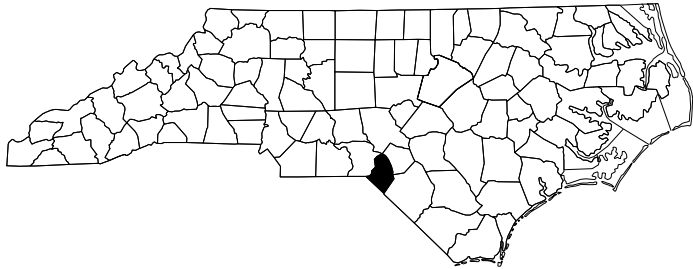


CONTRACT: DH00610 TIP PROJECT: BO-2408L

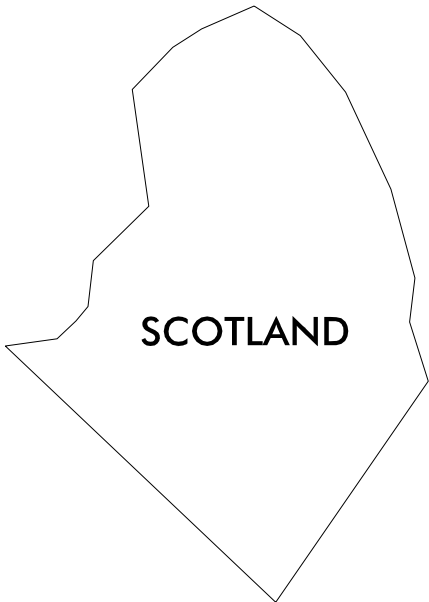


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

DIVISIONWIDE

LOCATION: SCOTLAND COUNTY

TYPE OF WORK: CURB RAMP INSTALLATIONS



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BO-2408L	1	30
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50937.3.16	5093716	CON (BO-2408L)	

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

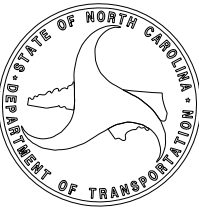
GREG DAVIS, PE

PROJECT ENGINEER

LETTING DATE:

NV5

PROJECT DESIGN ENGINEER



PROJECT NO.	SHEET NO.	TOTAL NO.
50937.3.16 (BO-2408L)	2	30

SUMMARY OF QUANTITIES

						0156000000-E	1575000000-E	1704000000-E	2549000000-E	2591000000-E	2605000000-N	2612500000-N	2738000000-E	2738000000-E	2738000000-E	2738000000-E	2738000000-E	2738000000-E	2752000000-E		2759000000-N	2830000000-N	2845000000-N	4116100000-N	4457000000-N	4709000000-E	4860000000-E
PROJECT NO	COUNTY	MAP NO	LOCATION	DESCRIPTION	SHEET NUMBER	REMOVAL OF EXISTING ASPHALT PAVEMENT	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	2'-6" CURB & GUTTER	4" CONCRETE SIDEWALK	CONCRETE CURB RAMP	GENERIC PAVING ITEM - REMOVE AND REPLACE CONCRETE CURB RAMPS	GENERIC PAVING ITEM - REMOVE AND REPLACE 4" CONCRETE SIDEWALK	GENERIC GRADING ITEM - REMOVE 4" SIDEWALK	GENERIC PAVING ITEM - REMOVE 5" MONOLITHIC CONCRETE ISLAND (KEYED-IN)	GENERIC PAVING ITEM - REMOVE AND RESET BRICK PAVERS	GENERIC PAVING ITEM - REMOVE AND REPLACE 5" MONOLITHIC CONCRETE ISLANDS (KEYED I	GENERIC PAVING ITEM - REMOVE DRIVEWAY APRON	GENERIC PAVING ITEM - REMOVE AND REPLACE 2'-6" CONCRETE CURB AND GUTTER	GENERIC PAVING ITEM - REMOVE CURB & GUTTER	GENERIC PAVING ITEM - REMOVE CONCRETE CURB RAMP	ADJUST MANHOLES	ADJUST METER OR VALVE BOX	SIGN ERECTION, RELOCATE TYPE E (GROUND MOUNTED)	TEMPORARY TRAFFIC CONTROL	24" X 90 M WHITE THERMO	8" LINE REMOVAL
						SY	TONS	TONS	LF	SY	EA	EA	SY	SY	SY	SY	SY	SY	LF	LF	EA	EA	EA	EA	LS	LF	LF
50937.3.16 (BO-2408L)	Scotland	1	LAURINBURG	ADA CURB RAMP REPLACEMENT	1-30	66	2	42	120	107	12	150	321	60	10	3	8	14	612	54	6	4	6	1	*	312	463
TOTAL FOR MAP NO. 1						66	2	42	120	107	12	150	321	60	10	3	8	14	612	54	6	4	6	1			
TOTAL FOR PROJ NO. 50937.3.16 (BO-2408L)						66	2	42	120	107	12	150	321	60	10	3	8	14	612	54	6	4	6	1			312
GRAND TOTAL						66	2	42	120	107	12	150	321	60	10	3	8	14	612	54	6	4	6	1	1	312	463

Notes: (1) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats brick, steel and stamped concrete pavers will not be accepted. (2) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - LAURINBURG (5,000 - 50,000 POPULATION)

Municipality:	Laurinburg
TIP Number:	BO-2408L
WBS Number:	50937.3.16
County:	Scotland

Sheet No.
3

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2738000000-E (SY) Remove and Reset Brick Pavers	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Sign Erection, Relocate Type E (Ground Mounted)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2738000000-E (SY) Remove Driveway Apron	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
3217	1	SR-1674 (Lauchwood Dr)	Hospital Service Rd (East Entrance)	16															1			Type 1C - 848.06
3218	2	SR-1674 (Lauchwood Dr)	Berwick Dr											1					1			Type 3 Modified - 848D0609
3156	3	SR-1674 (Lauchwood Dr)	Hospital Service Rd (West Entrance)	20															1			Standard - 848.06
3152	4	SR-1674 (Lauchwood Dr)	Sherbrooke Cir						5										1			Standard - 848.06
3153	4	SR-1674 (Lauchwood Dr)	Sherbrooke Cir						5										1			Standard - 848.06
3150	5	SR-1674 (Lauchwood Dr)	Mcalpine Ln																1			Standard - 848.06
3151	5	SR-1674 (Lauchwood Dr)	Mcalpine Ln																1			Type 3 Modified - 848D0609
3148**	6	SR-1674 (Lauchwood Dr)	Holly Square Shopping Center (1664 S Main St)																1			Type 1C - 848.06
3149	6	SR-1674 (Lauchwood Dr)	Holly Square Shopping Center (1664 S Main St)																1			Type 1C - 848.06
3400**	6	SR-1674 (Lauchwood Dr)	Holly Square Shopping Center (1664 S Main St)			20			9					1							1	Remove Ramp
3401**	6	SR-1674 (Lauchwood Dr)	Holly Square Shopping Center (1664 S Main St)			20			7												1	Remove Ramp
3142	7	SR-1674 (Lauchwood Dr.)	Trade St											1					1			Type 3 Modified - 848D0609
3143	7	SR-1674 (Lauchwood Dr)	Dogwood Mile																1			Standard - 848.06
3215	8	US-15 BUS	RMP-894 (US74 On/Off Ramp)																1			Type 1C - 848.06
3214	8	US-15 BUS	RMP-894 (US74 On/Off Ramp)																1			Type 1C - 848.06
3405	8	US-15 BUS	RMP-894 (US74 On/Off Ramp)	5												4	5			1		Type 6 - 848.06
3406	8	US-15 BUS	RMP-894 (US74 On/Off Ramp)	5												4	5			1		Type 6 - 848.06
3213	9	US-15 BUS	Willow Dr																1			Type 1C - 848.06
3212	9	US-15 BUS	Willow Dr																1			Type 1C - 848.06
3407	9	US-15 BUS	Gulf Gas Station (1612 S Main St) West Entrance																1			Type 1C - 848.06
3408	9	US-15 BUS	Gulf Gas Station (1612 S Main St) West Entrance																1			Type 1C - 848.06
3211	10	US-15 BUS	Gulf Gas Station (1612 S Main St) East Entrance							3									1			Type 1 Modified - 848.06
3210	10	US-15 BUS	Gulf Gas Station (1612 S Main St) East Entrance																1			Type 1 Modified - 848.06
3208	11	US-15 BUS	Burger King (1420 S Main St) West Entrance																1			Type 1C - 848.06
3207	11	US-15 BUS	Burger King (1420 S Main St) East Entrance																1			Type 1C - 848.06
3206	11	US-15 BUS	Burger King (1420 S Main St) East Entrance																1			Type 1C - 848.06
3193**	12	SR-1108 (West Boulevard)	US-15																1			Type 1A - 848.06
3192	12	SR-1108 (West Boulevard)	US-15	5															1			Type 7 - 848.06
3191	12	SR-1108 (West Boulevard)	US-15	9															1			Type 7 - 848.06
3190	13	SR-1108 (West Boulevard)	US-15																1			Type 1C - 848.06
3189	14	SR-1108 (West Boulevard)	Shopping Complex (894 US-401)																1			Type 1C - 848.06
3202	15	US-15 BUS	Crepe Myrtle Ave																1			Type 1C - 848.06
3201	16	US-15 BUS	O'Reilly Auto Parts (1123 S Main St)																1			Type 1C - 848.06
3200	16	US-15 BUS	O'Reilly Auto Parts (1123 S Main St)																1			Type 1C - 848.06
3199	17	US-15 BUS	Dollar General (1103 S Main St)																1			Type 1C - 848.06
3198	17	US-15 BUS	Dollar General (1103 S Main St)																1			Type 1C - 848.06
3197	17	US-15 BUS	Elm St																1			Type 1C - 848.06
Sub-Total				60	0	40	0	0	26	3	0	0	0	3	0	8	10	0	33	2	2	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - LAURINBURG (5,000 - 50,000 POPULATION)

Municipality:	Laurinburg
TIP Number:	BO-2408L
WBS Number:	50937.3.16
County:	Scotland

Sheet No.
4

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2738000000-E (SY) Remove and Reset Brick Pavers	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Sign Erection, Relocate Type E (Ground Mounted)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2738000000-E (SY) Remove Driveway Apron	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
3295	18	US-15 BUS	Yadkin Ave																1			Type 1C - 848.06
3296	18	US-15 BUS	Yadkin Ave																1			Type 1C - 848.06
3184	19	US-15 BUS	Welch St																1			Type 1 Modified - 848.06
3185	19	US-15 BUS	Welch St																1			Type 1 Modified - 848.06
3392	19	US-15 BUS	Welch St				6													1		Type 1C - 848.06
3186	20	US-15 BUS	Wilson St																1			Type 1C - 848.06
3187	20	US-15 BUS	Wilson St																1			Type 2B - 848.06
3222	21	US-15 BUS	E Vance St							6									1			Type 1 Modified - 848.06
3223	21	US-15 BUS	E Vance St																1			Type 1 Modified - 848.06
3225	21	US-15 BUS	E Vance St																1			Type 1 Modified - 848.06
3226	22	US-15 BUS	Scotland County Memorial Library (312 W Church St)																1			Type 1 Modified - 848.06
3227	22	US-15 BUS	Scotland County Memorial Library (312 W Church St)																1			Type 1 Modified - 848.06
3261	23	US-15 BUS	E Covington St																1			Type 1 Modified - 848.06
3262	23	US-15 BUS	E Covington St																1			Type 1 Modified - 848.06
3263	23	US-15 BUS	W Covington St				12				3								1			Type 1B - 848.06
3264	23	US-15 BUS	W Covington St																1			Type 1B - 848.06
3158	24	SR-1438 (S Caledonia Rd)	Rainbow 66 Storehouse (1218 S Caledonia Rd) North Entrance																1			Type 1C - 848.06
3159	24	SR-1438 (S Caledonia Rd)	Rainbow 66 Storehouse (1218 S Caledonia Rd) North Entrance																1			Type 1C - 848.06
3160	25	SR-1438 (S Caledonia Rd)	Pitt St																1			Type 1 Modified - 848.06
3161	25	SR-1438 (S Caledonia Rd)	Pitt St																1			Type 1B - 848.06
3390	25	SR-1438 (S Caledonia Rd)	Driveway (326 Pitt St)					5			9									1		Type 1 Modified - 848.06
3391	25	SR-1438 (S Caledonia Rd)	Driveway (326 Pitt St)					5			9									1		Type 1 Modified - 848.06
3162**	26	SR-1438 (S Caledonia Rd)	Phritz St																1			Type 1 Modified - 848.06
3163	26	SR-1438 (S Caledonia Rd)	Phritz St																1			Type 3 Modified - 848D0609
3164	27	SR-1438 (S Caledonia Rd)	Sawdust Ln																1			Type 1C - 848.06
3165	27	SR-1438 (S Caledonia Rd)	Sawdust Ln																1			Type 1C - 848.06
3166	28	SR-1438 (S Caledonia Rd)	Grant St																1			Type 1C - 848.06
3167	28	SR-1438 (S Caledonia Rd)	Grant St																1			Type 1C - 848.06
3168	29	SR-1438 (S Caledonia Rd)	Lincoln St																1			Type 1C - 848.06
3169	29	SR-1438 (S Caledonia Rd)	Lincoln St																1			Type 1C - 848.06
3170	30	SR-1438 (S Caledonia Rd)	Douglas St																1			Type 1C - 848.06
3171	30	SR-1438 (S Caledonia Rd)	Douglas St																1			Type 1C - 848.06
3172	31	SR-1438 (S Caledonia Rd)	Roosevelt St																1			Type 1C - 848.06
3173	31	SR-1438 (S Caledonia Rd)	Roosevelt St																1			Type 1C - 848.06
3174	32	SR-1438 (S Caledonia Rd)	Foraker St																1			Type 1C - 848.06
Sub-Total				0	0	0	12	16	0	6	21	0	0	0	0	0	0	0	32	3	0	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

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ADA SUMMARY OF QUANTITIES - LAURINBURG (5,000 - 50,000 POPULATION)

Municipality:	Laurinburg
TIP Number:	BO-2408L
WBS Number:	50937.3.16
County:	Scotland

Sheet No.
5

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2738000000-E (SY) Remove and Reset Brick Pavers	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Sign Erection, Relocate Type E (Ground Mounted)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2738000000-E (SY) Remove Driveway Apron	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
3175	32	SR-1438 (S Caledonia Rd)	Foraker St																1			Type 1C - 848.06
3178	33	SR-1438 (S Caledonia Rd)	Taft St																1			Type 1C - 848.06
3179	34	SR-1438 (S Caledonia Rd)	E Vance St																1			Type 1C - 848.06
3180	35	SR-1438 (S Caledonia Rd)	E Covington St																1			Type 4B - 848D0610
3181	35	SR-1438 (S Caledonia Rd)	E Covington St																1			Type 2A - 848.06
3182	36	SR-1438 (S Caledonia Rd)	Mcrae St																1			Type 1C - 848.06
3183	36	SR-1438 (S Caledonia Rd)	Mcrae St			10													1			Type 1 Modified - 848.06
3256	37	SR-1642 (Biggs St)	Mcrae St																1			Type 1 Modified - 848.06
3257	37	SR-1642 (Biggs St)	Mcrae St																1			Type 1 Modified - 848.06
3259	38	US-15 BUS	Mcrae St																1			Type 4B - 848D0610
3268	39	SR-1107 (Atkinson St)	Mclean St										1						1			Type 2A - 848.06
3269	39	SR-1107 (Atkinson St)	Masonic Lodge (445 Atkinson St)																1			Standard - 848.06
3393	39	SR-1107 (Atkinson St)	Scottish Food Systems Inc (452 Atkinson St)							9									1			Standard - 848.06
3413	39	SR-1107 (Atkinson St)	Scottish Food Systems Inc (452 Atkinson St)																	1		Standard - 848.06
3239	40	US-74 BUS	Cross at 301 E Church St																1			Type 5A - 848.06
3240	40	US-74 BUS	E Bizzell St																1			Type 5A - 848.06
3241	40	US-74 BUS	E Bizzell St										1						1			Type 4B - 848D0610
3243	41	US-74 BUS	SR-1642 (Biggs St)																1			Type 1C - 848.06
3244	41	US-74 BUS	SR-1642 (Biggs St)																1			Type 5 - 848.06
3245	41	US-74 BUS	SR-1642 (Biggs St)			25	2											14	1			Type 5 - 848.06
3246	41	US-74 BUS	SR-1642 (Biggs St)										1						1			Type 5 - 848.06
3247**	41	US-74 BUS	SR-1642 (Biggs St)																1			Type 5 - 848.06
3283	42	US-15 BUS	US-74 BUS								2			1					1			Standard - 848.06
3284	42	US-15 BUS	US-74 BUS																1			Standard - 848.06
3285	42	US-15 BUS	US-74 BUS																1			Standard - 848.06
3286	42	US-15 BUS	US-74 BUS																1			Standard - 848.06
3287	42	US-15 BUS	US-74 BUS						2										1			Standard - 848.06
3278	43	US-74 BUS	Alley																1			Type 1C - 848.06
3279	43	US-74 BUS	James Lot (333 S Main St)																1			Type 1C - 848.06
3280	43	US-74 BUS	James Lot (333 S Main St)																1			Type 1C - 848.06
3270	44	US-74 BUS	SR-1107 (Atkinson St)																1			Type 5 - 848.06
3271	44	US-74 BUS	SR-1107 (Atkinson St)																1			Type 5 - 848.06
3272	44	US-74 BUS	SR-1107 (Atkinson St)																1			Type 5 - 848.06
3273	44	US-74 BUS	SR-1107 (Atkinson St)																1			Type 5 - 848.06
3274	44	US-74 BUS	SR-1107 (Atkinson St)																1			Type 5A - 848.06
3275	44	US-74 BUS	SR-1107 (Atkinson St)																1			Type 5A - 848.06
3276	44	US-74 BUS	SR-1107 (Atkinson St)										1						1			Type 4A - 848D0610
Sub-Total				0	0	35	0	2	2	9	0	2	4	1	0	0	0	14	36	1	0	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

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ADA SUMMARY OF QUANTITIES - LAURINBURG (5,000 - 50,000 POPULATION)

Municipality:	Laurinburg
TIP Number:	BO-2408L
WBS Number:	50937.3.16
County:	Scotland

Sheet No.
6

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2738000000-E (SY) Remove and Reset Brick Pavers	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Sign Erection, Relocate Type E (Ground Mounted)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2738000000-E (SY) Remove Driveway Apron	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
3277	44	US-74 BUS	SR-1107 (Atkinson St)																1			Type 4A - 848D0610
3289	45	US-74 BUS	Everett St																1			Type 5A - 848.06
3290	45	US-74 BUS	Everett St																1			Type 5A - 848.06
3291	45	US-74 BUS	Everett St							1									1			Type 5A - 848.06
3292	45	US-74 BUS	Everett St							2									1			Type 5A - 848.06
3293	45	US-74 BUS	Everett St																1			Type 1 Modified - 848.06
3294	45	US-74 BUS	Everett St			8															1	Remove Ramp
3388	46	US-74 BUS	Mclaurin Ave																1			Type 4B - 848D0610
3385	47	US-74 BUS	Peden St																1			Type 1 Modified - 848.06
3387	47	US-74 BUS	Peden St																1			Type 4B - 848D0610
3326**	48	US-74 BUS	SR-1300 (S King St)																1			Type 1C - 848.06
3327	48	US-74 BUS	SR-1300 (S King St)																1			Type 1C - 848.06
3404	48	US-74 BUS	SR-1300 (S King St)				8		31					1						1		Type 4B - 848D0610
3324	49	US-74 BUS	Crossing at 600 W Church St	6					31											1		Type 1 Modified - 848.06
3325	49	US-74 BUS	Crossing at 600 W Church St																1			Type 3 - 848D0609
3315	50	US-74 BUS	S Wilkinson Dr																1			Type 1 Modified - 848.06
3313	51	US-74 BUS	RMP-899 (US 15-501 On/Off Ramp)							3									1			Type 1A - 848.06
3314	51	US-74 BUS	RMP-899 (US 15-501 On/Off Ramp)							6									1			Type 1A - 848.06
3312	52	US-74 BUS	RMP-744 (US 15-501 On/Off Ramp)							3									1			Type 1A - 848.06
3306	53	US-74 BUS	Speedway (1205 W Church St) West Entrance																1			Type 1C - 848.06
3307	53	US-74 BUS	Speedway (1205 W Church St) West Entrance																1			Type 1C - 848.06
3309	53	US-74 BUS	SR-1360 (Scotland High School Rd)																1			Standard - 848.06
3377	54	SR-1107 (Atkinson St)	W Cronly St																1			Type 5A - 848.06
3378	54	SR-1107 (Atkinson St)	W Cronly St																1			Type 5A - 848.06
3379	54	SR-1107 (Atkinson St)	W Cronly St																1			Type 5A - 848.06
3380	54	SR-1107 (Atkinson St)	W Cronly St																1			Type 5A - 848.06
3381	54	SR-1107 (Atkinson St)	W Cronly St																1			Type 4A - 848D0610
3382	54	SR-1107 (Atkinson St)	W Cronly St																1			Type 4A - 848D0610
3383	54	SR-1107 (Atkinson St)	W Cronly St																1			Type 4C - 848D0610
3384	54	SR-1107 (Atkinson St)	W Cronly St											1					1			Type 4C - 848D0610
3249	55	SR-1642 (Biggs St)	E Cronly St																1			Type 2A - 848.06
3250	55	SR-1642 (Biggs St)	E Cronly St							9									1			Standard - 848.06
3361**	56	SR-1642 (Biggs St)	Mckay St																1			Type 1C - 848.06
3353**	57	US-15 BUS	Mckay St							6		1							1			Type 1 Modified - 848.06
3348	58	US-15 BUS	Roper St																1			Type 1 Modified - 848.06
3349	58	US-15 BUS	Roper St																1			Type 1 Modified - 848.06
3350	58	US-15 BUS	Roper St																1			Type 1 Modified - 848.06
Sub-Total				6	0	8	0	8	62	18	12	1	0	2	0	0	0	0	34	2	1	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - LAURINBURG (5,000 - 50,000 POPULATION)

Municipality:	Laurinburg
TIP Number:	BO-2408L
WBS Number:	50937.3.16
County:	Scotland

