

10/03/13

CONTRACT NO.: DA00358 WBS ELEMENT: 2017CPT.01.27.10701.1, ETC.

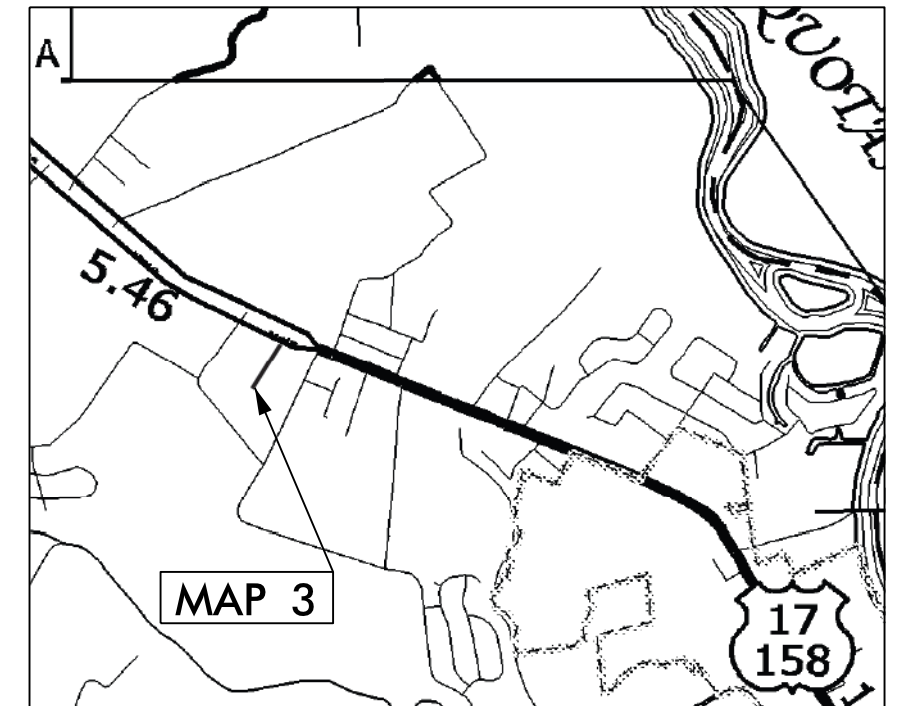
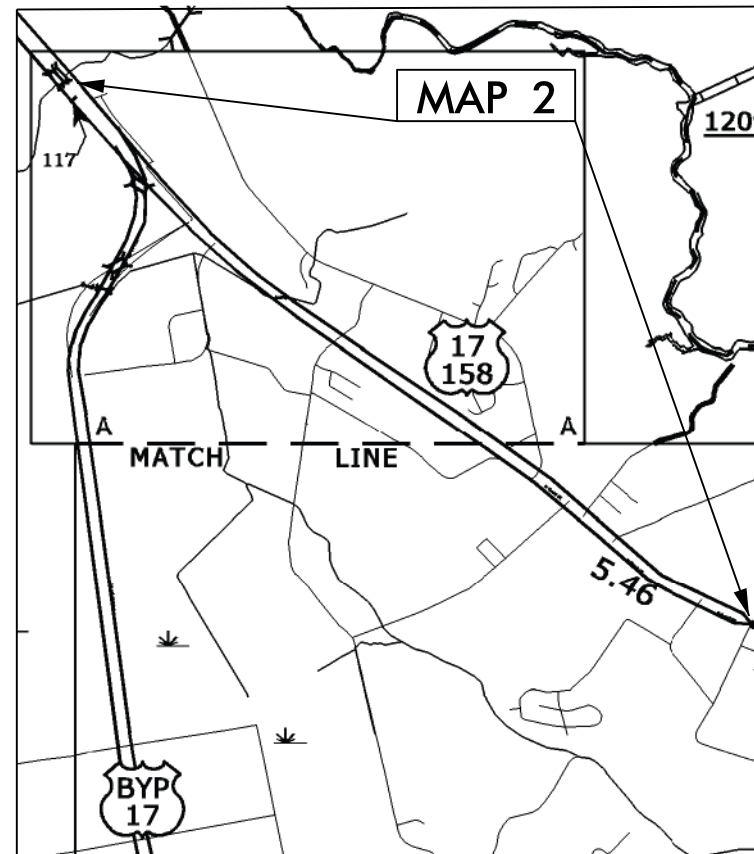
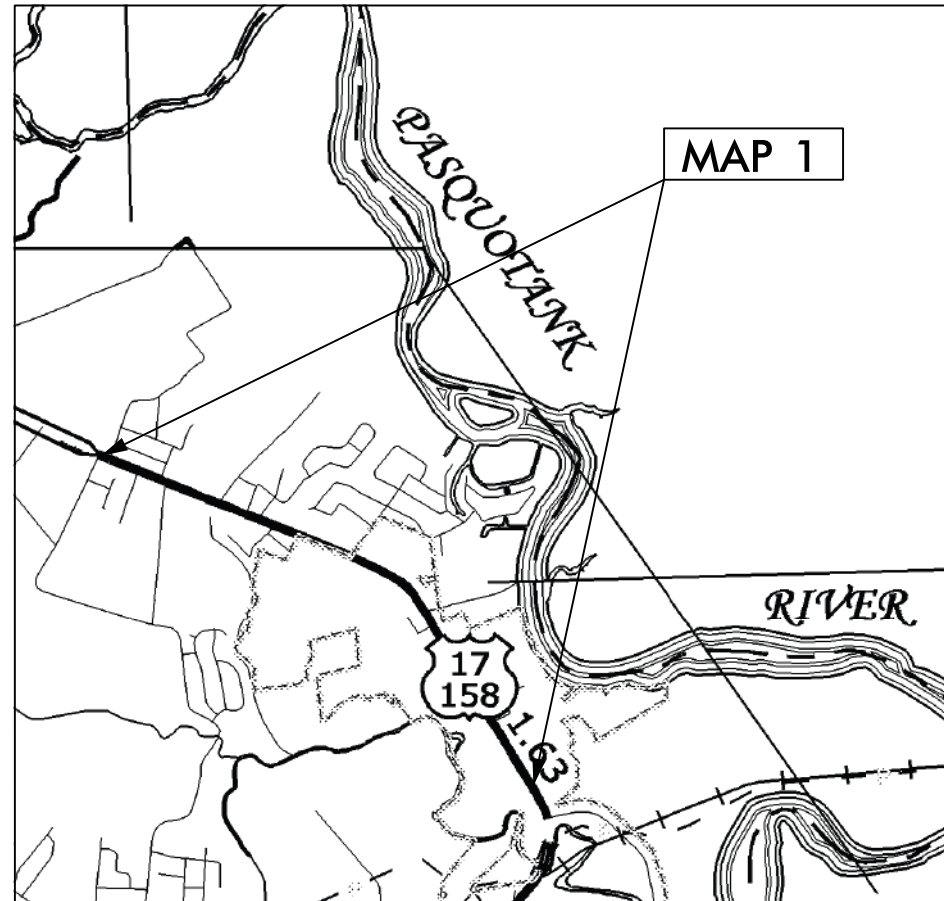
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**PASQUOTANK COUNTY**

