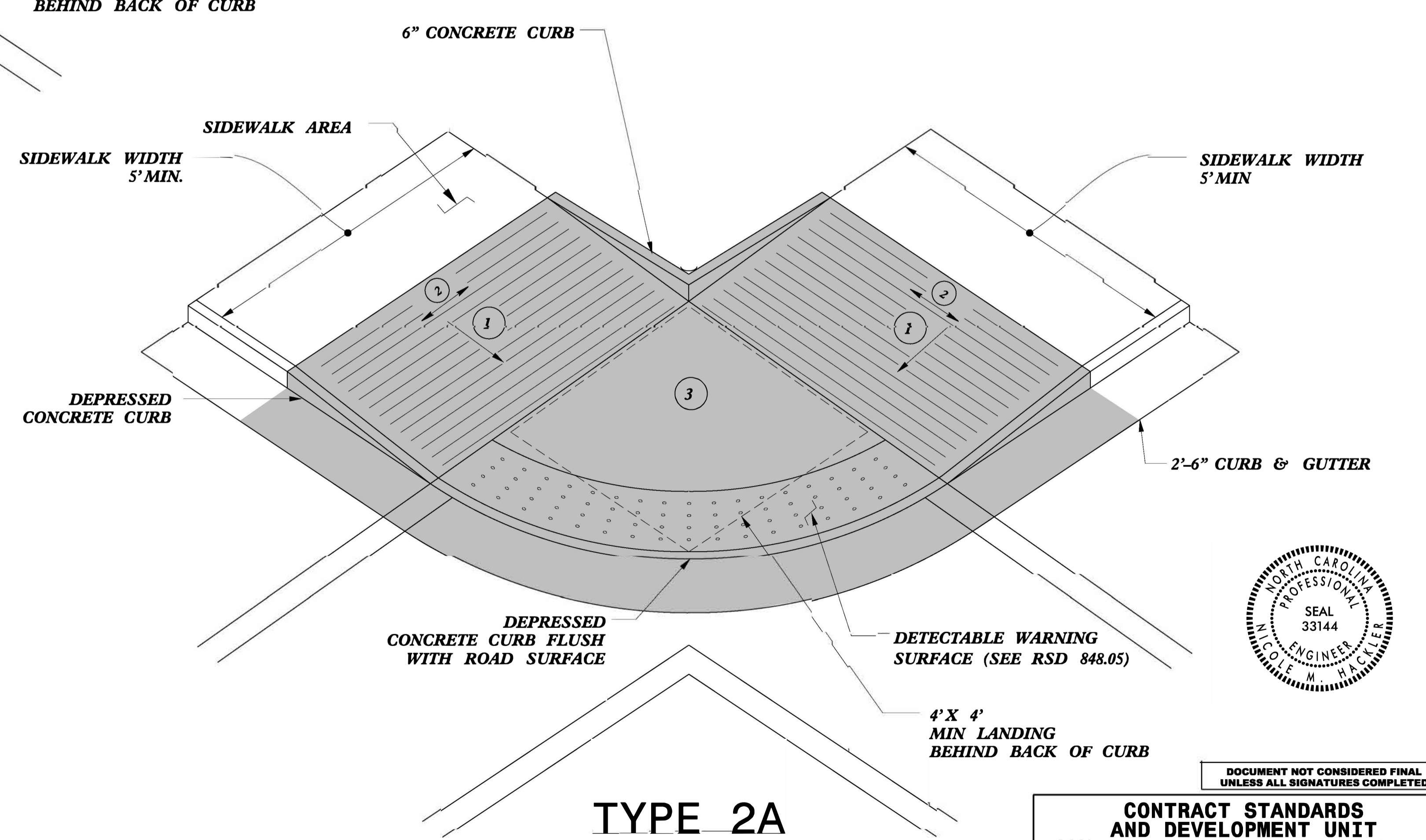
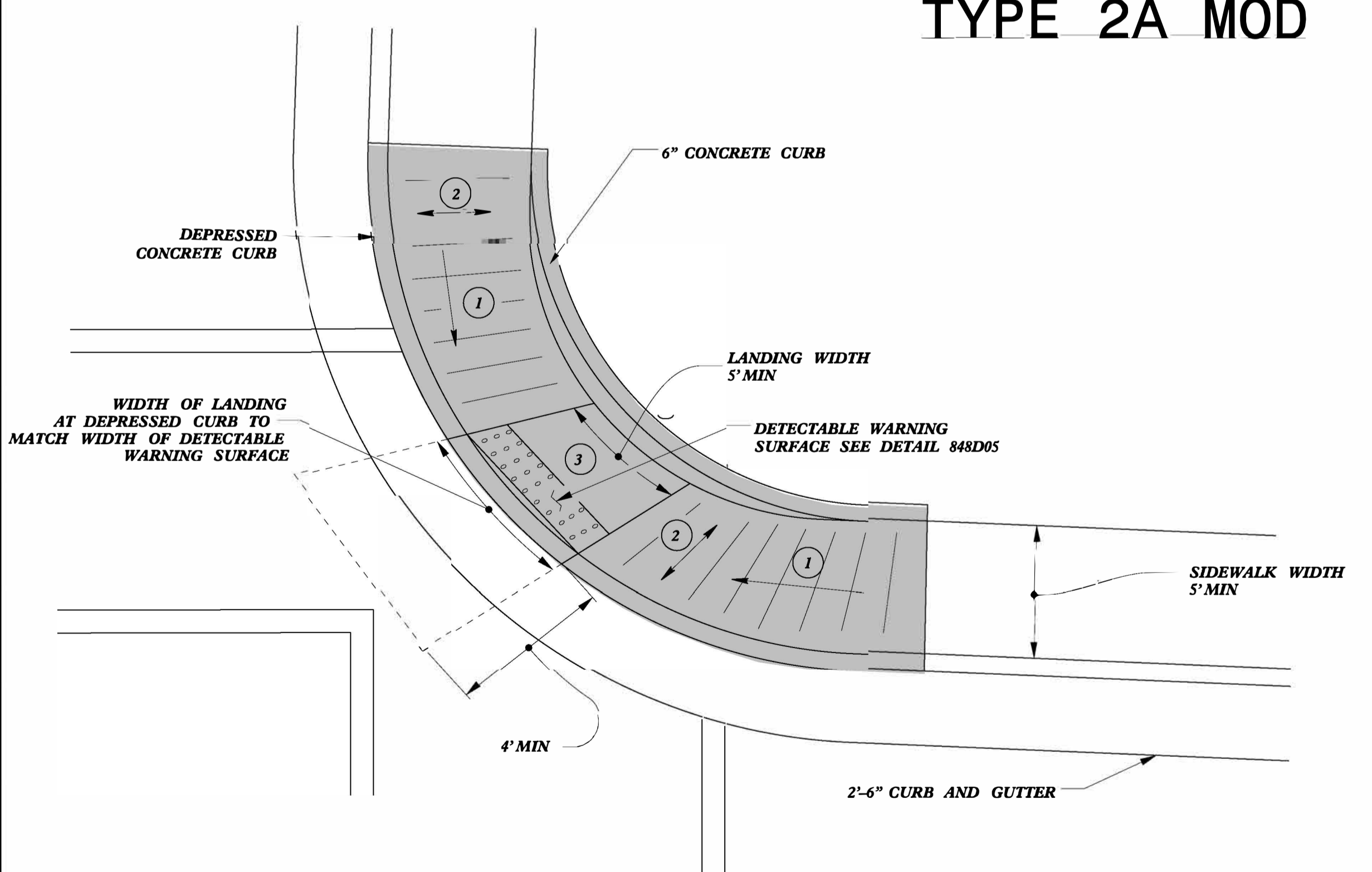
