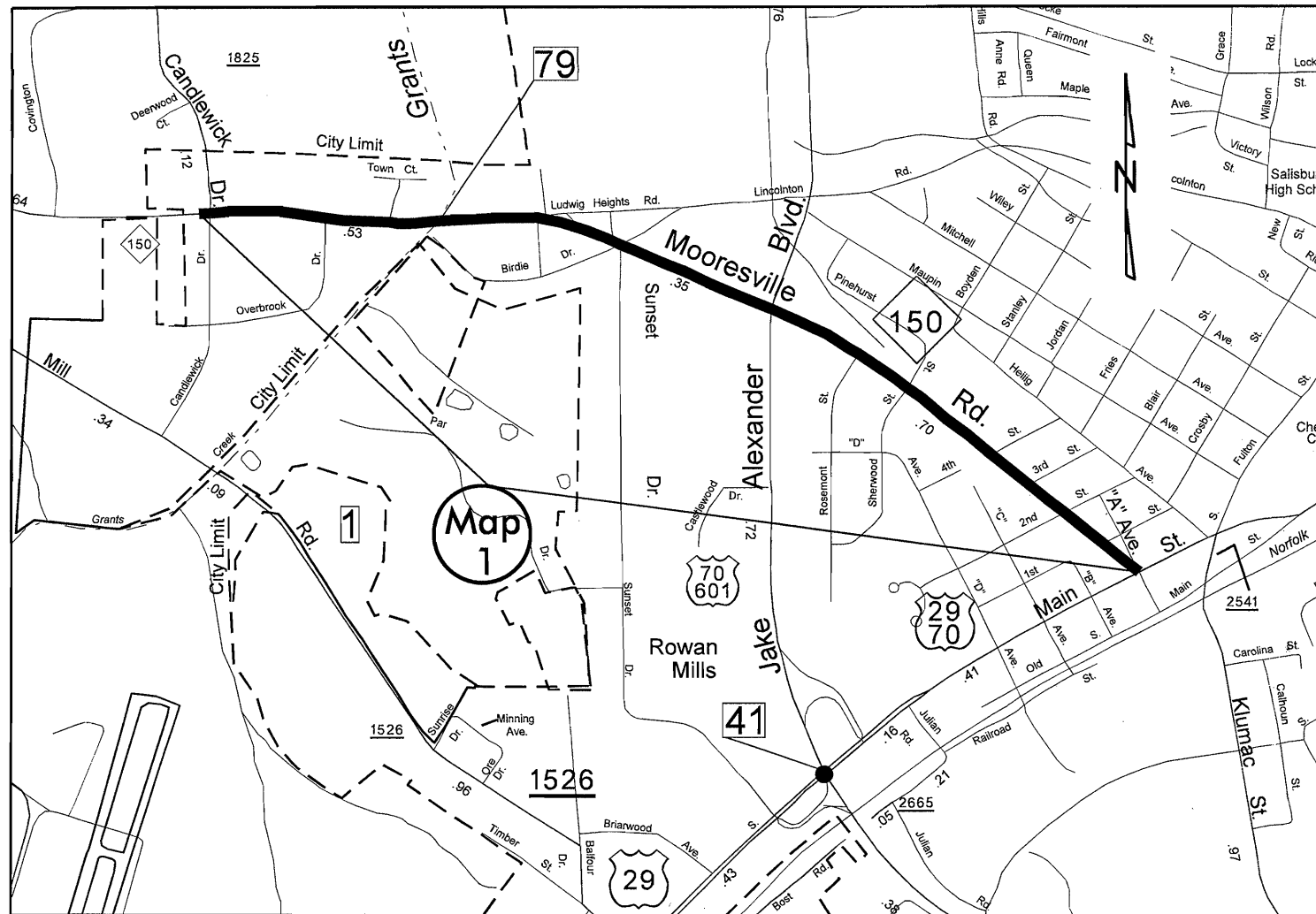


PROJECT REFERENCE NO.	SHEET NO.
9CR.10801.140 · 9CR.20801.140	1



MAP 1
NC 150 Mooreville Road

Tie-In Mill for 100 feet from Edge of Pavement at US 29/Main St.

Begin 12' Curb Mill, 0-1½" from Rosemont St. to Jake Alexander Blvd.

Mill 1½" full width of pavement from Jake Alexander Blvd. to Bridge #79 over Grants Creek.

At intersection of Jake Alexander Blvd. Mill 1½" depth for 300 feet from stop bar, each side of intersection, Pave back with 1½" S9.5B.

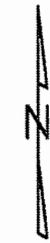
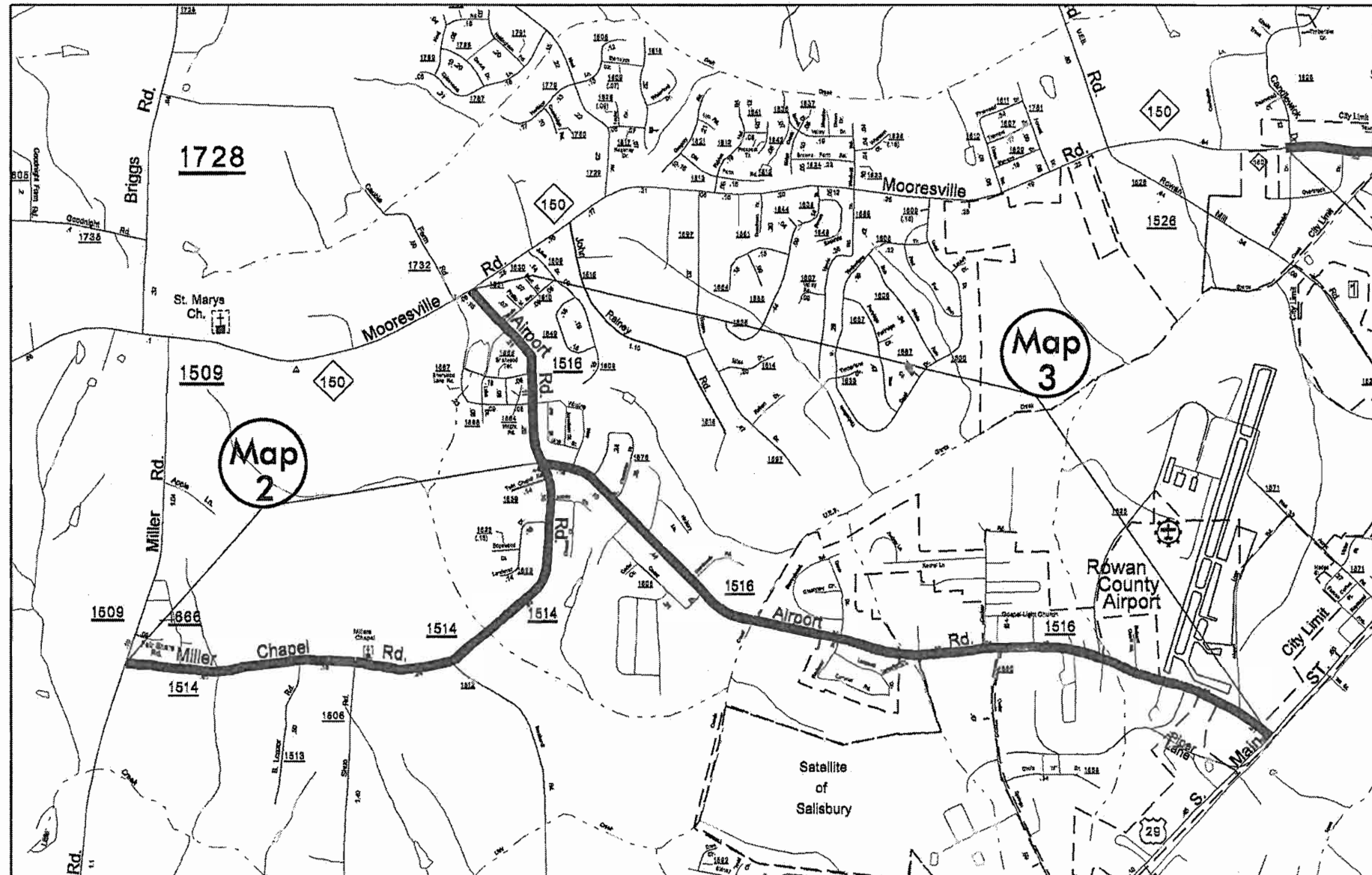
Mill 1½" full width of pavement for approximately 360 feet from Bridge #79 over Grants Creek to White Diagonally striped widened pavement.
DO NOT MILL OR PAVE WHITE DIAGONALLY STRIPED WIDENED PAVEMENT.

Mill 1½" full width of travel Lanes including center yellow diagonally striped pavement to end of curb, approximately 450 feet.

Tie-In Mill 100 feet at curb end.

Tie-In Mill at end of Map through intersection at Candlewick Dr.

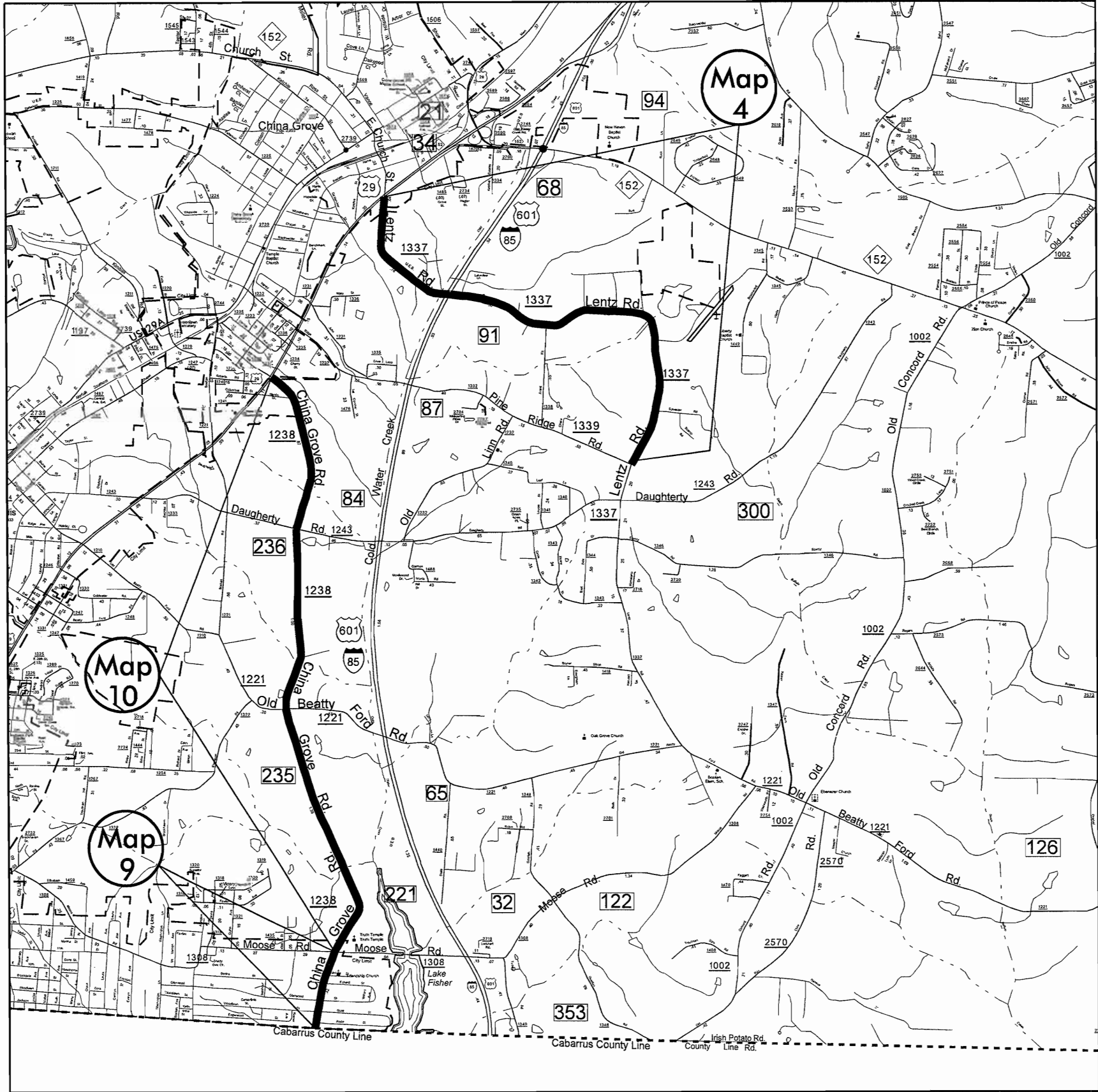
ROWAN COUNTY
NORTH CAROLINA



MAP 2
 SR 1514 Miller Chapel Road
 Tie-In Mill at end of Map at Miller Rd. (SR 1509)
 Tie-in paving to new pavement at Airport Rd.

MAP 3
 SR 1516 Airport Road
 Tie-In Mill at NC 150.
 Tie-in paving to new pavement at Miller Chapel Rd.
 Tie-In Mill at US 29/Main St.

ROWAN COUNTY
 NORTH CAROLINA

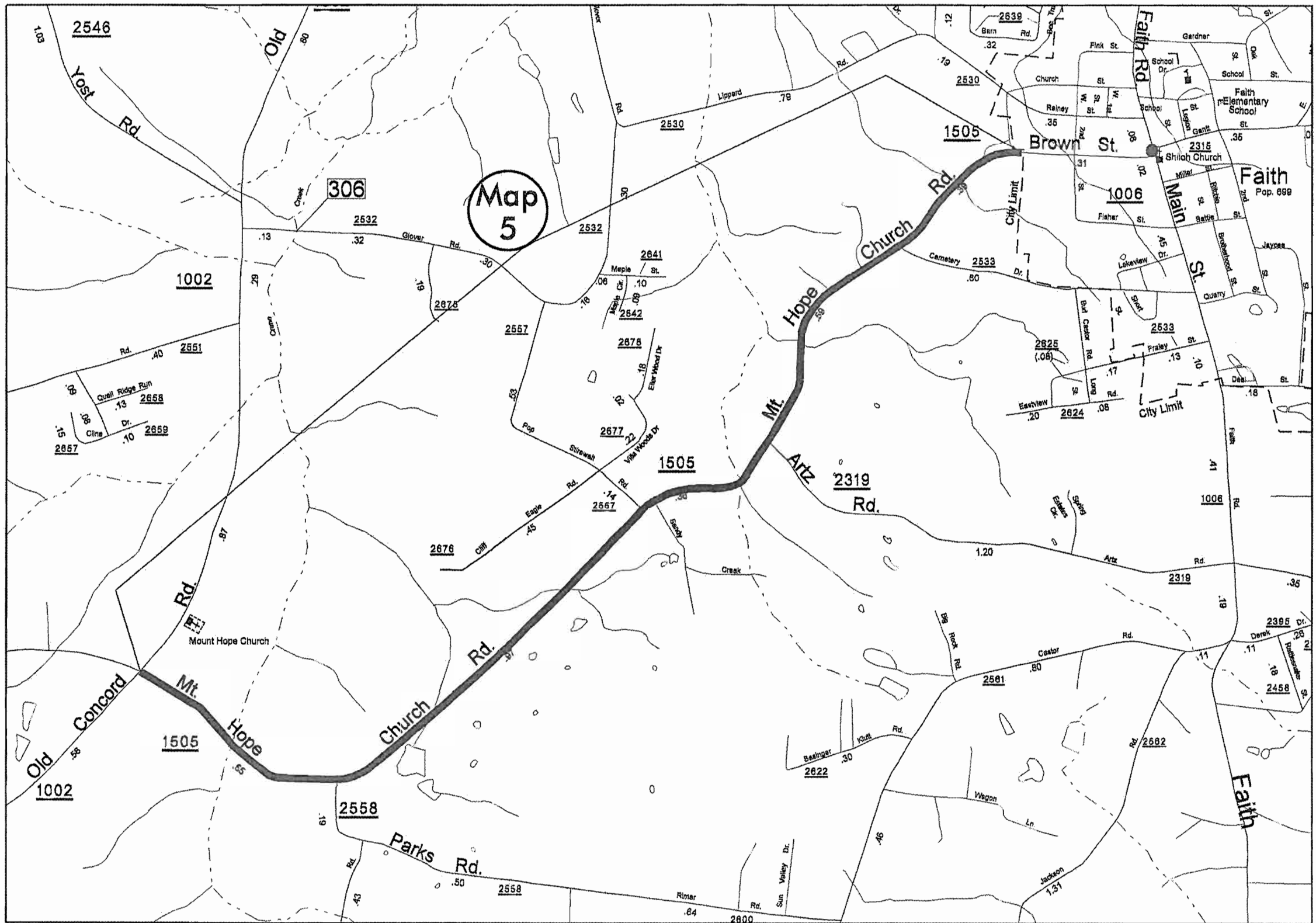


MAP 4
 SR 1337 Lentz Road
 Tie In- Mill EACH END OF Map.
 End Map before Pine Ridge Rd. intersection.

MAP 9
 SR 1238 China Grove Road
 Tie In- Mill at County Line.
 Mill 4" Depth from Edge of pavement at
 Moose Rd. (SR 1308) for 300 Feet.
 Pave back with 2½" I19.0B, AND 1½" S9.5B.
 SEE DETAIL SHEET NO. 9

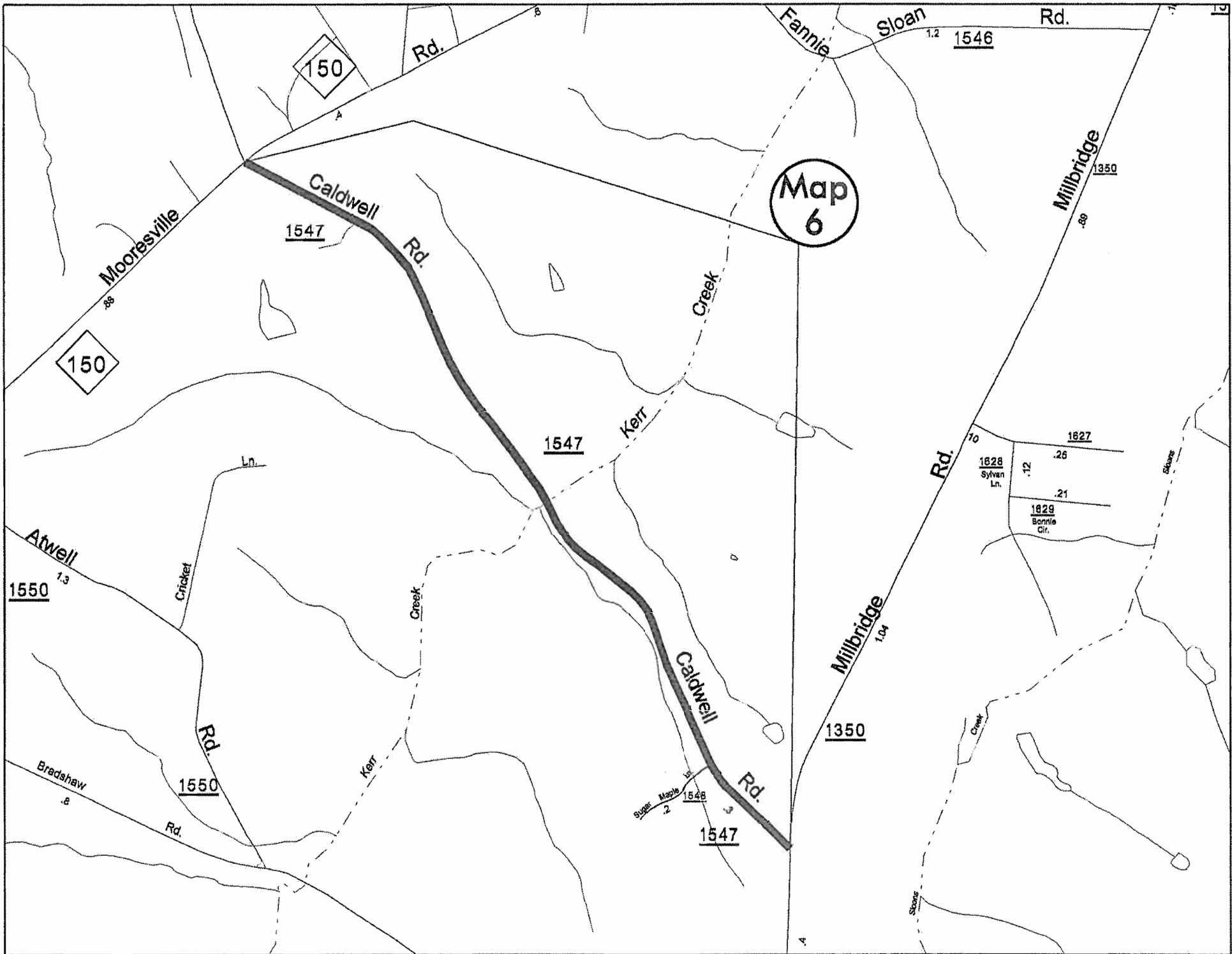
MAP 10
 SR 1238 China Grove Road
 Mill 4" Depth on Moose Rd. (SR 1308) for 600 Feet,
 Each side of intersection. Pave back with 2½" I19.0B,
 AND 1½" S9.5B.
 Mill 4" Depth on China Grove Rd.
 from Edge of pavement at
 Moose Rd. (SR 1308) for 300 Feet.
 Pave back with 2½" I19.0B, AND 1½" S9.5B.
 SEE DETAIL SHEET NO. 9

ROWAN COUNTY
 NORTH CAROLINA



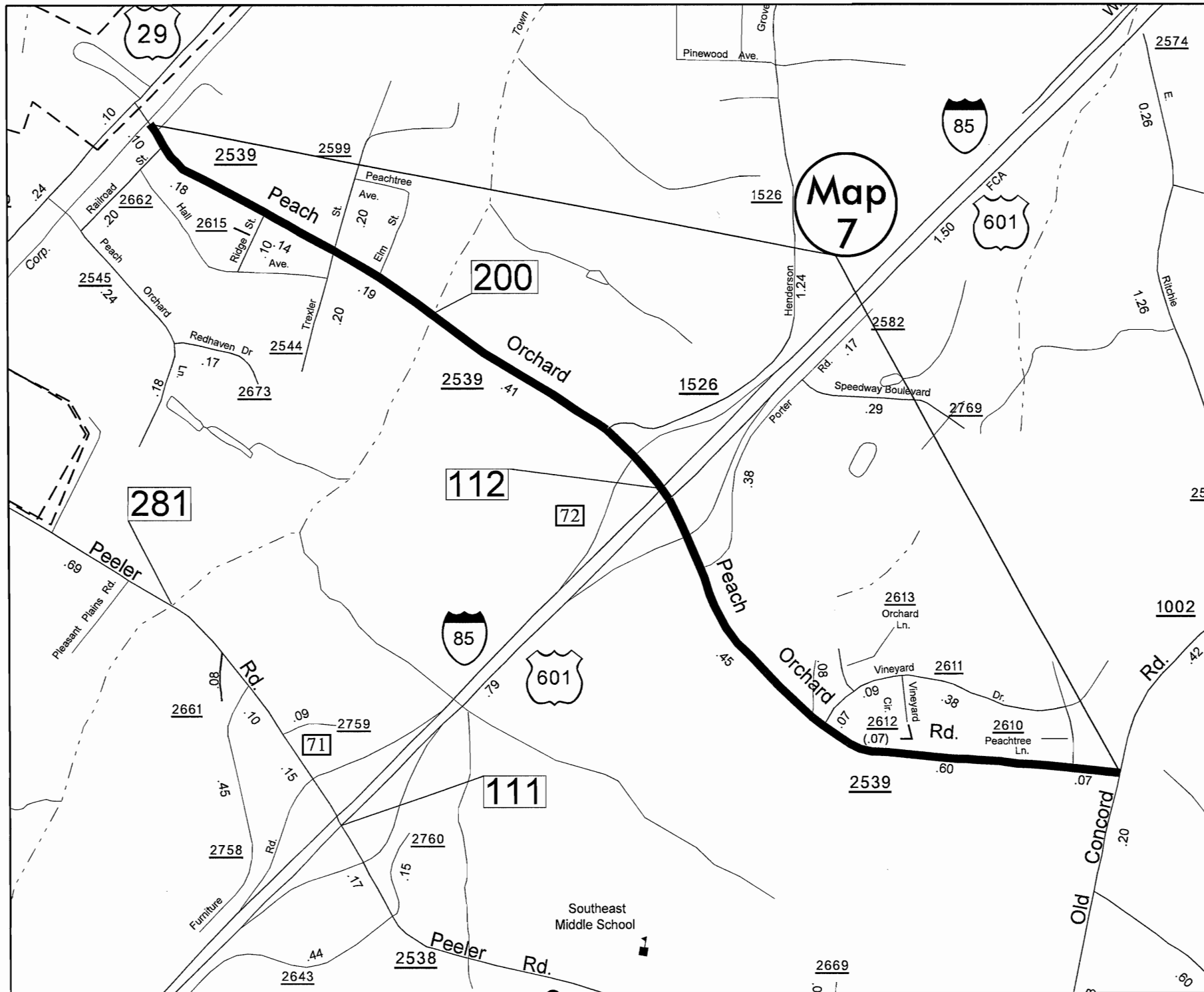
MAP 5
SR 1505 Mt. Hope Church Road
Tie-In Mill each end of Map.

ROWAN COUNTY
NORTH CAROLINA



MAP 6
 SR 1547 Caldwell Road
 Tie-In Mill each end of Map.

ROWAN COUNTY
 NORTH CAROLINA

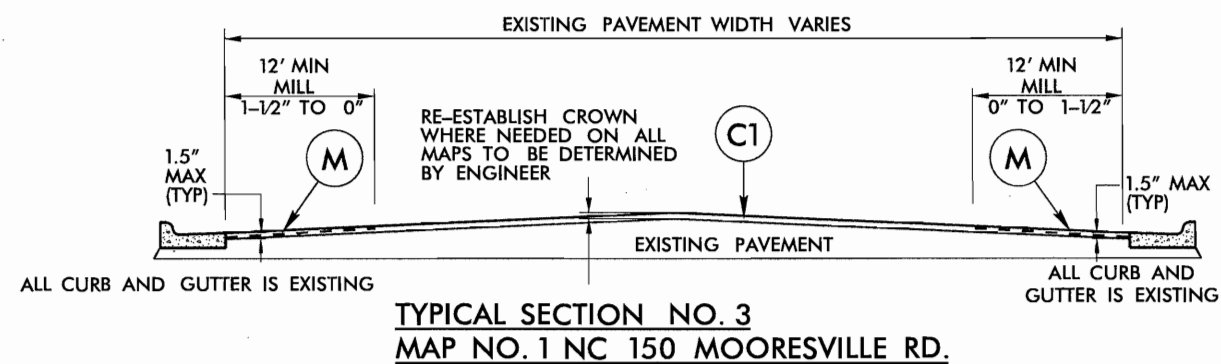
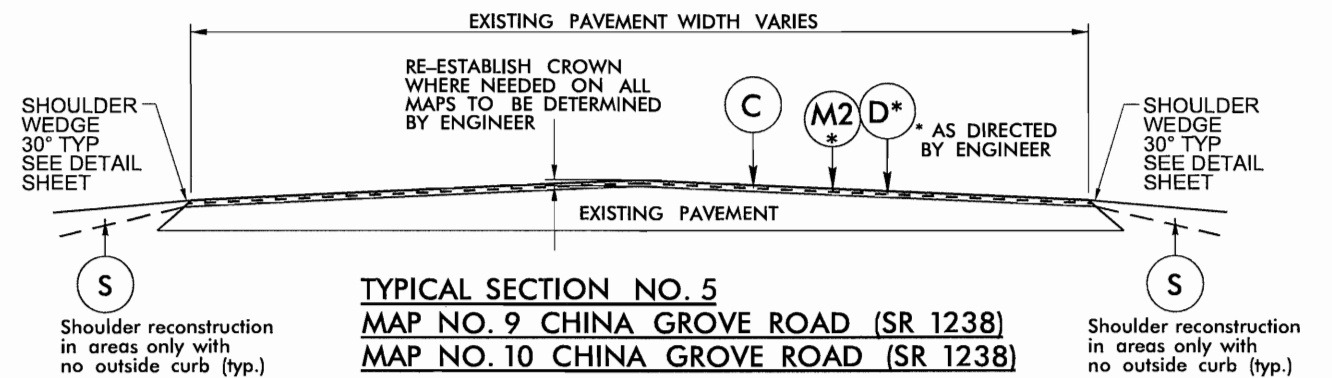
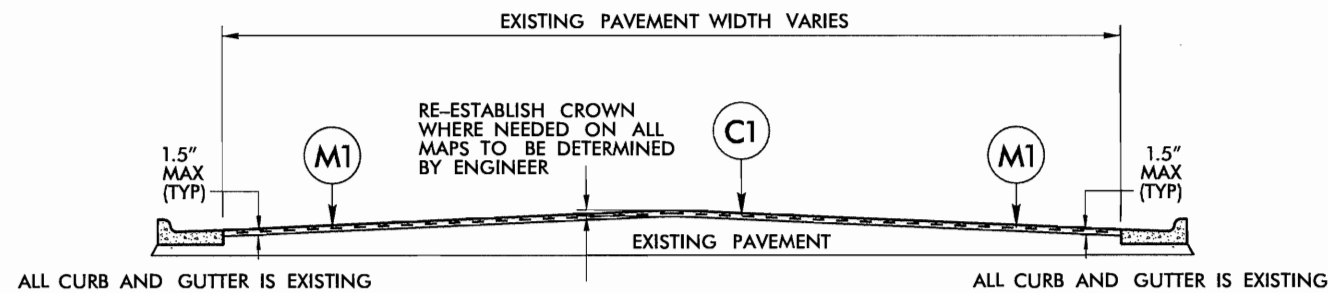
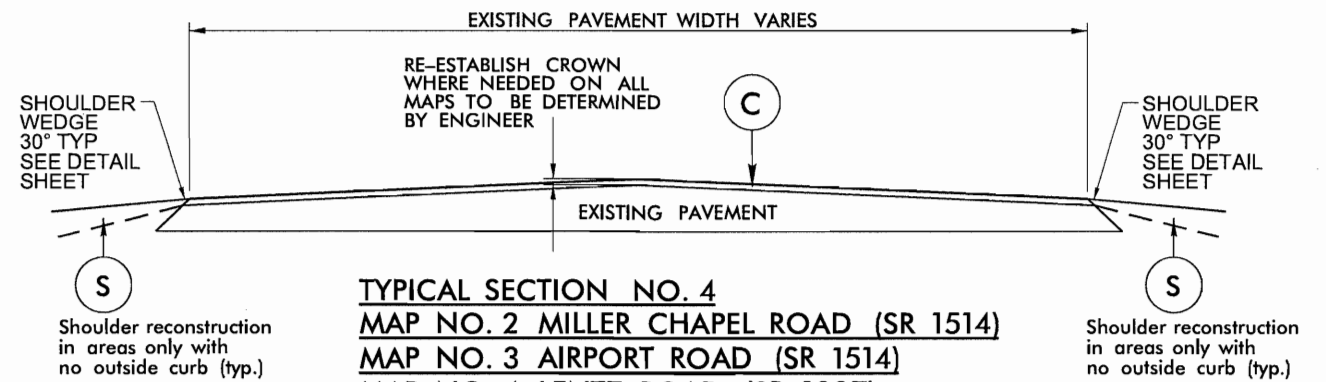
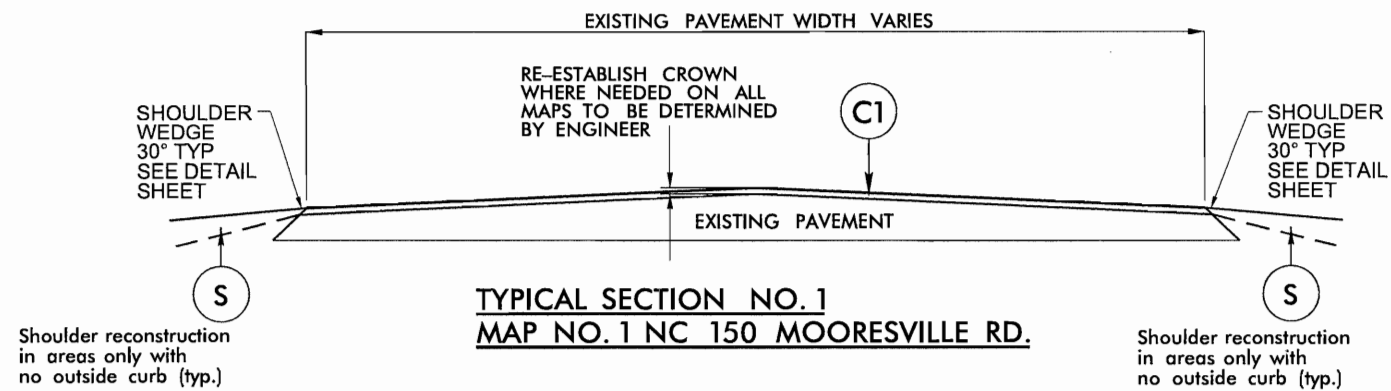


MAP 7
 SR 2539 Peach Orchard Road
 Tie-In Mill at RxR approach crossing and
 at end of Map at Old Concord Rd. (SR 1002).

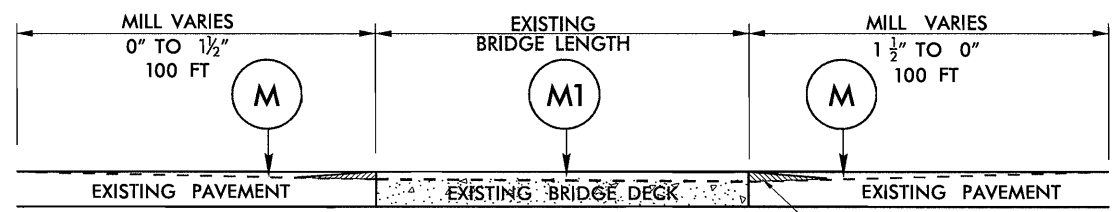
Mill Bridge Approaches.

Mill to Tie-In at concrete pavement joints
 on all Ramps.

Mill a 12 foot width 0-1½" at all concrete
 medians.

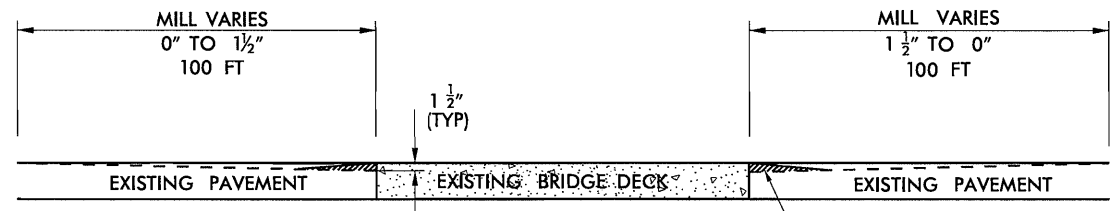


PAVEMENT SCHEDULE	
C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ YD
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ YD
D*	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, TO BE APPLIED AT AN AVERAGE RATE OF 285 LBS PER SQ YD
M	MILL ASPHALT PAVEMENT, 0" TO 1 1/2"
M1	MILL ASPHALT PAVEMENT, 1 1/2" DEPTH
M2*	MILL ASPHALT PAVEMENT, 4" DEPTH
S	SHOULDER RECONSTRUCTION (SEE DETAIL)
U	EXISTING PAVEMENT



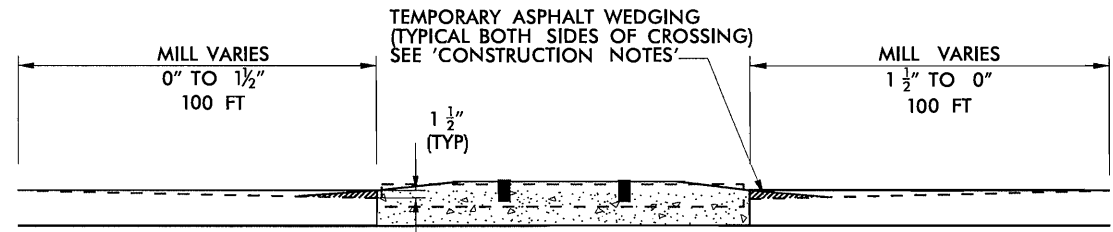
MILLING BRIDGE DECK AND APPROACHES
(SEE BRIDGE DATA SHEET)

TEMPORARY ASPHALT WEDGING (TYPICAL BOTH SIDES OF BRIDGE) IF APPROACHES ARE MILLED PRIOR TO MILLING BRIDGE DECK



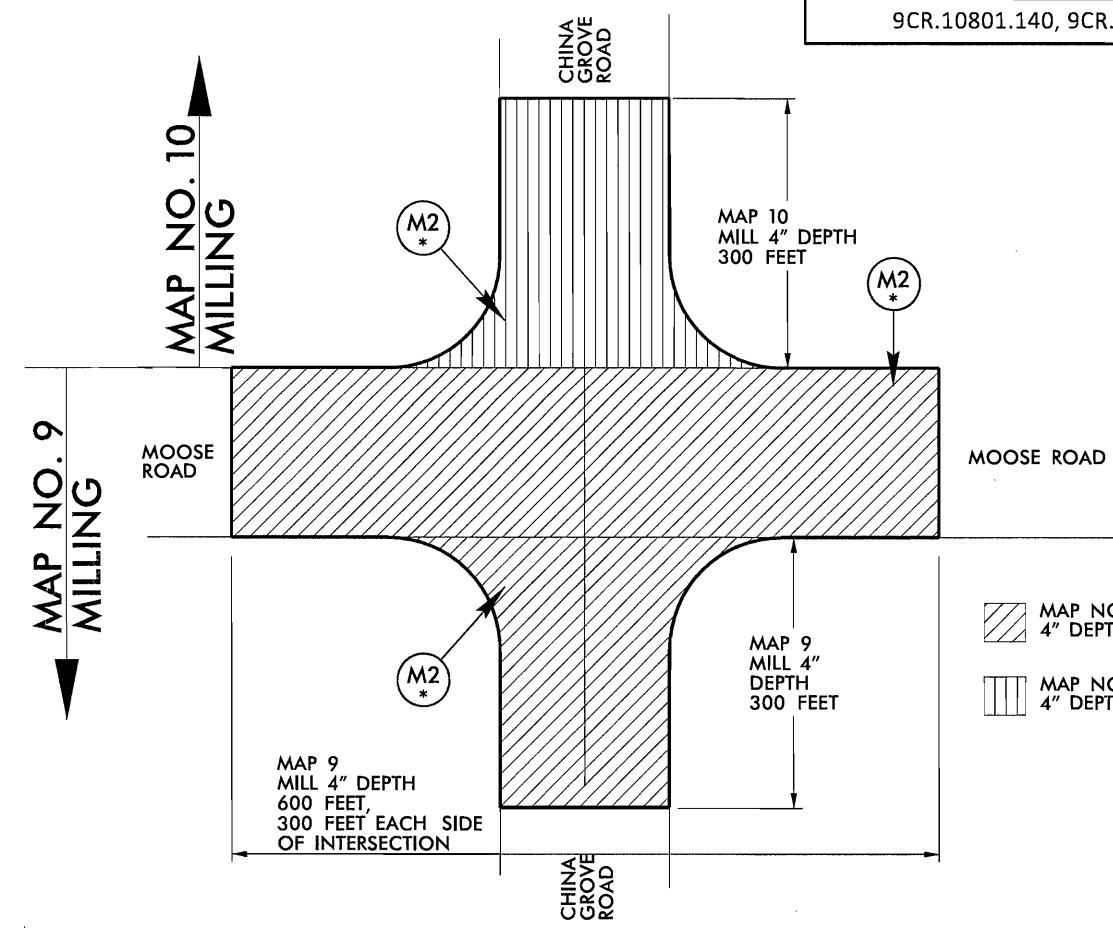
INCIDENTAL MILLING BRIDGE APPROACHES
(SEE BRIDGE DATA SHEET)

TEMPORARY ASPHALT WEDGING (TYPICAL BOTH SIDES OF BRIDGE)



INCIDENTAL MILLING RAILROAD CROSSING APPROACHES

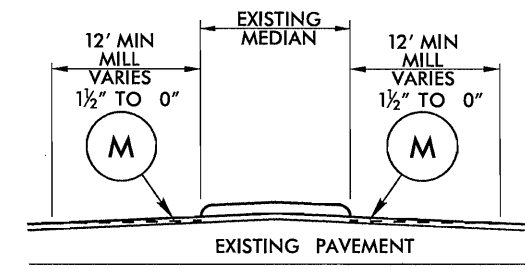
TEMPORARY ASPHALT WEDGING (TYPICAL BOTH SIDES OF CROSSING) SEE 'CONSTRUCTION NOTES'



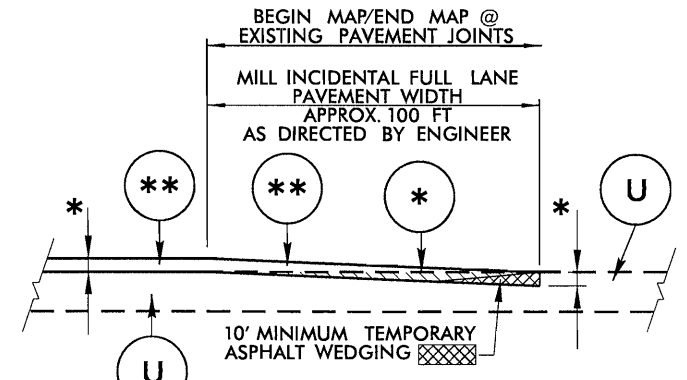
MAP NO. 9
4" DEPTH MILL

MAP NO. 10
4" DEPTH MILL

**MAP NO. 9
MAP NO. 10
CHINA GROVE ROAD**



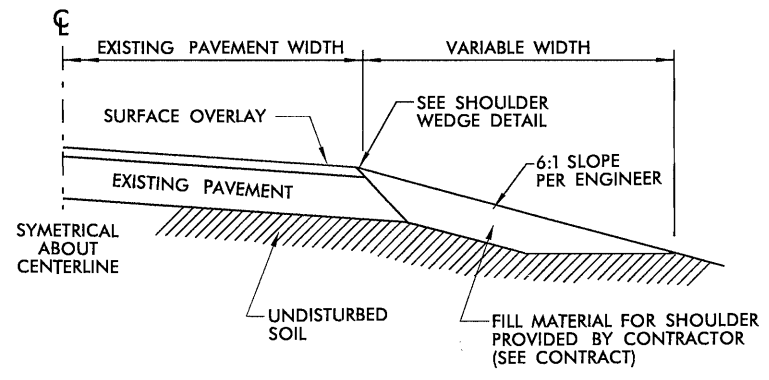
MILLING AT MEDIANS



* MILL DEPTHS WILL BE EQUAL TO OVERLAY THICKNESS OF MAPS SEE TYPICALS AND BRIDGE DATA SHEETS

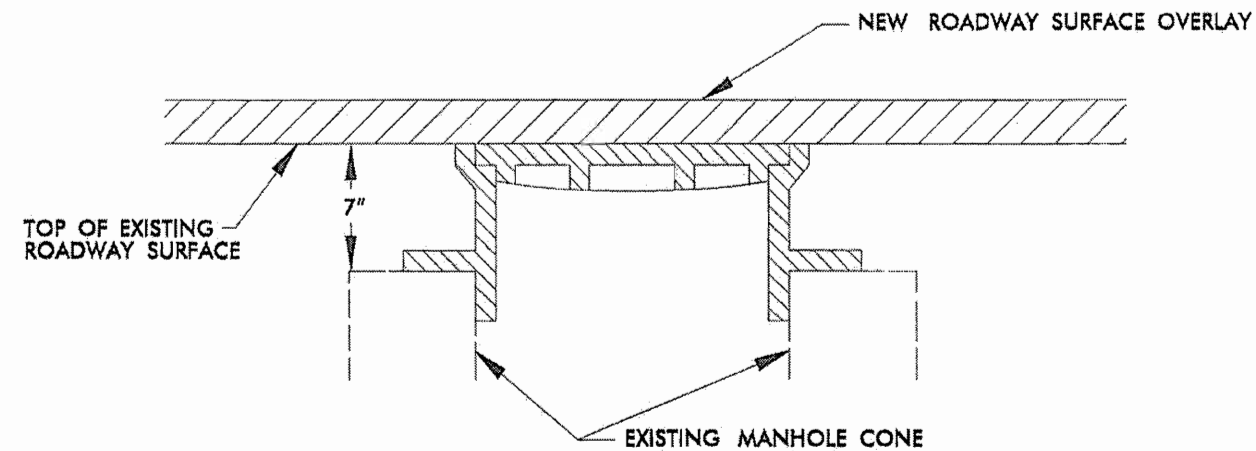
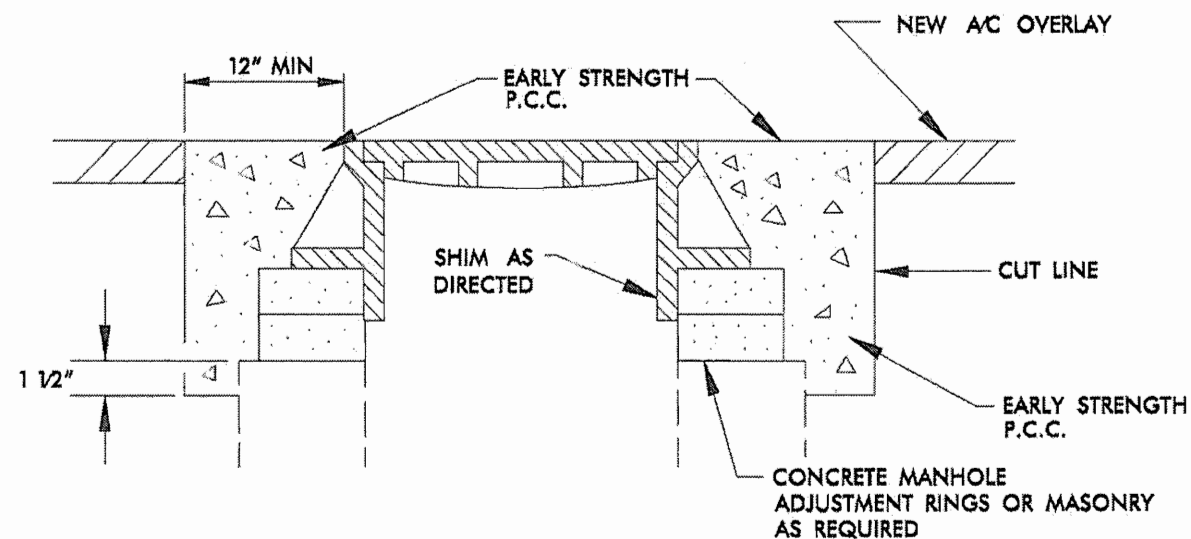
** SEE TYPICALS FOR MIX TYPE

INCIDENTAL MILLING AT TIE-IN DETAIL



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
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ YD
D*	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, TO BE APPLIED AT AN AVERAGE RATE OF 285 LBS PER SQ YD
M	MILL ASPHALT PAVEMENT, 0" TO 1 1/2"
M1	MILL ASPHALT PAVEMENT, 1 1/2" DEPTH
M2*	MILL ASPHALT PAVEMENT, 4" 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:**

1. ALL QUANTITIES ARE "ESTIMATED" AS INDICATED IN THE "SUMMARY OF QUANTITIES".

2. 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.

3. 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.

4. 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).

5. 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.

6. PAPER JOINTS ARE TO BE PLACED BETWEEN DAYS OF PAVING OPERATIONS AS SPECIFIED IN THE STANDARD SPECIFICATIONS SECTION 610-11.

7. ALL MILLED AREAS WILL BE PAVED WITHIN 72 HOURS UNLESS APPROVED BY THE ENGINEER.

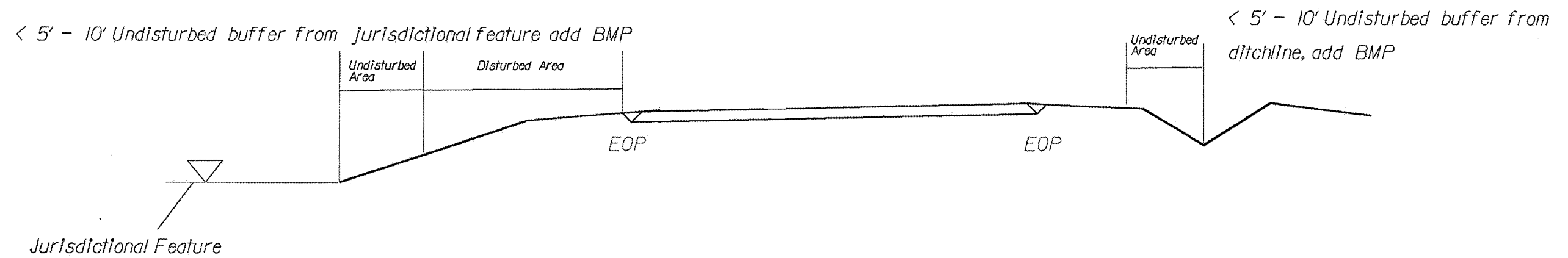
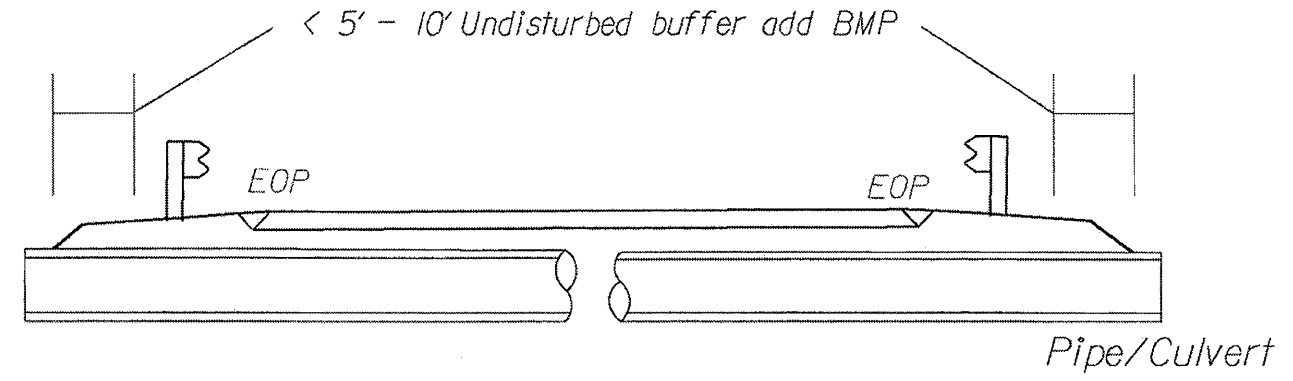
9. REPLACE ANY PORTION OF STOP BARS AND OTHER PAVEMENT MARKINGS AT ANY INTERSECTION INCLUDING Y-LINES NOT ACTUALLY BEING PAVED OVER, THAT ARE OBLITERATED BY THE PAVING OPERATION EITHER BY HAULING WHEEL TRACKS OR TACK TRUCK BY THE END OF EACH RESURFACING OPERATION

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

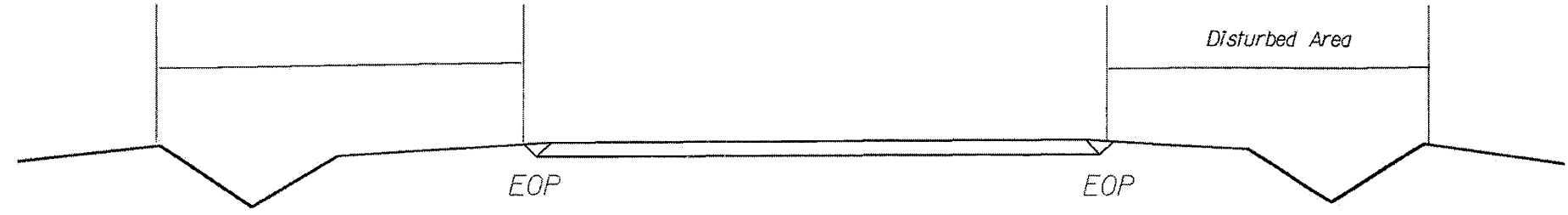
BMP Options: Wattle or Silt Fence

EROSION CONTROL DETAIL

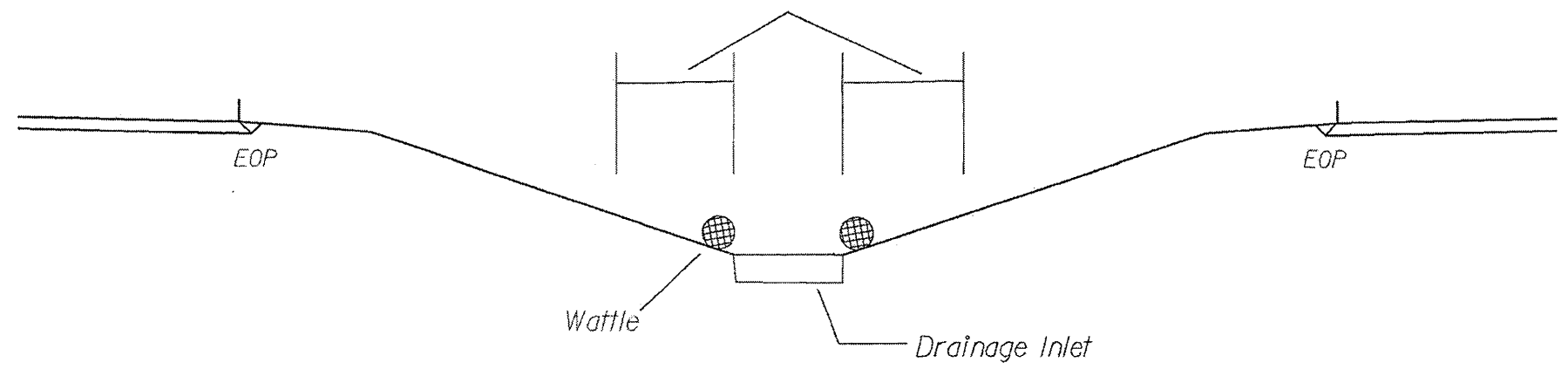
PROJECT REFERENCE NO.	SHEET NO.
9CR.10801.140, 9CR.20801.140	11



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

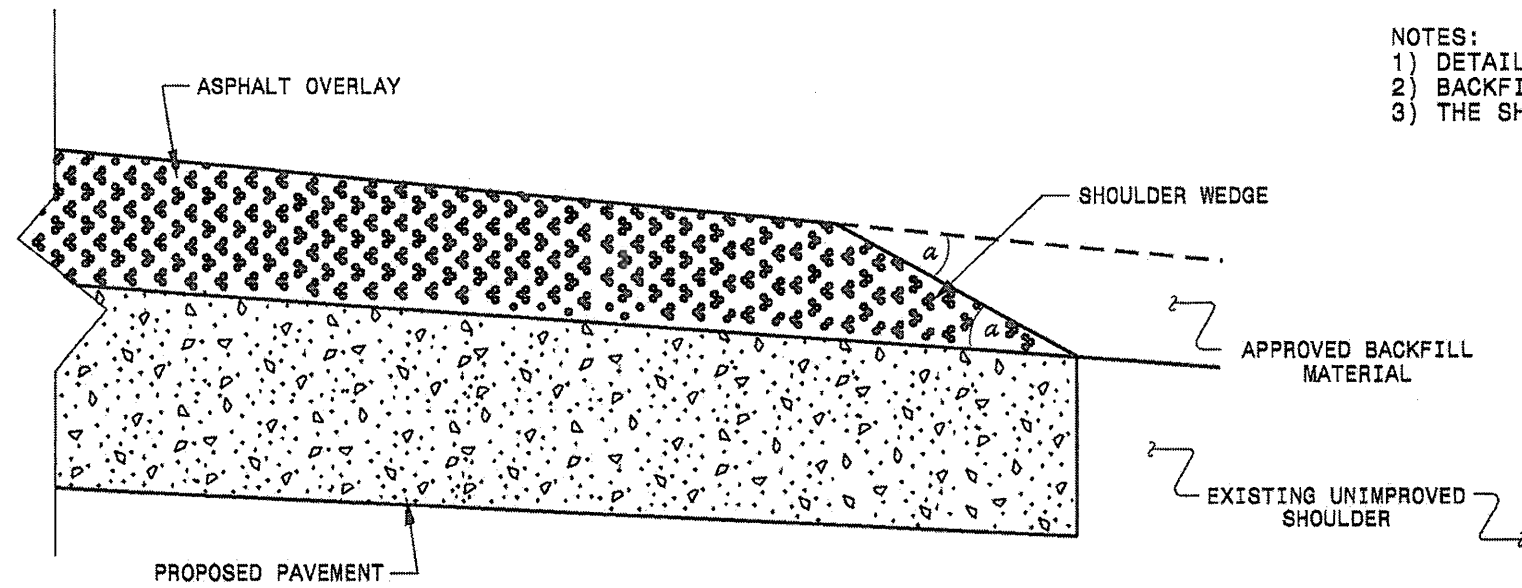


< 5' - 10' Undisturbed buffer from inlet, add wattle

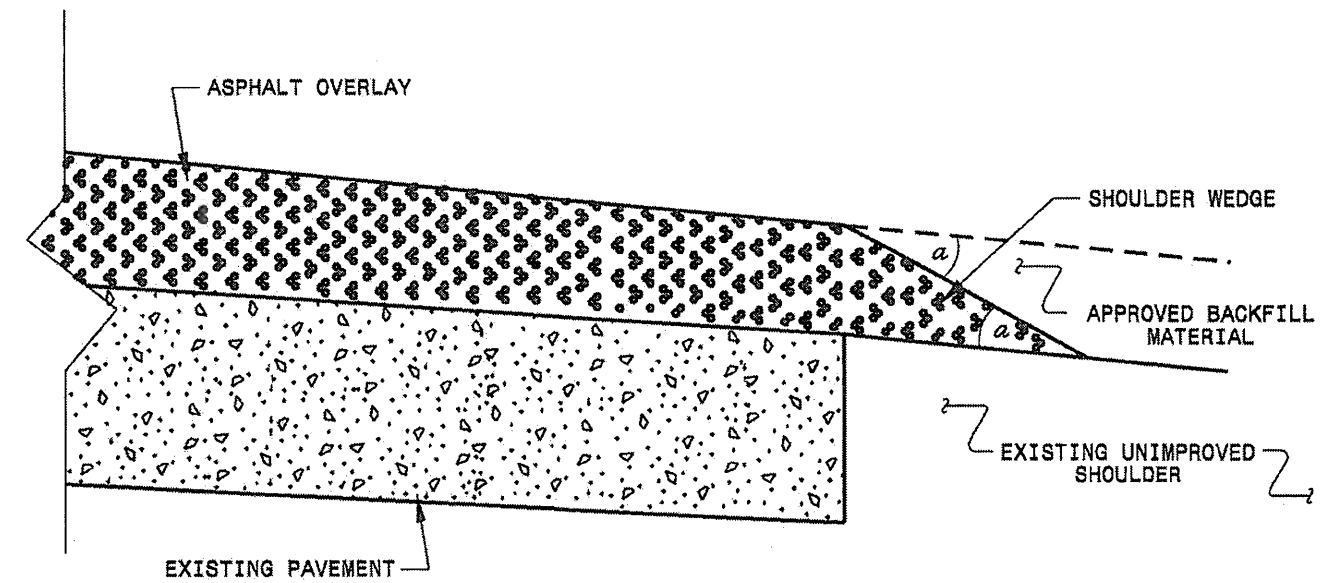


NOT TO SCALE

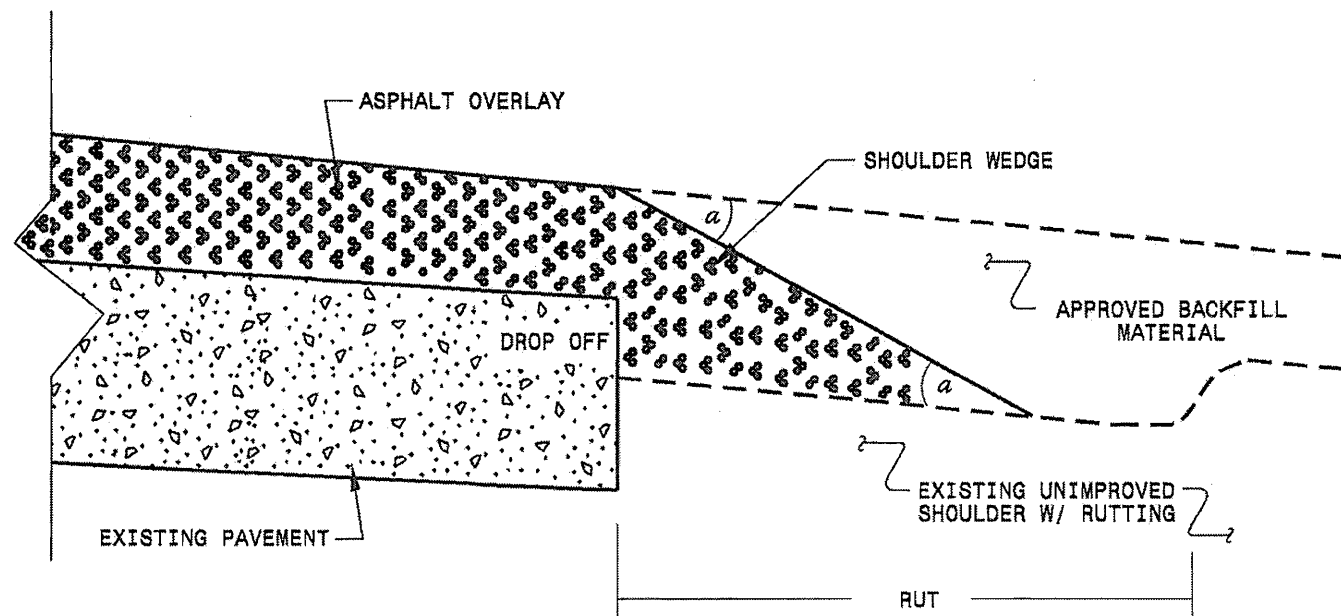
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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 919-707-8950 FAX 919-260-4119

**SHOULDER WEDGE
 DETAILS**

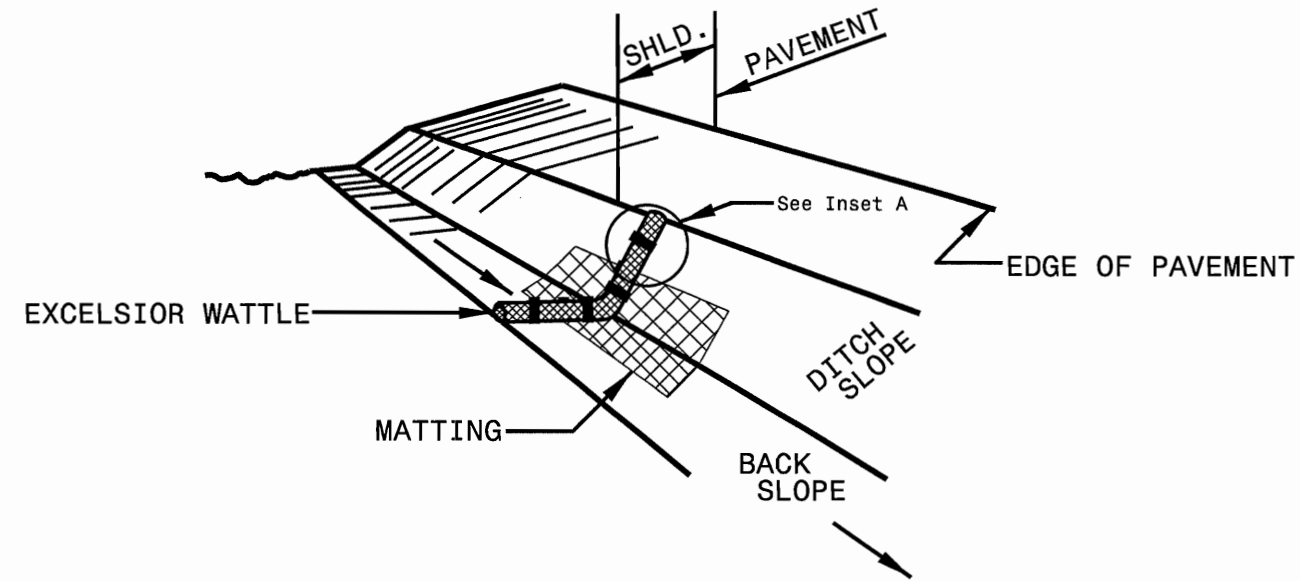
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 T. SPELL

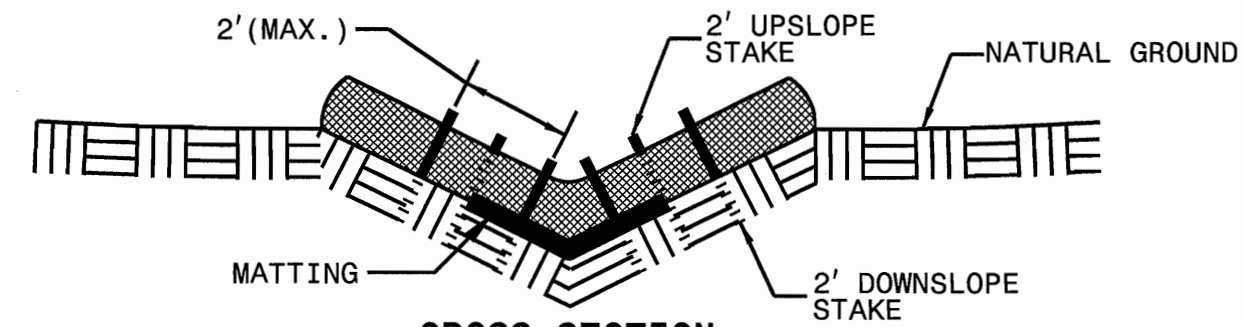
Rowan County 2014 Resurfacing Bridges

										PROJECT NO.		SHEET NO.
										9CR.10801.140		13
										9CR.20801.140		
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 150	NC 150	79	GRANTS CREEK	8.5 RC SLAB	64	NA	NA	200	NA	MILL APPROACHES, DO NOT PAVE ON BRIDGE	
3	SR 1516	AIRPORT ROAD	205	GRANTS CREEK	STL. PLK. 4.0 AWS	24.2	NA	NA	51	NA	MILL APPROACHES, MILL DECK AND REPAVE	
4	SR 1337	LENTZ ROAD	91	I-85 & US 601	7 RC SLAB	34	NA	NA	257	NA	MILL APPROACHES, DO NOT PAVE ON BRIDGE	
6	SR 1547	CALDWELL ROAD	254	KERR CREEK	5 GA. STL. 3.5WS	24.2	NA	NA	51	NA	MILL APPROACHES, MILL DECK AND REPAVE	
7	SR 2539	PEACH ORCHARD ROAD	200	TOWN CREEK	7 RC 2.5 AWS	24	NA	NA	42	NA	MILL APPROACHES, MILL DECK AND REPAVE	
7	SR 2539	PEACH ORCHARD ROAD	112	I-85 & US 601	8.5 RC SLAB	56	NA	NA	248	NA	MILL APPROACHES, DO NOT PAVE ON BRIDGE	
8	SR 1007	US 601 / JAKE ALEXANDER ROAD	114	I-85	8.5 RC SLAB	68	NA	NA	234	NA	MILL APPROACH, DO NOT PAVE ON BRIDGE	

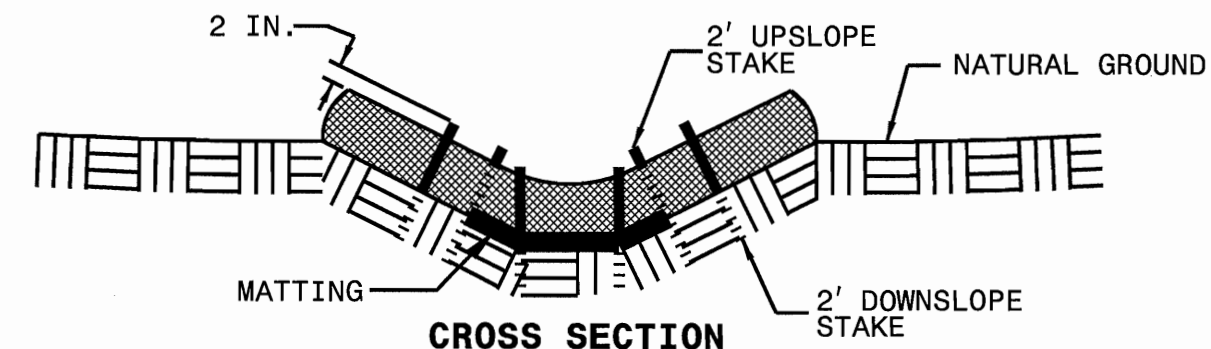
WATTLE DETAIL



ISOMETRIC VIEW



**CROSS SECTION
VEE DITCH**



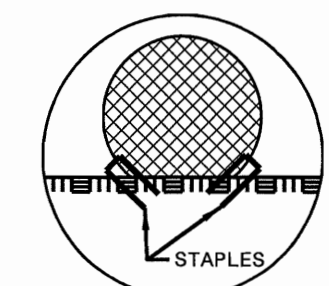
**CROSS SECTION
TRAPEZOIDAL DITCH**

NOTES:

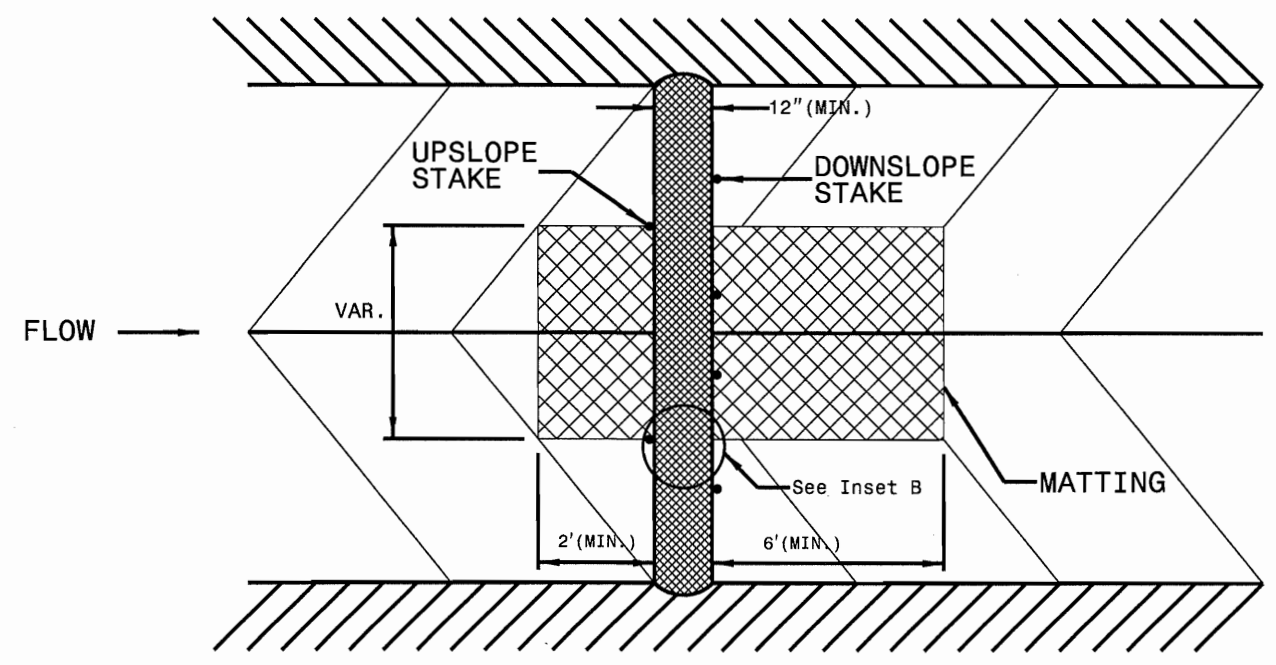
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES 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.
- INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



INSET A



INSET B



TOP VIEW

PROJECT NO.	SHEET NO.	TOTAL NO.
9CR.10801.140, 9CR.20801.140	15	

SUMMARY OF QUANTITIES

PROJECT NO.	COUNTY	MAP NO.	ROUTE	DESCRIPTION	TYP	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	MILLING ASPHALT PAVEMENT, 4" DEPTH SY	MILLING ASPHALT PAVEMENT, 0" TO 1 1/2" DEPTH SY	INCIDENTAL MILLING SY	INTERMEDIATE COURSE, 119.08 TONS	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, S9.5C 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
9CR.10801.140	Rowan	1	NC 150 MOORESVILLE RD.	FROM US 29/A AVE. THROUGH INTERSECTION AT CANDLEWICK DR.	1,2,3	2	MU	NO	NO	1.618	24-60	197	42	1.64	28,560		2,171	3,235		4,284	253	20		4	11	658	66	
TOTAL FOR MAP NO. 1										1.618		197	42	1.64	28,560		2,171	3,235		4,284	253	20		4	11	658	66	
TOTAL FOR PROJ NO. 9CR.10801.140										1.618		197	42	1.64	28,560		2,171	3,235		4,284	253	20		4	11	658	66	
9CR.20801.140	Rowan	2	SR 1514 MILLER CHAPEL ROAD	FROM AIRPORT RD. (SR1516) TO MILLER RD. (SR1509)	4	2	2WU	NO	NO	1.934	20	232	81	3.87				222		2,110		127	20				774	77
		3	SR 1516 AIRPORT RD.	FROM NC 150 (MOORESVILLE RD.) TO US 29 SOUTH	4	2	2WU	NO	NO	2.783	21	334	99	5.57	136			800		3,348		201	20			1	1,113	111
		4	SR 1337 LENTZ RD.	FROM US 29 SOUTH (MAIN ST.) TO PINE RIDGE RD. SR 1339	4	2	2WU	NO	NO	2.696	24	324	330	5.39			1,067		3,526		212	20					1,078	108
		5	SR 1505 MT HOPE CHURCH RD.	FROM OLD CONCORD RD. (SR 1002) TO END OF CURB AND GUTTER AT W. 3RD ST.	4	2	2WU	NO	NO	2.825	22	339	252	5.65			489		3,388		203	20	1				1,130	113
		6	SR 1547 CALDWELL RD.	FROM NC 150 (MOORESVILLE RD.) TO MILLBRIDGE RD. (SR 1350)	4	2	2WU	NO	NO	1.922	22	231	108	3.84	136			1,022		2,305		138	20				769	77
		7	SR 2539 PEACH ORCHARD RD.	FROM EAST SIDE OF RXR TRACKS TO OLD CONCORD RD. (SR 1002)	4	2	2WU	NO	NO	2.023	22-60	243	156	4.05	112		1,173	3,378		3,224		193	20				809	81
		8	SR 1007 JAKE ALEXANDER BLVD.	FROM I-85 BRIDGE TO 300 FEET BEYOND OLD CONCORD RD. (SR 1002) INTERSECTION. INCLUDES RAMPS TO AND FROM I-85 NORTH BOUND	2	2	MU	NO	NO	0.437	60		93		21,990						2,035	120	20		7	8		
		9	SR 1238 CHINA GROVE RD.	FROM CABARRUS COUNTY LINE TO MOOSE RD. (INCLUDING 600 FEET OF MOOSE RD.)	4,5	2	2WU	NO	NO	0.43	21	52	30	0.86		2,013		233	319	614		52	20				172	17
		10	SR 1238 CHINA GROVE RD.	FROM MOOSE RD. SR 1308 TO US 29	4,5	2	2WU	NO	NO	3.275	22	393	135	6.55	733		1,266	116	4,029		247	20				1,310	131	
TOTAL FOR PROJ NO. 9CR.20801.140										18.325		2,148	1,284	35.78	22,374	2,746	1,173	8,477	435	22,544	2,035	1,493	180	1	7	9	7,155	715
GRAND TOTAL										19.943		2,345	1,326	37.42	50,934	2,746	3,344	11,712	435	22,544	6,319	1,746	200	1	11	20	7,813	781

