

10-DEC-2009 13:58
 r:\rady\DDC\RETREAT\2010\2010_Resurf_US 17_Brunswick\DGN\3CR.10101.88_Brunswick_RESURF_2010_rdy_tsh.dgn
 diafave AT D3CAD237935

WBS NO: 3CR.10101.88

CONTRACT:

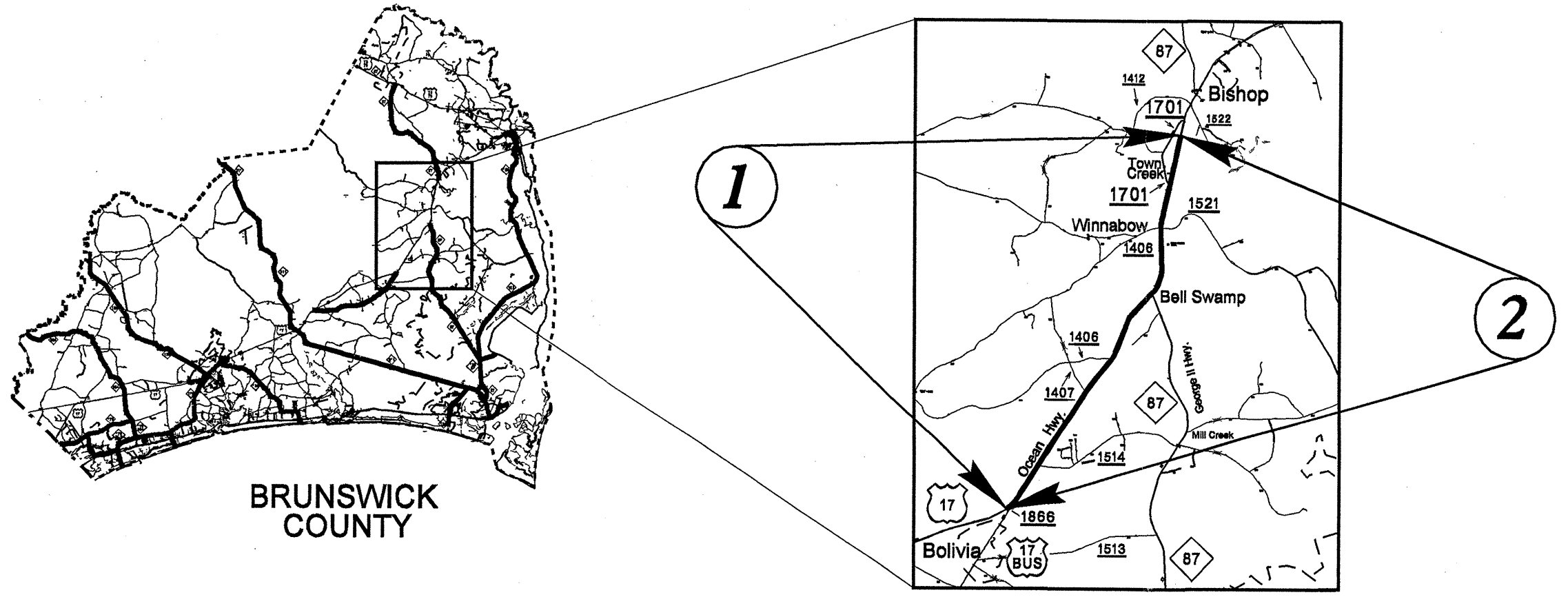
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BRUNSWICK COUNTY

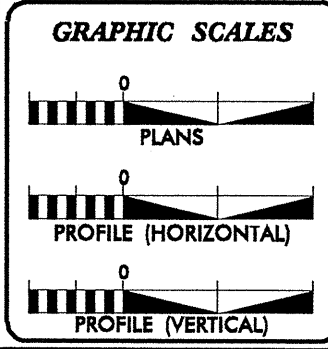
LOCATION: BRUNSWICK CO. - US 17 {0.25 MI. SOUTH OF SR 1701 (NORTH END) TO US 17 BUS. (BOLIVIA)}

TYPE OF WORK: RESURFACING, MILLING, PAVEMENT MARKERS AND MARKINGS, ETC.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	3CR.10101.88	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	



NOT TO SCALE



DESIGN DATA

ADT	=	
ADT	=	
DHV	=	%
D	=	%
T	=	% *
V	=	MPH
* TTST		DUAL

PROJECT LENGTH

MAP NO. 1	=	7.25 MI.
MAP NO. 2	=	7.29 MI.
TOTAL	=	14.54 MI.

