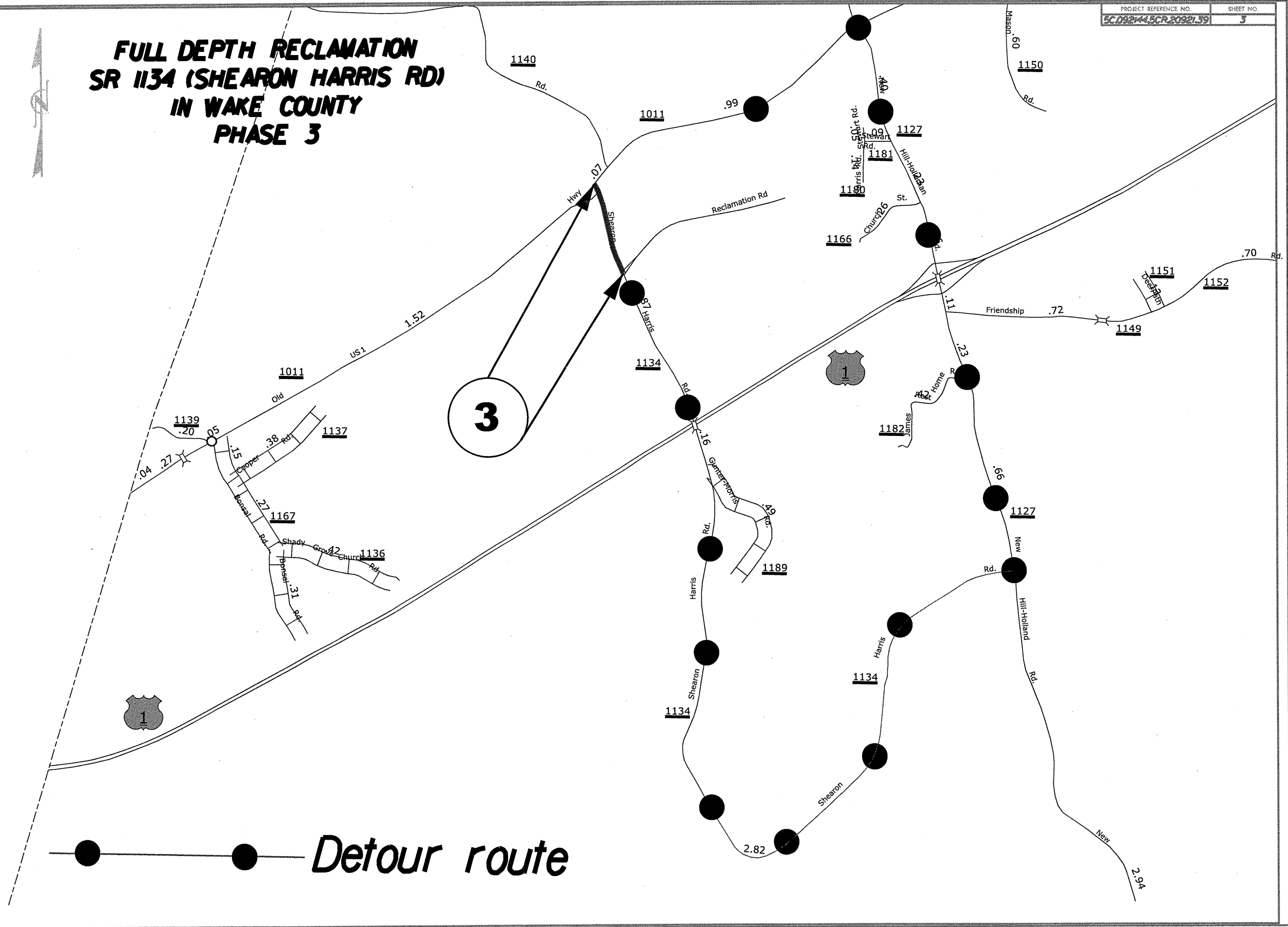


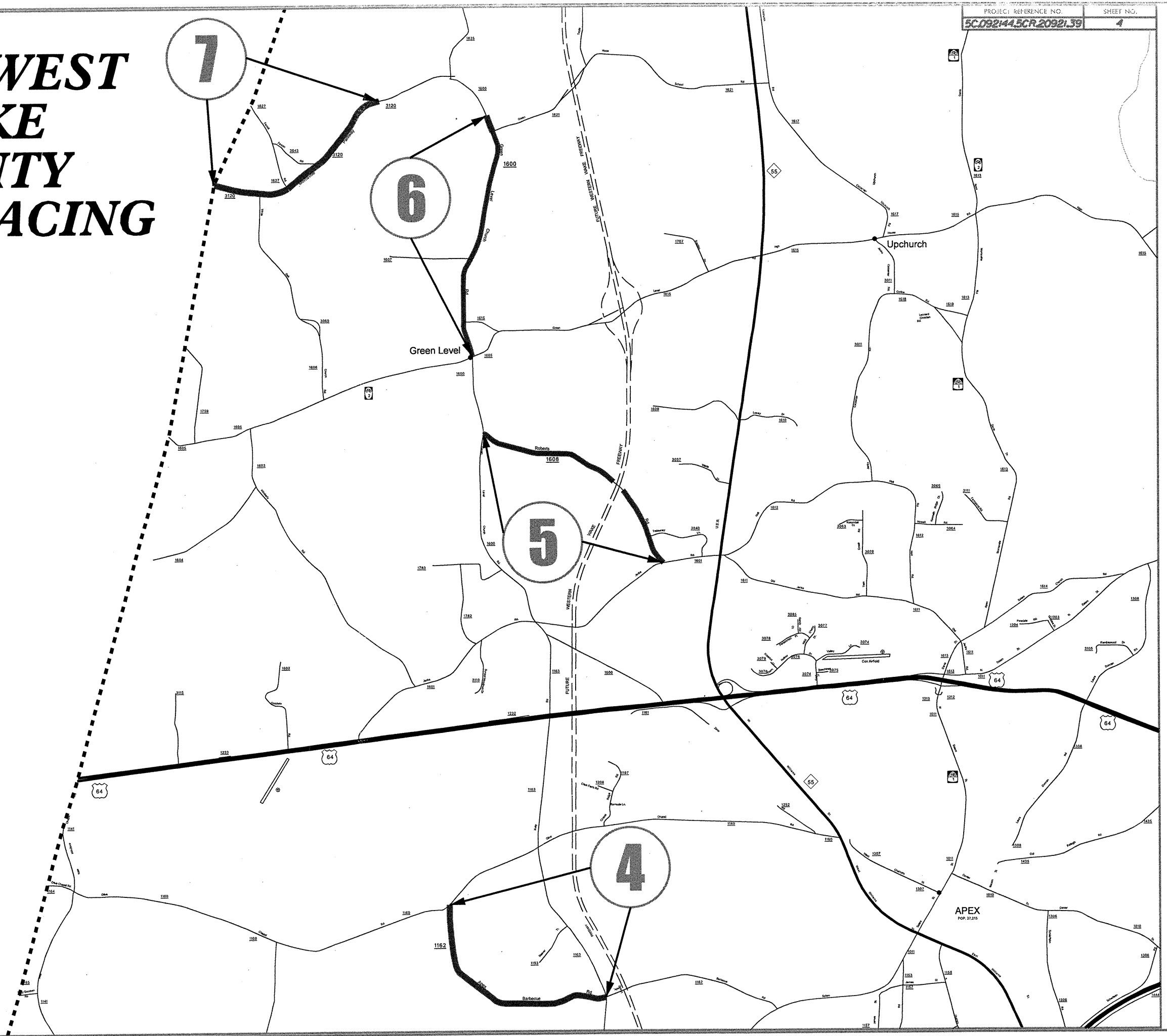
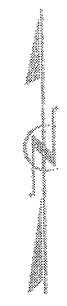
FULL DEPTH RECLAMATION SR 1134 (SHEARON HARRIS RD) IN WAKE COUNTY PHASE 3



