

8/17/99

CHATHAM COUNTY

RESURFACING MAPS

PROJECT REFERENCE NO.	SHEET NO.
49919	01
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



GUILFORD COUNTY

ORANGE COUNTY

DURHAM COUNTY

ALAMANCE COUNTY

RANDOLPH COUNTY

WAKE COUNTY

4

1

3

2

LEE COUNTY

MOORE COUNTY

HARNETT COUNTY



P: (919) 878-9560
 8601 Six Forks Road, Forum 1, Suite 700
 Raleigh, North Carolina 27615-3960
 NC License No. F-0112

Engineers | Construction Managers | Planners | Scientists
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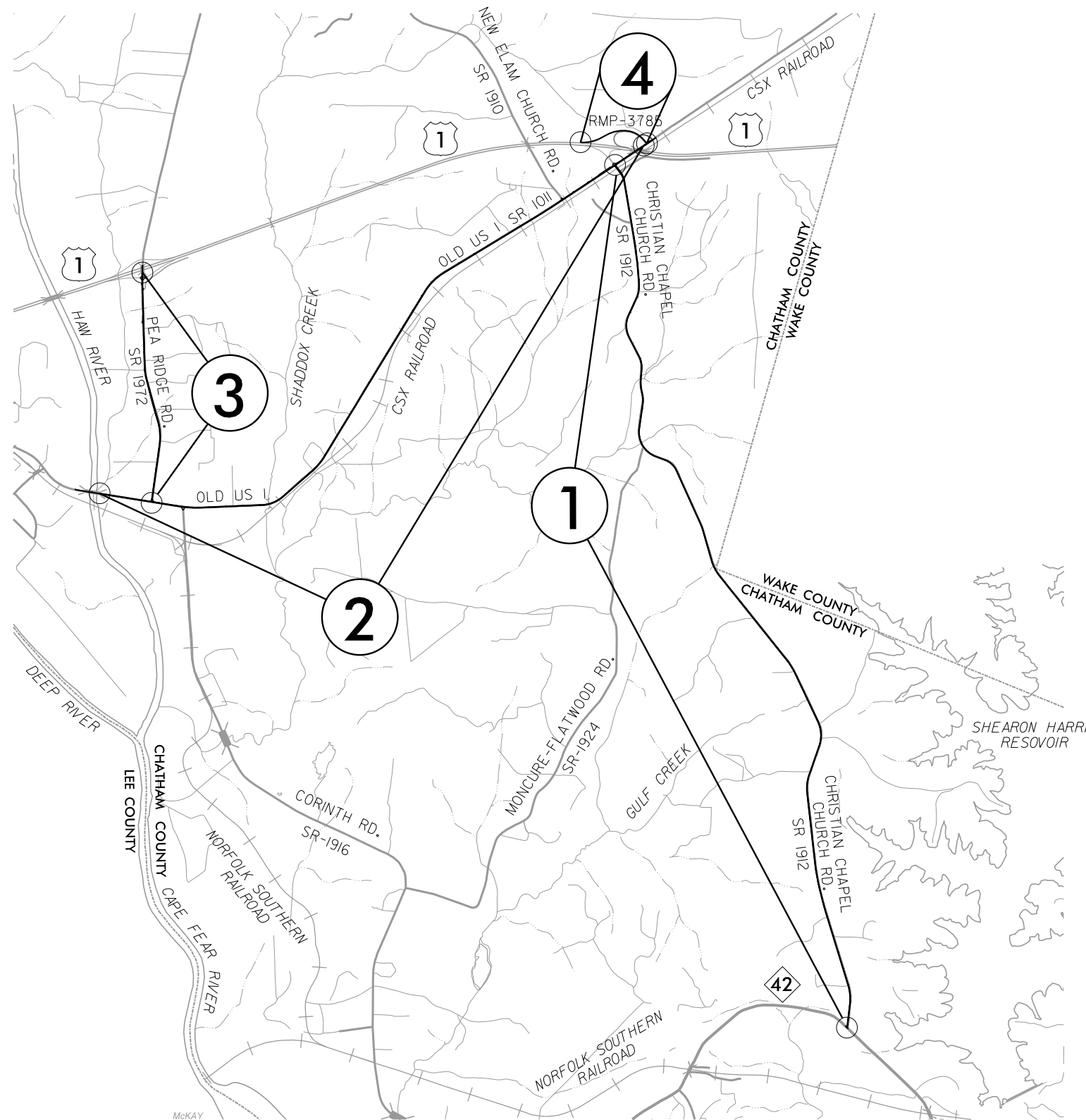
5/16/2022
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5/14/99

CHATHAM COUNTY

RESURFACING MAPS 1-4

PROJECT REFERENCE NO.	SHEET NO.
49919	02
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



RK&K
P: (919) 878-9560
8601 Six Forks Road, Forum 1, Suite 700
Raleigh, North Carolina 27615-3960
NC License No. F-0112

