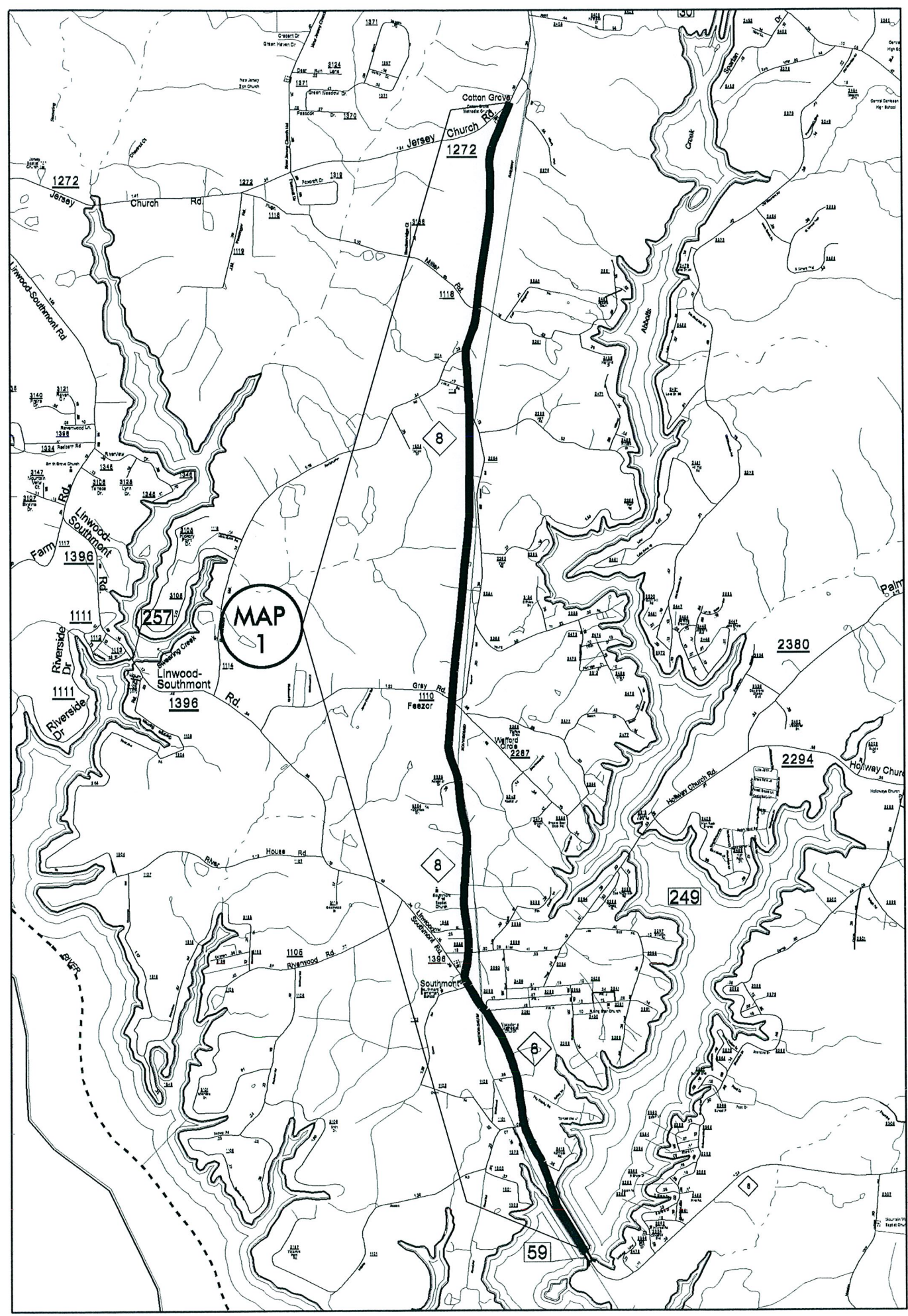


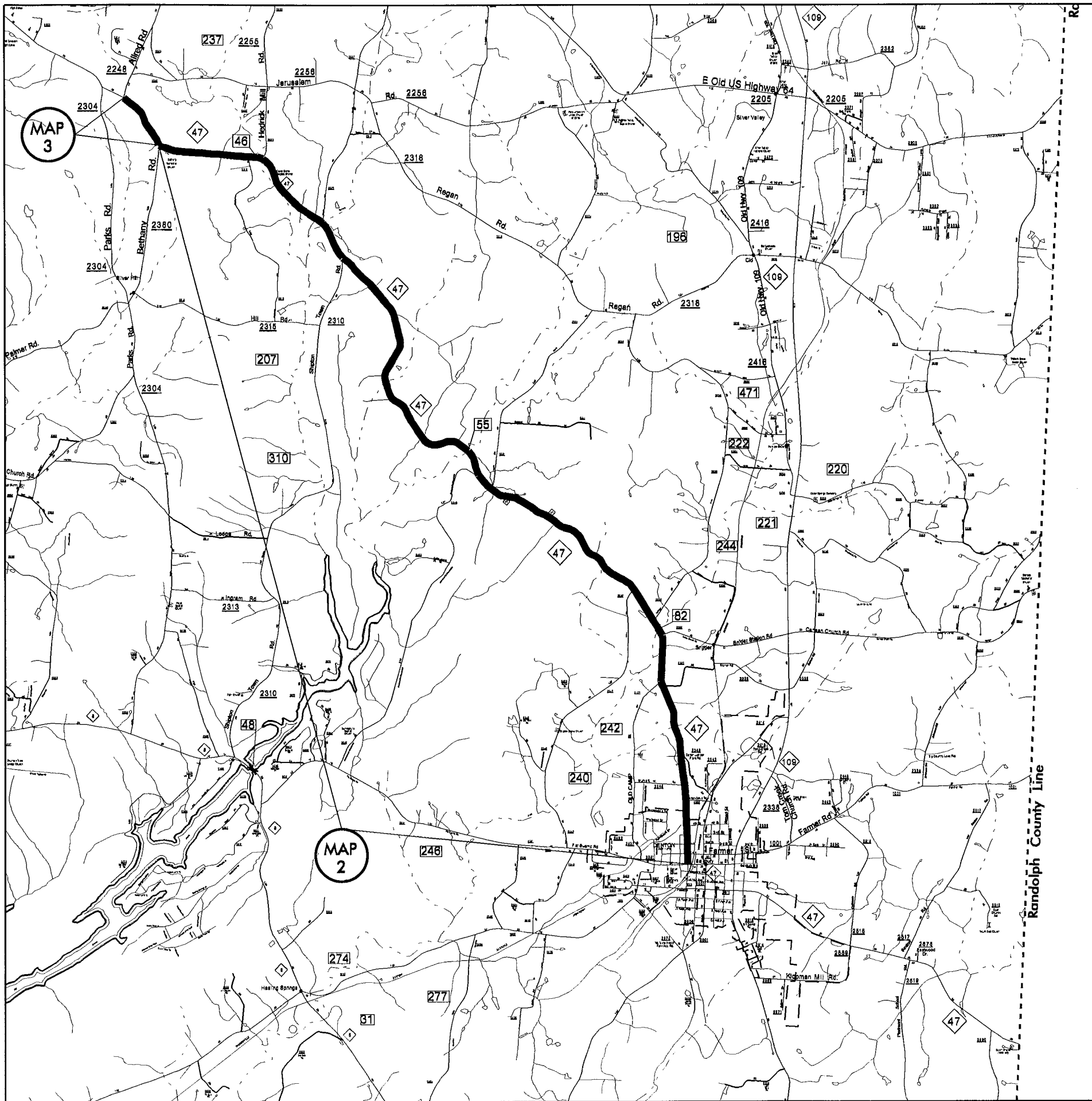
DI00149

PROJECT REFERENCE NO.	SHEET NO.
2017CPT.09.23.10291.1	1



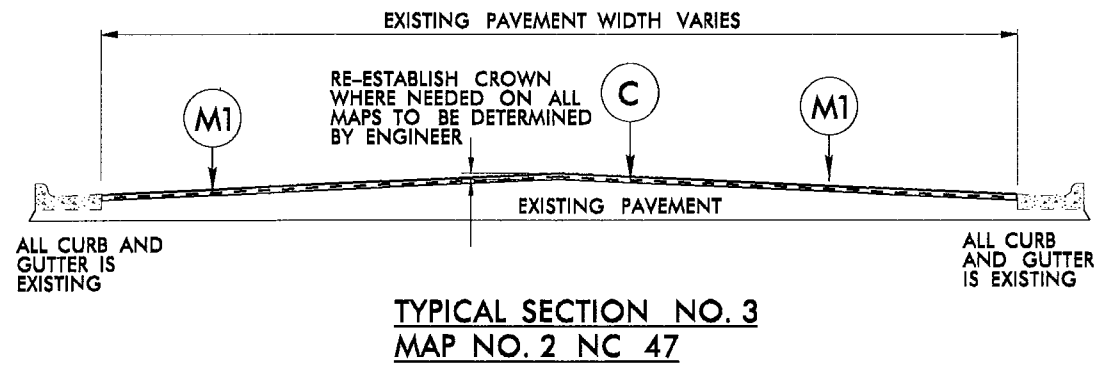