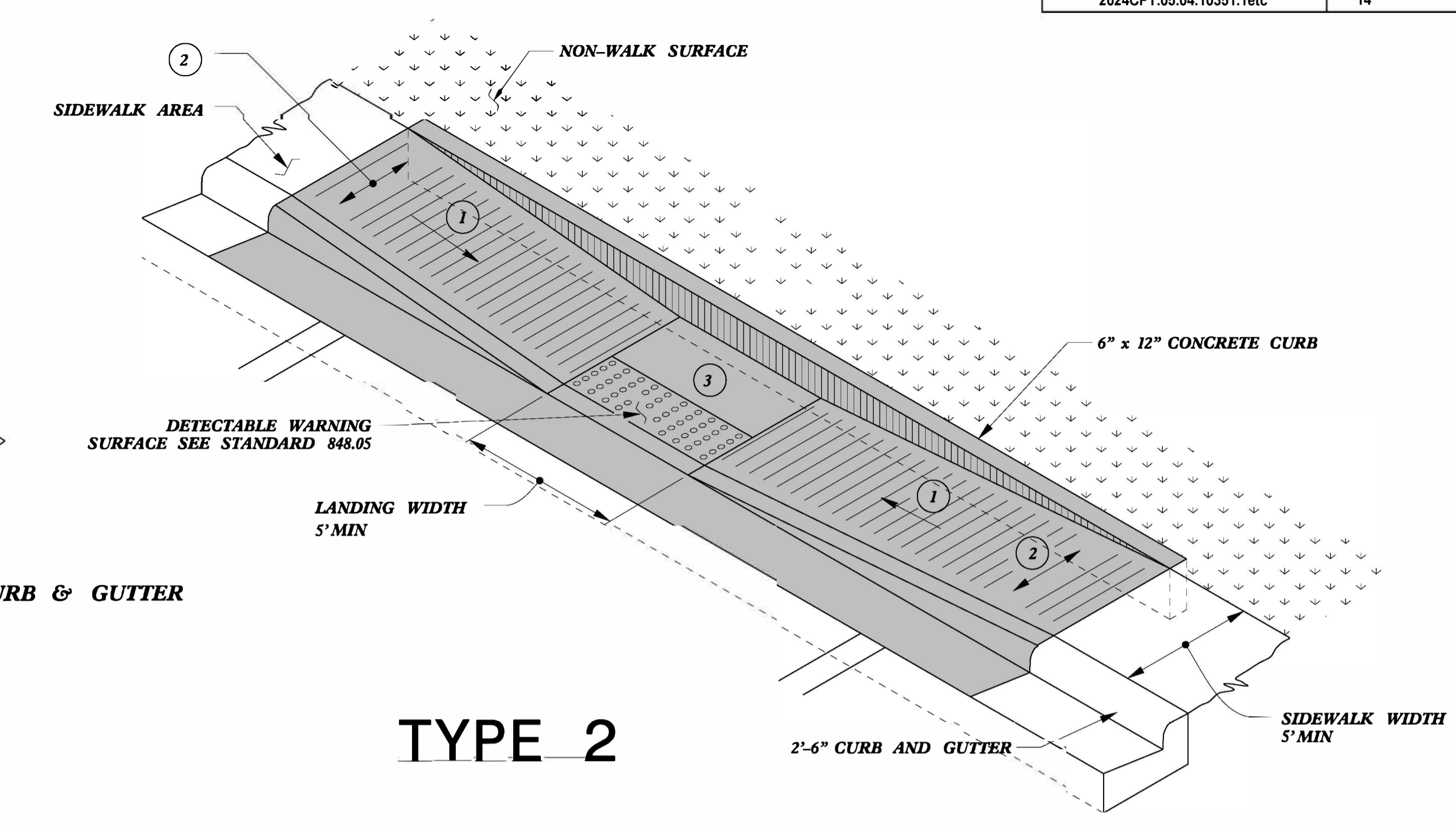
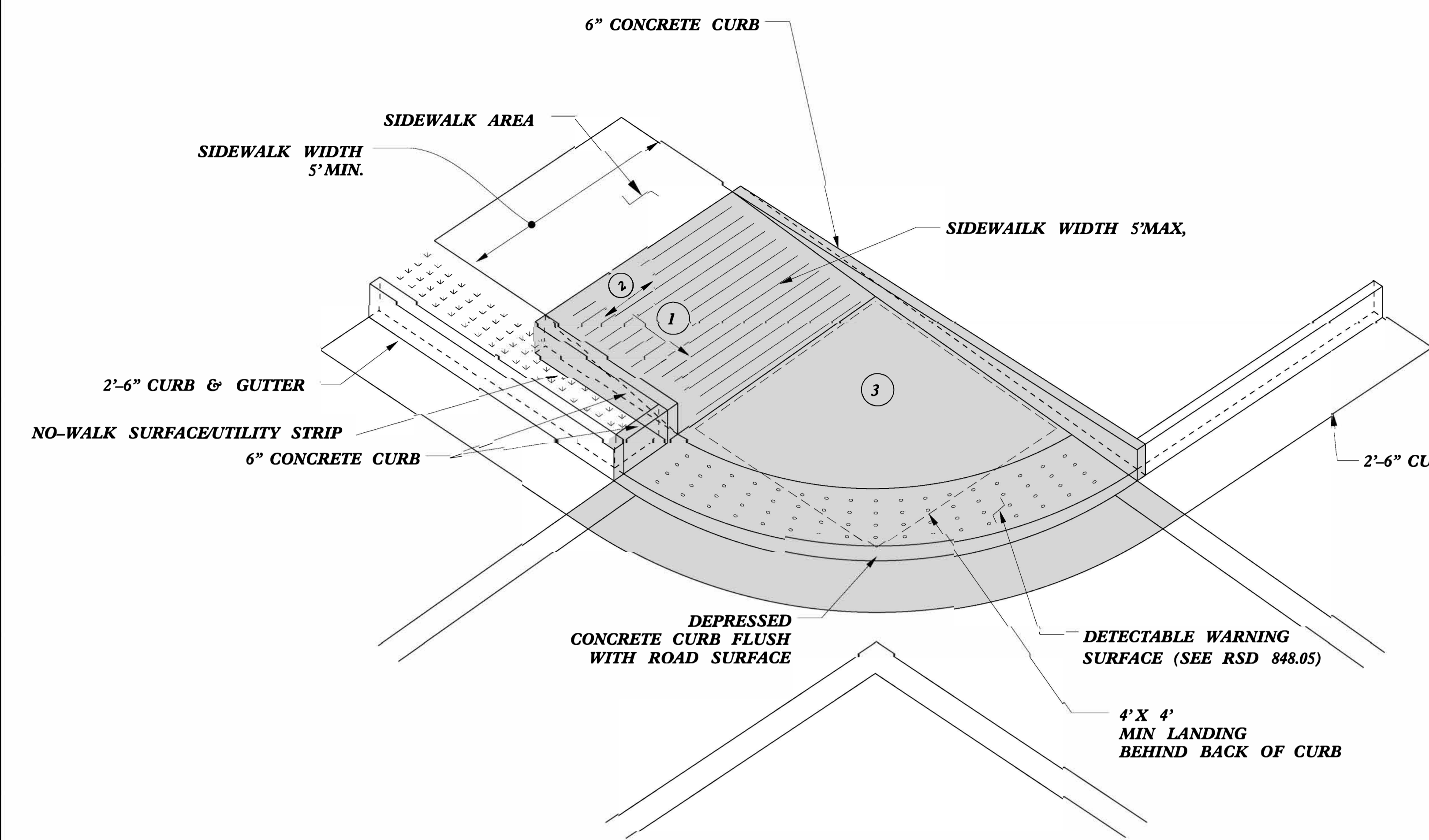