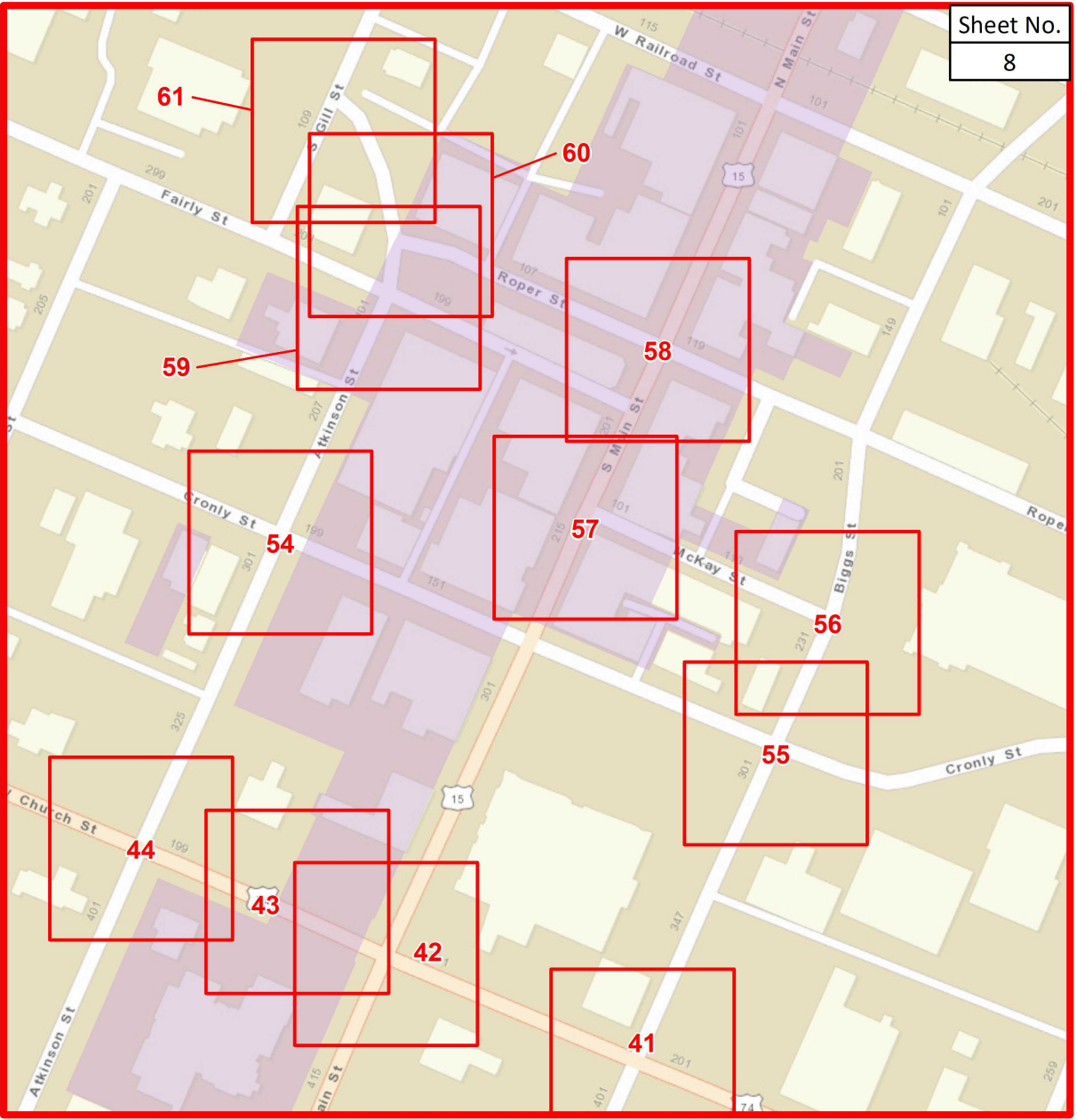
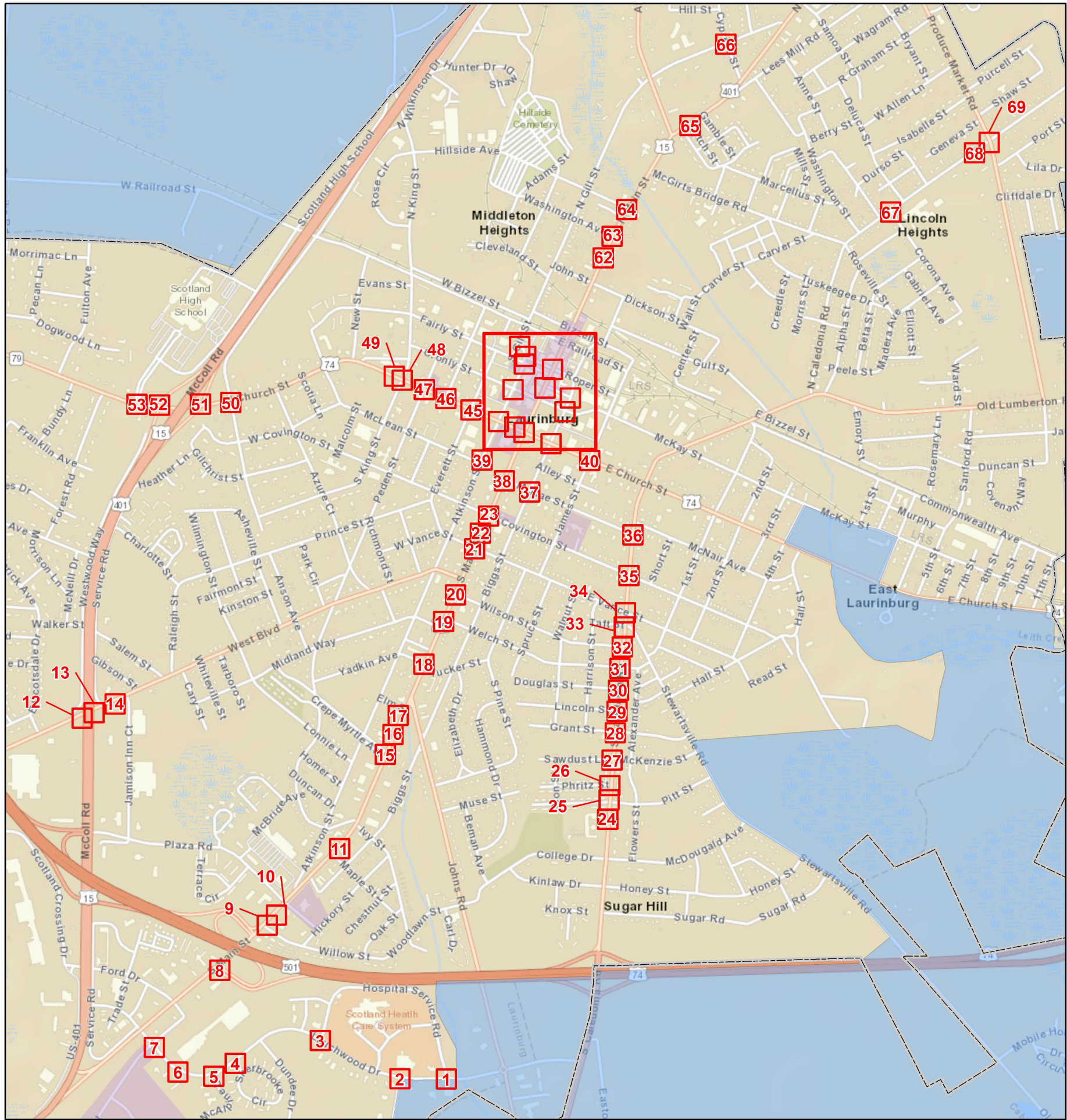
Sheet No.
7

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2738000000-E (SY) Remove and Reset Brick Pavers	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Sign Erection, Relocate Type E (Ground Mounted)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2738000000-E (SY) Remove Driveway Apron	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
3370	59	SR-1107 (Atkinson St)	Fairly St																1			Type 2A - 848.06
3372	59	SR-1107 (Atkinson St)	Fairly St			15			9												1	Remove Ramp
3373	59	SR-1107 (Atkinson St)	Fairly St																1			Type 1 Modified - 848.06
3374	59	SR-1107 (Atkinson St)	Fairly St																1			Standard - 848.06
3375	59	SR-1107 (Atkinson St)	Fairly St																1			Type 5 - 848.06
3376	59	SR-1107 (Atkinson St)	Fairly St												1				1			Type 5 - 848.06
3367	60	SR-1107 (Atkinson St)	Roper St			10			8												1	Remove Ramp
3368	60	SR-1107 (Atkinson St)	Roper St																1			Standard - 848.06
3369	60	SR-1107 (Atkinson St)	Roper St			12															1	Remove Ramp
3371	60	SR-1107 (Atkinson St)	Roper St																1			Standard - 848.06
3402	60	SR-1107 (Atkinson St)	Roper St																1			Type 2 - 848.06
3412	60	SR-1107 (Atkinson St)	Roper St																	1		Type 3 - 848D0609
3366	61	SR-1107 (Atkinson St)	S Gill St																1			Type 3 Modified - 848D0609
3394	62	US-15 BUS	Muffler House (320 N Main St)				6			9										1		Type 1 Modified - 848.06
3395	62	US-15 BUS	Muffler House (320 N Main St)				6			9										1		Type 1 Modified - 848.06
3330	63	US-15 BUS	Washington Ave																1			Type 1 Modified - 848.06
3328	64	US-15 BUS	Hillside Ave																1			Standard - 848.06
3300	65	US-401 BUS	Lytch St				16			9										1		Type 1C - 848.06
3297	66	SR-1107 (N Gill St)	Cypress St																1			Type 1C - 848.06
3229	67	SR-1433 (Mcgirts Bridge Rd)	Corona Ave																1			Type 1A - 848.06
3411	68	SR-1433 (Mcgirts Bridge Rd)	Galilee United Methodist Church (941 McGirts Bridge Rd)																1			Type 2 - 848.06
3228	69	SR-1433 (Mcgirts Bridge Rd)	SR-1439 (Produce Market Rd)																1			Type 1A - 848.06
-	-	-	-	-	42*	-	600*	-	-	285*	-	-	-	-	-	-	-	-	-	-	-	
Sub-Total				0	42	37	600	28	17	285	27	0	0	0	1	0	0	0	15	4	3	
Sub-Total for Laurinburg				66	42	120	612	54	107	321	60	3	4	6	1	8	10	14	150	12	6	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.



3217: Modify for grass strip. Remove existing asphalt path as necessary and tie flush with existing. Existing steep grade, chase grade up to 15LF to try and achieve compliant slope.

Curb Ramps To Be Repaired

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

Municipal Boundary

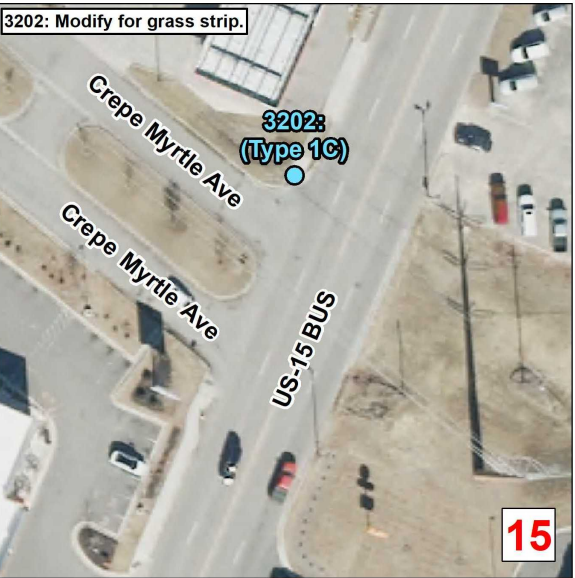
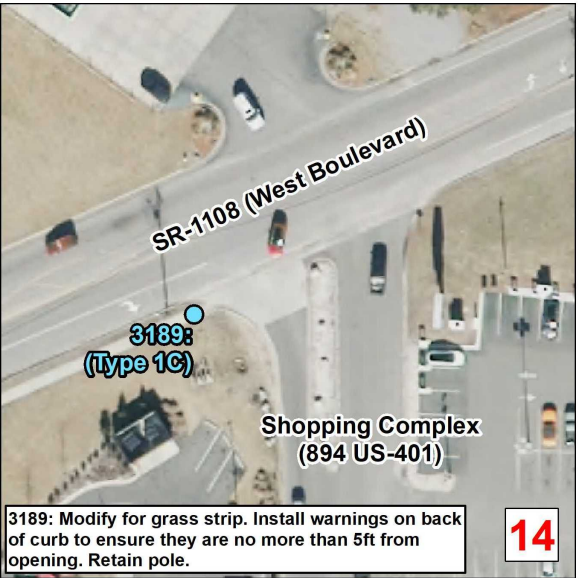
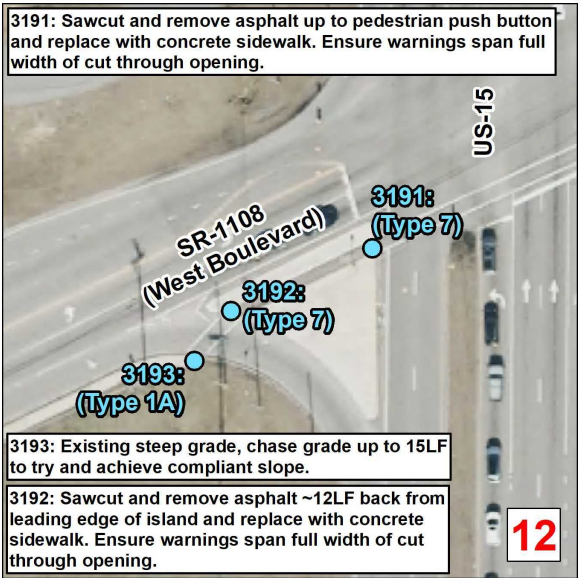
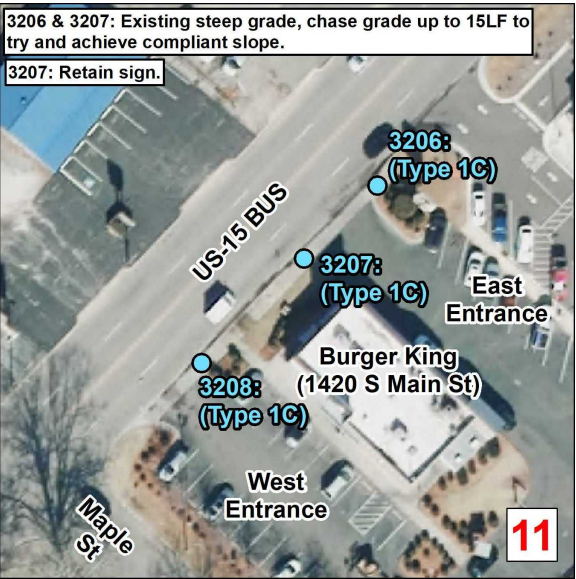
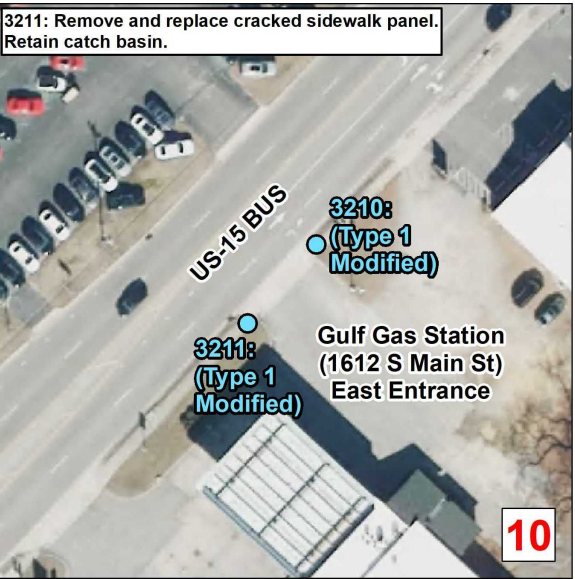
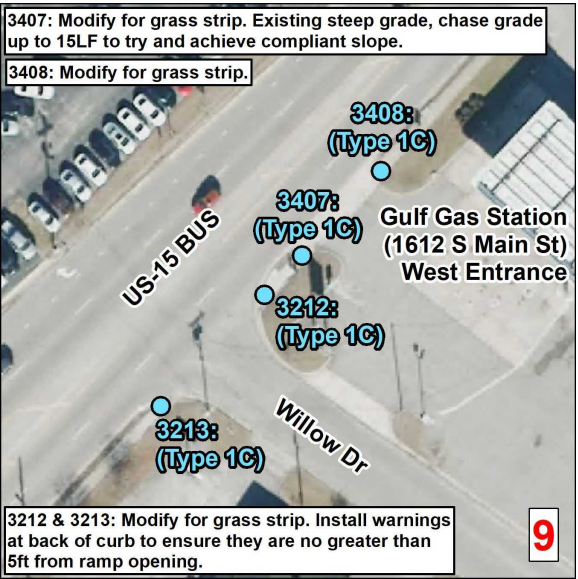
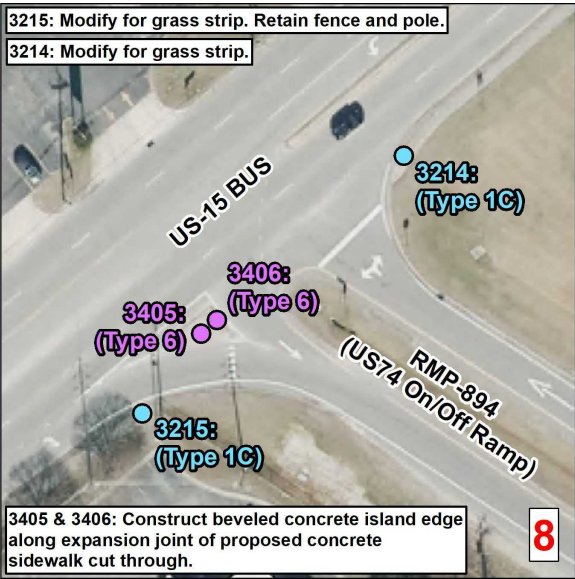
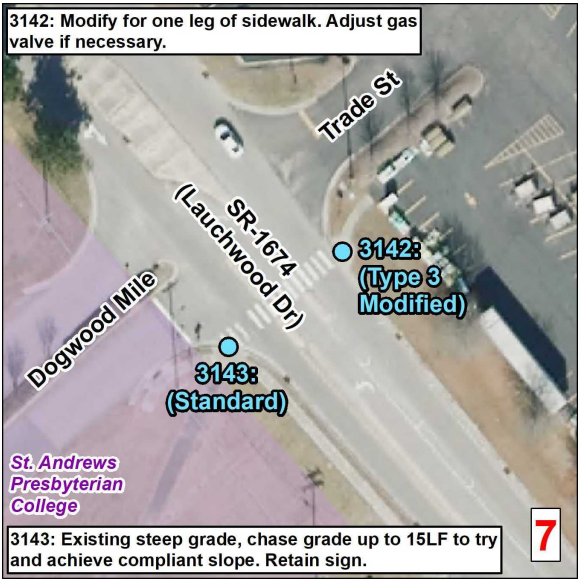
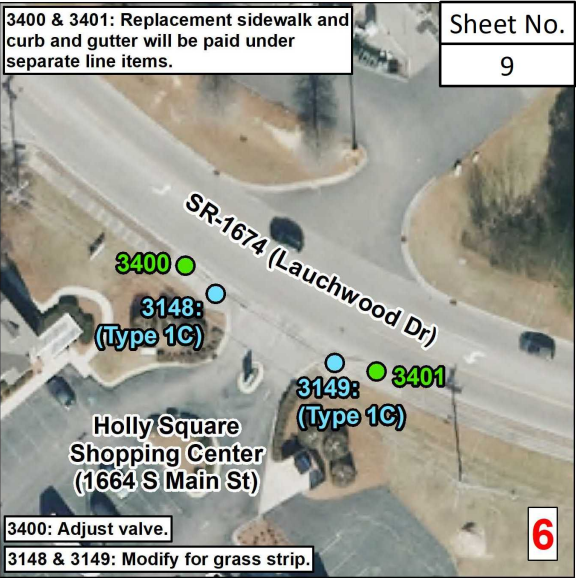
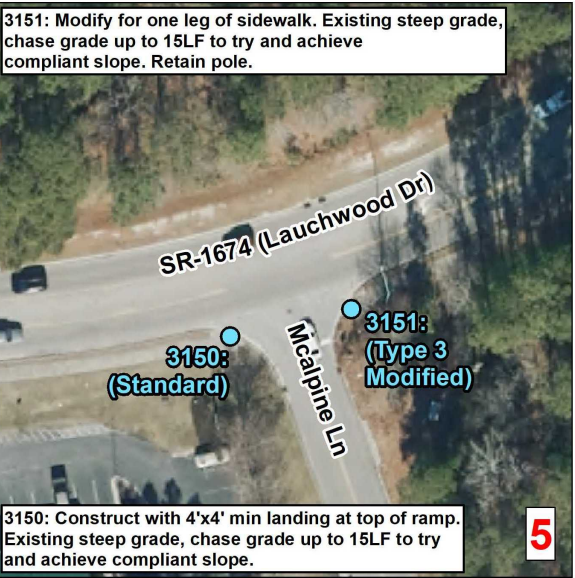
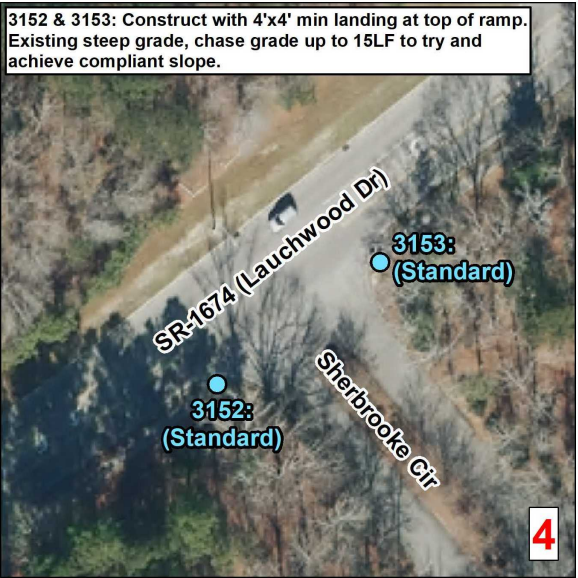
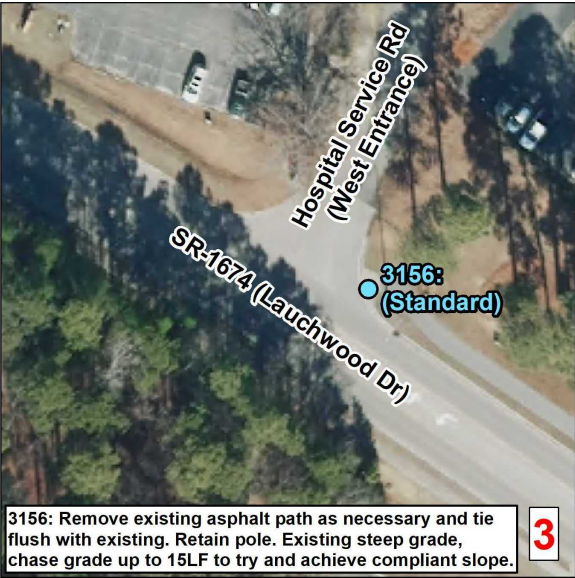
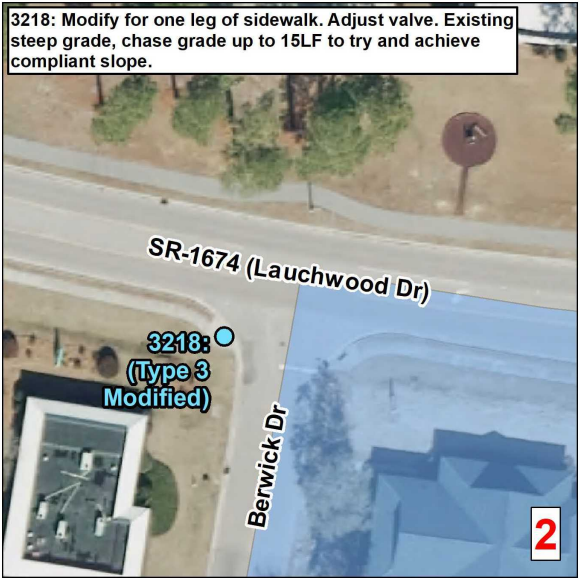
Census Urban Areas (>5,000 Pop)

NCHPO Historic Boundary (NR and LHD)

Curb Ramps in Areas 5K-50K Population
Municipality: Laurinburg
TIP Number: BO-2408L
WBS Number: 50937.3.16
County: Scotland

NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION 8

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



Curb Ramps To Be Repaired

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

■ Municipal Boundary

■ Census Urban Areas (>5,000 Pop)

■ NCHPO Historic Boundary (NR and LHD)