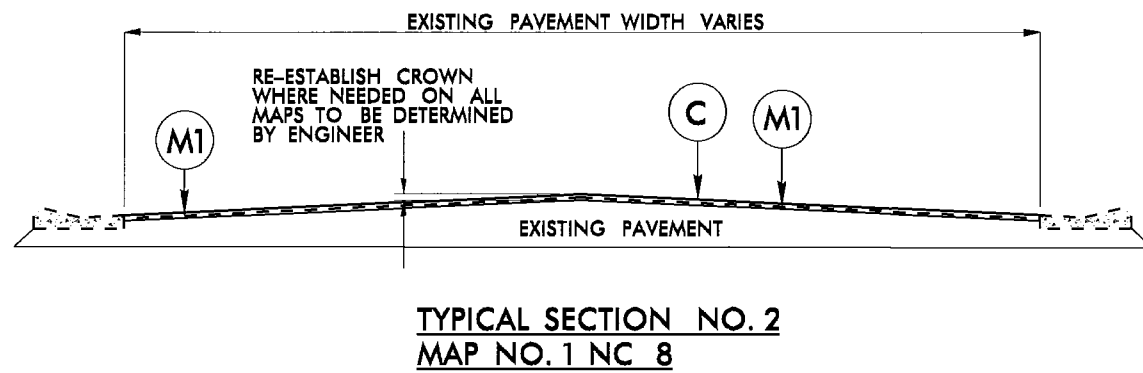
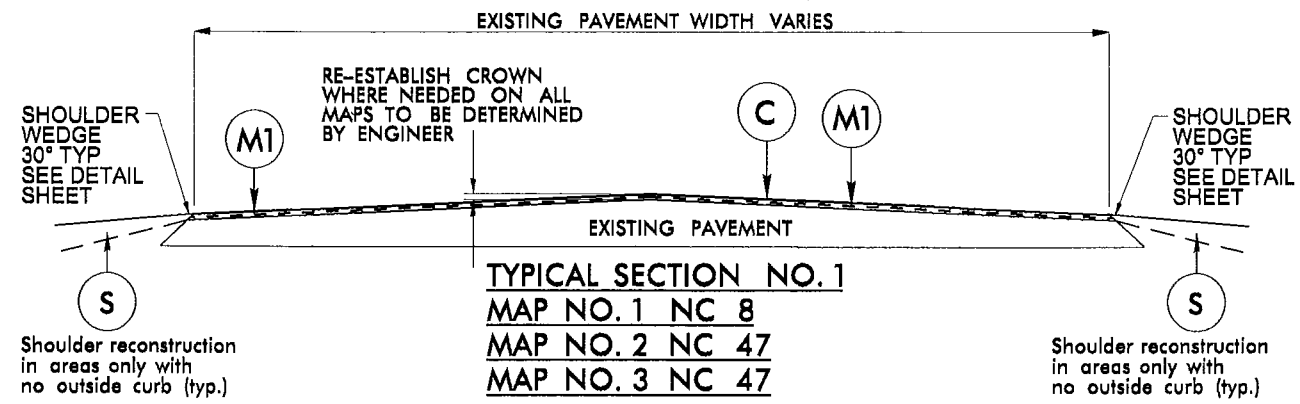
MAP 1
NC 8
Mill 1 1/2" depth full width of pavement.
Pave back with 1 1/2" S9.5B