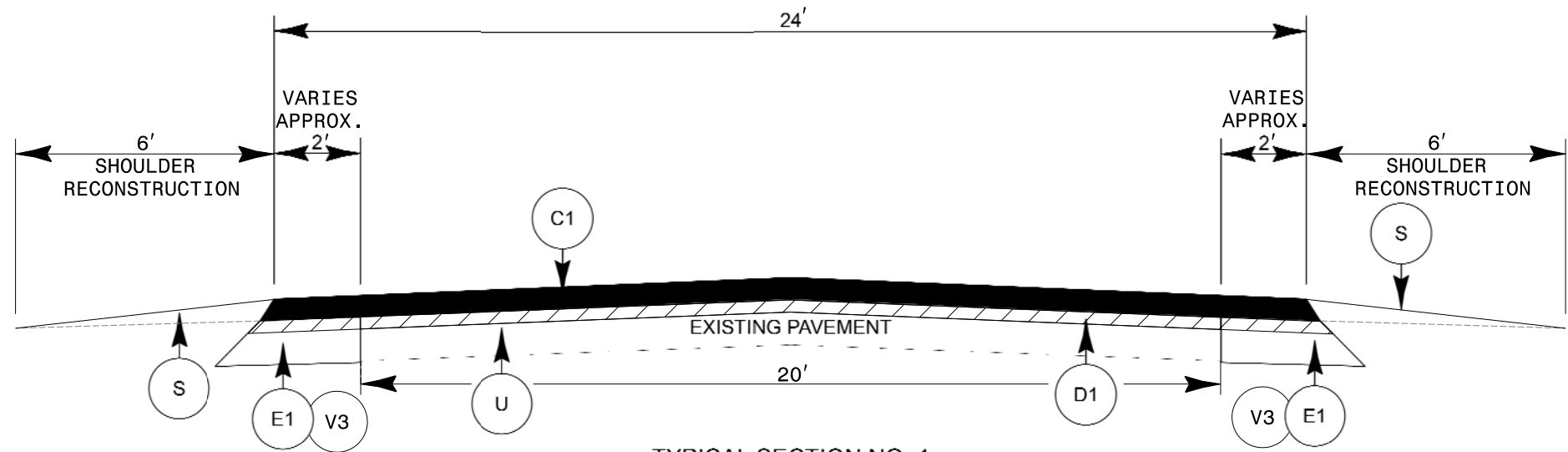
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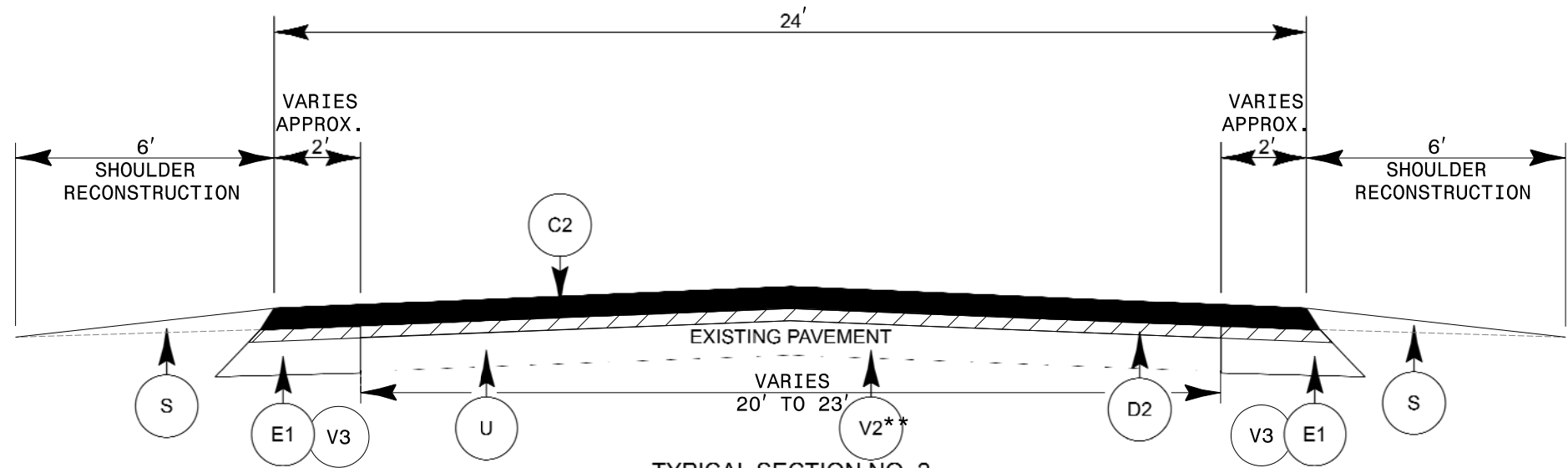
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5/14/99

PROJECT NO.	SHEET NO.	TOTAL SHEETS
49919	3	



TYPICAL SECTION NO. 1
MAP 1 - CHRISTIAN CHAPEL CHURCH RD.



TYPICAL SECTION NO. 2
MAP 2 - OLD US 1

USE WITH TYPICAL SECTION NO. 1

*MILL/FILL RUTTING AND SLIPPAGE AREAS AS DIRECTED BY THE ENGINEER PRIOR TO OVERLAY.

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
D1	PROP. APPROX. 3.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD.
D2	PROP. APPROX. 5.0" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
E1	PROP. APPROX. 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. APPROX. 6.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 371 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
S	AGGREGATE SHOULDER BORROW
U	EXISTING PAVEMENT
V1	PROP. MILLING 1.5" DEPTH
V2	PROP. MILLING 5.0" DEPTH
V3	TRENCHING FOR BASE COURSE (SEE S.P.)
V4	MILLING 0" TO 5"

**1.5" DIFFERENCE IN ELEVATION MUST BE MAINTAINED BETWEEN TRAVEL LANES DURING MILLING OPERATION

NOTE: MILLING ON TYPICAL SECTION NO. 2 IS INTENDED TO REMOVE EXISTING ASPHALT DOWN TO EXISTING CONCRETE PAVEMENT.

USE WITH TYPICAL SECTION NO. 2

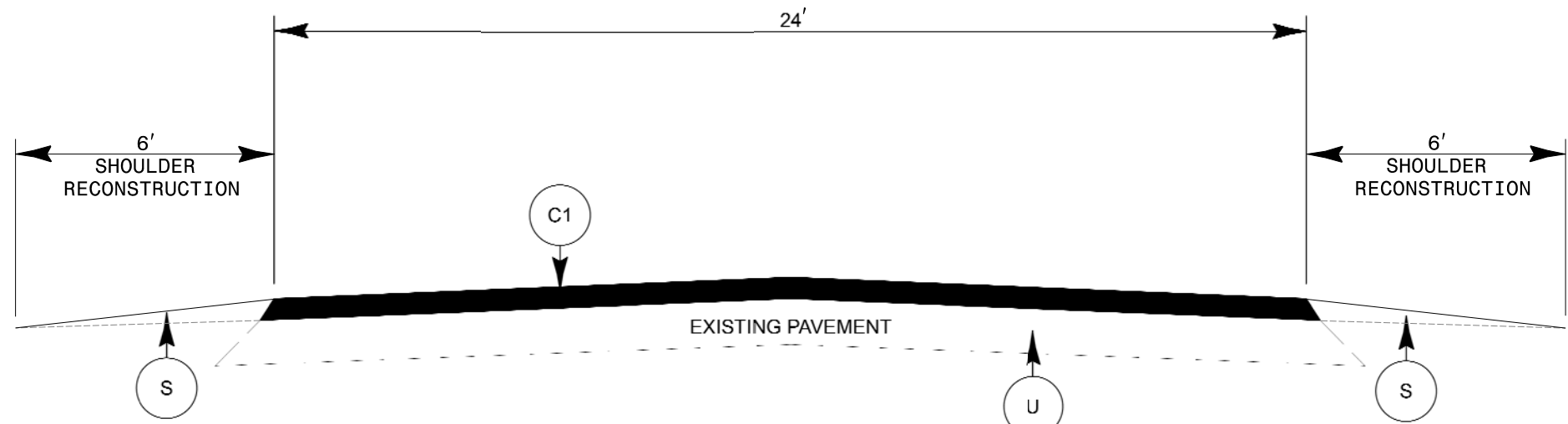
VARIABLE DEPTH MILLING AT INTERSECTIONS WITH OLD US 1

MAP 2 - OLD US 1

5/17/2022
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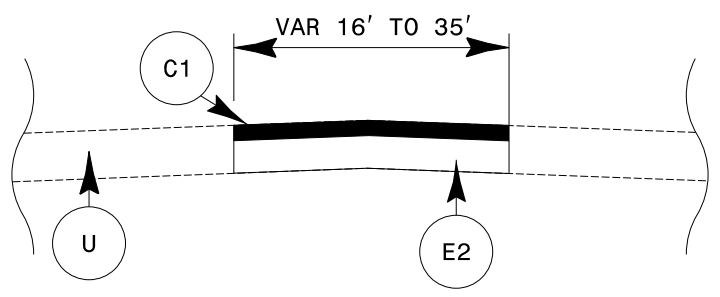
5/14/99

PROJECT NO.	SHEET NO.	TOTAL SHEETS
49919	4	



TYPICAL SECTION NO. 3
MAP 3 - PEA RIDGE RD.

