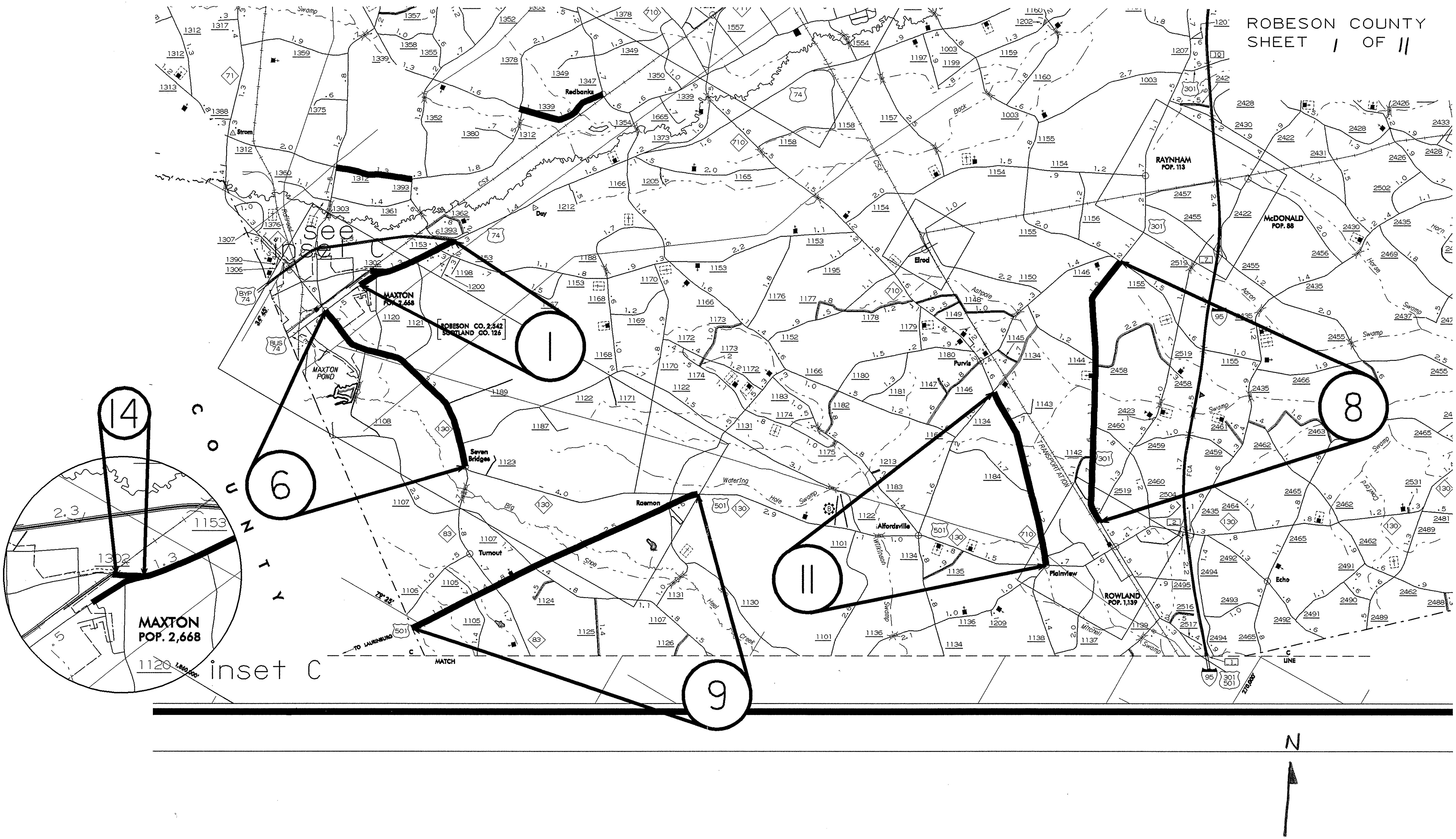
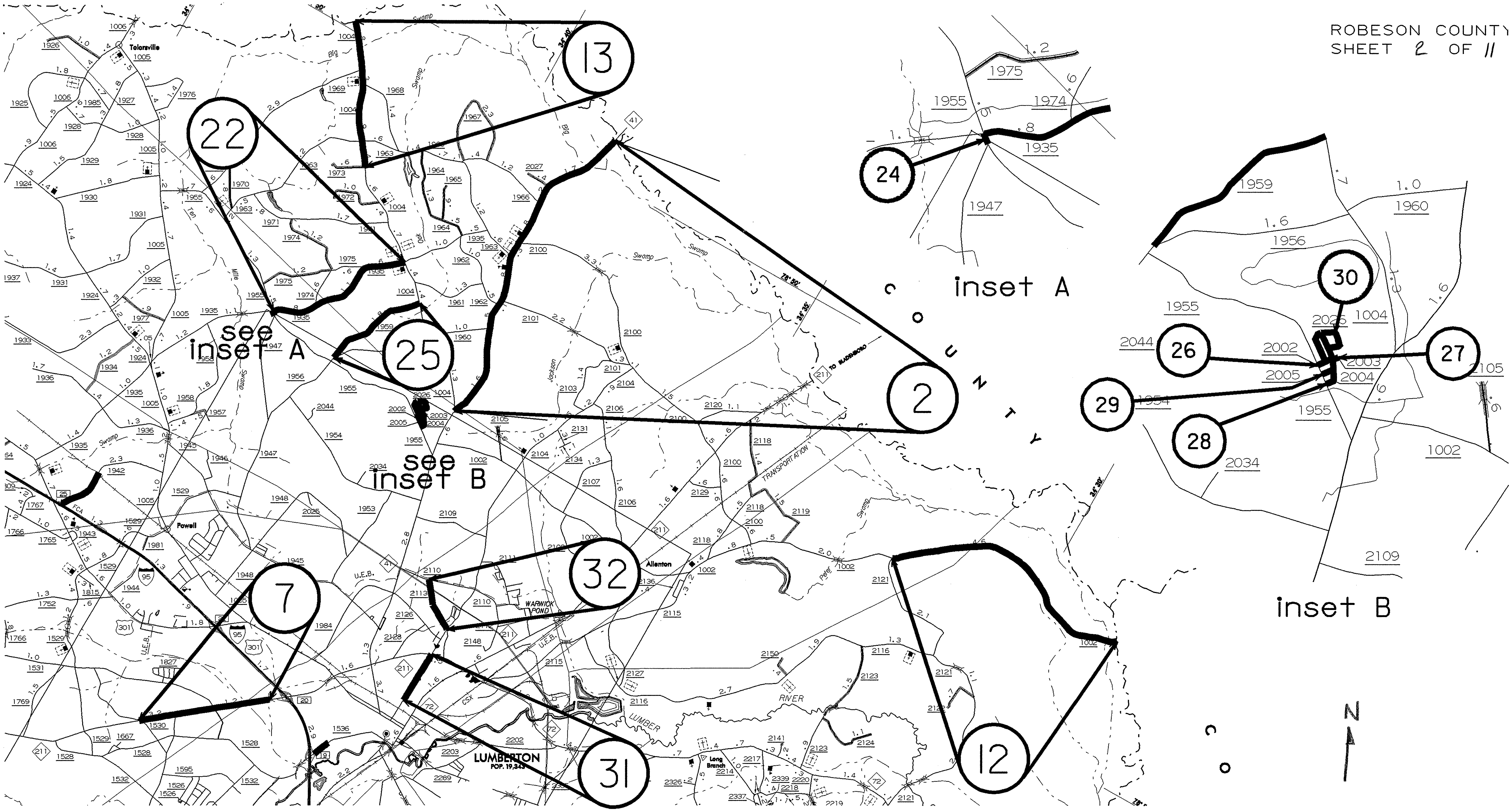
6CR.10781.22
6CR.20781.22