DAVIDSON COUNTY
NORTH CAROLINA

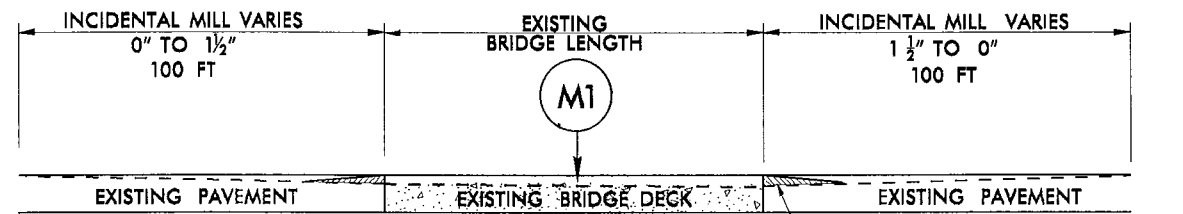


MAP 2,3
NC 47
Mill 1½" depth full width of pavement.
Pave back with 1½" S9.5B

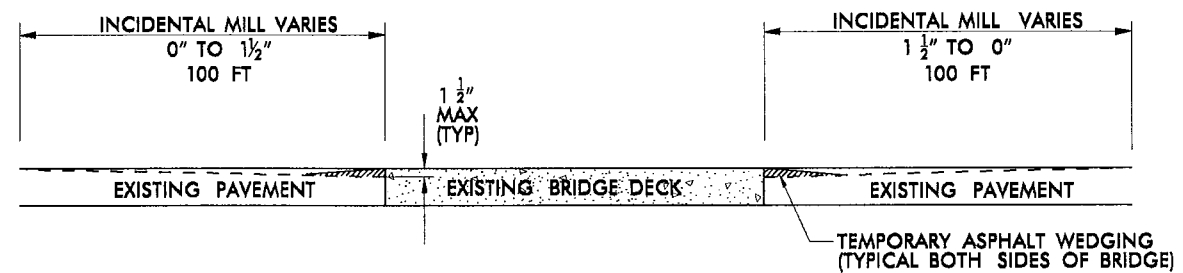
DAVIDSON COUNTY
NORTH CAROLINA



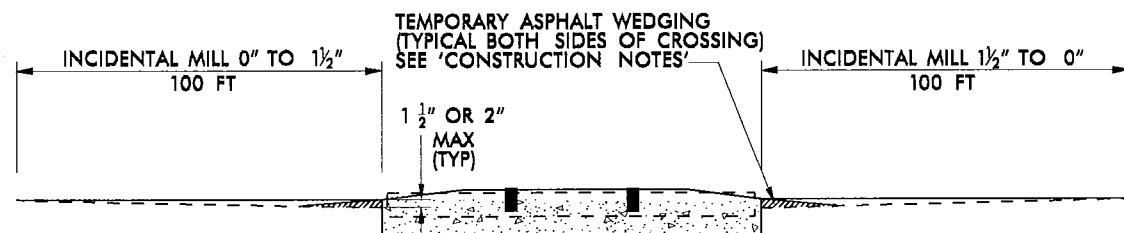
PAVEMENT SCHEDULE	
C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ. YD.
M1	MILL ASPHALT PAVEMENT, 1½" DEPTH
S	SHOULDER RECONSTRUCTION (SEE DETAIL)
U	EXISTING PAVEMENT



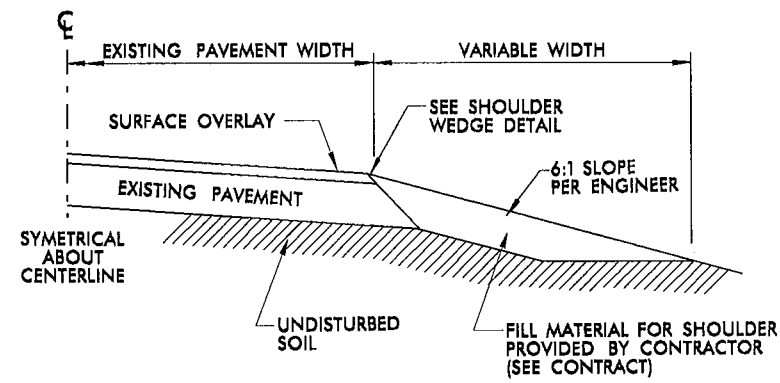
INCIDENTAL MILLING-BRIDGE DECK AND APPROACHES
(SEE BRIDGE DATA SHEET)



INCIDENTAL MILLING-BRIDGE APPROACHES
(SEE BRIDGE DATA SHEET)

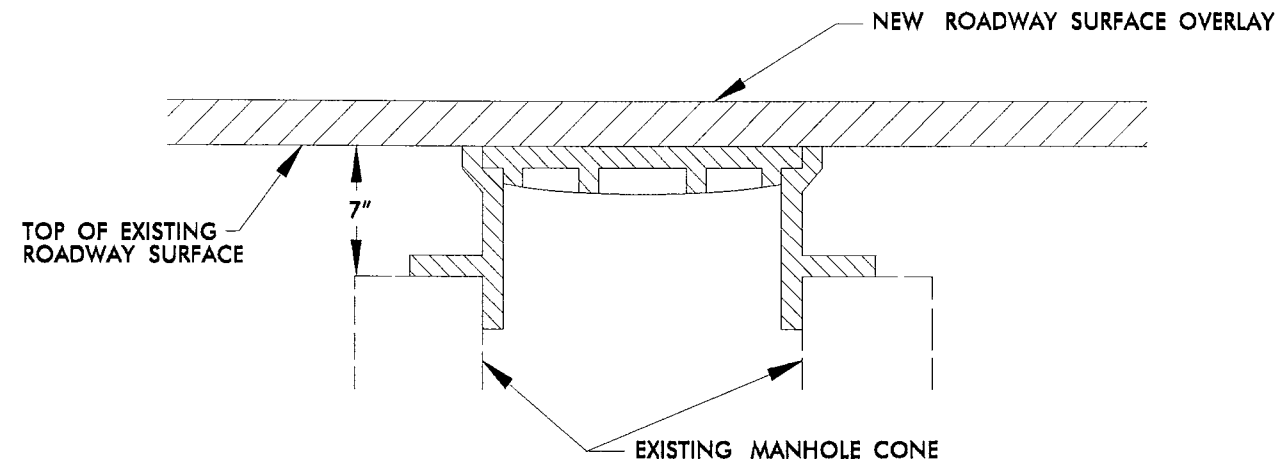
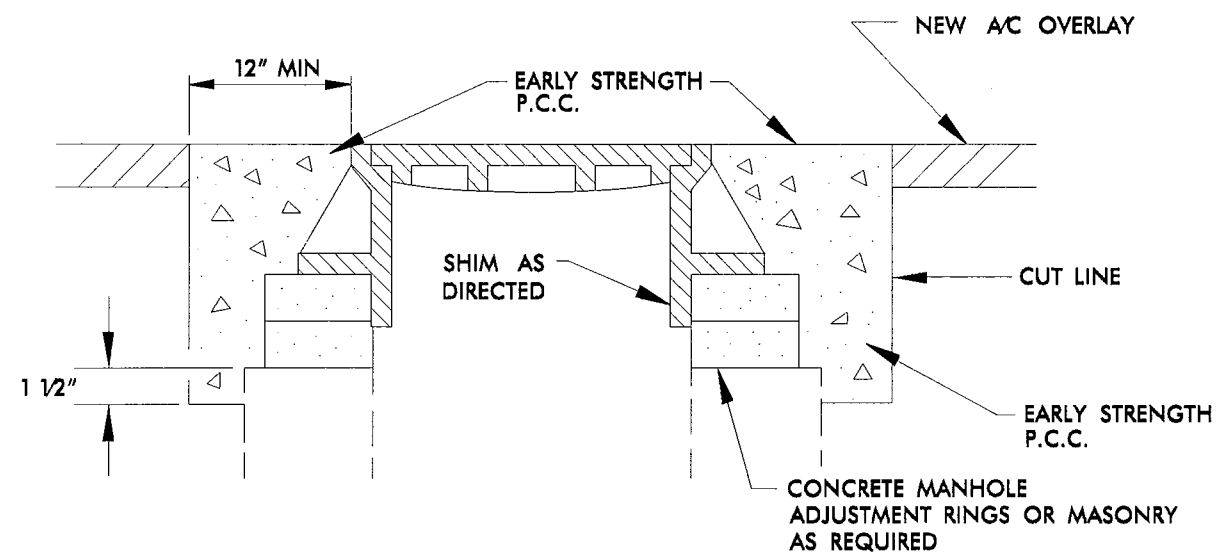