DETAIL FOR MAP 4 - FULL DEPTH PAVEMENT REPAIR



MAP 4 - SB US 1 ON RAMP

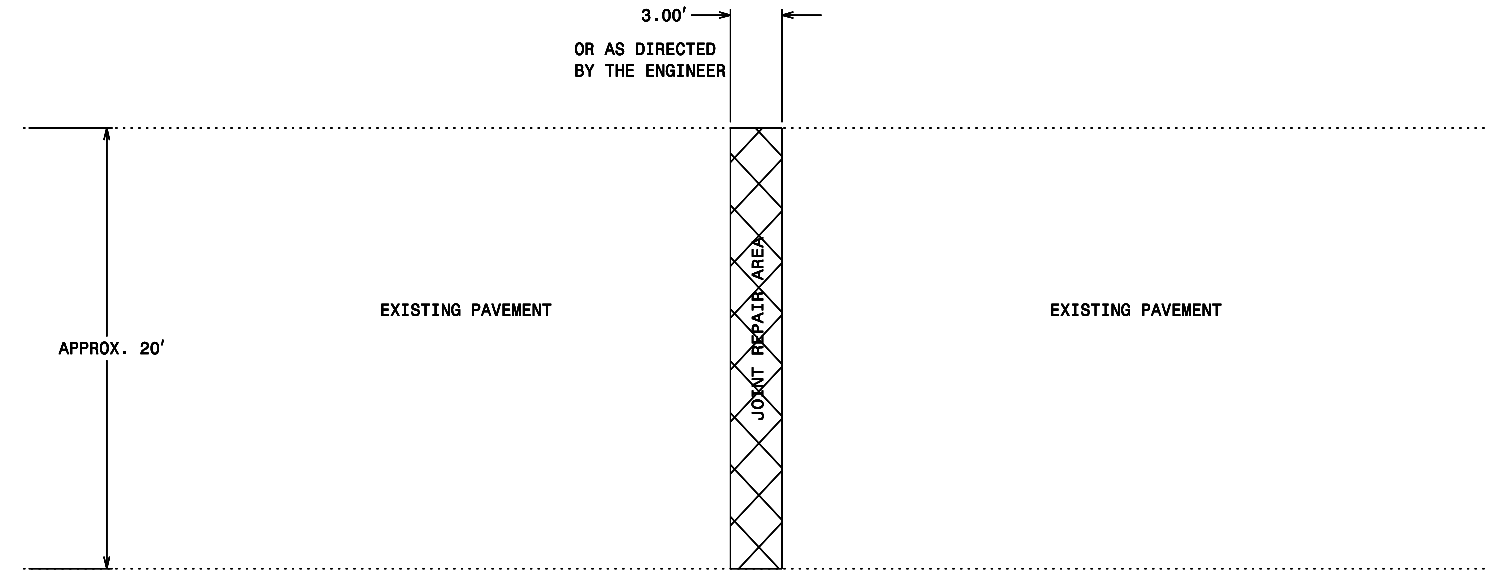
NOTE: REMOVE FULL DEPTH EXISTING CONCRETE PAVEMENT AND REPLACE WITH ASPHALT AS DIRECTED BY THE ENGINEER.

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
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V3	TRENCHING FOR BASE COURSE (SEE S.P.)
V4	MILLING 0" TO 5"

5/17/2022
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 detail

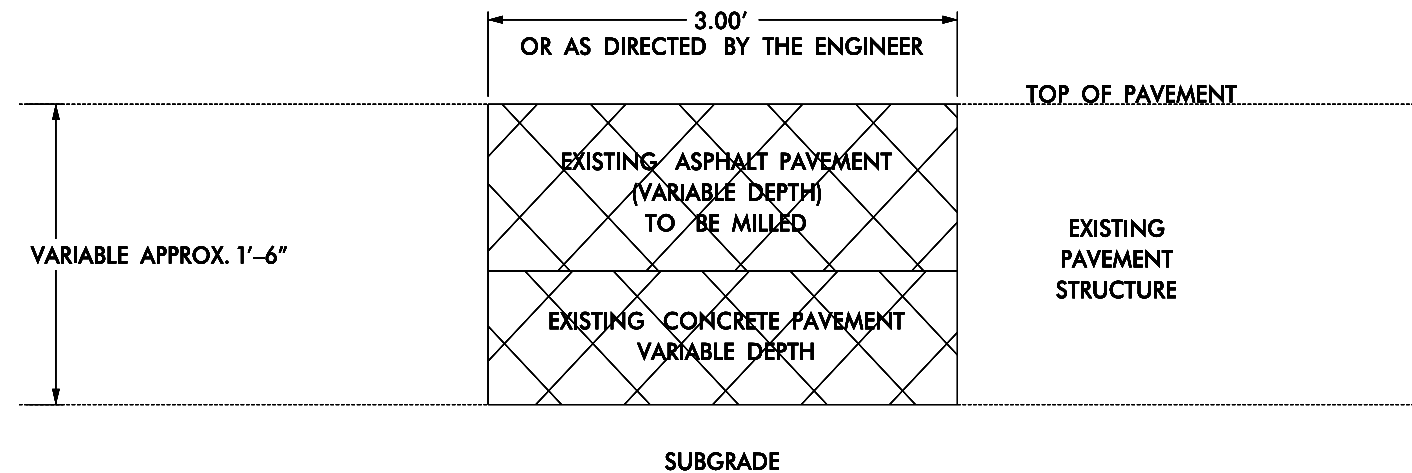
JOINT REPAIR DETAIL

JOINT SCHEDULE	
MAP	# JOINTS
#2 OLD US 1	21

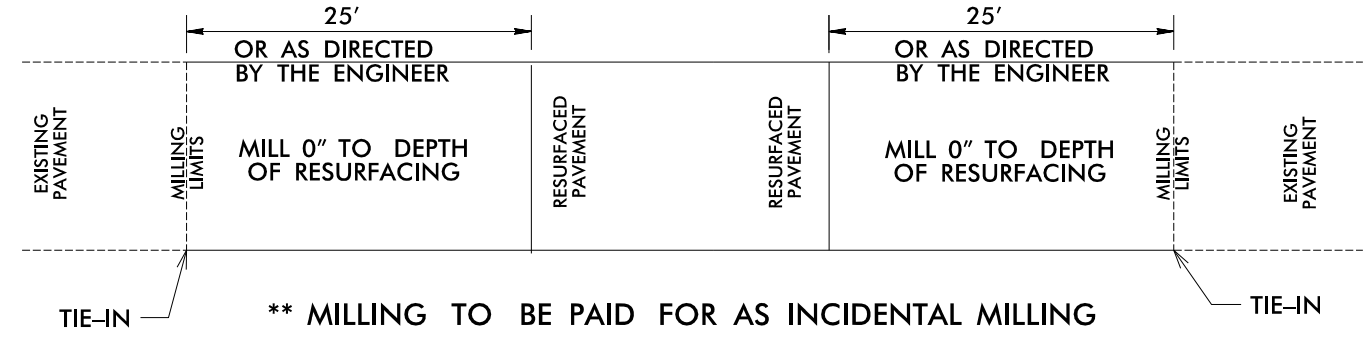


CONTRACTOR SHALL COORDINATE WITH RESIDENT ENGINEER'S OFFICE FOR LOCATION OF JOINTS TO BE REPAIRED.