**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

**CURB RAMPS
@ DRIVEWAY OPENINGS**

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC: .stds/2012CurbRamp/CurbRampDetails.dgn

5/14/99



- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

PAY LIMITS FOR 1 CURB RAMP



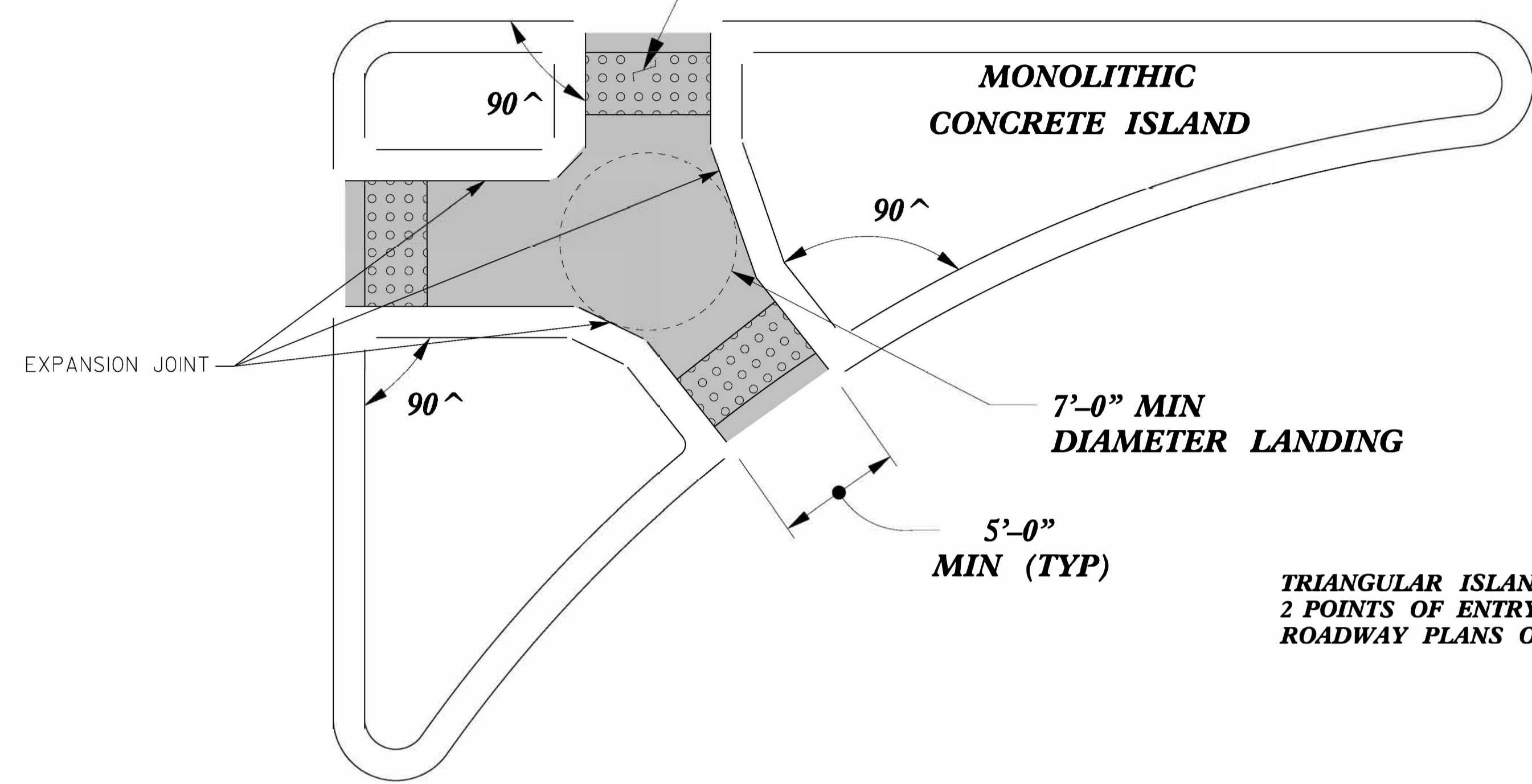
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn	

