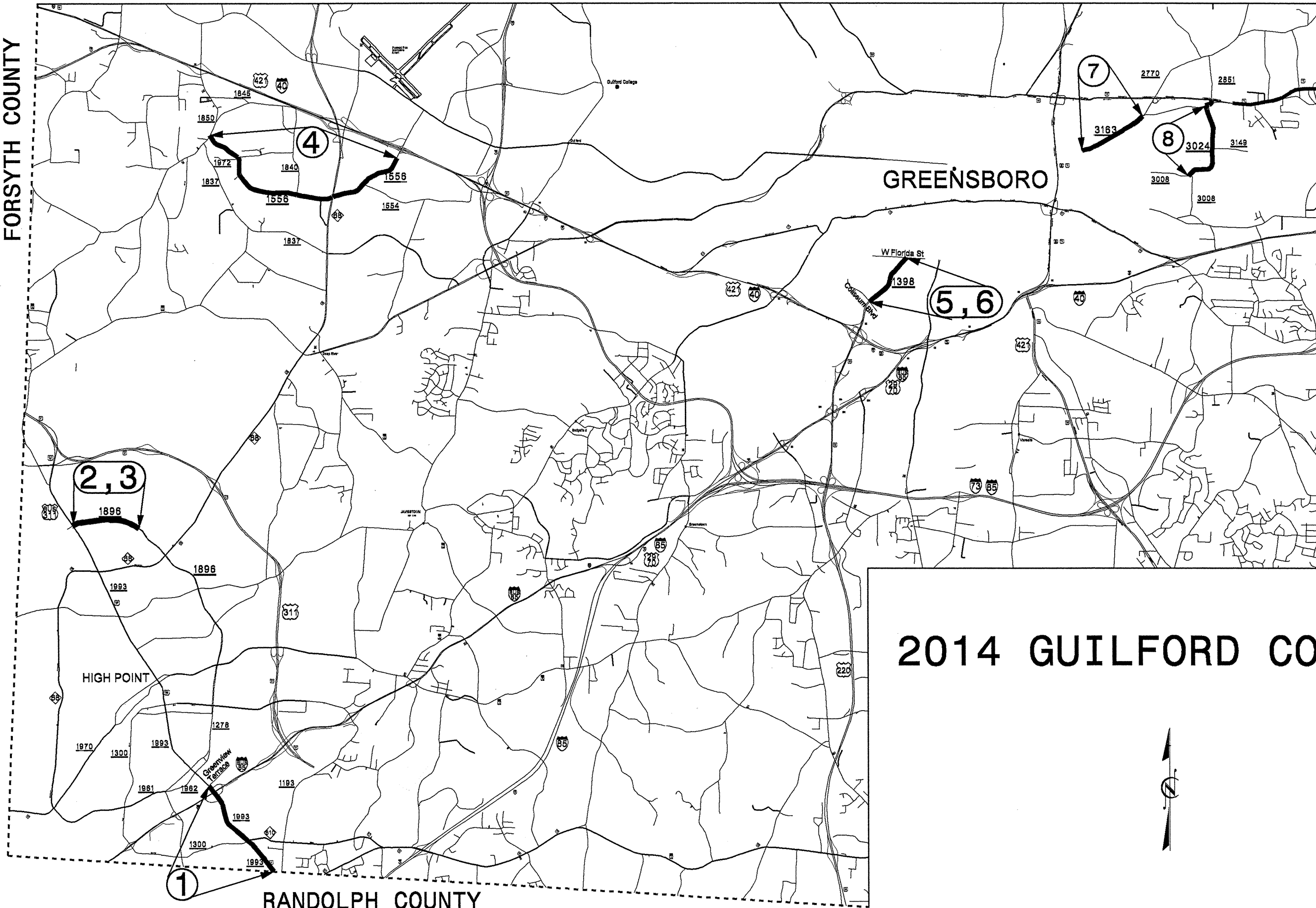


31-OCT-2013 07:33
S:\Contracts\Resurfacing Projects\Division 7\guilford2\RALEIGH\Revised Files\vicinity-sh1.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7CR.20411.63	1	10
F.A. PROJ. NO			

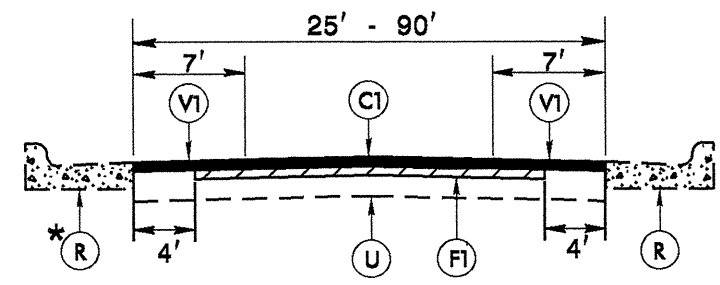
FORSYTH COUNTY



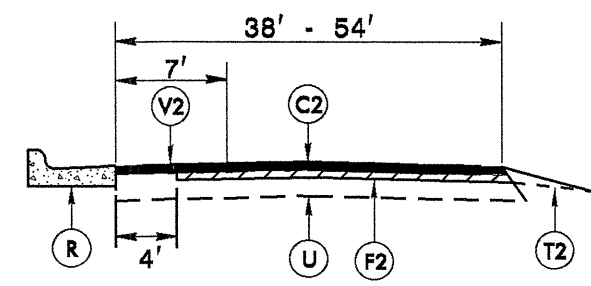
2014 GUILFORD COUNTY



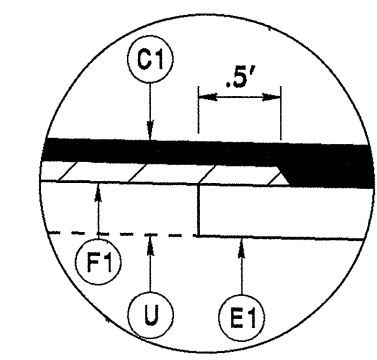
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7CR.20411.63	2	10



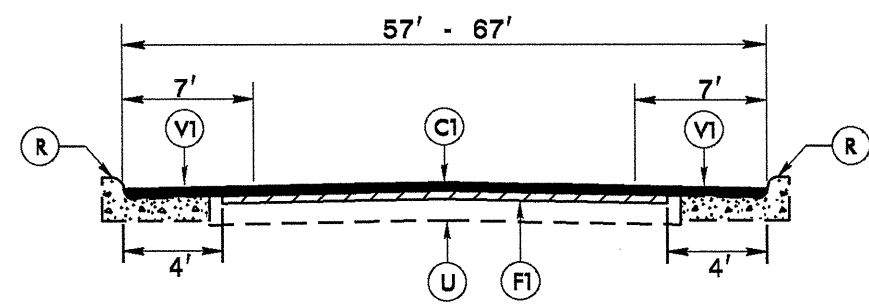
*NOTE: NO CURB AND GUTTER ON SECTIONS
 MAP 2: STA. 46+20 TO STA. 50+80
 MAP 3: STA. 2+90 TO STA. 7+30
TYPICAL SECTION NO. 1
 TO BE USED ON MAPS 1, 2, 3, 5, AND 6
 MAP 1: STA. 0+00 TO STA. 80+75
 MAP 5: STA. 0+00 TO STA. 8+45
 MAP 6: STA. 39+05 TO STA. 46+65



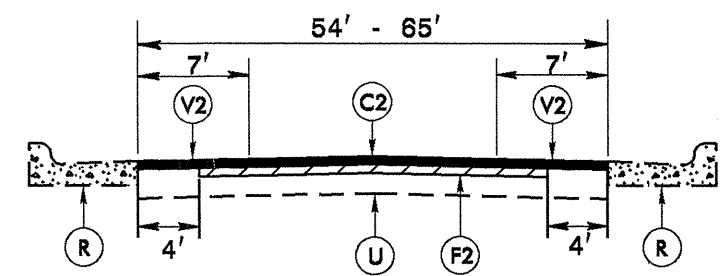
TYPICAL SECTION NO. 5
 TO BE USED ON MAP 4
 STA. 148+80 TO STA. 179+45



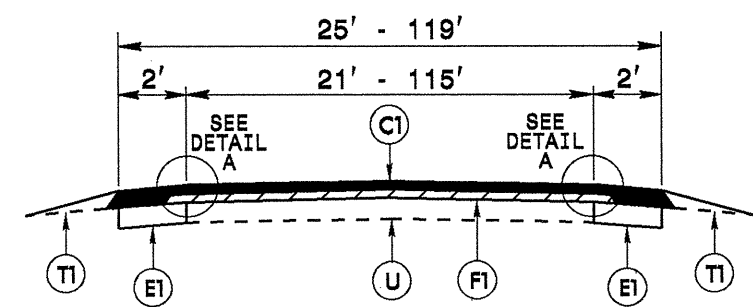
DETAIL A



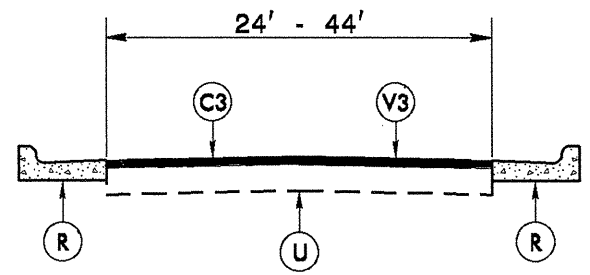
TYPICAL SECTION NO. 2
 TO BE USED ON MAP 1
 STA. 80+75 TO STA. 87+45



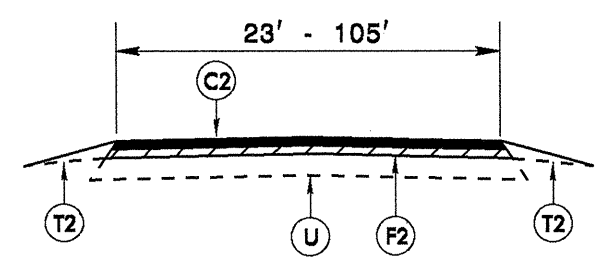
TYPICAL SECTION NO. 6
 TO BE USED ON MAPS 4 AND 7
 MAP 4: STA. 179+45 TO STA. 185+55
 MAP 7: STA. 0+00 TO STA. 49+55