INCIDENTAL MILLING-RAILROAD CROSSING APPROACHES



SHOULDER RECONSTRUCTION

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ YD.
M1	MILL ASPHALT PAVEMENT, 1 1/2" DEPTH
S	SHOULDER RECONSTRUCTION (SEE DETAIL)
U	EXISTING PAVEMENT

**STEP 1****STEPS 2,3, & 4**

- STEP 1 COVER EXISTING MANHOLE WITH APPROVED MATERIAL AND CONSTRUCT OVERLAY ACROSS TOP OF MANHOLE
- STEP 2 SAW CUT EXCAVATION AROUND MANHOLE 12" MIN. FROM MANHOLE FRAME.
- STEP 3 RAISE MANHOLE FRAME RINGS TO FINISH PAVEMENT PROFILE AND CROSS SLOPE.
- STEP 4 BACKFILL WITH EARLY STRENGTH P.C.C. TO DEPTHS AS DIRECTED.

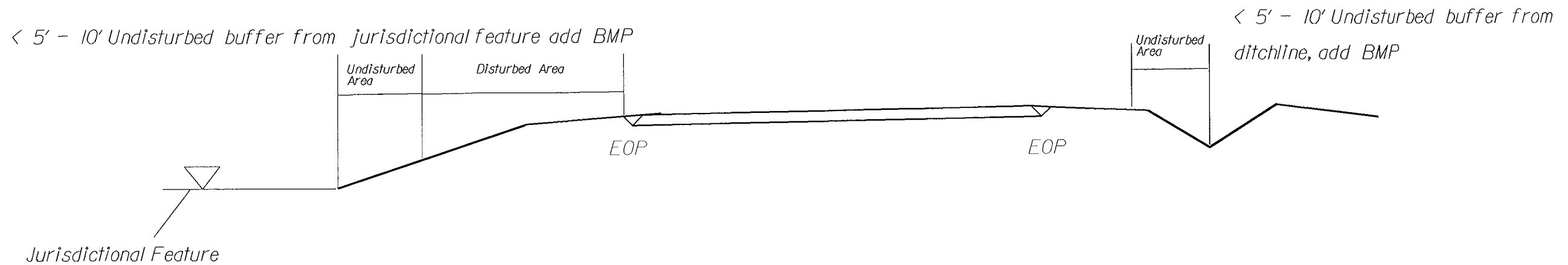
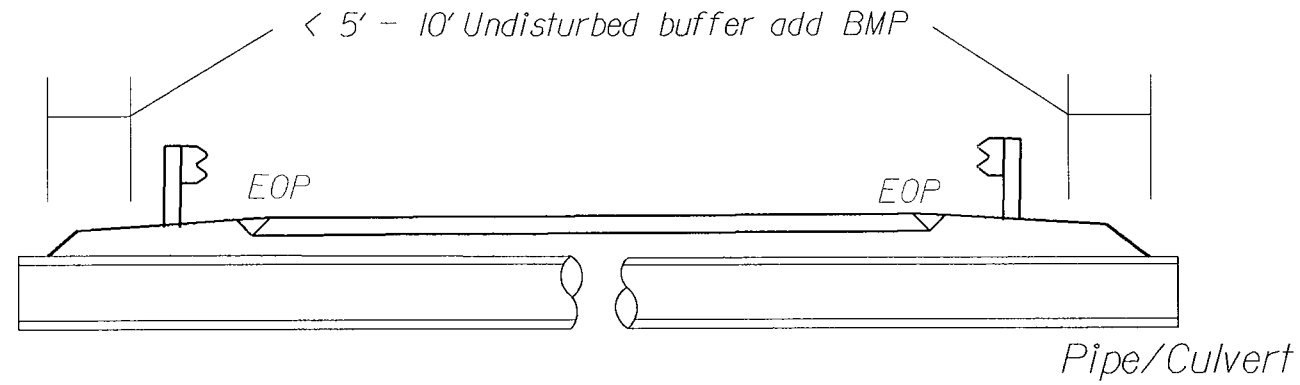
MANHOLE ADJUSTMENT DETAIL**CONSTRUCTION NOTES:**