C:\T-M\2024\2024CPT\STDS\2012CurbRamp\CurbRampDetails.dgn

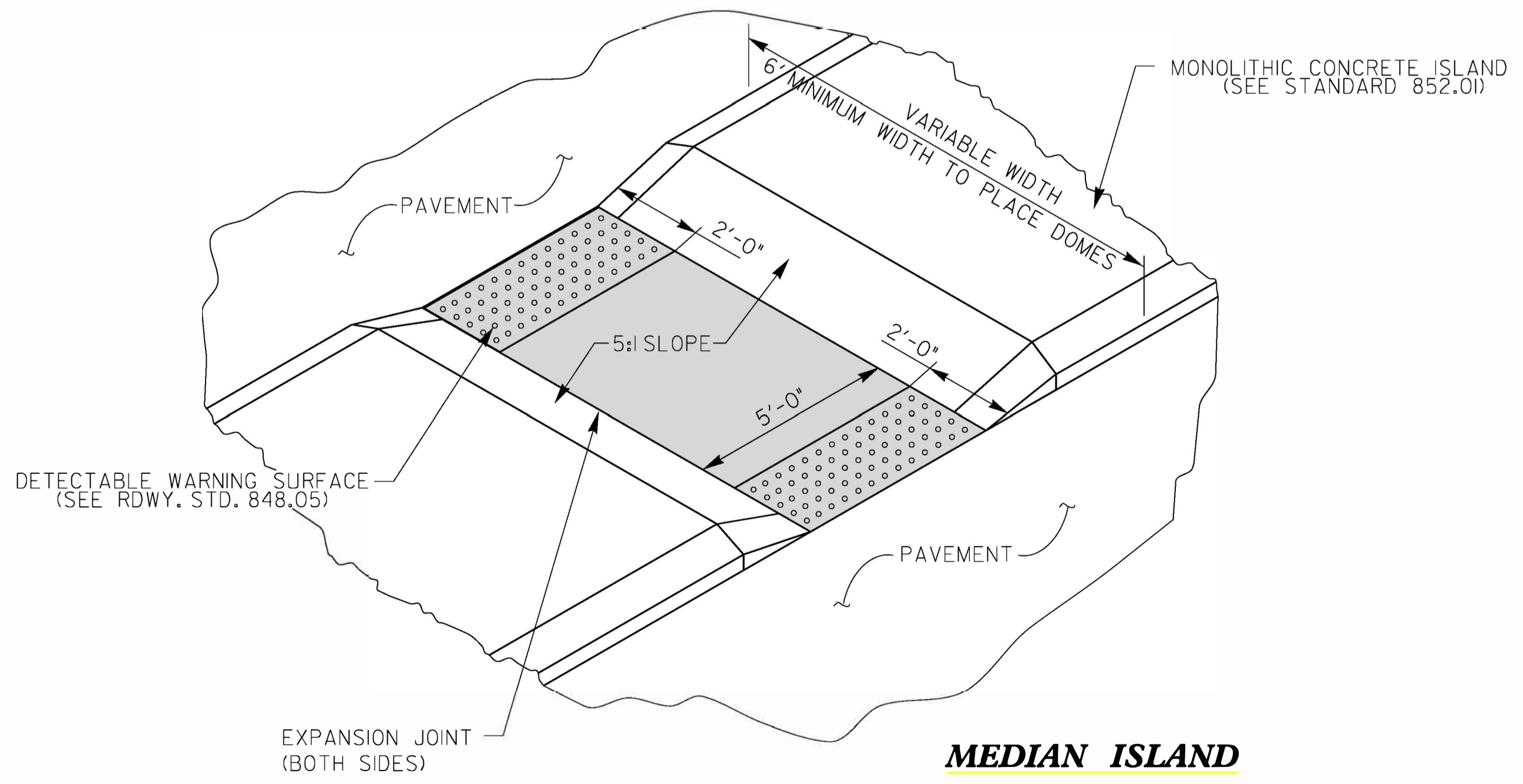
DETECTABLE WARNING SURFACE (SEE RDWY. STD. 848.05)

PAY LIMITS FOR 2 OR 3 CURB RAMPS (CALCULATE BASED ON NUMBER OF SETS OF TRUNCATED DOMES)