3

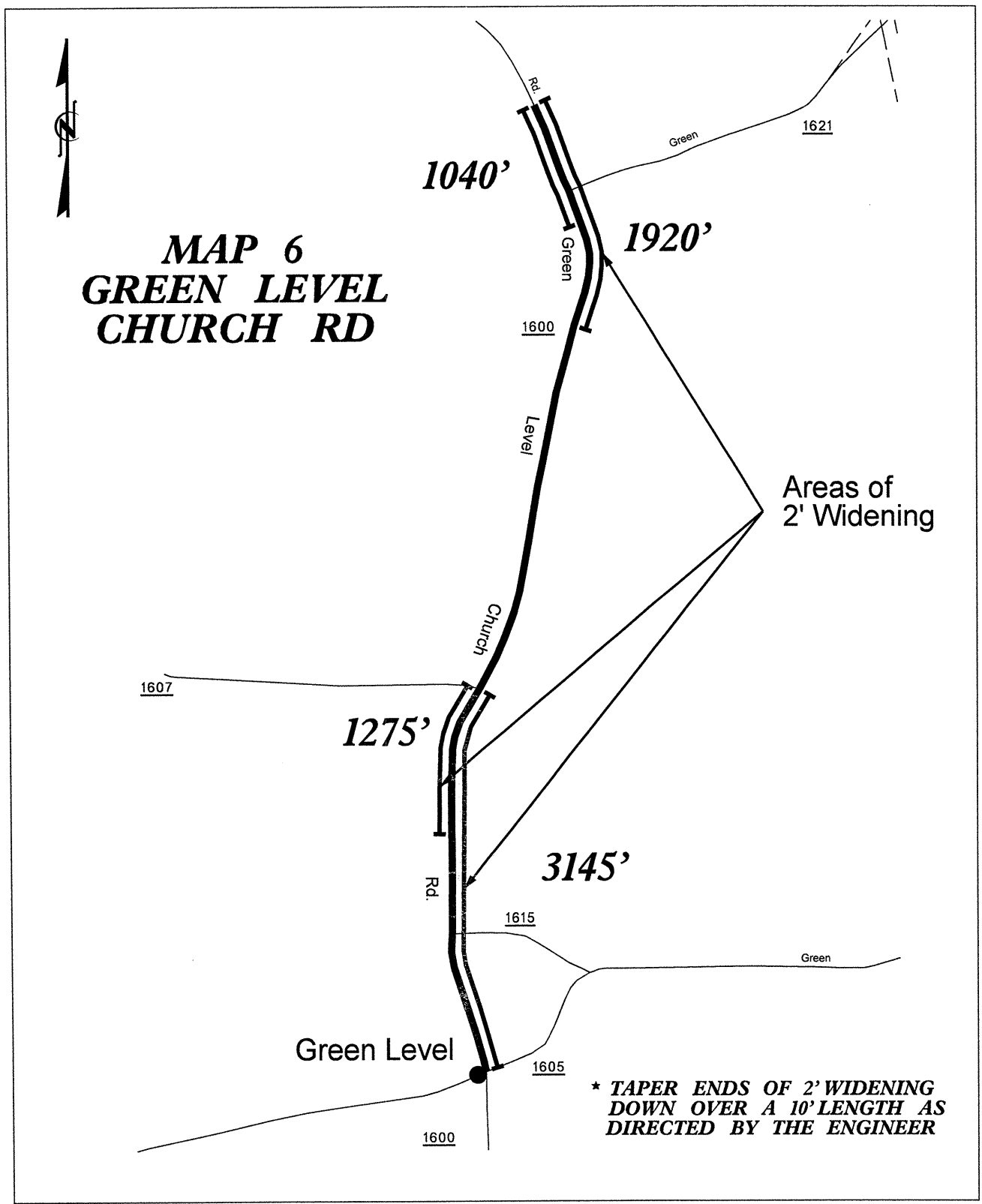
Detour route

SOUTHWEST WAKE COUNTY RESURFACING



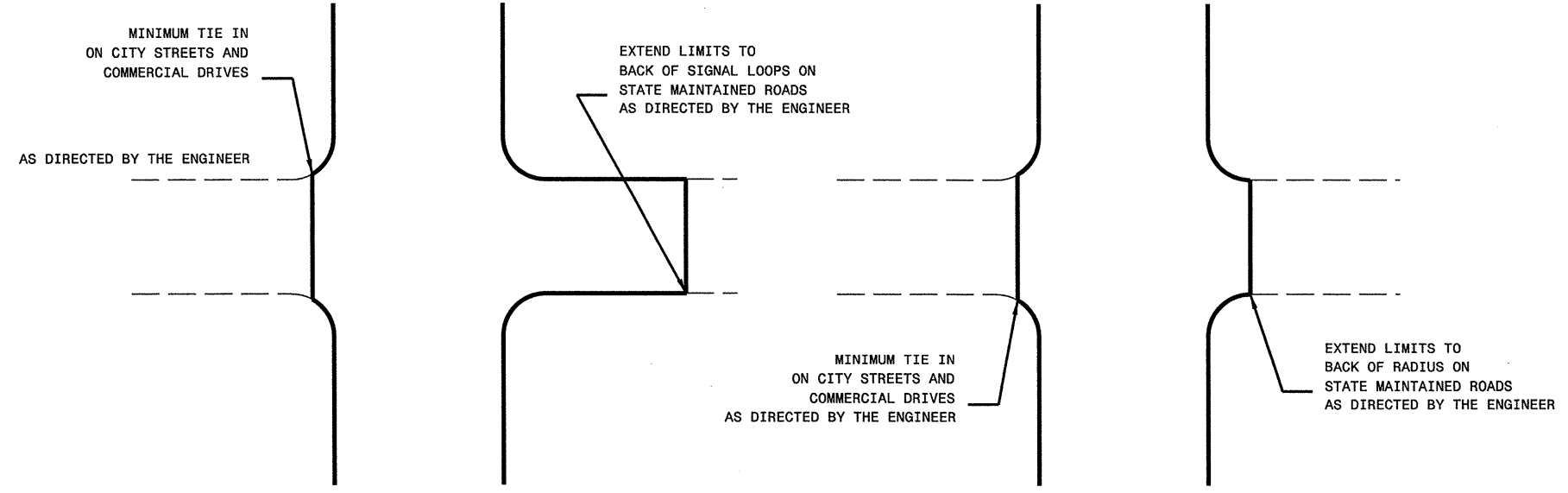
6/2/95

**MAP 6
GREEN LEVEL
CHURCH RD**



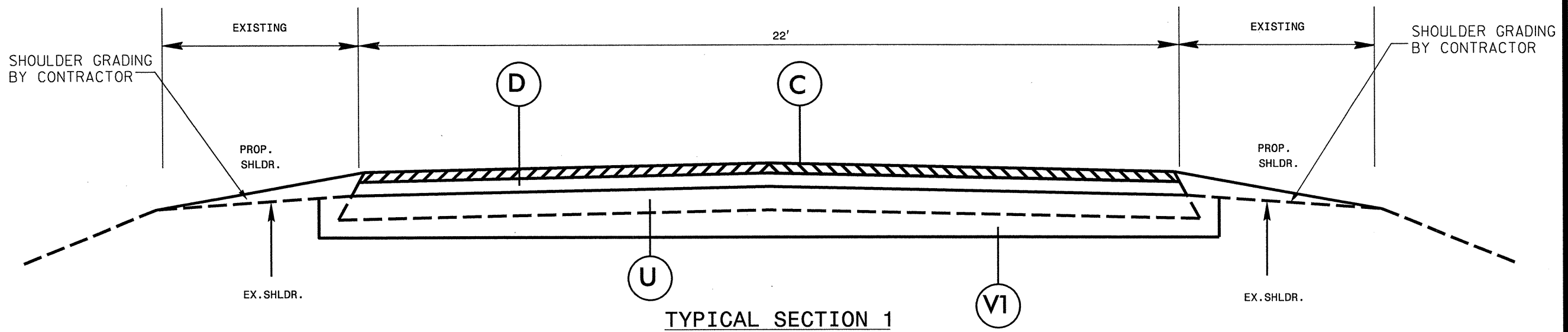
* TAPER ENDS OF 2' WIDENING
DOWN OVER A 10' LENGTH AS
DIRECTED BY THE ENGINEER

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1½" ASPH. CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D	PROP. APPROX. 2½" ASPH. CONC. INTERMEDIATE COURSE, TYPE I-19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E	5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
U	EXISTING PAVEMENT
V1	PROP. 12" FULL DEPTH PAVEMENT RECLAMATION, USING A CEMENT RATE OF 50 LBS. PER SQ. YD.
V2	2½" MILLING



DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES

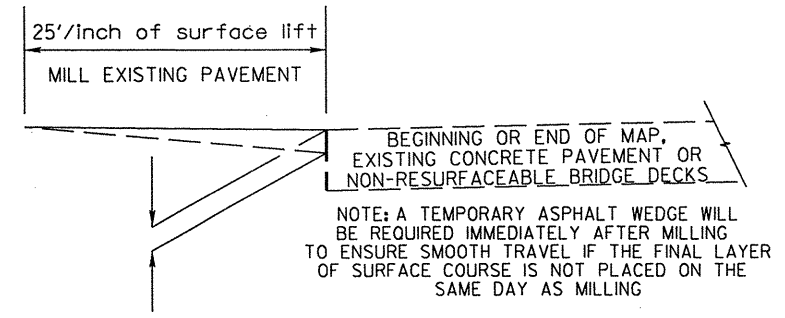
DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES



TYPICAL SECTION 1

PAVEMENT SCHEDULE

C	PROP. APPROX. 1½" ASPH. CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D	PROP. APPROX. 2½" ASPH. CONC. INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E	5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
U	EXISTING PAVEMENT
V1	12" FULL DEPTH PAVEMENT RECLAMATION, USING A CEMENT RATE OF 50 LBS. PER SQ. YD.
V2	2½" MILLING



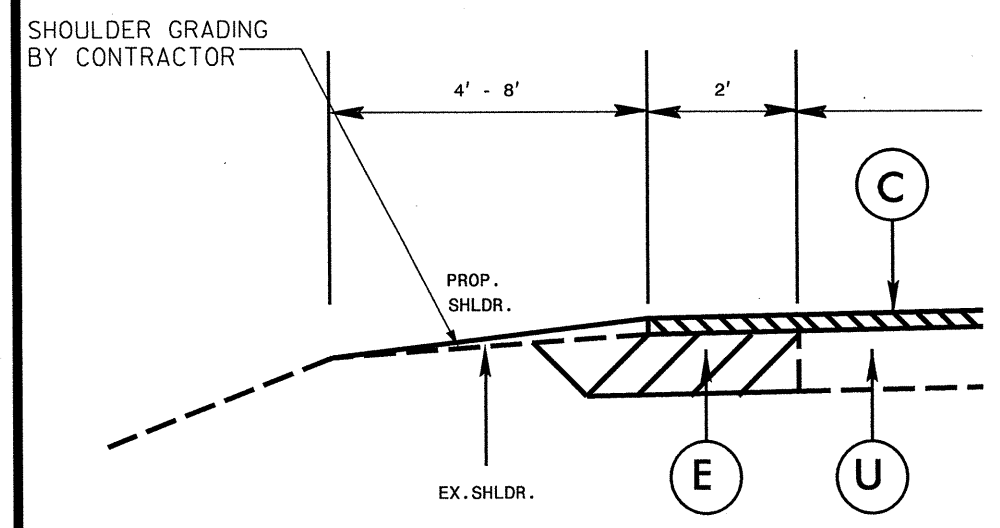
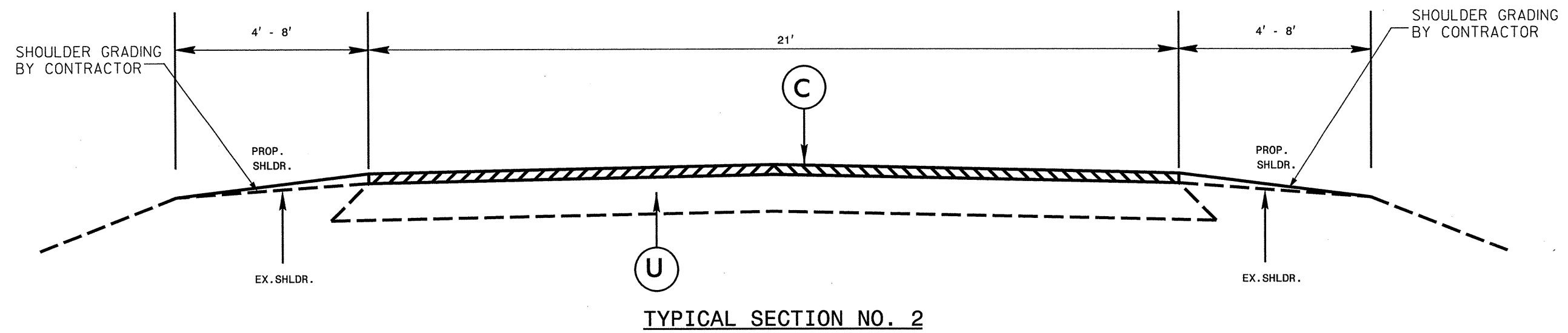
NOTES

ALL UNPAVED S.R. ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT

ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADIUS, OR AS DIRECTED BY THE ENGINEER.

EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.

BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

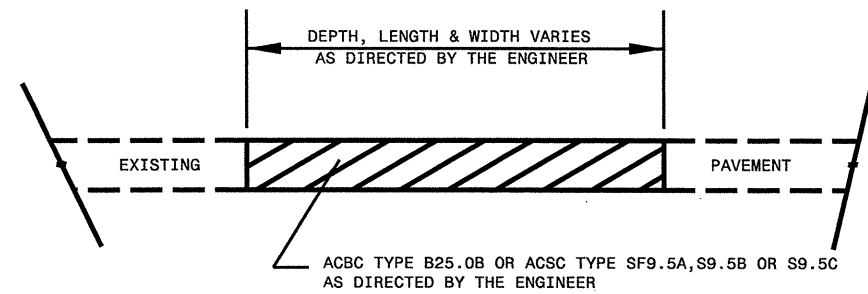


NOTE: SEE DETAIL MAP FOR GREEN LEVEL CHURCH ROAD LOCATING SPECIFIC AREAS TO BE WIDENED 2' ON MAP 6

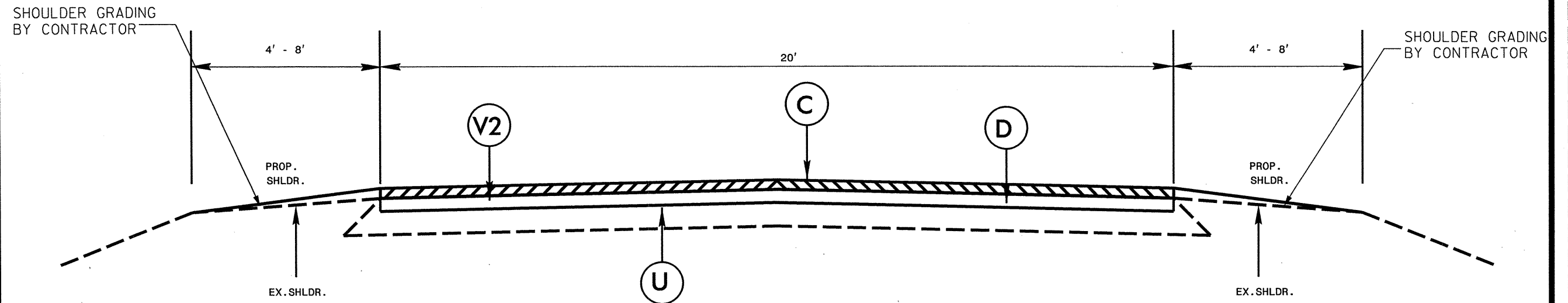
PAVEMENT SCHEDULE

PROJECT REFERENCE NO. **5C09214450R2092139** SHEET NO. **8**

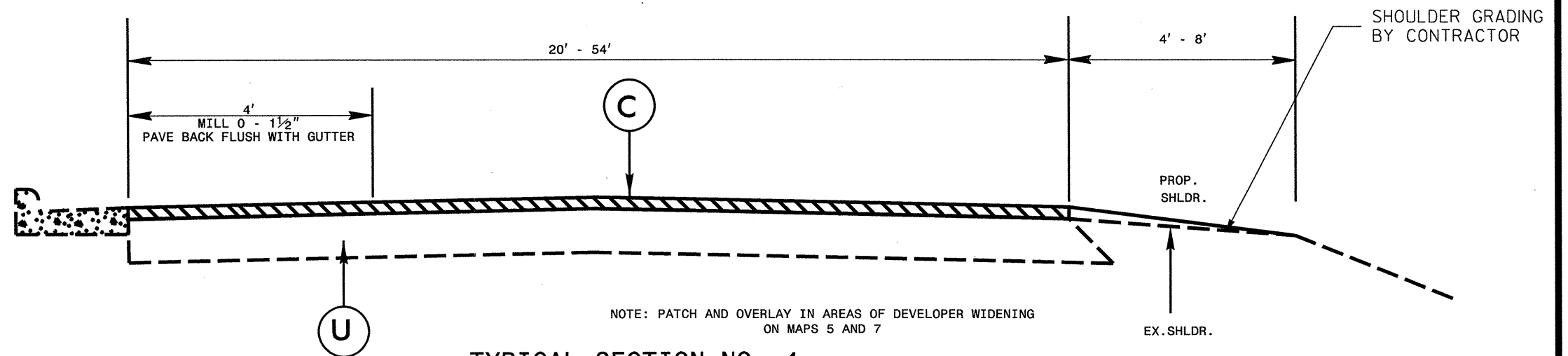
C	PROP. APPROX. 1½" ASPH. CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D	PROP. APPROX. 2½" ASPH. CONC. INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E	5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
U	EXISTING PAVEMENT
V1	12" FULL DEPTH PAVEMENT RECLAMATION, USING A CEMENT RATE OF 50 LBS. PER SQ. YD.
V2	2½" MILLING