CROSS-SECTION



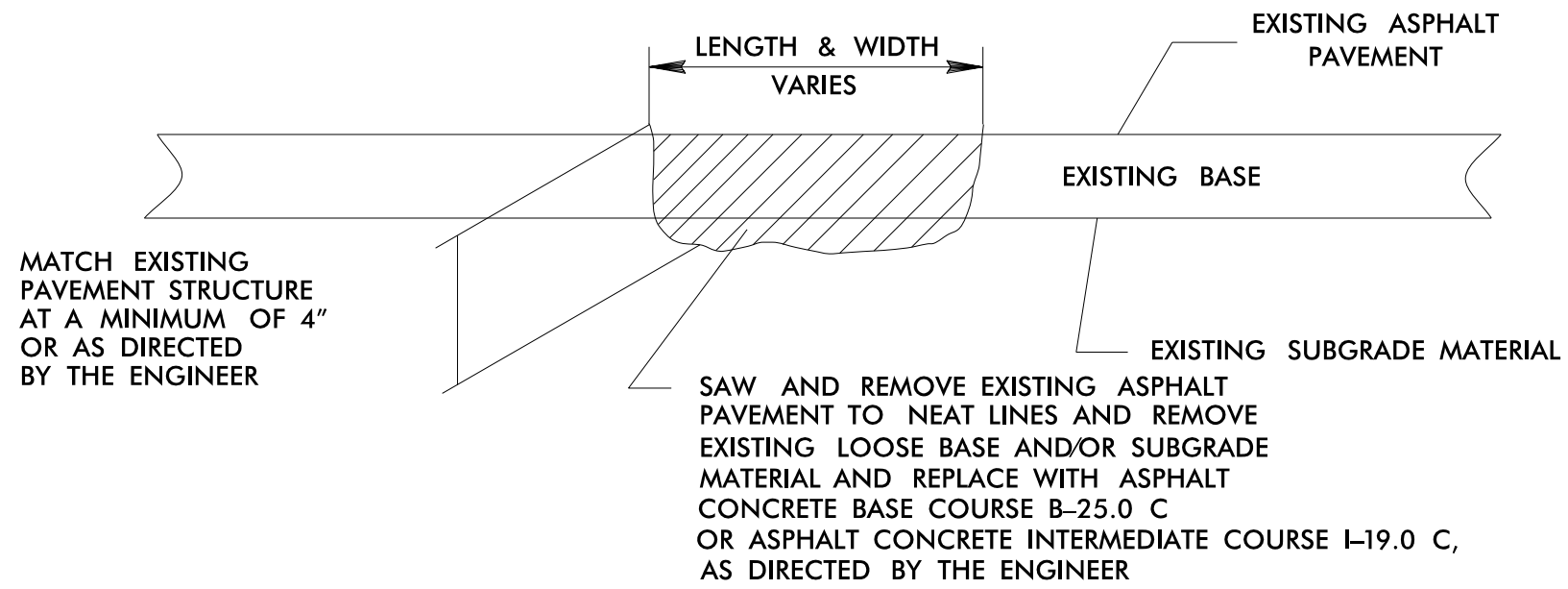
NOTE:
 REMOVE CONCRETE AT JOINT LOCATIONS AS DIRECTED BY THE ENGINEER (BY SAWING CLEAN JOINTS).
 REMOVE A TOTAL WIDTH OF 3' (APPROX. 1.5' EACH SIDE OF JOINT).
 REMOVE AND REPLACE WITH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C.
 THERE WILL BE NO DIRECT PAY FOR THIS WORK AS IT WILL BE CONSIDERED INCIDENTAL TO TO THE LINE ITEM, JOINT REPAIR (TONNAGE)