Prepared in the Office of:
DIVISION OF HIGHWAYS
124 Division Dr., Wilmington, NC 28401

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: _____

LETTING DATE: 2010

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN TECHNICIAN

DNL

SIGNATURE: _____

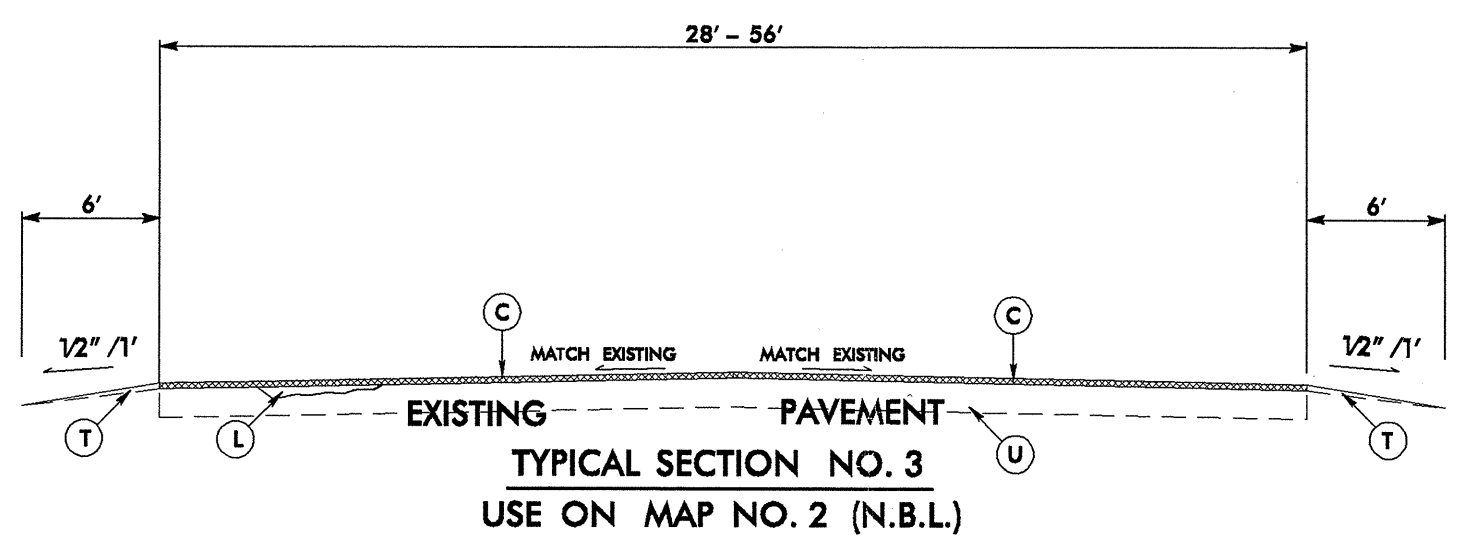
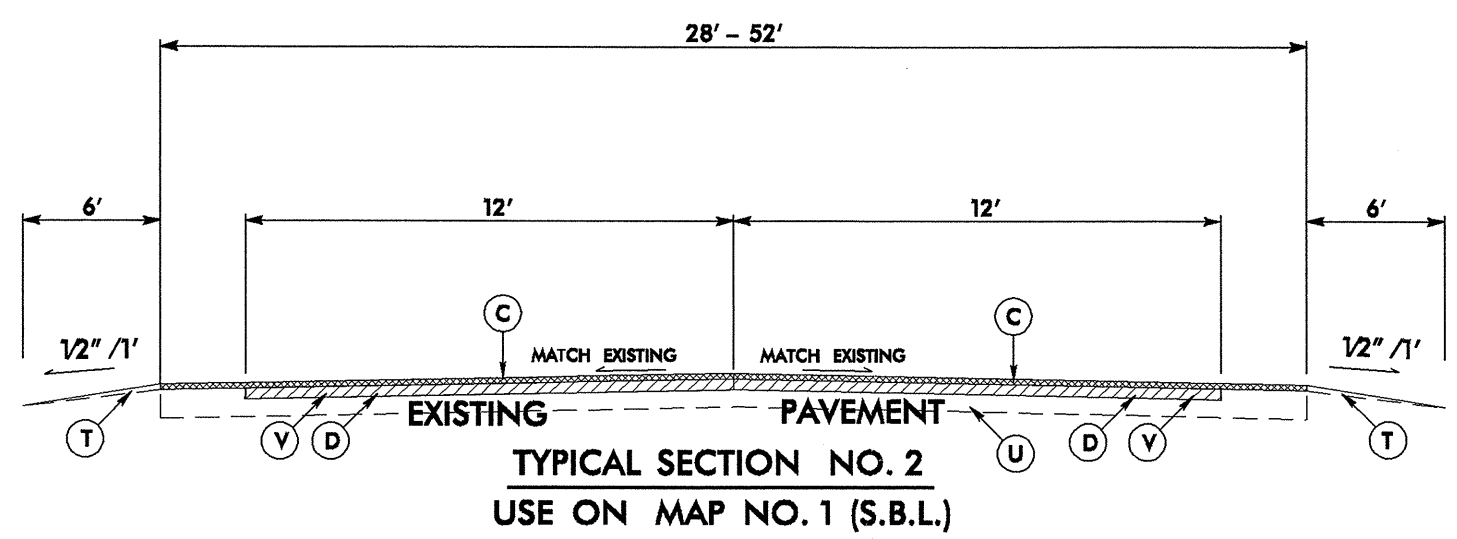
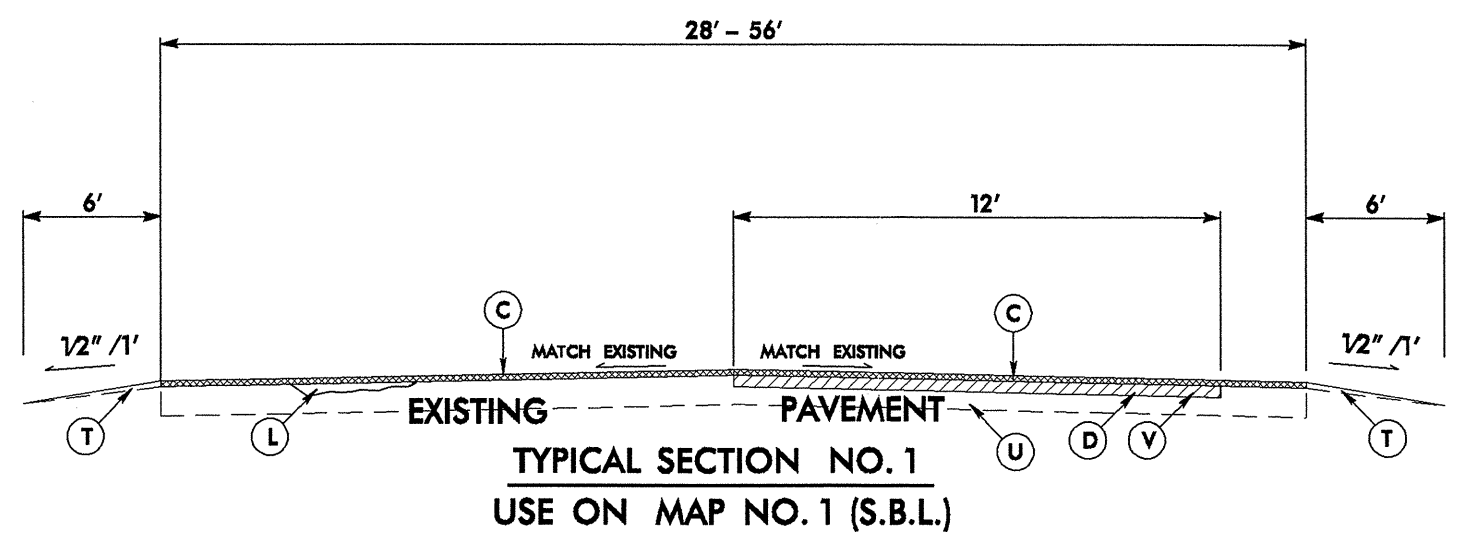
SIGNATURE: _____