- ALL QUANTITIES ARE "ESTIMATED" AS INDICATED IN THE "SUMMARY OF QUANTITIES".
- CONSTRUCTION SHALL PROGRESS IN PHASES, IN THE ORDER INDICATED BELOW:
 - PHASE 1 - MILLING AND PATCHING (WHEN REQUIRED)
 - PHASE 2 - SURFACE OVERLAY
 - PHASE 3 - SHOULDER DROP-OFF REPAIR (AS NEEDED AND DIRECTED BY ENGINEER)
 - PHASE 4 - UTILITY ADJUSTMENTS (MANHOLE RING/COVER, VALVE/METER BOX RING/COVER, CATCH BASIN GRATE/COVER, DROP INLET GRATE/COVER, ETC.) WHEN REQUIRED.
- BRIDGES THAT HAVE FLOOR DRAINS, SHALL HAVE ALL FLOOR DRAINS LEFT OPEN. EXTRA CARE SHALL BE EXERCISED IN MILLING (IF REQUIRED) AND IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE.
- TEMPORARY ASPHALT WEDGING SHALL BE PLACED ON THE SAME DAY THAT BRIDGE AND/OR RAILROAD APPROACHES ARE MILLED (AND IF APPROACHES ARE MILLED PRIOR TO BRIDGE DECK).
- FOR TWO-LANE ROADWAYS - IT SHALL BE UNDERSTOOD THAT TYPICALLY ON A ROADWAY MEASURING 20 FEET OR LESS IN WIDTH, THE CENTER OF THE WHITE EDGELINE SHALL BE LOCATED SIX INCHES FROM THE EDGE OF PAVEMENT ON EITHER SIDE OF THE ROADWAY; ON A ROADWAY MEASURING 22 FEET IN WIDTH, TRAVEL LANES SHALL MEASURE 10 FEET AND THE WHITE EDGELINE SHALL BE LOCATED ONE FOOT FROM THE EDGE OF PAVEMENT ON EITHER SIDE; ON A ROADWAY MEASURING 24 FEET IN WIDTH, TRAVEL LANES SHALL MEASURE 11 FEET AND THE WHITE EDGELINE SHALL BE LOCATED ONE FOOT FROM THE EDGE OF PAVEMENT ON EITHER SIDE; ON A ROADWAY MEASURING 26 FEET OR MORE IN WIDTH, TRAVEL LANES SHALL MEASURE 12 FEET AND THE WHITE EDGELINE SHALL BE LOCATED NO LESS THAN ONE FOOT FROM THE EDGE OF PAVEMENT ON EITHER SIDE. THIS SHALL BE STANDARD PRACTICE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- PAPER JOINTS ARE TO BE PLACED BETWEEN DAYS OF PAVING OPERATIONS AS SPECIFIED IN THE STANDARD SPECIFICATIONS SECTION 610-11.
- ALL MILLED AREAS WILL BE PAVED WITHIN 72 HOURS UNLESS APPROVED BY THE ENGINEER.
- REPLACE ANY PORTION OF STOP BARS AND OTHER PAVEMENT MARKINGS AT ANY INTERSECTION INCLUDING Y-LINES NOT ACTUALLY BEING PAVED OVER, THAT ARE OBLITERATED BY THE PAVING OPERATION EITHER BY HAULING WHEEL TRACKS OR TACK TRUCK BY THE END OF EACH RESURFACING OPERATION

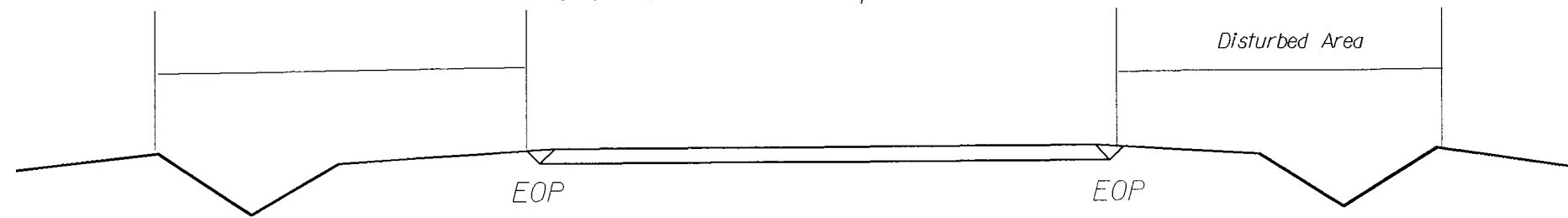
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