** MILLING TO BE PAID FOR AS INCIDENTAL MILLING

PAVEMENT TIE-IN DETAIL

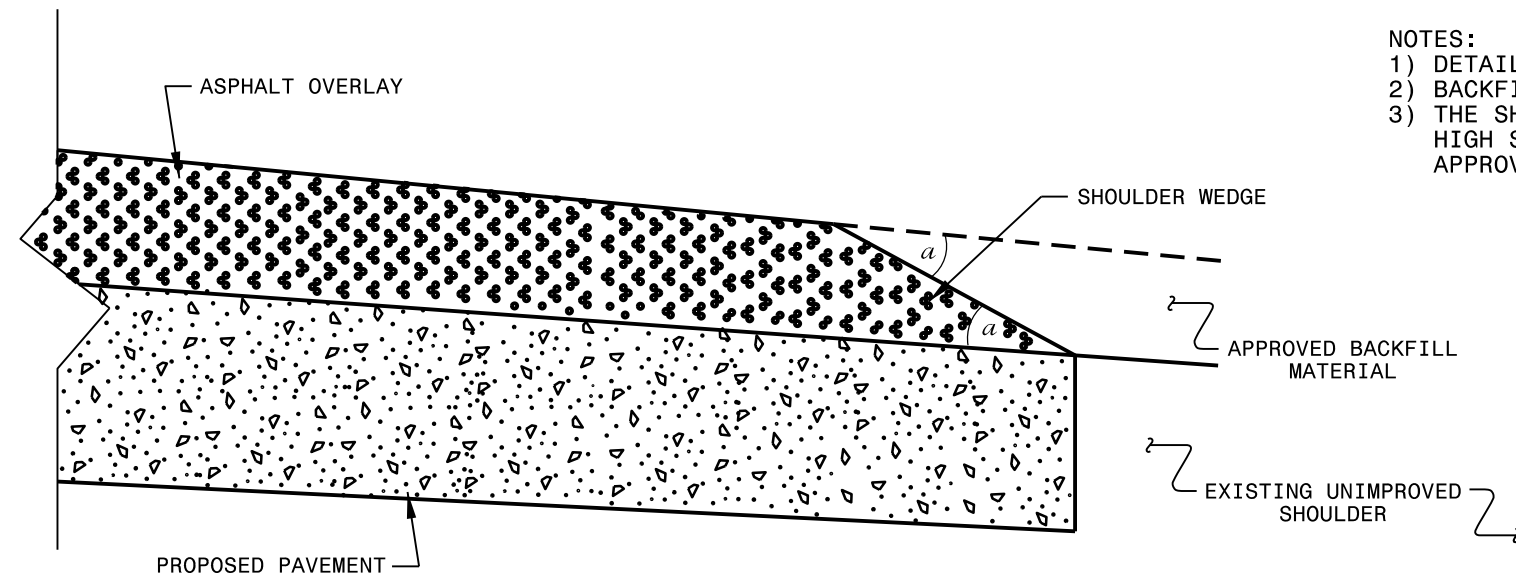
DETAILS OF PATCHING EXISTING PAVEMENT PRIOR TO RESURFACING



5/14/99
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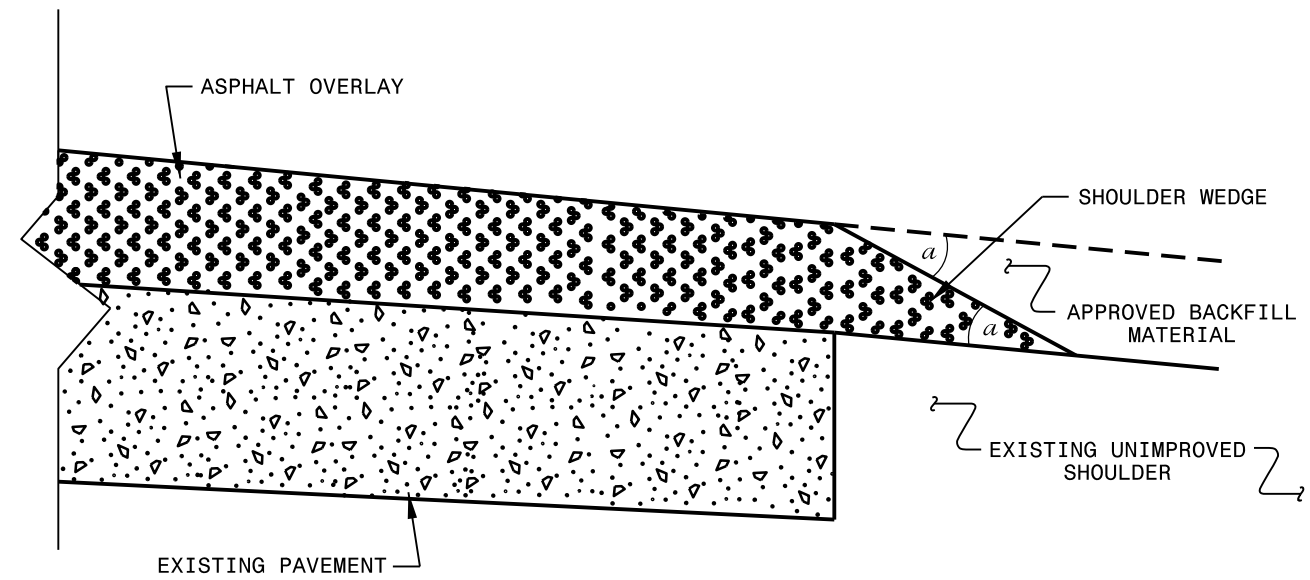
NOTES:

- 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, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



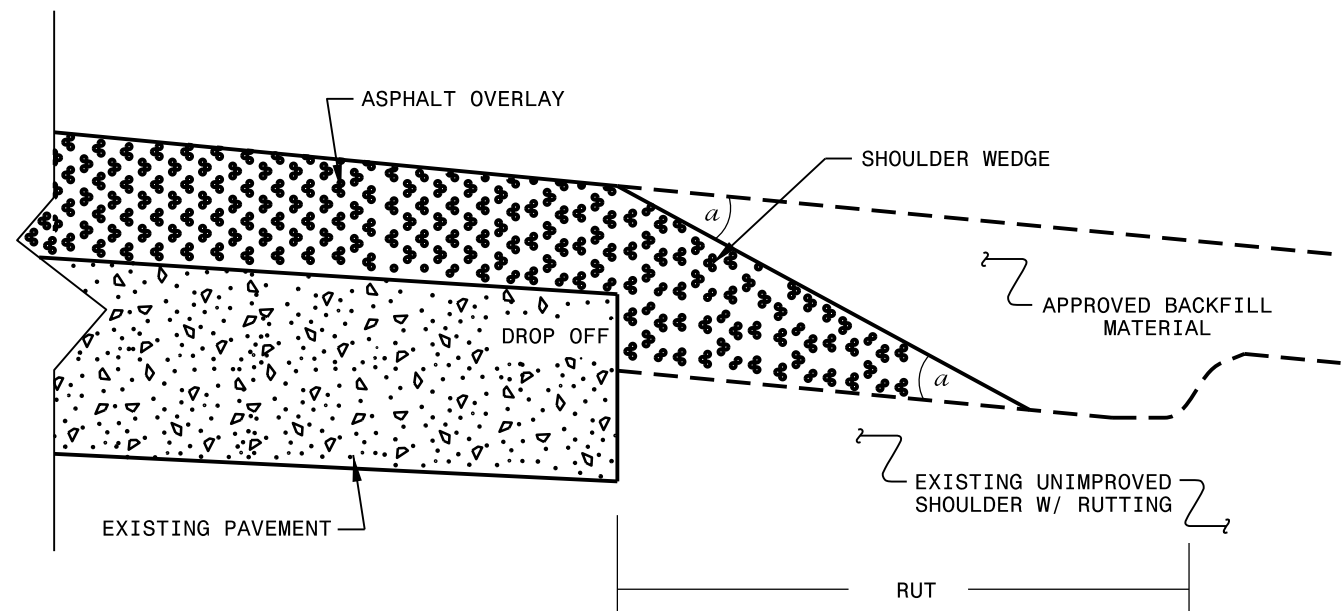
SHOULDER WEDGE DETAIL

(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: 2/2/16	
CHECKED BY:	DATE:	
FILE SPEC.: szusr/details/stand/shoulderwedgedetail.dgn		