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

CHARLES A. SCHOONOVER
15 DEC 09
DIVISION DESIGN ENGINEER

8/17/99

PROJECT REFERENCE NO. 3CR.10101.88	SHEET NO. 2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



2006 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch – NC Department of Transportation – Raleigh, N.C. Dated July 18, 2006 are applicable to this project and by reference hereby are considered a part of these plans:

STD. No.	Title
DIVISION 6 – ASPHALT BASES AND PAVEMENTS	
665.01	Milled Rumble Strips – Asphalt Pavements
DIVISION 8 – INCIDENTALS	
862.01	Guardrail Placement
862.02	Guardrail Installation

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1½" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 89.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D	PROP. APPROX. 2½" DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 119.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
L	PROP. VARIABLE DEPTH ASPHALT CONCRETE LEVELING COURSE, TYPE 89.5C, AT VARIOUS RATES PER SQ. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT.
V	MILLING BITUMINOUS PAVEMENT. 2½" DEPTH.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
SEE STD. DRAWING 1205.01, SHEET 2 OF 2, TABLE 1 FOR EDGE LINE OFFSETS.
M.E. = MATCH EXISTING

REVISIONS

2:\DEC-2009\431\Projects\resurfacing projects\Division 3\3cr.10101.88\brunswick\3cr.10101.88.brunswick-resurf-2010.rdj-tsh.dgn