Curb Ramps in Areas 5K-50K Population

Municipality: Laurinburg

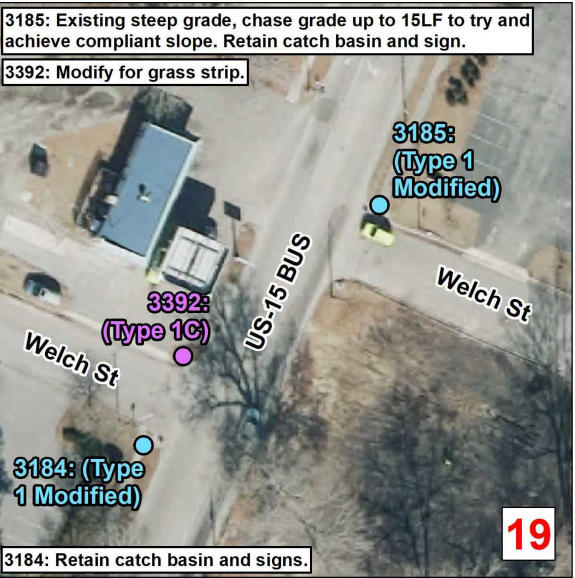
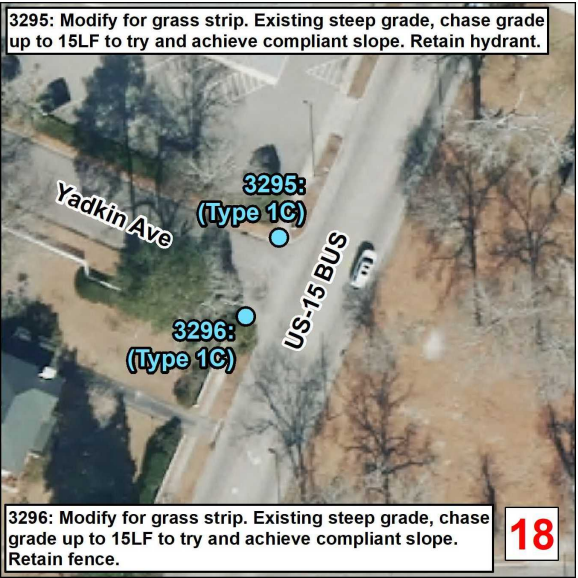
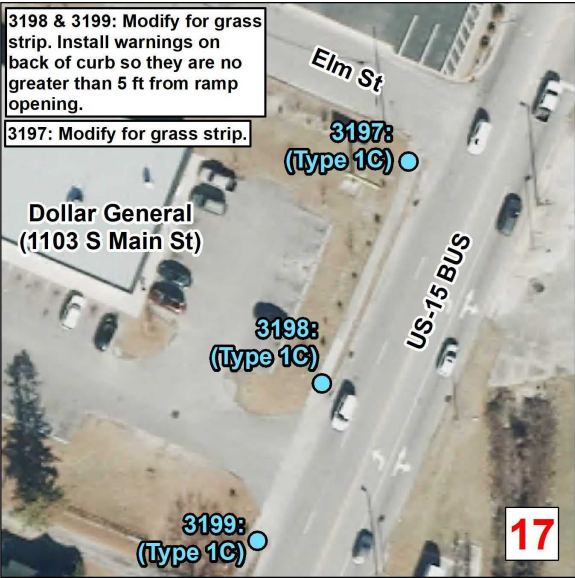
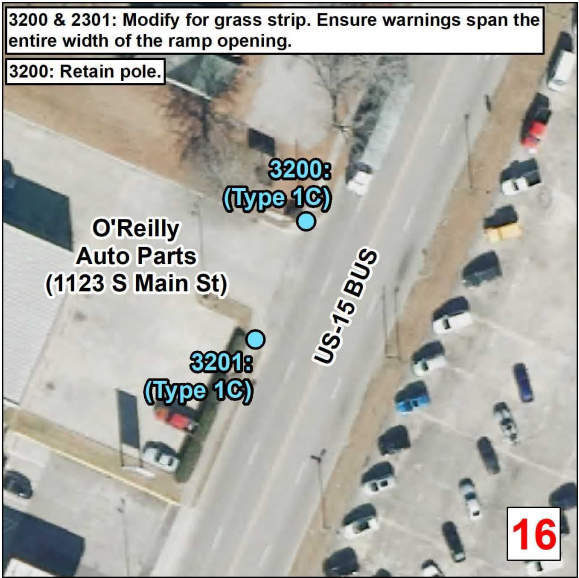
TIP Number: BO-2408L

WBS Number: 50937.3.16

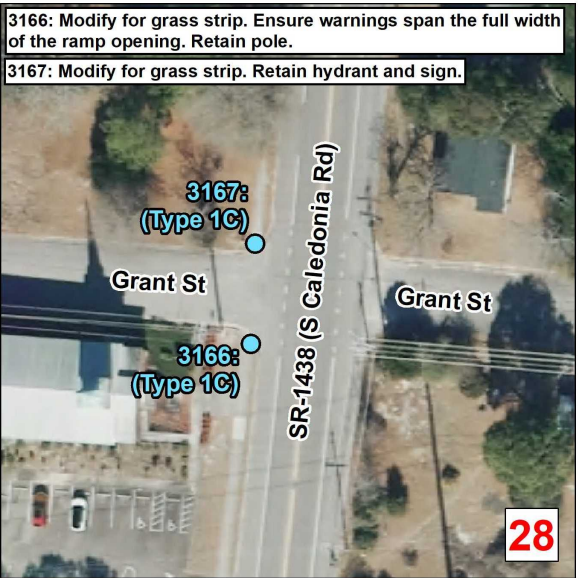
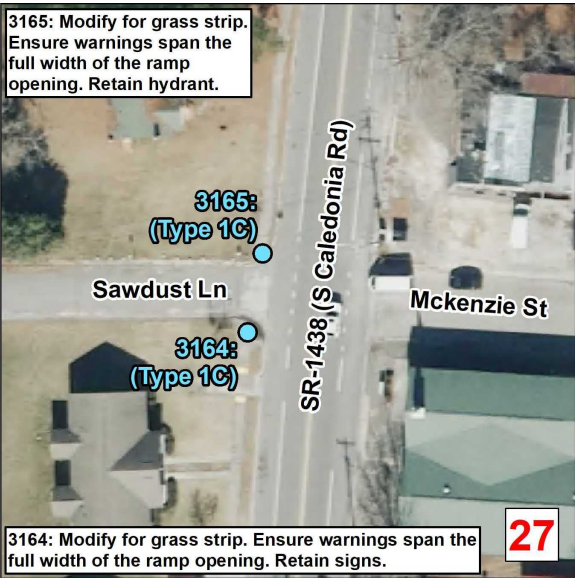
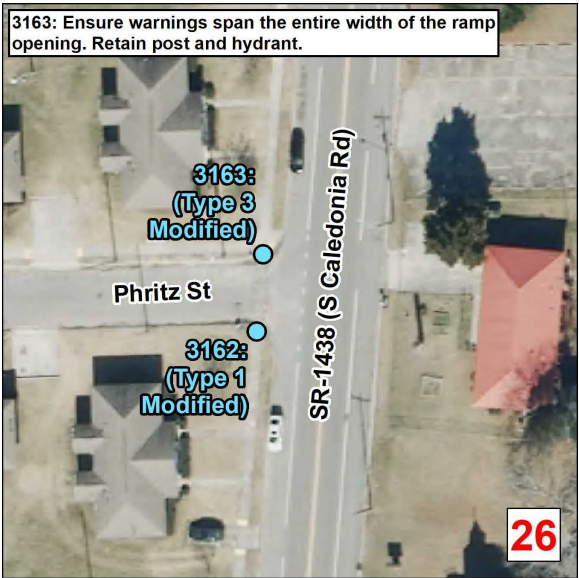
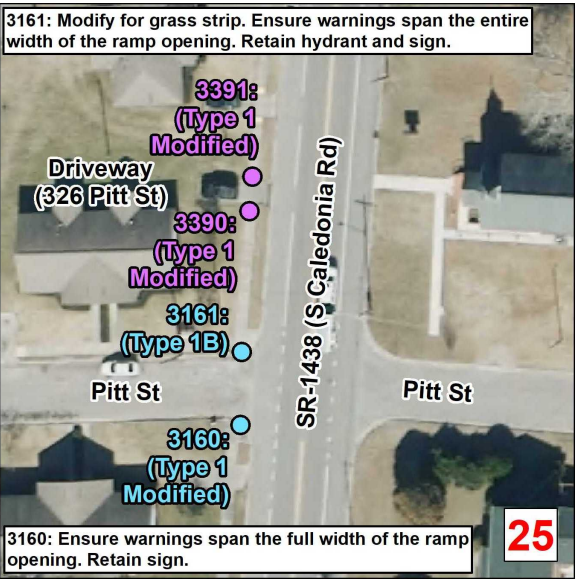
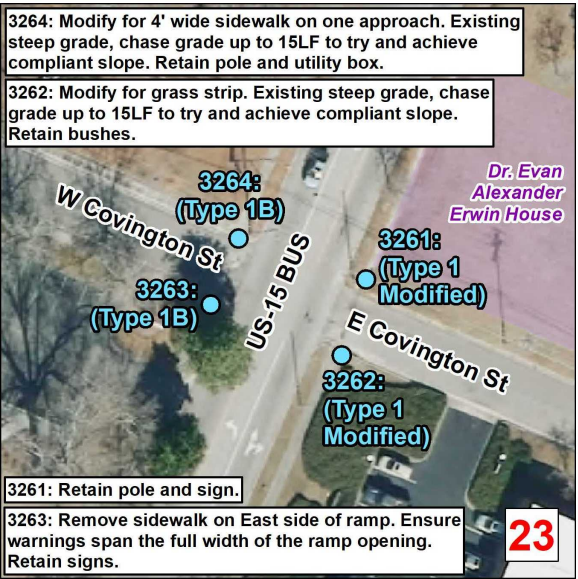
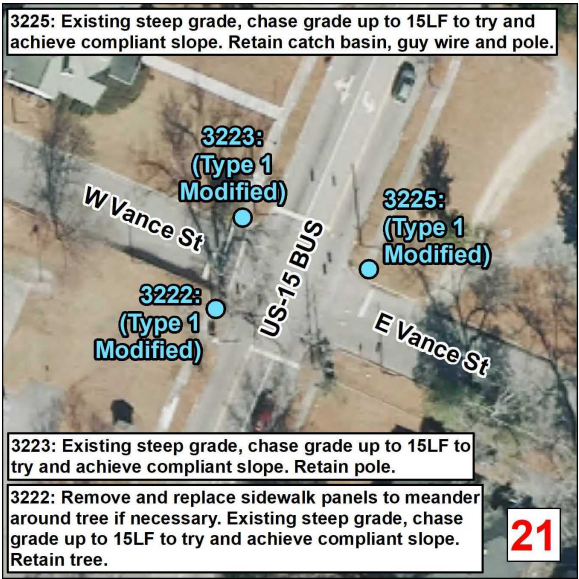
County: Scotland

 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 8

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



Sheet No.
10



Curb Ramps To Be Repaired

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

▭ Municipal Boundary

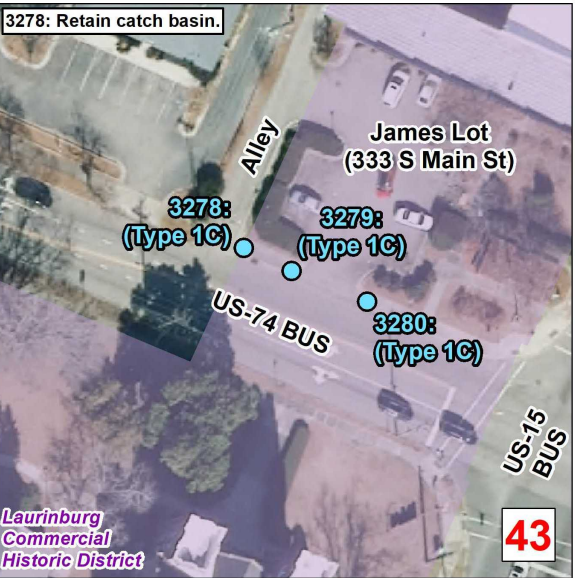
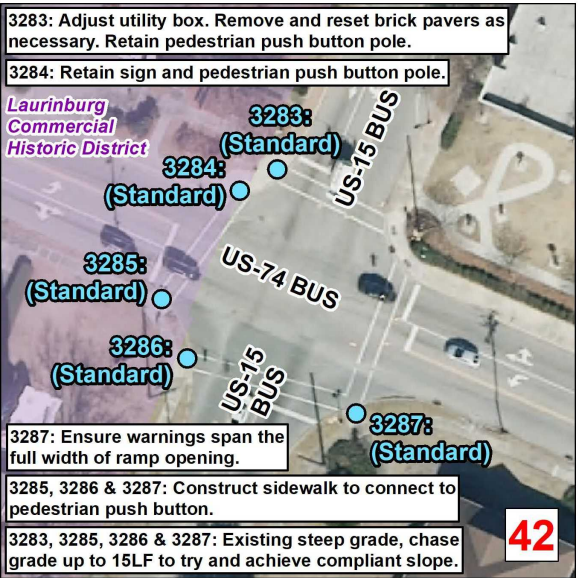
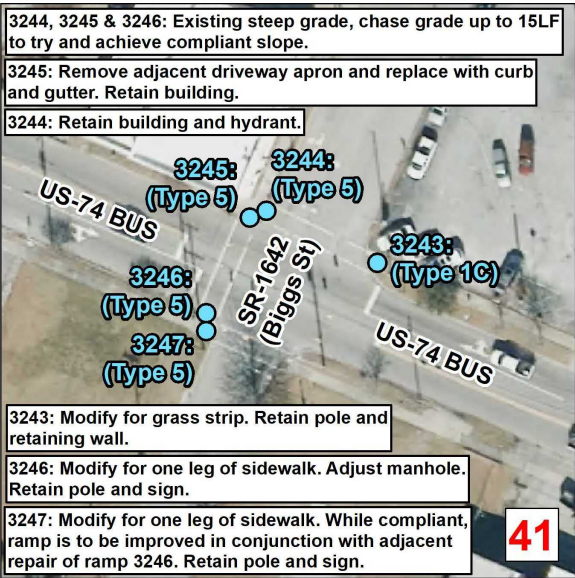
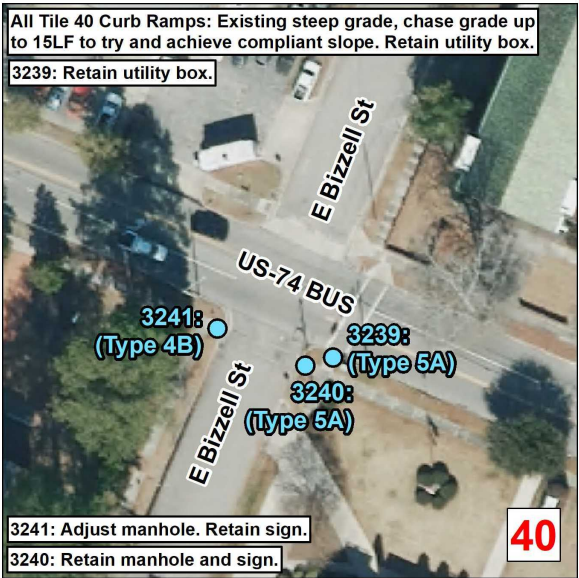
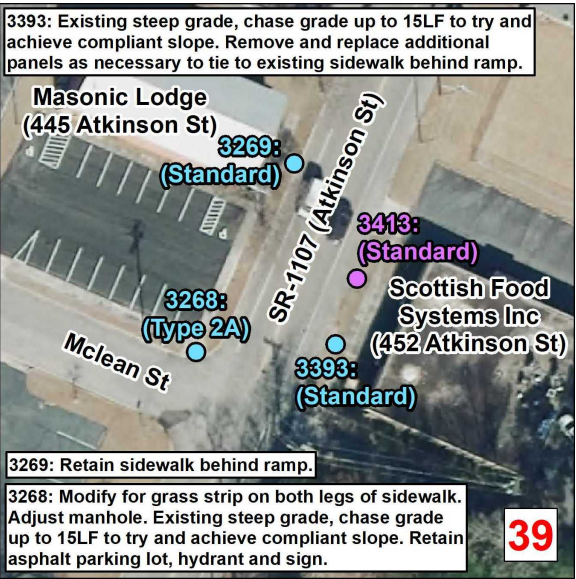
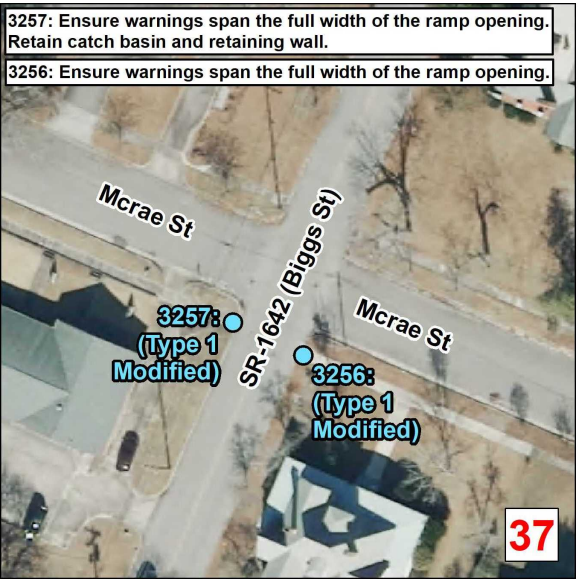
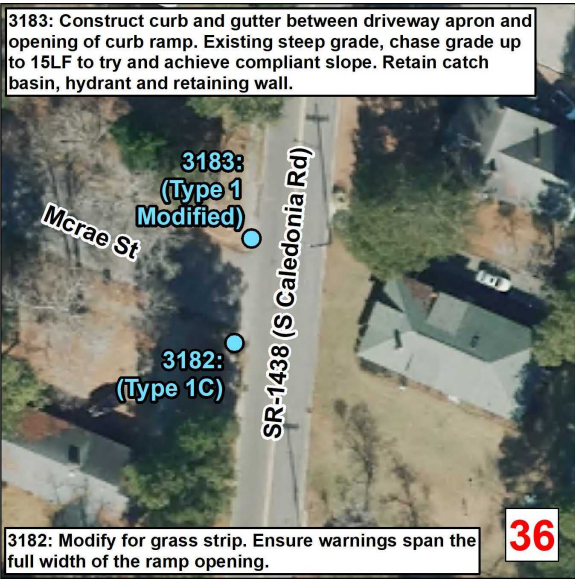
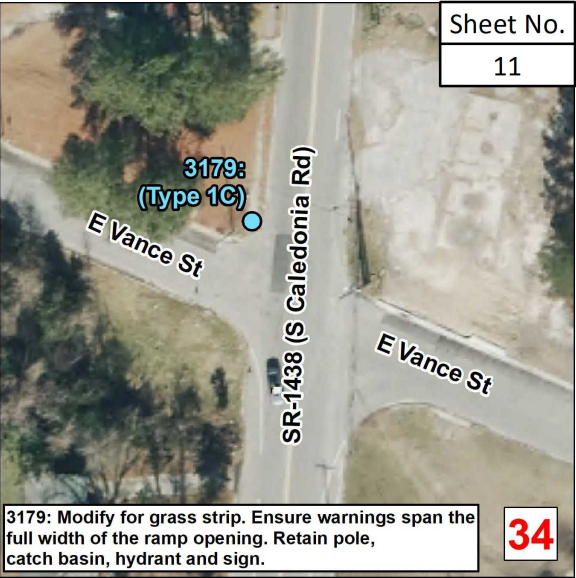
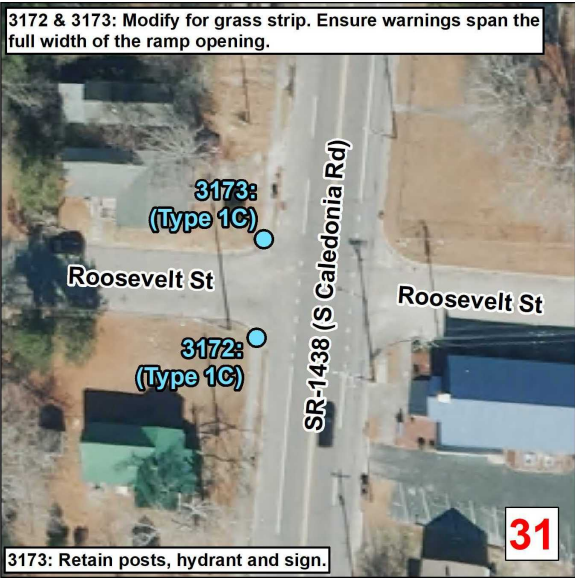
▭ Census Urban Areas (>5,000 Pop)

▭ NCHPO Historic Boundary (NR and LHD)

Curb Ramps in Areas 5K-50K Population
Municipality: Laurinburg
TIP Number: BO-2408L
WBS Number: 50937.3.16
County: Scotland