EROSION CONTROL DETAIL

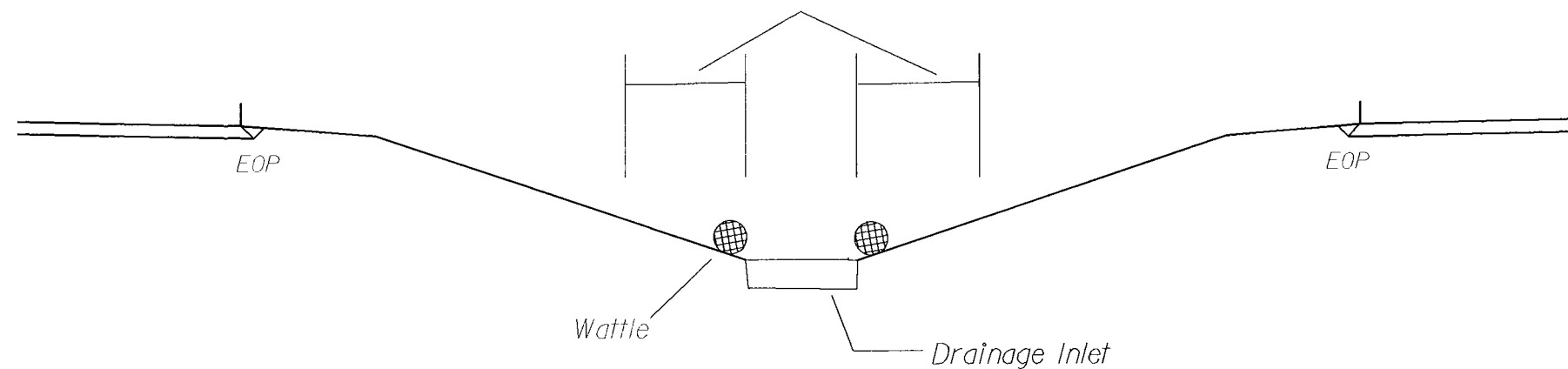
BMP Options: Wattle or Silt Fence



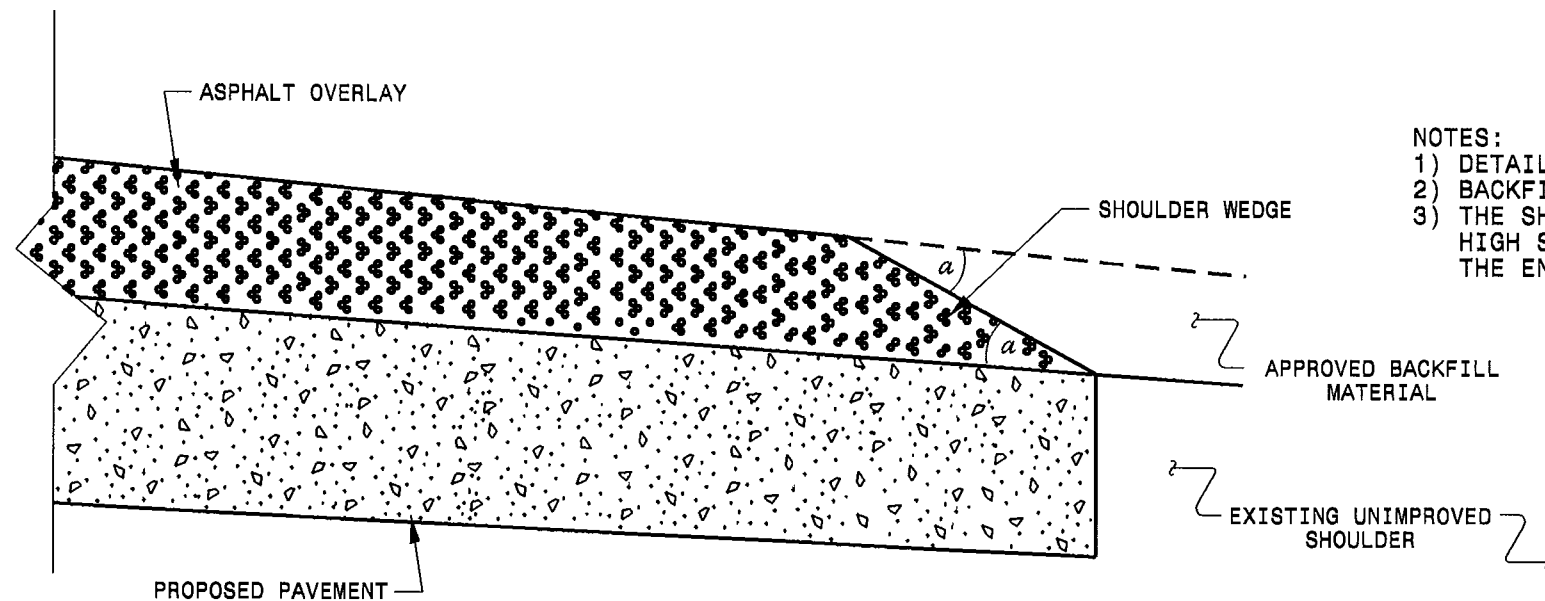
Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed



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



NOT TO SCALE

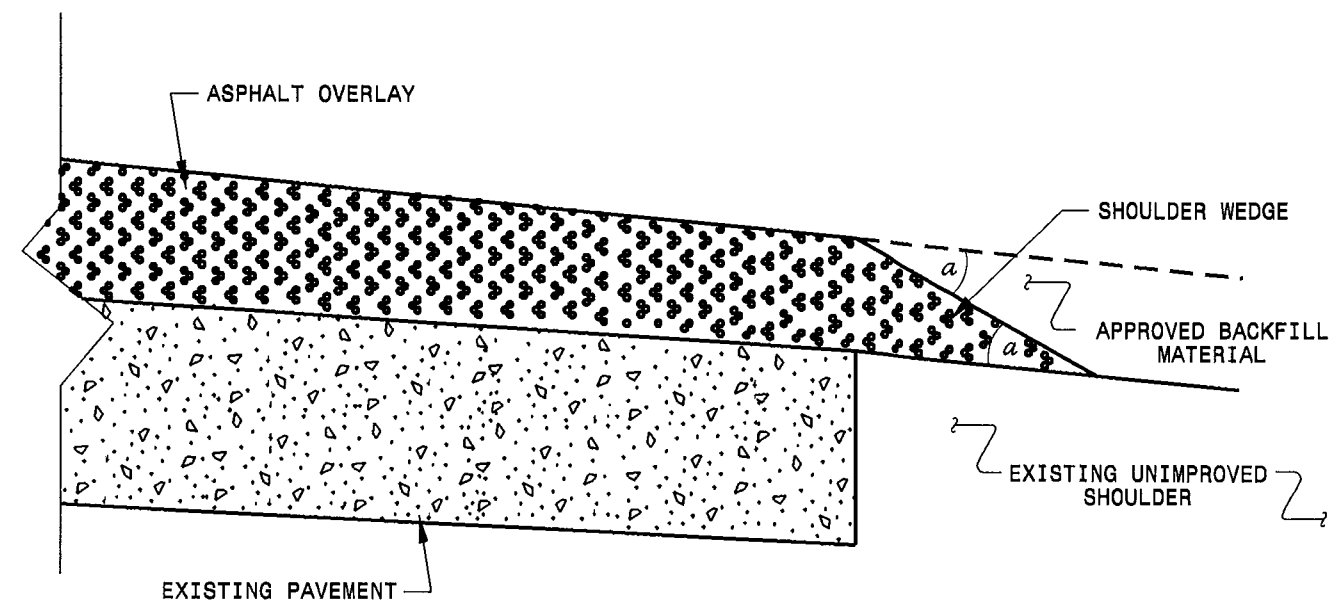


NOTES:

- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
- 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
- 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.