PROJECT NO.	SHEET NO.	TOTAL NO.
3CR.10101.88	4	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	BORROW EXC. CY	INC. STONE BASE TONS	SHOULDER RECON. SMI	2 1/2" MILLING SY	INC. MILLING SY	INT. COURSE, I19.0C TONS	SURFACE COURSE, S9.5C TONS	LEVELING COURSE, S9.5C TONS	PG 64-22 PLANT MIX TONS	PG 70-22 PLANT MIX TONS	PATCH (MILL) TON	PATCH (FULL DEPTH) TONS	MILLED RUMBLE STRIPS LF	ADJ. MAN HOLES EA	ADJ. METER OR VALVE BOX EA	STEEL BM GR LF	ADD GR POSTS EA	GR ANCHOR UNITS, TYPE 350 EA	REMOVE EXISTING GR LF	TEMP. SILT FENCE LF	STONE FOR EC CL. B TON	SEDIMENT CONTROL STONE TON	TEMP. MULCH ACR	SEED FOR TEMP. SEEDING LBS	FERTILIZER FOR TEMP. SEEDING TON	1/4" HARDWARE CLOTH LF	SEED & MULCHING AC		
3CR.10101.88	Brunswick	1	US 17 S.B.L.(ENTIRE PROJECT)	0.25 MI. SOUTH OF SR 1701 TO US 17 BUS. (BOLIVIA)	1	NO				600					50		3	925	105			1	2				1,454	364	364	14.54	727	3.64	727				
				TAPER 32'-44' (MP 0.00-0.06, 0.39-0.45, 1.36-1.39, 1.50-1.53, 1.81-1.87, 2.31-2.32, 2.48-2.51)	1	NO	0.28	38	182		0.56	1,971	175	300	605		14	36			2,957														0.48		
				FULL WIDTH (MP 0.06-0.13, 0.45-0.52, 1.28-1.34, 1.39-1.43, 1.87-1.94, 2.42-2.48), TAPER 32'-56' (MP 1.21-1.27)	1	NO	0.43	44	280		0.86	3,027		461	1,075		22	65			4,541														0.73		
				FULL WIDTH (MP 0.13-0.39, 0.52-0.73, 0.86-1.21, 1.34-1.36, 1.43-1.50, 1.63-1.81, 1.94-2.01, 2.14-2.31, 2.51-2.63)	1	NO	1.45	32	943		2.90	10,208	1,125	1,554	2,640		73	158			15,312		25	5	2	125									2.47		
				TAPER 32'-52' (MP 0.73-0.79), TAPER 32'-53' (MP 2.01-2.06)	1	NO	0.11	42.5	72		0.22	774		118	266		6	16			1,162														0.19		
				FULL WIDTH (MP 0.79-0.86), TAPER 44'-60' (MP 2.32-2.42)	1	NO	0.17	52	111		0.34	1,197		182	502		9	30			1,795														0.29		
				TAPER 44'-56' (MP 1.53-1.56), FULL WIDTH (MP 2.69-2.76)	1	NO	0.1	50	65		0.20	704		107	284		5	17			1,056														0.17		
				FULL WIDTH (MP 1.27-1.28, 1.56-1.63, 2.09-2.14)	1	NO	0.13	56	85		0.26	915		139	413		7	25			1,373														0.22		
				TAPER 53'-56' (MP 2.06-2.09)	1	NO	0.03	54.5	20		0.06	211		32	93		2	6			317														0.05		
				TAPER 32'-50' (MP 2.63-2.69), FULL WIDTH (MP 3.22-3.29, 6.70-6.73, 7.19-7.25)	1	NO	0.22	41	143		0.44	1,549	175	236	513		11	31			2,323															0.37	
				FULL WIDTH (MP 2.76-2.87, 3.14-3.17, 3.29-3.43, 6.73-7.13)	1	NO	0.68	28	442		1.36	4,787		729	1,084		34	65			7,181														1.16		
				TAPER 28'-40' (MP 3.17-3.22, 3.43-3.50, 7.13-7.19)	1	NO	0.18	34	117		0.36	1,267		193	348		9	21			1,901															0.31	
				FULL WIDTH (MP 2.87-2.88, 3.01-3.14, 3.67-3.97, 4.09-4.32, 4.45-4.68, 4.81-5.23, 5.36-5.63, 5.76-5.95, 6.08-6.22, 6.35-6.60)	2	NO	2.17	28	1,411		4.34	30,554		4,611	3,459		217	208			22,915															3.69	