LOCATION: MAP 1 US 17 (ROAD ST) C&G FROM KNOBBS CREEK DR TO CREEK RD  
MAP 2 US 17/US 158 FROM CREEK RD TO US 17 BYPASS  
MAP 3 MAINTENANCE PARKING AND ACCESS RD FROM US 17 TO FENCE

TYPE OF WORK: RESURFACING, MILLING, PAVEMENT MARKINGS & SHOULDER RECONSTRUCTION

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.
N.C.	2017CPT.01.27.10701.1, ETC	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
2017CPT.01.27.10701.1		MAP 1
2017CPT.01.27.10701.1		MAP 2
2017CPT.01.27.10701.1		MAP 3



**NTS**

**PROJECT LENGTH**

LENGTH OF ROADWAY PROJECT MAP 1 = 2.60 MI.  
 LENGTH OF ROADWAY PROJECT MAP 2 = 4.63 MI.  
 LENGTH OF ROADWAY PROJECT MAP 3 = 0.25 MI.

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
 113 Airport Dr., Edenton NC, 27932

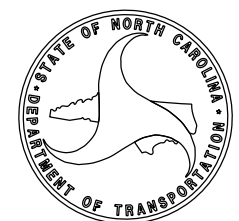
2012 STANDARD SPECIFICATIONS

LETTING DATE:

W.B. HOBBS, P.E.  
 DIVISION PROJECT MANAGER

C.E. SLACHTA  
 DIVISION PROPOSALS ENGINEER

DIVISION OF HIGHWAYS  
 STATE OF NORTH CAROLINA



DRAWN BY: BJT

# C O N T R A C T P A V E M E N T S C H E D U L E

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
U	EXISTING PAVEMENT.
T	EARTH MATERIAL
V1	MILLING BITUMINOUS PAVEMENT 1½" DEPTH

PAVEMENT SCHEDULE

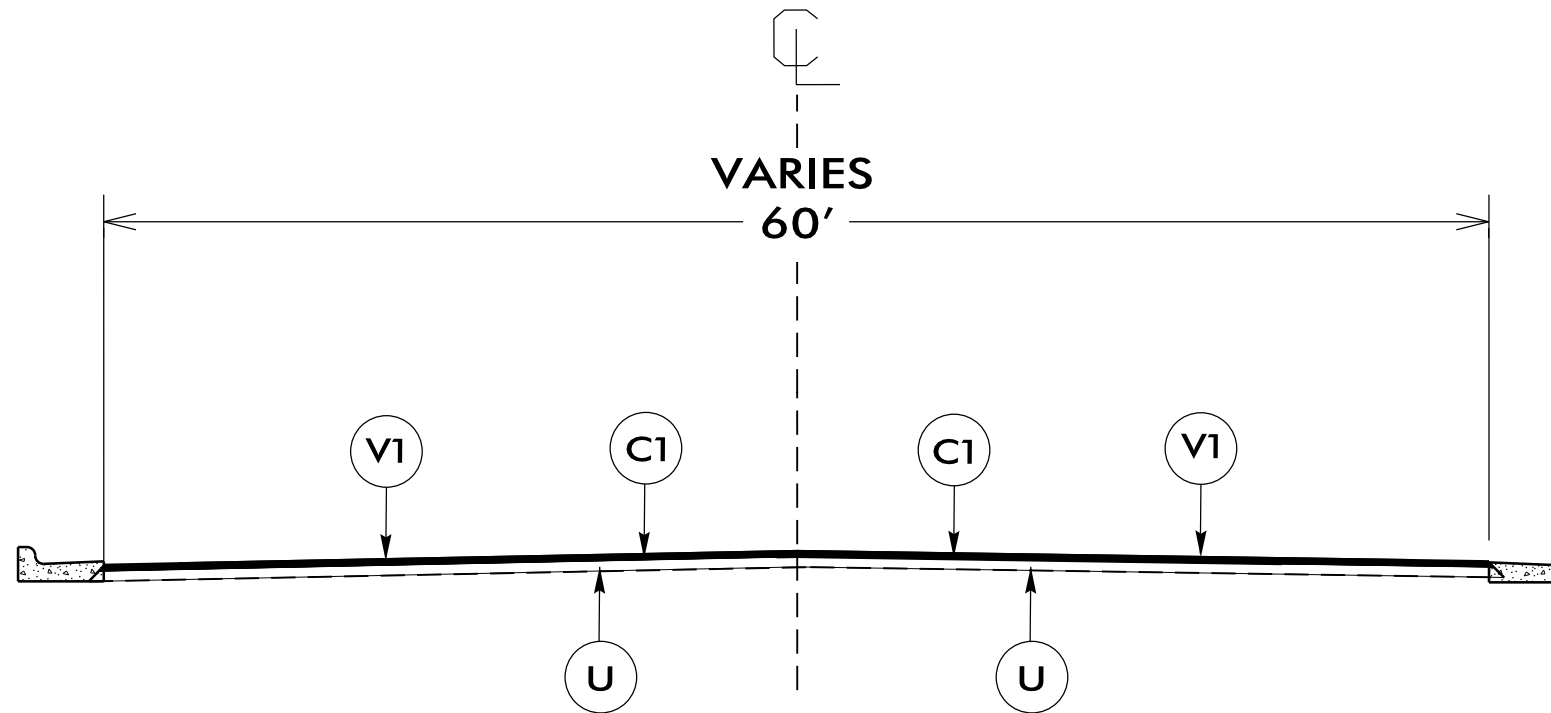
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
U	EXISTING PAVEMENT.
V1	MILLING BITUMINOUS PAVEMENT 1½" DEPTH

PROJECT REFERENCE NO.	SHEET NO.
2017CPT.01.27.10701.1, ETC.	