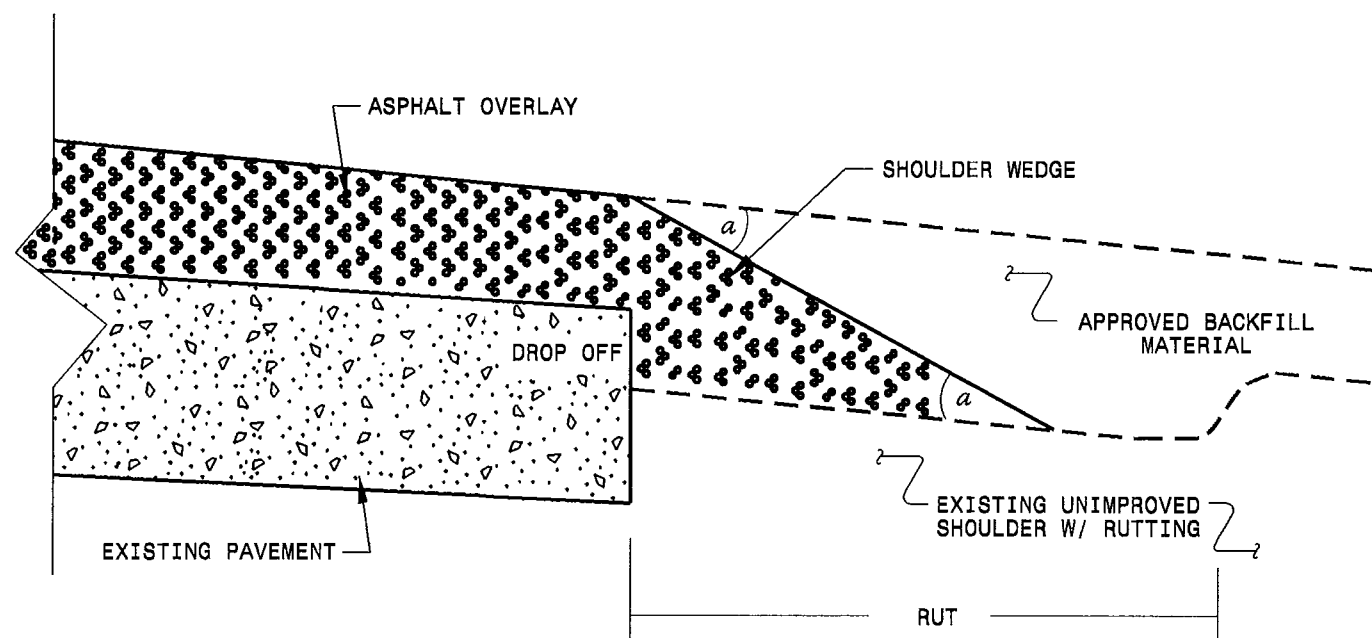
SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ Widening or with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ NO Widening)



SHOULDER WEDGE DETAIL

(Resurfacing Adjacent to Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

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

SHOULDER WEDGE DETAILS

ORIGINAL BY: T. SPELL	DATE: 7-19-11
MODIFIED BY:	DATE: 10/18/12
CHECKED BY:	DATE:
FILE SPEC: s:\user\gates18\stand\shoulderwedgestd1811.dgn	

25-AUG-2016 10:06 AM Resurfacing\2017.No 2\Davidson\2017.No 2_Resurfacing\DAVIDSON.REVISED Shoulder Wedge Detail.dgn

Davidson County 2017 Resurfacing Bridges

								PROJECT NO.		SHEET NO.	
								2017CPT.09.23.10291.1		8	
Map No.	Route No.	Route Name	Bridge No.	Feature Intersected	Floor Construction	Clear Roadway Width (Ft)	Horizontal Clearance Under (Ft.)	Vertical Clearance Under	Length (Ft)	Posting	Recommended Treatment, From Bridge Maintenance
1	NC 8	NC 8	59	ABBOTTS CREEK	8 1/8 RC SLAB	40	NA	NA	295	NA	DO NOT MILL OR PAVE ON APPROACH SLABS ON BRIDGE
2	NC 47	NC 47	46	FOUR MILE BRANCH	10GA.STL 4 AWS	24.3	NA	NA	41	NA	MILL 1 1/2" AND PAVE
2	NC 47	NC 47	55	FLAT SWAMP CREEK	5.75" RC, 3"AWS	24	NA	NA	90	NA	MILL 1 1/2" AND PAVE
2	NC 47	NC 47	82	LICK CREEK	5.75 RC, 3.5AWS	24	NA	NA	105	SV 22 TTST 28	MILL 1 1/2" AND PAVE

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.09.23.10291.1	9	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	BORROW EXCAVATION CY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	MILLING ASPHALT PAVEMENT, 1 1/2"DEPTH SY	SURFACE COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	ADJ. OF DROP INLET EA	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	TEMPORARY SILT FENCE LF	WATTLE LF
2017CPT.09.23.10291.1	Davidson	1	NC 8	FROM RADIUS AT JERSEY ROAD SR 1272 TO BRIDGE #59	1,2	2	2WU	NO	NO	6.777	23	813	696	13.55	108,590	10,768	646	1,405				2,711	271
TOTAL FOR MAP NO. 1										6.777		813	696	13.55	108,590	10,768	646	1,405				2,711	271
2017CPT.09.23.10291.1	Davidson	2	NC 47/N. JONES ST.	FROM W.SALISBURY ST. TO BETHANY RD. SR 2380	1,3	2	2WU	NO	NO	9.103	23	1,060	492	17.66	123,951	12,038	722		3	9	7	3,533	353
TOTAL FOR MAP NO. 2										9.103		1,060	492	17.66	123,951	12,038	722		3	9	7	3,533	353
2017CPT.09.23.10291.1	Davidson	3	NC 47/ BETHANY RD. SR 2380	FROM NC 47 TO ALLRED RD. SR 2248	1	2	2WU	NO	NO	0.547	21	66	81	1.09	6,714	655	39					219	22
TOTAL FOR MAP NO. 3										0.547		66	81	1.09	6,714	655	39					219	22
TOTAL FOR PROJ NO. 2017CPT.09.23.10291.1										16.427		1,939	1,269	32.30	239,255	23,461	1,407	1,405	3	9	7	6,463	646
GRAND TOTAL										16.427		1,939	1,269	32.30	239,255	23,461	1,407	1,405	3	9	7	6,463	646

NOTE: All Quantities listed include turn lanes and are estimates; Payment will be based on actual field measurements and quantities received.