6CR.10781.22
6CR.20781.22

ROBESON COUNTY
SHEET 2 OF 11



6CR.20781.22

ROBESON COUNTY
SHEET 3 OF 11

33

3

Lowe

Kingsdale

ORRUM
POP. 167

PROCTORVILLE
POP. 175

Bloomingdale

Byrd

FAIRMONT
POP. 2,572

RAYNHAM
POP. 113

McDONALD
POP. 88

Elrod

Purvis

Claybank

Barnesville

MARIETTA
POP. 70

TO CHADBOURN

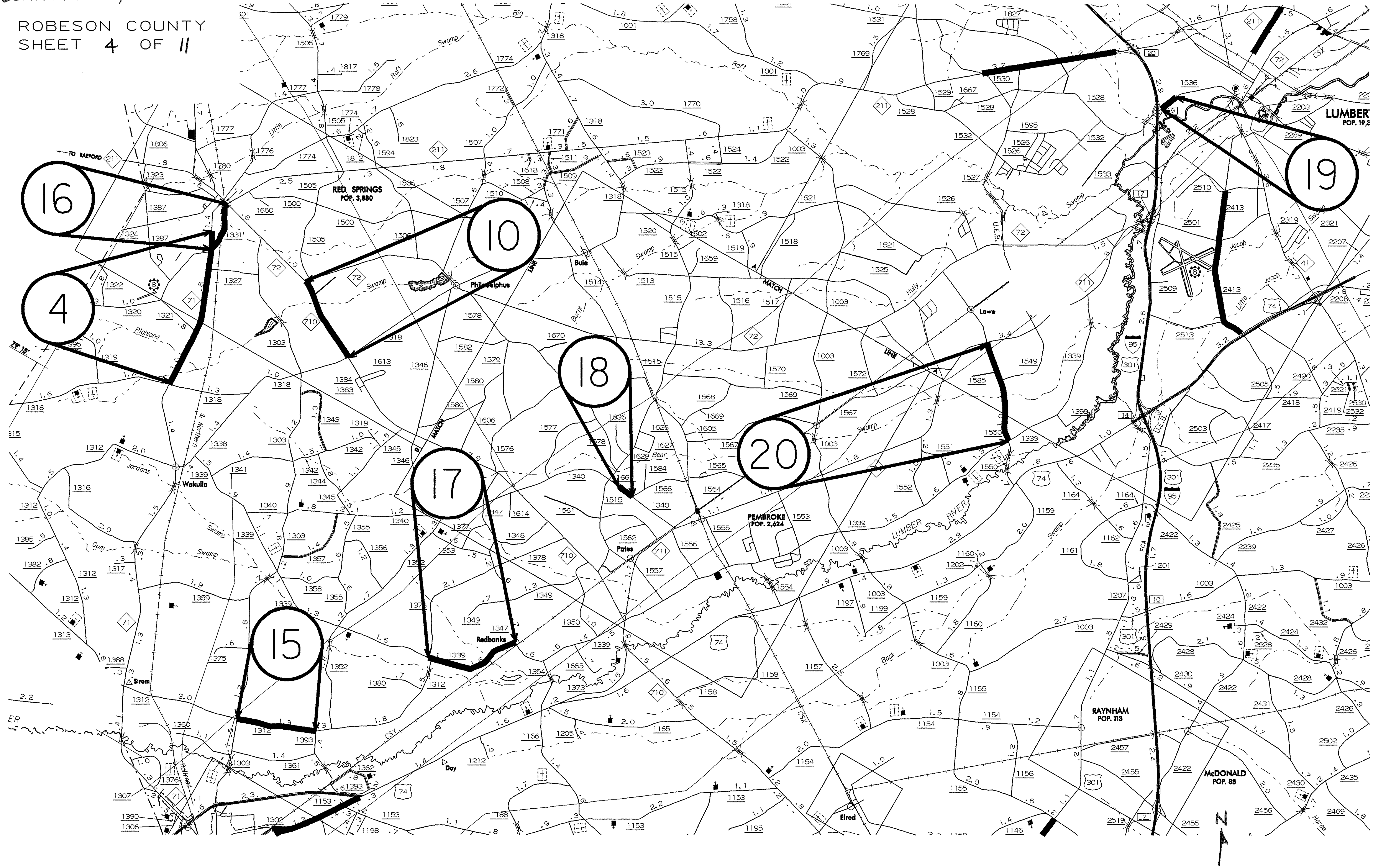
LUMBER RIVER

BUS 74

N

6CR.10781.22, 6CR.20781.22

ROBESON COUNTY
SHEET 4 OF 11



ROBESON COUNTY
SHEET 5 OF 11

6CR.10781.22
6RR.20781.22

CUMBERLAND COUNTY

BLADEN

COUNTY

5

21

23

PARKTON
POP. 392

LUMBER BRIDGE
POP. 108

RENNERT
POP. 228

ST. PAULS
POP. 2114

Oakland

Tolarsville

Powell

Rennert

Shannon

Rex

Cold Camp Creek Swamp

Big Marsh Swamp

Ten Mile Swamp

Red Springs

Big Swamp

FCA

CSX TRANSPORTATION

U.S.B.