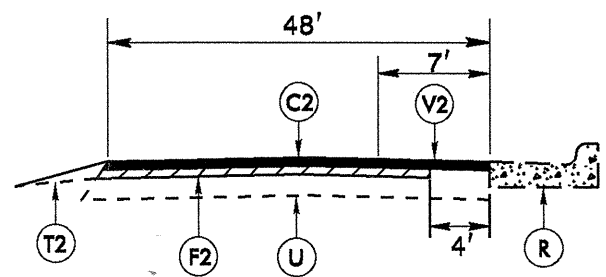
TYPICAL SECTION NO. 3
 TO BE USED ON MAP 4
 STA. 0+00 TO STA. 121+80



TYPICAL SECTION NO. 7
 TO BE USED ON MAPS 5 AND 6
 MAP 5: STA. 8+45 TO STA. 46+60
 MAP 6: STA. 0+00 TO STA. 39+05



*NOTE: NO PAVEMENT ON SECTION:
 STA. 121+80 TO STA. 123+45
TYPICAL SECTION NO. 4
 TO BE USED ON MAP 4
 STA. 121+80 TO STA. 148+80

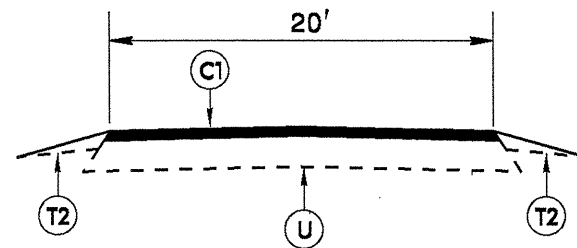


TYPICAL SECTION NO. 8
 TO BE USED ON MAP 7
 STA. 49+55 TO STA. 51+70

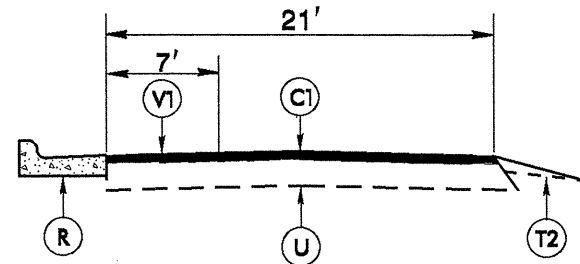
PAVEMENT SCHEDULE			
C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.		
C2	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.		
C3	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.		
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.		
E1	PROP. APPROX. 7" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD. IN EACH OF TWO LAYERS		
E2	PROP. APPROX. 8" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. IN EACH OF TWO LAYERS		
F1	AST MAT COAT, #78m STONE		
F2	AST MAT COAT, #67 STONE		
R	EXISTING CONCRETE STRUCTURE		
T1	SHOULDER RECONSTRUCTION, AS DIRECTED BY THE ENGINEER.		
T2	INCIDENTAL STONE BASE IN LOW SHOULDER AREAS, AS DIRECTED BY THE ENGINEER		
U	EXISTING PAVEMENT.		
V1	0 TO 1 1/4" MILLING	V2	0 TO 1 1/2" MILLING
V3	1 1/2" MILLING	V4	3" MILLING FOR PATCHING
V5	8" MILLING FOR PATCHING		

31-OCT-2013 07:31
 surfacing\projects\Division 7\guilford2\RALEIGH\Revised Files\typical.1.dgn
 USER: JSM

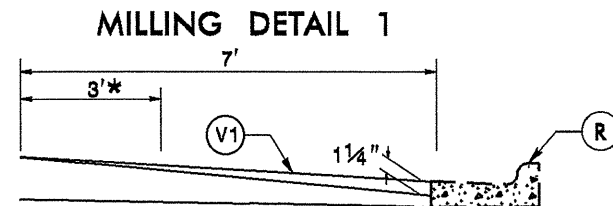
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7CR.20411.63	3	10



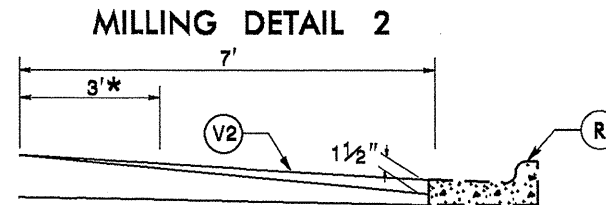
*NOTE: NO PAVEMENT ON SECTION:
STA. 2+10 TO STA. 2+50
TYPICAL SECTION NO. 9
TO BE USED ON MAP 8
STA. 0+00 TO STA. 65+05



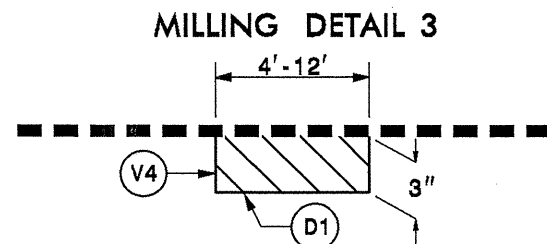
TYPICAL SECTION NO. 10
TO BE USED ON MAP 8
STA. 65+05 TO STA. 69+70



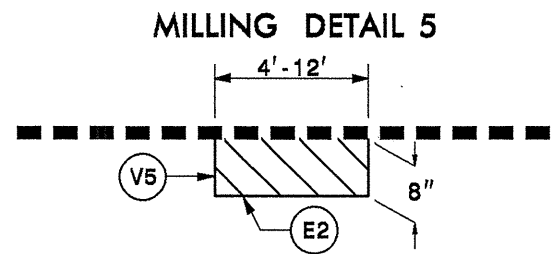
*IF 78M OR #67 SEAL IS INVOLVED, OVERLAP 3'.
PROFILE MILLING 0 - 1 1/4"
PROFILE MILL EXISTING ASPHALT PAVEMENT
1 1/4" AT LOCATIONS AS DIRECTED BY THE
ENGINEER.
NOTE: TO BE USED IN CONJUNCTION WITH:
TS. NO. 1 ON MAP 1 STA. 0+00 TO STA. 80+75 LT & RT
TS. NO. 1 ON MAP 2 STA. 0+00 TO STA. 53+75 LT & RT
TS. NO. 1 ON MAP 3 STA. 0+00 TO STA. 53+00 LT & RT
TS. NO. 2 ON MAP 1 STA. 80+75 TO STA. 87+45 LT & RT
TS. NO. 10 ON MAP 8 STA. 65+05 TO STA. 69+70 LT



MILLING DETAIL 2
*IF 78M OR #67 SEAL IS INVOLVED, OVERLAP 3'.
PROFILE MILLING 0 - 1 1/2"
PROFILE MILL EXISTING ASPHALT PAVEMENT
1 1/2" AT LOCATIONS AS DIRECTED BY THE
ENGINEER.
NOTE: TO BE USED IN CONJUNCTION WITH:
TS. NO. 5 ON MAP 4 STA. 148+80 TO STA. 179+45 LT
TS. NO. 6 ON MAP 4 STA. 179+45 TO STA. 185+55 LT & RT
TS. NO. 6 ON MAP 7 STA. 0+00 TO STA. 49+55 LT & RT
TS. NO. 8 ON MAP 7 STA. 49+55 TO STA. 51+70 RT



MILLING DETAIL 3
MILL EXISTING ASPHALT PAVEMENT 3" IN DEPTH AND
FILL WITH INTERMEDIATE COURSE, TYPE I19.0B AT
LOCATIONS AS DIRECTED BY THE ENGINEER.
TO BE USED IN CONJUNCTION WITH MAPS 1
MAP 1: 3" MILLING = 760 SYD
INTERMEDIATE COURSE, TYPE I19.0B = 130 TONS
MAP 2: 3" MILLING = 260 SYD
INTERMEDIATE COURSE, TYPE I19.0B = 44 TONS
MAP 3: 3" MILLING = 260 SYD
INTERMEDIATE COURSE, TYPE I19.0B = 44 TONS
MAP 4: 3" MILLING = 850 SYD
INTERMEDIATE COURSE, TYPE I19.0B = 145 TONS
MAP 5: 3" MILLING = 232 SYD
INTERMEDIATE COURSE, TYPE I19.0B = 40 TONS
MAP 6: 3" MILLING = 232 SYD
INTERMEDIATE COURSE, TYPE I19.0B = 40 TONS



MILLING DETAIL 5
MILL EXISTING ASPHALT PAVEMENT 8" IN DEPTH AND
FILL WITH BASE COURSE, TYPE B25.0B AT LOCATIONS AS
DIRECTED BY THE ENGINEER.
TO BE USED IN CONJUNCTION WITH MAPS 4
MAP 4: 8" MILLING = 450 SYD
BASE COURSE, TYPE B25.0B = 205 TONS

PAVEMENT SCHEDULE			
C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.		
C2	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.		
C3	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.		
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.		
E1	PROP. APPROX. 7" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD. IN EACH OF TWO LAYERS		
E2	PROP. APPROX. 8" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. IN EACH OF TWO LAYERS		
F1	AST MAT COAT, #78m STONE		
F2	AST MAT COAT, #67 STONE		
R	EXISTING CONCRETE STRUCTURE		
T1	SHOULDER RECONSTRUCTION, AS DIRECTED BY THE ENGINEER.		
T2	INCIDENTAL STONE BASE IN LOW SHOULDER AREAS, AS DIRECTED BY THE ENGINEER		
U	EXISTING PAVEMENT.		
V1	0 TO 1 1/4" MILLING	V2	0 TO 1 1/2" MILLING
V3	1 1/2" MILLING	V4	3" MILLING FOR PATCHING
V5	8" MILLING FOR PATCHING		

31-OCT-2013 07:32 surfacing_projects\division 7\nguilford2\RALEIGH\Revised Files\typical.1.dgn

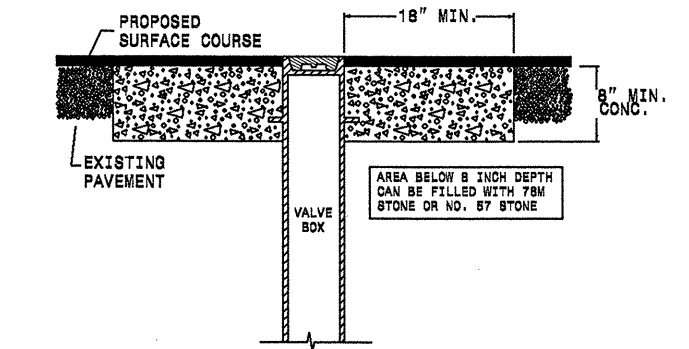
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7CR.20011.63	4	10