NOTES:

\*ALL PAVED 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



TYPICAL SECTION NO. 1

USE WITH MAP 1

NTS

PAVEMENT SCHEDULE

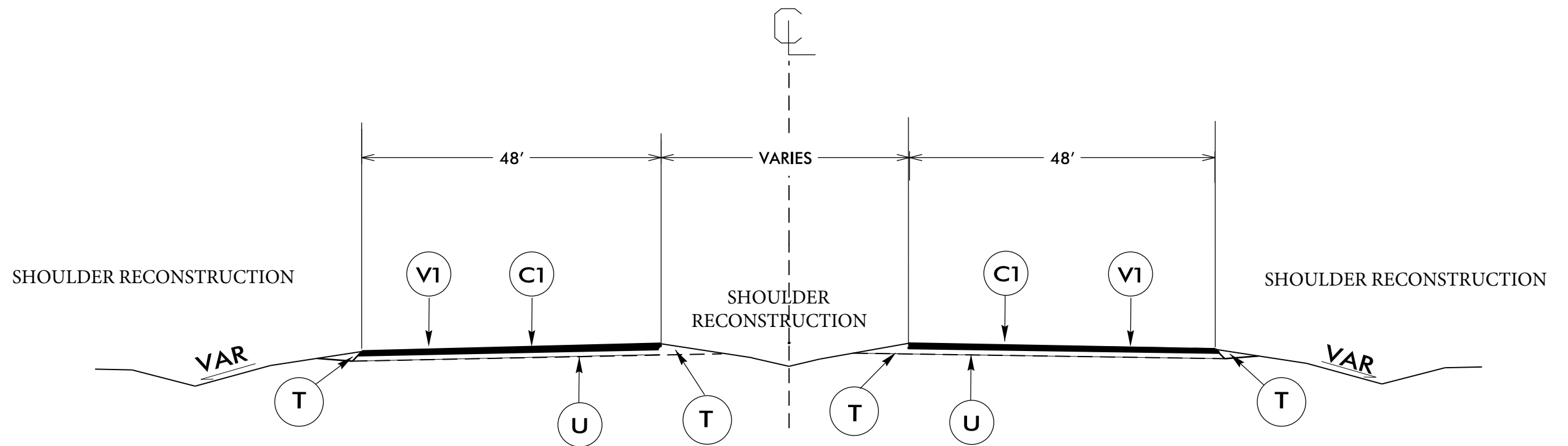
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
U	EXISTING PAVEMENT.
T	EARTH MATERIAL
V1	MILLING BITUMINOUS PAVEMENT 1½" DEPTH

PROJECT REFERENCE NO.	SHEET NO.
2017CPT.01.27.10701.1, ETC	

NOTES:

\*ALL PAVED 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



**TYPICAL SECTION NO. 2**

USE WITH MAP 2

NTS

PAVEMENT SCHEDULE

C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
U	EXISTING PAVEMENT.
T	EARTH MATERIAL

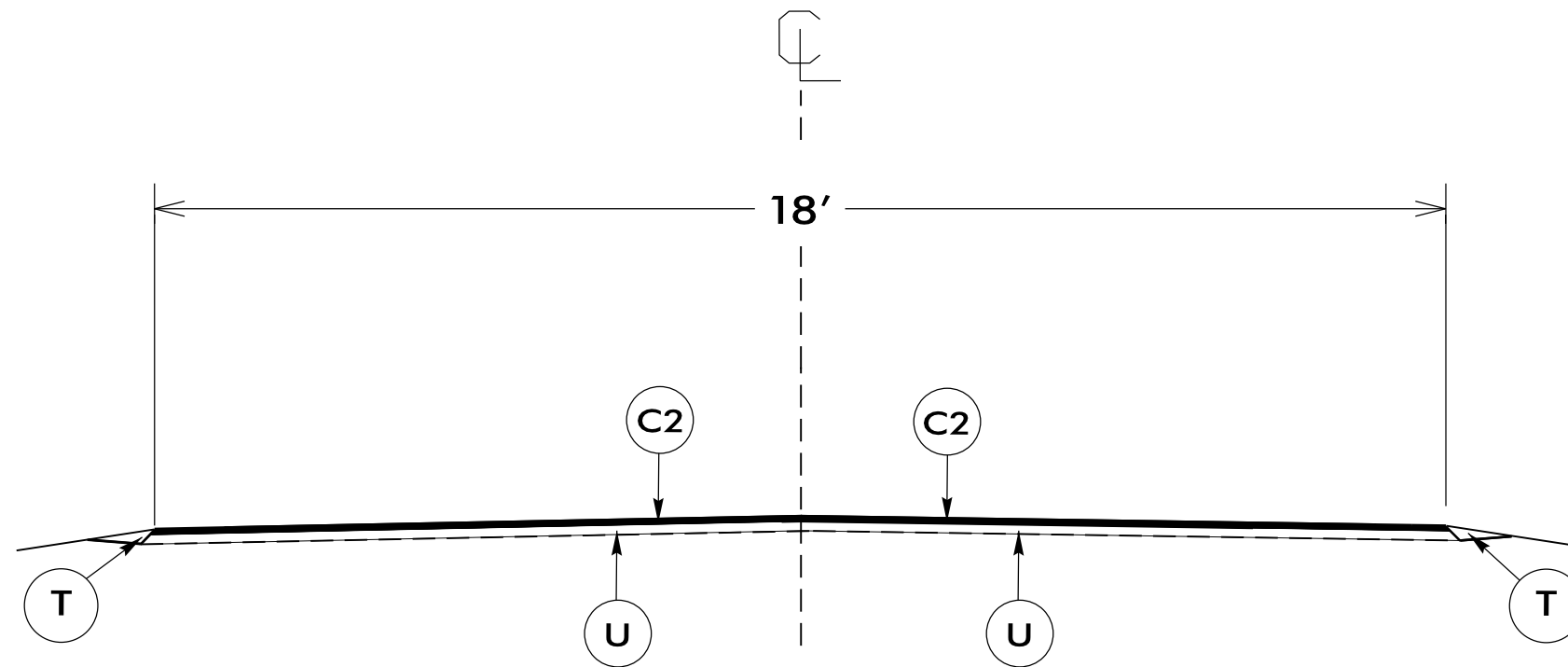
PROJECT REFERENCE NO.	SHEET NO.
2017CPT.01.27.10701.1,ETC.	

NOTES:

\*ALL PAVED 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

\*SHOULDER RECONSTRUCTION TO BE PERFORMED BY OTHERS

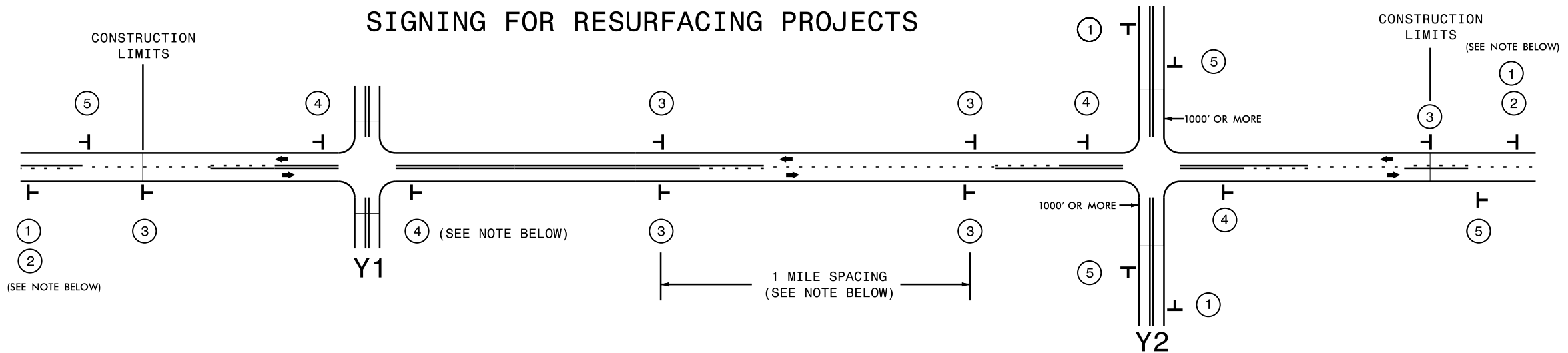


**TYPICAL SECTION NO. 3**

USE WITH MAP 3

NTS

## SIGNING FOR RESURFACING PROJECTS



LEGEND	
T	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

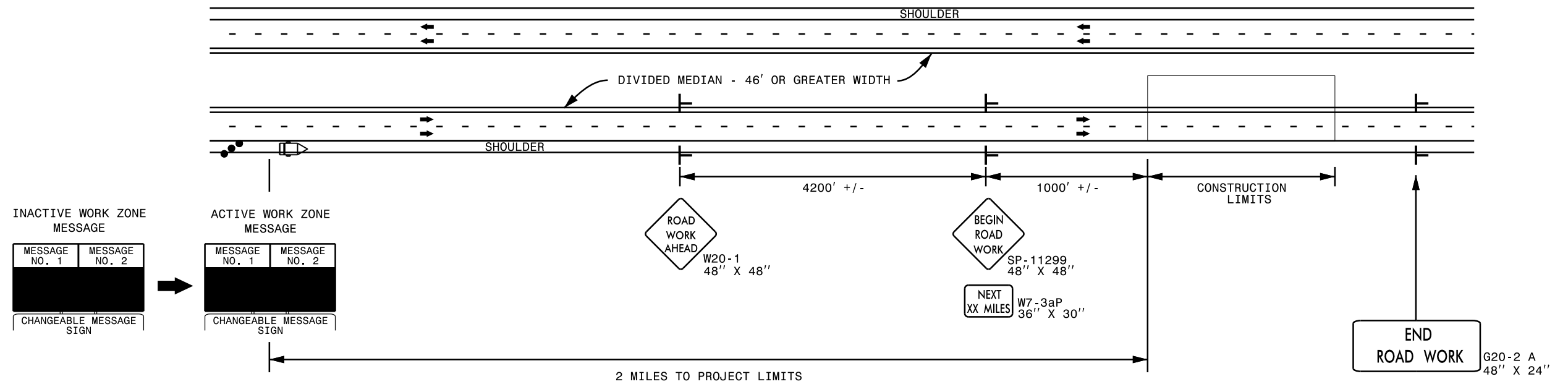
SIGNING NOTES AND PLACEMENT PER DIRECTION		<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>②  #2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)</p>	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <p>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>W20-1 48" X 48"</p> </div> <div style="text-align: center;"> <p>W20-7 A 48" X 48"</p> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
		<p>PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.</p>	
		<p>THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</p>	
		<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>	

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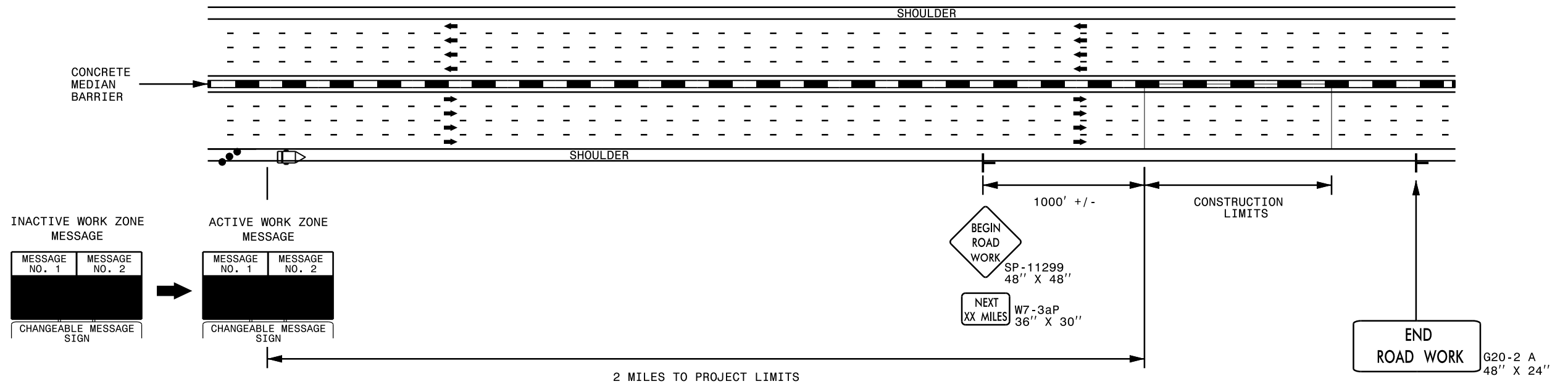


**RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS**

### DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER



### DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER



**NOTES:**

- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6' AS MEASURED FROM THE EDGE OF PAVEMENT.
- 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) FOR MEDIAN WIDTHS LESS THAN 46' (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
- 4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 5) INSTALL "ROAD WORK AHEAD" (W20-1) ALONG ENTRANCE RAMP 500' PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMP WITHIN THE WORK ZONE.
- 6) 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 AND WITH DIVIDED MEDIANS OF 46' OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