 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 8

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



Curb Ramps To Be Repaired

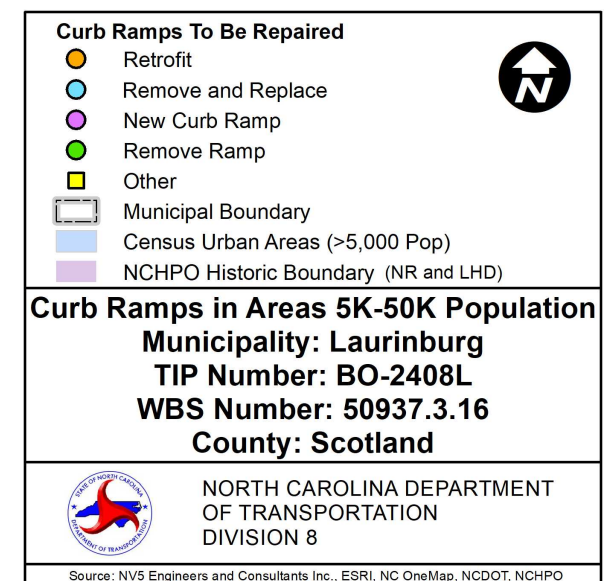
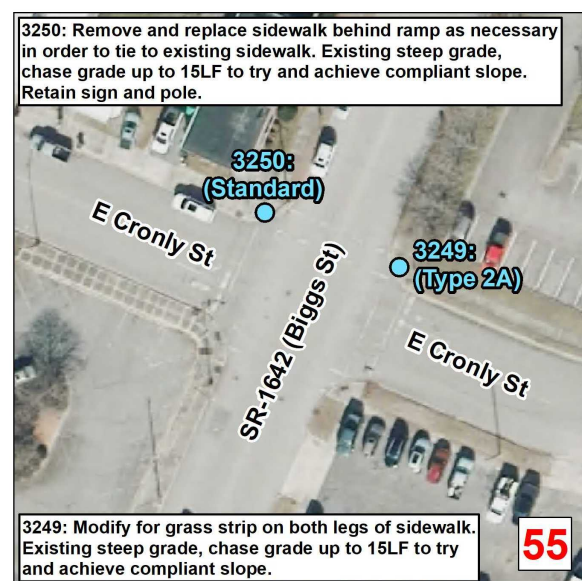
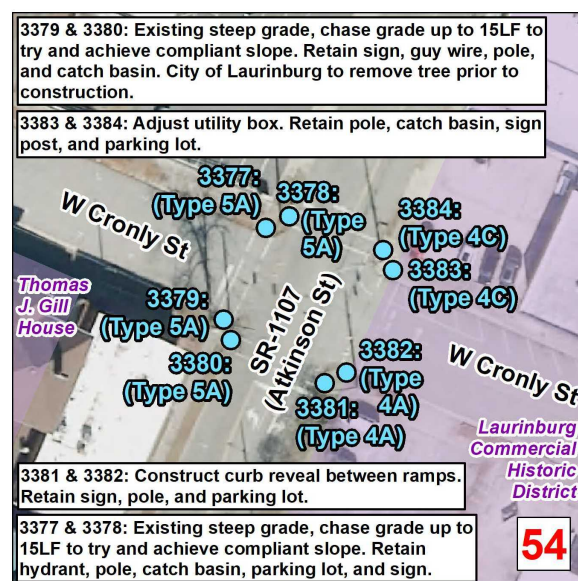
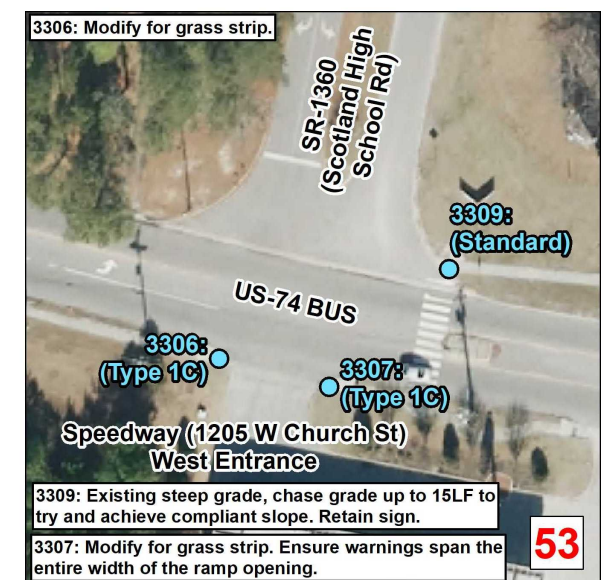
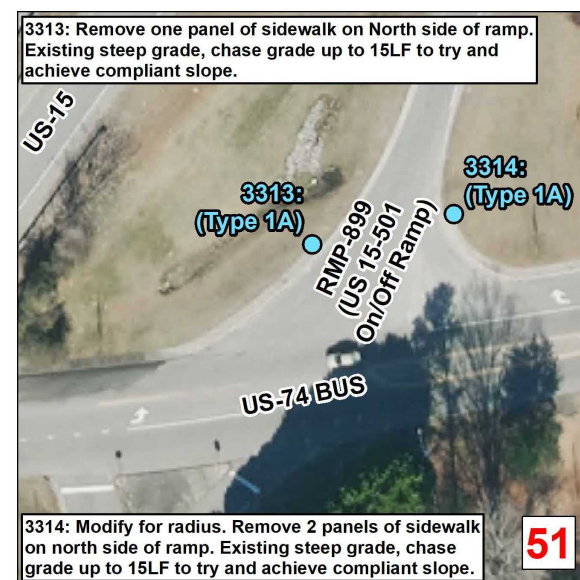
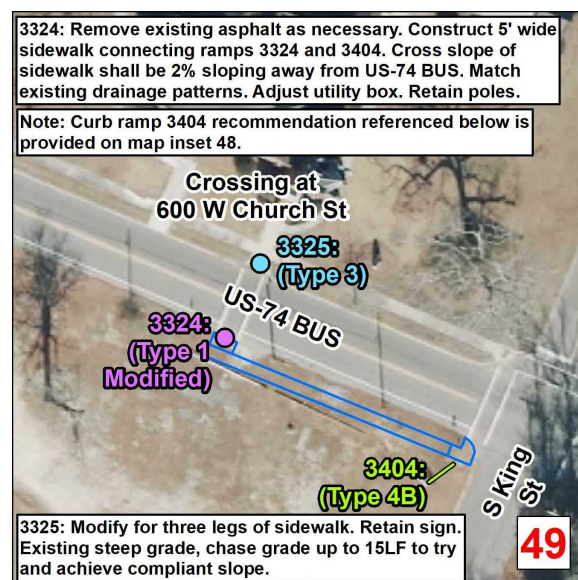
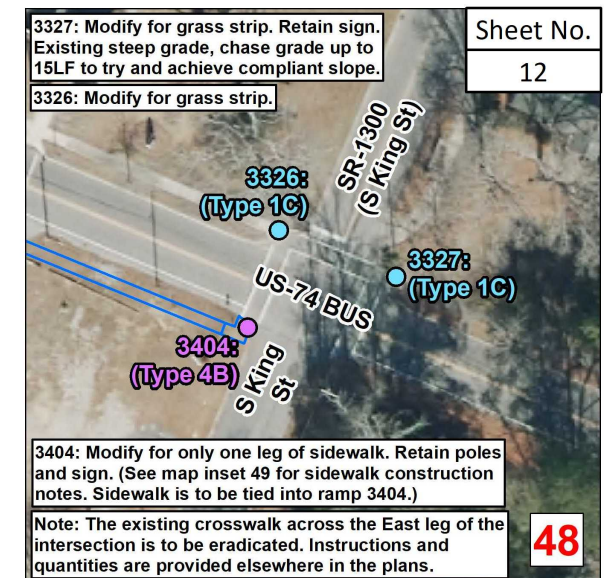
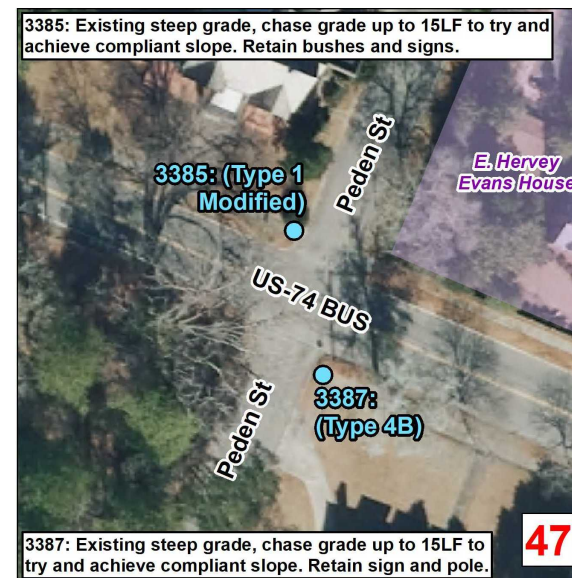
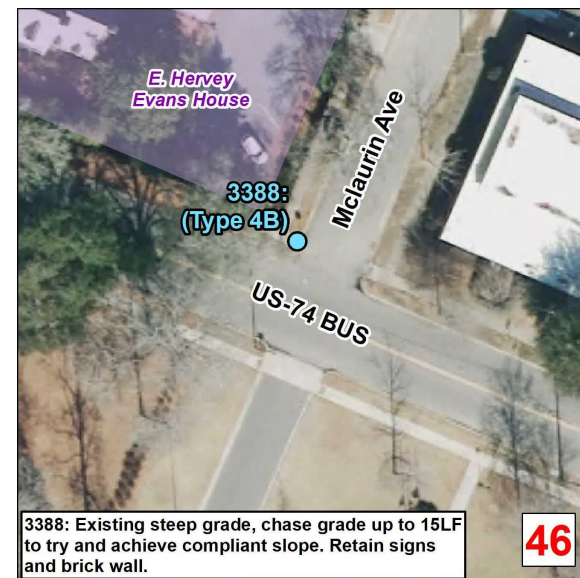
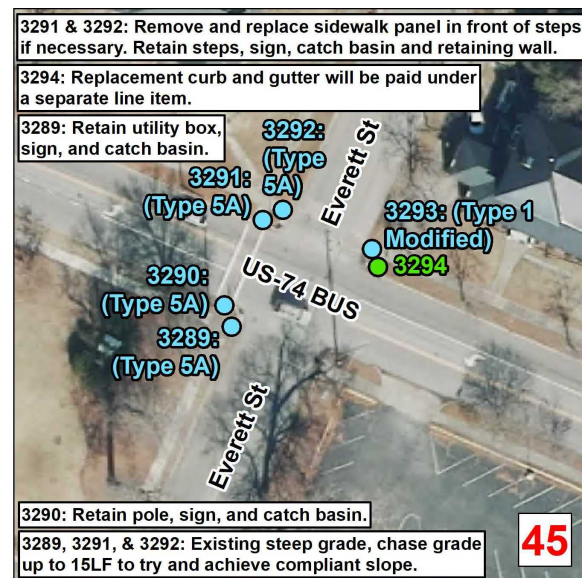
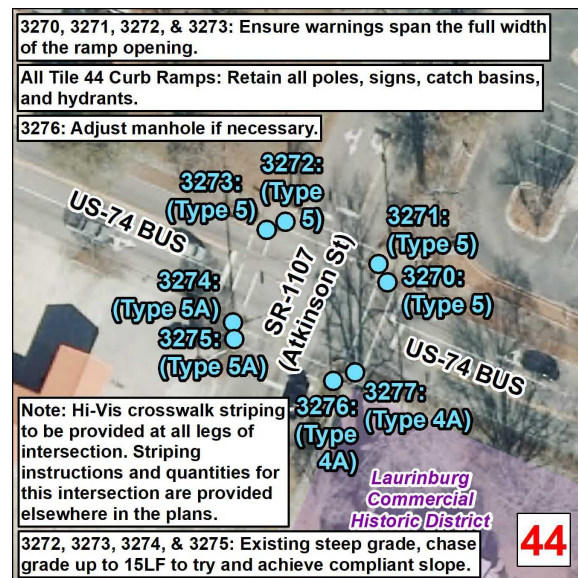
- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other

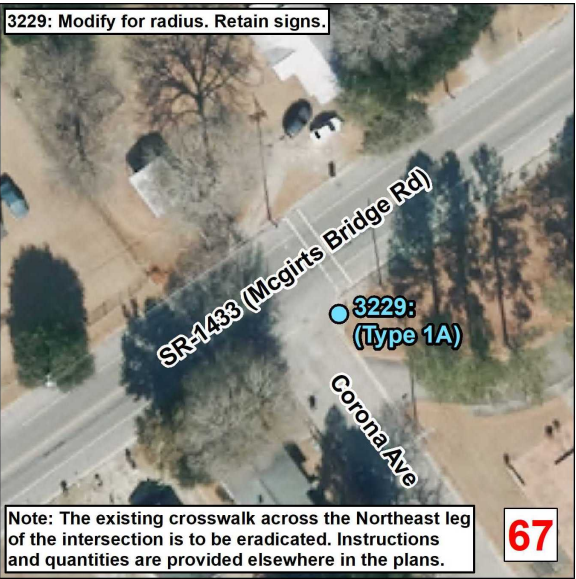
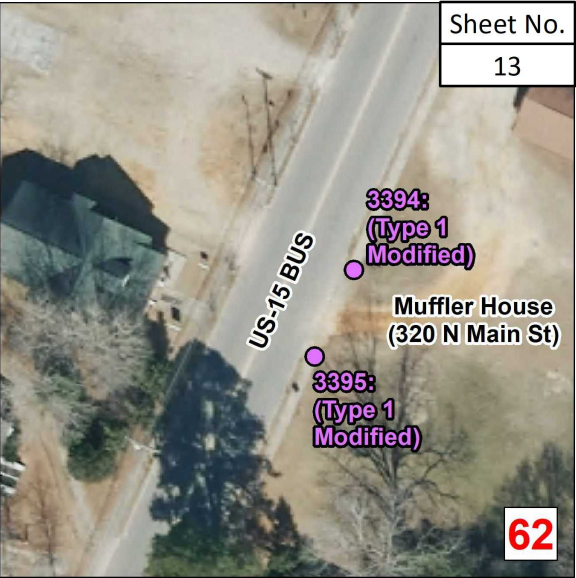
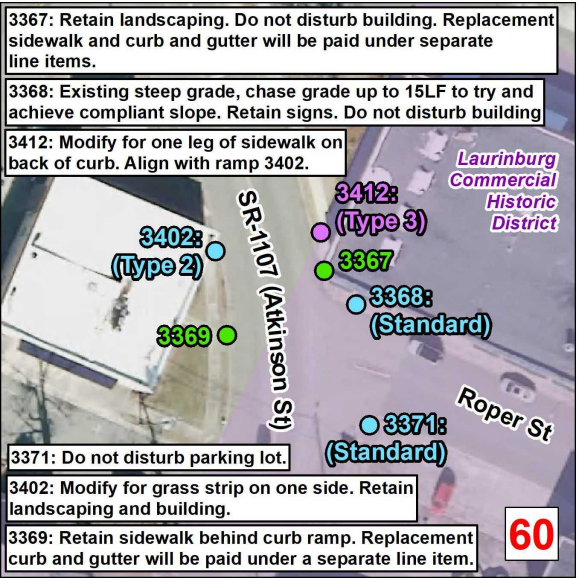
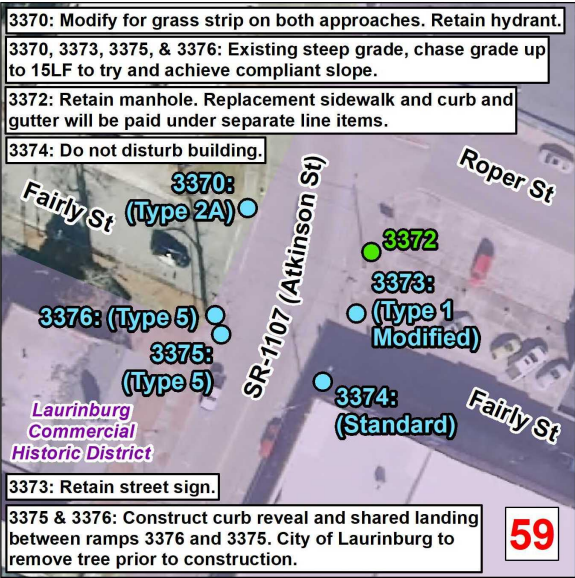
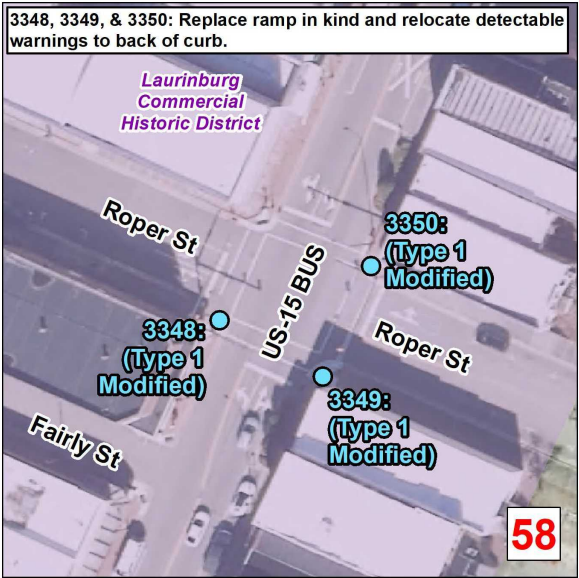
□ Municipal Boundary
■ Census Urban Areas (>5,000 Pop)
■ NCHPO Historic Boundary (NR and LHD)

Curb Ramps in Areas 5K-50K Population
Municipality: Laurinburg
TIP Number: BO-2408L
WBS Number: 50937.3.16
County: Scotland

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 8

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





Curb Ramps To Be Repaired

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

Municipal Boundary

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Curb Ramps in Areas 5K-50K Population
Municipality: Laurinburg
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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 8

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

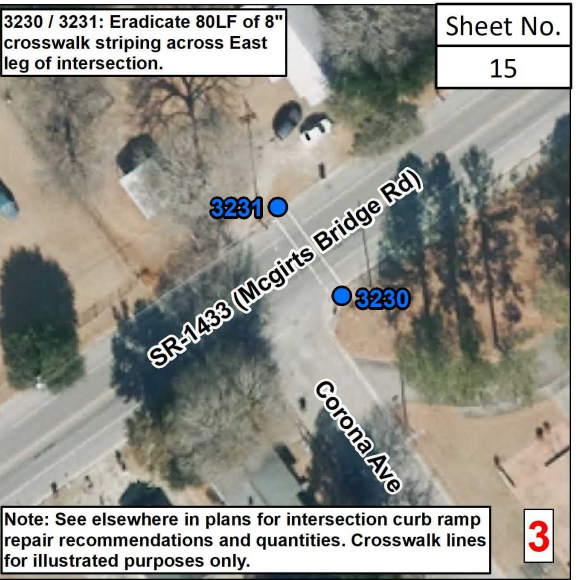
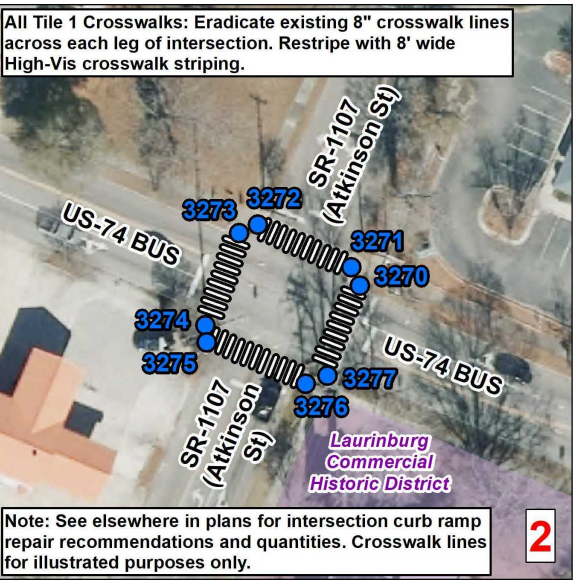
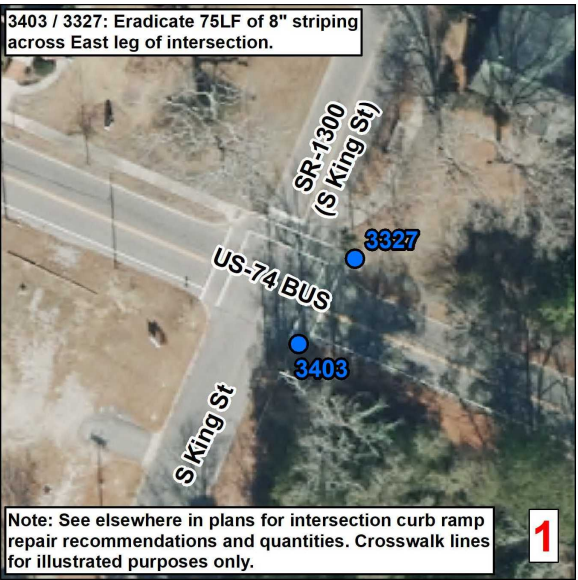
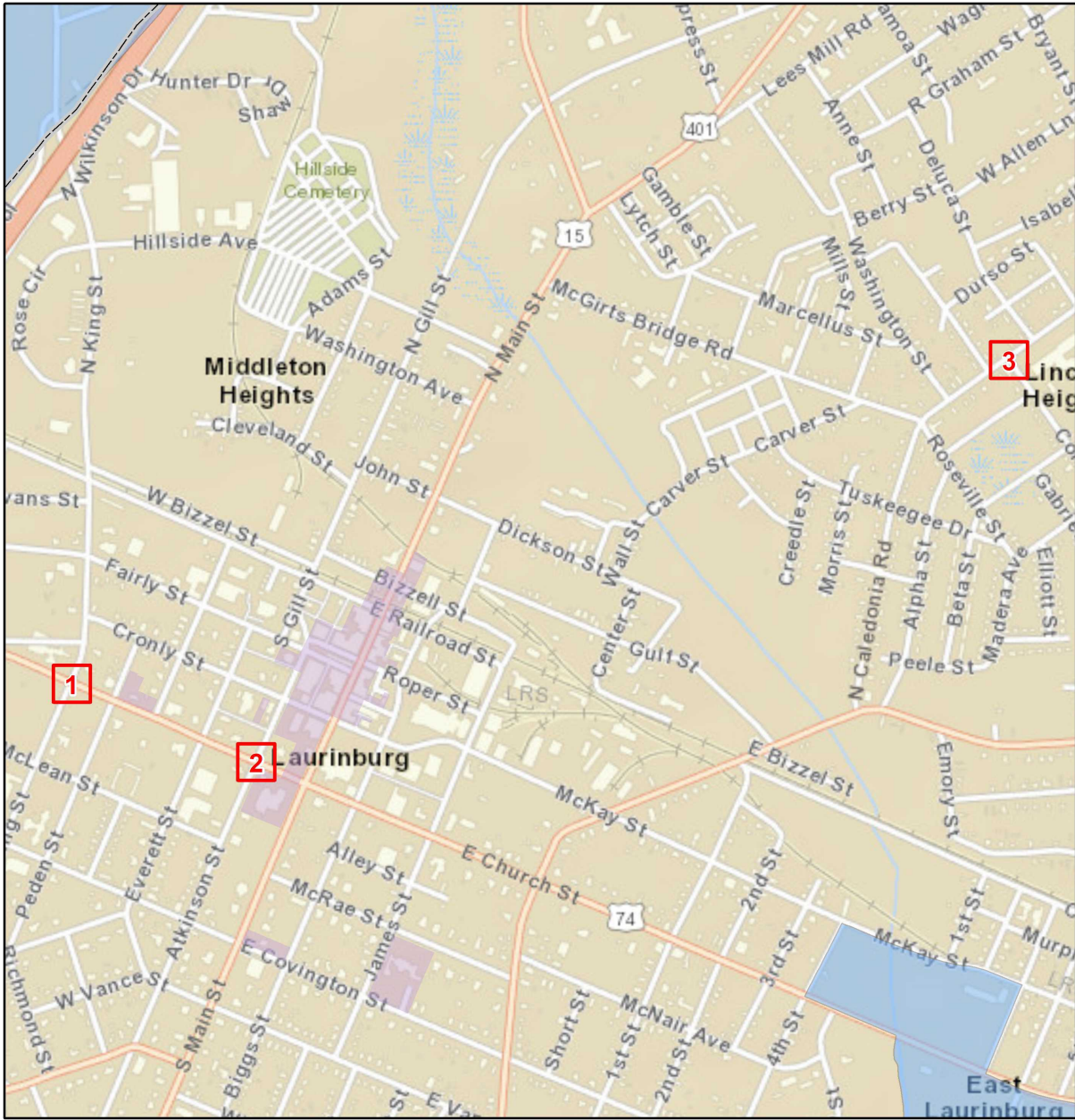
PEDESTRIAN CROSSWALK IMPROVEMENTS - SUMMARY OF QUANTITIES - LAURINBURG

Municipality:	Laurinburg
TIP Number:	BO-2408L
WBS Number:	50937.3.16
County:	Scotland

Sheet No.
14

ID	Inset Map Number	Route 1	Route 2	4709000000-E (LF) Thermoplastic Pavement Marking Lines (24", 90 Mils)	4860000000-E (LF) Removal Of Pavement Marking Lines (8")	Improvement Type
3327 / 3403	1	US-74 BUS	SR-1300 (S King St)		75	crosswalk eradication
3273 / 3274	2	US-74 BUS	SR-1107 (Atkinson St)	80	76	crosswalk eradication and restriping (High-Vis)
3275 / 3276	2	US-74 BUS	SR-1107 (Atkinson St)	80	80	crosswalk eradication and restriping (High-Vis)
3277 / 3270	2	US-74 BUS	SR-1107 (Atkinson St)	72	72	crosswalk eradication and restriping (High-Vis)
3271 / 3272	2	US-74 BUS	SR-1107 (Atkinson St)	80	80	crosswalk eradication and restriping (High-Vis)
3230 / 3231	3	SR-1433 (Mcgirts Bridge Rd)	Corona Ave		80	crosswalk eradication
Sub-Total for Laurinburg				312	463	

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.



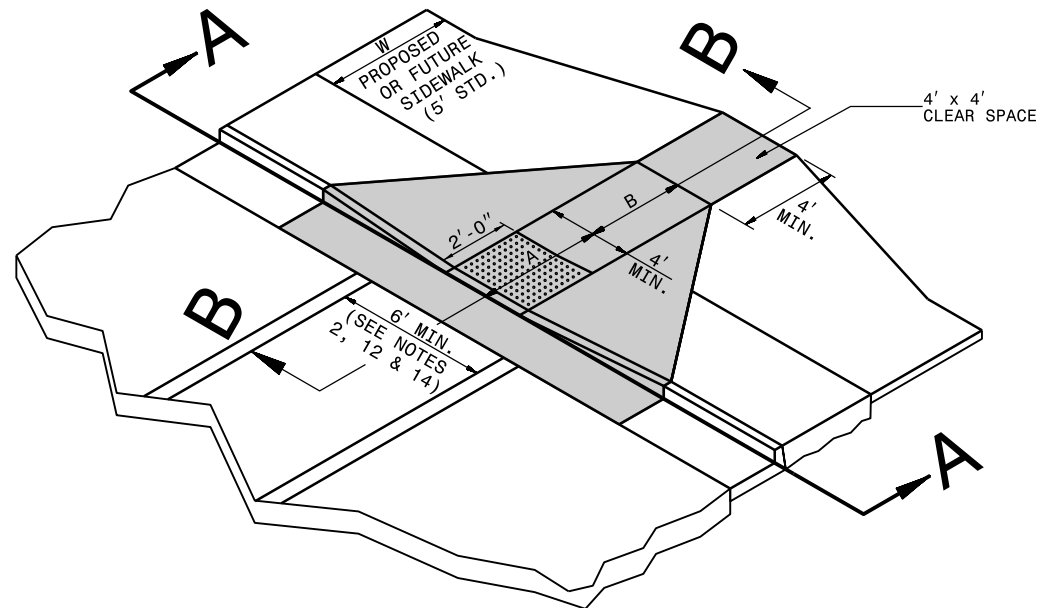
Pedestrian Improvements

- Curb Ramp
- 00000 Proposed Crosswalk
- ▭ Municipal Boundary
- Census Urban Areas (<5,000 Pop)
- NCHPO Historic Boundary (NR and LHD)

**Pedestrian Crosswalk Improvements
in Areas 5K-50K Population**
Municipality: Laurinburg
TIP Number: BO-2408L
WBS Number: 50937.3.16
County: Scotland

NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION 8

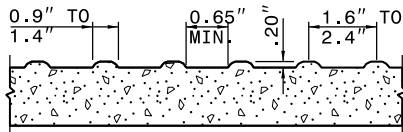
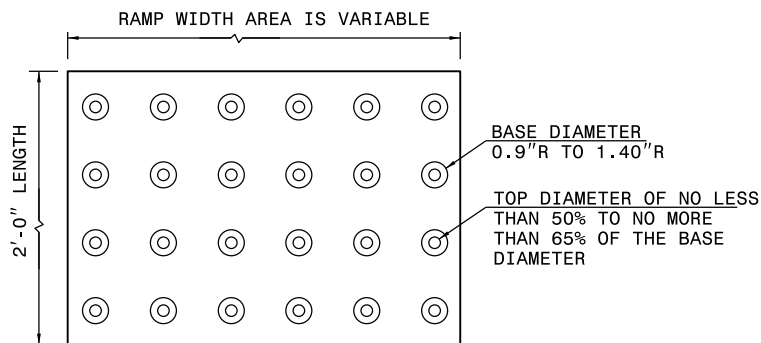
Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO



ISOMETRIC VIEW

PAY LIMITS FOR CURB RAMP

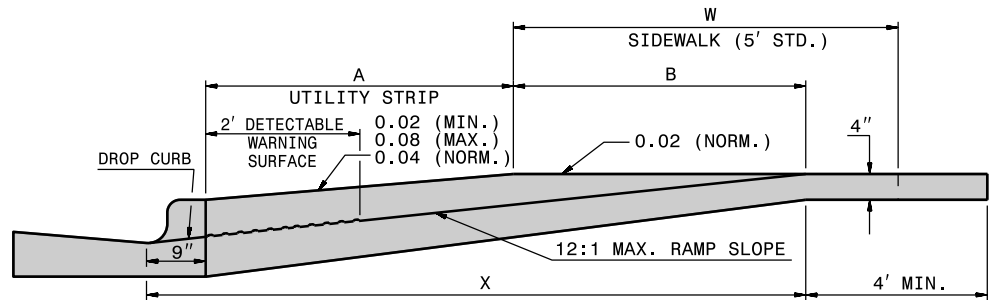
NOTES:
DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