TO DUBLIN

TO FAYETTEVILLE

TO RAEFORD

6CR.10781.22
6CR.20781.22

2005-2006 RESURFACING RECOMMENDATIONS
ROBESON COUNTY

DRI
9/6/2006

MAP #	BR. #	ROUTE	POSTING/TONS	W/S	RECOMMENDATION	Added AWS	Proposed Posting	Posting Remarks
21	399	SR-1741	33 SV-37 TT	1.5" AWS	NO MILLING/RESURFACE ACROSS AT MIN. THICKNESS	1 1/4"	Weight Limit 30 Tons	Dropped due to new trucks and increased AWS
21	400	SR-1741	35 SV-38-TT	1" AWS	NO MILLING/RESURFACE ACROSS AT MIN. THICKNESS	1 1/4"	Weight Limit 31 Tons	Dropped due to new trucks and increased AWS
13	46	SR-1004	N/P	NO AWS	MILL APPROACH-PAVE TO DECK	0	SV = 27 Tons; TTST = 36 tons	Dropped due to new trucks.
13	50	SR-1004	N/P	NO AWS	MILL APPROACH-PAVE TO DECK	0	SV = 34 Tons; TTST = 41 tons	Dropped due to new trucks.
2	141	NC-41	N/P	NO AWS	MILL APPROACH-PAVE TO DECK	0	SV = 35 Tons; TTST = LGW	Dropped due to new trucks.
2	138	NC-41	N/P	NO AWS	MILL APPROACH-PAVE TO DECK	0	SV = 38 Tons; TTST = LGW	Dropped due to new trucks.
2	129	NC-41	N/P	NO AWS	MILL APPROACH-PAVE TO DECK	0	SV = 39 Tons; TTST = LGW	Dropped due to new trucks.
12	64	SR-1002	N/P	NO AWS	MILL APPROACH-PAVE TO DECK	0	Not Posted	No change. Rated with new trucks.
20	200	SR-1550	23 SV-26 TT	3.5" AWS	MILL 1.25" OFF DECK/RESURFACE BACK WITH 1.25"	0	SV = 22 Tons; TTST = 25 tons	No change. Rated with new trucks.
3	77	NC-41	N/P	NO AWS	MILL APPROACH-PAVE TO DECK	0	Not Posted	No change. Rated with new trucks.
9	67	US-501	N/P	1"-2" AWS	NO MILLING/RESURFACE ACROSS AT MIN. THICKNESS	1 1/4"	Not Posted	No change. Rated with new trucks.
9	39	US-501	N/P	3"-4" AWS	MILL 1.25" OFF DECK/RESURFACE BACK WITH 1.25"	0	Not Posted	No change. Rated with new trucks.