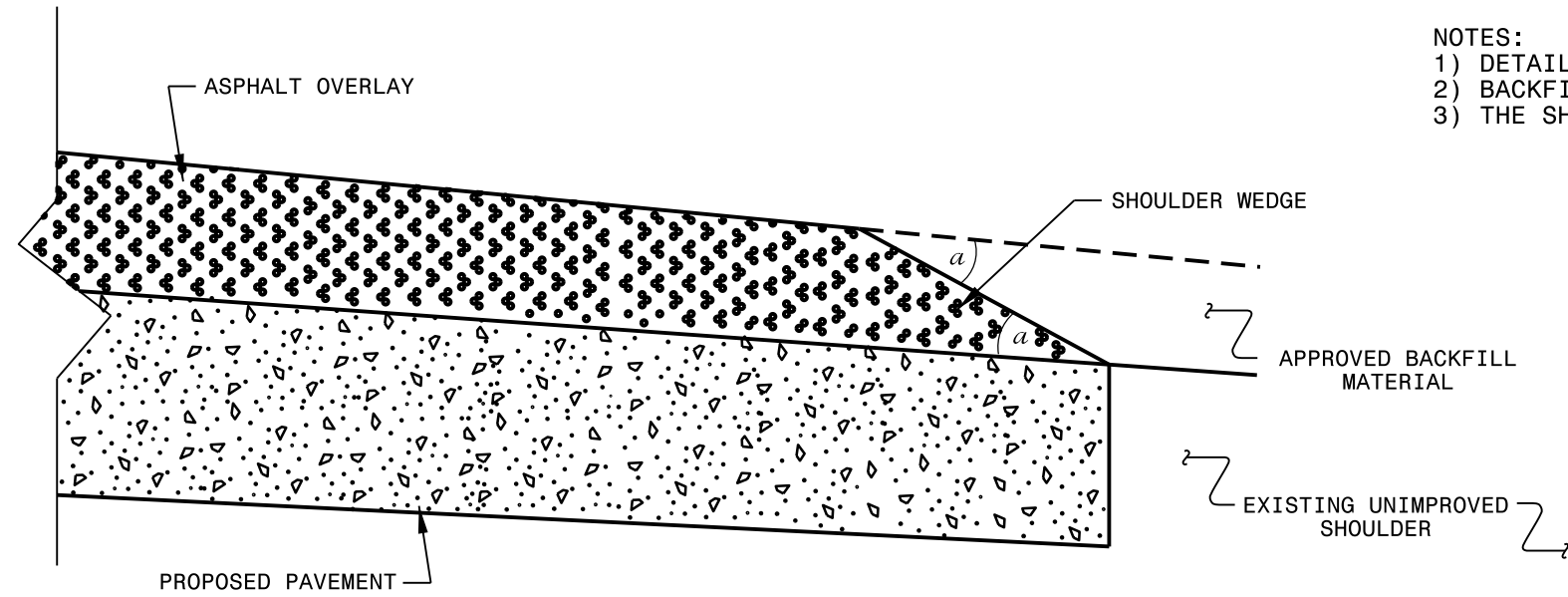
**LEGEND**

- CHANGEABLE MESSAGE SIGN (CMS)
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC DRUM

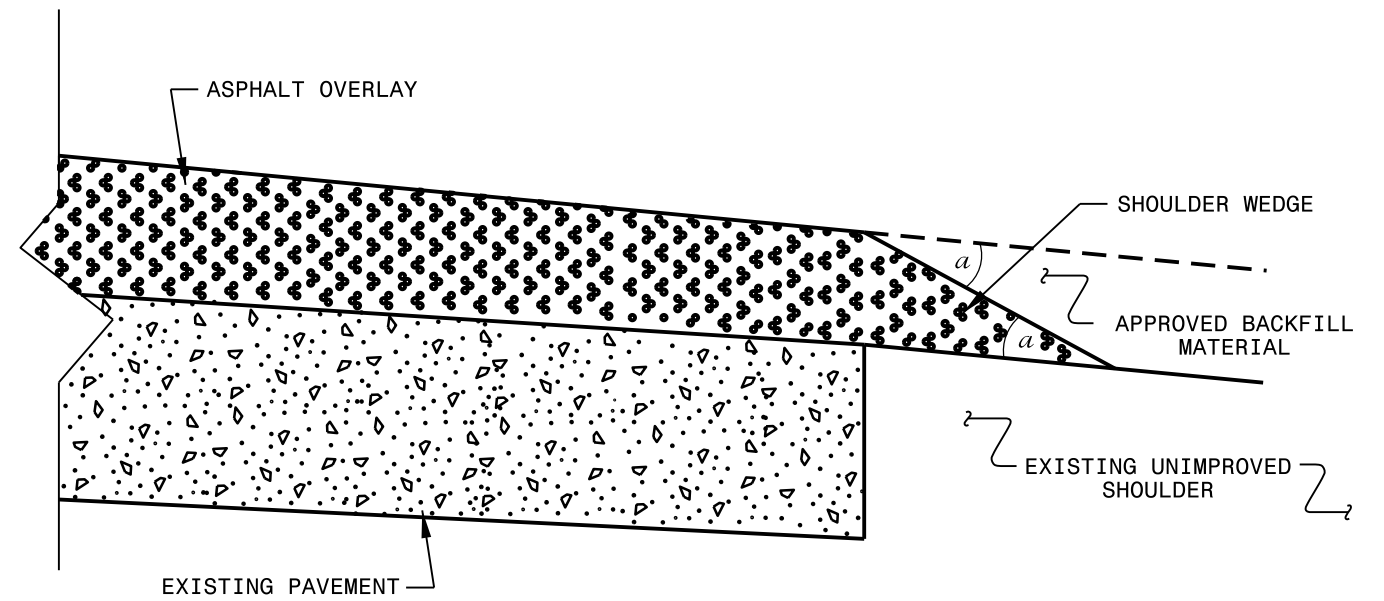


**RESURFACING ADVANCE  
WARNING SIGNS FOR  
HIGH SPEED FACILITIES  
≥ 60 MPH**

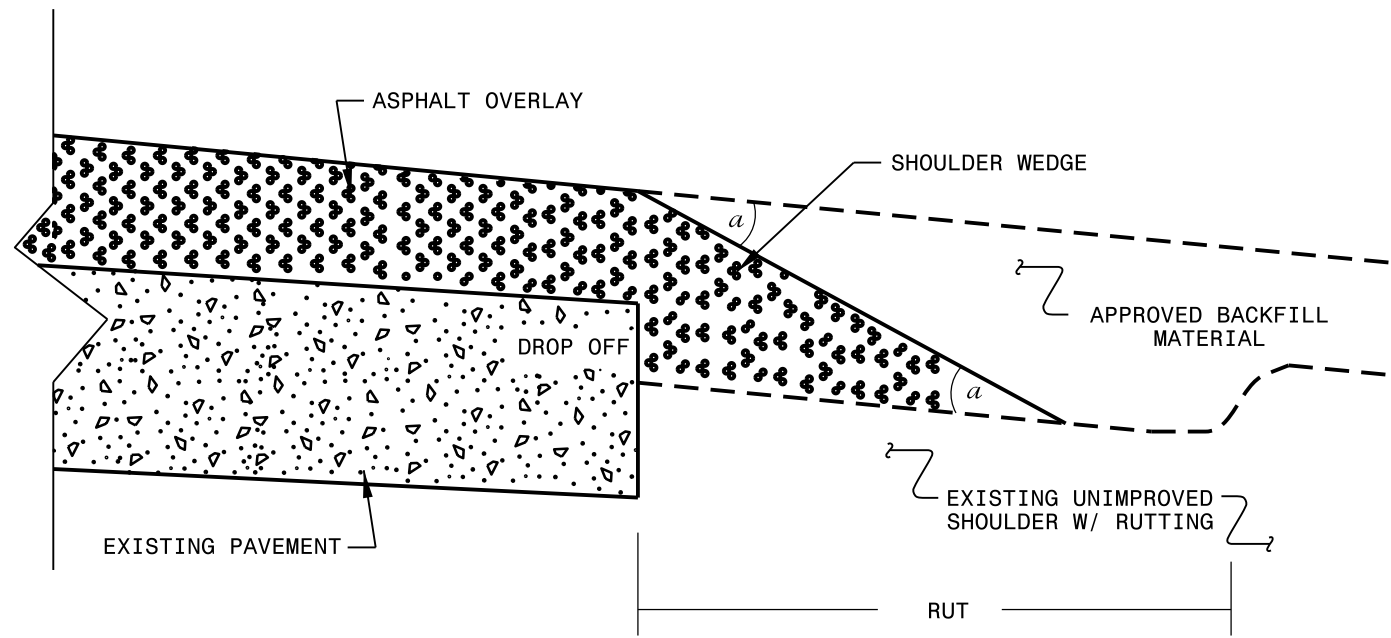
- NOTES:  
 1) DETAIL DOES NOT APPLY TO OGAFc AND ULTRA-THIN BONDED WEARING COURSE.  
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.  
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**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			