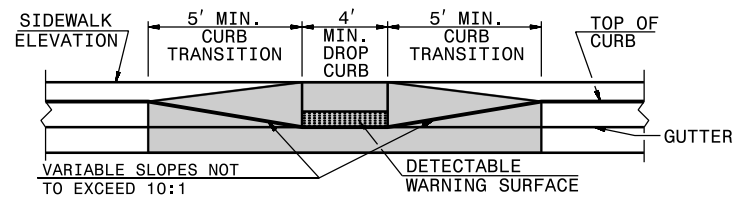
DETECTABLE WARNING SURFACE

W	A	W+A+9"	X	B
5'	0.0'	5.8'	5.8'	5.0'*
6'	0.0'	6.8'	6.8'	6.0'**
7'	0.0'	7.8'	7.3'	6.5'**
8'	0.0'	8.8'	7.3'	6.5'**
5'	2.0'	7.8'	7.8'	5.0'
5'	2.5'	8.3'	8.1'	4.8'
5'	3.0'	8.8'	8.3'	4.4'
5'	3.5'	9.3'	8.4'	4.1'
5'	4.0'	9.8'	8.6'	3.8'
5'	4.5'	10.3'	8.7'	3.4'
5'	5.0'	10.8'	8.9'	3.1'

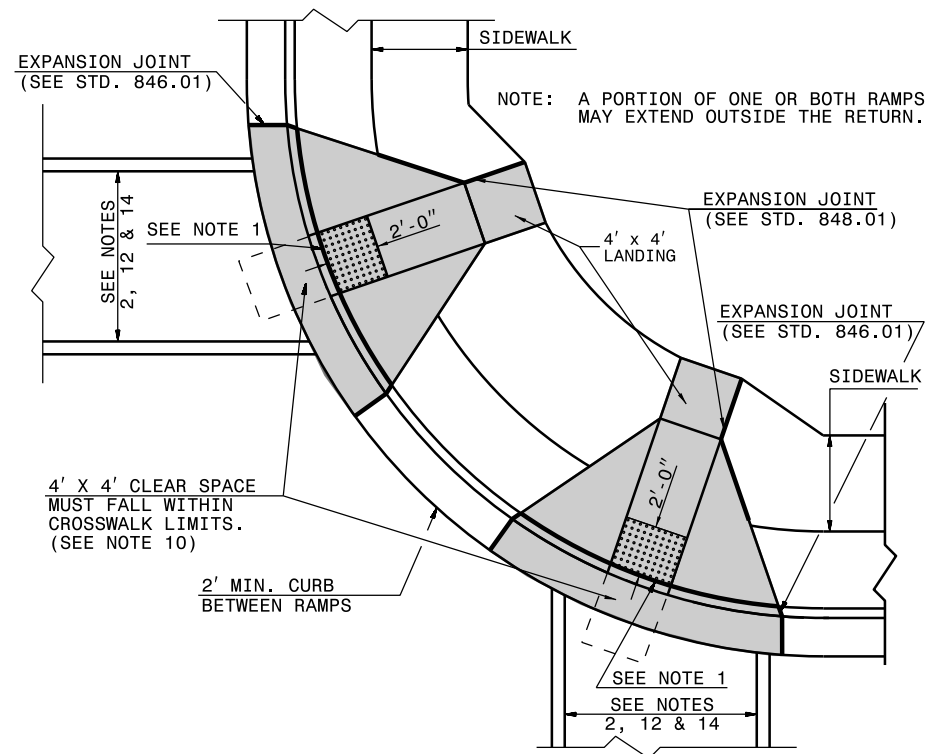
$B = X - (A + 9")$
B = DISTANCE FROM FRONT EDGE OF SIDEWALK TO BACK POINT OF 12:1 (8.33%) SLOPE.
* BACK OF SIDEWALK DROP REQUIRED FOR ALL SIDEWALK SLOPES.
** BACK OF SIDEWALK DROP REQUIRED FOR SIDEWALK SLOPES 0.04.



SECTION B-B



SECTION A-A



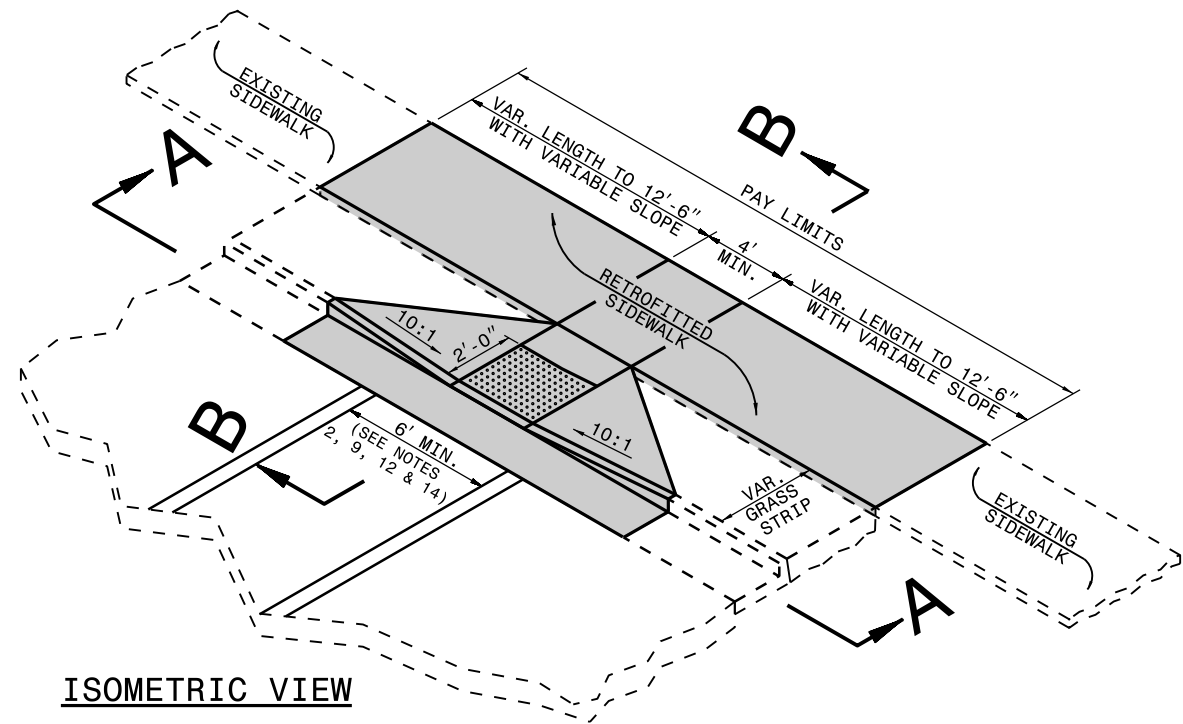
PLAN VIEW

DUAL RAMPS
ANY RADII
(4' MIN. FLOOR WIDTH)

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

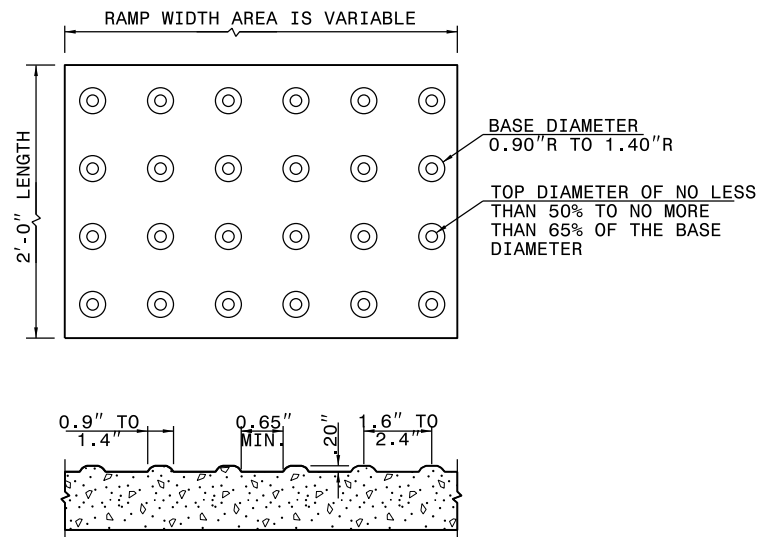
ROADWAY STANDARD DRAWING FOR
CURB RAMP
PROPOSED CURB AND GUTTER

SHEET 1 OF 13
848.06



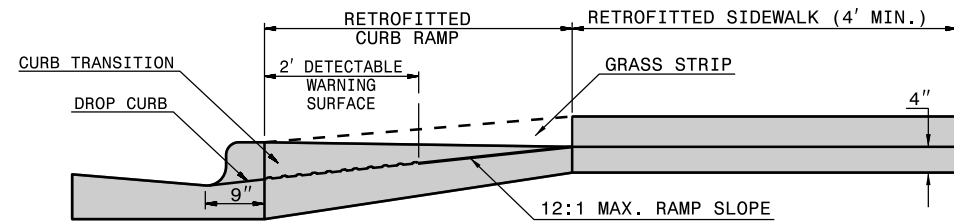
ISOMETRIC VIEW

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.

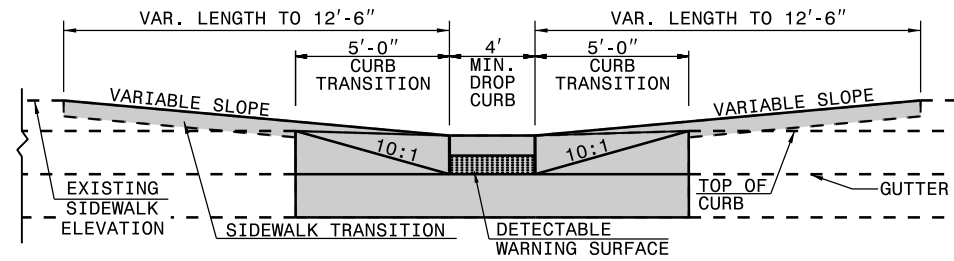


DETECTABLE WARNING SURFACE

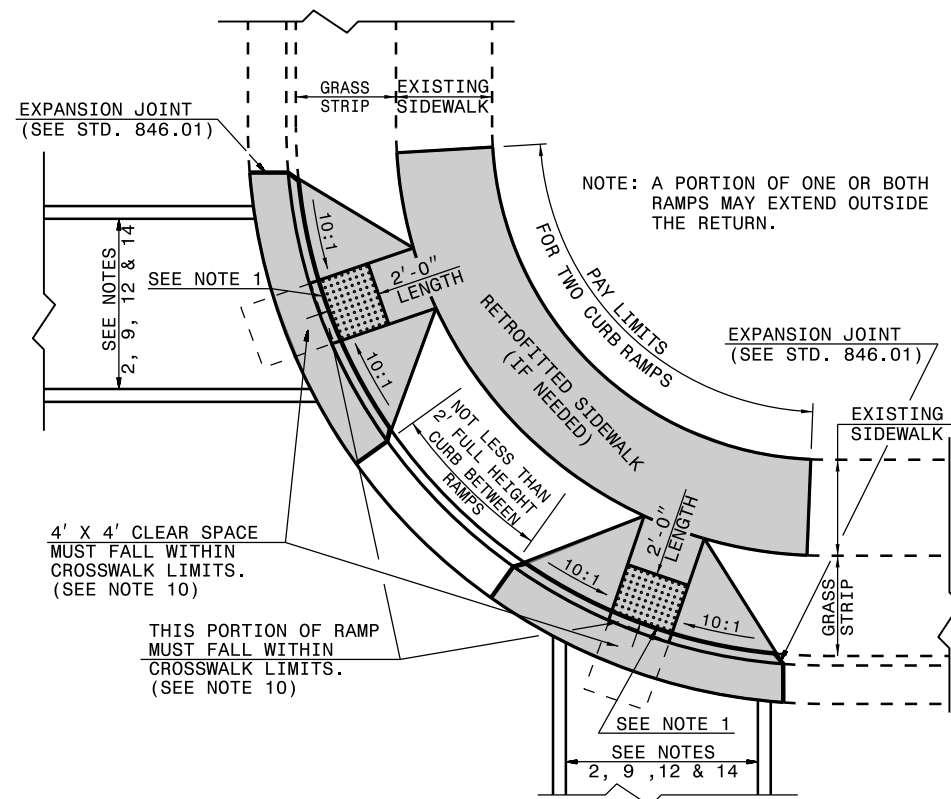
PAY LIMITS OF CURB RAMP



SECTION B-B



SECTION A-A



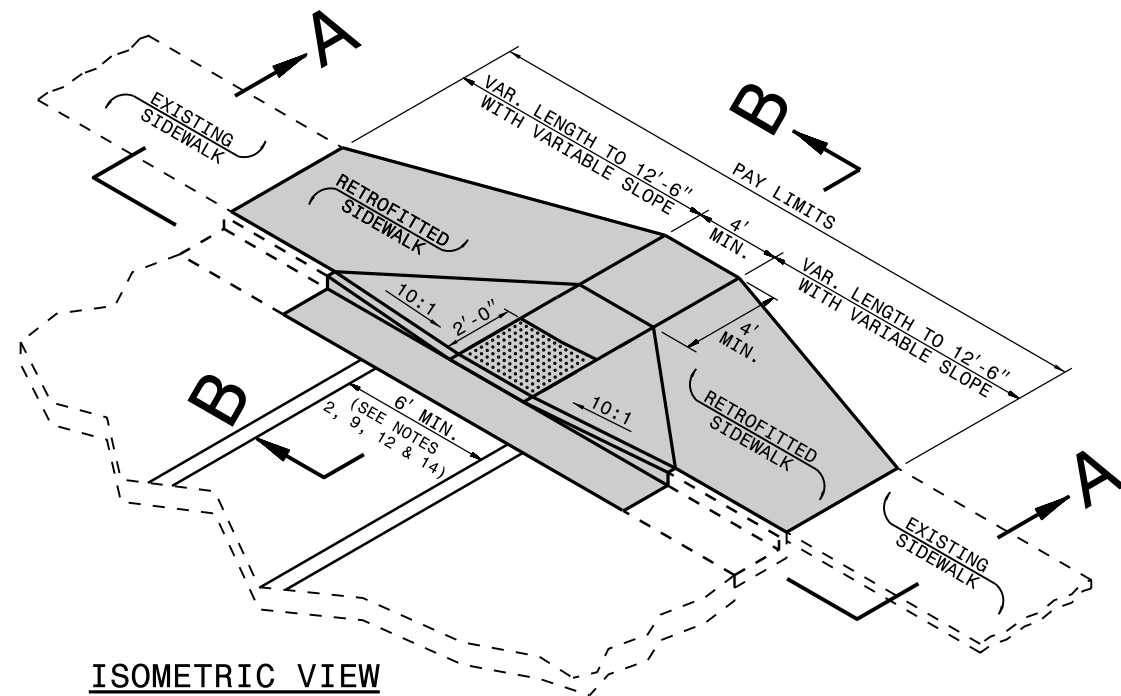
PLAN VIEW

DUAL RAMPS
ANY RADII
(40" MIN. FLOOR WIDTH)

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

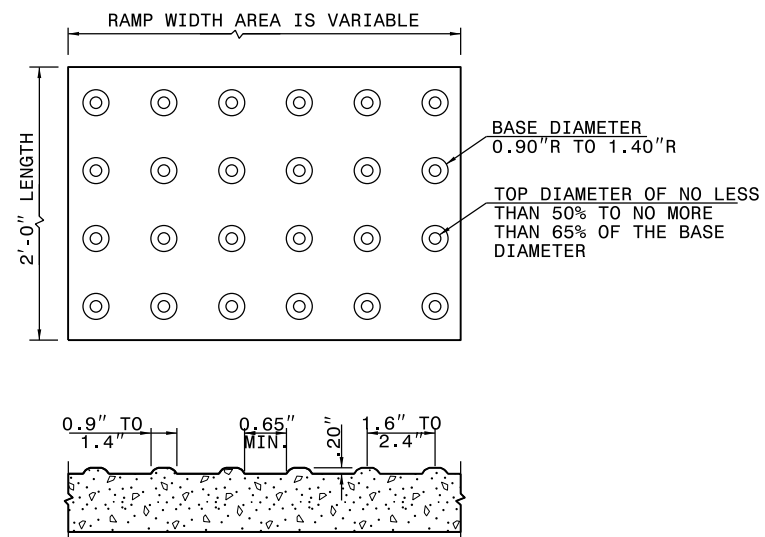
ROADWAY STANDARD DRAWING FOR
CURB RAMP
CURB RAMP AND EXISTING SIDEWALK
WITH GRASS STRIP

SHEET 2 OF 13
848.06

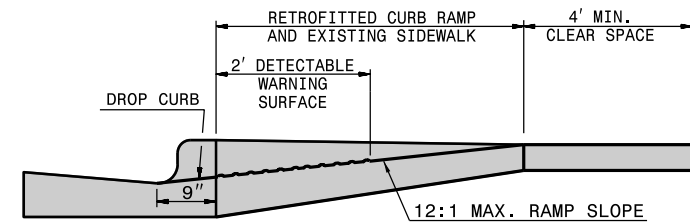
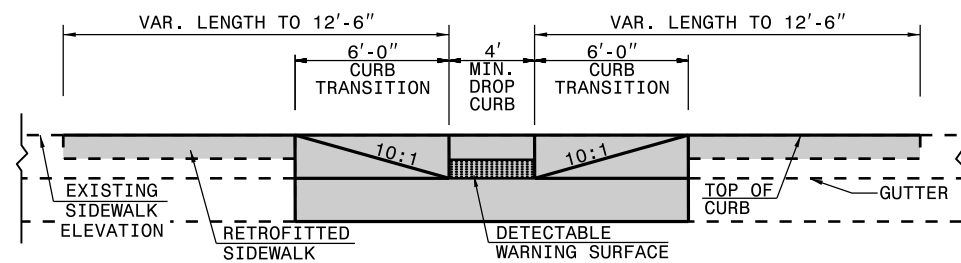
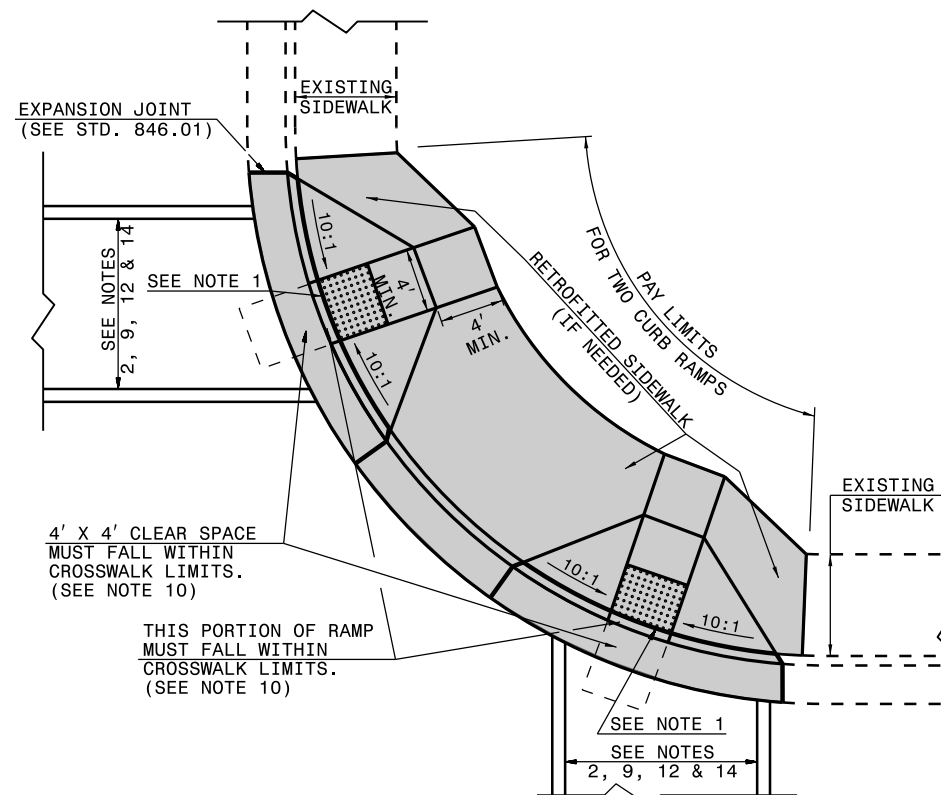


NOTES:
DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.

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**

 PAY LIMITS OF CURB RAMP

**SECTION B-B****SECTION A-A****PLAN VIEW**

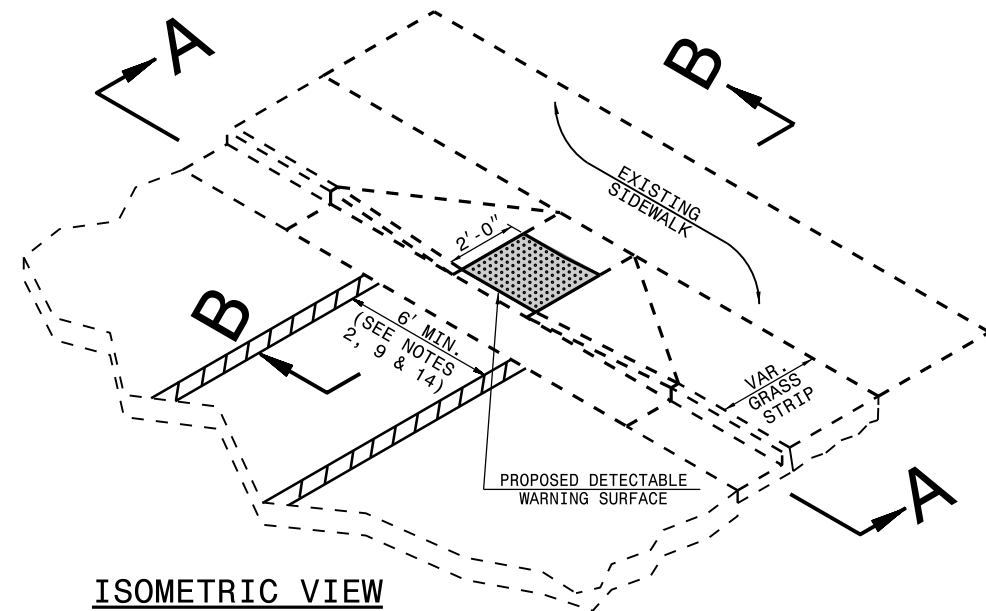
DUAL RAMPS
ANY RADII
(40" MIN. FLOOR WIDTH)

1-24
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP
CURB RAMP AND EXISTING SIDEWALK
ADJACENT TO CURB

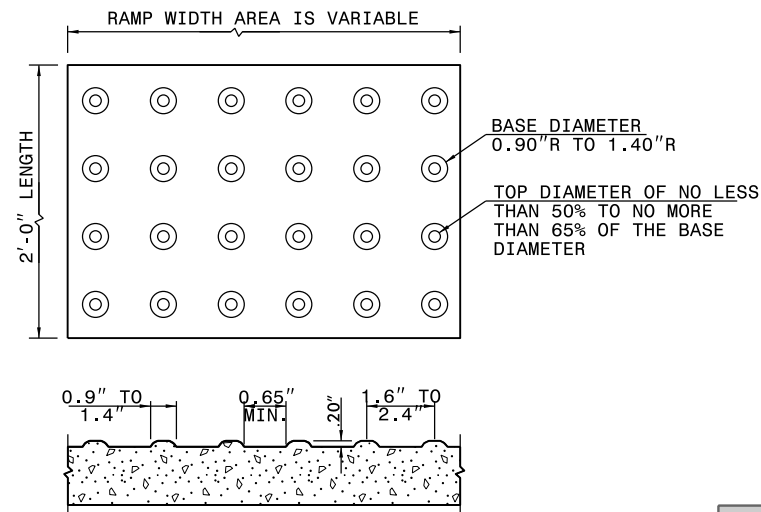
SHEET 3 OF 13

848.06



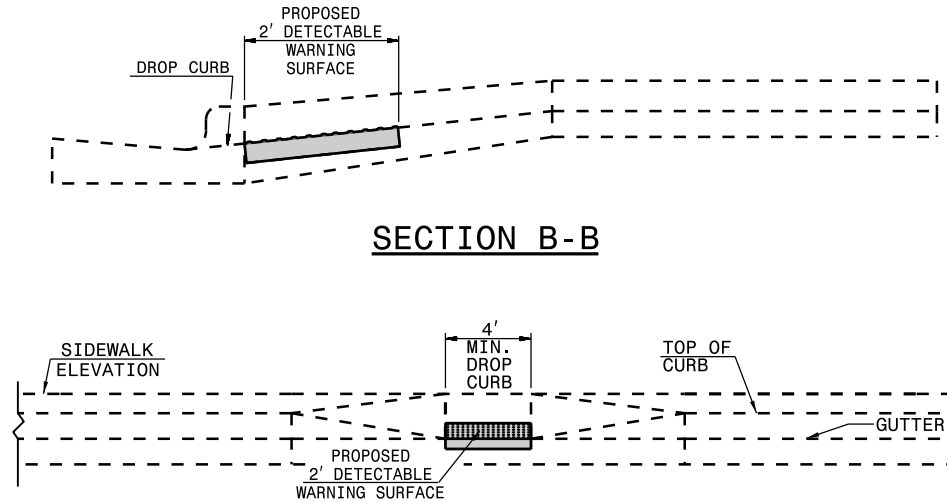
ISOMETRIC VIEW

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.

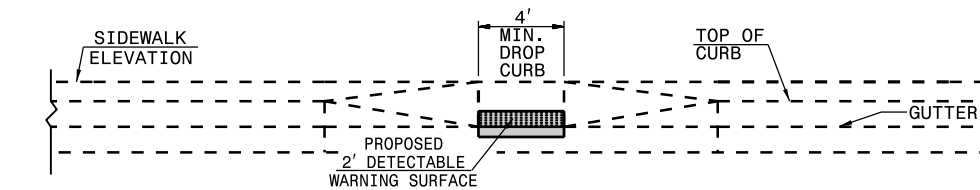


DETECTABLE WARNING SURFACE

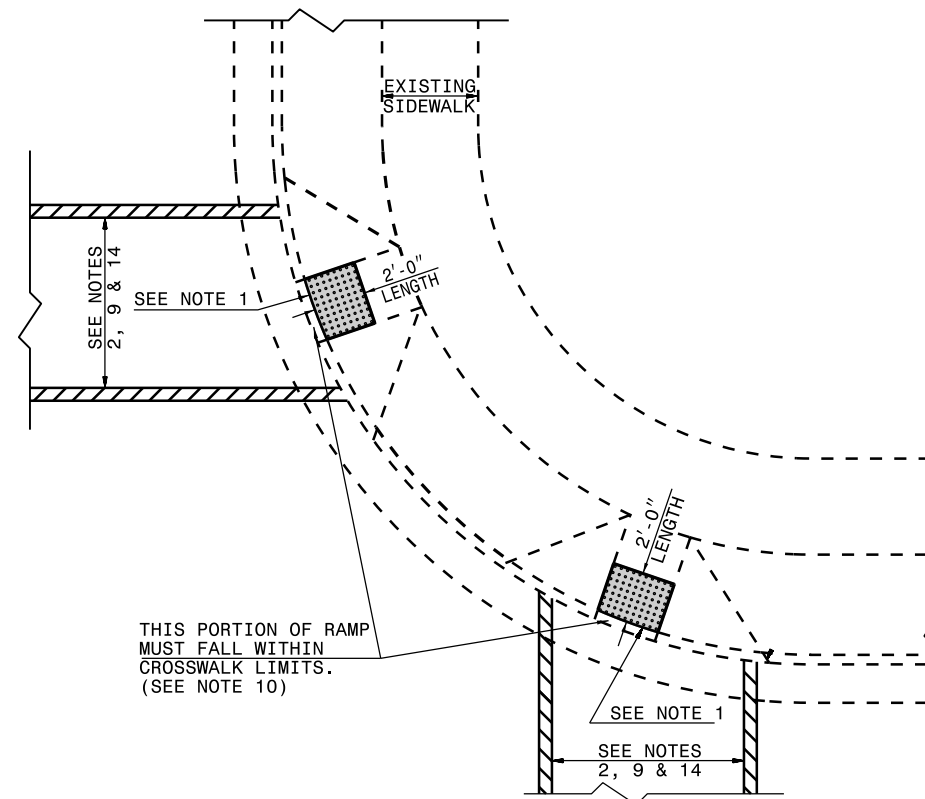
PAY LIMITS OF RETROFIT CURB RAMP



SECTION B-B



SECTION A-A



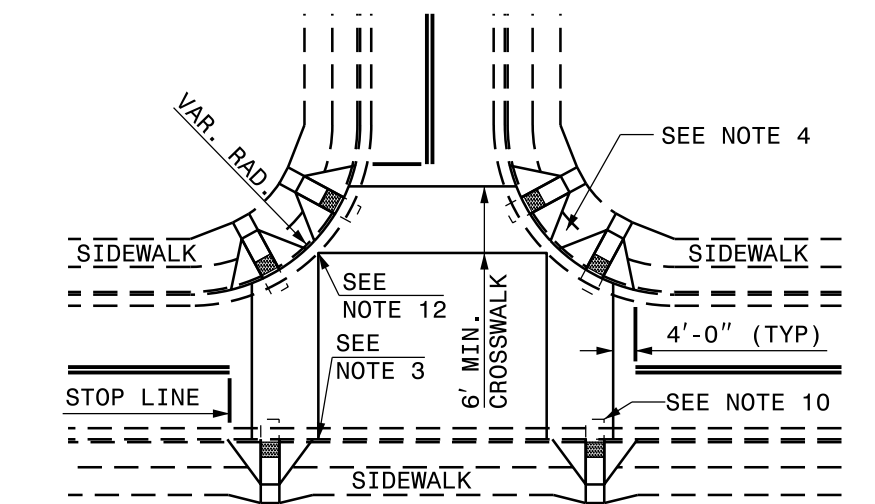
PLAN VIEW

DUAL RAMPS
ANY RADII
(40" MIN. FLOOR WIDTH)

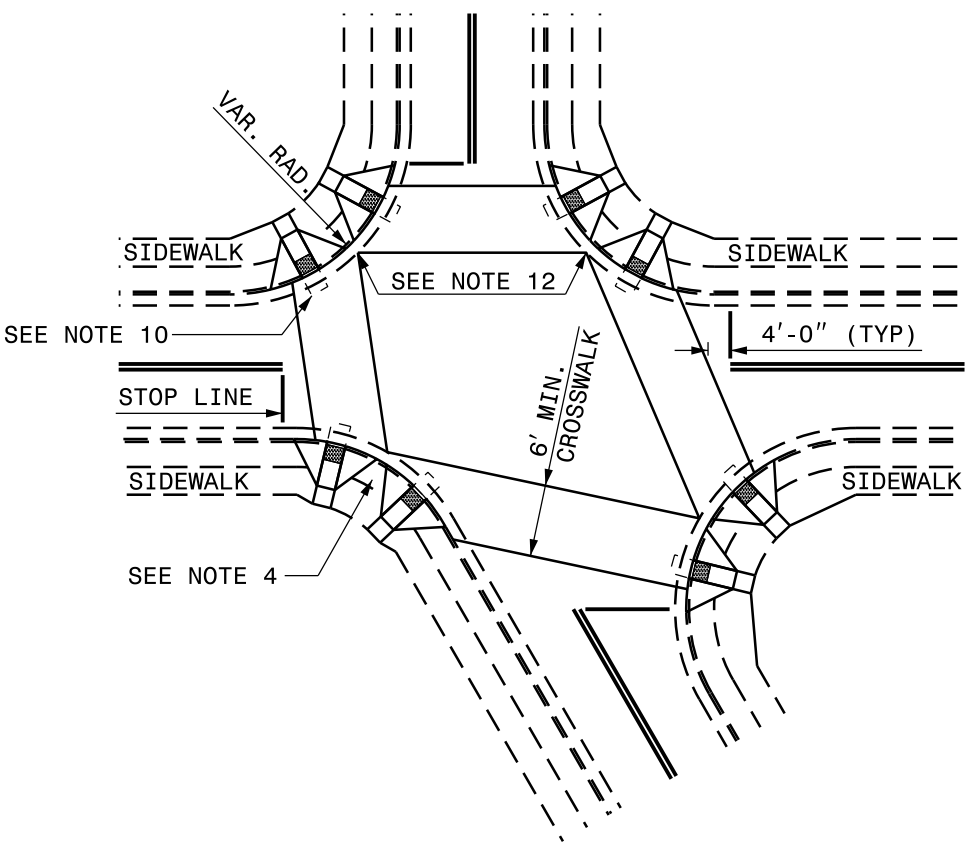
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP
RETROFITTING DETECTABLE WARNING SURFACE
ONTO EXISTING CURB RAMP

SHEET 4 OF 13
848.06

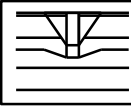
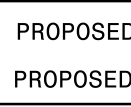


DETAIL SHOWING TYPICAL LOCATION OF CURB RAMPS,
PEDESTRIAN CROSSWALKS AND STOP LINES FOR TEE INTERSECTIONS

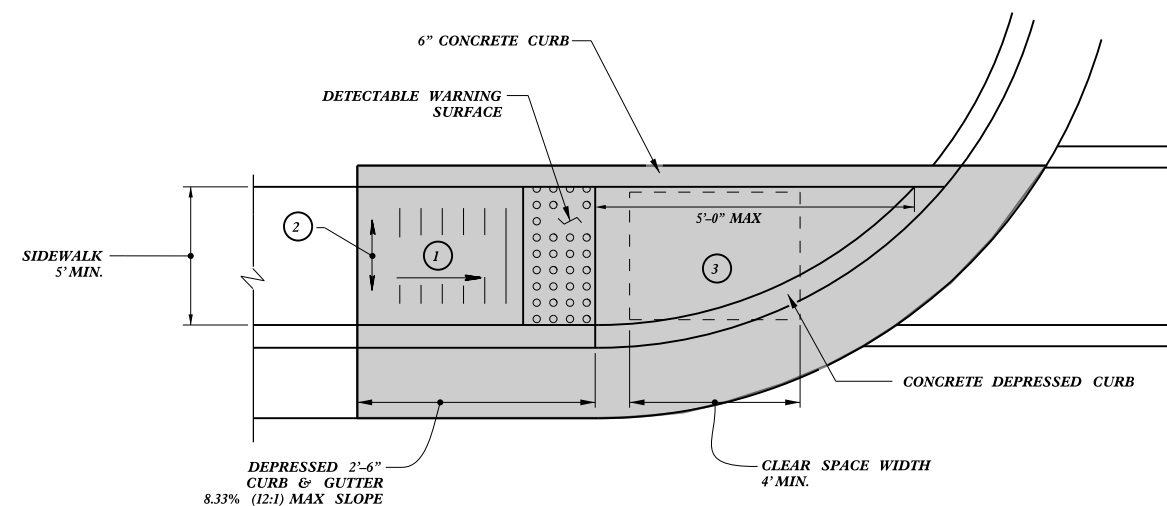


DETAIL SHOWING TYPICAL LOCATION OF CURB
RAMPS, PEDESTRIAN CROSSWALKS AND STOP LINES

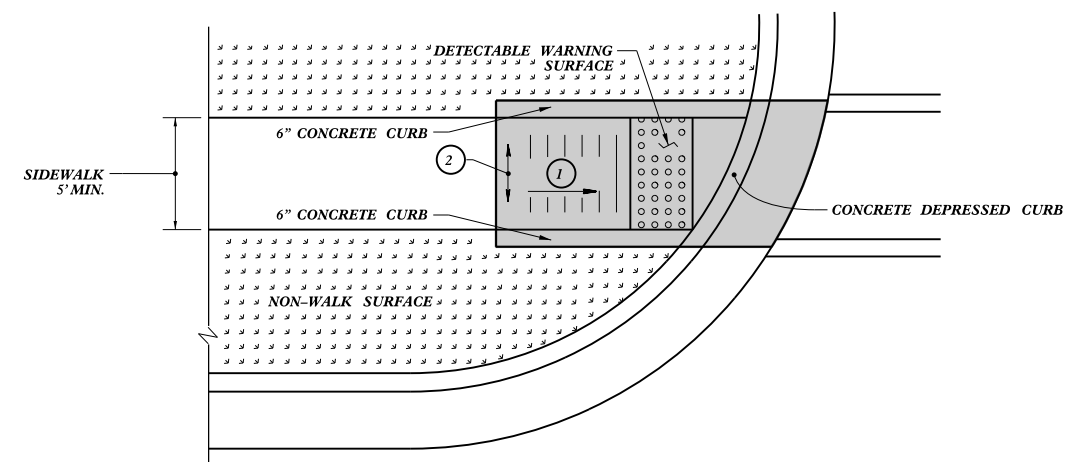
ROADWAY
PLAN SYMBOL
CR
FOR PROPOSED
CURB RAMP

 PROPOSED CURB RAMP W/ CLEAR SPACE
 PROPOSED OR FUTURE SIDEWALK

ALLOWABLE LOCATIONS
DUAL RAMP RADII.....ANY



TYPE 1



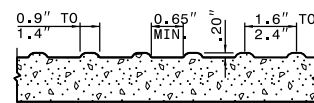
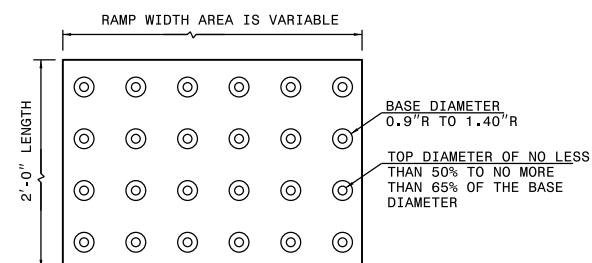
TYPE 1 MODIFIED

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

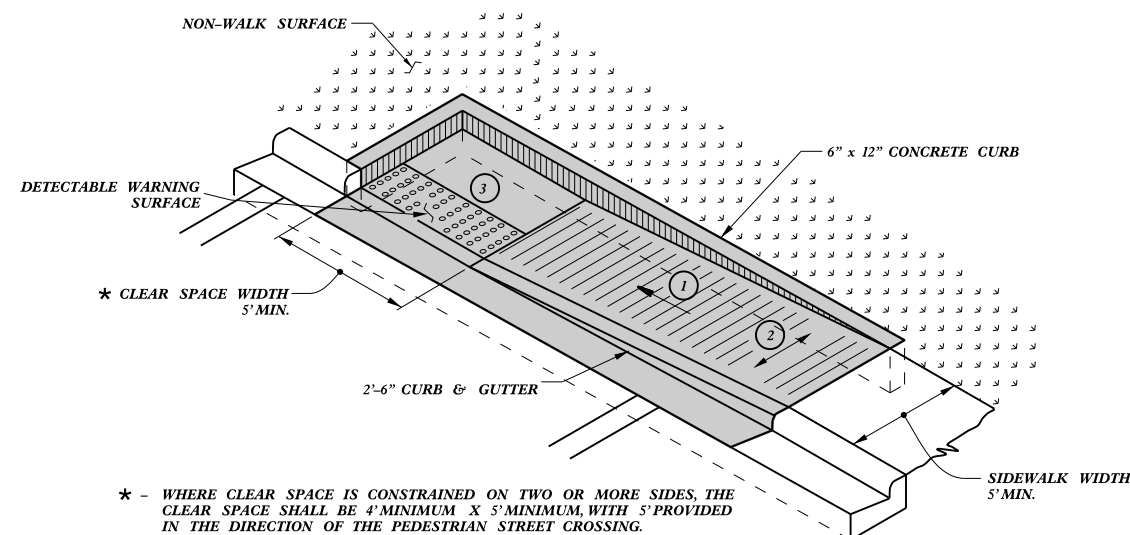
NOTES:

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



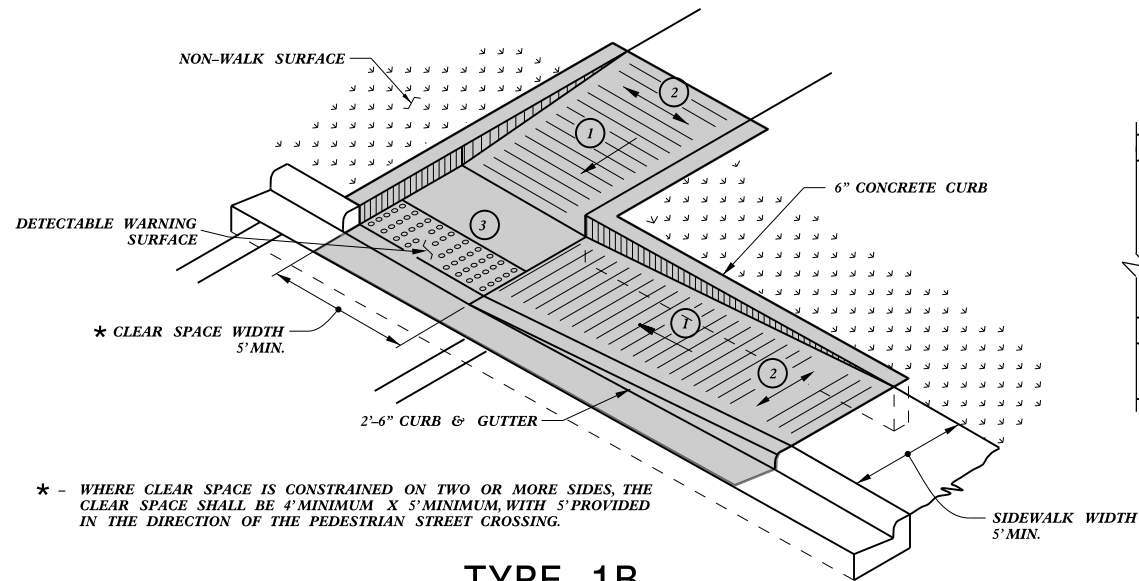
TYPE 1A

PAY LIMITS FOR 1 CURB RAMP

ROADWAY STANDARD DRAWING FOR **CURB RAMP** DIRECTIONAL RAMP

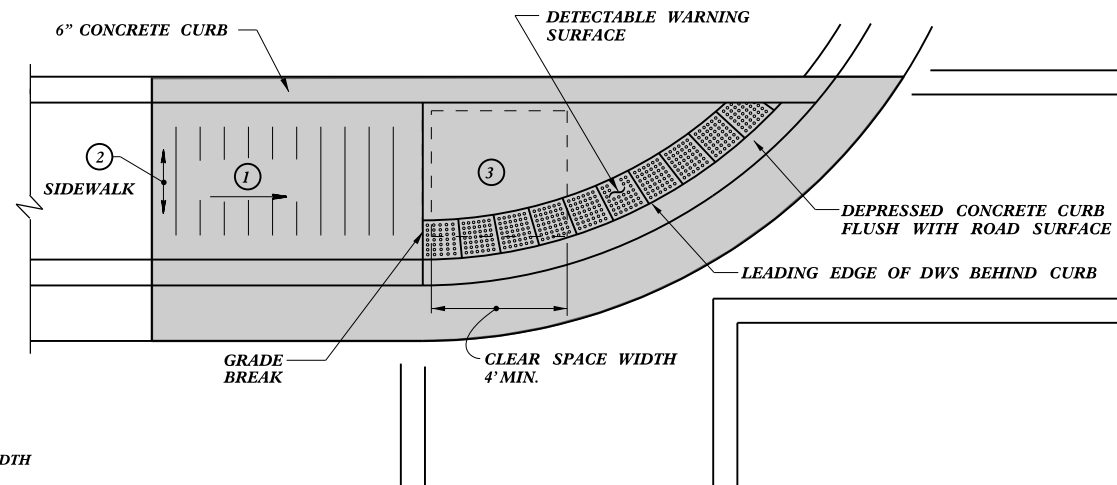
SHEET 6 OF 13

848.06



★ - WHERE CLEAR SPACE IS CONSTRAINED ON TWO OR MORE SIDES, THE CLEAR SPACE SHALL BE 4' MINIMUM X 5' MINIMUM, WITH 5' PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.

TYPE 1B

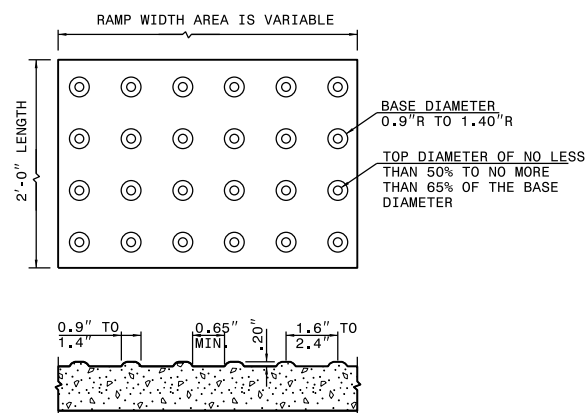


TYPE 1C

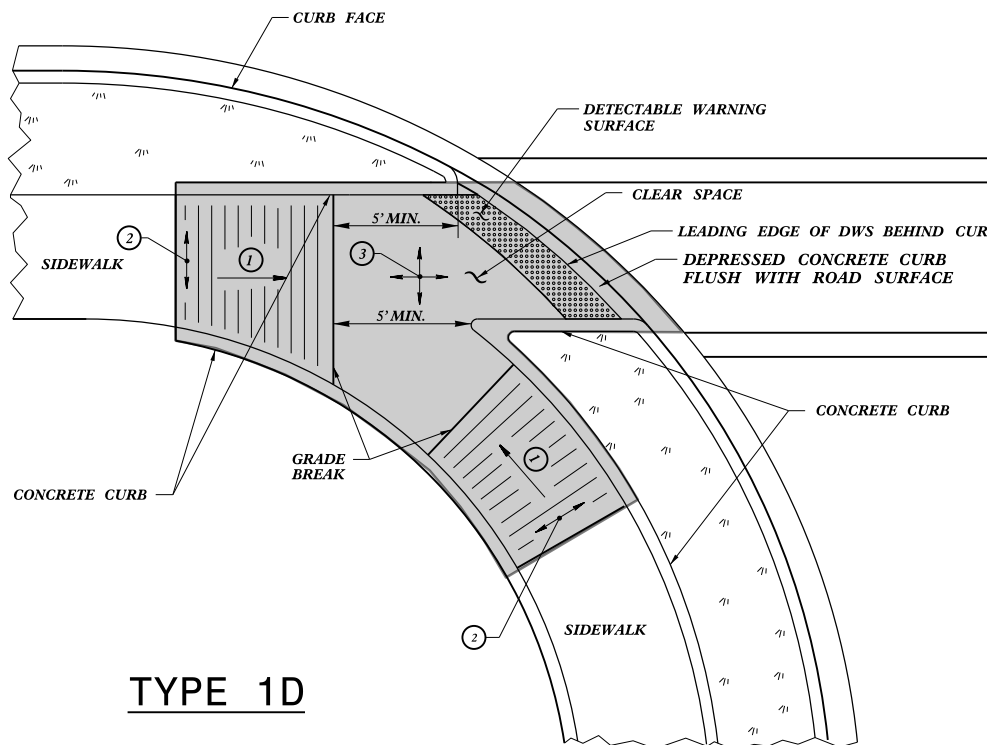
- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.

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



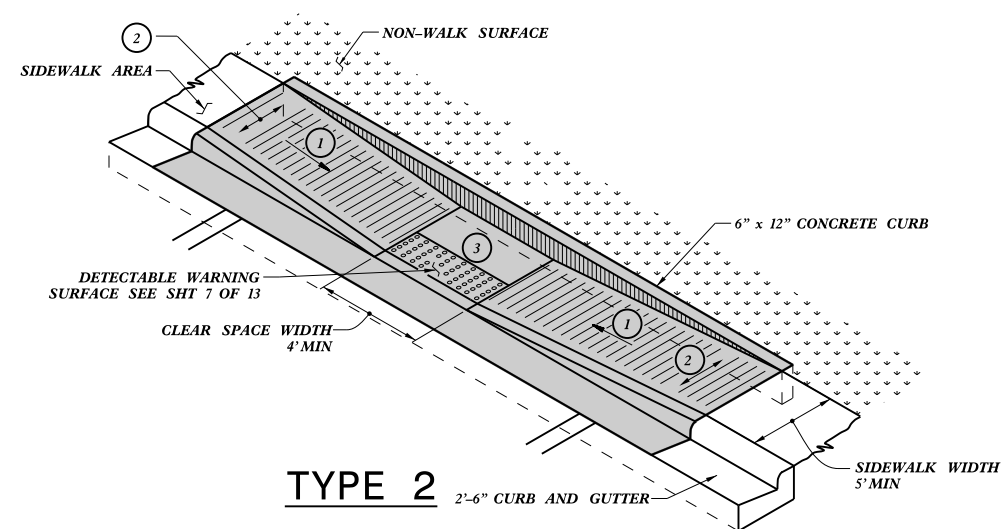
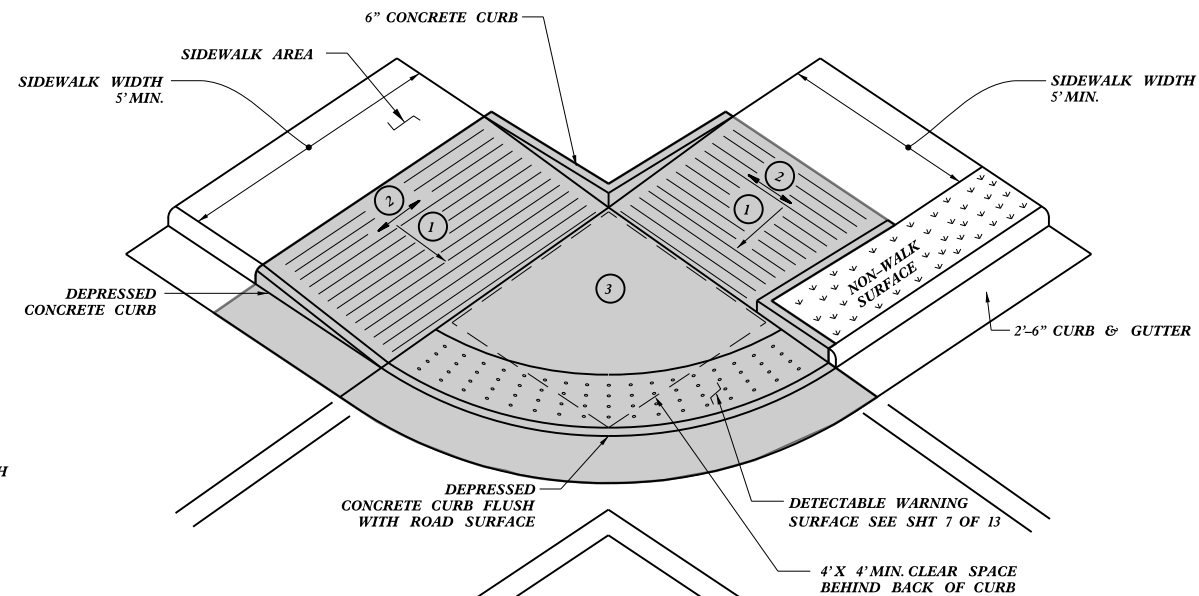
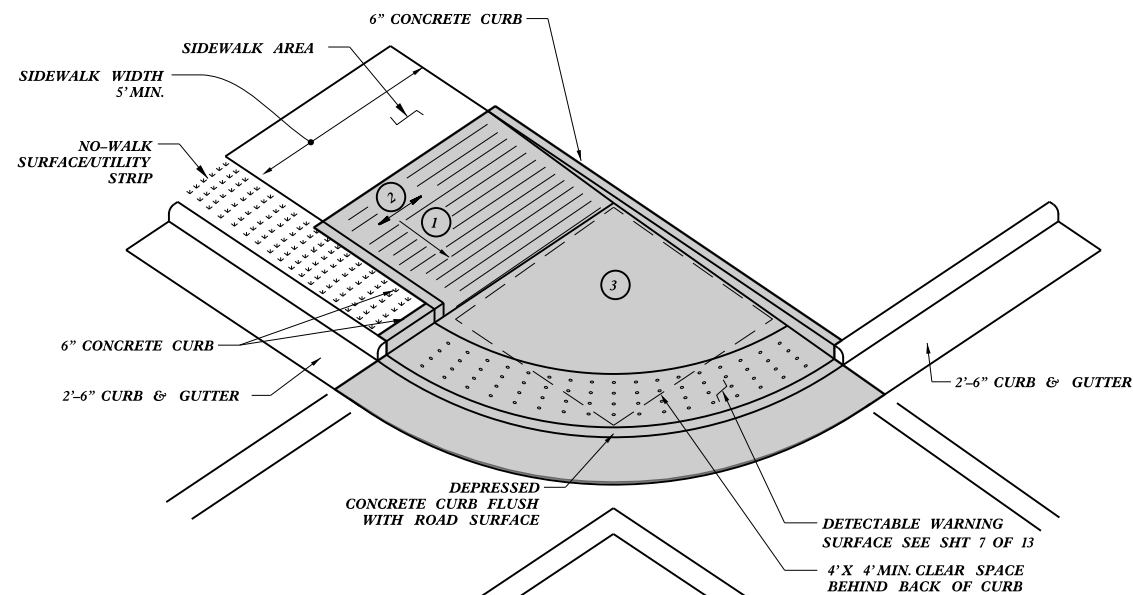
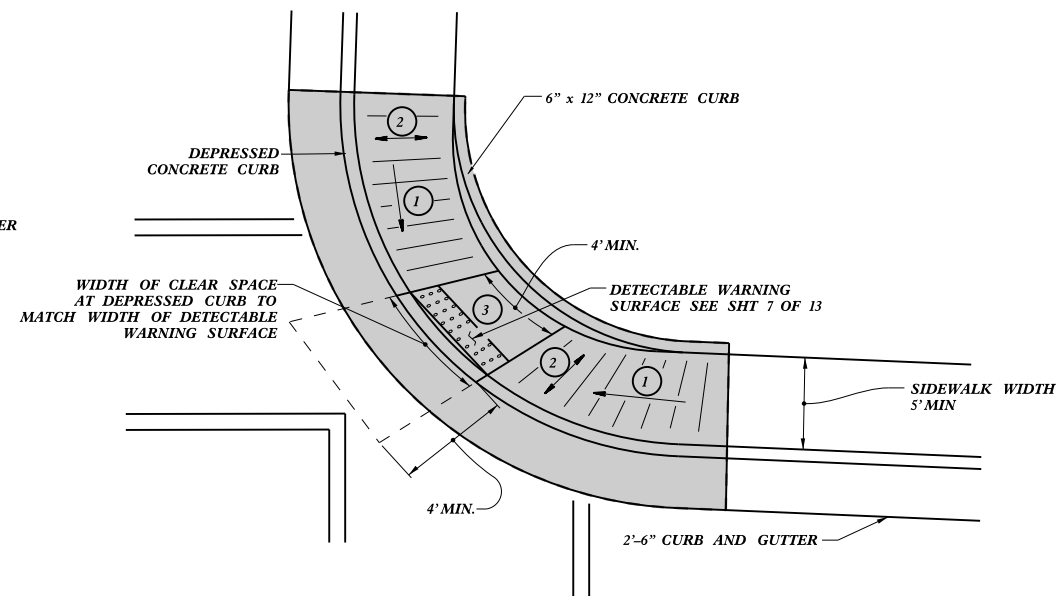
TYPE 1D

PAY LIMITS FOR 1 CURB RAMP

1-24
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP
DIRECTIONAL RAMP

SHEET 7 OF 13
848.06

**TYPE 2****TYPE 2A****TYPE 2A MODIFIED****TYPE 2B**

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

PAY LIMITS FOR 1 CURB RAMP

1-24 STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP
PARALLEL RAMP

SHEET 8 OF 13

848.06

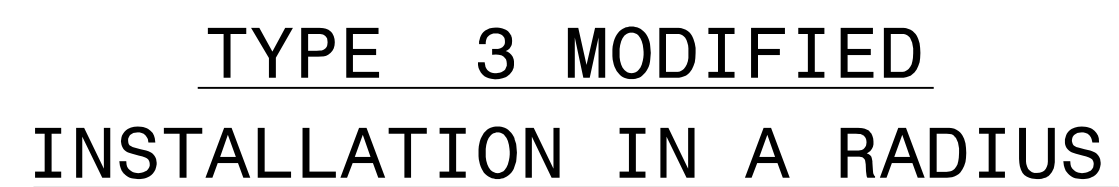


RAMP WIDTH AREA IS VARIABLE

2'-0" LENGTH

BASE DIAMETER
0.9" R TO 1.40" R

TOP DIAMETER OF NO LESS
THAN 50% TO NO MORE
THAN 65% OF THE BASE
DIAMETER



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

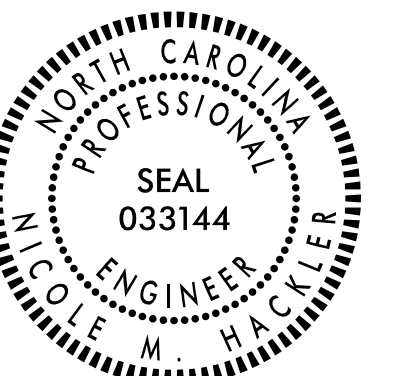
PAY LIMITS FOR 1 CURB RAMP

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

ROADWAY STANDARD DRAWING FOR CURB RAMP PARALLEL RAMP

SHEET 9 OF 13

848D06



Signed by:
Nicole M Hackler
5884323D34164C5...
/21/2026

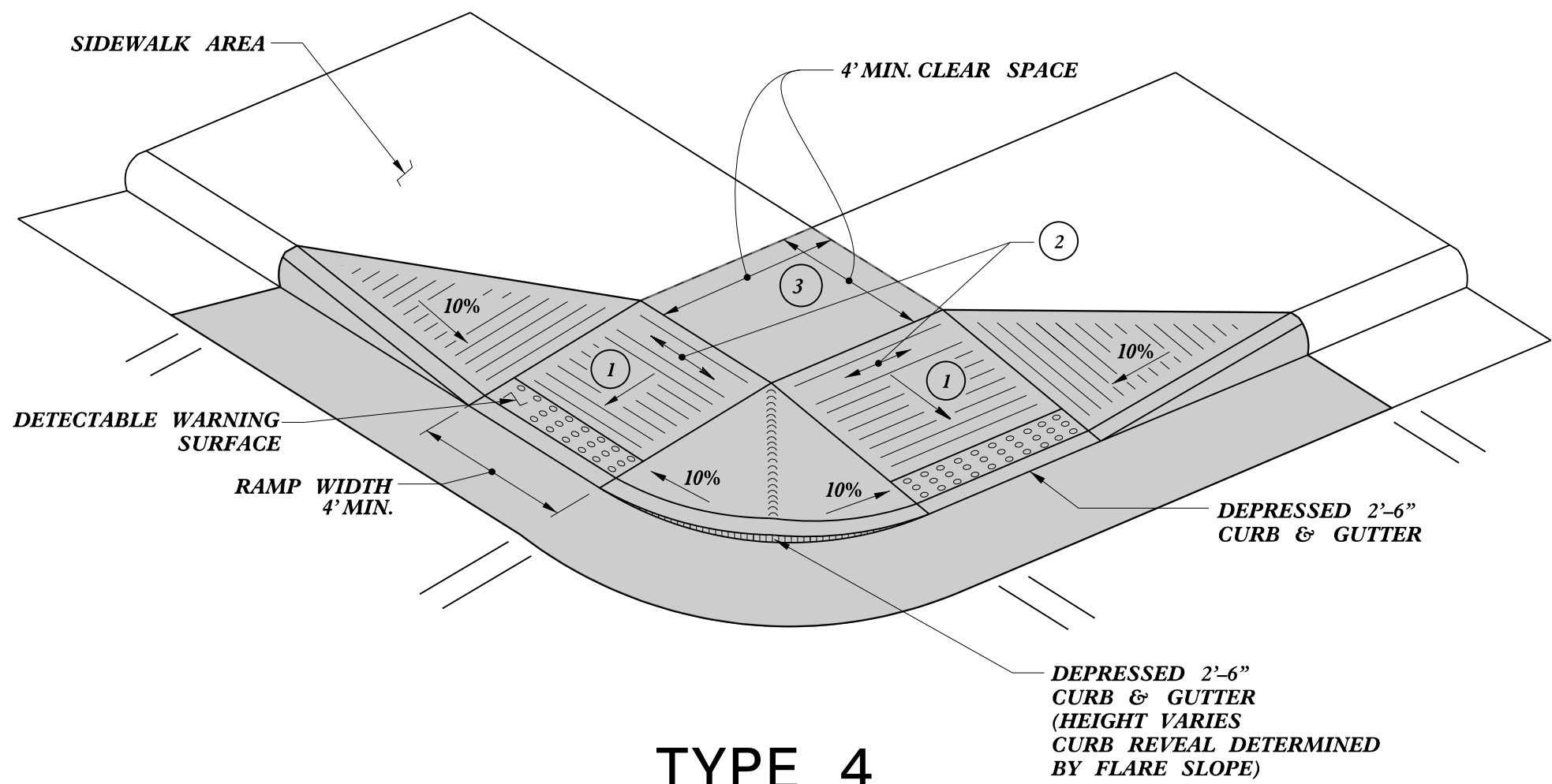
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

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

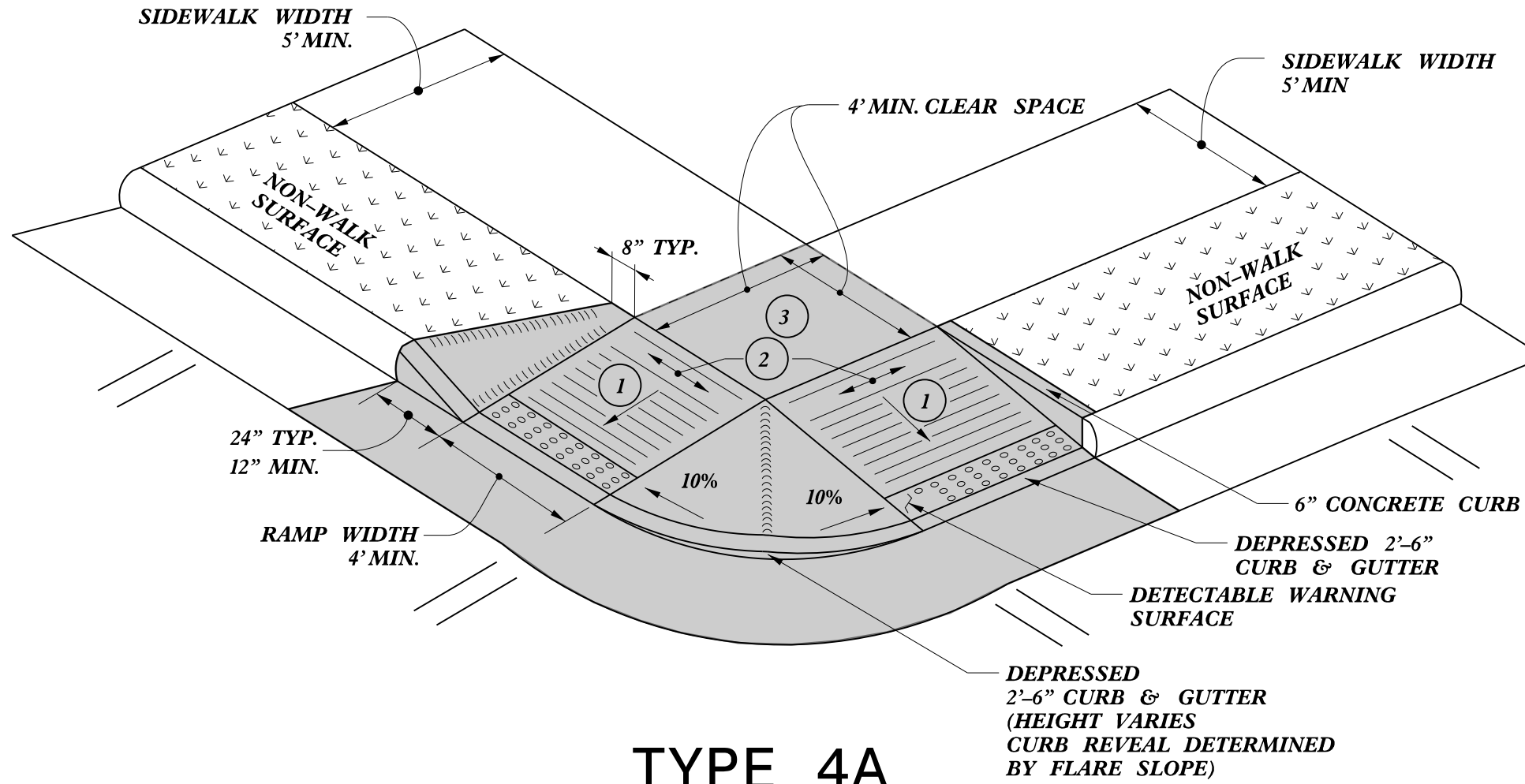
SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 12-22-2023
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: special_details\nmhackler\0609.dgn