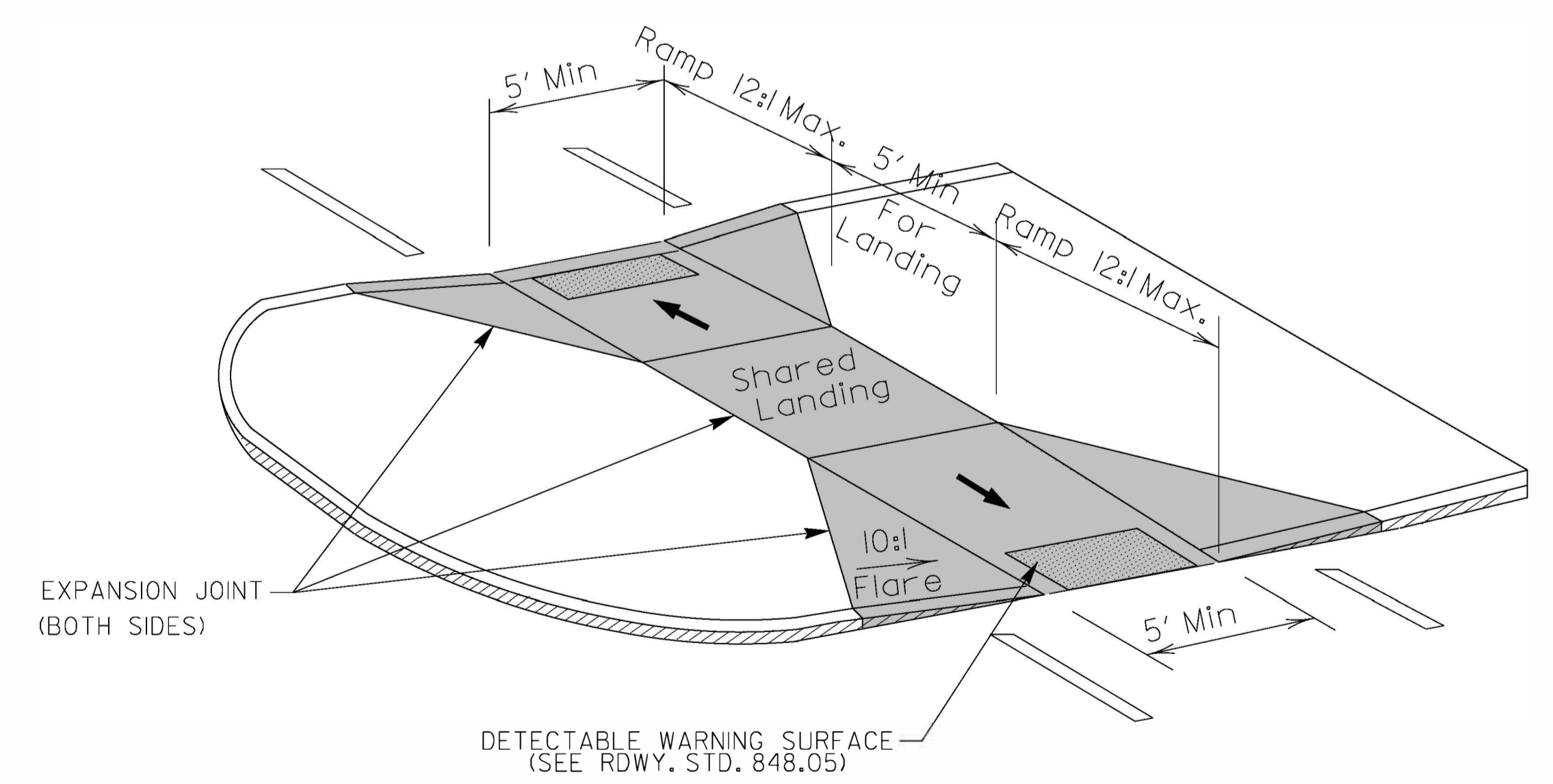


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY 2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

**TRIANGULAR ISLAND WITH CUT THROUGH
TYPE 6**



**MEDIAN ISLAND WITH CUT THROUGH
TYPE 7**



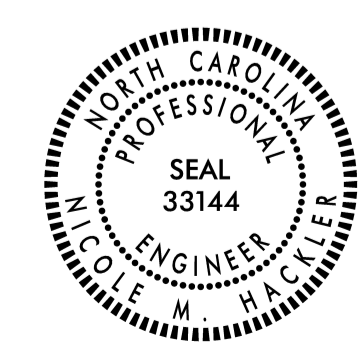
**MEDIAN ISLAND CURB RAMPS
TYPE 8**

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

CURB RAMPS
Median or Turn Lane Islands

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn



5/14/99
SYTIME
SUGERNAVE

ADA SUMMARY OF QUANTITIES - TOTALS

2024CPT.05.04.10351.1,etc

Project Number:	2025 N Frank
WBS Number:	2024CPT.05.04.20351.1
	2024CPT.05.04.10351.1
County:	Franklin

Sheet No.
19

Project Number	County	Municipality	Resurfacing Route	4447000000-E	4600000000-N	4600000000-N	2613000000-N
				Pedestrian Channelizing Devices LF	Generic Traffic Control Item - Pedestrian Transport Service EA	Generic Traffic Control Item - Audible Warning Device EA	Remove and Replace Curb Ramp EA
2025 N Frank	Franklin	Youngsville	E Main St From Begin Curb and Gutter To Pvmt Jt. east of S Cross St	60	10	2	2
2025 N Frank	Franklin	Franklinton	US 1 Alt From US 1 To Pavement Joint South of NC 56	60	10	2	2
GRAND TOTAL				120	20	4	4

ADA SUMMARY OF QUANTITIES - US 1 ALT FROM US 1 TO PAVEMENT JOINT SOUTH OF NC 56

Municipality:	Franklinton
Project Number:	2025 N Frank
WBS Number:	2024CPT.05.04.10351.1
County:	Franklin

Sheet No.
20

Ramp ID	Inset Map Number	Route 1	Route 2	261300000-N	Improvement Type
				Remove and Replace Curb Ramp EA	
537	1	US-1-ALT (S Main St)	W College St	1	Type4B
538	1	US-1-ALT (S Main St)	E College St	1	Type1Modified
Sub-Total for US 1 Alt From US 1 To Pavement Joint South of NC 56				2	

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

ADA SUMMARY OF QUANTITIES - E MAIN ST FROM BEGIN CURB AND GUTTER TO PVMT JT. EAST OF S CROSS ST

2024CPT.05.04.10351.1etc.

Municipality:	Youngsville
Project Number:	2025 N Frank
WBS Number:	2024CPT.05.04.20351.1
County:	Franklin

Sheet No.
21

Ramp ID	Inset Map Number	Route 1	Route 2	261300000-N	Improvement Type
				Remove and Replace Curb Ramp EA	
1606	1	SR-1100 (E Main St)	SR-1132 (N Nassau St)	1	Type1C
1608	1	SR-1100 (E Main St)	SR-1132 (N Nassau St)	1	Type1Modified
Sub-Total for E Main St From Begin Curb and Gutter To Pvmt Jt. east of S Cross St				2	

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

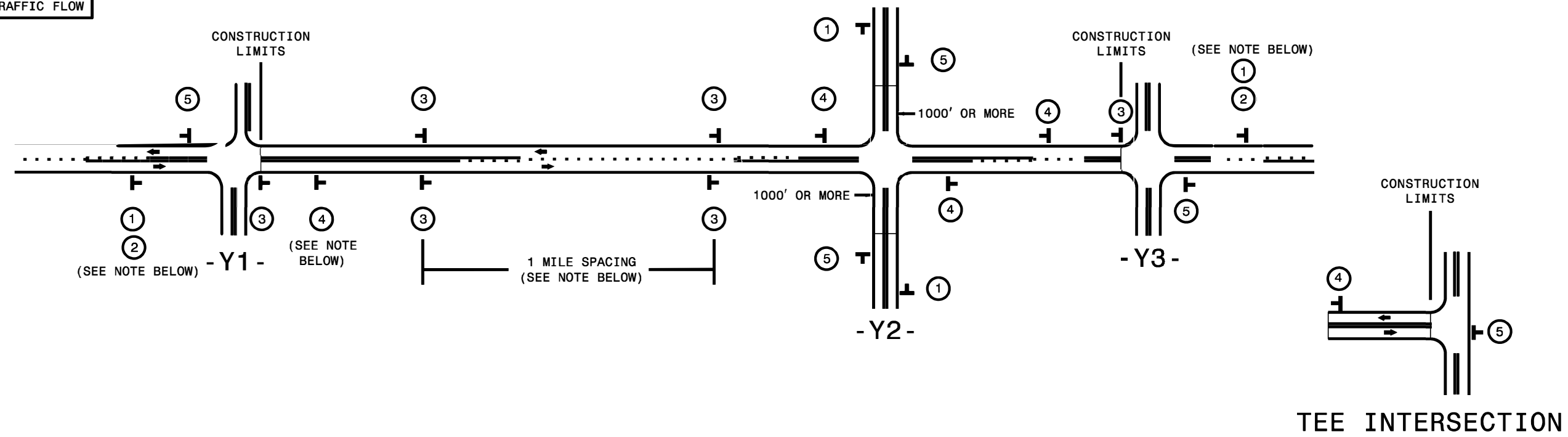
PROJECT NO.	SHEET NO.	TOTAL NO.
2024CPT.05.04.10351.1,etc	23	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LENGTH	WIDTH	4413000000-E	4447000000-E	4457000000-N	4685000000-E					4695000000-E			4700000000-E			4709000000-E			4725000000-E						4770000000-E		4850000000-E	4905100000-N
									WORK ZONE ADVANCE/ GENERAL WARNING SIGNING	PEDESTRIAN CHANNELIZING DEVICES	TEMPORARY TRAFFIC CONTROL	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	8" X 90 M YELLOW THERMO	12" X 90 M YELLOW THERMO	24" X 90 M WHITE THERMO	THERMO MSG STOP 90 M	THERMO MSG AHEAD 90 M	THERMO MSG SCHOOL 90 M	THERMO STR ARROW 90 M	THERMO LT ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO LT STR RT ARROW 90 M	THERMO STR & LT ARROW 90 M	4" YELLOW COLD APPLIED PLASTIC, TYPE III	4" WHITE COLD APPLIED PLASTIC, TYPE III	4" LINE REMOVAL	NON-CAST IRON SNOWPLOW-ABLE PAVEMENT MARKER						
							MI	FT	SF	LF	LS	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA		
2024CPT.05.04.10351.1	Franklin	1	NC-96 E / NC 96 HWY W	US 1 TO GRANVILLE COUNTY	1	2	4.83	27-44	653			52,321	69,430		750	150	24	5			6	29	12	1									321		
2024CPT.05.04.10351.1	Franklin	2	US-1 ALT N / S MAIN ST	PAVEMENT JOINT EAST OF US 1 TO PAVEMENT JOINT SOUTH OF NC 56	2	2	1.62	24	193	60	*	17,000	17,108						12														120		
TOTAL FOR PROJ NO. 2024CPT.05.04.10351.1											*	69,321	86,538		750	250	24	5	12		6	29	12	1										441	
												155,859													41							48			
2024CPT.05.04.20351.1	Franklin	3	SR-1419 / RONALD THARRINGTON RD	NC 56 TO SR 1002 - SEVEN PATHS RD	2	2	5.4	20	126			58,104	57,024			45			6																
2024CPT.05.04.20351.1	Franklin	4	SR-1427 / A ALLEN RD	NC 561 TO SR 1451 - LEONARD RD	1	2	0.53	18	59			5,496	5,596																						
2024CPT.05.04.20351.1	Franklin	5	SR-1100 / TARBORO RD/E MAIN ST	FROM US 401 TO BEGIN CURB AND GUTTER	1	2	5.971	24	669		*	63,150	64,554		280	100	32					4	1	1											
2024CPT.05.04.20351.1	Franklin	6	SR-1609 / E JEWETT AVE/ BAPTIST CHURCH RD	SR 1611 - SLEDGE RD TO NC 39	1	2	2.59	21	290			27,868	27,350			20	4																760		
2024CPT.05.04.20351.1	Franklin	7	SR-1100 / E MAIN ST	FROM BEGIN CURB AND GUTTER TO PVMT JT. EAST OF S CROSS ST	3	2	0.225	30-33	26	60	*	640	2,646		40							6													
TOTAL FOR PROJ NO. 2024CPT.05.04.20351.1											*	155,258	157,170		40	280	165	36		6			10	1	1	2	1	1						1,520	
												312,428													42							15			1,520
GRAND TOTAL							21.166		2,016	120	1.00	224,579	243,708	40	1,030	415	60	5	18		6	39	13	3	1	1								760	
												468,287													83							63			1,520







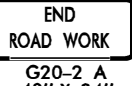
SIGNING FOR RESURFACING PROJECTS

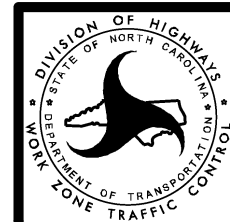
LEGEND
 STATIONARY SIGN
 DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	 ①  ②	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.  W20-1 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER.  W20-7 A 48" X 48" PLACED 250' IN ADVANCE OF FLAGGER.
	 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.		



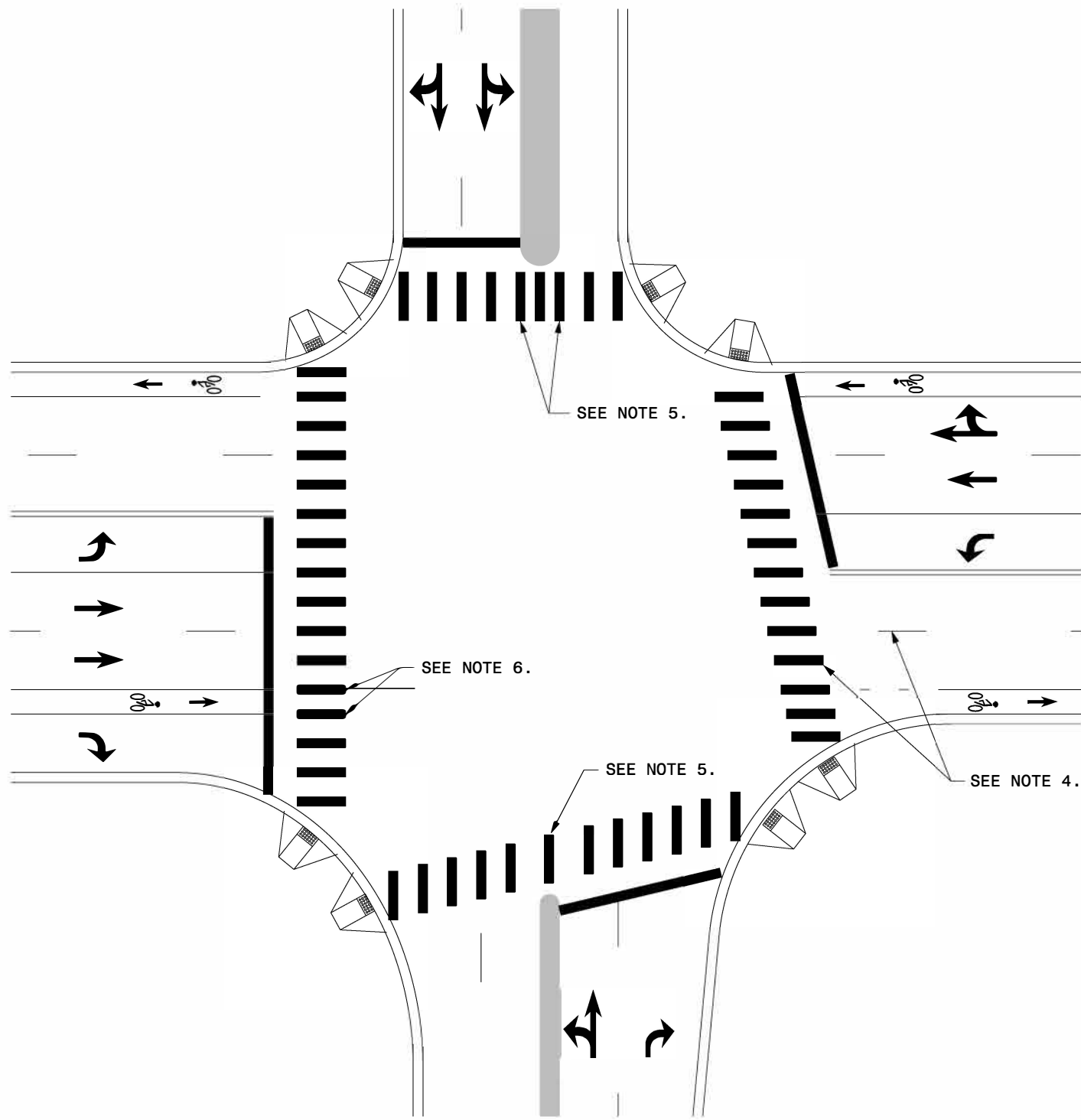
ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

\$\$\$\$\$SYTIME\$\$\$\$\$
 \$\$\$CDON\$\$\$\$\$
 \$\$\$USERNAME\$\$\$\$\$

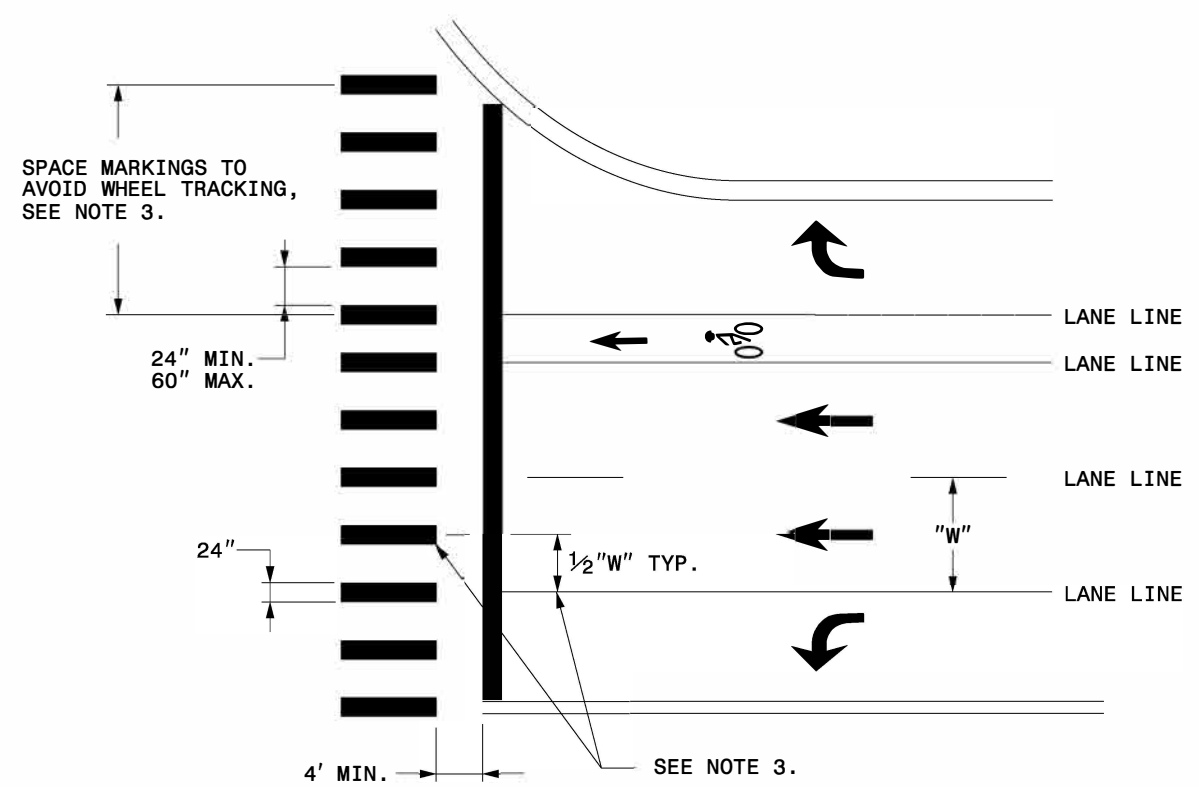
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

5-18

ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
HI-VISIBILITY CROSSWALKS
NO-TRACK MARKING GUIDANCE



CROSSWALK INTERSECTION DETAIL



CROSSWALK MARKING DETAIL

GENERAL NOTES:

- 1- THE GUIDANCE IN THIS DETAIL IS TO BE USED WHEN NO-TRACK SPACING OF HI-VISIBILITY MARKINGS IS REQUESTED.
- 2- USE THE GUIDANCE SHOWN ON THE ABOVE DETAILS IN CONJUNCTION WITH PAVEMENT MARKING GUIDANCE SHOWN ON ROADWAY STANDARD DRAWINGS 1205.01 AND 1205.07.
- 3- PLACE MARKINGS TO AVOID WHEELPATH OF VEHICLES. MARKINGS TYPICALLY WILL BE LOCATED CENTERED AT THE LANE LINES AND EDGE LINES WITH ONE ADDITIONAL MARKING CENTERED IN THE MIDDLE OF THE LANE. AT WIDE LANE WIDTHS DUE TO TAPERS AND LARGE RADII, LOCATE MARKINGS AT BEST SPACING TO AVOID WHEEL TRACKING. THE SPACE BETWEEN MARKINGS SHALL NOT BE LESS THAN 24 INCHES OR GREATER THAN 60 INCHES.

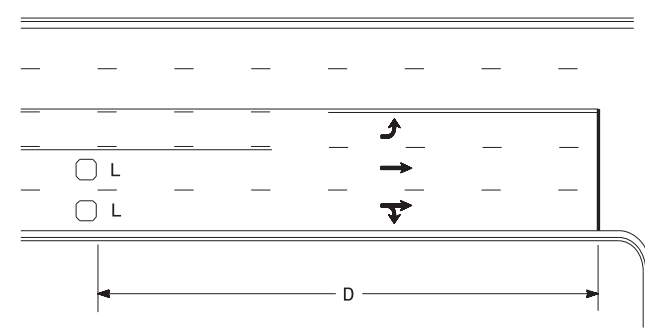
- 4- WHERE THE CROSSWALK IS SKEWED TO THE LANE LINES, THE MARKINGS SHOULD BE PARALLEL TO THE LANE LINES.
- 5- PLACE MARKINGS ON BOTH EDGES OF THE NOSE OF A MEDIAN. FOR NARROW MEDIANS LESS THAN 4 FEET, A SINGLE MARKING MAY BE USED. FOR WIDE MEDIANS, INSTALL ADDITIONAL MARKINGS IN THE MEDIAN AREA. THE SPACE BETWEEN THE MARKINGS SHALL NOT TO BE LESS THAN 24 INCHES OR GREATER THAN 60 INCHES.
- 6- LOCATE MARKINGS CENTERED ON BICYCLE LANE LINES. MARKINGS SHALL NOT BE LOCATED IN THE CENTER OF THE BICYCLE PATH.

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

5-18

ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
HI-VISIBILITY CROSSWALKS
NO-TRACK MARKING GUIDANCE

High Speed Detection (≥40 mph)

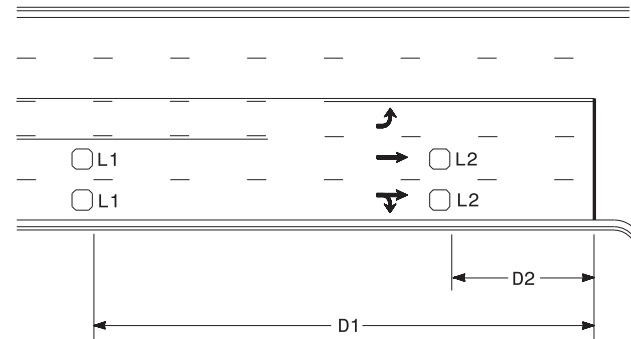


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR

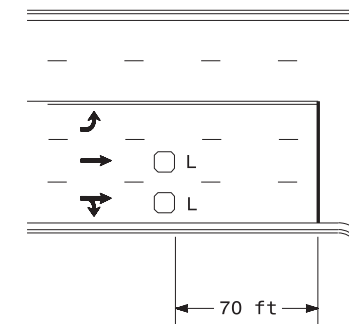


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

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

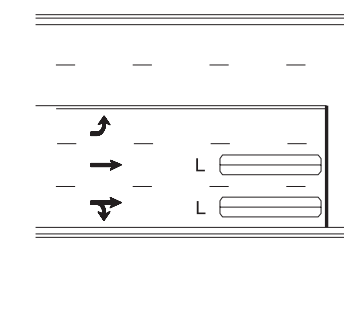
"Stretch" Operation

Low Speed Detection (≤35 mph)



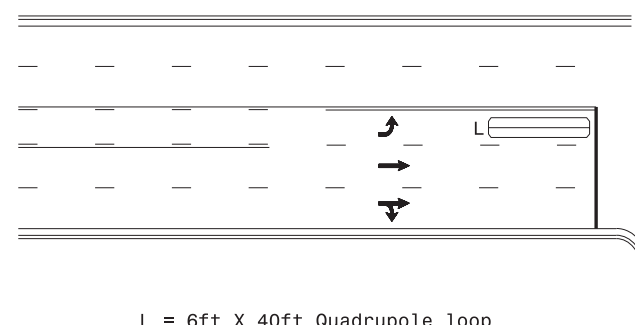
L = 6ft X 6ft
Wired in series

OR



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

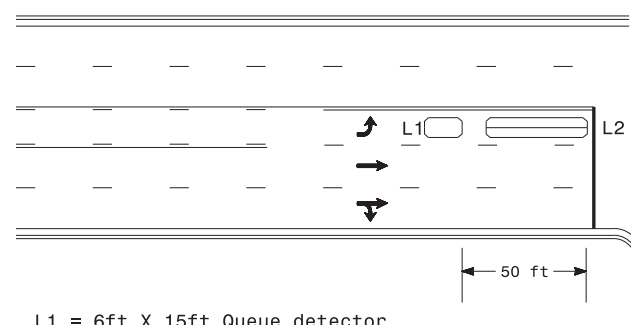
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

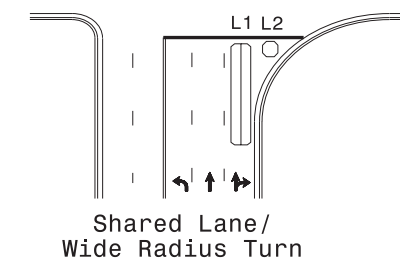
OR



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

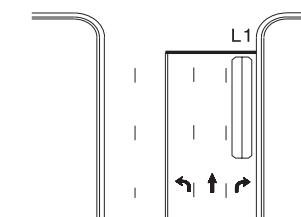
Queue Loop Detection

Right Turn Lane Detection

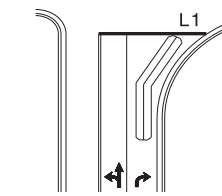


Shared Lane/
Wide Radius Turn

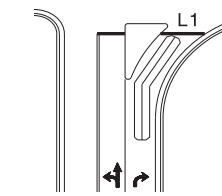
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

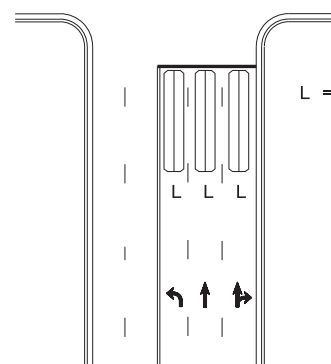


Wide Radius Turn



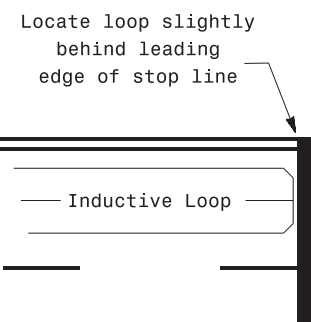
Channelized Turn

Side Street Detection



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

Presence Loop 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

750 N. Greenfield Pkwy, Garner, NC 27529

Prepared In the Offices of:

Typical Signal Loop Locations	
PLAN DATE: September 2020	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:
SCALE: N/A	REVISIONS: INIT. DATE

DATE: 9/8/2020
SIG. INVENTORY NO.