				TAPER 28'-40' (MP 2.88-2.94, 3.54-3.60, 4.32-4.38, 5.23-5.29, 5.63-5.69, 5.95-6.01, 6.22-6.28, 6.60-6.66)	2	NO	0.48	34	312		0.96	6,758		1,020	928		48	56			5,069															0.82	
				FW (MP 2.94-3.01, 3.50-3.54, 3.60-3.67, 4.38-4.45, 5.29-5.36, 5.69-5.76, 6.01-6.08, 6.28-6.35, 6.66-6.70), TAPER 28'-52' (MP 3.97-4.02, 4.68-4.74)	2	NO	0.68	40	442		1.36	9,574		1,445	1,546		68	93			7,181															1.16	
				FULL WIDTH (MP 4.02-4.09, 4.74-4.81)	2	NO	0.14	52	91		0.28	1,971		298	414		14	25			1,478															0.24	
				TOTAL FOR MAP NO. 1			7.25		4,716	600	14.50	75,467	1,475	11,425	14,170	50	539	855	925	105	76,561	1	2	25	5	2	125	1,454	364	364	14.54	727	3.64	727	12.34		
		2	US 17 N.B.L.(3-52)	US 17 BUS. (BOLIVIA) TO 0.25 MI. SOUTH OF SR 1701, FULL WIDTH (MP 0.00-0.03, 0.89-0.96, 4.47-4.54)	3	NO	0.17	52	111		0.34		175		502			30			1,795															0.29	
				FULL WIDTH (MP 0.03-0.44, 0.57-0.83, 0.96-1.09, 1.22-1.42, 1.55-1.82, 1.95-2.37, 2.50-2.72, 2.85-3.07, 3.20-3.51, 3.64-3.88, 4.01-4.16, 4.29-4.35)	3	NO	2.89	28	1,879		5.78				4,606			276			30,518															4.91	
				TAPER 28'-40' (MP 0.44-0.50, 1.09-1.15, 1.42-1.48, 1.82-1.88, 2.37-2.43, 2.72-2.78, 3.07-3.13, 3.51-3.57, 3.88-3.94, 4.16-4.22)	3	NO	0.6	34	390		1.20				1,160			70			6,336																1.02
				FW (MP 0.50-0.57, 1.15-1.22, 1.48-1.55, 1.88-1.95, 2.43-2.50, 2.78-2.85, 3.13-3.20, 3.57-3.64, 3.94-4.01, 4.22-4.29), T 28'-52' (MP 0.83-0.89, 4.35-4.47)	3	NO	0.88	40	572		1.76				2,001			120			9,293																1.50
				FULL WIDTH (MP 4.54-4.61, 4.87-4.93, 5.17-5.26, 5.47-5.58, 5.69-5.86, 5.98-6.19, 6.23-6.34, 6.45-6.67, 6.79-7.05, 7.18-7.29)	3	NO	1.41	32	917		2.82		620		2,567			154			14,890		250	5	2											2.40	
				TAPER 32'-44' (MP 4.61-4.64, 4.73-4.78, 4.93-4.96, 5.04-5.10, 5.26-5.32, 5.38-5.44, 5.86-5.92, 6.34-6.40, 6.67-6.73, 7.05-7.11)	3	NO	0.53	38	345		1.06				1,145			69			5,597															0.90	
				TAPER 44'-55' (MP 4.64-4.70, 4.96-5.04)	3	NO	0.14	49.5	91		0.28				394			24			1,478															0.24	
				FULL WIDTH (MP 4.70-4.73, 5.64-5.69)	3	NO	0.08	56	52		0.16				254			15			845															0.14	
				FULL WIDTH (MP 4.78-4.87, 5.10-5.17, 5.32-5.38, 5.44-5.47, 5.92-5.98, 6.40-6.45, 6.73-6.79, 7.11-7.18), TAPER 32'-56' (MP 5.58-5.64)	3	NO	0.55	44	358		1.10				1,375			83			5,808															0.94	
				BRIDGE DECK (MP 6.19-6.23)		NO	0.04	32																													
				TOTAL FOR MAP NO. 2			7.29		4,715		14.50	795	14,004		841		250	5	2	76,560	250	5	2											12.33			
				TOTAL FOR PROJ NO. 3CR.10101.88			14.54		9,431	600	29.00	75,467	2,270	11,425	28,174	50	539	1,696	925	105	153,121	1	2	275	10	4	125	1,454	364	364	14.54	727	3.64	727	24.67		
				GRAND TOTAL			14.54		9,431	600	29.00	75,467	2,270	11,425	28,174	50	539	1,696	925	105	153,121	1	2	275	10	4	125	1,454	364	364	14.54	727	3.64	727	24.67		