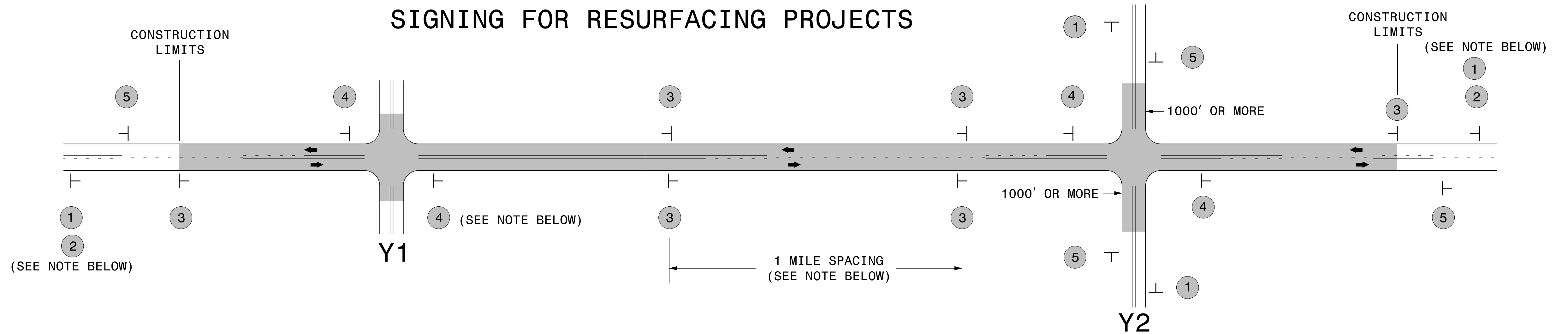
PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.09.23.10291.1	10	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4705000000-E	4710000000-E	4721000000-E		4725000000-E		4810000000-E			4820000000-E		4830000000-E	4835000000-E		4840000000-N		4847000000-E		4847110000-E	4847140000-E	4905000000-N					
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING SF	TEMPORARY TRAFFIC CONTROL LS	16" X 120 M WHITE THERMO LF	24" X 120 M WHITE THERMO LF	THERMO MSG SCHOOL 120 M EA	THERMO RXR 120 M EA	THERMO LT ARROW 90 M EA	THERMO RT ARROW 90 M EA	4" WHITE PAINT LF	4" YELLOW PAINT LF	8" YELLOW PAINT LF	16" WHITE PAINT LF	24" WHITE PAINT LF	PAINT MSG SCHOOL EA	PAINT MSG RXR EA	4" YELLOW POLYUREA (HIGHLY REFLECTIVE ELEMENTS) LF	4" WHITE POLYUREA (HIGHLY REFLECTIVE ELEMENTS) LF	8" YELLOW POLYUREA (HIGHLY REFLECTIVE ELEMENTS) LF	8" WHITE POLYUREA (HIGHLY REFLECTIVE ELEMENTS) LF	24" WHITE POLYUREA (HIGHLY REFLECTIVE ELEMENTS) LF	SNOW PLOWABLE MARKERS EA							
2017CPT.09.23.10291.1	Davidson	1	NC 8	FROM RADIUS AT JERSEY ROAD SR 1272 TO BRIDGE #59	1,2	2	2WU	6.777	23	759	1	100	426	12	4	3	1	2,179	76,827	530	100	426	12	4	76,827	75,094	530		276	447							
TOTAL FOR MAP NO. 1																																					
2017CPT.09.23.10291.1	Davidson	2	NC 47/N. JONES ST.	FROM W.SALISBURY ST. TO BETHANY RD. SR 2380	1,3	2	2WU	9.103	23	1,019																			16		601						
TOTAL FOR MAP NO. 2																															16		601				
2017CPT.09.23.10291.1	Davidson	3	NC 47/ BETHANY RD. SR 2380	FROM NC 47 TO ALLRED RD. SR 2248	1	2	2WU	0.547	21	61																											
TOTAL FOR MAP NO. 3																																					
TOTAL FOR PROJ NO. 2017CPT.09.23.10291.1																																					
GRAND TOTAL																																					

NOTE: All Quantities listed include turn lanes and are estimates; Payment will be based on actual field measurements and quantities received.

SIGNING FOR RESURFACING PROJECTS



LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

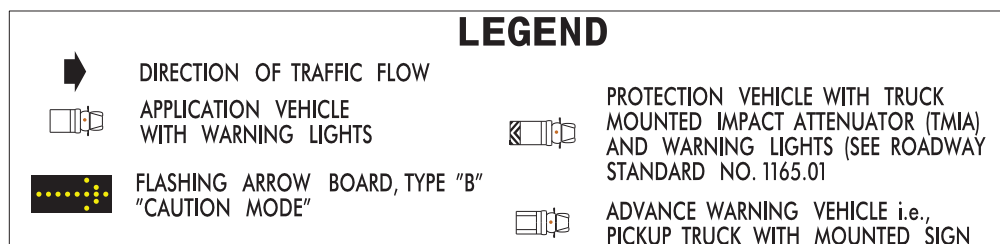
SIGNING NOTES AND PLACEMENT PER DIRECTION	MAINLINE (-L-) SIGNING		-Y- LINE SIGNING	
	1	 W20-1 48" X 48"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <p>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> W20-1 48" X 48" </div> <div style="text-align: center;"> W20-7 A 48" X 48" </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
	2	 W7-3aP 24" X 18"	#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)	
	3	 SP 13107 48" X 48"	PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.	
	4	 SP 13106 48" X 48"	THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.	
5	 G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.		

3/19/2015
 C:\Users\rmgarrrett\Downloads\Resurfacing_AdvWarn_2Ln (2).dgn
 User:rmgarrrett

**RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS**

Notes on Moving Operation Caravan for Placing Pavement Marking or Markers on Four Lanes or More of a Multi-Lane Roadway

- (1) The following options may be used as the first advance warning the motorists see:
 - a. Truck mounted advance warning signs
 - b. Truck mounted changeable message sign (CMS)
 - c. Ground mounted advance warning signs
(Must circle to pick up signs)
 - d. Ground mounted changeable message sign (CMS)
(Must circle to pick up signs)
- (2) All advance warning signs must be 48" x 48" with fluorescent orange type VII, VIII, or IX sheeting. If space limitations on shoulder prohibit a 48" x 48" sign, a smaller sign can be used with approval from engineer.
- (3) Signs on vehicles should be mounted a minimum of one foot from the ground and should not block the motorist's sight of the flashing arrow board and/or warning lights.
- (4) Ground mounted advanced warning signs should be mounted a minimum of five feet from the ground to the bottom of the sign.
- (5) Sign spacing should be adjusted for horizontal and vertical curves, etc. to improve sight distances.
- (6) Additional vehicles should be used in work caravan to facilitate drying of pavement marking material (TMA's are optional on these additional vehicles). However, the first vehicle motorists see in the travel lane shall have a TMA.
- (7) Adjust distances as needed to prevent motorists from entering space between the application and protection vehicle. Distance can be lengthened to accommodate sight distance needs.
- (8) Round up mileage to next whole mile. Work zone should not exceed five miles in length.
- (9) Radio communication between vehicles is required.
- (10) Use of warning lights on all vehicles if preferred, but a rotating beacon may be used instead.
- (11) If work is performed at night, the work area must be illuminated with machine and/or tower lights as approved by engineer.
- (12) All traffic control devices will be considered incidental to the pay items for pavement marking and markers.
- (13) Informational signs should be activity specific, i.e. "Paint Crew in Road". Signs may be rectangular or diamond shape. Sign size should be based on the motorist ability to recognize sign when traveling five miles above posted speed limit.



Moving Operation Caravan

(Operations Traveling 3 mph or Faster)
 Placing Pavement Marking or Markers
 On Four Lanes or More of a Multi-Lane Roadway