2012 ROADWAY ENGLISH STANDARD DRAWINGS

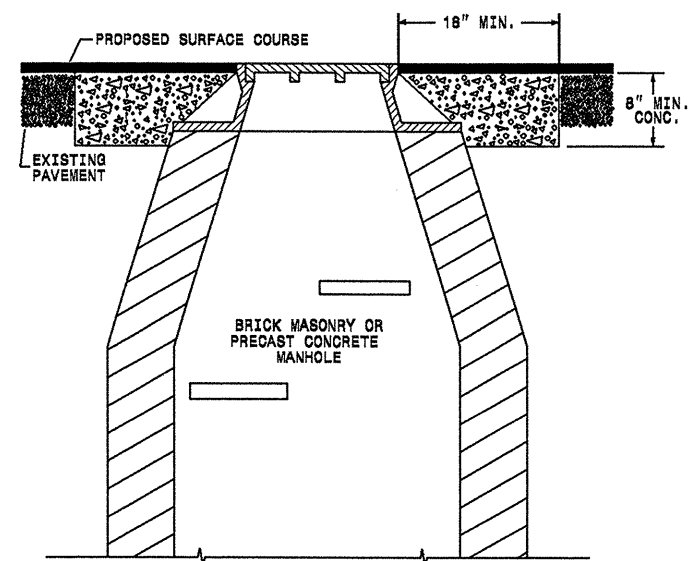
The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N.C. Department of Transportation - Raleigh, N.C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO. TITLE
 DIVISION 8 - INCIDENTALS
 848.05 Curb Ramp - Proposed Curb & Gutter
 848.06 Curb Ramp - Existing Curb & Gutter

**STANDARD CONCRETE ENCASEMENT FOR MANHOLE & VALVE CASTINGS IN PAVEMENT
 DETAIL DRAWING**

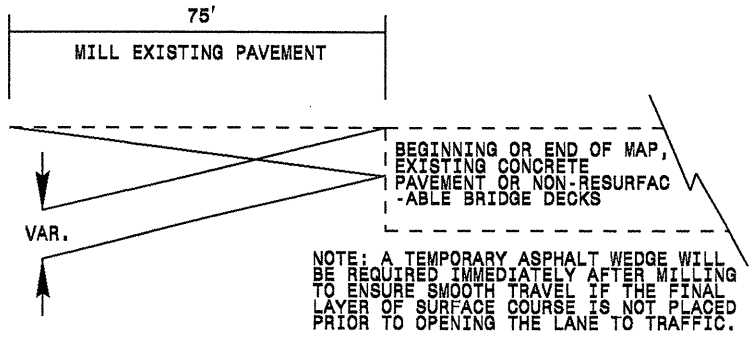


USE RAPID SET GROUT, MORTAR, OR CONCRETE CLASS B CONCRETE MAY BE USED WHEN ADJUSTMENTS ARE NOT IN THE TRAVEL LANE.

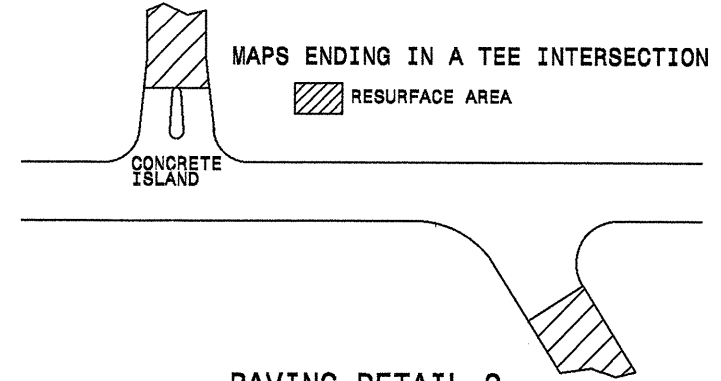


- NOTES:
1. MORTAR SHALL BE MIXED TO NCDOT SPECIFICATIONS.
 2. ALL FAULTY EXISTING BRICKWORK TO BE REMOVED AND REPLACED WITH NEW BRICK MASONRY.
 3. EXCAVATION FOR THE ADJUSTMENT SHALL BE SHEER CUT ON ALL SIDES.
 4. RAPID SET GROUT, MORTAR, OR CONCRETE SHALL BE USED

INCIDENTAL MILLING DETAIL

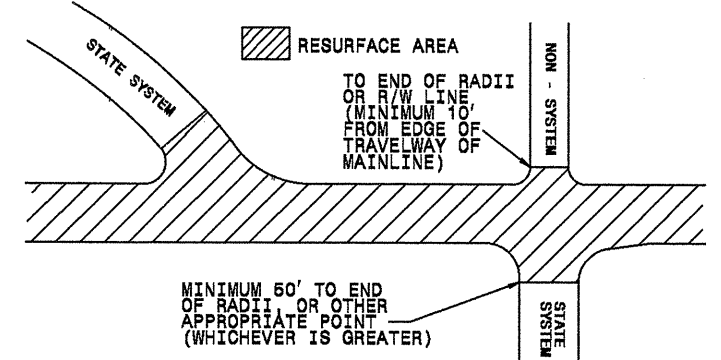


**PAVING DETAIL 1
 MAIN LINE IS NOT BEING RESURFACED**

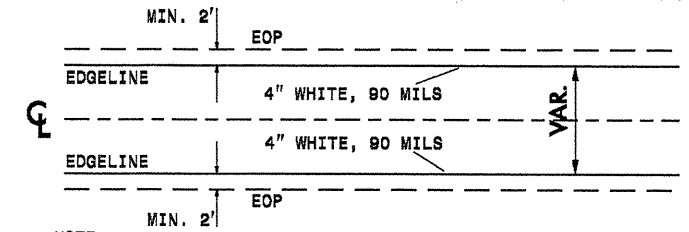


**PAVING DETAIL 2
 MAIN LINE IS BEING RESURFACED**

NOTE: NON-SYSTEM (CITY STREET, PRIVATE DRIVE, SCHOOL BUS DRIVE)

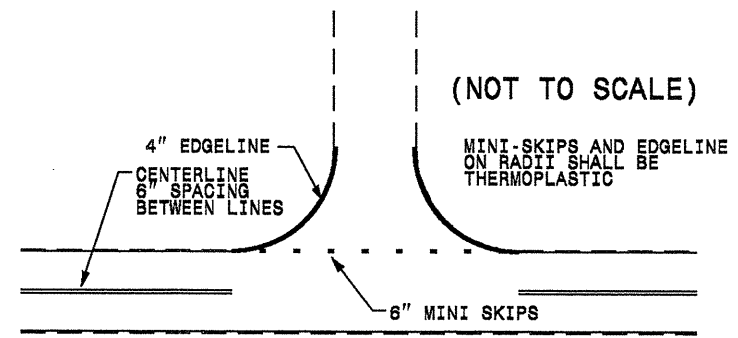


**STRIPING DETAIL 1
 GENERAL STRIPING DETAIL FOR ENTIRE PROJECT**



- NOTE:
1. TO BE USED IN CONJUNCTION WITH TYPICAL SECTION NO. 3
 2. USE IN CONJUNCTION WITH THE EXISTING PAVEMENT MARKINGS TO ESTABLISH THE STRIPING.
 3. USE IN CONJUNCTION WITH THE NCDOT STANDARD DRAWINGS.

**TO BE USED AT ALL
 NON-SIGNALIZED INTERSECTIONS**



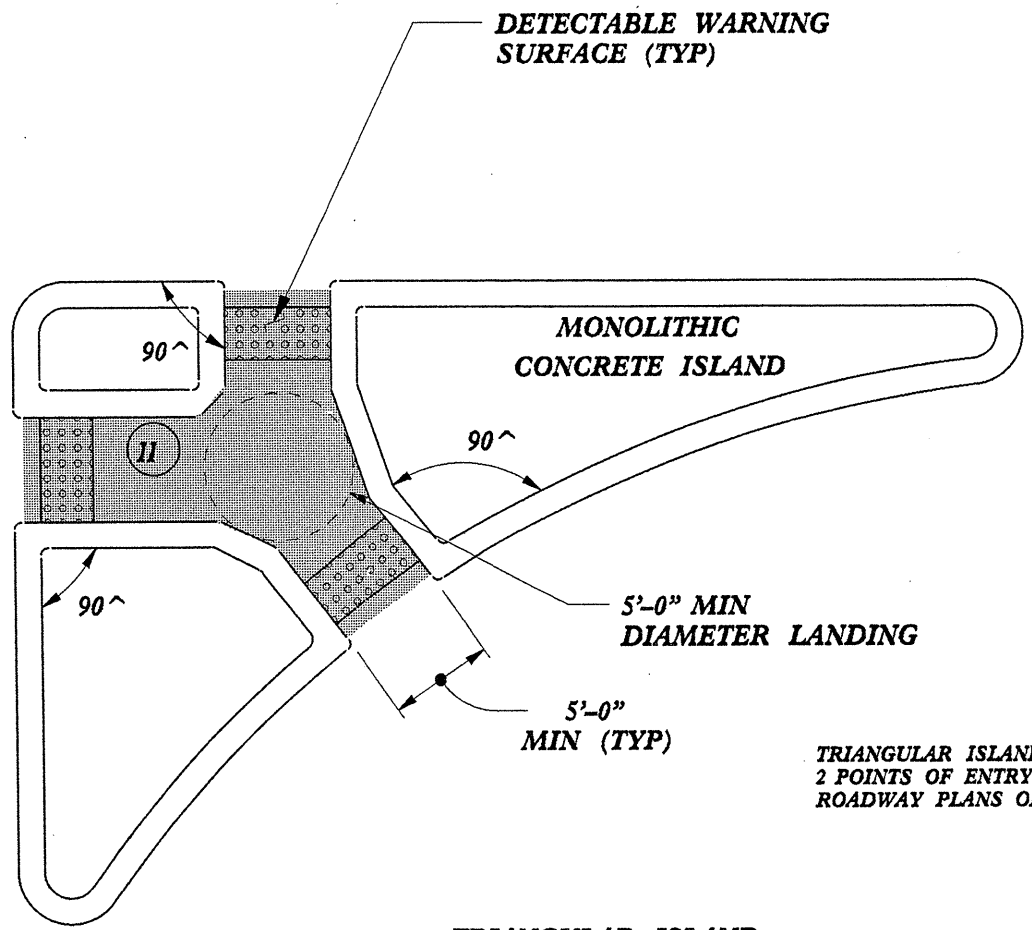
NOTE: MINI SKIPS SHALL BE PLACED ON A 8' CYCLE, CONTAINING AN 8' AND 2' SKIP, THE WIDTH OF THE SKIP SHALL BE 6'.

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.		
C2	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.		
C3	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.		
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.		
E1	PROP. APPROX. 7" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD. IN EACH OF TWO LAYERS		
E2	PROP. APPROX. 8" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. IN EACH OF TWO LAYERS		
F1	AST MAT COAT, #78m STONE		
F2	AST MAT COAT, #67 STONE		
R	EXISTING CONCRETE STRUCTURE		
T1	SHOULDER RECONSTRUCTION, AS DIRECTED BY THE ENGINEER.		
T2	INCIDENTAL STONE BASE IN LOW SHOULDER AREAS, AS DIRECTED BY THE ENGINEER		
U	EXISTING PAVEMENT.		
V1	0 TO 1 1/4" MILLING	V2	0 TO 1 1/2" MILLING
V3	1 1/2" MILLING	V4	3" MILLING FOR PATCHING
V5	8" MILLING FOR PATCHING		

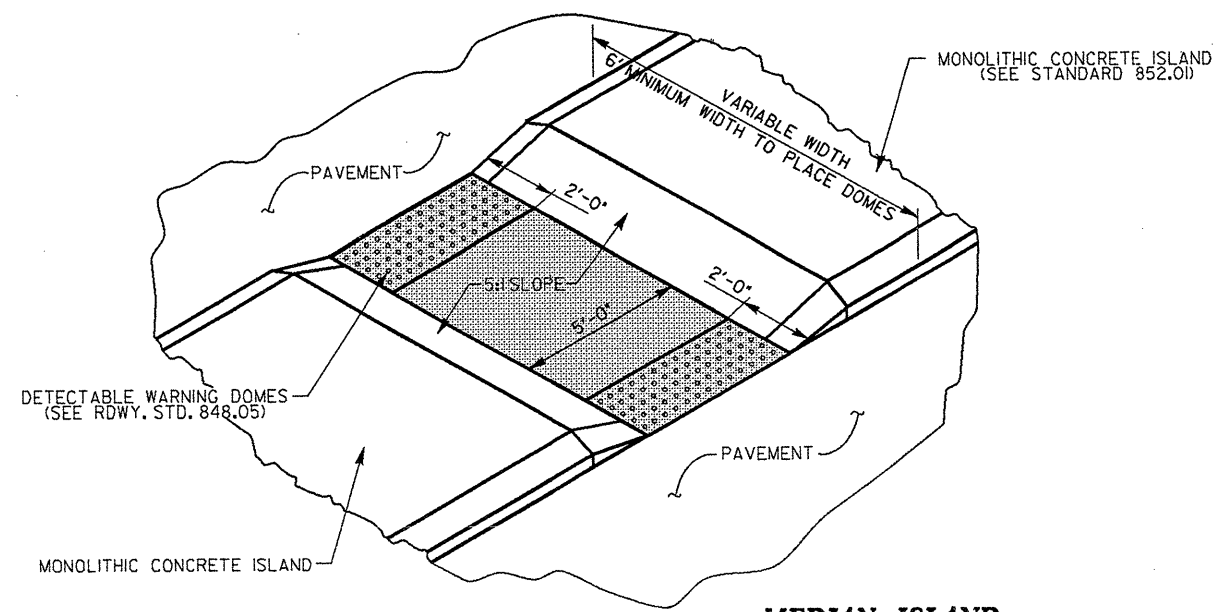
31-OCT-2013 13:51 S:\Contracts\Resurfacing Projects\Division 7\gulford2\RALEIGH\Revised Files\typical.1.dgn

 PAY LIMITS FOR 1 CURB RAMP

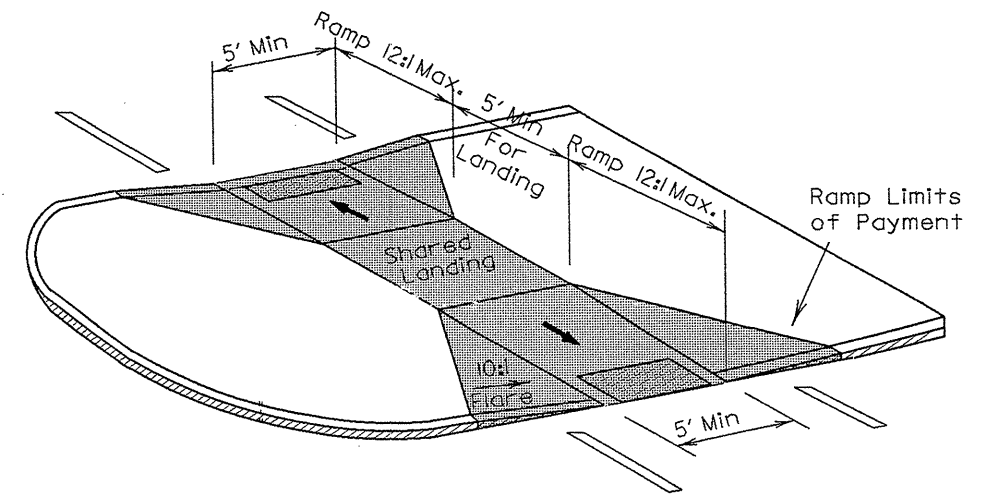


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY 2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

TRIANGULAR ISLAND WITH CUT THROUGH



MEDIAN ISLAND WITH CUT THROUGH



MEDIAN ISLAND CURB RAMPS

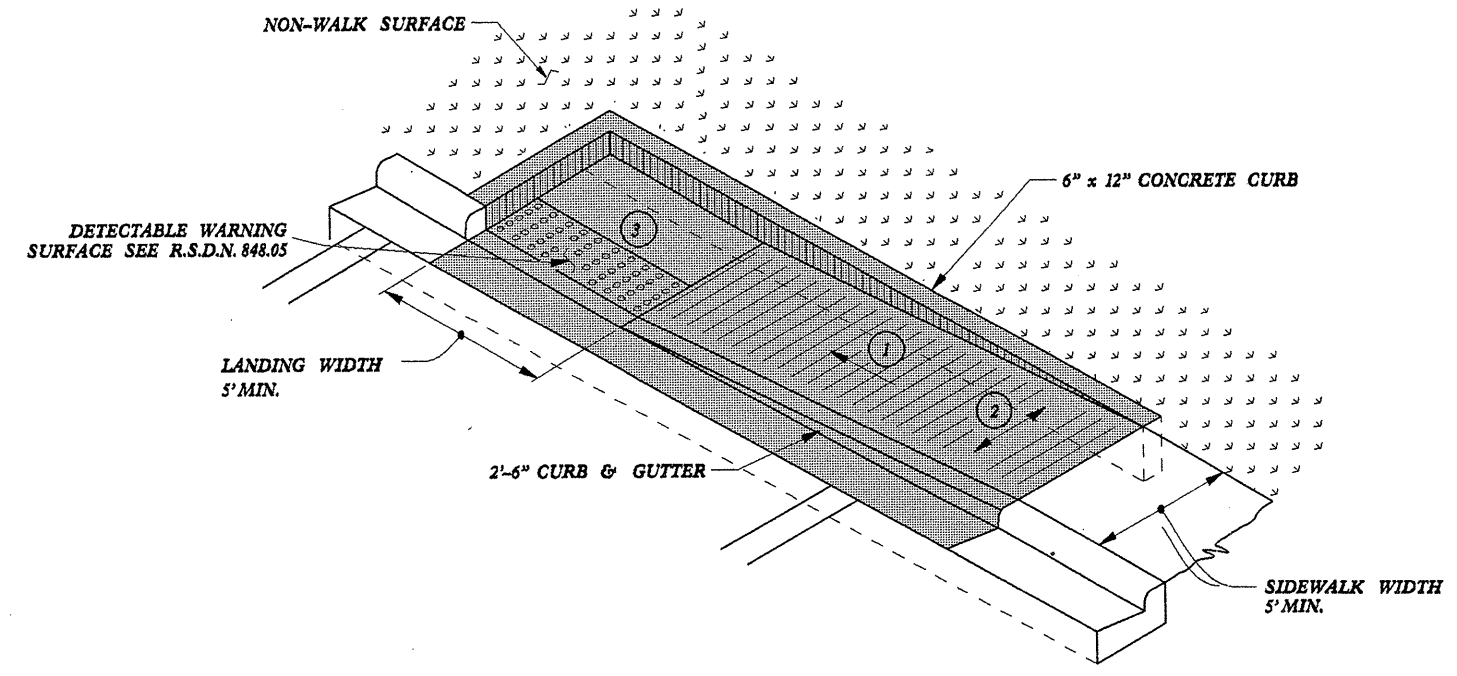
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6650	FAX 919-250-4118
CURB RAMPS	
Median or Turn Lane Islands	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn	