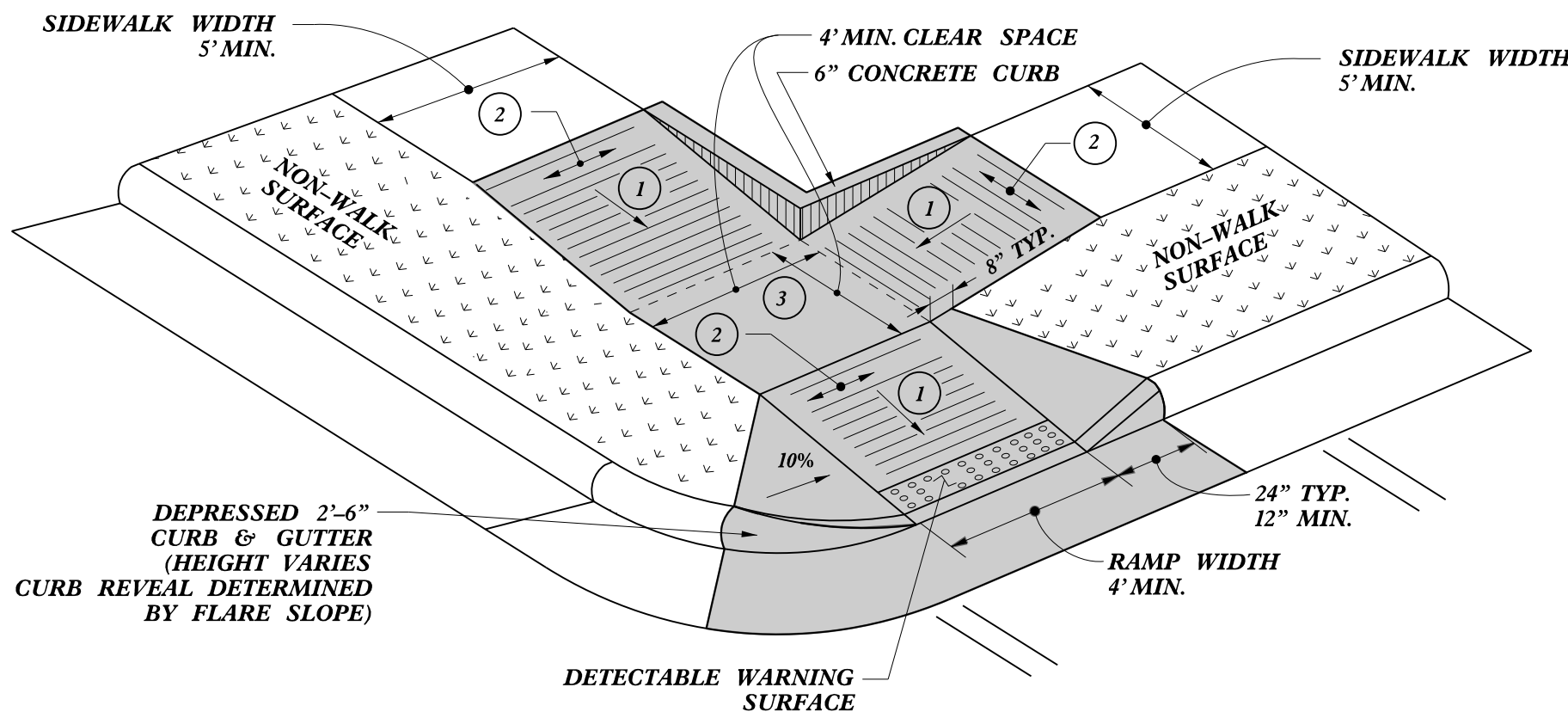
PROJECT REFERENCE NO.	SHEET NO.
BO-2408L	25



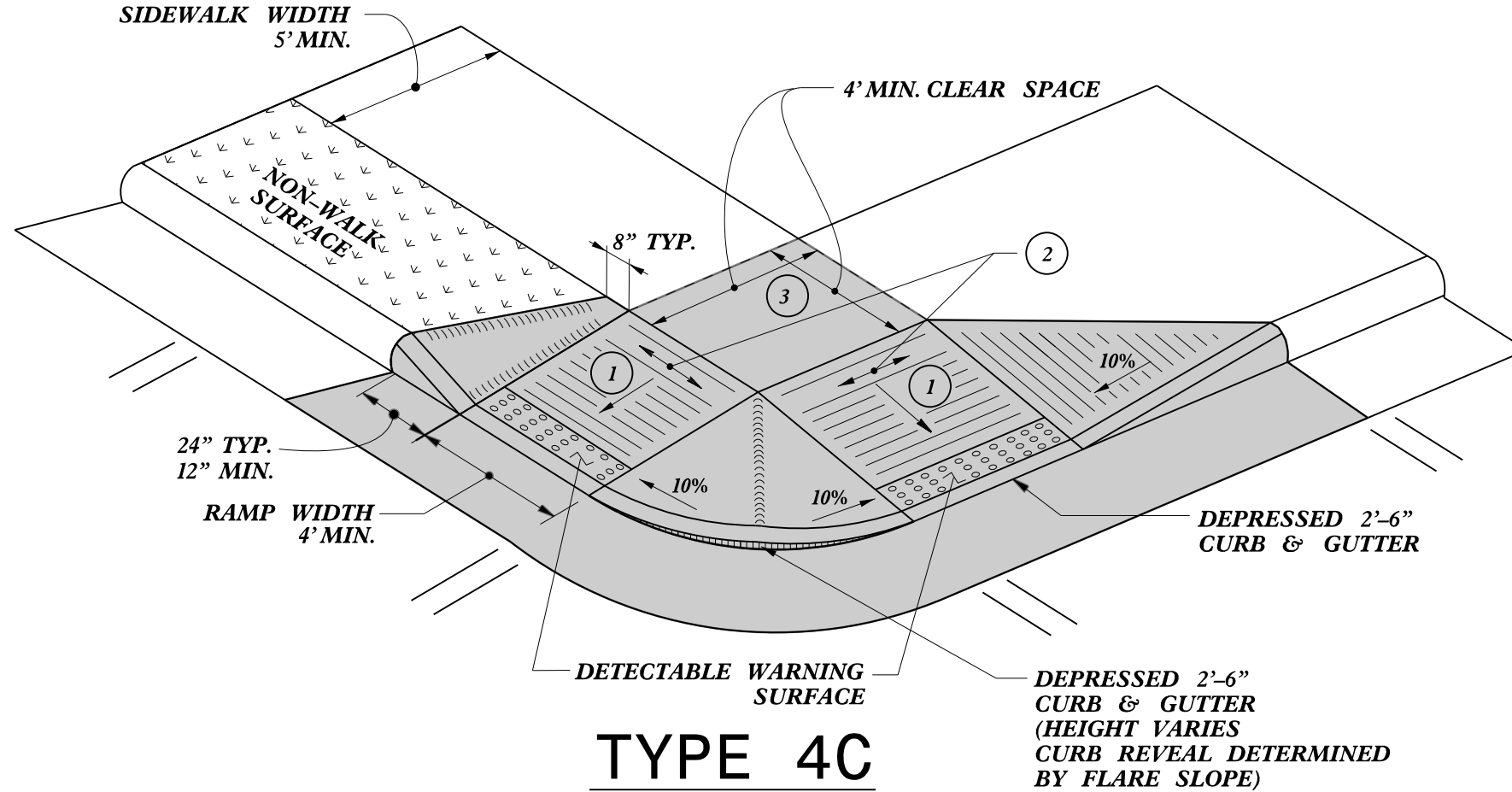
TYPE 4



TYPE 4A

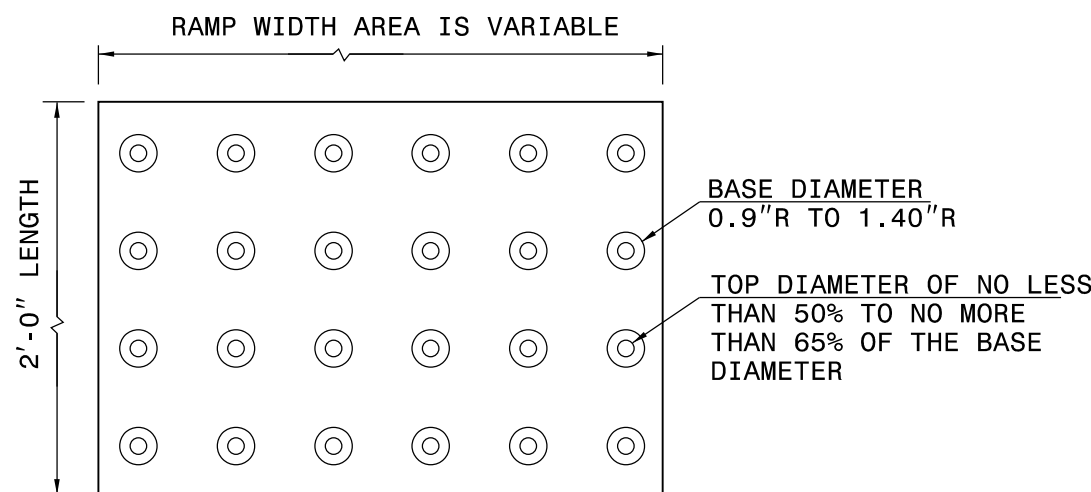


TYPE 4B

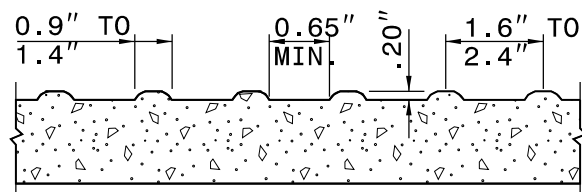


TYPE 4C

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 STANDARD DRAWING FOR
CURB RAMP
SHARED LANDING

SHEET 10 OF 13
848D06

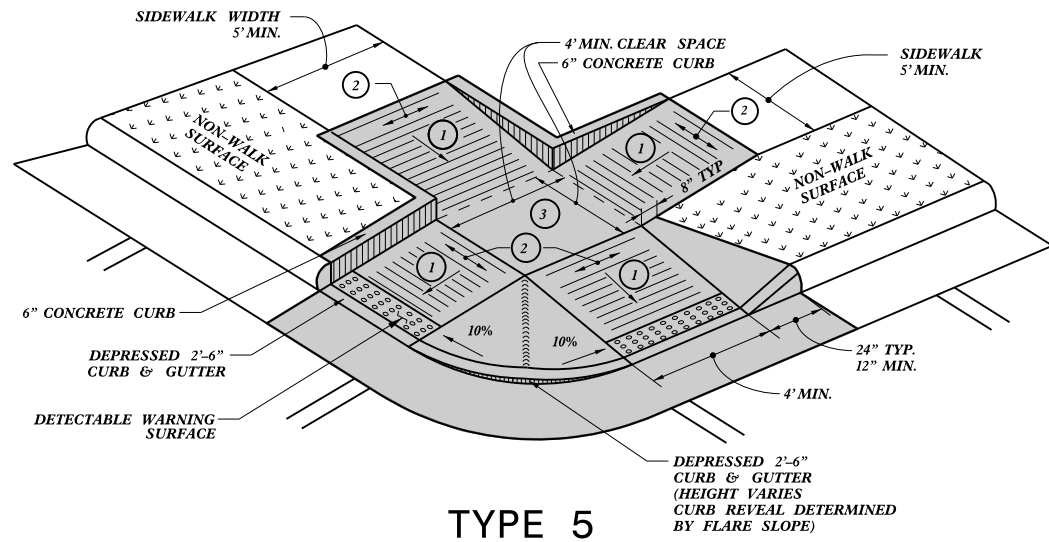


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

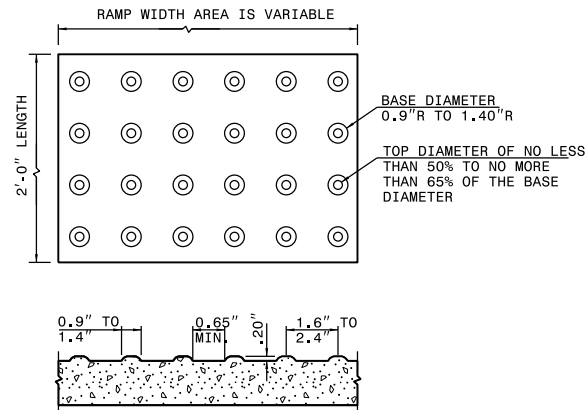
CONTRACTS STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

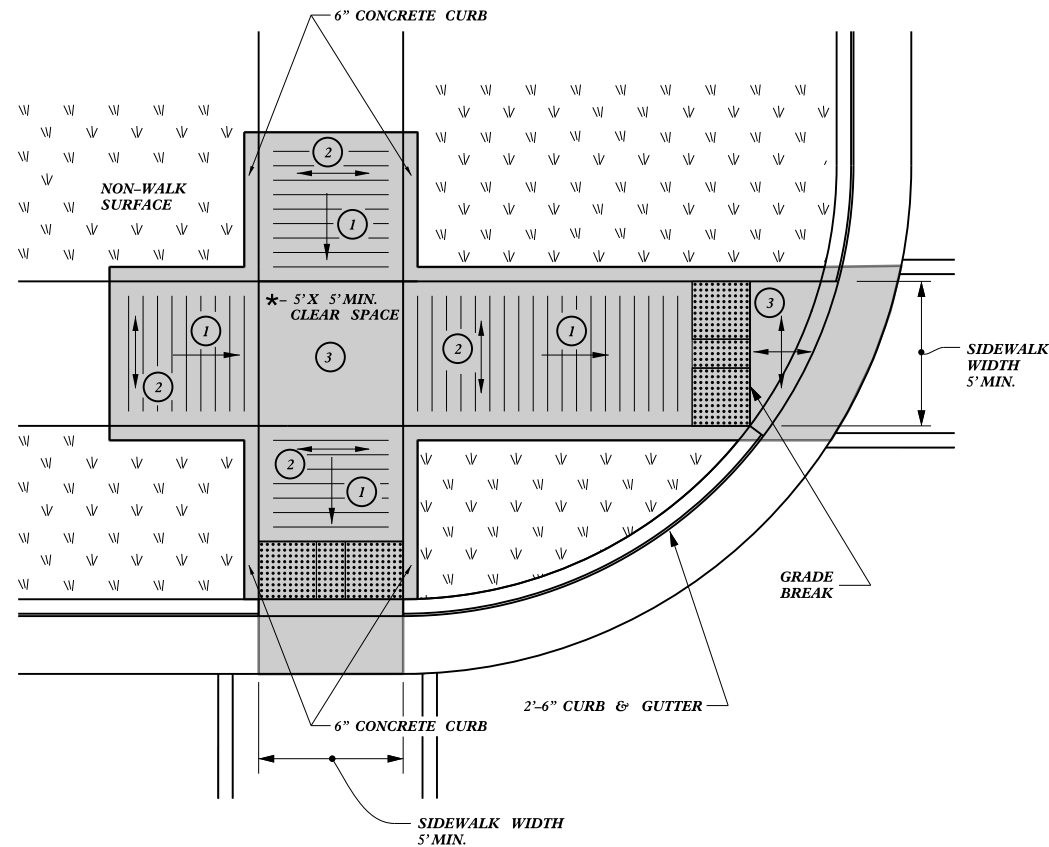
ORIGINAL BY: S.CALHOUN DATE: 12-22-2023
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: special_details\nmhackler\848D0610.dgn



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



* - WHERE CLEAR SPACE IS CONSTRAINED ON TWO OR MORE SIDES, THE CLEAR SPACE SHALL BE 4' MINIMUM X 5' MINIMUM, WITH 5' PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.

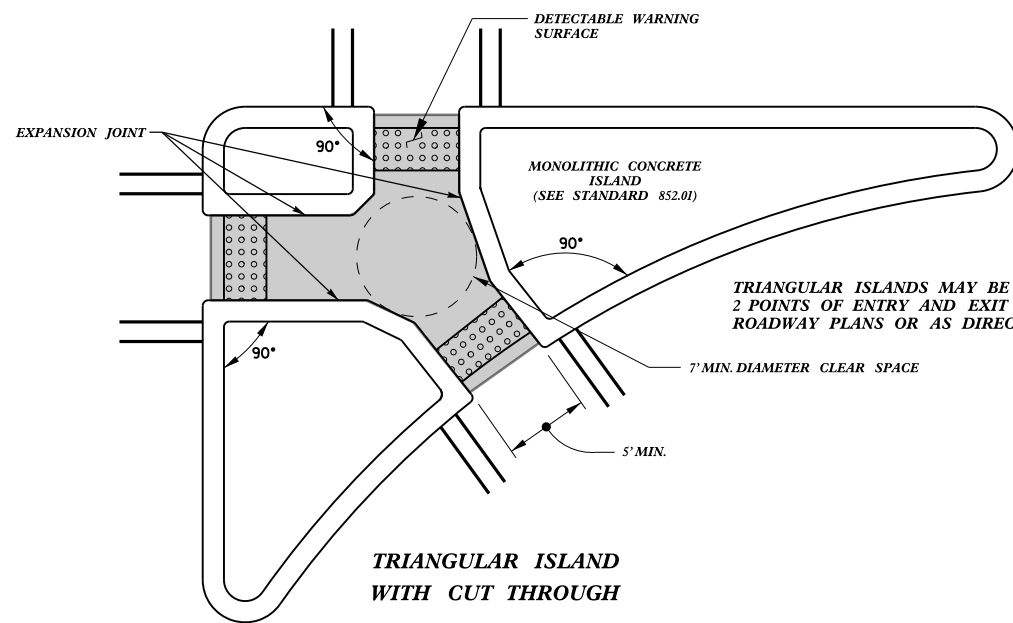
TYPE 5A

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

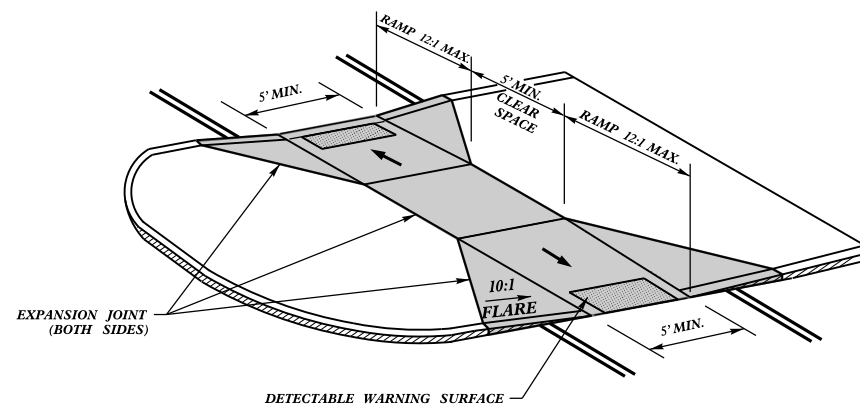
PAY LIMITS FOR 1 OR 2 CURB RAMPS
(CALCULATE BASED ON NUMBER OF SETS
OF DETECTABLE WARNING SURFACES)

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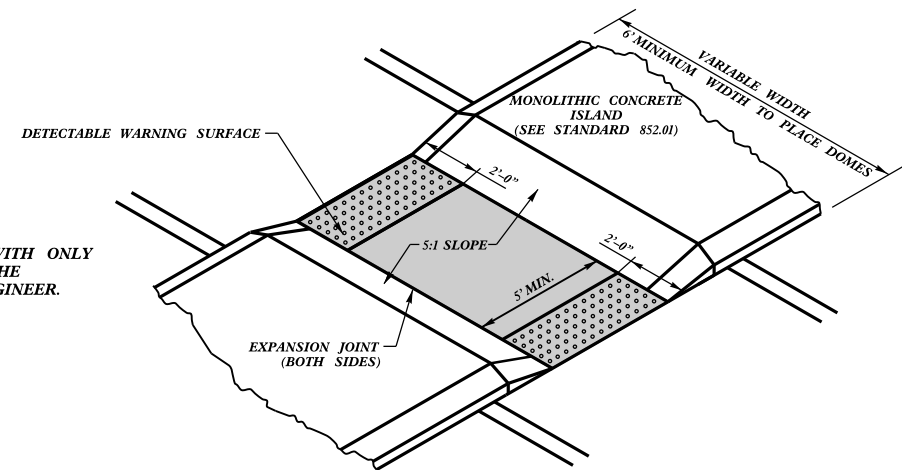
ROADWAY STANDARD DRAWING FOR
CURB RAMP
SHARED LANDING



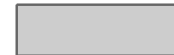
TRIANGULAR ISLAND
WITH CUT THROUGH
TYPE 6



MEDIAN ISLAND
CURB RAMPS
TYPE 8

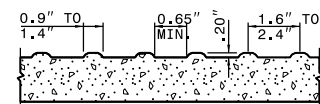
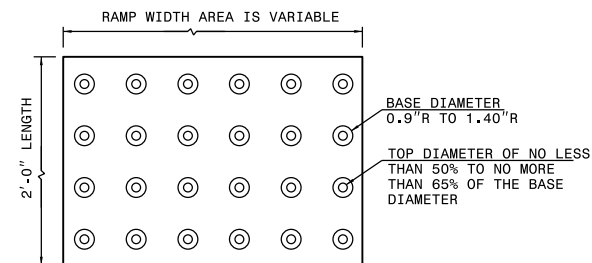


MEDIAN ISLAND
WITH CUT THROUGH
TYPE 7



PAY LIMITS FOR 2 OR 3 CURB RAMPS
(CALCULATE BASED ON NUMBER OF
SETS OF DETECTABLE WARNING SURFACES)

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

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ROADWAY STANDARD DRAWING FOR
CURB RAMP
ISLAND RAMP

NOTES:

1. CONSTRUCT THE RAMP SURFACE TO BE STABLE, FIRM, AND SLIP RESISTANT. CONSTRUCT THE CURB RAMP TYPE AS SHOWN IN THE PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER.
2. LOCATE CURB RAMPS AND PLACE PEDESTRIAN CROSSWALK MARKINGS AS SHOWN IN THE PAVEMENT MARKING PLANS. WHEN FIELD ADJUSTMENTS REQUIRE MOVING CURB RAMPS OR MARKINGS AS SHOWN, CONTACT THE SIGNING AND DELINEATION UNIT OR LOCATE AS DIRECTED BY THE ENGINEER.
3. COORDINATE THE CURB RAMP AND THE PEDESTRIAN CROSSWALK MARKINGS SO A 4'x4' CLEAR SPACE AT THE BASE OF THE CURB RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
4. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL LANE IS 4' MINIMUM.
5. REFER TO THE PAVEMENT MARKING PLANS FOR STOP BAR LOCATIONS AT SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR LOCATE AS DIRECTED BY THE ENGINEER.
6. TERMINATE PARKING A MINIMUM OF 20' FROM THE BACK OF PEDESTRIAN CROSSWALK.
7. CONSTRUCT CURB RAMPS A MINIMUM OF 4' WIDE.
8. CONSTRUCT THE RUNNING SLOPE OF THE RAMP 8.33% MAXIMUM.
9. ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% MAXIMUM.
10. CONSTRUCT THE SIDE FLARE SLOPE A MAXIMUM OF 10% MEASURED ALONG THE CURB LINE.
11. CONSTRUCT THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE BASE OF THE CURB RAMP A MAXIMUM OF 5% AND MAINTAIN A SMOOTH TRANSITION.
12. CONSTRUCT CLEAR SPACES FOR SIDEWALK A MINIMUM OF 4'x4' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. CONSTRUCT CLEAR SPACES FOR MEDIAN ISLANDS A MINIMUM OF 5'x5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. IF CONSTRAINED ON TWO OR MORE SIDES, THE CLEAR SPACE SHALL BE 4' MINIMUM X 5' MINIMUM, WITH 5' PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.
13. TO USE A MEDIAN ISLAND AS A PEDESTRIAN REFUGE AREA, MEDIAN ISLANDS WILL BE A MINIMUM OF 6' WIDE. CONSTRUCT MEDIAN ISLANDS TO PROVIDE PASSAGE OVER OR THROUGH THE ISLAND.
14. SMALL CHANNELIZATION ISLANDS THAT CAN NOT PROVIDE A 5'x5' CLEAR SPACE AT THE TOP OF RAMPS, WILL BE CUT THROUGH LEVEL WITH THE SURFACE STREET.
15. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP, WHERE THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE, OR THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED.
16. PLACE A 1/2" EXPANSION JOINT WHERE THE CONCRETE CURB RAMP JOINS THE CURB AS SHOWN IN ROADWAY STANDARD DRAWING 848.01.
17. PLACE ALL PEDESTRIAN PUSH BUTTON ACTUATORS AND CROSSING SIGNALS AS SHOWN IN THE PLANS OR AS SHOWN IN THE MUTCD.
18. DETECTABLE WARNING SURFACES WILL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
19. DETECTABLE WARNING SURFACES WILL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.

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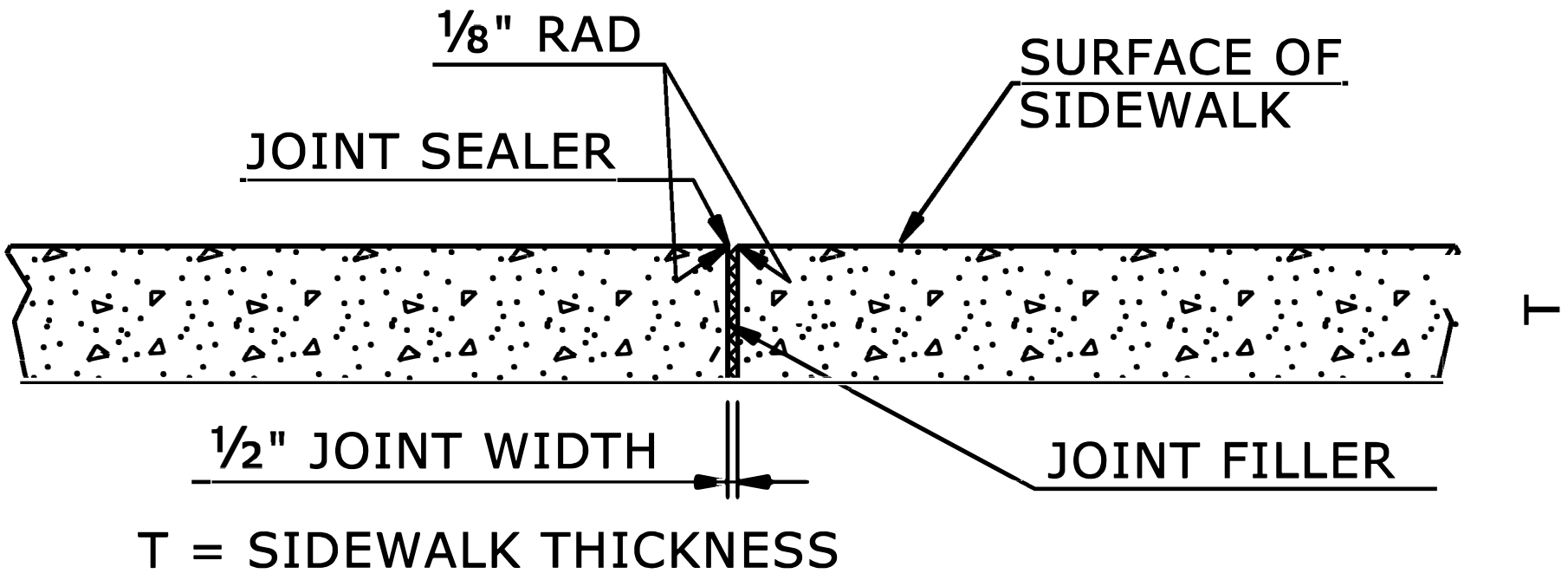
ROADWAY STANDARD DRAWING FOR
CURB RAMP
NOTES

NOTES:

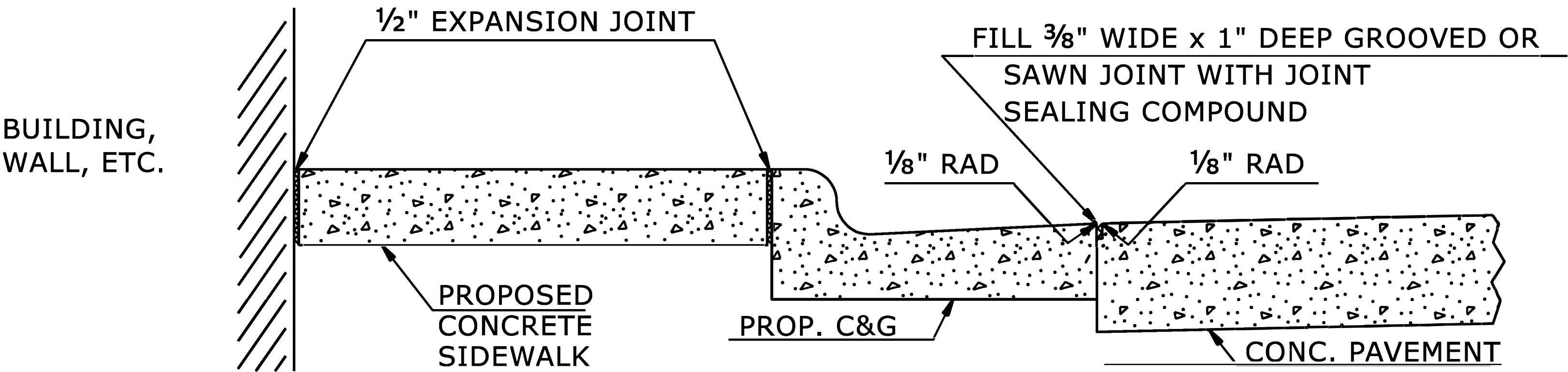
CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.

PLACE A GROOVE JOINT 1" DEEP WITH 1/8" RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.

SEE STD. DWG. 848.06 FOR CURB RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



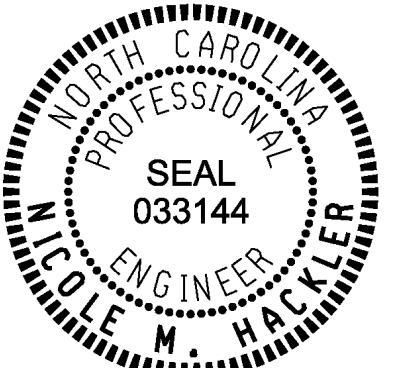
TRANSVERSE EXPANSION JOINT
IN SIDEWALK



DETAILS SHOWING JOINTS IN CONCRETE SIDEWALK

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ROADWAY DETAIL DRAWING FOR
CONCRETE SIDEWALK



Signed by:
Nicole M. Hacker
1084320204164C5
5/21/2026

SHEET 1 OF 1
848D01

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**

Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

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7-06

ENGLISH STANDARD DRAWING FOR
PAVEMENT MARKINGS
PEDESTRIAN CROSSWALKS

7-06

HI-VISIBILITY CROSSWALK

Diagram illustrating the HI-VISIBILITY CROSSWALK design. It shows a crosswalk with a wheelchair ramp (WCR) and a sidewalk. The crosswalk consists of three black bars with 24 inch white lines and a 24 inch gap. The width is 10 feet minimum.

STANDARD CROSSWALK

Diagram illustrating the STANDARD CROSSWALK design. It shows a crosswalk with a wheelchair ramp (WCR) and a sidewalk. The crosswalk consists of two black bars with 8 inch white lines. The width is 6 feet minimum. The distance from the stopbar to the crosswalk is 4 feet minimum.

GENERAL NOTES

1- THE MINIMUM WIDTH OF STANDARD CROSSWALKS IS 6 FEET. THE MINIMUM WIDTH OF HI-VISIBILITY CROSSWALKS IS 10 FEET.

2- CENTER CROSSWALKS TO THEIR CORRESPONDING WHEELCHAIR RAMPS, BUT DO NOT SET THEM WITHIN THE INTERSECTION AREA ESTABLISHED BY BISECTING THE INTERSECTION RADII.

3- PLACE STOP BARS A MINIMUM OF 4 FEET FROM NEAREST CROSSWALK LINE, BUT NOT WITHIN THE AREA OF A WHEELCHAIR RAMP. PLACE STOP BARS PARALLEL TO CROSSWALK LINES, BUT CAN BE PLACED PERPINDICULAR TO TRAVEL LANES.

4- COORDINATE PLACEMENT OF CROSSWALKS IN ALL CASES WITH THE LOCATION OF WHEELCHAIR RAMPS. (SEE SIGNAL PLANS).

LEGEND

DIRECTION OF TRAFFIC FLOW

WHEELCHAIR RAMP

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7-06

ENGLISH STANDARD DRAWING FOR
PAVEMENT MARKINGS
PEDESTRIAN CROSSWALKS

7-06

SHEET 1 OF 1
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SHEET 1 OF 1
1205.07