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 AT DIVI-3000730  
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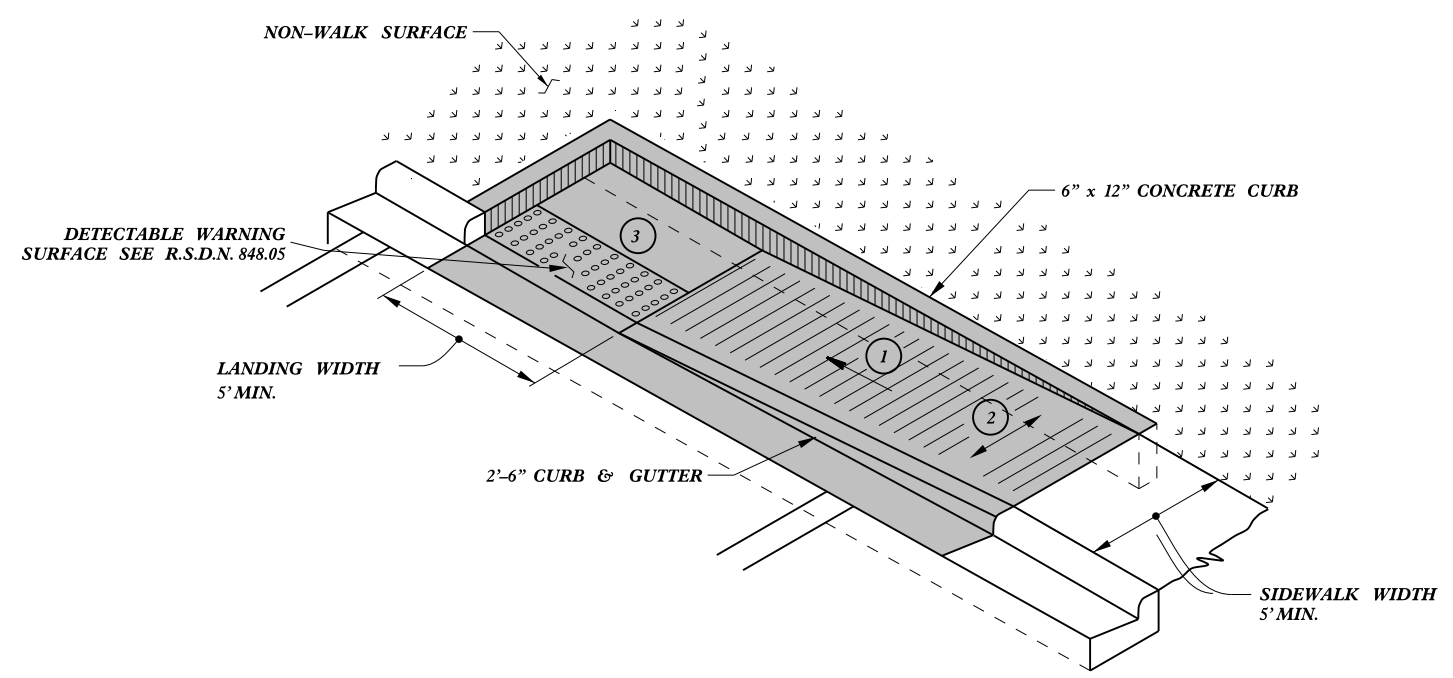
PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.01.27.10701.1		