PROJECT NO.	SHEET NO.	TOTAL NO.
6CR.10781.22, 6CR20781.22	7	11

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH MI	WIDTH FT	JUNCTION BOX (STANDARD) EA	TRENCHING (UNPAVED) FT	TRENCHING (PAVED) FT	2" PVC CONDUIT FT	1" PVC CONDUIT FT	2" RISER W/WEATHER HEAD EA	INCIDENTAL STONE BASE TONS	SHOULDER RECON. SMI	2" MILLING SY	0.0" TO 1.25" MILLING SY	0.0" TO 2.0" MILLING SY	SURFACE COURSE, SF9.5A TONS	SURFACE COURSE, S9.5B TONS	PG 64-22 PLANT MIX TONS	SURFACE COURSE, S4.75A TONS	WHEEL-CHAIR RAMPS EA	MANHOLES EA	METER OR VALVE BOX EA	SEED & MULCHING AC	INDUCTIVE LOOP LF	LEAD-IN CABLE LF
6CR.10781.22	Robeson	1	US 74 BUS	FROM ECL MAXTON MP 1.30 TO SR 1153 MP 3.0	2	1.75	30							42	3.5					2,209	133				2	4.00		
		2	NC 41	FROM .2 MI E OF SR 1004 @ END OF TAPER MP 26.75 TO BLADEN CO. LINE MP 32.75	2	5.5	24							132	11		3,379			5,655	339					13.00		
		3	NC 41	FROM SR 2452 MP 6.3 TO SR 2239 MP 13.50	2	2.65	26	1	10	10	30	30	1	64	5.3					2,861	172		3		1	6.00	1,375	100
		"	"		2	0.3	37							7	0.6					477	29					1.00		
		"	"		5	1.65	40													2,742	165				42	23		
		"	"		6	0.2	41									5,163	1,877			337	20							
		"	"		6	0.25	37									6,307				422	25							
		"	"		2	2.1	24								4.2					2,101	126					5.00		
TOTAL FOR MAP NO. 3						7.15		1	10	10	30	30	1	71	10.1	11,470	1,877			8,940	537		3	42	24	12.00	1,375	100
		4	NC 71	FROM SR 1318 MP 8.90 TO 0.3 MI N. OF SR 1331 MP 11.50	2	2.7	26							65	5.4		1,220			2,967	178			5	4	7.00		
		5	NC 71	FROM NCL PARKTON MP 24.9 TO US 301 MP 27.2	2	2.24	24							54	4.48					2,229	134					5.00		
		6	NC 130	FROM US 74 BUS. MP 0.0 TO NC 83 MP 4.0	8	0.45	36	1	10	10	30	30	1					4,224		728	44			2	3		1,600	50
		"	"		2	0.25	25							6	0.5					257	15					1.00		
		"	"		2	3.42	22							82	6.84					3,142	189					8.00		
TOTAL FOR MAP NO. 6						4.12		1	10	10	30	30	1	88	7.34	0	0	4,224		4,127	248		0	2	3	9.00	1,600	50
		7	NC 211	FROM 0.35 MI W OF SR 1791 MP 11.25 TO SR 1530 MP 13.45	2	0.32	26	1	10	10	30	30	1	8	0.64					342	21				1	1.00	275	50
		"	"		2	0.24	50							6	0.48					493	30					1.00		
		"	"		2	0.21	39							5	0.42					357	21					1.00		
		"	"		2	1.32	26							32	2.64					1,430	86					3.00		
TOTAL FOR MAP NO. 7						2.09		1	10	10	30	30	1	51	4.18	0	0	0		2,622	158		0	0	1	6.00	275	50
		8	US 301	FROM NCL ROWLAND MP 3.2 TO SR 1155 MP 7.8	2	4.65	24							112	9.3					4,657	279				1	11.00		
		9	US 501	FROM NC 130 MP 10.1 TO SCOT CO. LINE MP 15.5	2	5.3	26							127	10.6		1967			5,754	345					13.00		
		10	NC 710	FROM SR 1318 MP 17.2 TO NC 72 MP 18.6	2	1.4	24							34	2.8					1,495	90					3.00		
		11	NC 710	FROM US 501 MP 0.0 TO SR 1134 MP 3.3	2	3.3	24							79	6.6					3,294	198					8.00		
TOTAL FOR PROJ NO. 6CR.10781.22						**40.2**		**3**	**30**	**30**	**90**	**90**	**3**	**855**	**75.3**	**11470**	**8443**	**4,224**		**43,949**	**2,639**		**3**	**49**	**35**	**91.00**	**3,250**	**200**
6CR20781.22	Robeson	12	SR 1002	FROM SR 2121 MP 4.50 TO COLUMBUS CO LINE MP 6.90	1	4.5	22							108	9		1033		4,008		261				11.00		
		13	SR 1004	FROM SR 1973 MP 4.50 TO BLADEN CO MP 6.90	2	2.4	24							58	4.8		2253			2407	144				6.00		
		14	SR 1302	FROM SR 1386 MP 1.7 TO US 74 BUS. MP 2.0	1	0.2	23							5	0.4				197		13				1.00		
		15	SR 1312	FROM SR 1303 MP 8.20 TO CJ @ SR 1393 MP 9.5	1	1.3	23							31	2.6				1,284		83				3.00		
		16	SR 1331	FROM NC 71 MP 0.0 TO NC 211/NC 72 MP 0.80	7	0.8	32	1	10	10	30	30	1				1502	7,509	1,057		69			15	7		400	50
		17	SR 1339	FROM SR 1347 MP 12.2 TO SR 1378 MP 13.90	1	1.6	23							38	3.2				1,510		98				4.00		
		18	SR 1340	FROM CJ 0.1 MI S SR 1663 MP 6.40 TO CJ 0.1 MI N SR 1566 MP 6.70	1	0.2	25							5	0.4				213		14				1.00		
		19	SR 1536	FROM I-95 MP 0.60 TO 17TH ST. MP 1.70	7	0.5	40											4,693	851		55			26	12			
		20	SR 1550	FROM SR 1339 MP 0.80 TO NC 711 MP 2.50	1	1.7	24							41	3.4		303		1,693		110				4.00		
		21	SR 1741	FROM SCL ST. PAULS MP 1.0 TO SR 1006 MP 1.80	1	0.6	20							14	1.2				529		34				1.00		
		22	SR 1935	FROM SR 1955 MP 4.90 TO SR 1004 MP 7.40	1	2.5	18							60	5				1,863		121				6.00		
		23	SR 1942	FROM R/R MP 1.20 TO US 301 MP 2.30	1	1.1	20							26	2.2		469		901		59				3.00		
		24	SR 1955	FROM SR 1935 MP 3.1 TO SR 1947 MP 3.2	1	0.1	20							2	0.2				81		5				1.00		
		25	SR 1959	FROM 1004 MP 0.0 TO SR 1956 MP 1.85	1	1.85	20							44	3.7				1,593		104				4.00		
		26	SR 2002	FROM SR 1955 MP 0.0 TO SR 2004 MP 0.1	4	0.1	20							2	0.2						4	55		2	1.00		
		27	SR 2003	FROM SR 2004 MP 0.0 TO D.E. MP 0.1	4	0.1	20							2	0.2						4	50			1.00		
		28	SR 2004	FROM SR 1955 MP 0.0 TO SR 2002 MP 0.8	4	0.8	20							19	1.6						26	375		2	2.00		
		29	SR 2005	FROM SR 1955 MP 0.0 TO SR 2004 MP 0.1	4	0.1	20							2	0.2						4	55			1.00		
		30	SR 2026	FROM SR 2004 MP 0.0 TO SR 2004 MP 0.3	4	0.3	20							7	0.6						9	132			1.00		
		31	SR 2104	FROM NC 211 MP 6.20 TO SUMMIT AVE. MP 7.1	7	0.9	40											8,448	1,457		95			14	14			
		32	SR 2113	FROM SR 2110 MP 0.0 TO SR 2104 MP 1.0	1	1	20							24	2				830		54			1	3	2.00		
		33	SR 2413	FROM SR 2510 MP 2.5 TO US 74 MP 0.0	3	2.5	22							60	5					2,761	166					6.00		
TOTAL FOR PROJ NO. 6CR20781.22						**25.15**		**1**	**10**	**10**	**30**	**30**	**1**	**548**	**45.9**	**0**	**5,560**	**20,650**	**18,067**	**5,168**	**1,532**	**667**	**0**	**56**	**40**	**59**	**400**	**50**
GRAND TOTAL						**65.35**		**4**	**40**	**40**	**120**	**120**	**4**	**1,403**	**121.2**	**11,470**	**14,003**	**24,874**	**18,067**	**49,117**	**4,171**	**667**	**3**	**105**	**75**	**150**	**3,650**	**250**

PROJECT NO.	SHEET NO.	TOTAL NO.
6CR.10781.22, 6CR20781.22	8	11

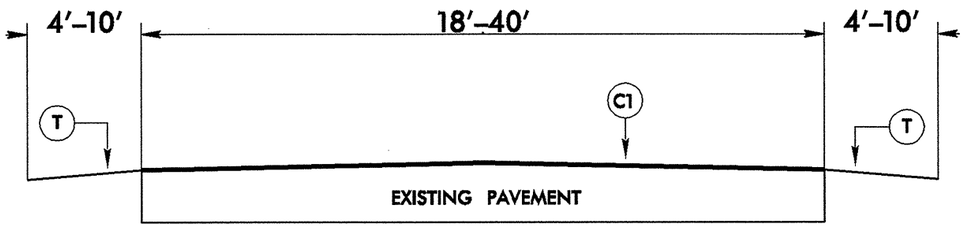
THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4685000000-E 4" X 90 M WHITE THERMO LF	4686000000-E 4" X 120 M YELLOW THERMO LF	4686000000-E 4" X 120 M WHITE THERMO LF	4697000000-E 8" X 120 M WHITE THERMO LF	4697000000-E 8" X 120 M YELLOW THERMO LF	4705000000-E 16" X 120 M WHITE THERMO LF	4710000000-E 24" X 120 M WHITE THERMO LF	4721000000-E THERMO MSG ONLY 120 M EA	4721000000-E THERMO RXR 120 M EA	4721000000-E THERMO MSG SCHOOL 120 M EA	4725000000-E THERMO LT ARROW 90 M EA	4725000000-E THERMO RT ARROW 90 M EA	4725000000-E THERMO STR ARROW 90 M EA	4725000000-E THERMO STR & LT ARROW 90 M EA	4725000000-E THERMO STR & RT ARROW 90 M EA	4810000000-E 4" WHITE PAINT LF	4810000000-E 4" YELLOW PAINT LF	4900000000-N YELLOW & YELLOW MARKERS EA	4900000000-N CYAN & RED MARKERS EA
6CR.10781.22	Robeson	1	US 74 BUS	FROM ECL MAXTON MP 1.30 TO SR 1153 MP 3.0	19,000	17,000																120	
		2	NC 41	FROM .2 MI E OF SR 1004 @ END OF TAPER MP 26.75 TO BLADEN CO. LINE MP 32.75	58,300	44,000																375	
		3	NC 41	FROM SR 2452 MP 6.3 TO SR 2239 MP 13.50	55,000	75,500	200	400	200		80	8			60	5	23	9	21			500	50
		"	"																				
		"	"																				
		"	"																				
		"	"																				
		"	"																				
TOTAL FOR MAP NO. 3					55,000	75,500	200	400	200		80	8			60	5	23	9	21			500	50
		4	NC 71	FROM SR 1318 MP 8.90 TO 0.3 MI N. OF SR 1331 MP 11.50	28,750	23,000																180	
		5	NC 71	FROM NCL PARKTON MP 24.9 TO US 301 MP 27.2	24,000	19,000																150	
		6	NC 130	FROM US 74 BUS. MP 0.0 TO NC 83 MP 4.0	45,000	43,000	300				100				8				8				40
		"	"																				
		"	"																				
TOTAL FOR MAP NO. 6					45,000	43,000	300				100				8				8				40
		7	NC 211	FROM 0.35 MI W OF SR 1791 MP 11.25 TO SR 1530 MP 13.45	22,400	23,800	300		300						9	4						300	30
		"	"																				
		"	"																				
		"	"																				
TOTAL FOR MAP NO. 7					22,400	23,800	300		300						9	4						300	30
		8	US 301	FROM NCL ROWLAND MP 3.2 TO SR 1155 MP 7.8	49,500	37,000																315	
		9	US 501	FROM NC 130 MP 10.1 TO SCOT CO. LINE MP 15.5	56,000	45,000																360	
		10	NC 710	FROM SR 1318 MP 17.2 TO NC 72 MP 18.6	35,000	28,000																220	
		11	NC 710	FROM US 501 MP 0.0 TO SR 1134 MP 3.3	35,000	28,000																230	
TOTAL FOR PROJ NO. 6CR.10781.22					427,950	383,300	800	400	500		180	8			77	9	23	9	29			2,750	120
						384,100		900				8			147							2,870	
6CR20781.22	Robeson	12	SR 1002	FROM SR 2121 MP 4.50 TO COLUMBUS CO LINE MP 6.90																48,000	31,000	310	
		13	SR 1004	FROM SR 1973 MP 4.50 TO BLADEN CO MP 6.90	25,500	19,200																165	
		14	SR 1302	FROM SR 1386 MP 1.7 TO US 74 BUS. MP 2.0																2,200	2,200		
		15	SR 1312	FROM SR 1303 MP 8.20 TO CJ @ SR 1393 MP 9.5																14,000	12,000	90	
		16	SR 1331	FROM NC 71 MP 0.0 TO NC 211/NC 72 MP 0.80				70		100	325		4	12						8,700	8,700		
		17	SR 1339	FROM SR 1347 MP 12.2 TO SR 1378 MP 13.90																17,000	14,000	110	
		18	SR 1340	FROM CJ 0.1 MI S SR 1663 MP 6.40 TO CJ 0.1 MI N SR 1566 MP 6.70	2,300	2,300																15	
		19	SR 1536	FROM I-95 MP 0.60 TO 17TH ST. MP 1.70																	5,300	35	
		20	SR 1550	FROM SR 1339 MP 0.80 TO NC 711 MP 2.50																18,000	14,000		
		21	SR 1741	FROM SCL ST. PAULS MP 1.0 TO SR 1006 MP 1.80																6,500	6,500		
		22	SR 1935	FROM SR 1955 MP 4.90 TO SR 1004 MP 7.40																26,600	20,000	170	
		23	SR 1942	FROM R/R MP 1.20 TO US 301 MP 2.30						50	50		2							11,800	10,000		
		24	SR 1955	FROM SR 1935 MP 3.1 TO SR 1947 MP 3.2																1,100	1,100	10	
		25	SR 1959	FROM 1004 MP 0.0 TO SR 1956 MP 1.85																9,900	8,000		
		26	SR 2002	FROM SR 1955 MP 0.0 TO SR 2004 MP 0.1																			
		27	SR 2003	FROM SR 2004 MP 0.0 TO D.E. MP 0.1																			
		28	SR 2004	FROM SR 1955 MP 0.0 TO SR 2002 MP 0.8																			
		29	SR 2005	FROM SR 1955 MP 0.0 TO SR 2004 MP 0.1																			
		30	SR 2026	FROM SR 2004 MP 0.0 TO SR 2004 MP 0.3																			
		31	SR 2104	FROM NC 211 MP 6.20 TO SUMMIT AVE. MP 7.1				55			30				2				2	9,600	9,600		
		32	SR 2113	FROM SR 2110 MP 0.0 TO SR 2104 MP 1.0																11,000	11,000		
		33	SR 2413	FROM SR 2510 MP 2.5 TO US 74 MP 0.0						100	100		4			2				26,500	24,000	180	15
TOTAL FOR PROJ NO. 6CR20781.22					27,800	21,500		125		250	505		10	12	2	2			2	210,900	177,400	1,085	15
						21,500		125					22			6				388,300		1,100	
GRAND TOTAL					455,750	404,800	800	525	500	250	685	8	10	12	79	11	23	9	31	210,900	177,400	3,835	135
						405,600		1,025					30			153				388,300		3,970	

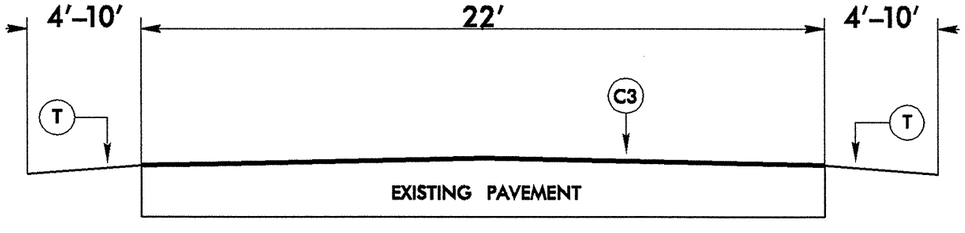
6 CR. 107 81. 22
6 CR. 207 81. 22

ROBESON COUNTY

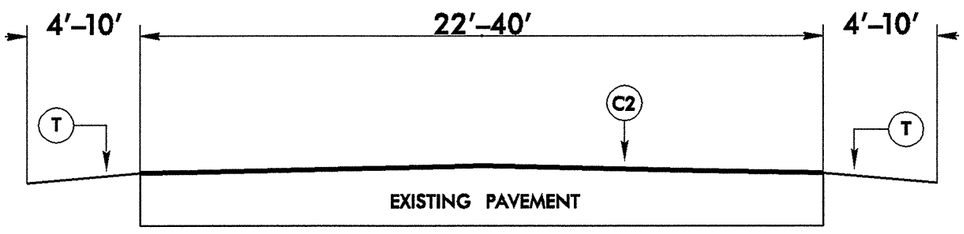
SHEET 9 OF 11



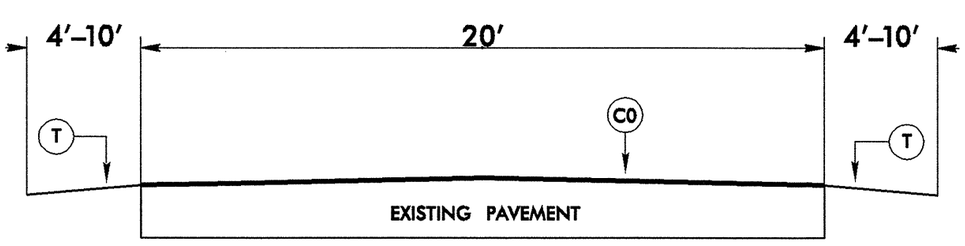
TYPICAL SECTION NO. 1



TYPICAL SECTION NO. 3



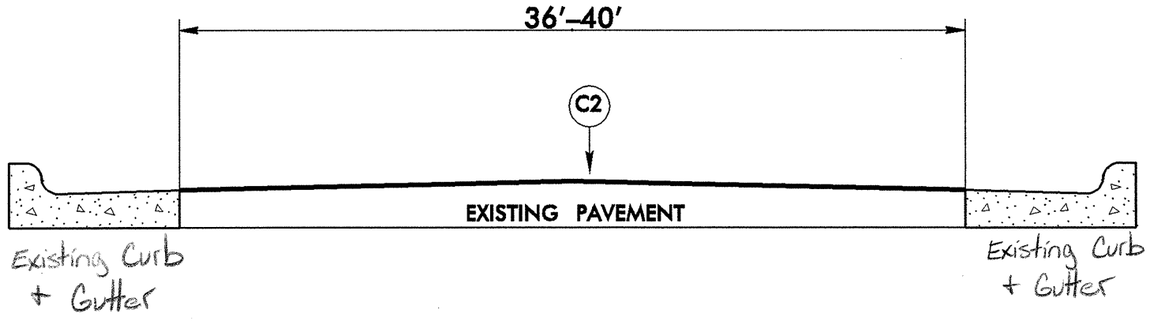
TYPICAL SECTION NO. 2



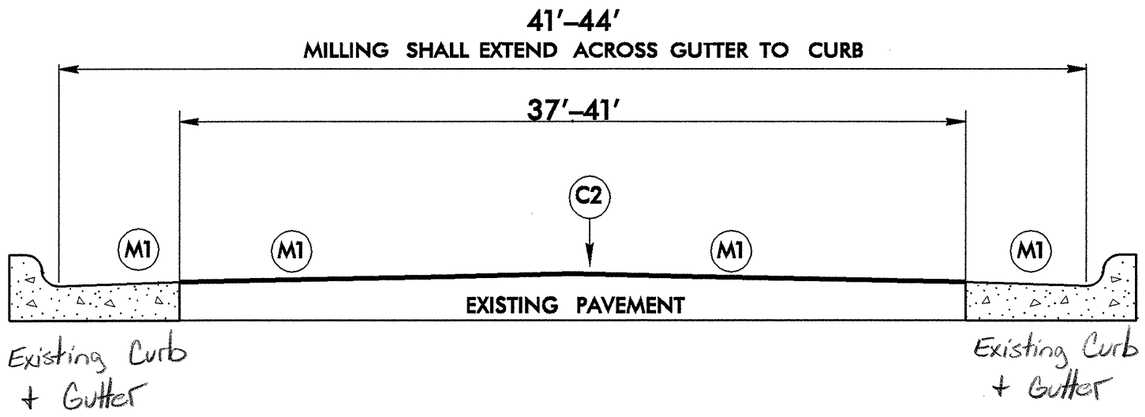
TYPICAL SECTION NO. 4

6CR.10781.22
6CR.20781.22

ROBESON COUNTY



TYPICAL SECTION NO. 5

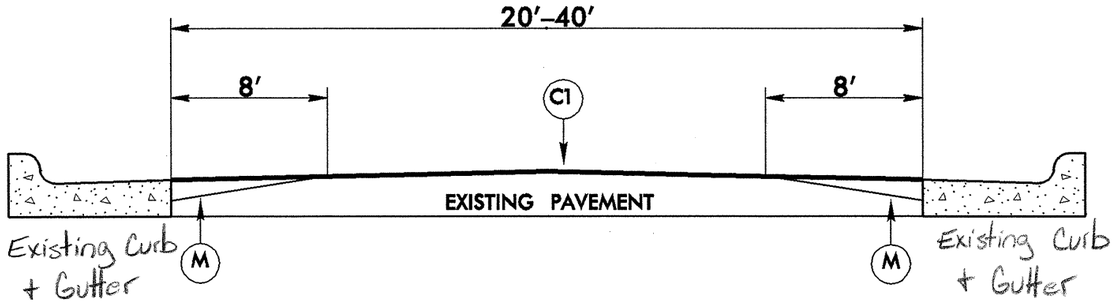


TYPICAL SECTION NO. 6

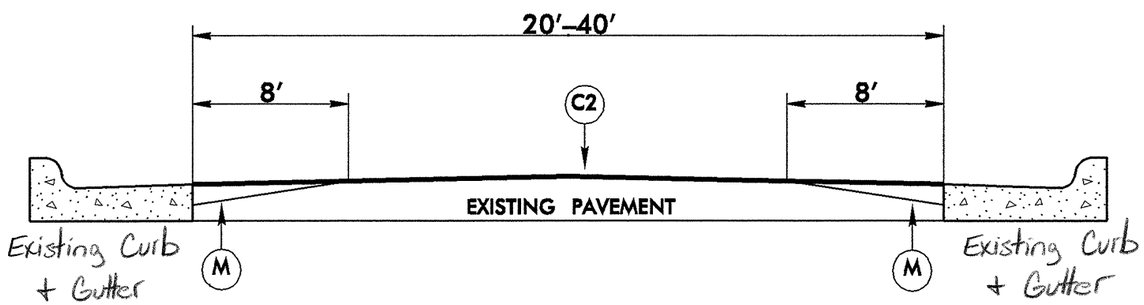
6CR.10781.22
6CR.20781.22

ROBESON COUNTY

SHEET 11 OF 11



TYPICAL SECTION NO. 7



TYPICAL SECTION NO. 8

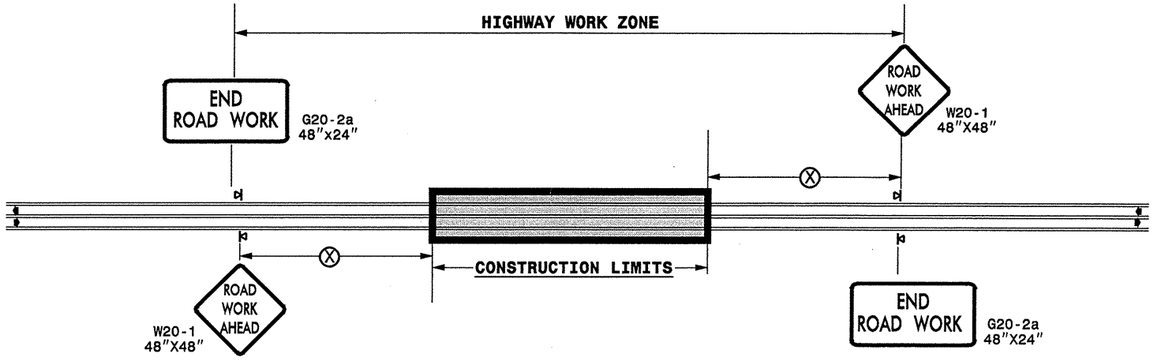
PAVEMENT SCHEDULE	
C0	PROP. APPROX. ¾" ASPHALT CONCRETE SURFACE COURSE, TYPE S4.75A, AT AN AVERAGE RATE OF 75 LBS. PER SQ. YD.
C1	PROP. APPROX. 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 138 LBS. PER SQ. YD.
C2	PROP. APPROX. 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 140 LBS. PER SQ. YD.
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
M	MILLING BITUMINOUS PAVEMENT 0-2" DEPTH. MILLING AT EDGE OF CURB AND GUTTER SHALL EXTEND BELOW LIP OF C&G BY THE THICKNESS OF THE PROPOSED OVERLAY.
M1	MILLING BITUMINOUS PAVEMENT 2" IN DEPTH ACROSS ENTIRE SECTION. MILLING AT EDGE OF CURB AND GUTTER SHALL EXTEND BELOW LIP OF C&G BY THE THICKNESS OF THE PROPOSED OVERLAY.
T	SHOULDER RECONSTRUCTION WILL BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

MILLING SHALL BE PERFORMED AT BRIDGES AND RAILROAD APPROACHES AS DIRECTED BY THE ENGINEER

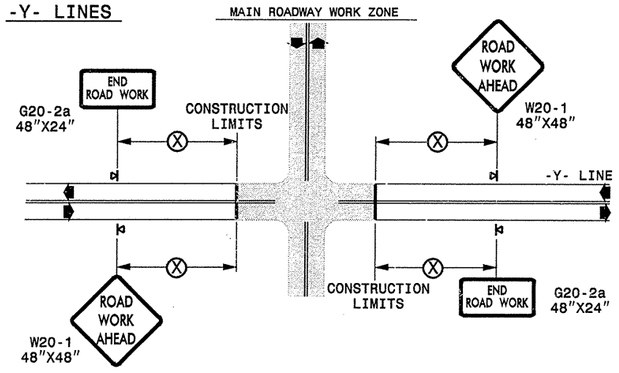
PROJ. REFERENCE NO.	SHEET NO.
6CR.10781.22 & 6CR.20781.22	TCP-1

TWO-WAY UNDIVIDED ** (L-LINES)



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING (X)
≤ 50	500′
≥ 55	1000′

ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)



GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED 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 URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

LEGEND

PORTABLE SIGN

DIRECTION OF TRAFFIC FLOW

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

DETAIL DRAWING FOR TWO-WAY UNDIVIDED WORK ZONE WARNING SIGNS

SHEET 1 OF 1

APPROVED:_____ DATE:_____

SEAL

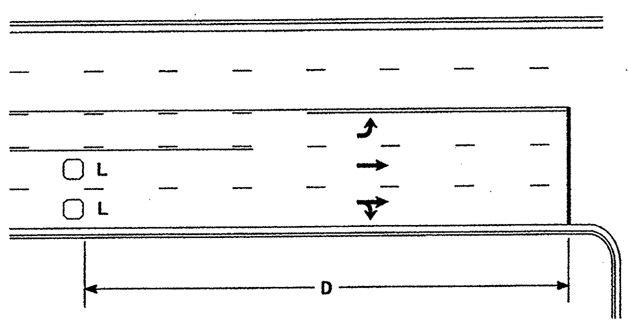
DETAIL DRAWING
FOR TWO-WAY UNDIVIDED
ADVANCED WORK ZONE WARNING SIGNS

SCALE:	NONE
DATE:	
DWG. BY:	
DESIGN BY:	
REVIEWED BY:	

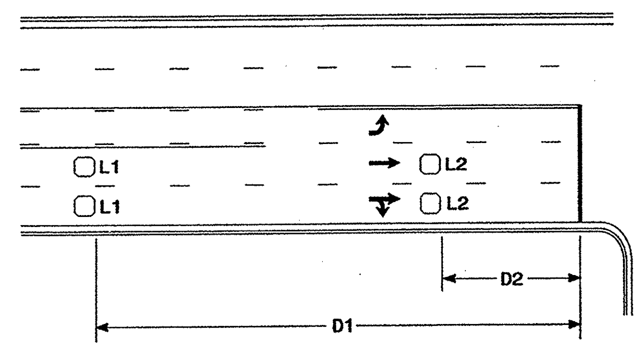
REVISIONS	
7-98	10/01
10-98	03/04
01/01	11/04
CADD FILE	

PROJECT REFERENCE NO.	SHEET NO.
	SIG 1

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



OR



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

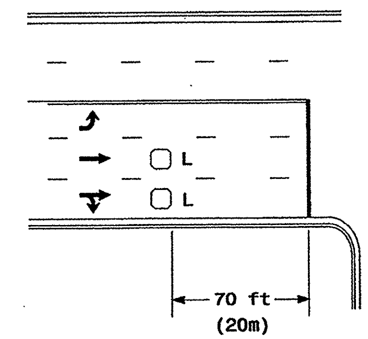
Speed Limit mph (km/hr)	D1 ft (m)	D2 ft (m)
40 (64)	250 (75)	80 (25)
45 (72)	300 (90)	90 (27)
50 (80)	355 (110)	100 (30)
55 (88)	420 (130)	110 (35)

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

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

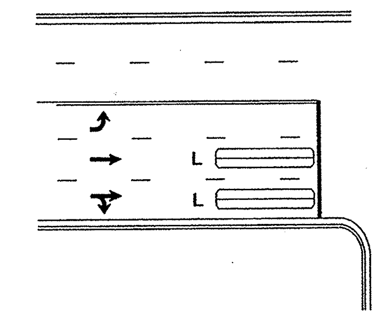
"Stretch" Operation

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



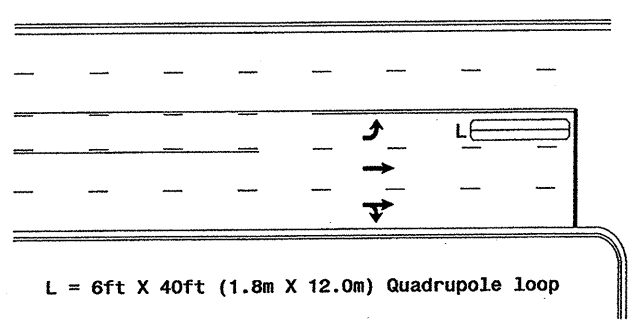
L = 6ft X 6ft (1.8m X 1.8m)
Wired in series

OR



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

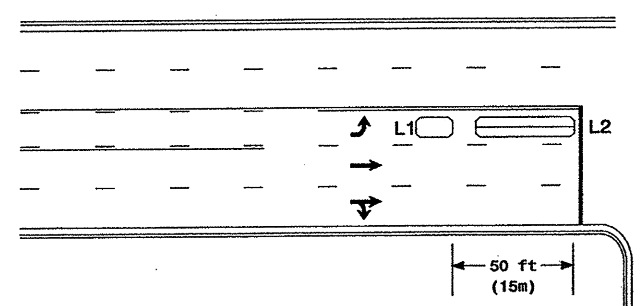
Left Turn Lane Detection



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

Presence Loop Detection

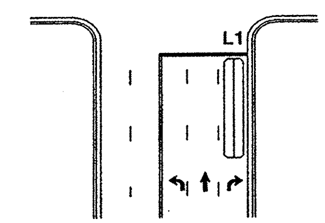
OR



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

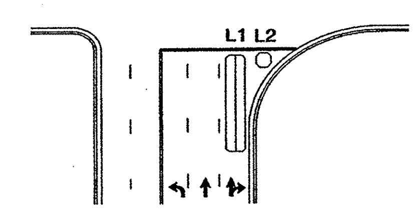
Queue Loop Detection

Right Turn Lane Detection

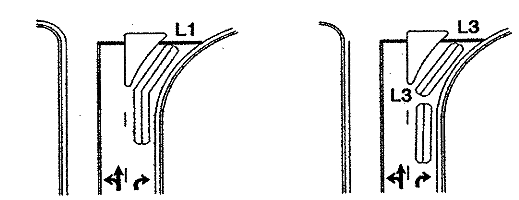


Standard Turn

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

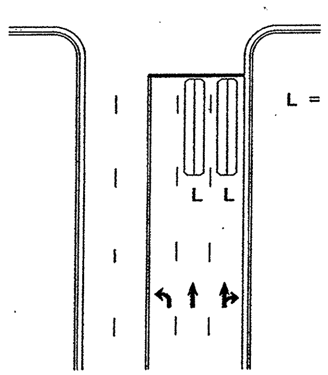


Wide Radius Turn



Channelized Turn

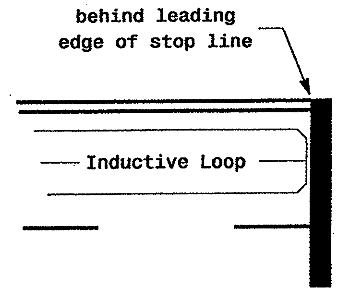
Side Street Detection



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

Prepared in the Offices of: Traffic Engineering and Safety Systems Branch, Signals and Geometrics Section
122 N. McDowell St., Raleigh, NC 27603

Typical Loop Locations

PLAN DATE: June 2006 | REVIEWED BY:
PREPARED BY: P L Alexander | REVIEWED BY:

SCALE
N/A

REVISIONS | INIT. | DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 23489 P L ALEXANDER
SIGNATURE 6/6/06 DATE

SIG. INVENTORY NO.

06-JUN-2006 14:09
s:\its signals\lb turn in\misc\looptypical2006.dgn
palexander