5/14/99

 SYSTEMS

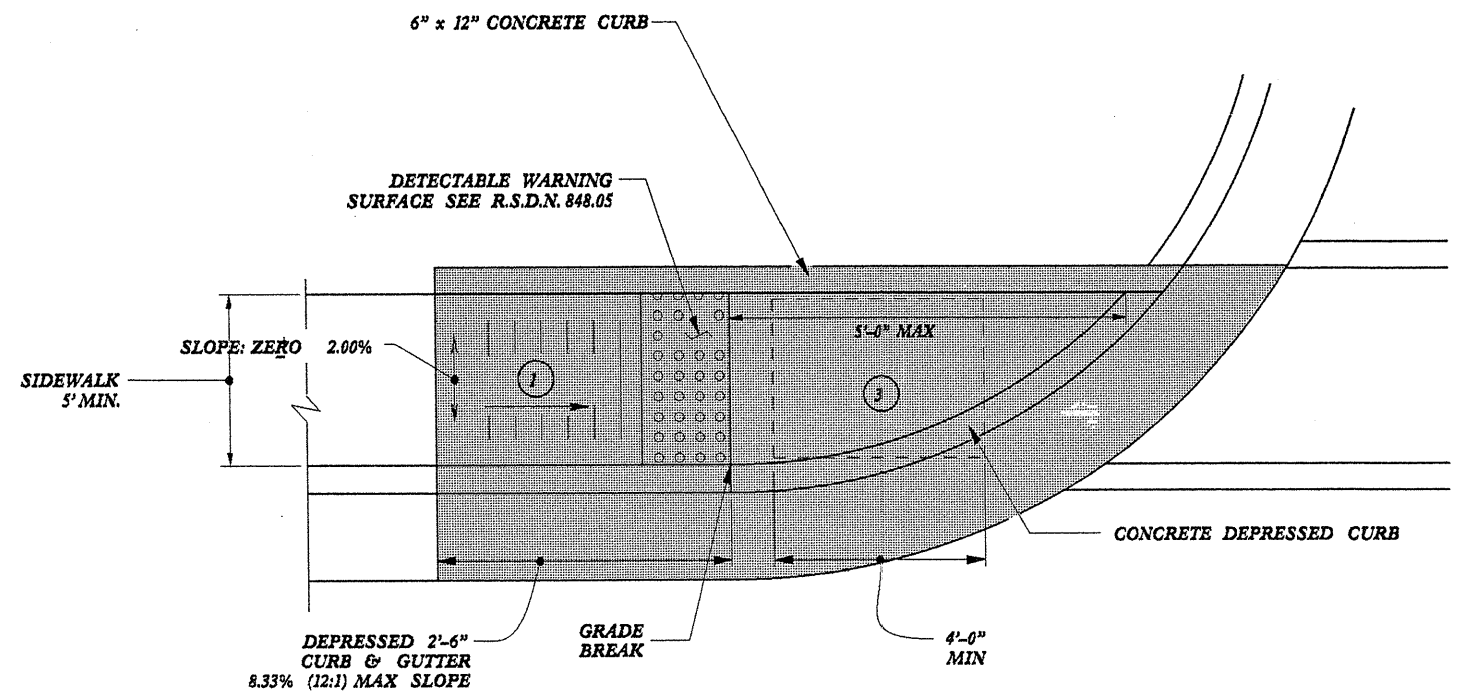
 USER NAME

5/14/99
22-MAR-2012 15:05
S:\Contracts\Special Details\Howerton\Standard Drawings\2012 Curb Ramp Special Details\Curb Ramp Details.dgn
Howerton



TYPE 1A

PAY LIMITS FOR CURB RAMP



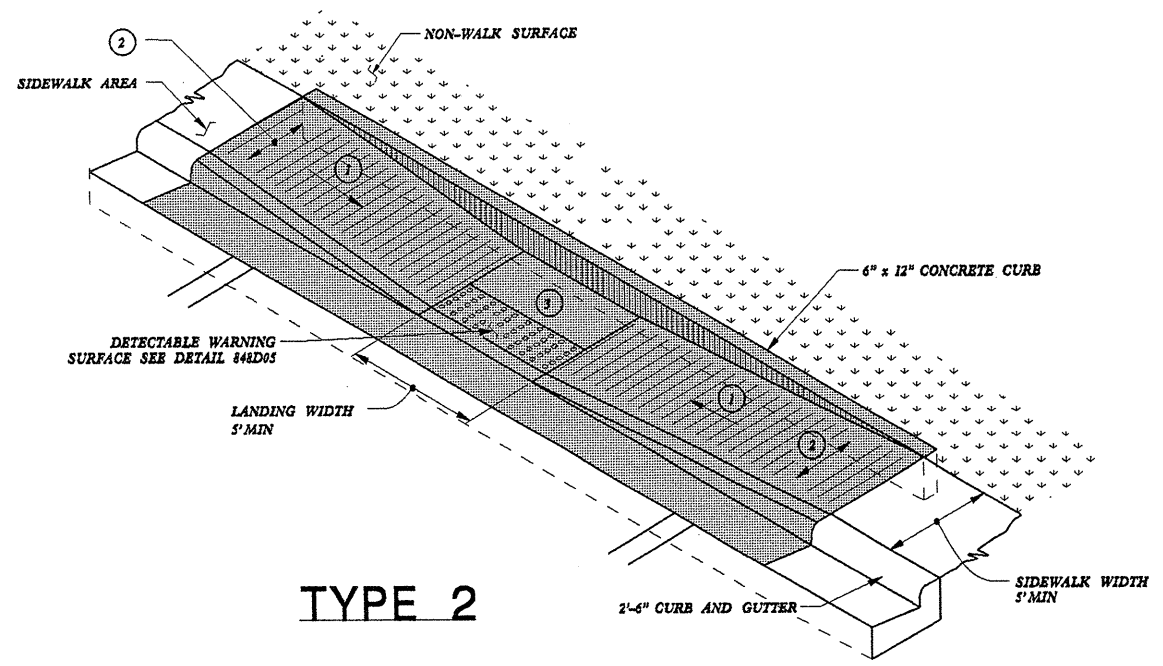
TYPE 1

- 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.

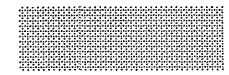
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-8950 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: sids/2012CurbRamp/CurbRampDetails.dgn	

5/14/99
 22-MAR-2012 15:07
 J:\projects\Standard Drawings\2012 Standard Drawings\2012 Curb Ramp Spectral Details\Curb Ramp Details.dgn
 J:\projects\Standard Drawings\2012 Standard Drawings\2012 Curb Ramp Spectral Details\Curb Ramp Details.dgn
 J:\projects\Standard Drawings\2012 Standard Drawings\2012 Curb Ramp Spectral Details\Curb Ramp Details.dgn

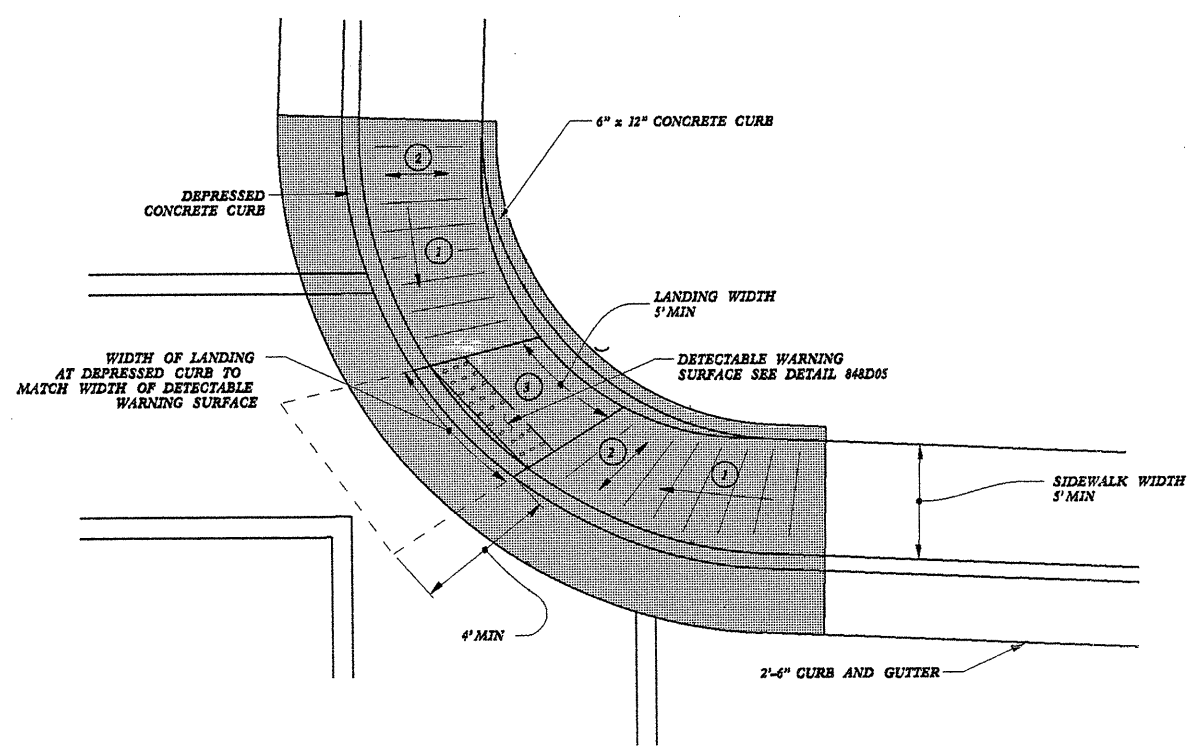


TYPE 2

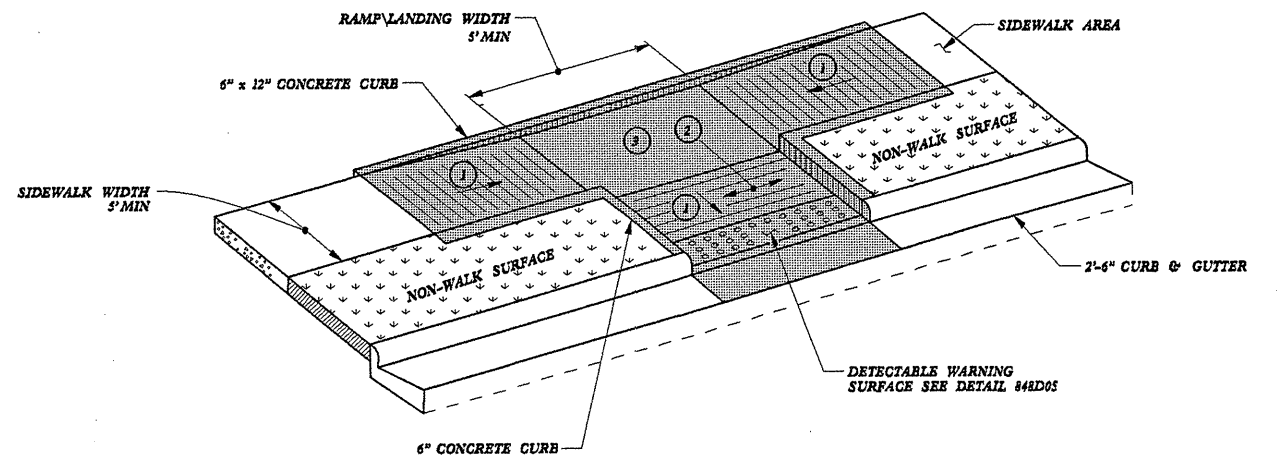


PAY LIMITS FOR CURB RAMP

- 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.



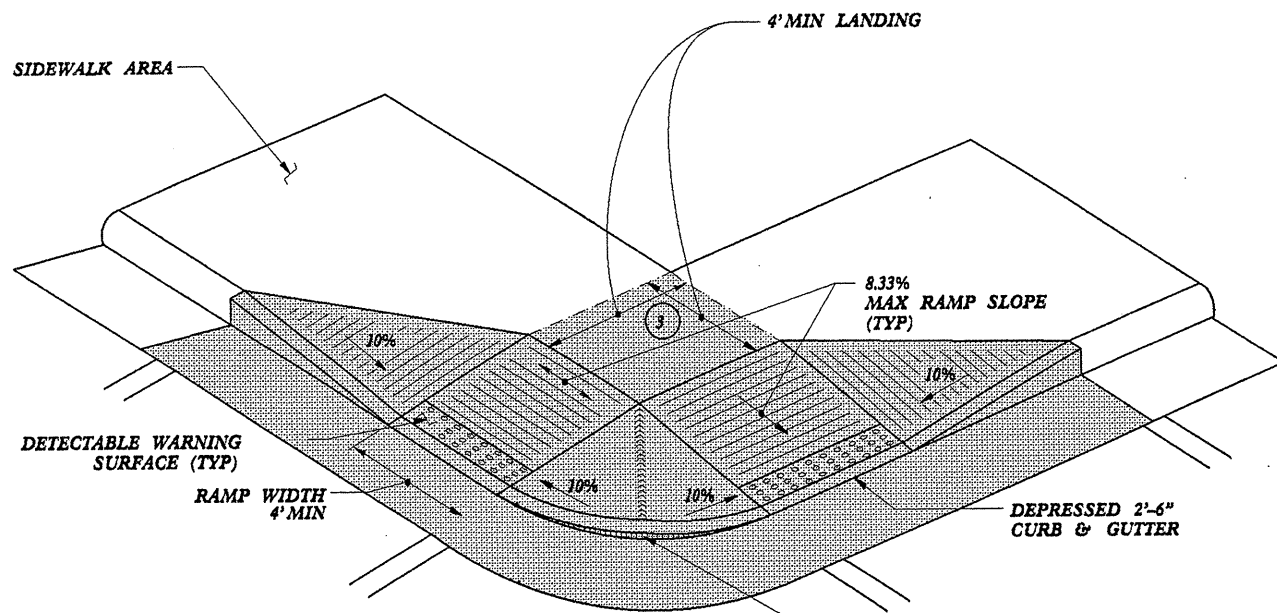
TYPE 2A



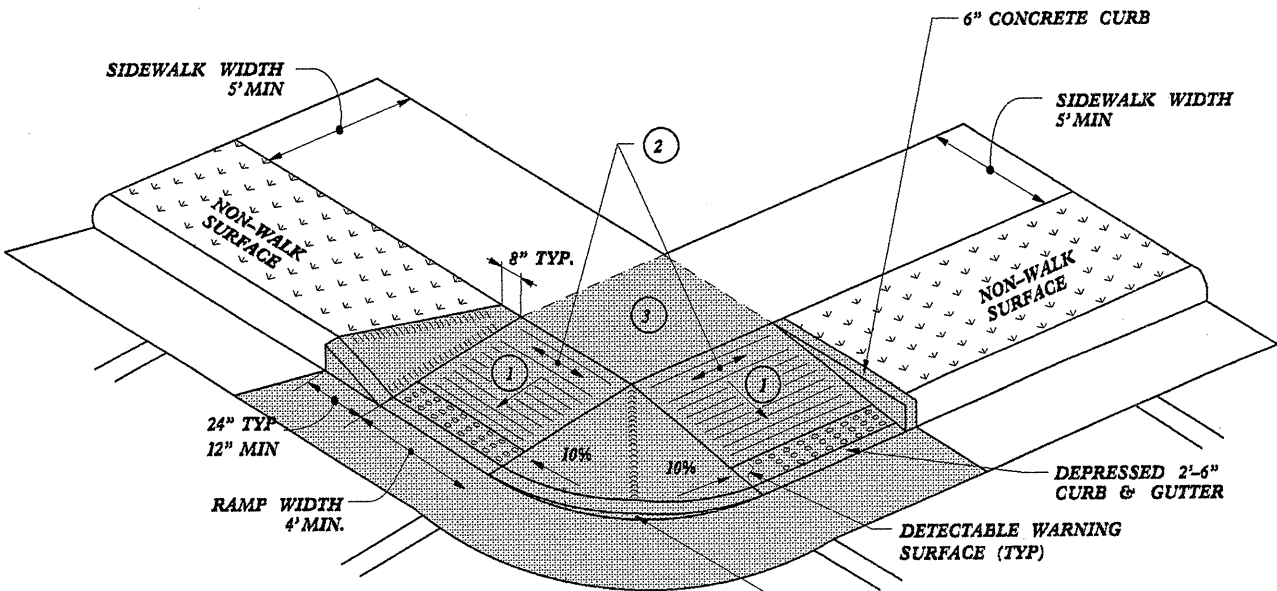
TYPE 3

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

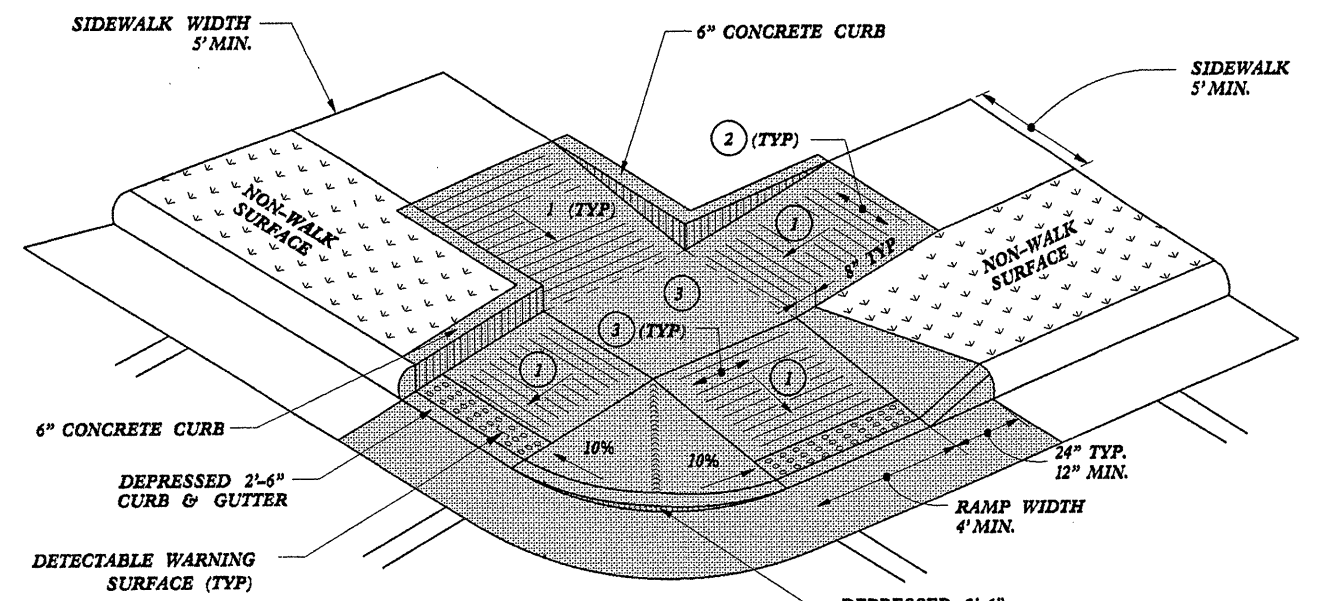
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES



TYPE 4



TYPE 4A



TYPE 5

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.

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-8950 FAX 919-250-4119	
CURB RAMPS	
Shared Landing	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetail.dgn	

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

5/14/09
22-MAR-2012 15:08
S:\Contracts\1115033750\Powerlon
Special Details\Howerton\Standard Drawings\2012 Curb Ramp Special Details\Curb Ramp Details.dgn