**SUMMARY OF QUANTITIES**

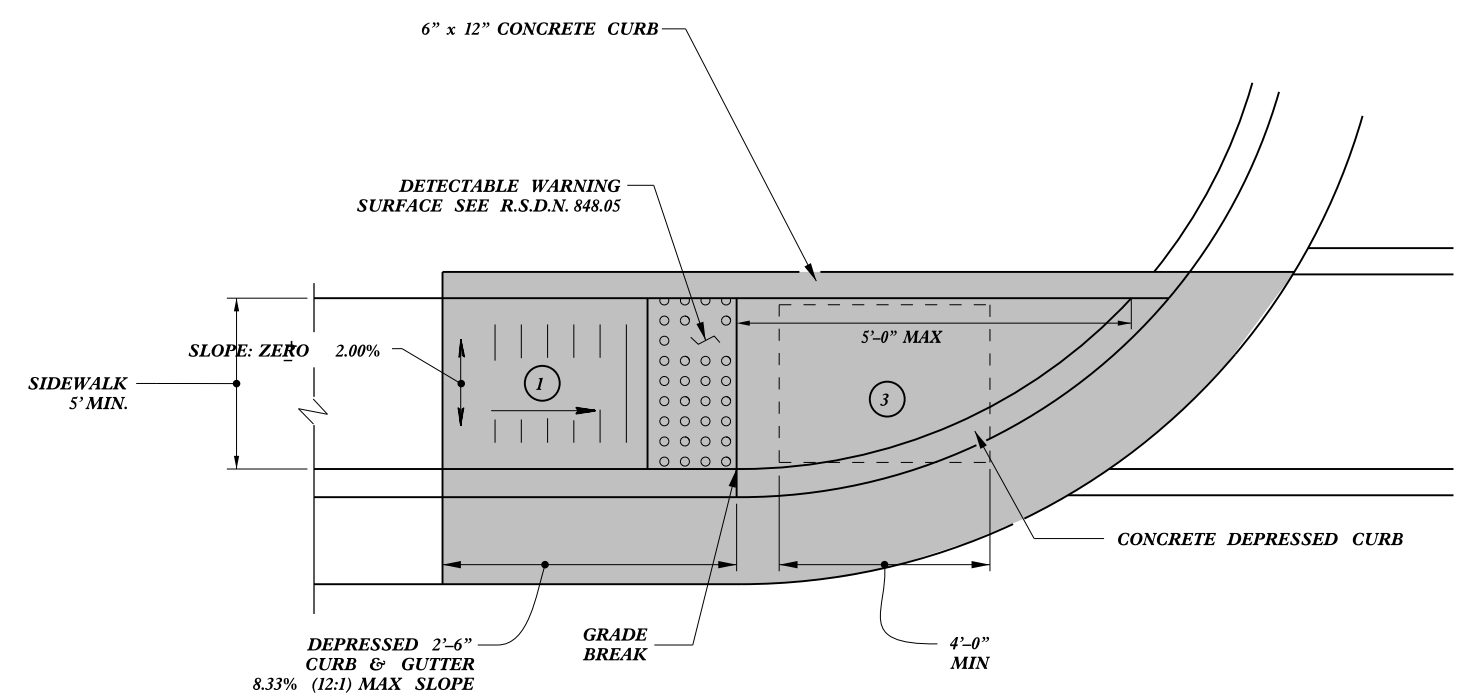
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	MOBILIZATION LS	BORROW CY	FOUNDATION CONDITIONING MATERIAL, MINOR STRS TON	FOUNDATION CONDITIONING FABRIC SY	15" RC PIPE CULVERTS, CLASS III LF	24" RC PIPE CULVERTS, CLASS III LF	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	1 1/2" MILLING SY	SURFACE COURSE, 59.58 TONS	SURFACE COURSE, SF9.5A TONS	ASPHALT BINDER FOR PLANT MIX TONS	AC PLANT MIX (REPAIR) TONS	PIPE COLLARS CY	MASONRY DRAINAGE STRUCTURES EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE E EA	2'-6" CURB & GUTTER LF	4" CONCRETE SIDEWALK SY	6" CONCRETE DRIVEWAY SY	RETROFIT EXISTING CURB RAMPS EA	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	MASONRY DRAINAGE STRUCTURE REPAIR EA	SEED & MULCHING ACR	PAVED TRENCHING (2") LF	PAVED TRENCHING (*****) LF	UNPAVED TRENCHING (1") LF	UNPAVED TRENCHING (2") LF	JUNCTION BOX (STANDARD SIZE) EA	INDUCTIVE LOOP SAWCUT LF	LEAD-IN CABLE (14-2) LF
2017CPT.01.27.10701.1	Pasquotank	1	US 17 -ROAD ST C&G	FROM KNOBBS CREEK DR TO CREEK ROAD	1	5	MU	NO	NO	2.6	60	1	20	4	5		12	20		120,000	10,674		640	200	3		2	740	50	130	15	5	1	7		300		650	600	30	4,740	3,200
2017CPT.01.27.10701.1	Pasquotank	2	US 17/US 158	FROM CREEK ROAD TO US 17 BYPASS	2	4	MD	NO	NO	4.63	48	*	1,500			16	16	100	19.42	267,983	22,529		1,352	100	4	1									9.5		200	200	200	14	3,360	600
2017CPT.01.27.10701.1	Pasquotank	3	MAINTENANCE PARKING AND ACCESS ROAD	FROM US 17 TO FENCE	3	2	ZWU	NO	NO	0.25	18	*									400	27																				
<b>GRAND TOTAL</b>										<b>7.48</b>		<b>1</b>	<b>1,520</b>	<b>4</b>	<b>5</b>	<b>16</b>	<b>28</b>	<b>120</b>	<b>19.42</b>	<b>387,983</b>	<b>33,203</b>	<b>400</b>	<b>2,019</b>	<b>300</b>	<b>7</b>	<b>1</b>	<b>2</b>	<b>740</b>	<b>50</b>	<b>130</b>	<b>15</b>	<b>5</b>	<b>1</b>	<b>7</b>	<b>9.5</b>	<b>300</b>	<b>200</b>	<b>850</b>	<b>800</b>	<b>44</b>	<b>8,100</b>	<b>3,800</b>

**THERMOPLASTIC AND PAINT QUANTITIES**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	TEMPORARY TRAFFIC CONTROL LS	WORK ZONE SIGNS (STATIONARY) SF	4" X 90 M WHITE THERMO LF	4" X 90 M YELLOW THERMO LF	4" X 120 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	8" X 90 M WHITE THERMO LF	24" X 120 M WHITE THERMO LF	THERMO MSG SCHOOL 120 EA	THERMO LT ARROW 90 M EA	THERMO STR ARROW 90 M EA	THERMO STR & RT ARROW EA	THERMO RT ARROW EA	4" WHITE PAINT LF	4" YELLOW PAINT LF	8" WHITE PAINT LF	24" WHITE PAINT LF	PAINT MSG SCHOOL EA	PAINT LT ARROW EA	PAINT STR ARROW EA	PAINT STR & RT ARROW EA	PAINT RT ARROW EA	SNOW PLOWABLE MARKERS EA					
2017CPT.01.27.10701.1	Pasquotank	1	US 17 -ROAD ST C&G	FROM KNOBBS CREEK DR TO CREEK ROAD	1	5	MU	2.6	60	1	120			21,450	35,641		500		99	35	6			8,250	35,641		500		99	35	6		500				
2017CPT.01.27.10701.1	Pasquotank	2	US 17/US 158	FROM CREEK ROAD TO US 17 BYPASS	2	4	MD	4.63	48	*	300	50,625	44,250	17,629		1,750	540	12	30	63	4	11	68,254		1,750	540	12	30	63	4	11	640					
2017CPT.01.27.10701.1	Pasquotank	3	MAINTENANCE PARKING AND ACCESS ROAD	FROM US 17 TO FENCE	3	2	ZWU	0.25	18	*				2,500										2,500													
<b>GRAND TOTAL</b>										<b>7.48</b>	<b>1</b>	<b>420</b>	<b>50,625</b>	<b>44,250</b>	<b>39,079</b>	<b>38,141</b>	<b>2,500</b>	<b>1,750</b>	<b>1,040</b>	<b>12</b>	<b>129</b>	<b>98</b>	<b>10</b>	<b>11</b>	<b>76,504</b>	<b>38,141</b>	<b>1,750</b>	<b>1,040</b>	<b>12</b>	<b>129</b>	<b>98</b>	<b>10</b>	<b>11</b>	<b>114,645</b>	<b>248</b>	<b>248</b>	<b>1,140</b>



