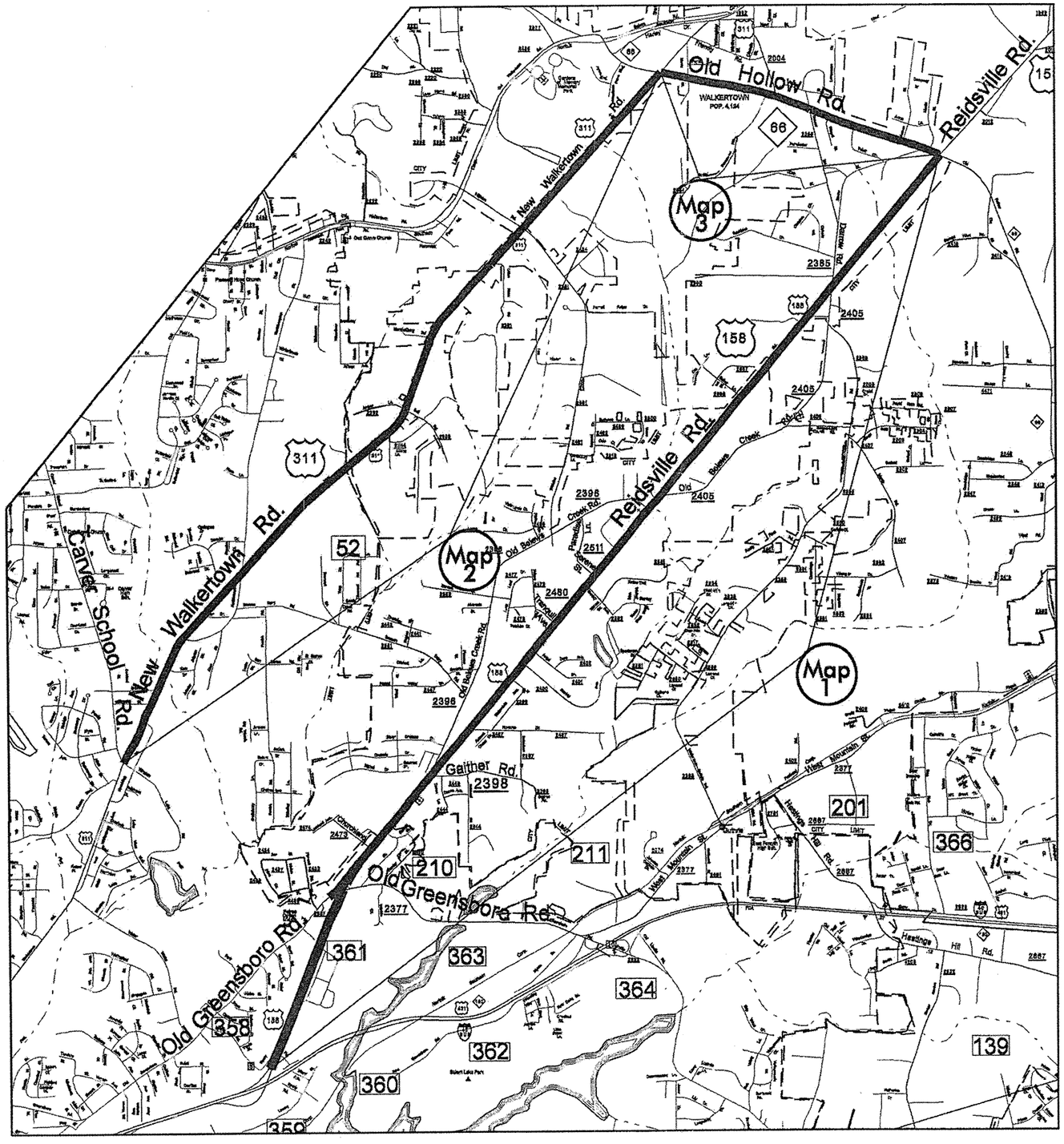


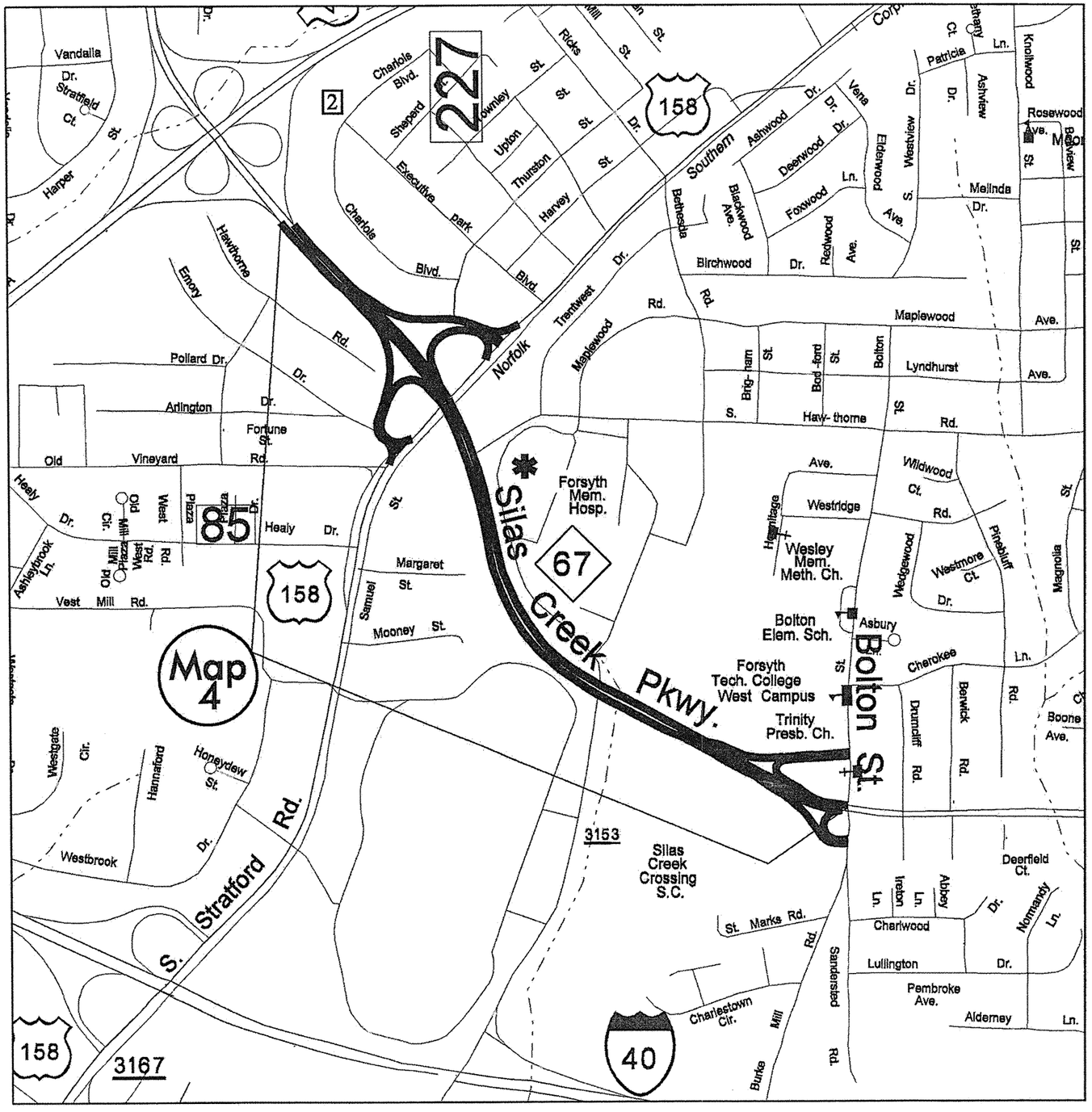

MAP NO.1 US 158
0–1½" MILL AT ALL CURB AND MEDIAN 6' WIDTH.
IN THE 4 LANE SECTION MILL RIGHT TRAVEL LANES BOTH NORTH BOUND AND SOUTH BOUND LANES A 2" DEPTH FROM GREENSBORO RD TO PVMT JT. NEAR BUS 40 RAMPS AND FILL WITH 2" I19.0C. PAVE OVER ALL LANES WITH 1½" S9.5C

MAP NO.2
0–1½" MILL AT ALL CURB AND MEDIAN 6' WIDTH.

MAP NO.3
0–1½" MILL AT ALL CURB AND MEDIAN 6' WIDTH.

MAP 1
MAP 2
MAP 3

FORSYTH COUNTY
NORTH CAROLINA




MAP NO.4
INCLUDING RAMPS AT BOLTON STREET AND STRAFFORD ROAD

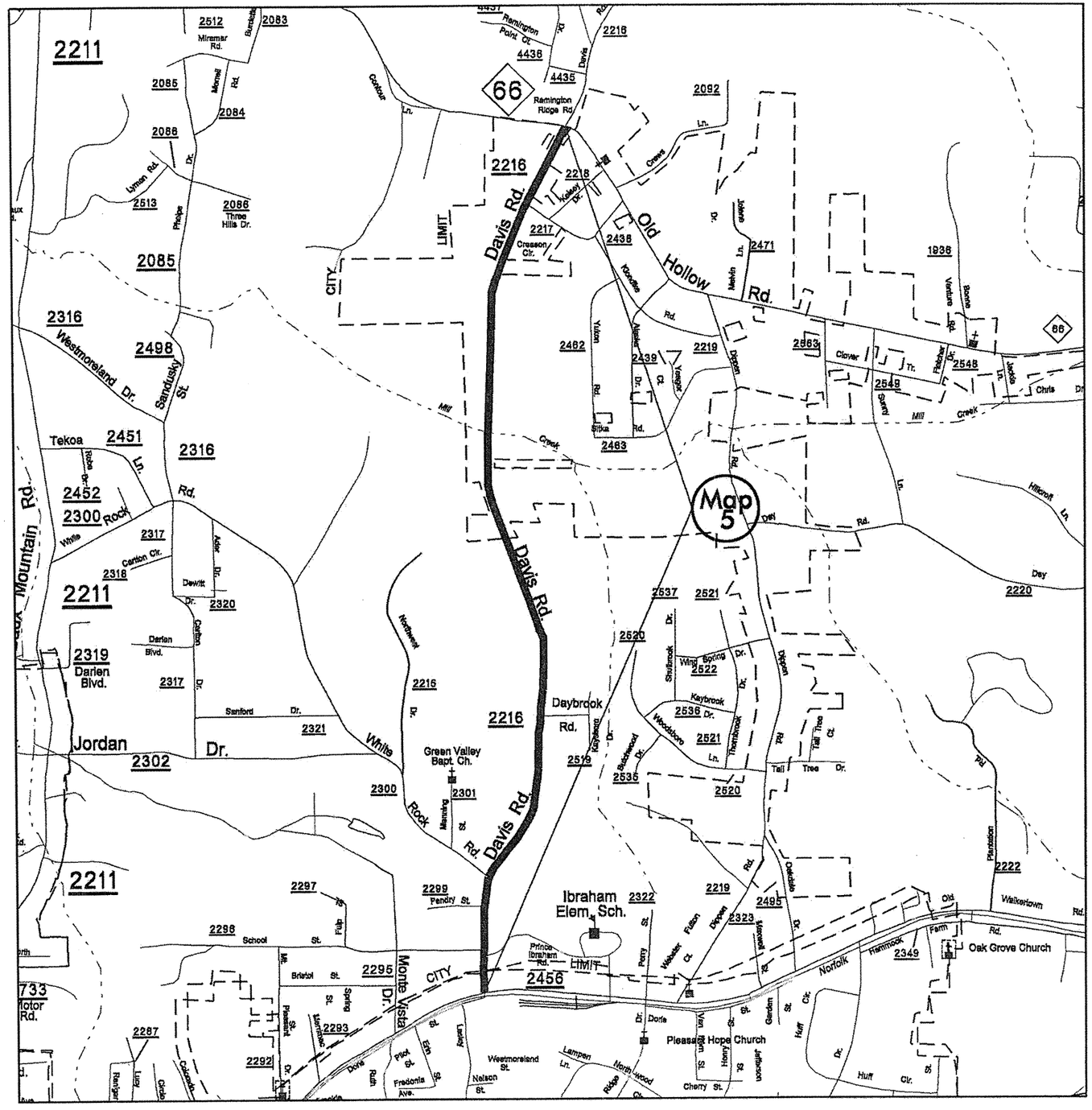
ALL WORK ON THIS MAP WILL BE AT NIGHT TIME 8 P.M. TO 6 A.M. ONLY.
0–1½" MILL AT ALL CURB AND MEDIAN 6' WIDTH.

MILL LEFT TURN LANES WEST BOUND TO HANES MALL BLVD. 2". PAVE BACK WITH 2" I19.0C. OVERLAY ALL LANES WITH 1½" S9.5C.

# MAP 4

## FORSYTH COUNTY

NORTH CAROLINA

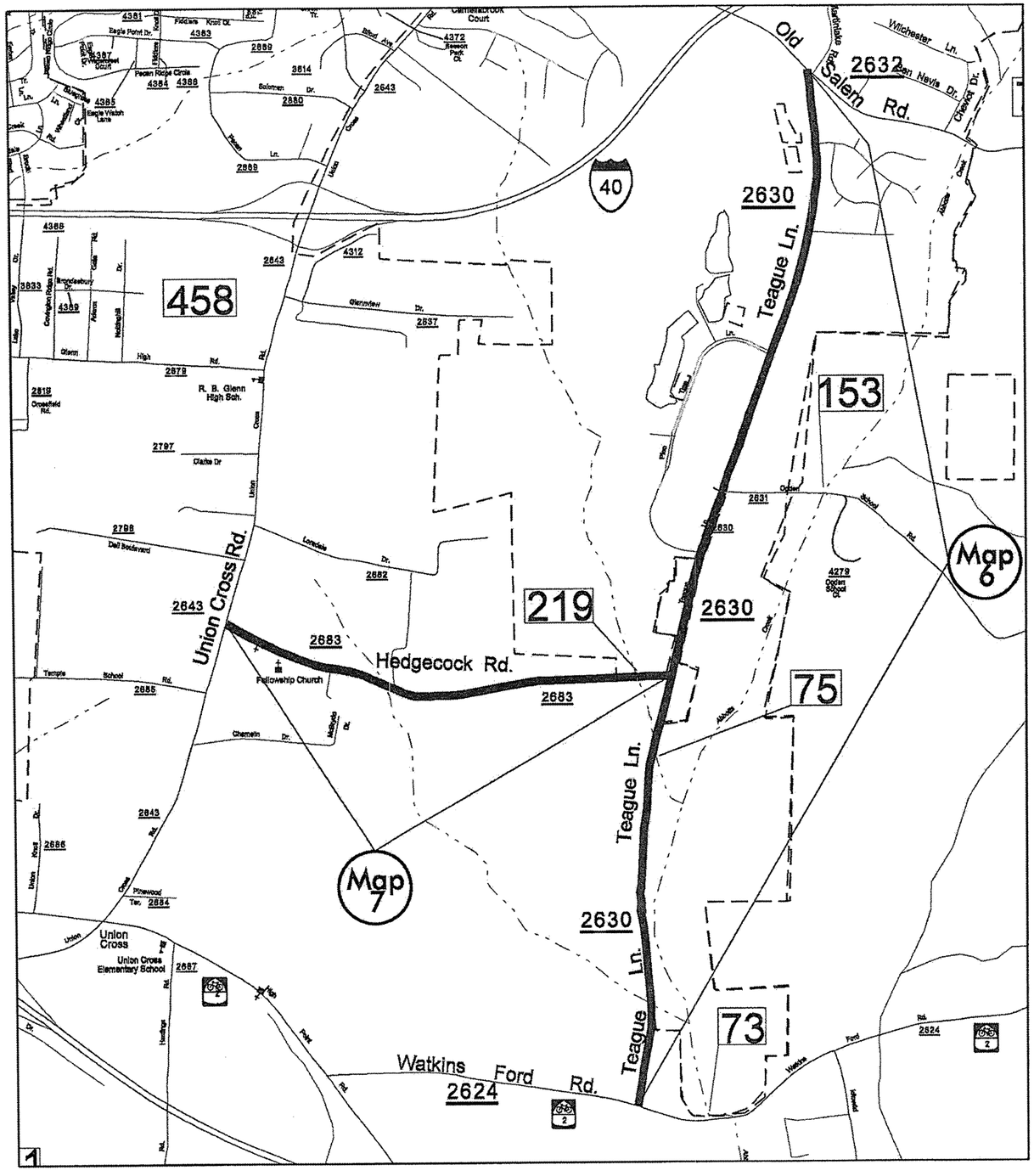



NOTE:

MAP NO. 5
2' WIDENED AREAS TO BE DETERMINED AND MARKED BY NCDOT FORSYTH MAINTENANCE

# MAP 5

## FORSYTH COUNTY
NORTH CAROLINA




NOTES:

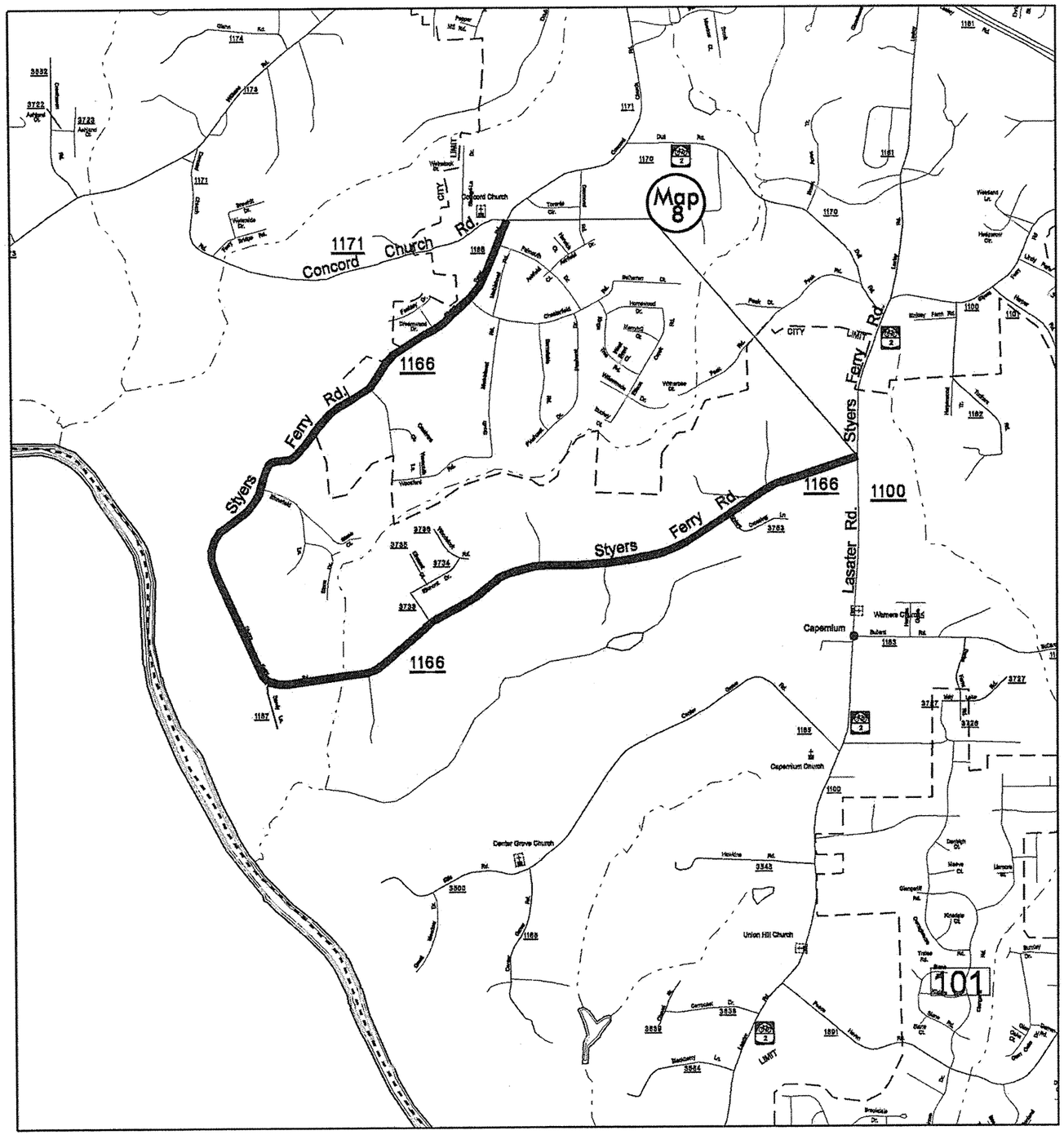
MAP NO.6
0–1½" MILL AT ALL CURB 6' WIDTH

MAP 6
MAP 7

FORSYTH COUNTY

NORTH CAROLINA

SHEET NO. 5
FORSYTH COUNTY



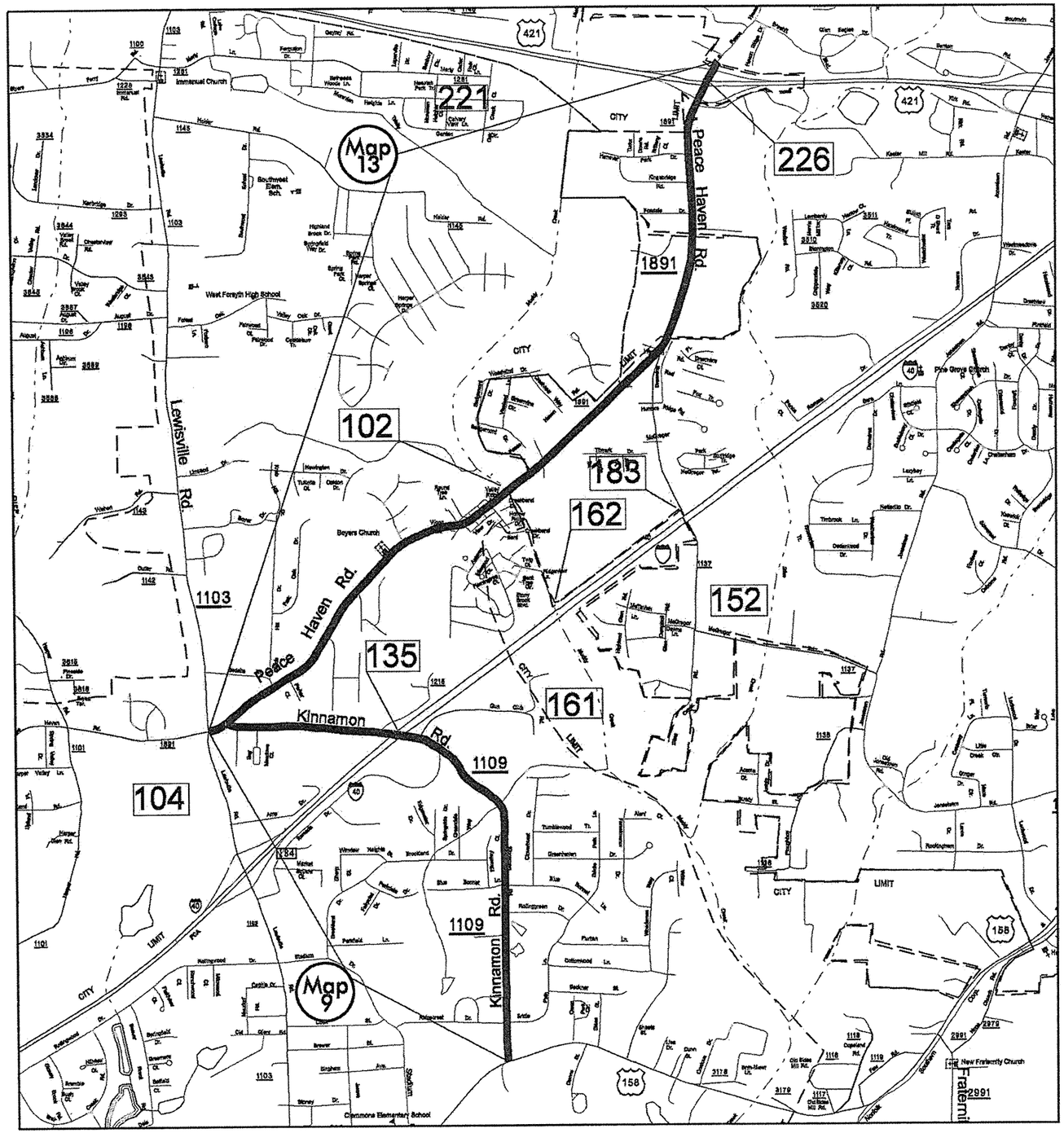

NOTE:

MAP 8
ROAD TO BE WIDENED TO 22'
BY STATE FORCES.

# MAP 8

## FORSYTH COUNTY

NORTH CAROLINA




NOTE:

MAP NO.9

MILL APPROACHES TO BRIDGE NO.135
0"–1½" AT I–40 FOR 200' EACH SIDE.
MILL 1½" DEPTH LEFT TURN LANE TO US 158.
0"–1½" MILL AT ALL CURB AND MEDIANS 6' WIDTH.

MAP NO.13

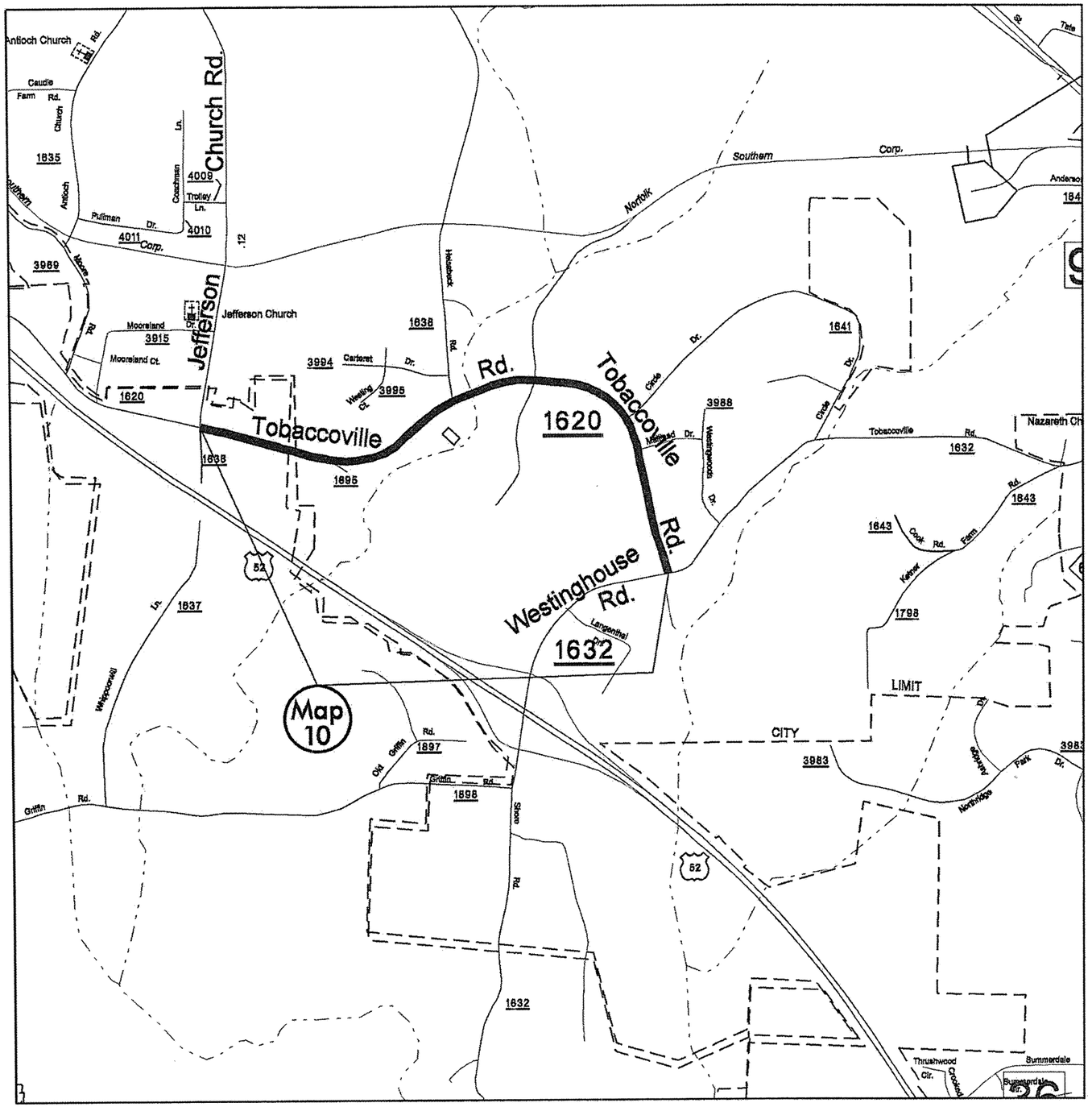
AT NORTH PVMT JOINT WHERE MAP BEGINS
MILL 1½" TO 5" AT BRIDGE NO. 226,
PAVE BACK WITH 3" I19.0B.
MILL BRIDGE NO. 226 1½" DEPTH.
MILL SOUTHSIDE OF APPROACH TO BRIDGE NO. 226 1½" TO 5" DEPTH.
MILL APPROACHES TO BRIDGE NO. 102 1½" DEPTH FOR 200'.
0–1½" MILL AT ALL CURB AND MEDIANS 6' WIDTH.
PAVE OVER ENTIRE MAP WITH 1½" S9.5B.

# MAP 9
# MAP 13

## FORSYTH COUNTY

NORTH CAROLINA

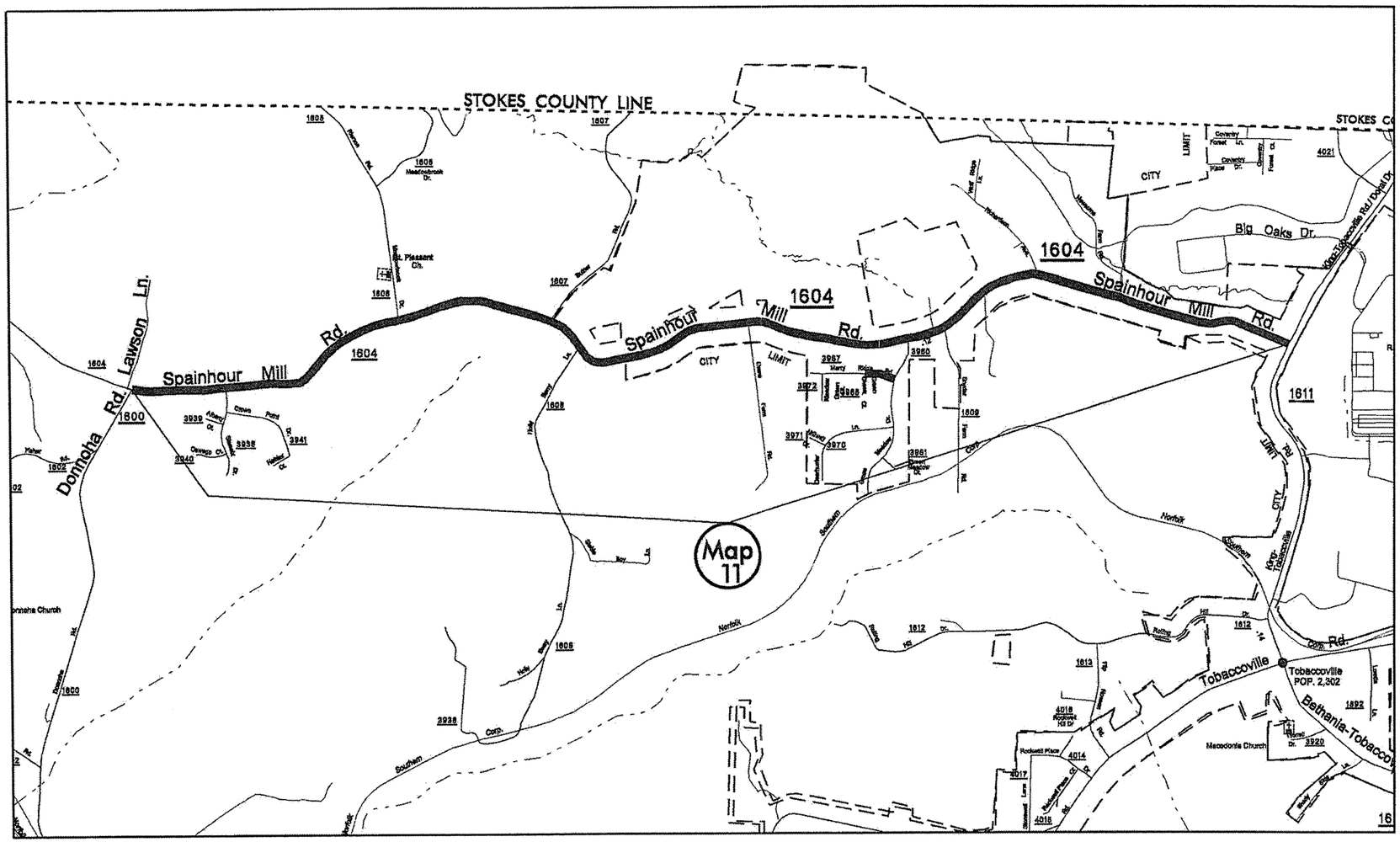
SHEET NO. 7
FORSYTH COUNTY




MAP 10

# FORSYTH COUNTY

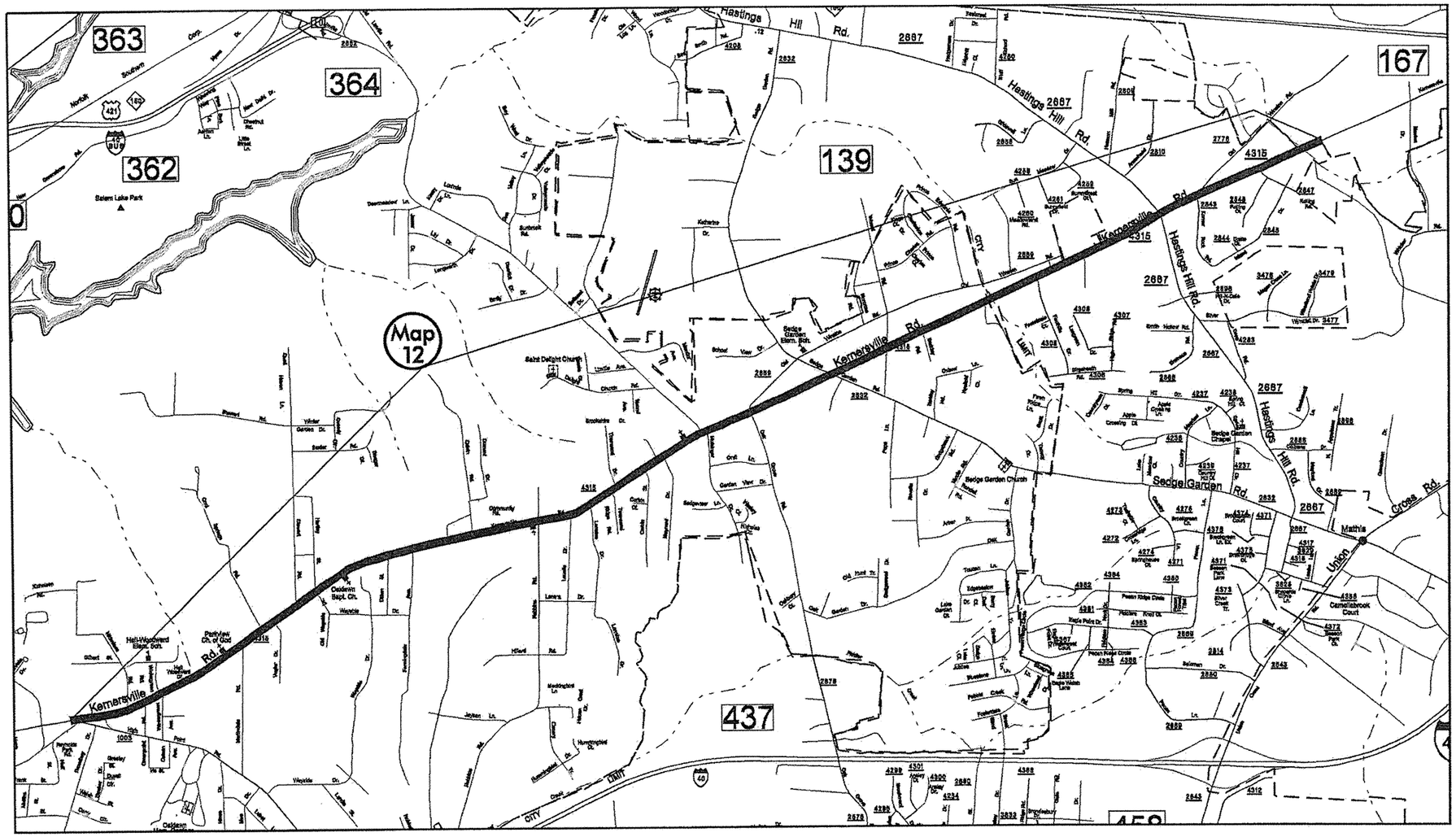
NORTH CAROLINA




N

## MAP 11

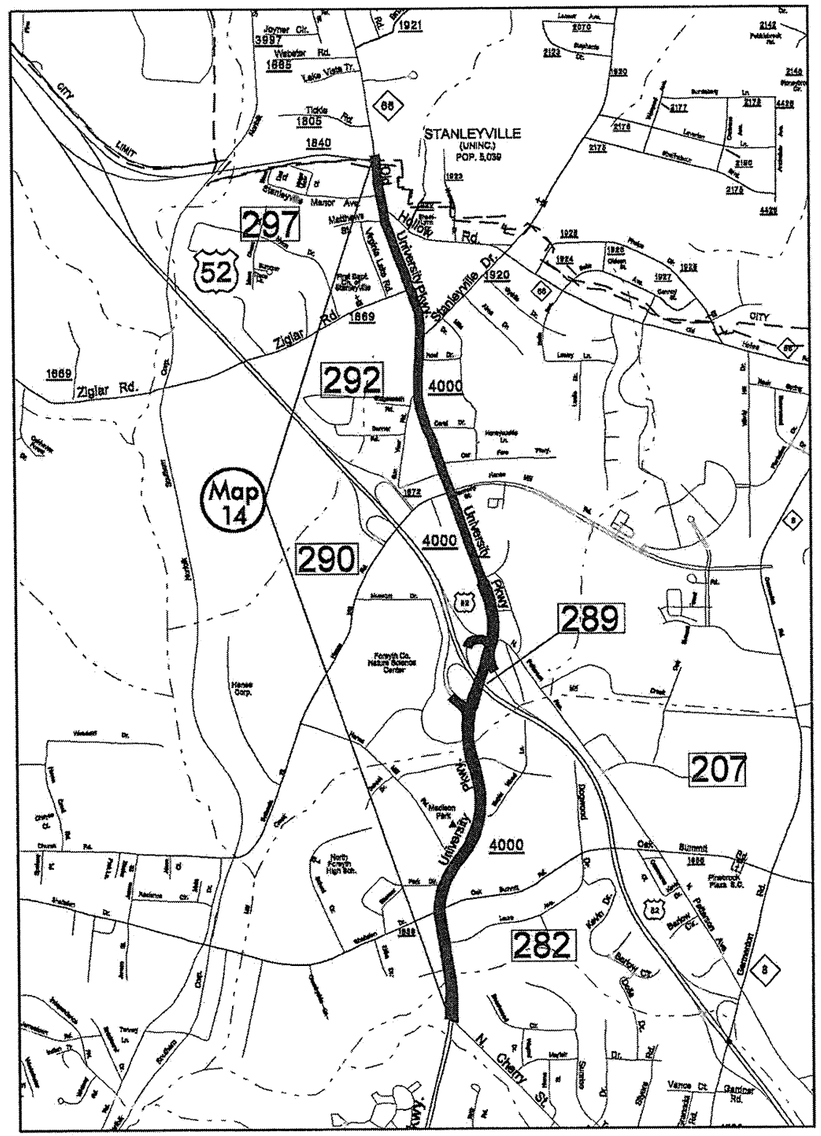
## FORSYTH COUNTY
NORTH CAROLINA




NOTE:
MILL 0–1½" ALL CURB 6' WIDTH

MAP 12

FORSYTH COUNTY
NORTH CAROLINA



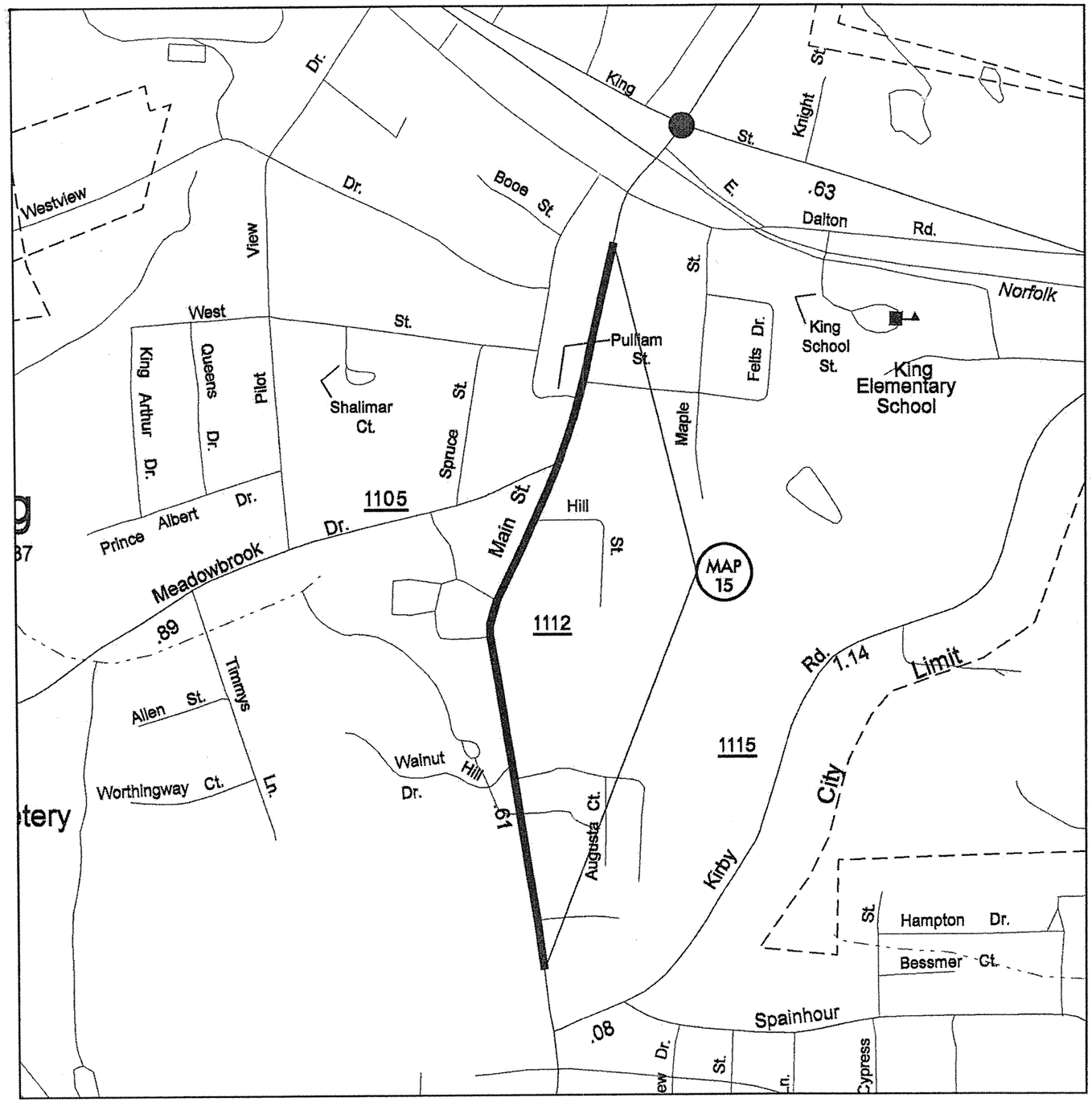

NOTE:
ALL WORK ON THIS MAP WILL BE AT NIGHT TIME 8 P.M. TO 6 A.M. ONLY.

0–1½" MILL AT ALL CURB AND MEDIAN 6' WIDTH.

MILL 1½" FULL DEPTH 300' EACH SIDE OF BRIDGE NO. 289 AT US 52.
TIE IN PAVEMENT AT RAMPS AT CONCRETE PVMT. JOINTS.
TIE IN NORTH BOUND US 52 OFF RAMP TO SOUTH BOUND UNIVERSITY PARKWAY AT PVMT JOINT AT THE BOTTOM OF THE RAMP.

# MAP 14

## FORSYTH COUNTY
NORTH CAROLINA

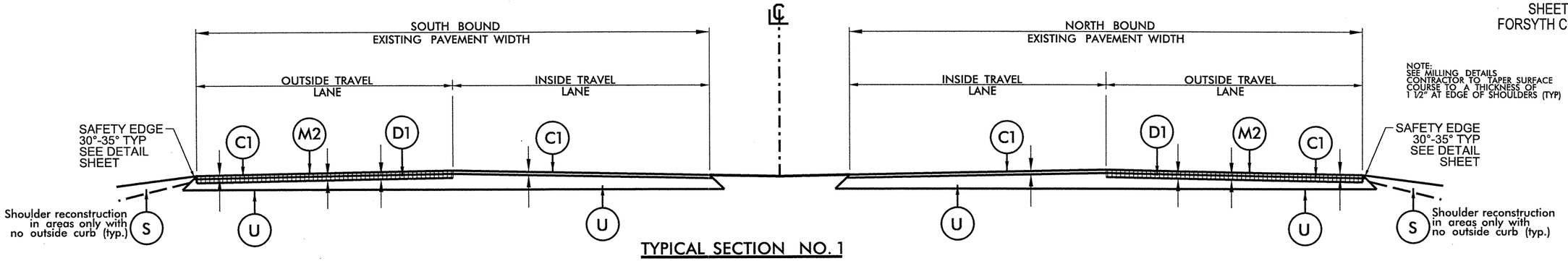



NOTE:
MILL 0–1½" ALL CURB 6' WIDTH

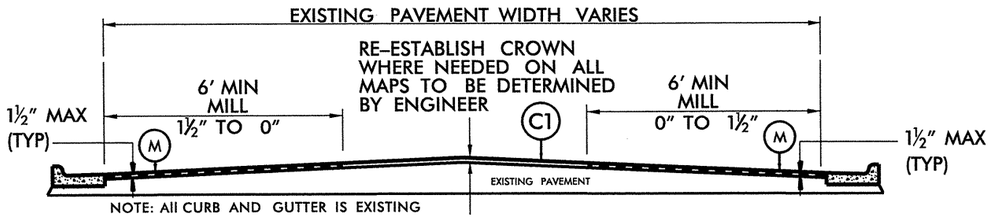
# MAP 15

## STOKES COUNTY

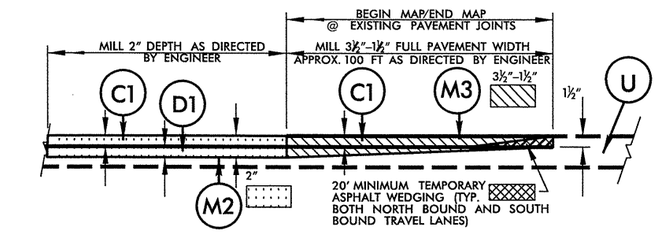
NORTH CAROLINA



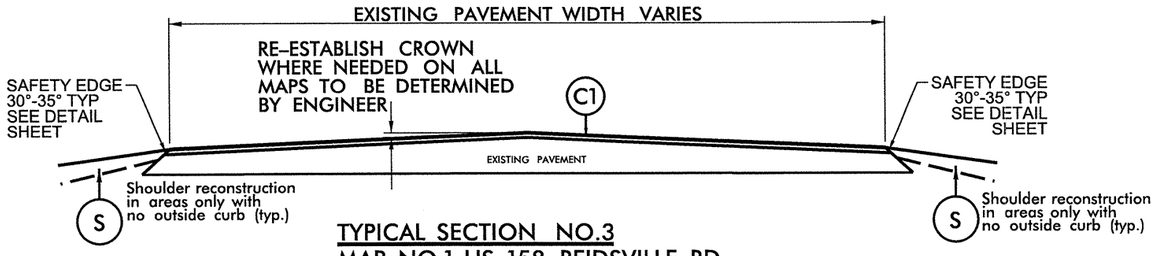

TYPICAL SECTION NO. 1
MAP NO. 1 US 158



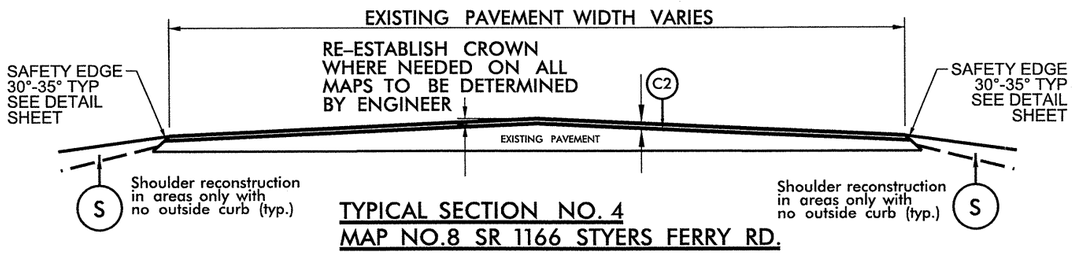

TYPICAL SECTION NO.2
MAP NO.4 NC 67 SILAS CREEK PARKWAY




US 158 REIDSVILLE RD. MILLING/TIE-IN DETAIL

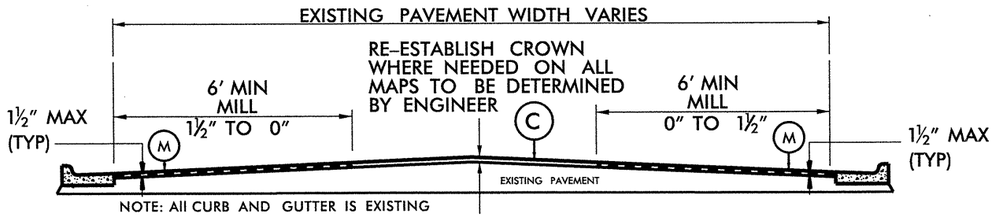



TYPICAL SECTION NO.3
MAP NO.1 US 158 REIDSVILLE RD.
MAP NO.4 NC67 SILAS CREEK PARKWAY



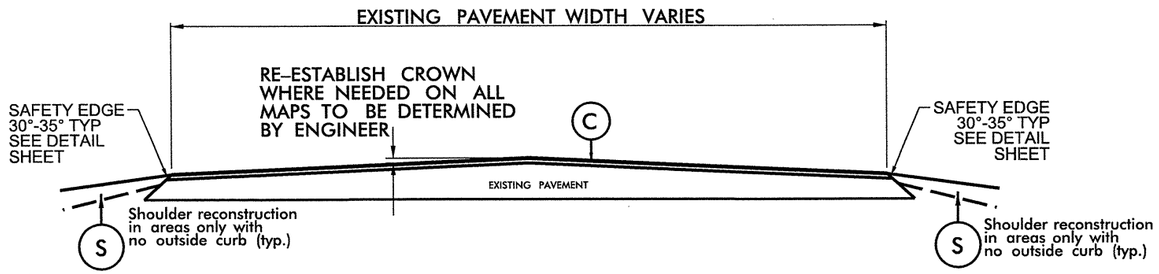

TYPICAL SECTION NO. 4
MAP NO.8 SR 1166 STYERS FERRY RD.

| PAVEMENT SCHEDULE | |
|---|---|
| C | PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS PER SQ. YD. |
| C1 | PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS PER SQ. YD. |
| C2 | PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD. |
| D1 | PROP. APPROX. 2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 228 LBS. PER SQ. YD. |
| D2 | PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2*" IN DEPTH OR GREATER THAN 4" IN DEPTH. |
| E | PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD. |
| M | MILL ASPHALT PAVEMENT, 0 TO 1½" DEPTH |
| M1 | MILL ASPHALT PAVEMENT, 1½" DEPTH |
| M2 | MILL ASPHALT PAVEMENT, 2" DEPTH |
| M3 | MILL ASPHALT PAVEMENT, 1½"-3½" DEPTH |
| M4 | MILL ASPHALT PAVEMENT, 1½"-5" DEPTH |
| S | SHOULDER RECONSTRUCTION (SEE DETAIL) |
| U | EXISTING PAVEMENT |



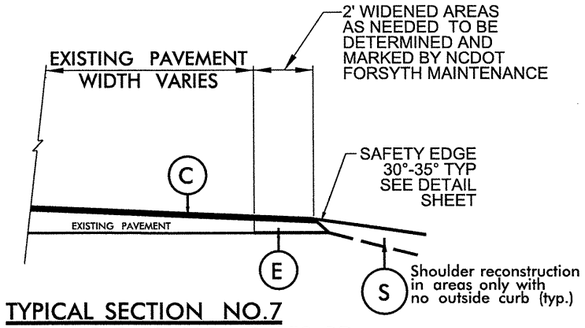

TYPICAL SECTION NO.5
MAP NO.2 US 311 NEW WALKERTOWN RD.
MAP NO.3 NC 66 OLD HOLLOW RD.
MAP NO.6 SR 2630 TEAGUE LANE

MAP NO.9 SR 1109 KINNAMON RD.
MAP NO.12 SR 4315 KERNERSVILLE RD.
MAP NO.13 SR 1891 PEACE HAVEN RD.
MAP NO.14 SR 4000 UNIVERSITY PARKWAY
MAP NO.15 SR 1112 MAIN ST.

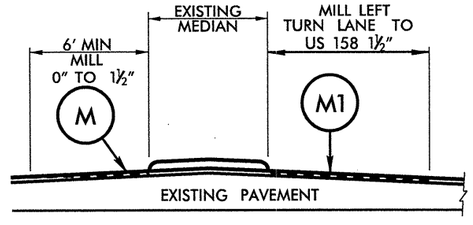



TYPICAL SECTION NO.6
MAP NO.2 US 311 NEW WALKERTOWN RD.
MAP NO.3 NC 66 OLD HOLLOW RD.
MAP NO.5 SR 2216 DAVIS RD.
MAP NO.6 SR 2630 TEAGUE LANE
MAP NO.7 SR 2683 HEDGECOCK RD.

MAP NO.9 SR 1109 KINNAMON RD.
MAP NO.10 SR 1620 TOBACCOVILLE RD.
MAP NO.11 SR 1604 SPAINHOUR MILL RD.
MAP NO.12 SR 4315 KERNERSVILLE RD.
MAP NO.13 SR 1891 PEACE HAVEN RD.
MAP NO.14 SR 4000 UNIVERSITY PARKWAY
MAP NO.15 SR 1112 MAIN ST.

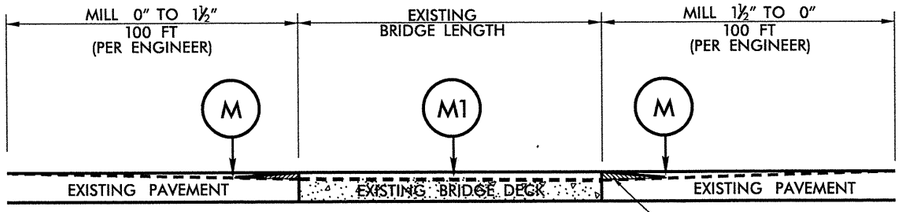



TYPICAL SECTION NO.7
MAP NO.5 SR 2216 DAVIS RD.

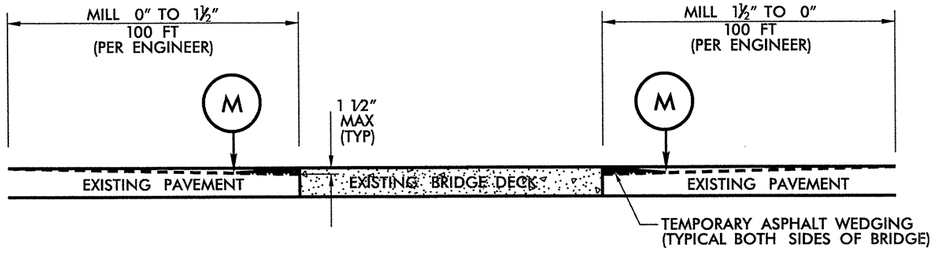



TYPICAL NO. 8
MAP NO.9 SR 1109 KINNAMON RD.
LEFT TURN LANE MILL DETAIL

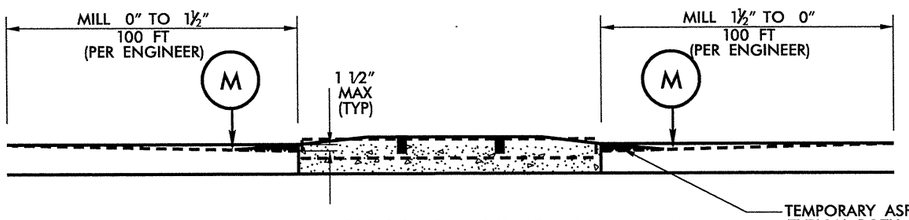
| PAVEMENT SCHEDULE | |
|---|---|
| C | PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ YD |
| C1 | PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ YD |
| C2 | PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD. |
| D1 | PROP.APPROX. 2" ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 228 LBS. PER SQ. YD. |
| D2 | PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2*" IN DEPTH OR GREATER THAN 4" IN DEPTH. |
| E | PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD. |
| M | MILL ASPHALT PAVEMENT, 0 TO 1½" DEPTH |
| M1 | MILL ASPHALT PAVEMENT, 1½" DEPTH |
| M2 | MILL ASPHALT PAVEMENT, 2" DEPTH |
| M3 | MILL ASPHALT PAVEMENT, 1½"-3½" DEPTH |
| M4 | MILL ASPHALT PAVEMENT, 1½"-5" DEPTH |
| S | SHOULDER RECONSTRUCTION (SEE DETAIL) |
| U | EXISTING PAVEMENT |



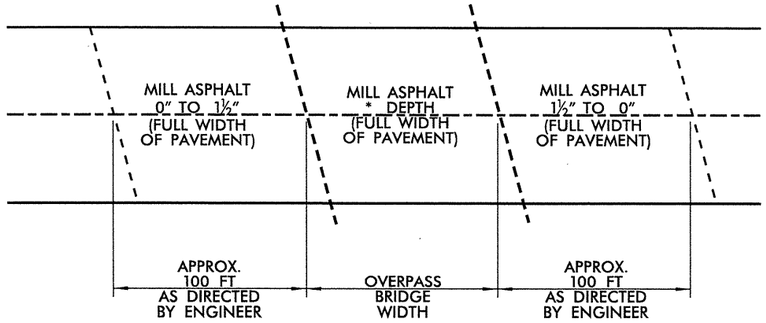

## MILLING BRIDGE DECK AND APPROACHES
(SEE BRIDGE DATA SHEET)




## MILLING BRIDGE APPROACHES
(SEE BRIDGE DATA SHEET)

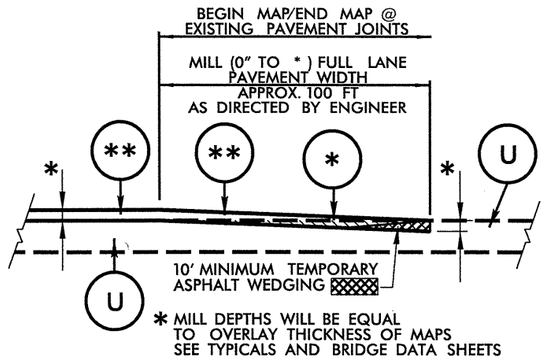



## MILLING RAILROAD CROSSING APPROACHES




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

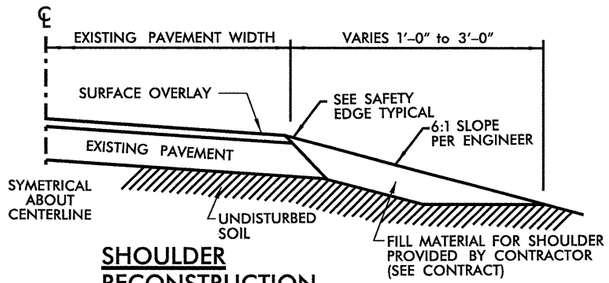
## PLAN VIEW FOR MILLING ASPHALT PAVEMENT UNDER OVERPASS MAP NO.4 NC 67 SILAS CREEK PARKWAY



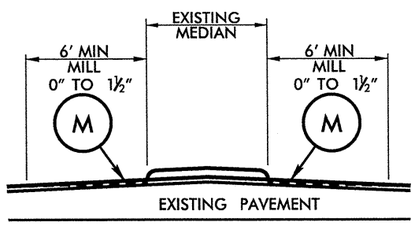

* MILL DEPTHS WILL BE EQUAL TO OVERLAY THICKNESS OF MAPS SEE TYPICALS AND BRIDGE DATA SHEETS

** SEE TYPICALS FOR MIX TYPE

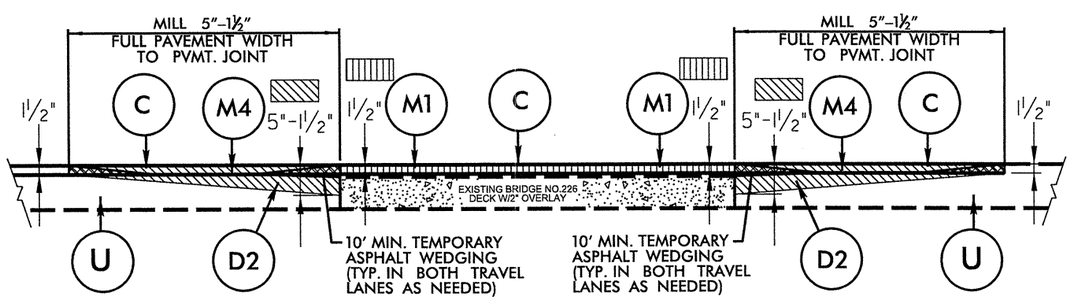
## TIE–IN MILLING DETAIL




## SHOULDER RECONSTRUCTION

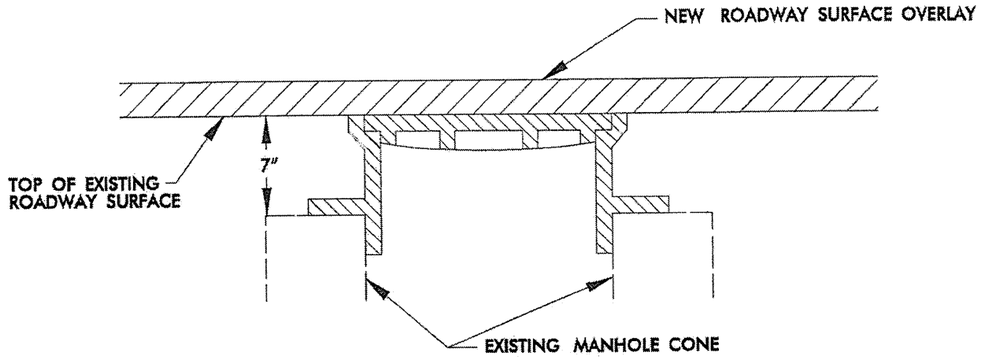



## MILLING AT MEDIANS

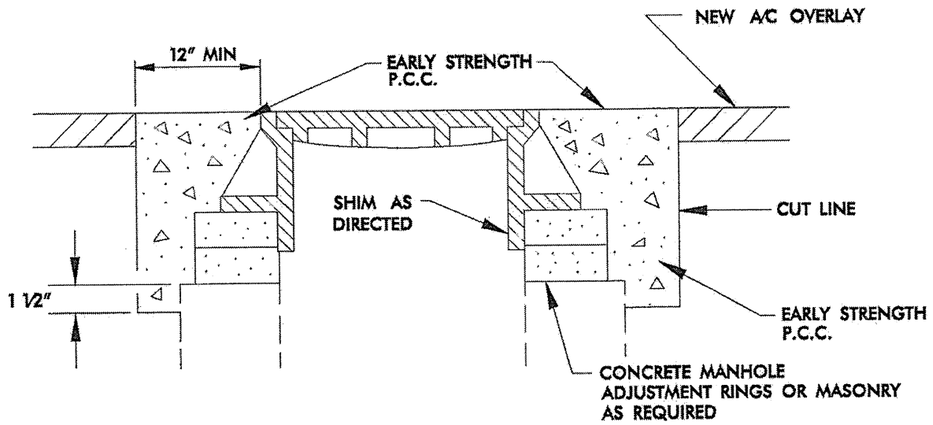



## MILLING DETAIL TIE–IN and BRIDGE APPROACH AT BRIDGE NO.226 PEACE HAVEN RD.

| PAVEMENT SCHEDULE | |
|---|---|
| C | PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS PER SQ YD |
| C1 | PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS PER SQ YD |
| C2 | PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD. |
| D1 | PROP. APPROX. 2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 228 LSBS. PER SY YD. |
| D2 | PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2" IN DEPTH OR GREATER THAN 4" IN DEPTH. |
| E | PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD. |
| M | MILL ASPHALT PAVEMENT, 0 TO 1½" DEPTH |
| M1 | MILL ASPHALT PAVEMENT, 1½" DEPTH |
| M2 | MILL ASPHALT PAVEMENT, 2" DEPTH |
| M3 | MILL ASPHALT PAVEMENT, 1½"–3½" DEPTH |
| M4 | MILL ASPHALT PAVEMENT, 1½"–5" 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 – LEVELING (AS DIRECTED BY ENGINEER)
   PHASE 3 – SURFACE OVERLAY
   PHASE 4 – SHOULDER DROP–OFF REPAIR (AS NEEDED AND DIRECTED BY ENGINEER)
   PHASE 5 – 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).

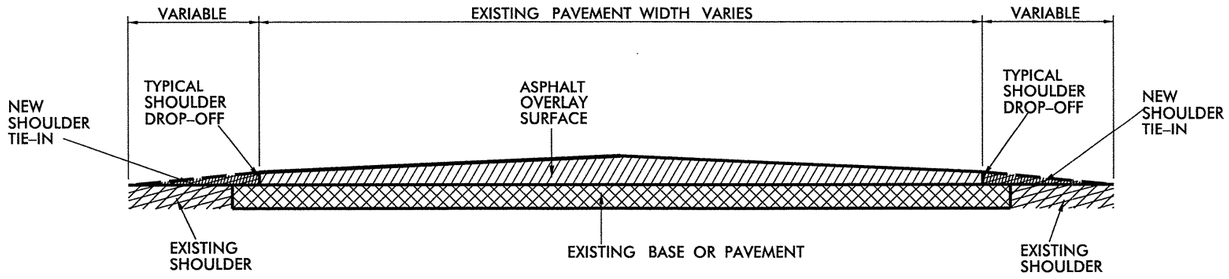
5. SOME MAPS MAY REQUIRE EXTRA ASPHALT SURFACE (LEVELING) TO BE PLACED TO ELIMINATE UNEVEN PAVEMENT, WASHBOARDING OR TO RE–ESTABLISH THE CROWN. THE QUANTITY AND LOCATION OF THIS ITEM SHALL BE AS DIRECTED BY THE ENGINEER.

6. 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.

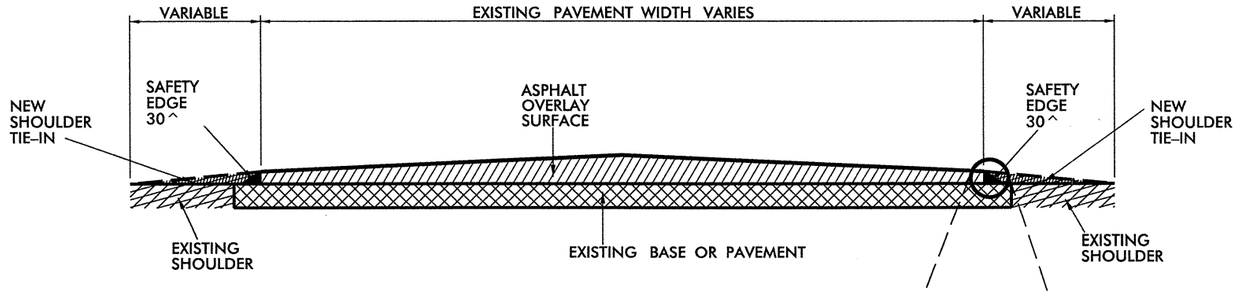
7. PAPER JOINTS ARE TO BE PLACED BETWEEN DAYS OF PAVING OPERATIONS AS SPECIFIED IN THE STANDARD SPECIFICATIONS SECTION 610–11.

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

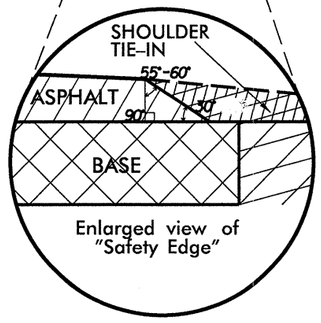
9. REPLACE ANY PORTION OF STOP BARS AND OTHER PAVEMENT MARKINGS AT ANY INTERSECTION INCLUDING Y–LINES NOT ACTUALLY BEING PAVED OVER, THAT ARE OBLITERATED BY THE PAVING OPERATION EITHER BY HAULING WHEEL TRACKS OR TACK TRUCK BY THE END OF EACH RESURFACING OPERATION



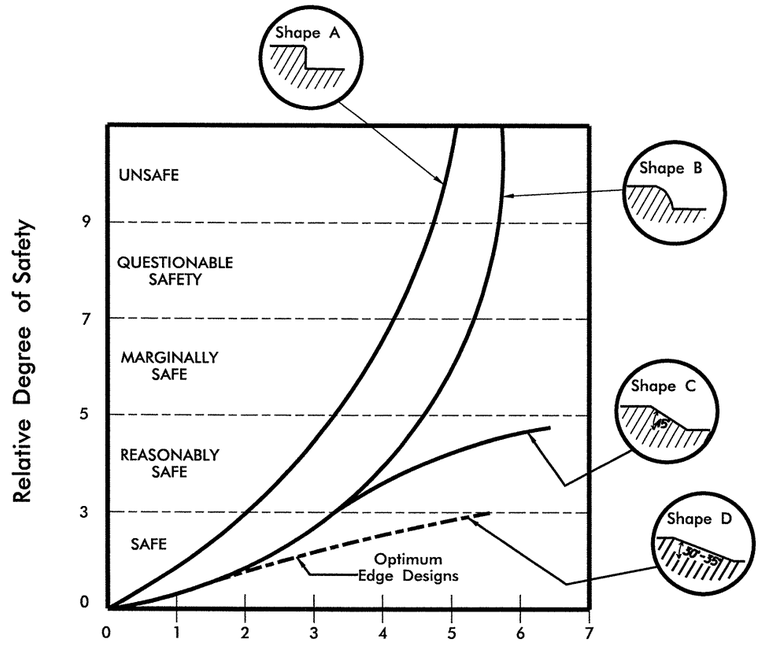

## TYPICAL ROADWAY CROSS SECTION
(Not to Scale)




## TYPICAL ROADWAY CROSS SECTION SHOWING THE "SAFETY EDGE" SHOULDER INSERT
(Not to Scale)




**The purpose of the "Safety Edge" is to reduce pavement edge drop off hazards.**




Longitudinal Edge Elevation Change (inches)

*Source: Zimmer and Ivey, Texas Transportation Institute.

| NORTH CAROLINA DEPARTMENT OF TRANSPORTATION | 2/4/2011 |
|---|---|
| Safety Edge Typical | SHEET # OF |
| S:\DDC\Safety-Edge Typical\Safety Edge Typical.DGN | Drawn By: DLL |

# Forsyth County 2012 Resurfacing Bridge List

| PROJECT NO. | SHEET NO. | TOTAL NO. |
|---|---|---|
| 9CR.10341.9,9CR.20341.91<br>9CR.20851.91 | 17 | |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | US 158 | US 158/ STRATFORD RD. | 85 | NC 67 SILAS CREEK PARKWAY | 7 3/4" RC SLAB | 52 | NA | 18FT 05 IN SBL<br>18FT 06 IN NBL | 214 | N/A | MILL APPROACHES Mill down and repave under bridge |
| 4 | SOUTHERN RXR | SOUTHERN RXR | 301 | NC 67 SILAS CREEK PARKWAY | RC SLAB | NA | NA | 14FT 11 IN NC67WBL<br>15FT 06 IN NC67EBL | 214 | N/A | MILL APPROACHES Mill down and repave under bridge |
| 4 | BOLTON ST. | BOLTON ST. | 294 | NC 67 SILAS CREEK PARKWAY | 7 5/8" RC SLAB | 40 | NA | 14FT 09 IN SBL<br>14FT 09 IN NBL | 149 | Not Posted | No Treatment Map ends before Bridge |
| 6 | SR 2630 | TEAGUE LANE | 75 | ABBOTTS CREEK | PPCCS, 4 AWS | 42 | NA | NA | 80 | Not Posted | MILL APPROACHES Mill bridge deck 1.5" and pave back |
| 7 | SR 2683 | HEDGECOCK RD. | 219 | BRANCH ABBOTTS CREEK | 4X8TIM, 2.0 AWS | 24 | NA | NA | 26 | Not Posted | MILL APPROACHES Mill bridge deck 1.5" and pave back |
| 9 | SR 1109 | KINNAMON RD. | 135 | I-40 | 7 RC SLAB | 24 | NA | NA | 366 | Not Posted | Mill Approaches; Do not pave on bridge |
| 13 | SR 1891 | PEACE HAVEN RD. | 226 | US 421 | 7.25 RC, 2 AWS | 28 | NA | NA | 231 | Not Posted | MILL APPROACHES Mill bridge deck 1.5" and pave back |
| 13 | SR 1891 | PEACE HAVEN RD. | 102 | MUDDY CREEK | 8 RC SLAB | 30 | NA | NA | 202 | Not Posted | Mill Approaches; Do not pave on bridge |
| 14 | SR 4000 | UNIVERSITY PARKWAY | 289 | US 52 | 7 1/4 RC SLAB | 68 | NA | NA | 263 | Not Posted | Mill Approaches; Do not pave on bridge |

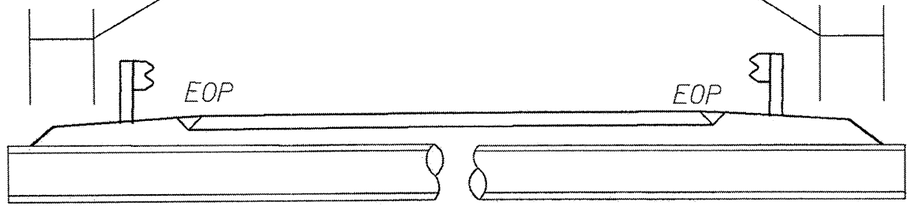
# EROSION CONTROL DETAIL



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

BMP Options: Wattle or Silt Fence

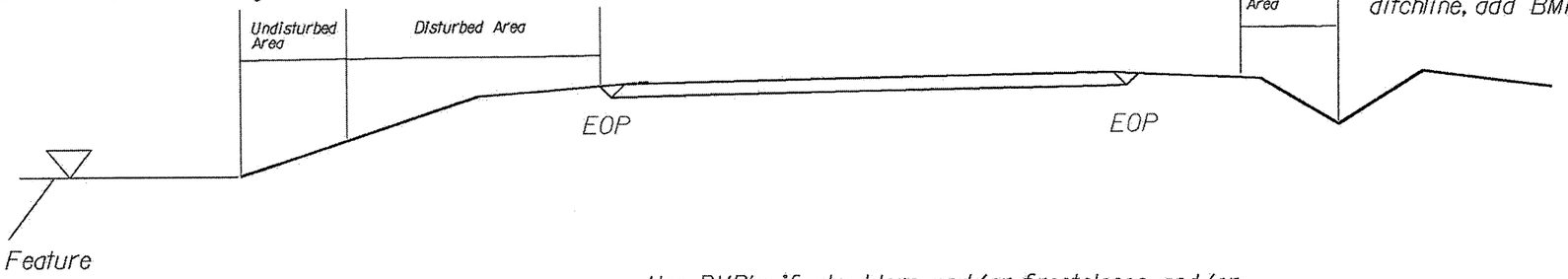
< 5' – 10' Undisturbed buffer add BMP




Pipe/Culvert

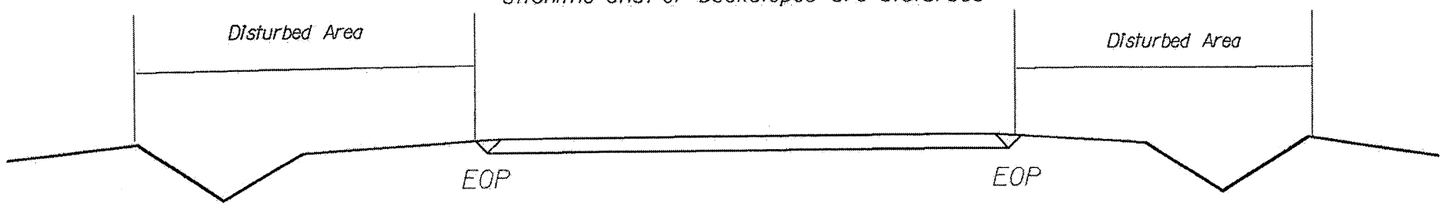
< 5' – 10' Undisturbed buffer from jurisdictional feature add BMP

< 5' – 10' Undisturbed buffer from ditchline, add BMP

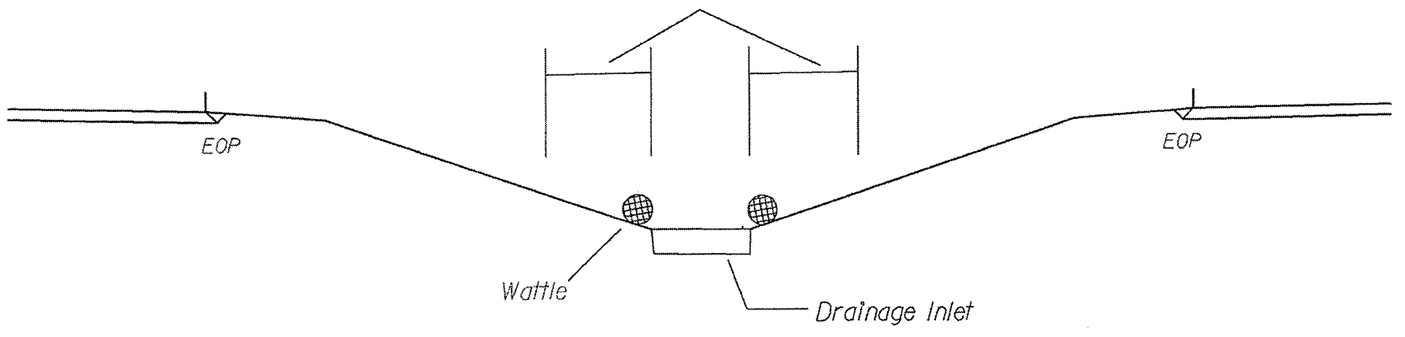



Jurisdictional Feature

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




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

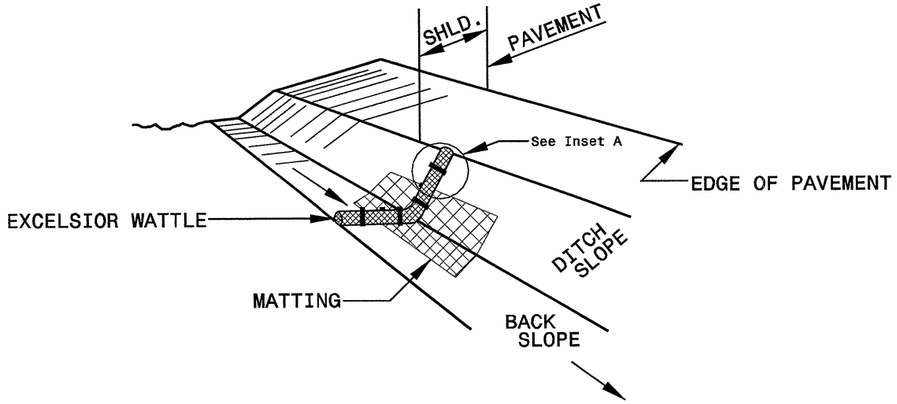



NOT TO SCALE

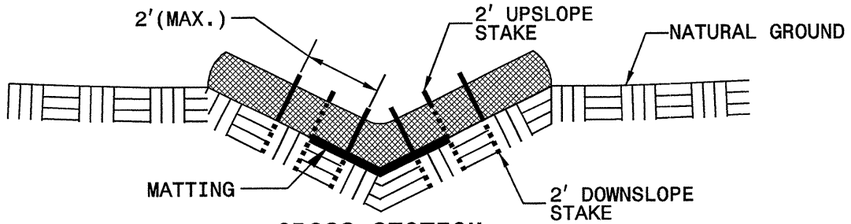
9CL.10341.9, ETC.

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| | 19 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| | |

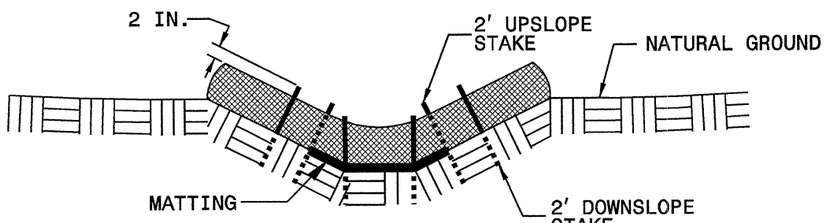
# WATTLE DETAIL




**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.

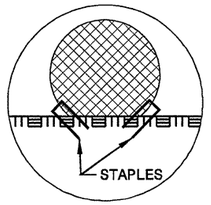
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

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

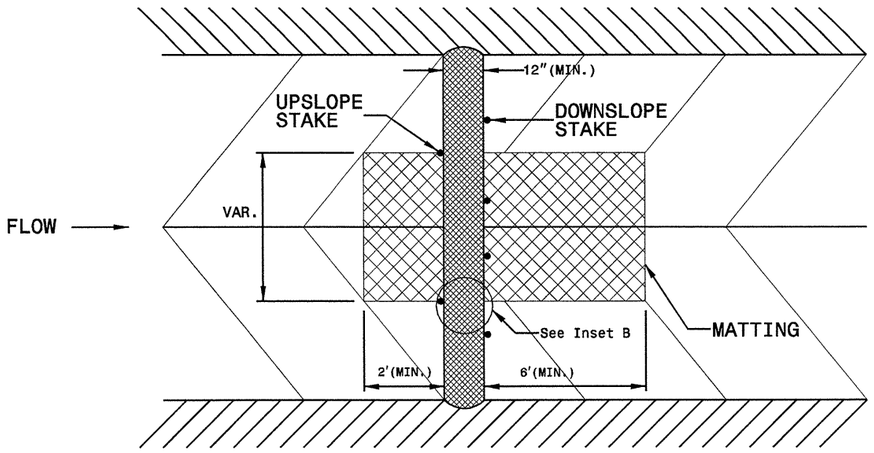
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.


**INSET A**




**INSET B**




**TOP VIEW**

| PROJECT NO. | SHEET NO. | TOTAL NO. |
|---|---|---|
| 9CR.10341.9, 9CR.20341.91 | 20 | |
| 9CR.20851.91, | | |

# SUMMARY OF QUANTITIES

| PROJECT NO | COUNTY | MAP NO | ROUTE | DESCRIPTION | TYP NO | FINAL SURFACE TESTING REQUIRED | LENGTH MI | WIDTH FT | INCIDENTAL STONE BASE TONS | SHOULDER CY | SHOULDER RECONSTRUCTION SMI | MILLING ASPHALT PAVEMENT, 2"DEPTH SY | MILLING ASPHALT PAVEMENT, 1 1/2"DEPTH SY | MILLING ASPHALT PAVEMENT, 0"TO 1 1/2" DEPTH SY | MILLING ASPHALT PAVEMENT, 1 1/2"TO 3 1/2" DEPTH SY | MILLING ASPHALT PAVEMENT, 0"TO 2" DEPTH SY | MILLING ASPHALT PAVEMENT, 1 1/2"TO 5" DEPTH SY | BASE COURSE, B25.0B TONS | INTERMEDIATE COURSE, I19.0B TONS | INTERMEDIATE COURSE, I19.0C TONS | SURFACE COURSE, S9.5B TONS | SURFACE COURSE, S9.5C TONS | ASPHALT BINDER FOR PLANT MIX TONS | ADJ. OF MANHOLES EA | ADJ. OF METER OR VALVE BOX EA | TEMPORARY SILT FENCE LF | INDUCTIVE LOOP LF | PORTABLE LIGHTING LS | WATTLES LS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9CR.10341.9 | Forsyth | 1 | US 158 REIDSVILLE RD. | FROM NC 66 TO PAVEMENT JOINT AT BUS 40/US 421 WB ON RAMP | 1,3 | NO | 5.278 | 28 | 240 | 633 | 10.56 | 10,667 | | 1,781 | 534 | | | | | 1,356 | | 9,130 | 604 | | 8 | 2,111 | | | 100 |
| | | 2 | US 311- NEW WALKERTOWN ROAD | FROM NC 66 TO CARVER SCHOOL ROAD | 5,6 | NO | 4.176 | 24 | 186 | 485 | 8.09 | | | 1,828 | | | | | | | 5,837 | | 350 | 12 | 9 | 1,670 | | | 100 |
| | | 3 | NC 66 - OLD HOLLOW ROAD | FROM US 311- NEW WLAKERTOWN ROAD TO US 158 | 5,6 | NO | 1.37 | 24 | 40 | 116 | 0.97 | | | 4,351 | | | | | | | 2,455 | | 147 | | 4 | 548 | | | 100 |
| | | 4 | NC 67 - SILAS CREEK PARKWAY NB | FROM PVMT JT @ BOLTON ST BRIDGE OVERPASS TO PVMT JT @ BUS40/US 421 (INCLUDING RAMPS AT BOLTON ST AND STRATFORD RD.) | 2,3 | NO | 1.092 | 24 | | 50 | 0.84 | 3,000 | 1,200 | 11,436 | | | | | | 378 | | 3,423 | 220 | 6 | 3 | 437 | | 1 | 100 |
| | | " | " | FROM PVMT JT @ BOLTON ST BRIDGE OVERPASS TO PVMT JT @ BUS40/US 421 | 2,3 | NO | 1.092 | 24 | | 50 | 0.84 | | 1,367 | 8,601 | | | | | | | 3,537 | 209 | 9 | 3 | 437 | | | |
| **TOTAL FOR PROJ NO. 9CR.10341.9** | | | | | | | **13.008** | | **466** | **1,334** | **21.30** | **13,667** | **2,567** | **27,997** | **534** | | | | | **1,734** | **8,292** | **16,090** | **1,530** | **27** | **27** | **5,203** | | | **400** |
| 9CR.20341.91 | Forsyth | 5 | DAVIS ROAD (SR 2216) | NC 66 OLD HOLLOW ROAD TO PVMT. JT. OLD WALKERTOWN ROAD (SR 2456) | 6,7 | NO | 1.926 | 20 | 138 | 231 | 3.85 | | | 334 | | | | 958 | | | 2,323 | | 182 | | 6 | 770 | | | 100 |
| | | 6 | TEAGUE LANE (SR 2630) | FROM WATKINS FORD RD (SR 2624) TO OLD SALEM RD. (SR 2632) | 5,6 | NO | 2.73 | 20 | 30 | 328 | 5.46 | | 373 | 1,858 | | | | | | | 3,119 | | 187 | 3 | 4 | 1,092 | | | 100 |
| | | 7 | HEDGECOCK RD. (SR 2683) | FROM UNION CROSS RD.(SR2643) TO TEAGUE LANE (SR 2630) | 6 | NO | 1.12 | 20 | 69 | 134 | 2.24 | | 70 | 977 | | | | | | | 1,251 | | 75 | | | 448 | | | 100 |
| | | 8 | STYERS FERRY RD. (SR 1166) | FROM CONCORD CURCH RD. (SR 1171) TO LASATER RD. (SR 1100) | 4 | NO | 4.11 | 22 | 150 | 493 | 8.22 | | | | | 489 | | | | | 6,585 | | 395 | | | 1,644 | | | 100 |
| | | 9 | KINNAMON RD. (SR 1109) | FROM PVMT JT NEAR ROUNDABOUT TO STRATFORD RD. US 158 | 5,6 | NO | 1.701 | 24 | | 204 | 2.94 | | 567 | 4,257 | | | | | | | 2,560 | | 154 | 5 | 8 | 680 | | | 100 |
| | | 10 | TOBACCOVILLE RD (SR1620) | FROM JEFFERSON CHURCH RD (SR1636) TO WESTINGHOUSE RD (SR1632) | 6 | NO | 1.314 | 22 | 57 | 158 | 2.63 | | | 489 | | | | | | | 1,576 | | 95 | | | 526 | | | 100 |
| | | 11 | SPAINHOUR MILL RD (SR 1604) | FROM DORAL DR (SR 1611) TO DONNOHA RD (SR 1600) | 6 | NO | 3.595 | 24 | 183 | 431 | 7.19 | | | 489 | | | | | | | 4,701 | | 282 | | | 1,438 | | | 100 |
| | | 12 | KERNERSVILLE RD SR 4315) | FROM HIGH POINT RD (SR 1003) TO CURB AND GUTTER AT LOWES | 5,6 | NO | 4.571 | 24 | 231 | 549 | 9.14 | | | 2,577 | | | | | | | 6,735 | | 404 | 13 | 22 | 1,828 | | | 100 |
| | | 13 | PEACE HAVEN ROAD (SR 1891) | FROM PVT JT NORTH OF US 421 RAMPS TO PVT JT @ LEWISVILLE-CLEMMONS RD | 5,6 | NO | 2.957 | 22 | 96 | 355 | 5.91 | | 2,053 | 2,030 | | | 1,173 | | 122 | | 4,409 | | 270 | 5 | 14 | 1,183 | | | 100 |
| | | 14 | UNIVERSITY PARKWAY (SR 4000) | FROM CHERRY STREET NEAR TARGET TO NO NAME ROAD (SR 1840) (RAMP TO NB US 52) | 5,6 | NO | 2.691 | 24-72 | 39 | 45 | 0.75 | | 4,700 | 23,473 | | | | | | | 9,271 | | 556 | 33 | 12 | 1,076 | 30,000 | * | 100 |
| **TOTAL FOR PROJ NO. 9CR.20341.91** | | | | | | | **26.715** | | **993** | **2,928** | **48.33** | | **7,763** | **36,484** | | **489** | **1,173** | **958** | **122** | | **42,530** | | **2,600** | **59** | **66** | **10,685** | **30,000** | | | **1000** |
| 9CR.20851.91 | Stokes | 15 | SR 1112-MAIN ST. | FROM TIP PROJECT PVMT. JT. AT KIRBY RD (SR 1115) TO PVMT JT WHERE CURB BEGINS NEAR DALTON RD INTERSECTION | 5,6 | NO | 0.736 | 22 | | 15.00 | 0.25 | | | 4,952 | | | | | | | 1,318 | | 79 | 9 | 6 | 404 | | | |
| **TOTAL FOR PROJ NO. 9CR.20851.91** | | | | | | | **0.736** | | | | **0.25** | | | **4,952** | | | | | | | **1,318** | | **79** | **9** | **6** | **404** | | | |
| **GRAND TOTAL** | | | | | | | **40.459** | | **1,459** | **4,277** | **69.88** | **13,667** | **10,330** | **69,433** | **534** | **489** | **1,173** | **958** | **122** | **1,734** | **52,140** | **16,090** | **4,209** | **95** | **99** | **16,292** | **30,000** | **1** | **1400** |

**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. |
|---|---|---|
| 9CR.10341.9, 9CR.20341.91 | 21 | |
| 9CR.20851.91, | | |

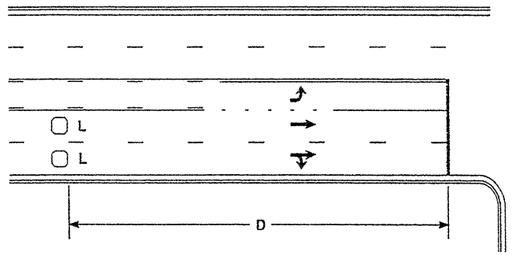
# THERMOPLASTIC AND PAINT QUANTITIES

| PROJECT NO | COUNTY | MAP NO | ROUTE | DESCRIPTION | LENGTH | WIDTH | 4399000000-N TEMPORARY TRAFFIC CONTROL LS | 4510000000-N LAW ENFORCEMENT HR | 4685000000-E 4" X 90 M WHITE THERMO LF | 4685000000-E 4" X 90 M YELLOW THERMO LF | 4686000000-E 4" X 120 M YELLOW THERMO LF | 4686000000-E 4" X 120 M WHITE THERMO LF | 4695000000-E 8" X 90 M WHITE THERMO LF | 4697000000-E 8" 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 MSG SCHOOL 120 M EA | 4725000000-E THERMO LT ARROW 90 M EA | 4725000000-E THERMO STR ARROW 90 M EA | 4725000000-E THERMO RT ARROW 90 M EA | 4725000000-E THERMO STR & RT ARROW 90 M EA | 4725000000-E THERMO STR & LT ARROW 90 M EA | 4810000000-E 4" YELLOW PAINT LF | 4810000000-E 4" WHITE PAINT LF | 4835000000-E 24" WHITE PAINT LF | 4845000000-N PAINT LT ARROW EA | 4905000000-N SNOW PLOWABLE MARKERS EA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9CR.10341.9 | Forsyth | 1 | US 158 REIDSVILLE RD. | FROM NC 66 TO PAVEMENT JOINT AT BUS 40/US 421 WB ON RAMP | 5.278 | 28 | 1 | | 57,476 | | 76,885 | 4,651 | | | 270 | 4 | | 16 | 8 | 8 | 2 | | 2,000 | | | | 348 |
| | | 2 | US 311- NEW WALKERTOWN ROAD | FROM NC 66 TO CARVER SCHOOL ROAD | 4.176 | 24 | * | | 44,934 | | 47,189 | 1,643 | | | 237 | | | 10 | 3 | 4 | 5 | 1 | | | | | 551 |
| | | 3 | NC 66 - OLD HOLLOW ROAD | FROM US 311- NEW WLAKERTOWN ROAD TO US 158 | 1.37 | 24 | * | | 10,192 | | 18,857 | 1,334 | | | 208 | | | 28 | 2 | 4 | 12 | | | | | | 90 |
| | | 4 | NC 67 - SILAS CREEK PARKWAY NB | FROM PVMT JT @ BOLTON ST BRIDGE OVERPASS TO PVMT JT @ BUS40/US 421 (INCLUDING RAMPS AT BOLTON ST AND STRATFORD RD.) | 1.092 | 24 | * | 100 | 8,480 | 11,337 | | 8,636 | | 3,535 | 631 | | | 19 | 37 | 16 | 11 | | | 220 | 28 | 8 | 144 |
| | | " | " | FROM PVMT JT @ BOLTON ST BRIDGE OVERPASS TO PVMT JT @ BUS40/US 421 | 1.092 | 24 | * | | | | | | | | | | | | | | | | | | | 144 |
| **TOTAL FOR PROJ NO. 9CR.10341.9** | | | | | **13.008** | | | **100** | **121,082** | **11,337** | **142,931** | **16,264** | | **3,535** | **1,346** | **4** | | **73** | **50** | **32** | **30** | **1** | **2,000** | **220** | **28** | **8** | **1,277** |
| | | | | | | | | | **132,419** | | **159,195** | | | | | **4** | | **186** | | | | | **2,220** | | | | |
| 9CR.20341.91 | Forsyth | 5 | DAVIS ROAD (SR 2216) | NC 66 OLD HOLLOW ROAD TO PVMT. JT. OLD WALKERTOWN ROAD (SR 2456) | 1.926 | 20 | * | | 20,724 | | 20,339 | | | | 220 | | 12 | | | | | | | | | | |
| | | 6 | TEAGUE LANE (SR 2630) | FROM WATKINS FORD RD (SR 2624) TO OLD SALEM RD. (SR 2632) | 2.73 | 20 | * | | 29,375 | | 30,394 | | | 100 | 100 | | 12 | 2 | | 1 | | | | | | | |
| | | 7 | HEDGECOCK RD. (SR 2683) | FROM UNION CROSS RD.(SR2643) TO TEAGUE LANE (SR 2630) | 1.12 | 20 | * | | 12,051 | | 13,470 | | | | | | | 1 | | 1 | | | | | | | |
| | | 8 | STYERS FERRY RD. (SR 1166) | FROM CONCORD CURCH RD. (SR 1171) TO LASATER RD. (SR 1100) | 4.11 | 22 | * | | 44,224 | | 43,402 | | | | | | | | | | | | | | | | |
| | | 9 | KINNAMON RD. (SR 1109) | FROM PVMT JT NEAR ROUNDABOUT TO STRATFORD RD. US 158 | 1.701 | 24 | * | | 16,652 | | 21,770 | | | | 78 | | | 8 | 3 | 5 | 2 | | | | | | |
| | | 10 | TOBACCOVILLE RD (SR1620) | FROM JEFFERSON CHURCH RD (SR1636) TO WESTINGHOUSE RD (SR1632) | 1.314 | 22 | * | | 14,139 | | 13,876 | | | | | | | | | | | | | | | | |
| | | 11 | SPAINHOUR MILL RD (SR 1604) | FROM DORAL DR (SR 1611) TO DONNOHA RD (SR 1600) | 3.595 | 24 | * | | 38,682 | | 37,963 | | | | | | | | | | | | | | | | |
| | | 12 | KERNERSVILLE RD SR 4315) | FROM HIGH POINT RD (SR 1003) TO CURB AND GUTTER AT LOWES | 4.571 | 24 | * | | 49,184 | | 60,311 | 1,740 | | | 286 | | | 26 | 4 | 6 | | 1 | | | | | |
| | | 13 | PEACE HAVEN ROAD (SR 1891) | FROM PVT JT NORTH OF US 421 RAMPS TO PVT JT @ LEWISVILLE-CLEMMONS RD | 2.957 | 22 | * | | 32,162 | 100 | 39,358 | 2,541 | | 210 | 263 | | | 17 | 1 | 10 | 3 | | | | | | |
| | | 14 | UNIVERSITY PARKWAY (SR 4000) | FROM CHERRY STREET NEAR TARGET TO NO NAME ROAD (SR 1840) (RAMP TO NB US 52) | 2.691 | 24 | * | 200 | 10,695 | 9,930 | 35,097 | 12,538 | 2,587 | | 1,079 | | | 57 | 73 | 35 | 13 | | | | | | |
| **TOTAL FOR PROJ NO. 9CR.20341.91** | | | | | **26.715** | | * | **200** | **267,888** | **10,030** | **315,980** | **16,819** | **2,587** | **310** | **2,026** | | **24** | **111** | **81** | **58** | **18** | **1** | | | | | |
| | | | | | | | | | **277,918** | | **332,799** | | | | | **24** | | **269** | | | | | | | | | |
| 9CR.20851.91 | Stokes | 15 | SR 1112-MAIN ST. | FROM TIP PROJECT PVMT. JT. AT KIRBY RD (SR 1115) TO PVMT JT WHERE CURB BEGINS NEAR DALTON RD INTERSECTION | 0.736 | 22 | * | | 1,310 | | 9,694 | | | | | | | 20 | | | | | | | | | |
| **TOTAL FOR PROJ NO. 9CR.20851.91** | | | | | **0.736** | | | | **1,310** | | **9,694** | | | | | | | **20** | | | | | | | | | |
| | | | | | | | | | **1,310** | | **9,694** | | | | | | | **20** | | | | | | | | | |
| **GRAND TOTAL** | | | | | **40.459** | | **1** | **300** | **390,280** | **21,367** | **468,605** | **33,083** | **2,587** | **3,845** | **3,372** | **4** | **24** | **204** | **131** | **90** | **48** | **2** | **2,000** | **220** | **28** | **8** | **1,277** |
| | | | | | | | | | **411,647** | | **501,688** | | | | | **28** | | **475** | | | | | **2,220** | | | | |

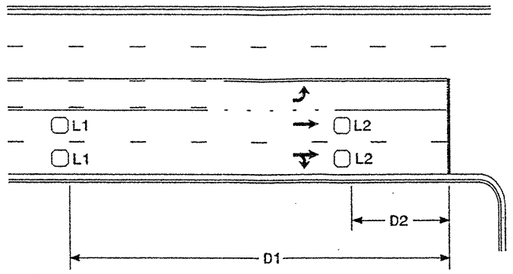
**NOTE: All Quantities listed include turn lanes and are estimates; Payment will be based on actual field measurements and quantities received.**

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| 9CR.10341.9,etc. | 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

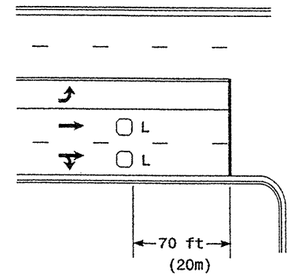
| Speed Limit mph (km/hr) | D1 ft (m) | D2 ft (m) |
|---|---|---|
| 40 (64) | 250 (75) | 80 (25) |
| 45 (72) | 300 (90) | 90 (27) |
| 50 (80) | 355 (110) | 100 (30) |
| 55 (88) | 420 (130) | 110 (35) |

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

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

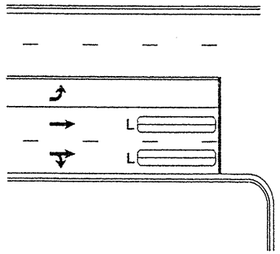
"Stretch" Operation

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



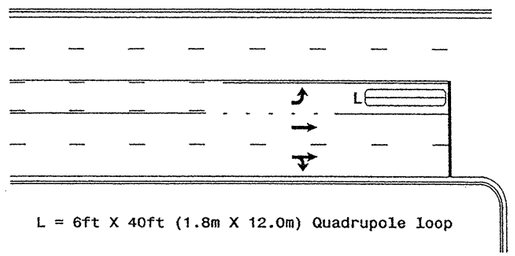

L = 6ft X 6ft (1.8m X 1.8m)
Wired in series

OR




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

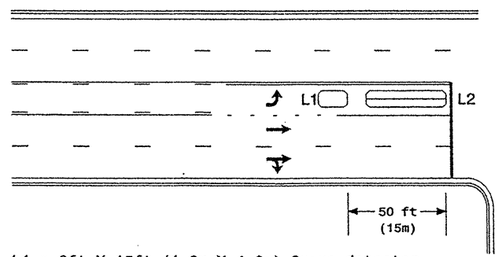
## Left Turn Lane Detection




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

Presence Loop Detection

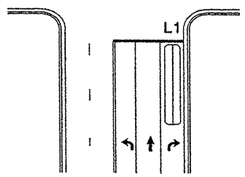
OR




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

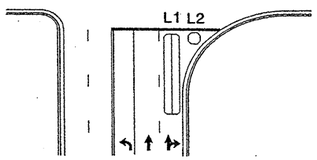
Queue Loop Detection

## Right Turn Lane Detection

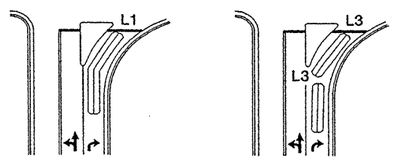



Standard Turn

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

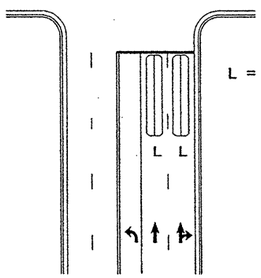



Wide Radius Turn



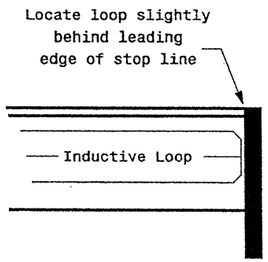

Channelized Turn

## 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




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, Traffic Engineering Division, North Carolina Department of Transportation
1722 N. McDonald St., Raleigh, NC 27603

# Typical Loop Locations

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

| SCALE | REVISIONS | INIT. | DATE |
|---|---|---|---|
| N/A | Revise pavement markings | pa | 12/19/06 |

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 23486 PAMELA L. ALEXANDER
SIGNATURE 6/6/06 DATE
SIG. INVENTORY NO.

19-DEC-2006 14:29
$:#ITS signals#lib turn in#miscellaneous#typical2006.dgn
palexander

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| 9CR.10341.9,etc. | Sig. 2 |

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

11-08

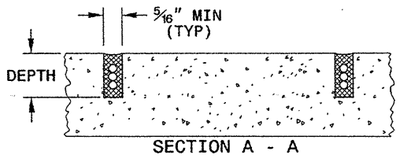
ENGLISH DETAIL DRAWING FOR

# INDUCTIVE DETECTION LOOPS

## CONVENTIONAL 4-SIDED LOOP

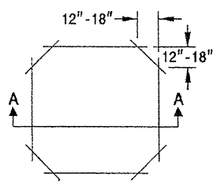
### SAW SLOT DEPTH CHART

| DEPTH (IN) | NO. OF WIRE TURNS | | | | |
|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 |
| CONCRETE | 2.0 | 2.0 | 2.5 | 2.5 | 3.0 |
| ASPHALT | 2.0 | 2.5 | 3.0 | 3.0 | 3.0 |

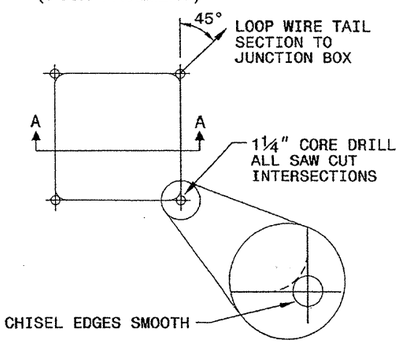



### SAW CUT OPTIONS

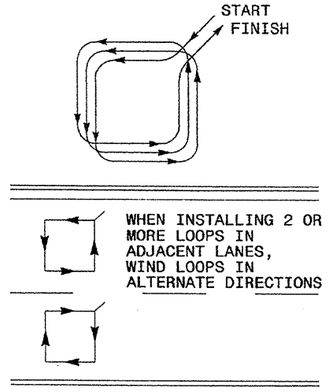
OPTION 1




OPTION 2 (POOR PAVEMENT)




### LOOP WINDING METHOD




## LOOP WIRE TWISTING METHOD

INCORRECT WAY TO TWIST WIRE

CORRECT WAY TO TWIST WIRE

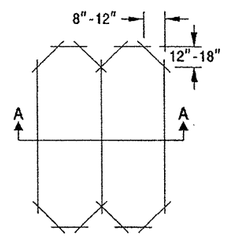
## NOTES

1. OVERLAP SAW CUTS AT CORNERS AND INTERSECTION POINTS TO ENSURE UNIFORM SAW SLOT DEPTH.
2. MAINTAIN 12" SPACING BETWEEN LOOP WIRE TAIL SECTIONS.
3. WIRE LOOPS CONNECTED TO THE SAME DETECTOR CHANNEL IN SERIES.
4. LOCATE LOOPS IN CENTER OF LANES UNLESS OTHERWISE SHOWN ON PLANS OR APPROVED BY ENGINEER.

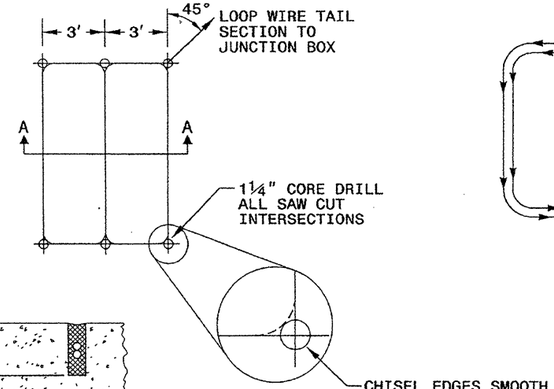
## QUADRUPOLE LOOP

### SAW CUT OPTIONS

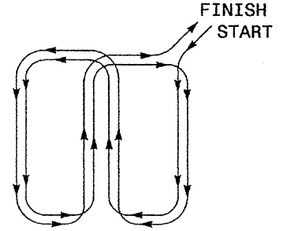
OPTION 1

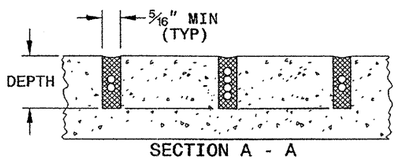



OPTION 2 (POOR PAVEMENT)




### LOOP WINDING METHOD




DEPTH IS 2.5" FOR CONCRETE AND 3.0" FOR ASPHALT

SHEET 1 OF 3
1725D01

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

11-08

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS

SHEET 1 OF 3
1725D01

See Plate for Title

Prepared in the Offices of:
Intelligent Transportation Systems & Signals Unit
750 N. Greenfield Parkway
Garner, NC 27529

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 16286 ENGINEER MILTON DEAN

Milton D. Dean 11/24/08
SIGNATURE DATE

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| PROJECT REFERENCE NO. | SHEET NO. |
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| 9CR.10341.9,etc | Sig.3 |

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DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

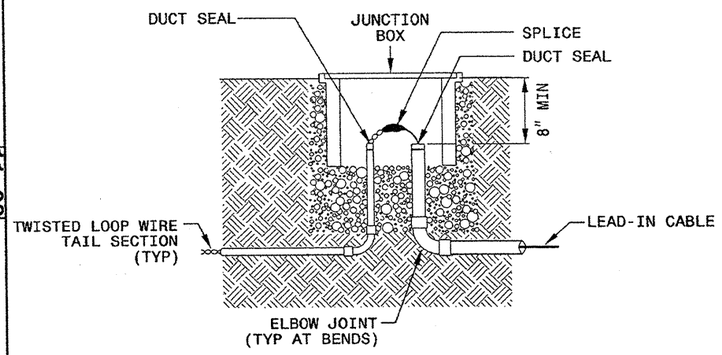
11-08

ENGLISH DETAIL DRAWING FOR
**INDUCTIVE DETECTION LOOPS**
LOOP WIRE DETAILS

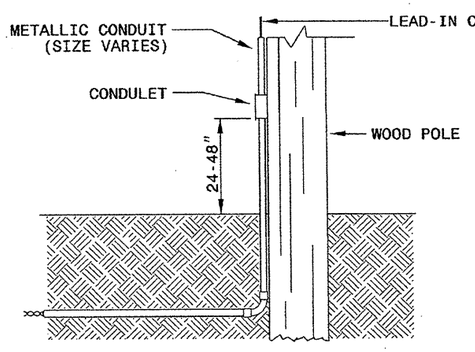
SHEET 2 OF 3
**1725D01**

## LOOP WIRE SPLICE POINT DETAILS

### LOOP WIRE AT JUNCTION BOX




### LOOP WIRE AT POLE

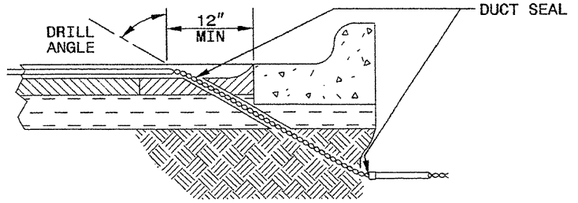



### NOTE

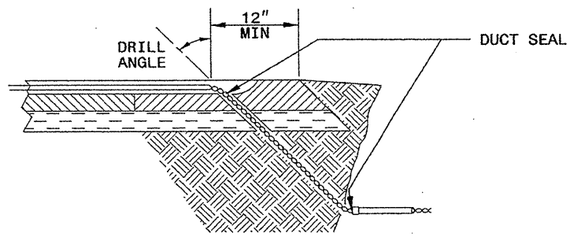
SPLICE ALL LOOP WIRE TAIL SECTIONS/LEAD-IN CABLE IN JUNCTION BOXES OR APPROVED CONDULETS.

## LOOP WIRE PAVEMENT EDGE DETAILS

### LOOP WIRE AT CURB & GUTTER SECTION




### LOOP WIRE AT PAVEMENT SECTION




### NOTES

1. DO NOT EXCAVATE UNDER CURB AND GUTTER SECTIONS FOR CONDUIT INSTALLATION.
2. TWIST LOOP WIRE TAIL SECTIONS FROM WHERE LOOP WIRE TAIL LEAVES SAW CUT TO JUNCTION BOX, INCLUDING THROUGH CONDUIT.
3. BEFORE SEALING LOOPS, INSTALL DUCT SEAL WHERE LOOP WIRE TAIL SECTION LEAVES SAW CUT IN PAVEMENT AND AT ENTRANCE OF CONDUIT TO JUNCTION BOX.

STATE OF NORTH CAROLINA
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ENGLISH DETAIL DRAWING FOR
**INDUCTIVE DETECTION LOOPS**
LOOP WIRE DETAILS

SHEET 2 OF 3
**1725D01**

See Plate for Title

Prepared in the Offices of:
Intelligent Transportation Systems & Signals Unit
STATE OF NORTH CAROLINA — DEPARTMENT OF TRANSPORTATION
750 N. Greenfield Parkway
Garner, NC 27529

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 16286 ENGINEER MILTON I. DEAN

Milton I. Dean 11/24/08
SIGNATURE DATE

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ENGLISH DETAIL DRAWING FOR

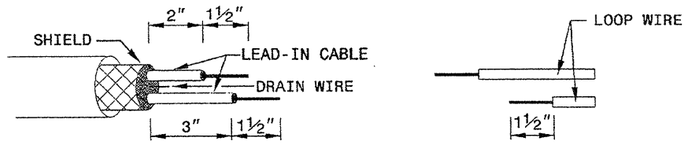
# INDUCTIVE DETECTION LOOPS

SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

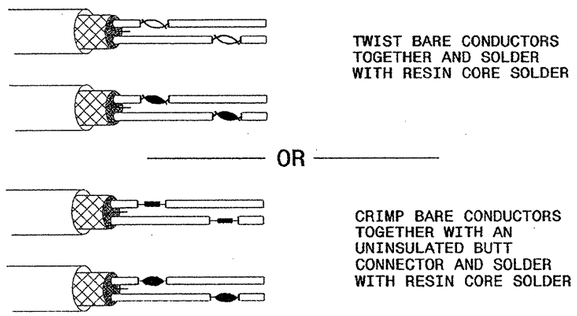
SHEET 3 OF 3

1725D01

## STEP 1. STRIP LOOP WIRE AND LEAD-IN CABLE




## STEP 2. CONNECT AND SOLDER



TWIST BARE CONDUCTORS TOGETHER AND SOLDER WITH RESIN CORE SOLDER

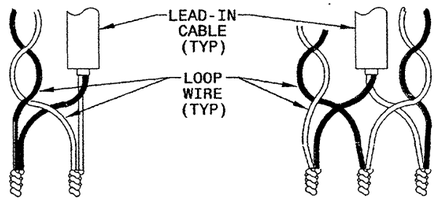
OR

CRIMP BARE CONDUCTORS TOGETHER WITH AN UNINSULATED BUTT CONNECTOR AND SOLDER WITH RESIN CORE SOLDER

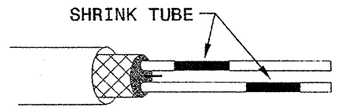
BOND SHIELD DRAIN WIRE AT SPLICE SECTIONS (DO NOT GROUND)

## LOOP WIRE AND LEAD-IN CABLE CONNECTION DETAILS

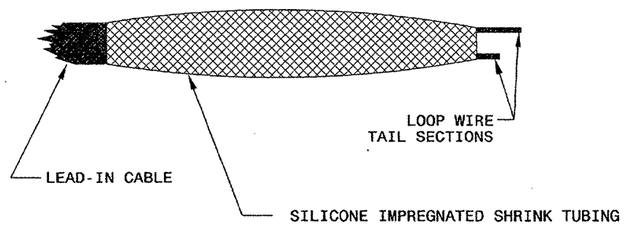
SINGLE CONNECTION SERIES CONNECTION




## STEP 3. INSULATE EACH SOLDER JOINT SEPARATELY




## STEP 4. ENVIRONMENTALLY PROTECT SPLICE




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

11-08

ENGLISH DETAIL DRAWING FOR

INDUCTIVE DETECTION LOOPS

SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

SHEET 3 OF 3

1725D01

See Plate for Title

Prepared in the Offices of:
Intelligent Transportation Systems & Signals Unit
750 N. Greenfield Parkway
Garner, NC 27529

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 16286 ENGINEER MILTON L. DEAN

Milton L. Dean 11/24/08
SIGNATURE DATE

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