PROJECT NO.	SHEET NO.	TOTAL NO.
7CR.20411.63	10	10

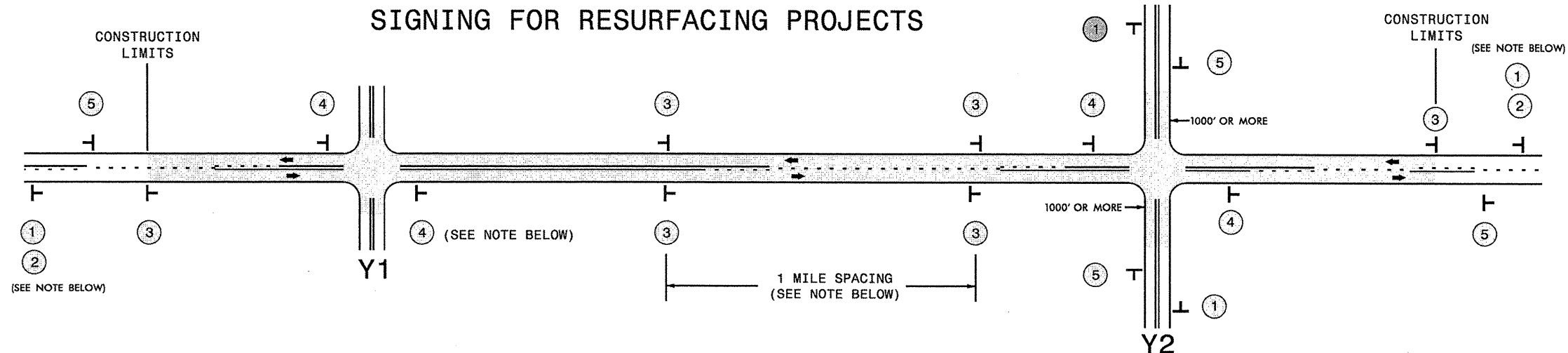
7

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO.	COUNTY	MAP NO.	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4457000000-N	4413000000-E	4685000000-E	4686000000-E	4690000000-E	4695000000-E	4697000000-E	4705000000-E	4710000000-E	4721000000-E	4721000000-E				
										TEMPORARY TRAFFIC CONTROL	WORK ZONE ADVANCE/GENERAL WARNING SIGNS	4" X 90 M YELLOW THERMO	4" X 90 M WHITE THERMO	4" X 120 M WHITE THERMO	4" X 120 M YELLOW THERMO	6" X 120 M WHITE THERMO	8" X 90 M WHITE THERMO	8" X 90 M YELLOW THERMO	8" X 120 M WHITE THERMO	16" X 120 M WHITE THERMO	24" X 120 M WHITE THERMO	THERMO MSG ONLY 120 M	THERMO MSG RXR 120 M	
NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	IS	SF	LF	LF	LF	LF	LF	LF	LF	EA	EA				
7CR.20411.63	Guilford		1	SR 1993 (SOUTH MAIN STREET)	FROM RANDOLPH COUNTY LINE - 0.00 TO JOINT NORTHWEST OF NON-SYSTEM (GREENVIEW TERRACE) - 1.66	1,2	2	1.656	53-90		1.00	667.63			7,215	22,545		300	53		685			
			TOTAL FOR MAP NO. 1										1				7,215	22,545		300	53		685	
			2	SR 1896 WESTBOUND (EAST HARTLEY DRIVE)	FROM NON-SYSTEM (JOHNSON STREET) - 0.66 TO SR 1993 (MAIN STREET) - 1.68	1	2	1.017	25-49				*	4,915			3,073	575			172		216	8
			TOTAL FOR MAP NO. 2														4,915	3,073	575		172		216	8
			3	SR 1896 EASTBOUND (EAST HARTLEY DRIVE)	FROM SR 1993 (MAIN STREET) - 0.06 TO NON-SYSTEM (JOHNSON STREET) - 1.06	1	2	1.001	25-49				*	4,860			2,649	550			412		182	4
			TOTAL FOR MAP NO. 3														4,860	2,649	550		412		182	4
			4	SR 1556 (GALLIMORE DAIRY ROAD)	FROM SR 1860 (SANDY RIDGE ROAD) - 4.33 TO BEGINNING OF CONCRETE ISLAND AT I-40 RAMPS - 0.82	3-6	2	3.515	21-115				*		33,440	3,209	41,809	130		604	250		432	8
			TOTAL FOR MAP NO. 4														33,440	3,209	41,809	130	604	250	432	8
			5	SR 1398 NORTHBOUND (FREEMAN MILL ROAD)	FROM JOINT SOUTH OF NON-SYSTEM (COLISEUM BOULEVARD) - 0.54 TO JOINT AT NON-SYSTEM (FLORIDA STREET) - 1.42	1,7	2	0.883	24-69				*	1,730	200	2,225				740			252	16
			TOTAL FOR MAP NO. 5														1,730	200	2,225		740		252	16
6	SR 1398 SOUTHBOUND (FREEMAN MILL ROAD)	FROM JOINT AT NON-SYSTEM (FLORIDA STREET) - 0.00 TO JOINT SOUTH OF NON-SYSTEM (COLISEUM BOULEVARD) - 0.88	1,7	2	0.884	24-60				*	1,000	100	2,064			50		370		228	4			
TOTAL FOR MAP NO. 6														1,000	100	2,064		50		370		228	4	
7	SR 3163 (EAST MARKET STREET/BURLINGTON ROAD)	FROM JOINT EAST OF NON-SYSTEM (ENGLISH STREET) - 0.25 TO JOINT JUST EAST OF SR 2770 (HUFFINE MILL ROAD) - 1.23	6,8	2	0.98	48-65				*		115	3,261	12,628			310		260		108			
TOTAL FOR MAP NO. 7															115	3,261	12,628		310		260		108	
8	SR 3024 (WARD ROAD)	FROM SR 3163 (EAST MARKET STREET/BURLINGTON ROAD) - 0.00 TO SR 3008 (J.F.H. DAIRY ROAD) - 1.32	9,10	2	1.321	20-21				*		150			22					100	70	4		
TOTAL FOR MAP NO. 8															150			22			100	70	4	
TOTAL FOR PROJ NO. 7CR.20411.63										1	667.63	12,505	34,005	23,696	78,107	152	660	657	2,204	100	2,173	40	4	
GRAND TOTAL										1	667.63	12,505	34,005	23,696	78,107	152	660	657	2,204	100	2,173	40	4	

PROJECT NO.	COUNTY	MAP NO.	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4725000000-E					4810000000-E				4820000000-E	4835000000-E	4840000000-N	4845000000-N					4900000000-N				
										THERMO LT ARROW 90 M	THERMO STR ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO STR & LT ARROW 90 M	THERMO MERGE LEFT ARROW 90 M	4" WHITE PAINT	4" YELLOW PAINT	8" WHITE PAINT	24" WHITE PAINT	PAINT MSG ONLY	PAINT LT ARROW	PAINT STR ARROW	PAINT RT ARROW	PAINT STR & RT ARROW	PAINT STR & LT ARROW	PAINT MERGE LEFT ARROW	YELLOW & YELLOW MARKERS	CRYSTAL & RED MARKERS			
NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	EA	EA	EA	EA	EA	EA	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA		
7CR.20411.63	Guilford		1	SR 1993 (SOUTH MAIN STREET)	FROM RANDOLPH COUNTY LINE - 0.00 TO JOINT NORTHWEST OF NON-SYSTEM (GREENVIEW TERRACE) - 1.66	1,2	2	1.656	53-90		53	28	11	4															275	275	
			TOTAL FOR MAP NO. 1										53	28	11	4													275	275	
			2	SR 1896 WESTBOUND (EAST HARTLEY DRIVE)	FROM NON-SYSTEM (JOHNSON STREET) - 0.66 TO SR 1993 (MAIN STREET) - 1.68	1	2	1.017	25-49				16	10	6	1														25	100
			TOTAL FOR MAP NO. 2										16	10	6	1													25	100	
			3	SR 1896 EASTBOUND (EAST HARTLEY DRIVE)	FROM SR 1993 (MAIN STREET) - 0.06 TO NON-SYSTEM (JOHNSON STREET) - 1.06	1	2	1.001	25-49				14	13	4																100
			TOTAL FOR MAP NO. 3										14	13	4													100			
			4	SR 1556 (GALLIMORE DAIRY ROAD)	FROM SR 1860 (SANDY RIDGE ROAD) - 4.33 TO BEGINNING OF CONCRETE ISLAND AT I-40 RAMPS - 0.82	3-6	2	3.515	21-115				24	9	22	1	1													350	
			TOTAL FOR MAP NO. 4										24	9	22	1	1											350			
			5	SR 1398 NORTHBOUND (FREEMAN MILL ROAD)	FROM JOINT SOUTH OF NON-SYSTEM (COLISEUM BOULEVARD) - 0.54 TO JOINT AT NON-SYSTEM (FLORIDA STREET) - 1.42	1,7	2	0.883	24-69				11	8	1	7		2,425	1,730	740	252	16	11	8	1	7					100
			TOTAL FOR MAP NO. 5										11	8	1	7		2,425	1,730	740	252	16	11	8	1	7					100
6	SR 1398 SOUTHBOUND (FREEMAN MILL ROAD)	FROM JOINT AT NON-SYSTEM (FLORIDA STREET) - 0.00 TO JOINT SOUTH OF NON-SYSTEM (COLISEUM BOULEVARD) - 0.88	1,7	2	0.884	24-60				7	14	4	6	1	2	2,164	1,000	420	228	4	7	14	4	6	1	2		100			
TOTAL FOR MAP NO. 6										7	14	4	6	1	2	2,164	1,000	420	228	4	7	14	4	6	1	2		100			
7	SR 3163 (EAST MARKET STREET/BURLINGTON ROAD)	FROM JOINT EAST OF NON-SYSTEM (ENGLISH STREET) - 0.25 TO JOINT JUST EAST OF SR 2770 (HUFFINE MILL ROAD) - 1.23	6,8	2	0.98	48-65				39		2																150	150		
TOTAL FOR MAP NO. 7										39		2															150	150			
8	SR 3024 (WARD ROAD)	FROM SR 3163 (EAST MARKET STREET/BURLINGTON ROAD) - 0.00 TO SR 3008 (J.F.H. DAIRY ROAD) - 1.32	9,10	2	1.321	20-21									27,580	23,073												125	125		
TOTAL FOR MAP NO. 8															27,580	23,073										125	125				
TOTAL FOR PROJ NO. 7CR.20411.63										164	82	50	19	2	2	32,169	25,803	1,160	480	20	18	22	5	13	1	2			925	825	
GRAND TOTAL										164	82	50	19	2	2	32,169	25,803	1,160	480	20	18	22	5	13	1	2			925	825	

SIGNING FOR RESURFACING PROJECTS



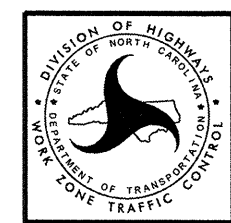
LEGEND	
T	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