PATCHING EXISTING PAVEMENT
PATCHING TO BE PERFORMED PRIOR TO MILL AND FILL OPERATION

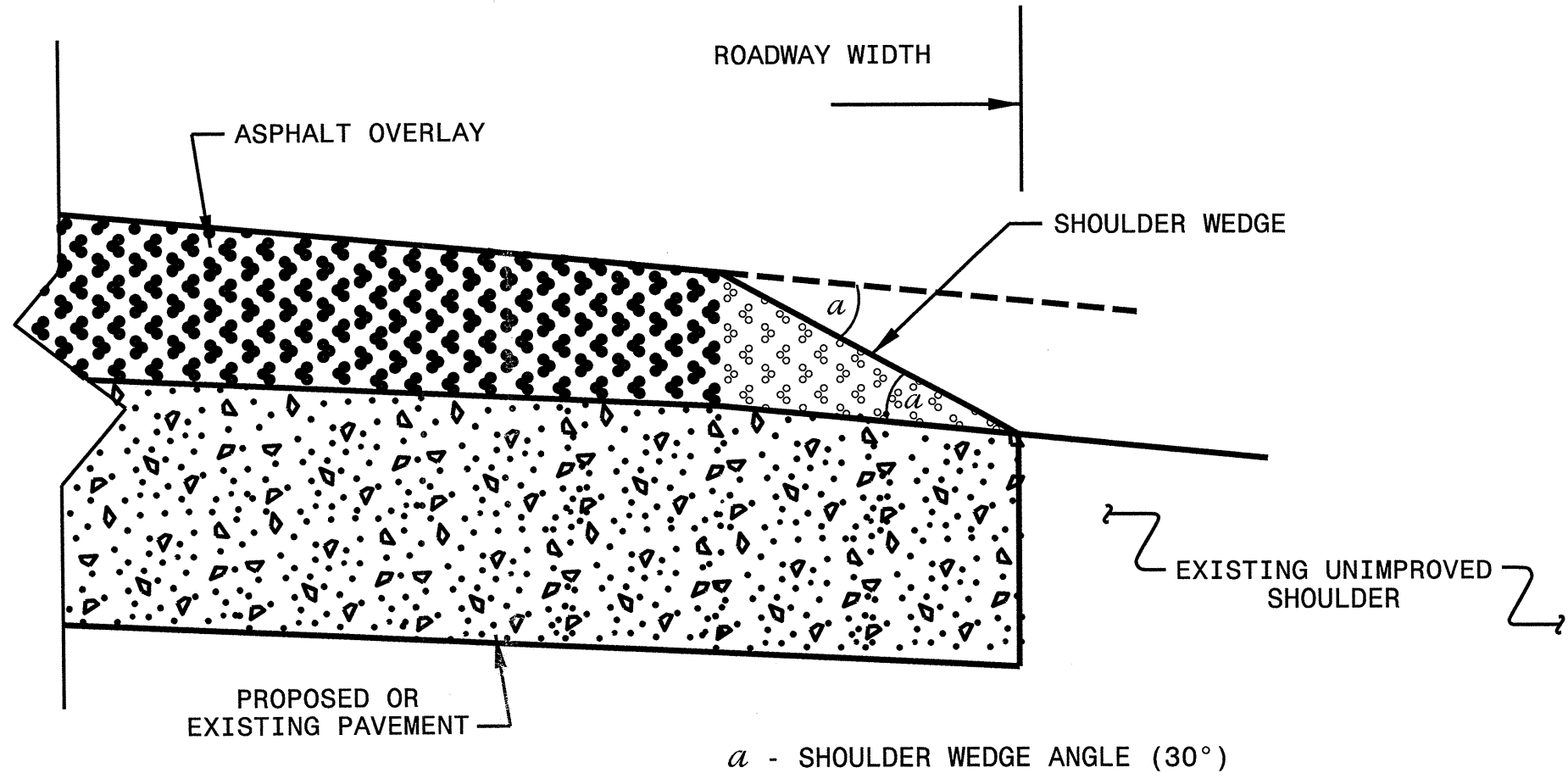


TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 4

NOTE: PATCH AND OVERLAY IN AREAS OF DEVELOPER WIDENING ON MAPS 5 AND 7



SHOULDER WEDGE DETAIL

 SYSTEMS DESIGN
 USER NAME

SHOULDER WEDGE DETAIL	
ORIGINAL BY: _____	DATE: _____
MODIFIED BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____
FILE SPEC: _____	

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.

PROJECT NO.	SHEET NO.	TOTAL NO.
5C.092144, 5CR.20921.39	11	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	SHOULDER WEDGE	LENGTH MI	WIDTH FT	BORROW CY	SHOULDER GRADING SMI	INCIDENTAL STONE BASE TONS	2.5" MILLING SY	0" TO 1.5" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	INTER-MEDIATE COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TONS	FULL DEPTH RECLAMATION SY	ADJUST MANHOLES EA	ADJUST METER OR VALVE BOX EA	TEMPORARY SILT FENCE LF	WATTLE LF	SEED & MULCHING AC	INDUCTIVE LOOP LF		
SC.092144	Wake	1	SR 1134 - SHEARON HARRIS	FROM SR 1127 (NEW HILL HOLLEMAN) TO CELL TOWER DRIVE ON RT.	1	NO	YES	1.64	22	656	3.28	164			325		3,373	1,982	281		24,270								
				FROM CELL PHONE TOWER DRIVE TO RECLAMATION DRIVE	1	NO	YES	1.85	22	739	3.69	185					250		3,674	2,158	306		26,441						
				FROM RECLAMATION RD TO SR 1011 (OLD US 1)	1	NO	YES	0.3	22	120	0.60	30					200		585	343	49		4,224						
TOTAL FOR PROJ NO. SC.092144								3.79		1,515	7.57	379			775		7,632	4,483	636		54,935								
5CR.20921.39	Wake	4	SR 1162 - APEX BARBECUE RD	FROM SR 1160 (OLIVE CHAPEL RD) TO SR 1163 (KELLY RD)	2	NO	NO	1.42	21-35	284	2.84	142			117			1,769	106	300			206	520	2.06	228			
				FROM SR 1601 (JENKS RD) TO SR 1600 (GREEN LEVEL CH RD) - EXCLUDE AREA AT WESTERN WAKE	3&4	NO	NO	1.07	20-32	203	2.03		10,282	258	265		1,559	1,270	151	100			1	2	148	370	1.48		
				FROM GREEN LEVEL W TO WEST OF GREEN HOPE	2	NO	NO	1.55	20-34	310	3.10	155			530	567		2,551	178	200				1	6	225	570	2.25	
				FROM CHATHAM CO TO JAMERSON RD	3&4	NO	NO	1.35	20-54	269	2.70	135	9,082	85	214		1,359	2,149	194	200				1	3	195	490	1.96	228
TOTAL FOR PROJ NO. 5CR.20921.39								5.39		1,066	10.67	432	19,364	343	1,126	567	2,918	7,739	629	800			1	6	774	1,950	7.75	228	
GRAND TOTAL								9.18		2,581	18.24	811	19,364	343	1,901	567	10,550	12,222	1,265	800			54,935	1	6	774	1,950	7.75	228