**TYPE 1A**



**TYPE 1**

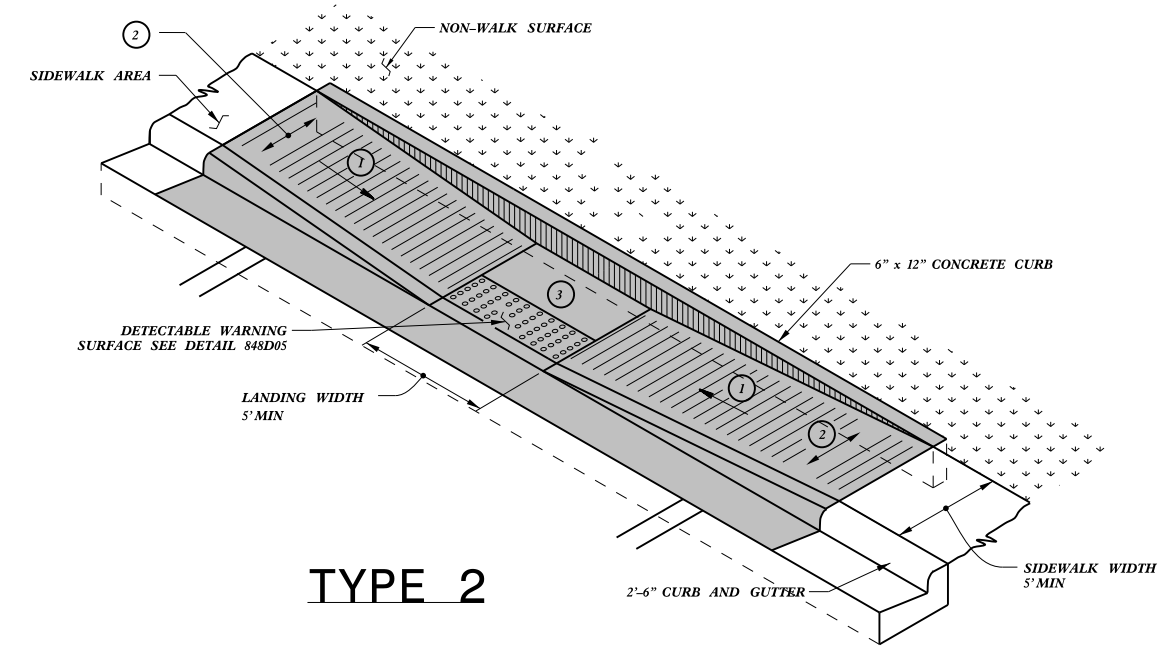
- ① 8.33% (12:1) MAX RAMP SLOPE
- ② CROSS SLOPE: 2.00%
- ③ CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

**PAY LIMITS FOR CURB RAMP**

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

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

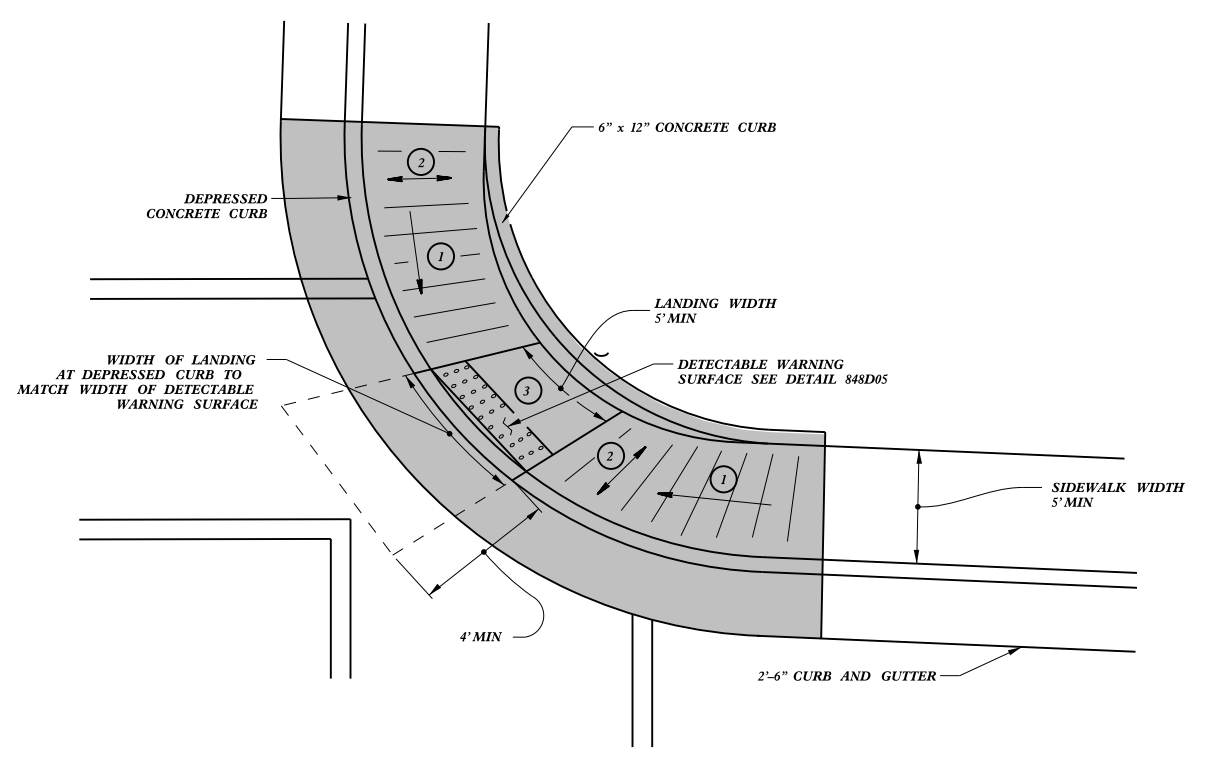
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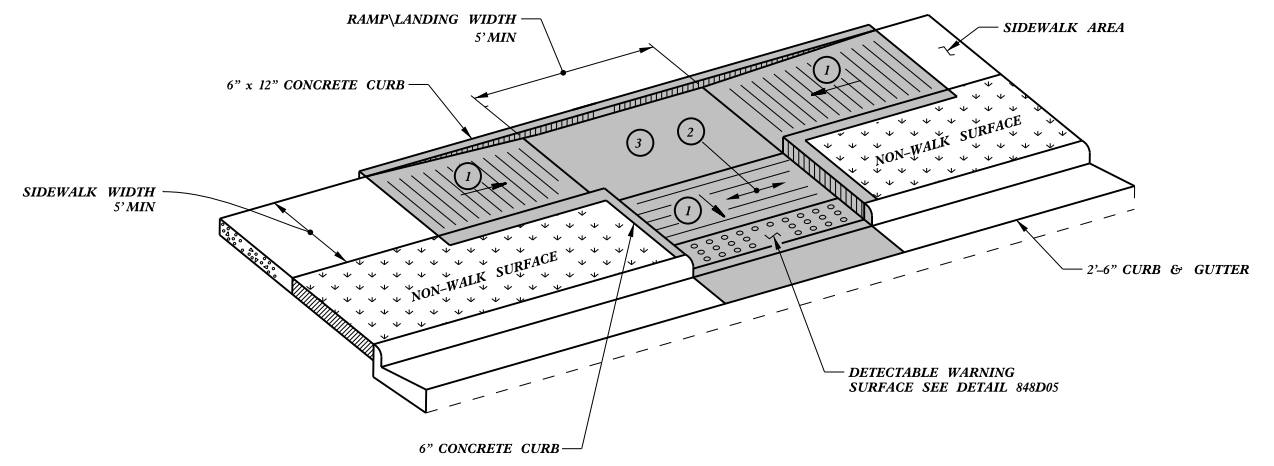
**TYPE 2**

PAY LIMITS FOR CURB RAMP

- 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.



**TYPE 2A**



**TYPE 3**

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

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

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