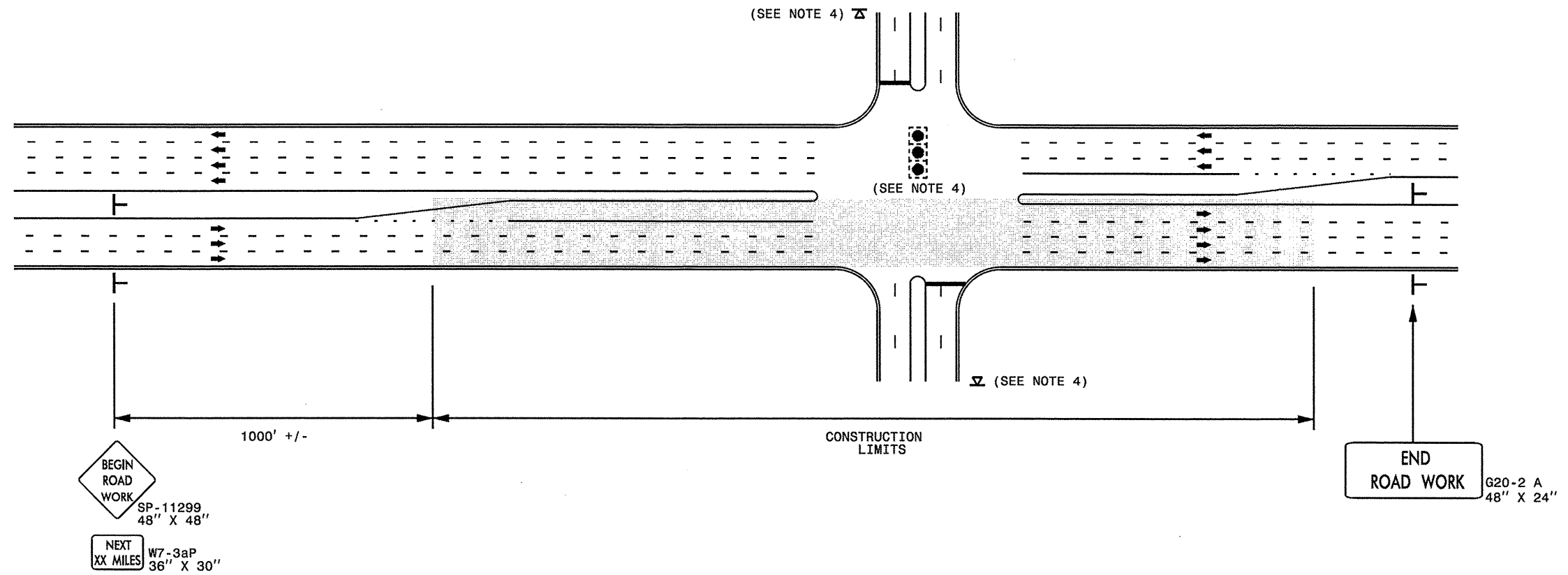
SIGNING NOTES AND PLACEMENT PER DIRECTION	1	 <small>W20-1 48" X 48"</small>	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.			
	2	 <small>W7-3aP 24" X 18"</small>	#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)			
	3	 <small>SP 13107 48" X 48"</small>	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.			
	4	 <small>SP 13106 48" X 48"</small>	THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.			
5	 <small>G20-2 A 48" X 24"</small>	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.	NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:			
			1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS			
			WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.			
			PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.			

23-OCT-2013 08:13 \\dot\dfsroot\01\GROUPS-WZTCC\TMU\WZTC\Resurfacing\2013\centr\al\2013-Div01\C203469-RW_7CR.20411.63-Gulford-SRs_DRK Documents Out\Resurfacing-AdvWarn-2Ln.dgn drKennedy AT TE26474



RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS

URBAN / SUBURBAN WORKZONES

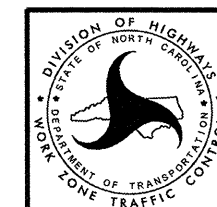


NOTES:

- 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) USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AND 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.

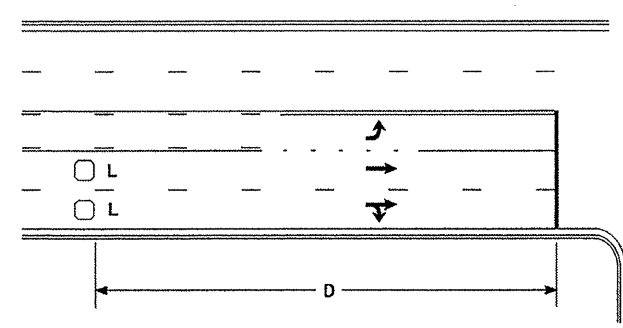
LEGEND

- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW



**RESURFACING ADVANCE
WARNING SIGNS FOR
URBAN / SUBURBAN
FACILITIES**

High Speed Detection [≥40 mph (64 km/hr)]

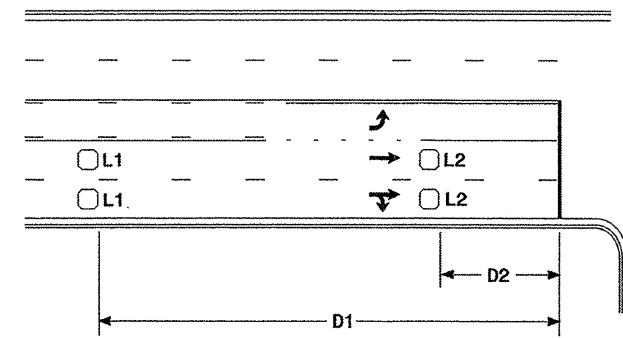


Speed Limit mph (km/hr)	D	
	ft	(m)
40 (64)	250	(75)
45 (72)	300	(90)
50 (80)	355	(110)
55 (88)	420	(130)

L = 6ft X 6ft (1.8m X 1.8m)
Wired in series for TS1
Controllers
Wired separately for TS2,
170, and 2070L Controllers

Volume Density Operation

OR

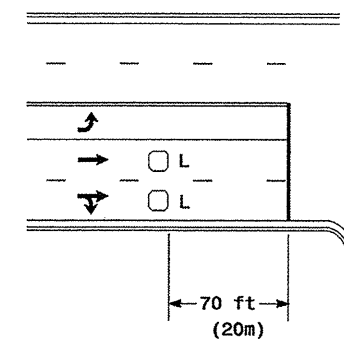


Speed Limit mph (km/hr)	D1		D2	
	ft	(m)	ft	(m)
40 (64)	250	(75)	80	(25)
45 (72)	300	(90)	90	(27)
50 (80)	355	(110)	100	(30)
55 (88)	420	(130)	110	(35)

L1 = 6ft X 6ft
(1.8m X 1.8m)
Wired in series
L2 = 6ft X 6ft
(1.8m X 1.8m)
Wired in series

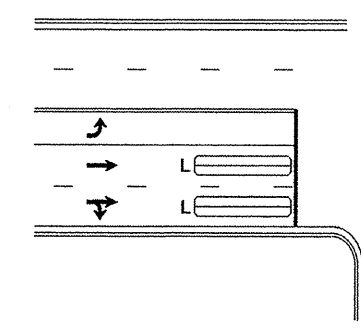
"Stretch" Operation

Low Speed Detection [≤35 mph (56 km/hr)]



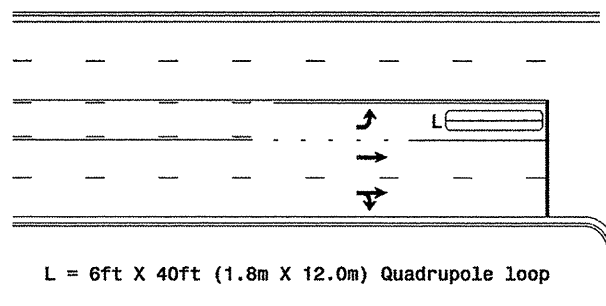
L = 6ft X 6ft (1.8m X 1.8m)
Wired in series

OR



L = 6ft X 40ft (1.8m X 12.0m)
Quadrupole loop, wired separately

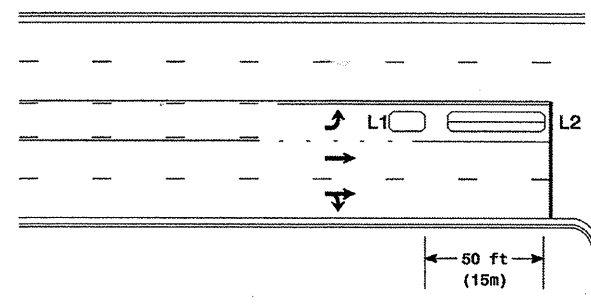
Left Turn Lane Detection



L = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

Presence Loop Detection

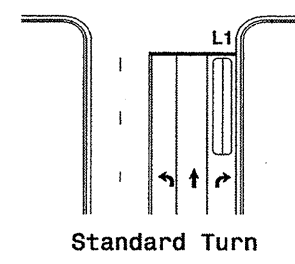
OR



L1 = 6ft X 15ft (1.8m X 4.6m) Queue detector
L2 = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

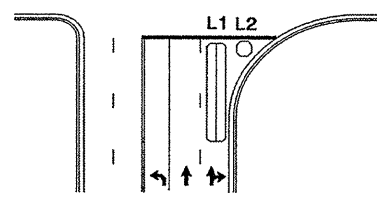
Queue Loop Detection

Right Turn Lane Detection

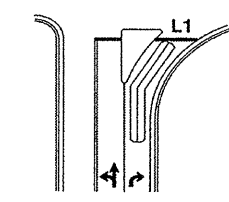


Standard Turn

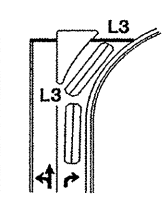
L1 = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop
L2 = 6ft X 6ft (1.8m X 1.8m) [Minimum] Presence loop
Wired separately
L3 = 6ft X 20ft (1.8m X 6.0m) Quadrupole loop
Wired in series



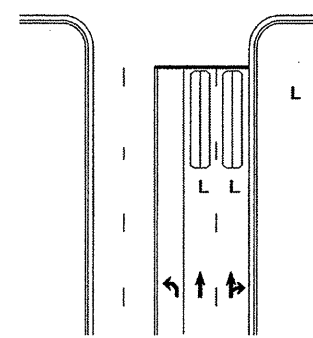
Wide Radius Turn



Channelized Turn

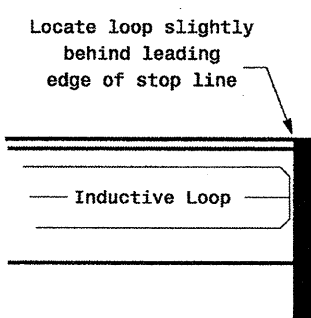


Side Street Detection



L = 6ft X 40ft (1.8m X 12.0m)
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 when stop line is
greater than 15' (4.5m) from edge
of intersecting roadway; or, when
loop detects a permissive or
protected/permissive left turn.

Recommended Number of Turns

Single 6' X 6' (1.8m X 1.8m)
loop (wired separately):

Length of Lead-in ft (m)	Number of Turns
< 250 (75)	3
250-375 (75-115)	4
375-525 (115-160)	5
> 525 (160)	6

Quadrupole loops: Use 2-4-2 turns
6' X 15' (1.8m X 4.6m) Loops:
Lead-in < 150' (45 m), use 2 turns
Lead-in > 150' (45 m), use 3 turns

Typical Loop Locations

PLAN DATE: June 2006 REVIEWED BY:

PREPARED BY: P L Alexander REVIEWED BY:

SCALE: N/A

REVISIONS: *Revise pavement markings*

SIGNATURE: *P. L. Alexander* DATE: *6/6/06*

SIG. INVENTORY NO.

19-JRC-2006.14129
as-417e signal&tb turn inductivelooptypical2006.dgn
pdlavander