THERMOPLASTIC AND PAINT QUANTITIES

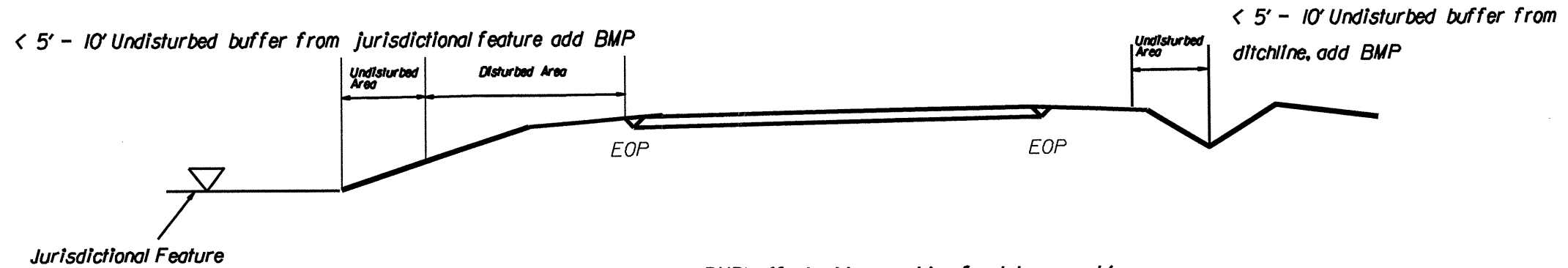
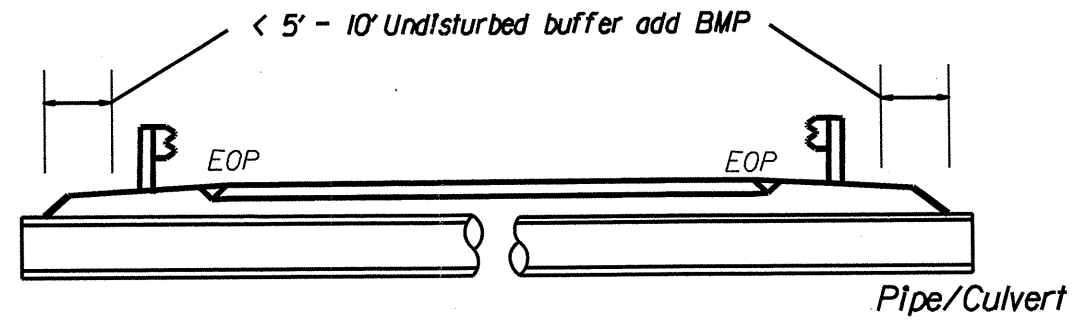
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	LENGTH	WIDTH	4399000000-N	4685000000-E	4686000000-E		4695000000-E		4705000000-E	4710000000-E	4721000000-E		4725000000-E		4770000000-E		4810000000-E		4820000000-E	4830000000-E	4835000000-E	4840000000-N	4850000000-E	4900000000-N				
							TEMPORARY TRAFFIC CONTROL LS	4" X 90 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	4" X 120 M WHITE THERMO LF	8" X 90 M WHITE THERMO LF	8" X 90 M YELLOW THERMO LF	16" X 120 M WHITE THERMO LF	24" X 120 M WHITE THERMO LF	THERMO RXR 120 M EA	THERMO MSG ONLY 120 M EA	THERMO LT ARROW 90 M EA	THERMO RT ARROW 90 M EA	4" WHITE COLD APPLIED PLASTIC, TYPE III LF	4" YELLOW COLD APPLIED PLASTIC, TYPE III LF	4" WHITE PAINT LF	4" YELLOW PAINT LF	8" WHITE PAINT LF	16" WHITE PAINT LF	24" WHITE PAINT LF	PAINT MSG RXR EA	4" LINE REMOVAL LF	CRYSTAL & RED MARKERS EA	YELLOW & YELLOW MARKERS EA			
SC.092144	Wake	1	SR 1134 - SHEARON HARRIS	FROM SR 1127 (NEW HILL HOLLEMAN) TO CELL TOWER DRIVE ON RT.	1.64	22	0.22	17,318	16,605	220	185										17,538	16,605	185						20	129		
				FROM CELL PHONE TOWER DRIVE TO RECLAMATION DRIVE	1.85	22	0.24	19,084	16,686	68	180											416	416	19,152	16,686	180				832	20	126
				FROM RECLAMATION RD TO SR 1011 (OLD US 1)	0.3	22	0.04	3,168	3,168					100	72	4								3,168	3,168		100.00	72	4			20
TOTAL FOR PROJ NO. SC.092144							3.79	0.50	39,570	36,459	288	365	100	72	4	4	4	4	416	416	39,858	36,459	365	100	72	4	832	40	275	315		
5CR.20921.39	Wake	4	SR 1162 - APEX BARBECUE RD	FROM SR 1160 (OLIVE CHAPEL RD) TO SR 1163 (KELLY RD)	1.42	21	0.08	14,995		198		100						2											15	118		
				FROM SR 1601 (JENKS RD) TO SR 1600 (GREEN LEVEL CH RD) - EXCLUDE AREA AT WESTERN WAKE	1.07	20	0.12	11,300	12,430	128		142								1				9,100	9,100						10	92
				FROM GREEN LEVEL W TO WEST OF GREEN HOPE	1.55	20	0.14	16,368	19,590	500		300								4	2										25	130
				FROM CHATHAM CO TO JAMERSON RD	1.35	20	0.15	14,204	17,116	567	170	500								8	3	3			8,176	8,176					41	150
TOTAL FOR PROJ NO. 5CR.20921.39					5.39		0	56,867	49,136	1,393	170	1,042			8	8	10	5			17,276	17,276					91	490	581			
GRAND TOTAL					9.18		1	96,437	85,595	1,681	535	1,042	100	72	4	8	10	5	416	416	57,134	53,735	365	100	72	4	832	131	765	896		

NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

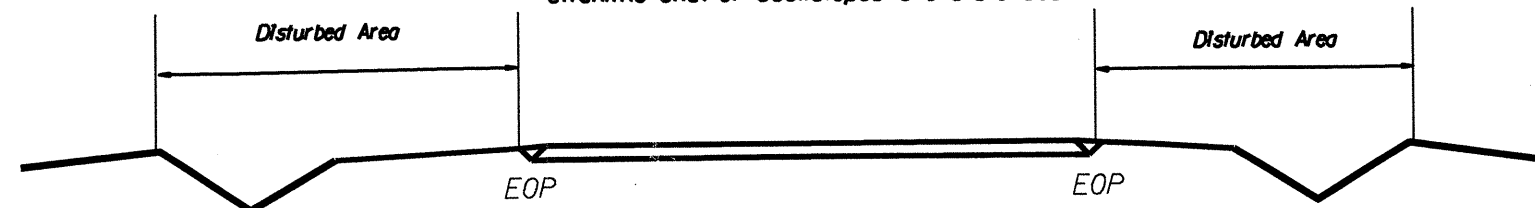
BMP Options: Wattle, Silt Fence, or Hardened Aggregate.