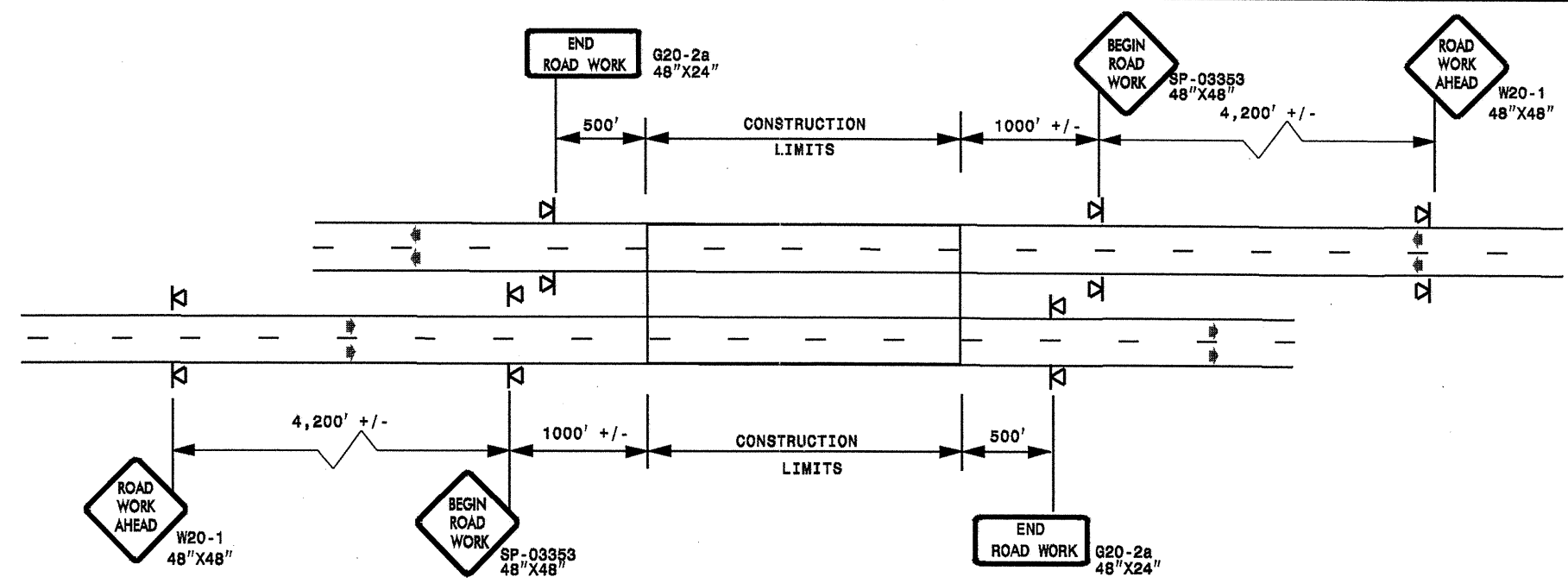
PROJECT NO.	SHEET NO.	TOTAL NO.
3CR.10101.88	5	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4415000000-N	4420000000-N	4480000000-N	4685000000-E		4686000000-E	4695000000-E	4725000000-E			4810000000-E		4845000000-N	4900000000-N	4905000000-N
					FLASHING ARROW PANELS, TYPE C EA	CHANGEABLE MESSAGE SIGN EA	TMIA EA	4" X 90 M WHITE THERMO LF	4" X 90 M YELLOW THERMO LF	4" X 120 M WHITE THERMO LF	8" X 90 M WHITE THERMO LF	THERMO LT ARROW 90 M EA	THERMO STR ARROW 90 M EA	THERMO RT ARROW 90 M EA	4" WHITE PAINT LF	4" YELLOW PAINT LF	PAINT STR ARROW EA	CYAN & RED MARKERS EA	SNOW PLOWABLE MARKERS (C/R) EA
3CR.10101.88	Brunswick	1	US 17 S.B.L.(ENTIRE PROJECT)	0.25 MI. SOUTH OF SR 1701 TO US 17 BUS. (BOLIVIA)	1	1	1				2,600	126	258	35			93		
		"	"	TAPER 32'-44' (MP 0.00-0.06, 0.39-0.45, 1.36-1.39, 1.50-1.53, 1.81-1.87, 2.31-2.32, 2.48-2.51)				1,534	1,478	567					1,848			18	18
		"	"	FULL WIDTH (MP 0.06-0.13, 0.45-0.52, 1.28-1.34, 1.39-1.43, 1.87-1.94, 2.42-2.48), TAPER 32'-56' (MP 1.21-1.27)				2,356	2,270	1,173					2,838			28	28
		"	"	FULL WIDTH (MP 0.13-0.39, 0.52-0.73, 0.86-1.21, 1.34-1.36, 1.43-1.50, 1.63-1.81, 1.94-2.01, 2.14-2.31, 2.51-2.63)				7,946	7,656	1,914					9,570			96	96
		"	"	TAPER 32'-52' (MP 0.73-0.79), TAPER 32'-53' (MP 2.01-2.06)				603	581	300					726			7	7
		"	"	FULL WIDTH (MP 0.79-0.86), TAPER 44'-60' (MP 2.32-2.42)				932	898	898					1,122			11	22
		"	"	TAPER 44'-56' (MP 1.53-1.56), FULL WIDTH (MP 2.69-2.76)				548	528	924					660			7	13
		"	"	FULL WIDTH (MP 1.27-1.28, 1.56-1.63, 2.09-2.14)				712	686	1,201					858			9	103
		"	"	TAPER 53'-56' (MP 2.06-2.09)				164	158	277					198			2	24
		"	"	TAPER 32'-50' (MP 2.63-2.69), FULL WIDTH (MP 3.22-3.29, 6.70-6.73, 7.19-7.25)				1,206	1,162	445					1,452			15	15
		"	"	FULL WIDTH (MP 2.76-2.87, 3.14-3.17, 3.29-3.43, 6.73-7.13)				3,726	3,590	898					4,488			45	45
		"	"	TAPER 28'-40' (MP 3.17-3.22, 3.43-3.50, 7.13-7.19)				986	950	364					1,188			12	12
		"	"	FULL WIDTH (MP 2.87-2.88, 3.01-3.14, 3.67-3.97, 4.09-4.32, 4.45-4.68, 4.81-5.23, 5.36-5.63, 5.76-5.95, 6.08-6.22, 6.35-6.60)				11,892	11,458	2,864					14,322	11,458		143	143
		"	"	TAPER 28'-40' (MP 2.88-2.94, 3.54-3.60, 4.32-4.38, 5.23-5.29, 5.63-5.69, 5.95-6.01, 6.22-6.28, 6.60-6.66)				2,630	2,534	972					3,168	2,534		32	32
		"	"	FW (MP 2.94-3.01, 3.50-3.54, 3.60-3.67, 4.38-4.45, 5.29-5.36, 5.69-5.76, 6.01-6.08, 6.28-6.35, 6.66-6.70), TAPER 28'-52' (MP 3.97-4.02, 4.68-4.74)				3,726	3,590	1,855					4,488	3,590		45	45
		"	"	FULL WIDTH (MP 4.02-4.09, 4.74-4.81)				767	739	1,294					924	739		9	111
TOTAL FOR MAP NO. 1					1	1	1	39,728	38,278	15,946	2,600	126	258	35	47,850	18,321	93	479	714
		2	US 17 N.B.L.(3-52)	US 17 BUS. (BOLIVIA) TO 0.25 MI. SOUTH OF SR 1701, FULL WIDTH (MP 0.00-0.03, 0.89-0.96, 4.47-4.54)	1	1	1	932	898	1,571									135
		"	"	FULL WIDTH (MP 0.03-0.44, 0.57-0.83, 0.96-1.09, 1.22-1.42, 1.55-1.82, 1.95-2.37, 2.50-2.72, 2.85-3.07, 3.20-3.51, 3.64-3.88, 4.01-4.16, 4.29-4.35)				15,837	15,259	3,815									191
		"	"	TAPER 28'-40' (MP 0.44-0.50, 1.09-1.15, 1.42-1.48, 1.82-1.88, 2.37-2.43, 2.72-2.78, 3.07-3.13, 3.51-3.57, 3.88-3.94, 4.16-4.22)				3,288	3,168	1,214									40
		"	"	FW (MP 0.50-0.57, 1.15-1.22, 1.48-1.55, 1.88-1.95, 2.43-2.50, 2.78-2.85, 3.13-3.20, 3.57-3.64, 3.94-4.01, 4.22-4.29), T 28'-52' (MP 0.83-0.89, 4.35-4.47)				4,822	4,646	2,401									58
		"	"	FULL WIDTH (MP 4.54-4.61, 4.87-4.93, 5.17-5.26, 5.47-5.58, 5.69-5.86, 5.98-6.19, 6.23-6.34, 6.45-6.67, 6.79-7.05, 7.18-7.29)				7,727	7,445	1,861									93
		"	"	TAPER 32'-44' (MP 4.61-4.64, 4.73-4.78, 4.93-4.96, 5.04-5.10, 5.26-5.32, 5.38-5.44, 5.86-5.92, 6.34-6.40, 6.67-6.73, 7.05-7.11)				2,904	2,798	1,073									35
		"	"	TAPER 44'-55' (MP 4.64-4.70, 4.96-5.04)				767	739	739									18
		"	"	FULL WIDTH (MP 4.70-4.73, 5.64-5.69)				438	422	739									63
		"	"	FULL WIDTH (MP 4.78-4.87, 5.10-5.17, 5.32-5.38, 5.44-5.47, 5.92-5.98, 6.40-6.45, 6.73-6.79, 7.11-7.18), TAPER 32'-56' (MP 5.58-5.64)				3,014	2,904	1,500									36
		"	"	BRIDGE DECK (MP 6.19-6.23)															
TOTAL FOR MAP NO. 2					1	1	1	39,729	38,279	14,913									669
TOTAL FOR PROJ NO. 3CR.10101.88					2	2	2	79,457	76,557	30,859	2,600	126	258	35	47,850	18,321	93	479	1,383
								156,014				419		66,171					
GRAND TOTAL					2	2	2	79,457	76,557	30,859	2,600	126	258	35	47,850	18,321	93	479	1,383
								156,014				419		66,171					

ADVANCE WORK ZONE WARNING SIGNING FOR FREEWAYS (4 LANES OR GREATER)

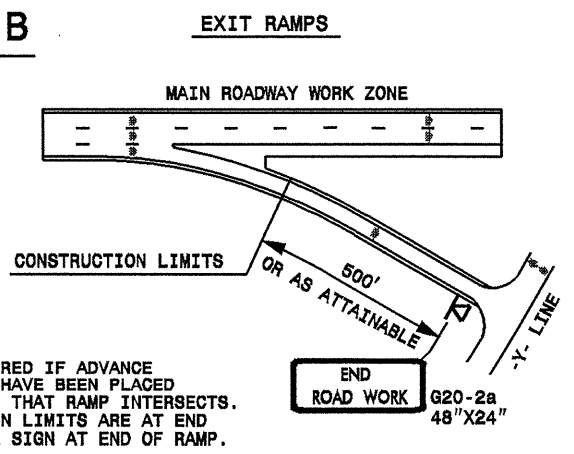
DETAIL A



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

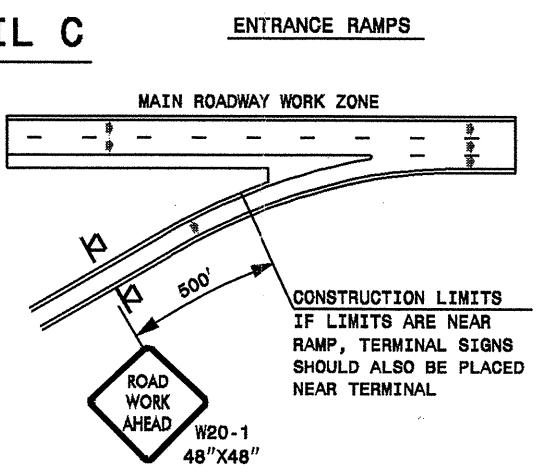
ROADWAYS INTERSECTING ALONG FREEWAY WORK ZONE (Y-LINES)

DETAIL B



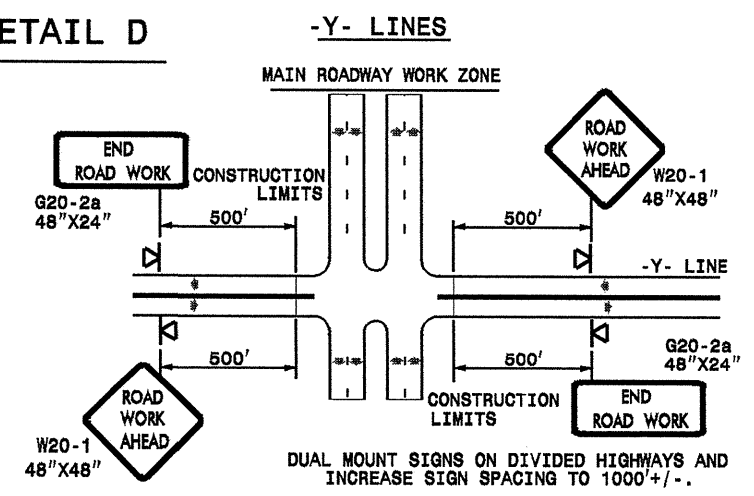
NOTE:
SIGN NOT REQUIRED IF ADVANCE WARNING SIGNS HAVE BEEN PLACED ALONG -Y- LINE THAT RAMP INTERSECTS. IF CONSTRUCTION LIMITS ARE AT END OF RAMP, PLACE SIGN AT END OF RAMP.

DETAIL C



CONSTRUCTION LIMITS IF LIMITS ARE NEAR RAMP, TERMINAL SIGNS SHOULD ALSO BE PLACED NEAR TERMINAL

DETAIL D



**DETAIL DRAWING
FOR FREEWAYS
WORK ZONE WARNING SIGNS
(SHORT-DURATION LANE CLOSURES)**

GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCE WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE PORTABLE WORK ZONE SIGNS ONLY WITH PORTABLE WORK ZONE SIGN STANDS SPECIFICALLY DESIGNED FOR ONE ANOTHER. PORTABLE WORK ZONE SIGNS MAY BE ROLL UP OR APPROVED COMPOSITE.
- PROVIDE PORTABLE WORK ZONE SIGN STANDS, PORTABLE SIGNS AND SIGN SHEETING WHICH ARE LISTED ON THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S APPROVED PRODUCT LIST OR ACCEPTED AS TRAFFIC QUALIFIED BY THE TRAFFIC CONTROL UNIT.
- ** TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

LEGEND

▣ PORTABLE SIGN

➔ DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

APPROVED: _____ DATE: _____	DETAIL DRAWING FOR FREEWAYS WORK ZONE WARNING SIGNS									
SEAL	SCALE: NONE	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td>7-98</td> <td>10/01</td> </tr> <tr> <td>10-98</td> <td>03/04</td> </tr> <tr> <td>01/01</td> <td>11/04</td> </tr> </table>	REVISIONS		7-98	10/01	10-98	03/04	01/01	11/04
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