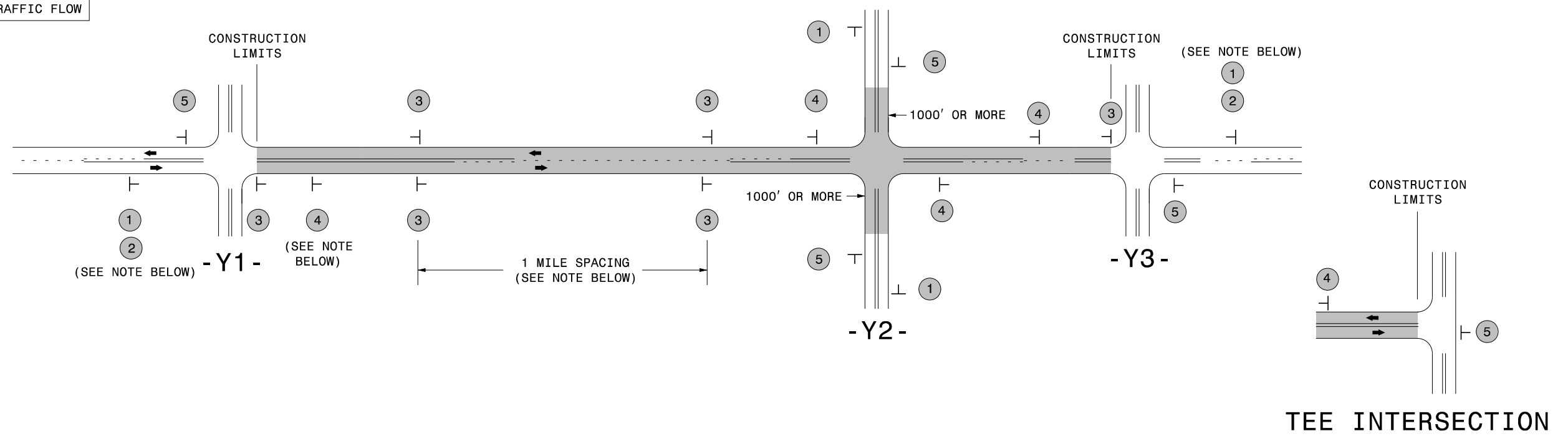
PROJECT NO.	SHEET NO.	TOTAL NO.
49919	8	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	0248000000-N	1220000000-E	1245000000-E	1260000000-E	1297000000-E	1308000000-E	1330000000-E	1491000000-E	1503000000-E	1523000000-E	1575000000-E	1704000000-E	1880000000-E	2612000000-E	2655000000-E	2738000000-E	2845000000-N	3360000000-E	5255000000-N	6000000000-E	6029000000-E	6117500000-N													
												GENERIC GRADING ITEM (REMOVAL OF EXISTING RAILROAD CROSSING)	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	1 1/2" MILLING	5" MILLING	0" TO 5" MILLING	INCIDENTAL MILLING	BASE COURSE, B25.0C	INTERMEDIATE COURSE, I19.0C	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	GENERIC PAVING ITEM (JOINT REPAIR)	6" DRIVEWAYS	5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)	GENERAL PAVING ITEM (REMOVE EXISTING CONCRETE ISLANDS)	ADI. OF METER OR VALVE BOX	REMOVE EXISTING GUARDRAIL	PORTABLE LIGHTING	TEMPORARY SILT FENCE	SAFETY FENCE	CONCRETE WASHOUT STRUCTURE												
												MI	FT	LS	TONS	SMI	TON	SY	SY	SY	SY	TONS	TONS	TONS	TONS	TONS	TON	SY	SY	SY	EA	LF	LS	LF	LF	EA										
49919	Chatham	1	SR1912	CHRISTIAN CHAPEL CHURCH RD. FROM OLD US 1 TO NC 42	1	2	2WU	NO	NO	5.259	24		907	10.52	4,909.00	1,035			223	3,632	15,562	6,701	1,312																							
TOTAL FOR MAP NO. 1												5.259			907	10.52	4,909.00	1,035			223	3,632	15,562	6,701	1,312																					
49919	Chatham	2	SR1011	OLD US 1 FROM HAW RIVER BRIDGE TO SB RAMPS OF US 1	2	2	2WU	NO	NO	3.985	24	1.00	3,000	7.97	2,232.00				53,774	4,024	531	3,552	17,645	10,737	1,651	24	61.00	80					260.00		100	100	1									
TOTAL FOR MAP NO. 2												3.985		1.00	3,000	7.97	2,232.00			53,774	4,024	531	3,552	17,645	10,737	1,651	24	61.00	80					260.00		100	100	1								
49919	Chatham	3	SR1972	PEA RIDGE RD. FROM OLD US 1 TO US1 BRIDGE	3	2	2WU	NO	NO	1.296	24		254	2.59	363.00																															
TOTAL FOR MAP NO. 3												1.296			254	2.59	363.00																													
49919	Chatham	4	RMP-3785	US1 SB RAMP	Detail for Map 4	1		NO	NO	0.028	16																																			
TOTAL FOR MAP NO. 4												0.028																																		
TOTAL FOR PROJ NO. 49919												10.568		1.00	4,161	21.08	7,504.00	1,035	53,774	4,024	966	7,184	33,207	19,355	3,078	182	61.00	80			44.44	44.44	1	260.00	1.00	100	100	100	1							
GRAND TOTAL												10.568		1.00	4,161	21.08	7,504.00	1,035	53,774	4,024	966	7,184	33,207	19,355	3,078	182	61.00	80			44.44	44.44	1	260.00	1.00	100	100	100	1							

SIGNING FOR RESURFACING PROJECTS

LEGEND
 ┆ STATIONARY SIGN
 ← DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

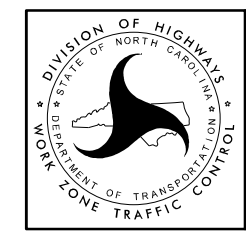
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1		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"> LESS THAN 1000' OF RESURFACING ALONG -Y- LINE SUBDIVISION ROADS DEAD END ROADS <p>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING 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" PLACED 500' IN ADVANCE OF FLAGGER. </div> <div style="text-align: center;"> W20-7 A 48" X 48" PLACED 250' IN ADVANCE OF FLAGGER. </div> </div>
	2		#2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)	
	3		- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.	
	4		- 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. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.	
	5		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.	

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.

MAPS LESS THAN 2 MILES

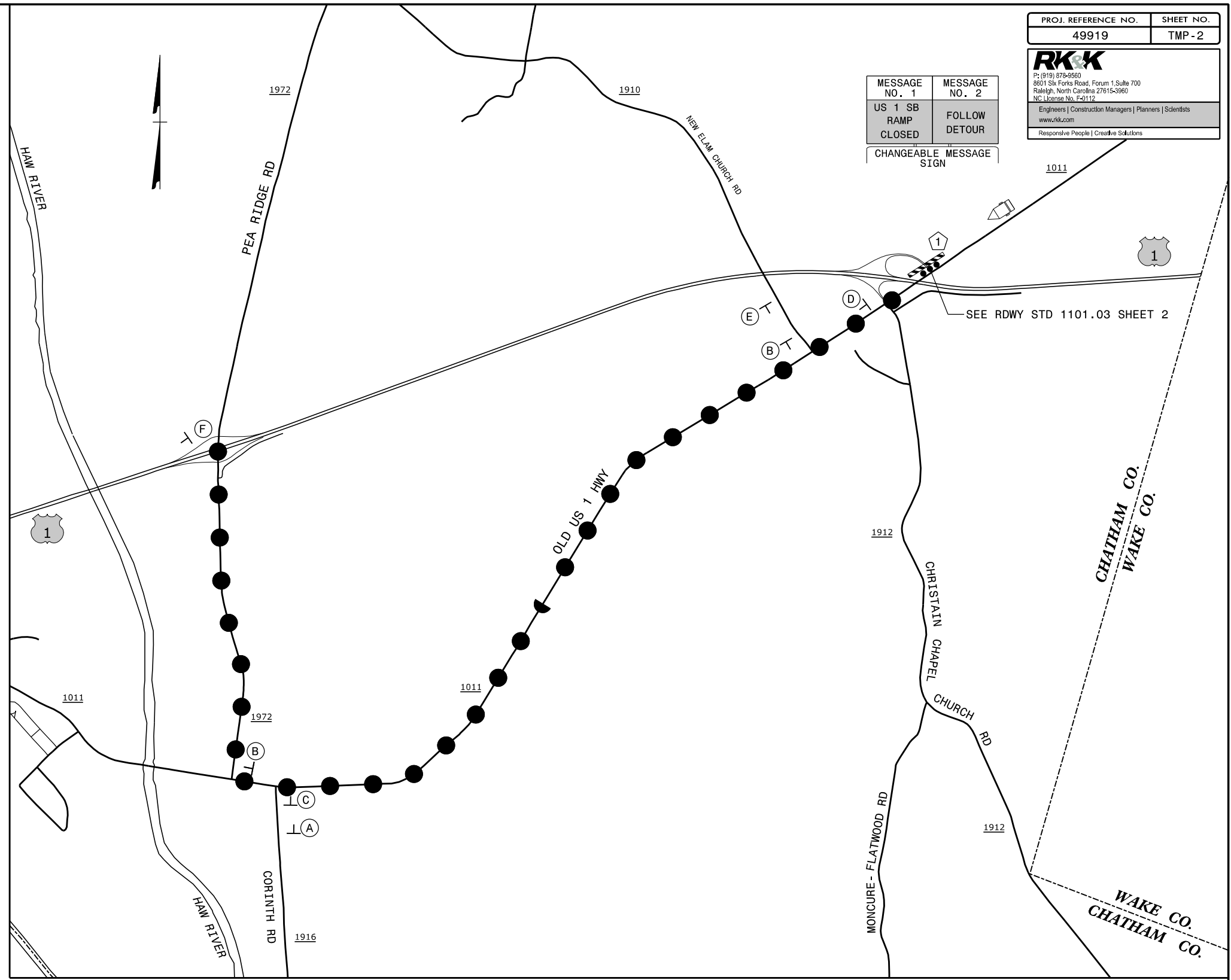
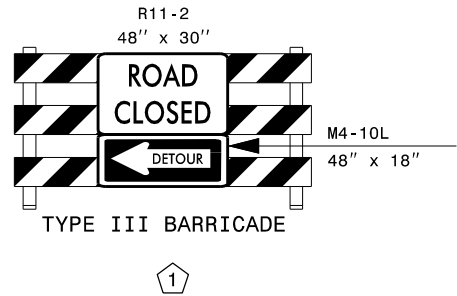
FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.



ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

5/15/2017 S:\TMU\WZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn User:kedais

MESSAGE NO. 1	MESSAGE NO. 2
US 1 SB RAMP CLOSED	FOLLOW DETOUR
CHANGEABLE MESSAGE SIGN	



ROAD CLOSURE FOR US 1 SOUTHBOUND RAMP CAN NOT OCCUR CONCURRENTLY WITH OLD US 1 ROAD CLOSURE

- | | | | | | | | | | | | |
|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|
|
A | M4-8
24" X 12"
M3-3
24" X 12"
M1-4
24" X 24"
M5-1
21" X 15" |
B | M4-8
24" X 12"
M3-3
24" X 12"
M1-4
24" X 24"
M6-1
21" X 15" |
C | M4-8
24" X 12"
M3-3
24" X 12"
M1-4
24" X 24"
M6-3
21" X 15" |
D | M4-8
24" X 12"
M3-3
24" X 12"
M1-4
24" X 24"
M5-1
21" X 15" |
E | M4-8
24" X 12"
M3-3
24" X 12"
M1-4
24" X 24"
M5-1
21" X 15" |
F | M4-8A
24" X 18"
M3-3
24" X 12"
M1-4
24" X 24" |
|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|

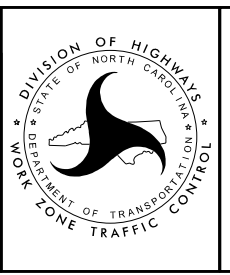
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DATE: _____

SEAL

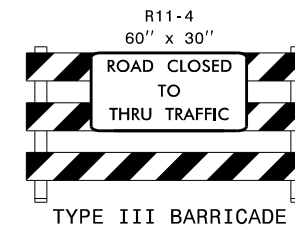
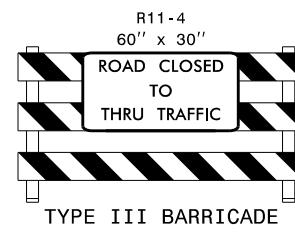
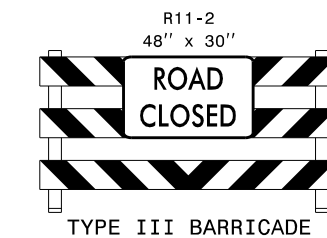
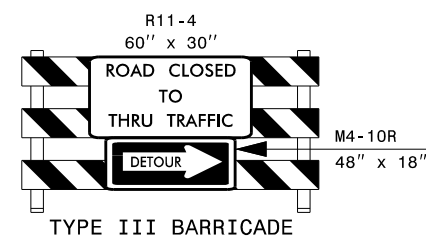
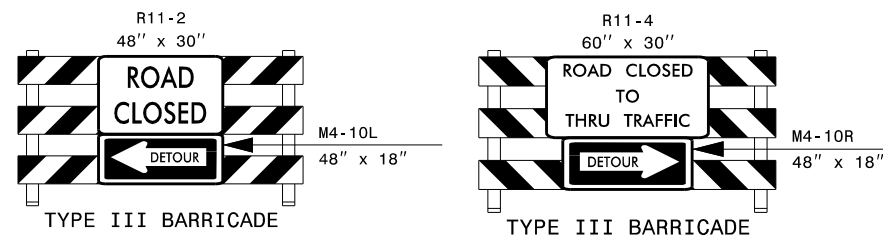
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**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

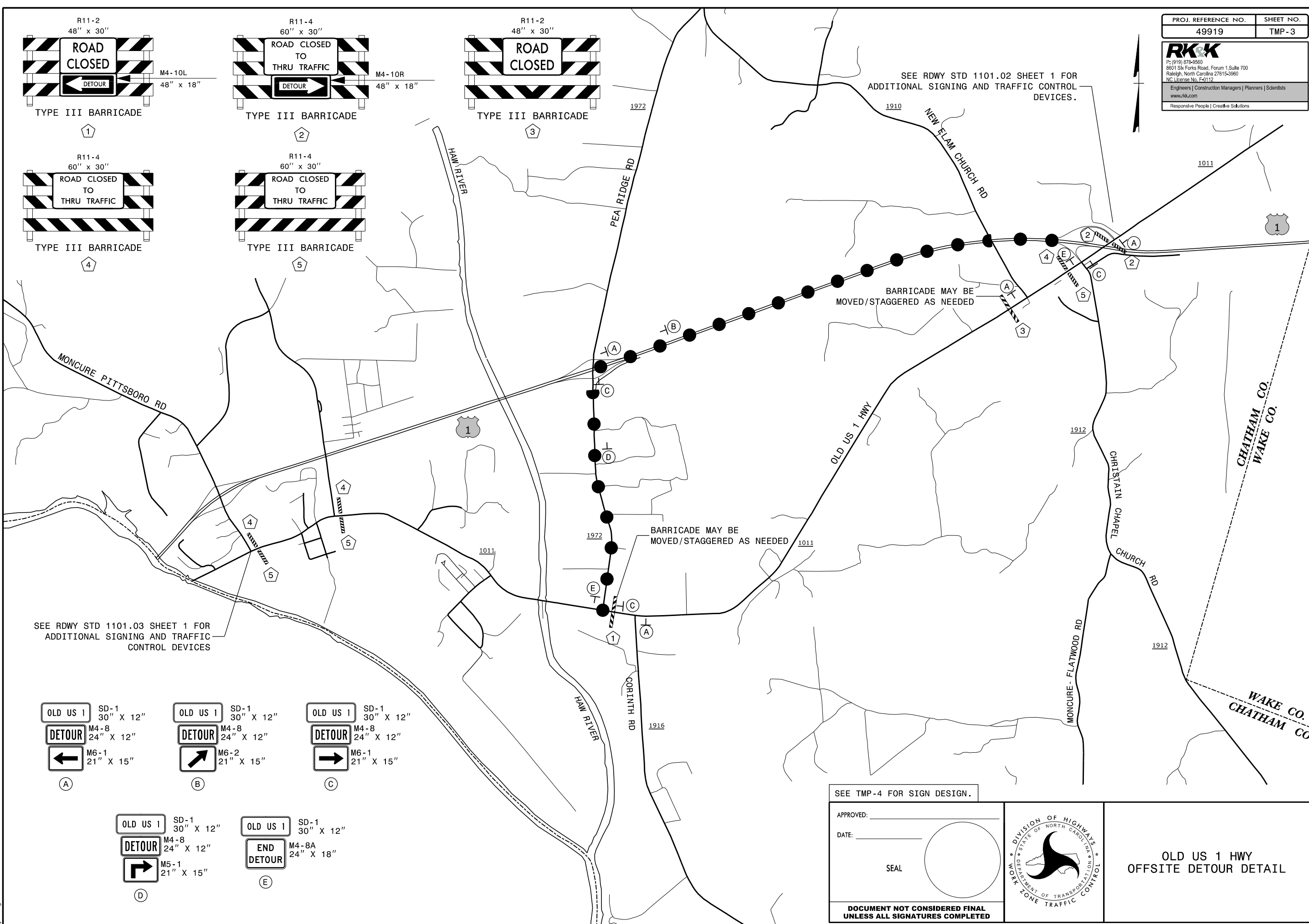


**US 1 SOUTH ON-RAMP
OFFSITE DETOUR DETAIL**

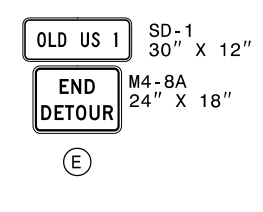
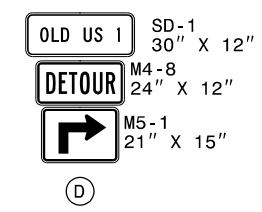
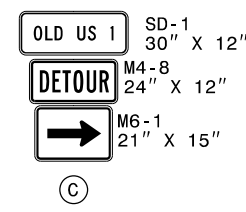
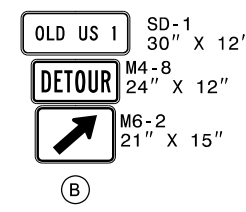
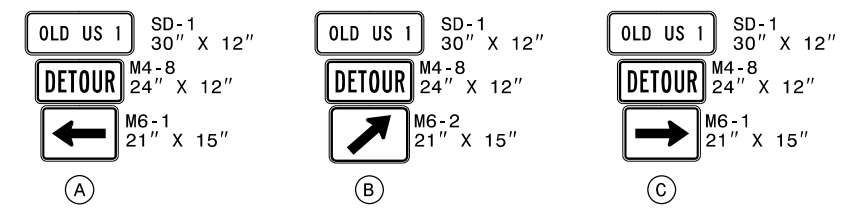
5/17/2022
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 Joiner



SEE RDWY STD 1101.02 SHEET 1 FOR ADDITIONAL SIGNING AND TRAFFIC CONTROL DEVICES.



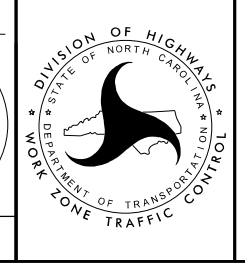
SEE RDWY STD 1101.03 SHEET 1 FOR ADDITIONAL SIGNING AND TRAFFIC CONTROL DEVICES



SEE TMP-4 FOR SIGN DESIGN.

APPROVED: _____
 DATE: _____
 SEAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



OLD US 1 HWY OFFSITE DETOUR DETAIL

SIGN NUMBER: SD-1 TYPE: STATIONARY QUANTITY: SEE PLANS SIGN WIDTH: 2'-6" HEIGHT: 1'-0" TOTAL AREA: 2.5 Sq.Ft. BORDER TYPE: INSET RECESS: 0.38" WIDTH: 0.44" RADII: 1.5" NO. Z BARS: LENGTH:	BACKG COLOR: Fluorescent Orange COPY COLOR: Black <table border="1" style="width: 100%;"> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> MAT'L: 0.080" (2.0 mm) ALUMINUM	SYMBOL	X	Y	WID	HT																																				DESIGN BY: A. TUTT PROJECT ID: 49919	CHECKED BY: D. SEARS LOCATION: VARIES	May 12, 2022 DIV: 8
SYMBOL	X	Y	WID	HT																																								

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

Letter spacings are to start of next letter													Series/Size
	O	L	D		U	S		1					Text Length
	4	3.2	2.6	2.2	4	2.9	2.2	4	0.8	4			C 2000
													22

FILENAME: BLUE_TMP_PSH03 NORTH CAROLINA D.O.T. SIGN DETAIL

5/17/2022
 BLUE_TMP_PSH04.dgn
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APPROVED: _____ DATE: _____ <div style="text-align: center; margin-top: 20px;"> </div>		<h2>SIGN DESIGN</h2>
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>		