EROSION CONTROL DETAIL

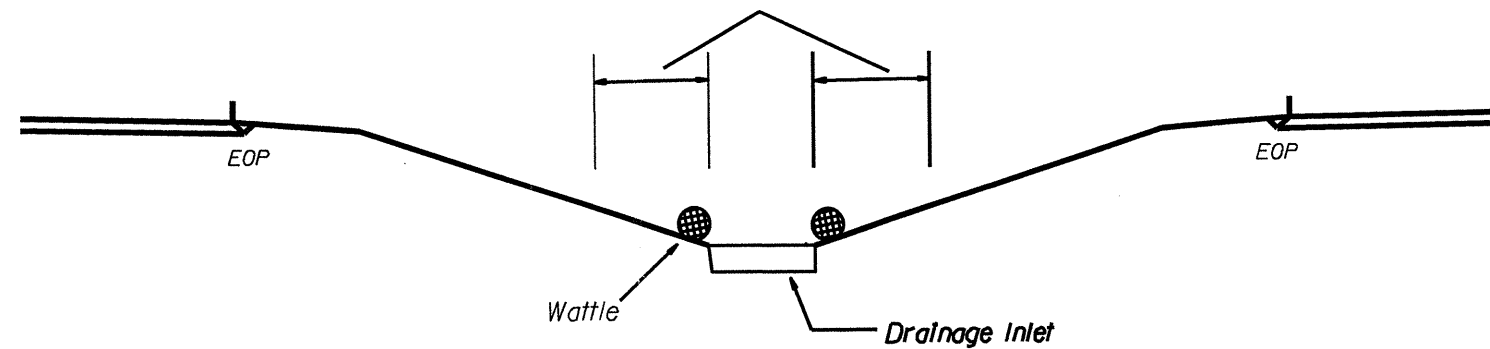
PROJECT REFERENCE NO. 5C.092144	SHEET NO. 5
5CR.20921.39	HYDRAULICS ENGINEER



Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed

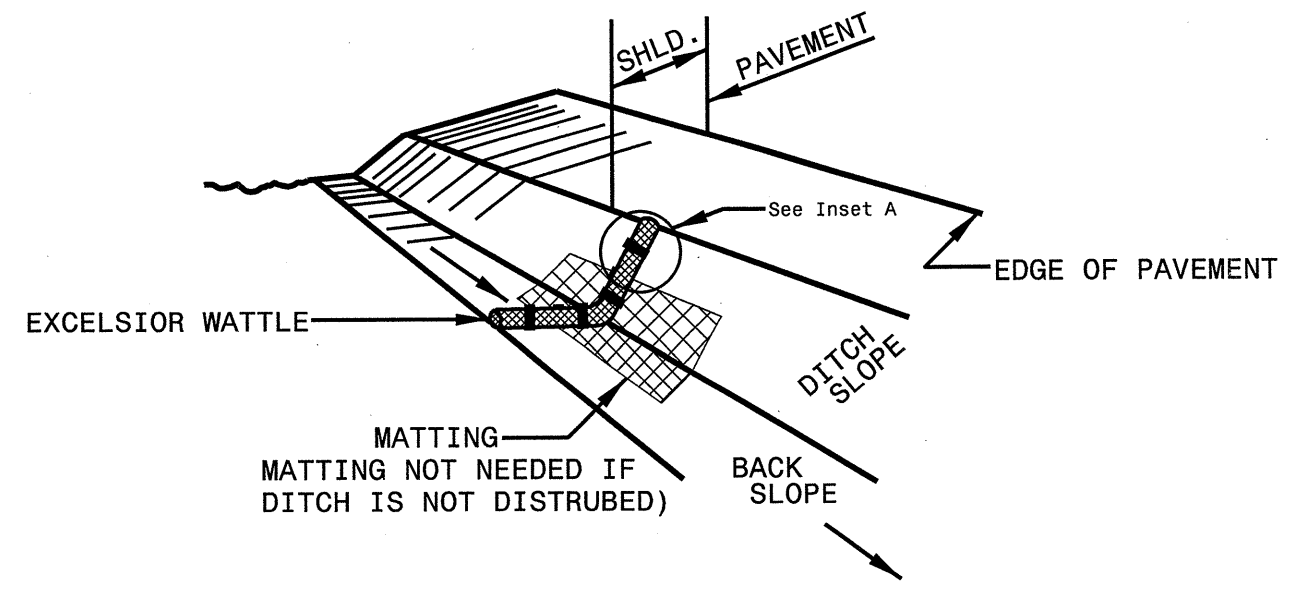


< 5' - 10' Undisturbed buffer from Inlet, add wattle

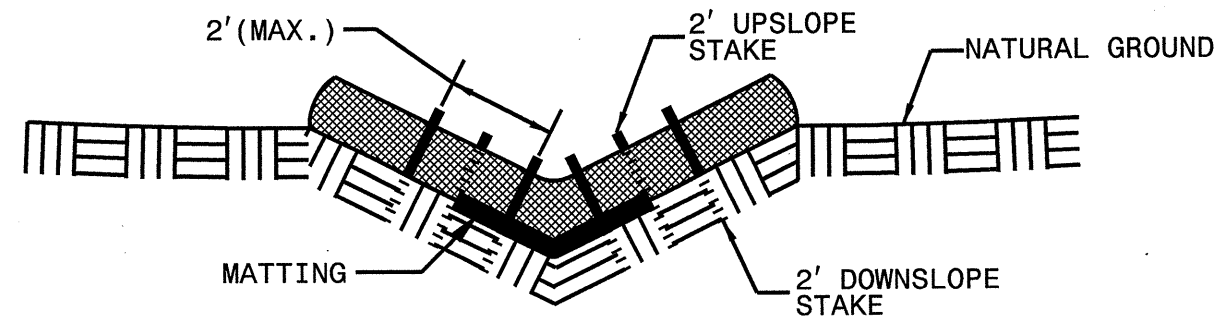


NOT TO SCALE

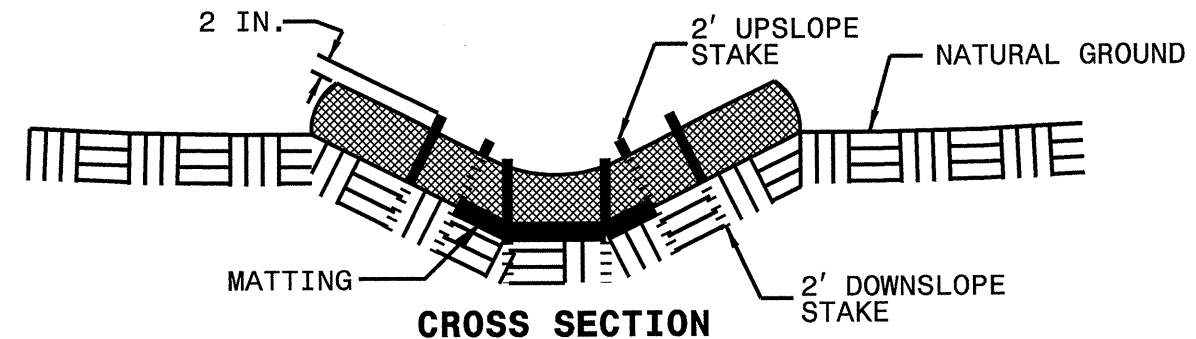
WATTLE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

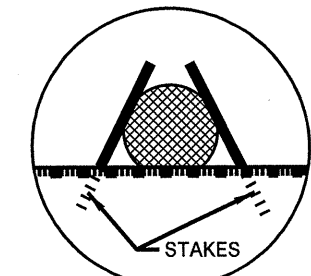
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

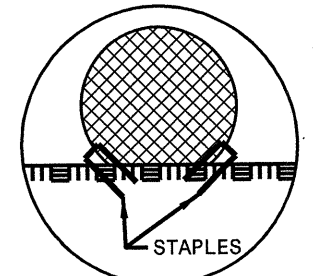
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

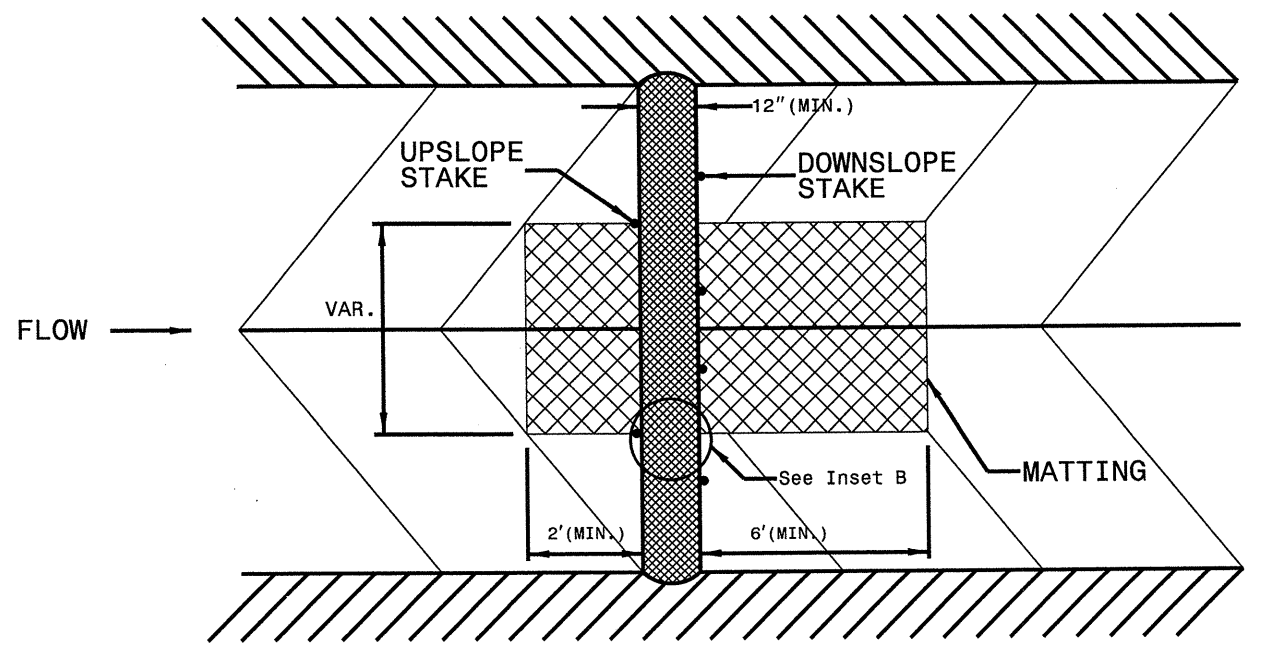
IF DITCH WILL BE DISTURBED, INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



INSET A

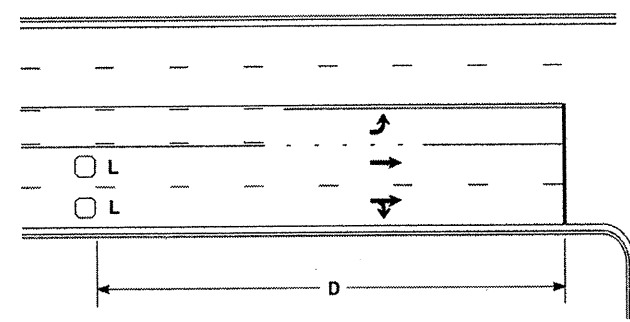


INSET B



TOP VIEW

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

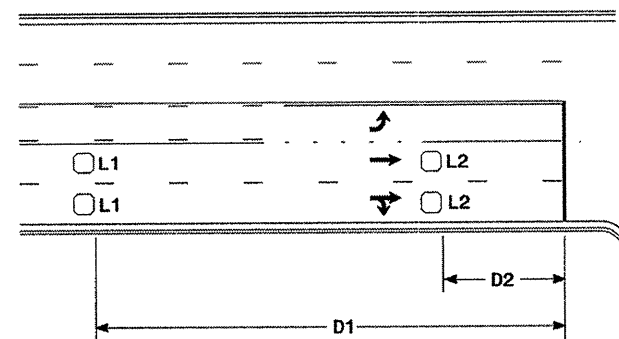


Speed Limit mph (km/hr)	D ft (m)
40 (64)	250 (75)
45 (72)	300 (90)
50 (80)	355 (110)
55 (88)	420 (130)

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

Volume Density Operation

OR



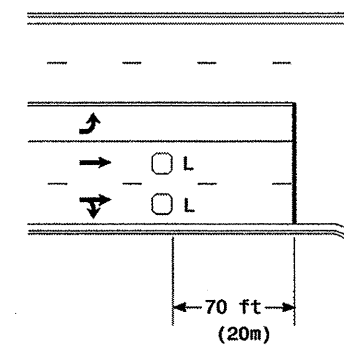
Speed Limit mph (km/hr)	D1 ft (m)	D2 ft (m)
40 (64)	250 (75)	80 (25)
45 (72)	300 (90)	90 (27)
50 (80)	355 (110)	100 (30)
55 (88)	420 (130)	110 (35)

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

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

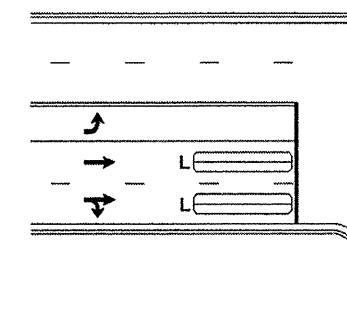
"Stretch" Operation

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



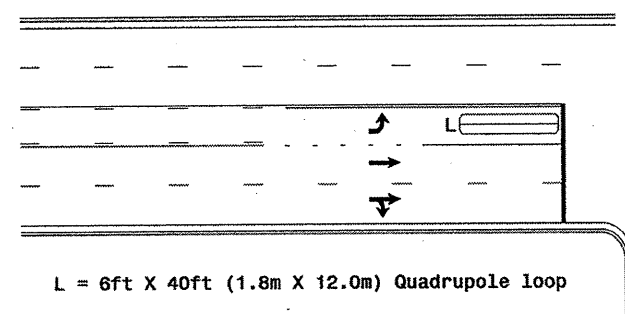
L = 6ft X 6ft (1.8m X 1.8m)
Wired in series

OR



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

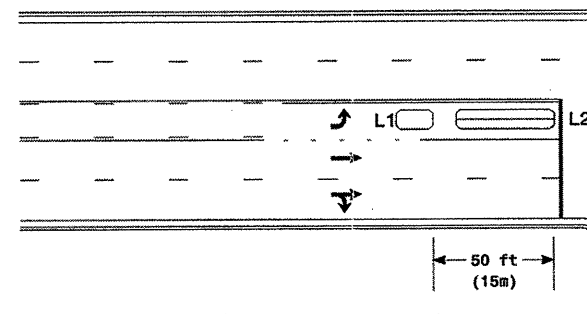
Left Turn Lane Detection



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

Presence Loop Detection

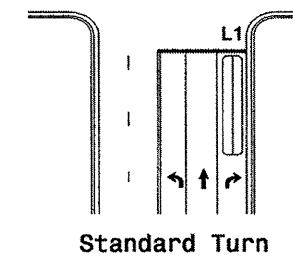
OR



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

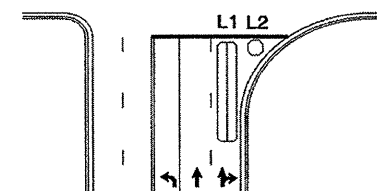
Queue Loop Detection

Right Turn Lane Detection

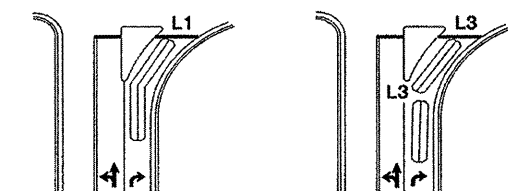


Standard Turn

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

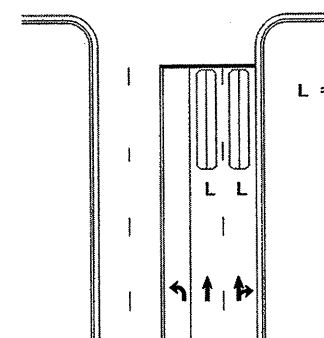


Wide Radius Turn



Channelized Turn

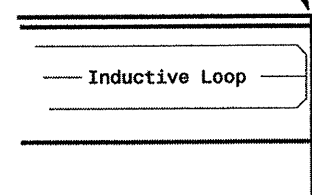
Side Street Detection



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

	Typical Loop Locations		
	PLAN DATE: June 2006 PREPARED BY: P L Alexander	REVIEWED BY: REVIEWED BY:	
REVISIONS:		INITIALS:	DATE:
SIGNATURE:		DATE:	SIG. INVENTORY NO.: