

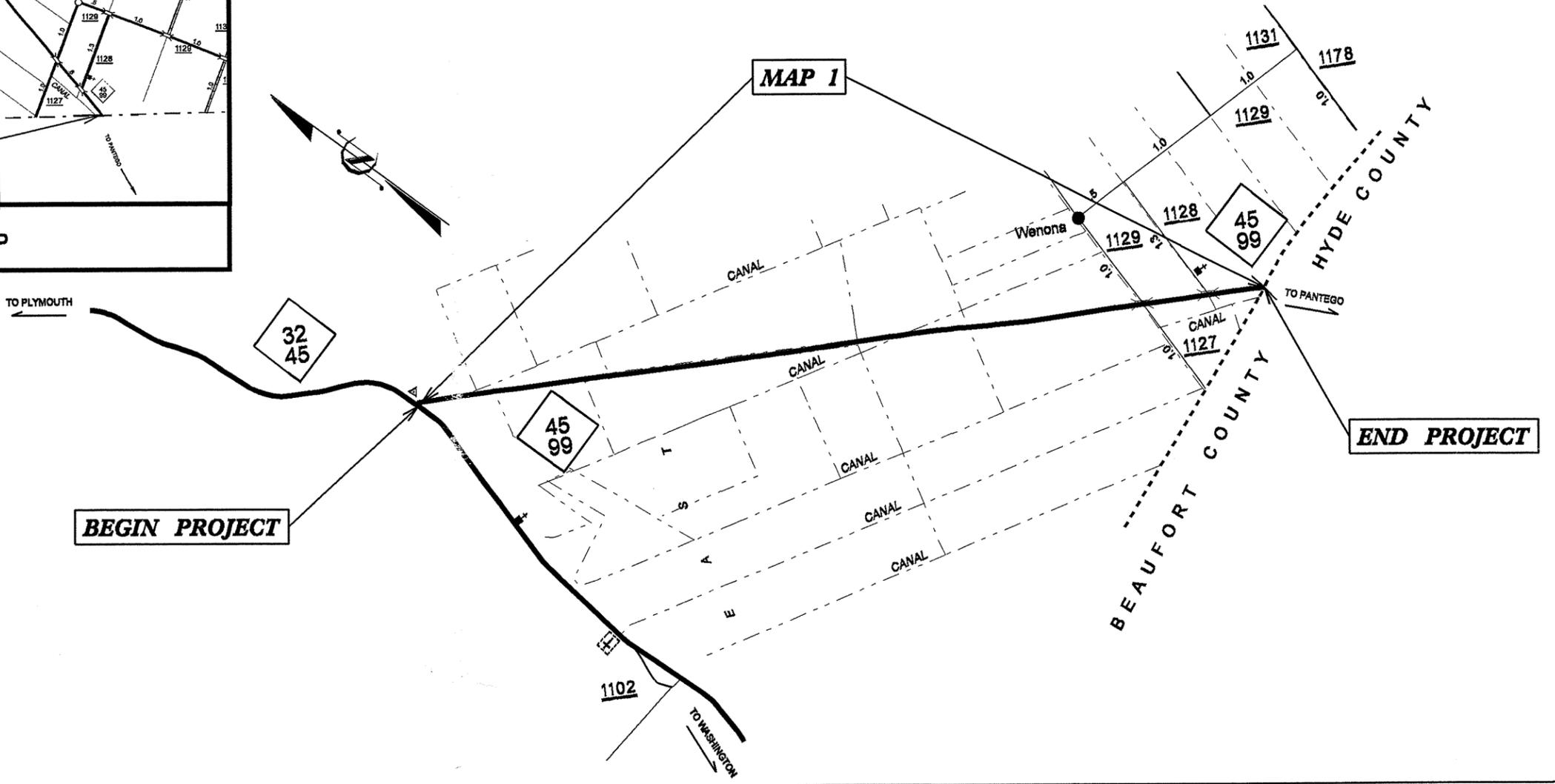
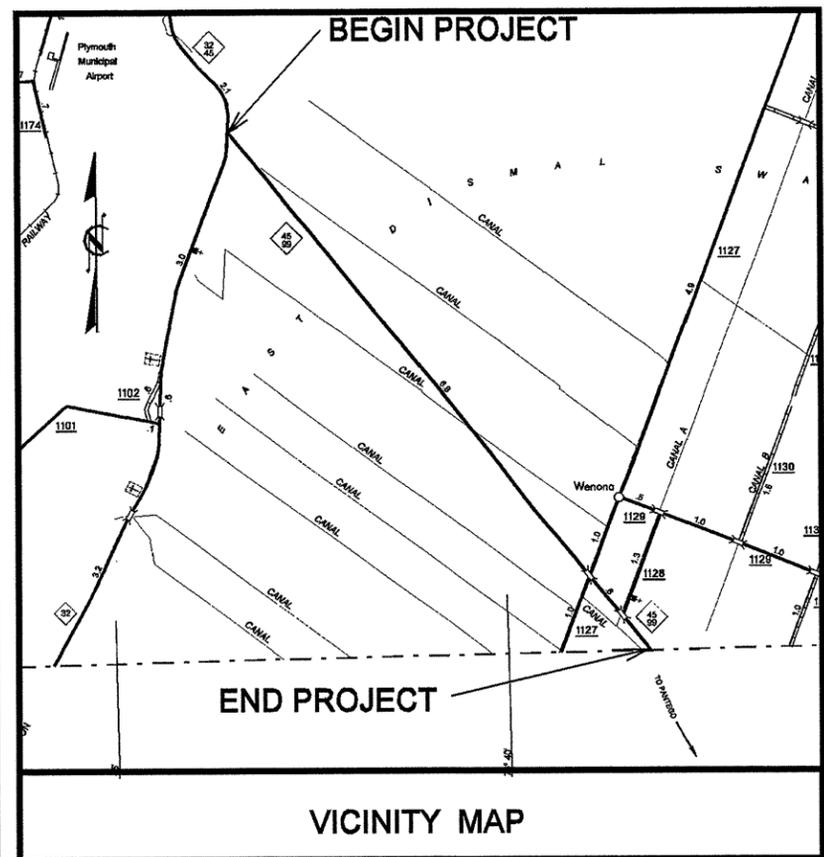
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	39418	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
MA010258			

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**WASHINGTON COUNTY**

LOCATION: NC45 / NC99 FROM NC32 TO HYDE COUNTY LINE

TYPE OF WORK: WIDENING, RESURFACING, AND GUARDRAIL INSTALLATION



**WBS ELEMENT: 39418**

**NTS**

**PROJECT LENGTH**

LENGTH ROADWAY STATE PROJECT = 8 MILES

TOTAL LENGTH STATE PROJECT = 8 MILES

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**

113 Airport Dr., Suite 100, Edenton, NC 27932

2006 STANDARD SPECIFICATIONS

LETTING DATE:  
December 18, 2007

**J. D. JENNINGS, P.E.**  
DIVISION OPERATIONS ENGINEER

**S. P. FENWICK, PLS**  
DIVISION DESIGN CONSTRUCT ENGINEER

23-OCT-2007 14:44  
 d:\current\projects\moving ahead\washington co\nc45 & nc99\revised quant. 10.12.07\title.dgn  
 csi:chtg AT DICAD238006



PROJECT NO.		SHEET NO.	TOTAL NO.
WBS 39418		3	

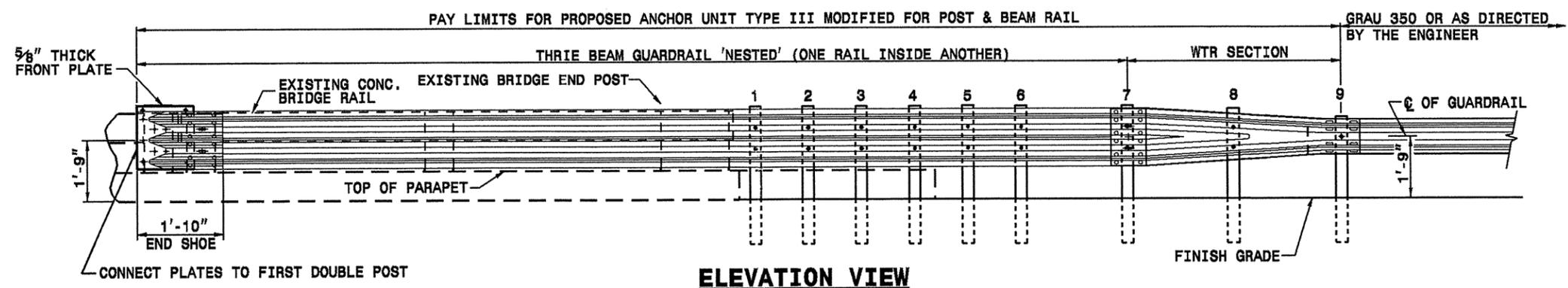
### SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	BASE COURSE, B25.0B TONS	SURFACE COURSE, S9.5B TONS	LEVELING COURSE, S9.5B TONS	PG 64-22 PLANT MIX TONS	ASPHALT PLANT MIX, PAVEMENT REPAIR TONS	6" DRIVEWAYS SY	TEMPORARY SILT FENCE LF	SEED & MULCHING AC	STEEL BEAM GUARDRAIL LF	STEEL BEAM GUARDRAIL SHOP CURVED LF	GRAU TYPE 350 ANCHOR UNIT EA	AT-1 ANCHOR UNIT EA	TYPE III MOD. ANCHOR UNIT EA
WBS 39418	Washington	1	NC45/NC99	FROM NC32 TO HYDE CO. LINE	1	8	21	300	16	5429	10,492	1,530	962	142	14	39,600	16	185	75	2	4	6
<b>TOTAL FOR PROJ NO. WBS 39418</b>						<b>8</b>		<b>300</b>	<b>16</b>	<b>5429</b>	<b>10,492</b>	<b>1,530</b>	<b>962</b>	<b>142</b>	<b>14</b>	<b>39,600</b>	<b>16</b>	<b>185</b>	<b>75</b>	<b>2</b>	<b>4</b>	<b>6</b>
<b>GRAND TOTAL</b>						<b>8</b>		<b>300</b>	<b>16</b>	<b>5429</b>	<b>10,492</b>	<b>1,530</b>	<b>962</b>	<b>142</b>	<b>14</b>	<b>39,600</b>	<b>16</b>	<b>185</b>	<b>75</b>	<b>2</b>	<b>4</b>	<b>6</b>

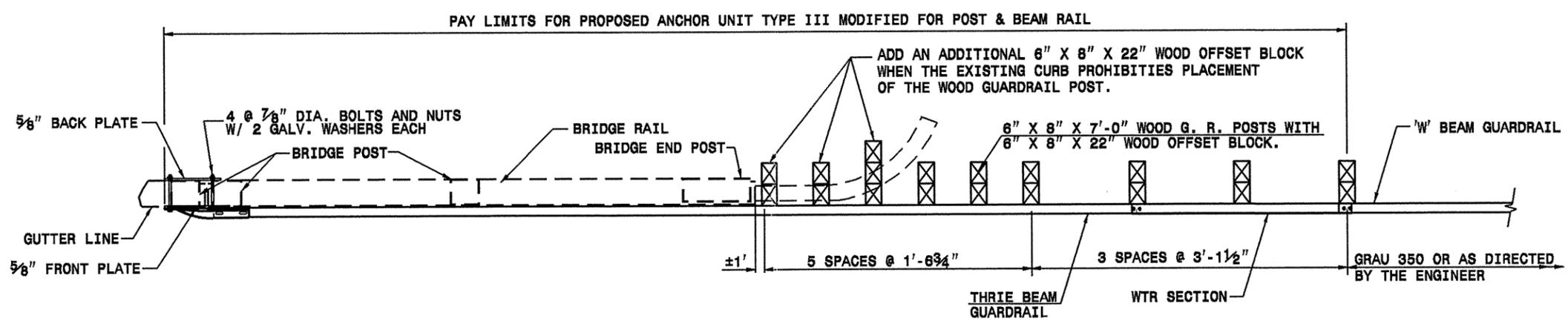
### THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH MI	WIDTH FT	4" X 90 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	4" WHITE PAINT LF	4" YELLOW PAINT LF	YELLOW & YELLOW MARKERS EA
WBS 39418	Washington	1	NC45/NC99	FROM NC32 TO HYDE CO. LINE	1	8	21	86,080	52,800	86,080	52,800	528
<b>TOTAL FOR PROJ NO. WBS 39418</b>						<b>8</b>		<b>86,080</b>	<b>52,800</b>	<b>86,080</b>	<b>52,800</b>	<b>528</b>
<b>GRAND TOTAL</b>								<b>86,080</b>	<b>52,800</b>	<b>86,080</b>	<b>52,800</b>	<b>528</b>
								<b>138,880</b>				

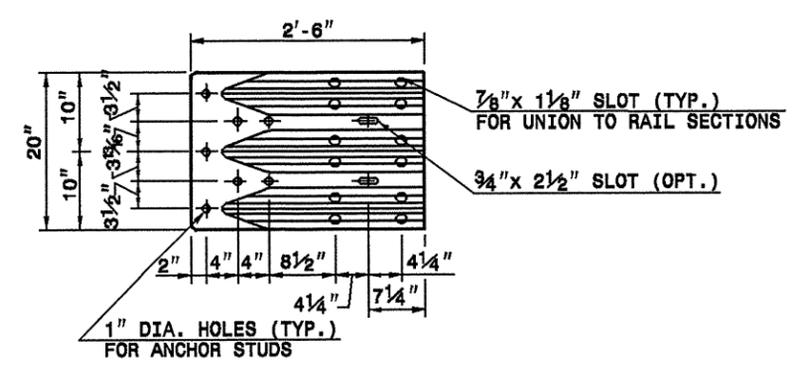




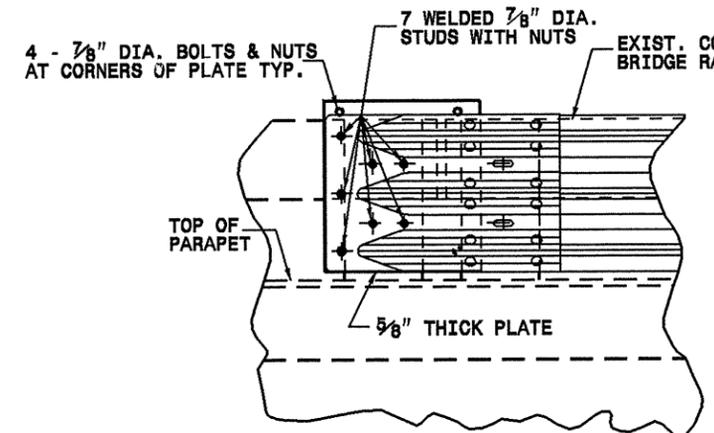
**ELEVATION VIEW**



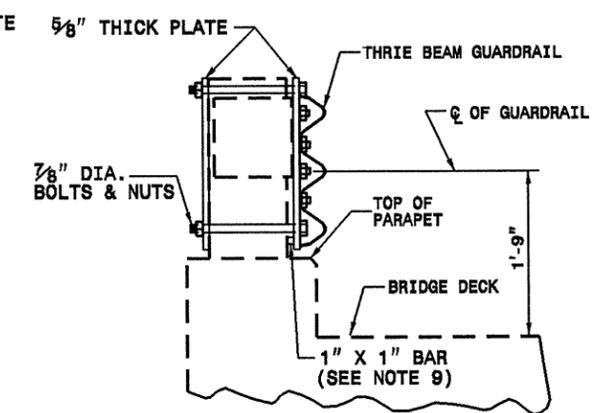
**PLAN VIEW**



**END SHOE**



**ELEVATION VIEW**



**SECTION VIEW**

**GUARDRAIL ATTACHMENT TO BRIDGE POST**

- GENERAL NOTES:**
1. USE NUTS, BOLTS, AND WASHERS CONFORMING TO THE REQUIREMENTS OF A.S.T.M. A-307 AND GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF STAND. SPECS.
  2. TAP NUTS FOR THE 7/8" DIA. STUDS AND BOLTS AFTER GALVANIZING SEE A.S.T.M. A-563.
  3. USE PLATES AND TUBES CONFORMING TO THE REQUIREMENTS OF A.S.T.M. A-36 AND GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SECTION 1075 OF STAND. SPECS.
  4. ADDITIONAL FIELD HOLES MAY BE DRILLED IN STEEL RAIL AS DIRECTED BY THE ENGINEER.
  5. INSTALL FACE OF GUARDRAIL AS NEAR AS POSSIBLE TO PLUMB WITH THE PARAPET FACE AT BRIDGE END POST SPACER TUBE LOCATION BY USING STANDARD OR ALTERED SPACER TUBES OR A COMBINATION THEREOF OR AS DIRECTED BY THE ENGINEER. FOR VERY SMALL PARAPET WIDTHS, GUARDRAIL MAY BE INSTALLED AGAINST BRIDGE RAIL WITHOUT SPACER TUBES.
  6. DO NOT DRILL BRIDGE RAIL IN ORDER TO INSTALL GUARDRAIL ANCHOR UNIT.
  7. USE THIS DETAIL ONLY FOR BRIGES WITH POST AND BEAM TYPE RAIL.
  8. ATTACH 1" X 1" BAR AND THREADED STUDS TO PLATE WITH 1/4" WELDS ALL AROUND.
  9. 1" X 1" BAR MAY NOT BE NEEDED ON BRIDGE RAILS WHERE FACE OF RAIL DOES NOT PROJECT BEYOND FACE OF POST.
  10. PROVIDE SHOP DRAWINGS OF THE PLATES TO THE ENGINEER FOR APPROVAL BEFORE FABRICATING THE PLATES.
  11. LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.
  12. SEE ROADWAY STARDARD DRAWING 862.03 SHEET 4 FOR ADDITIONAL INFORMATION ON THE TYPE III ANCHOR UNIT

<b>PROJECT SERVICES UNIT</b>	
<b>STANDARDS AND SPECIAL DESIGN</b>	
Office 919-250-4128	FAX 919-250-4119
<b>GUARDRAIL ANCHOR UNIT</b>	
<b>TYPE III MODIFIED</b>	
<b>FOR POST &amp; BEAM RAIL</b>	
ORIGINAL BY: C.O. CUEVAS	DATE: 12-00
MODIFIED BY: E.E. WARD	DATE: 02-04
CHECKED BY:	DATE:
FILE SPEC.: \\usr\details\stand\boiii.dgn	

22-OCT-2007 08:30  
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# TWO LANE, TWO WAY WORK ZONE (L-LINES)

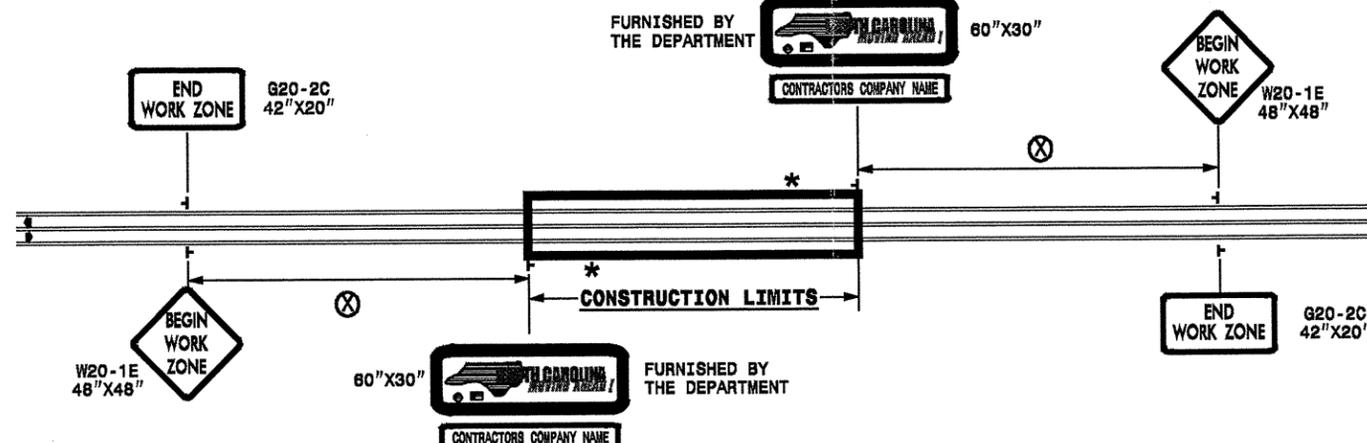
FURNISHED BY THE DEPARTMENT



60" X 30"

CONTRACTORS COMPANY NAME

60" Max. X 12"



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING
P.S.L. ≤ 50	350'
P.S.L. ≥ 55	500'

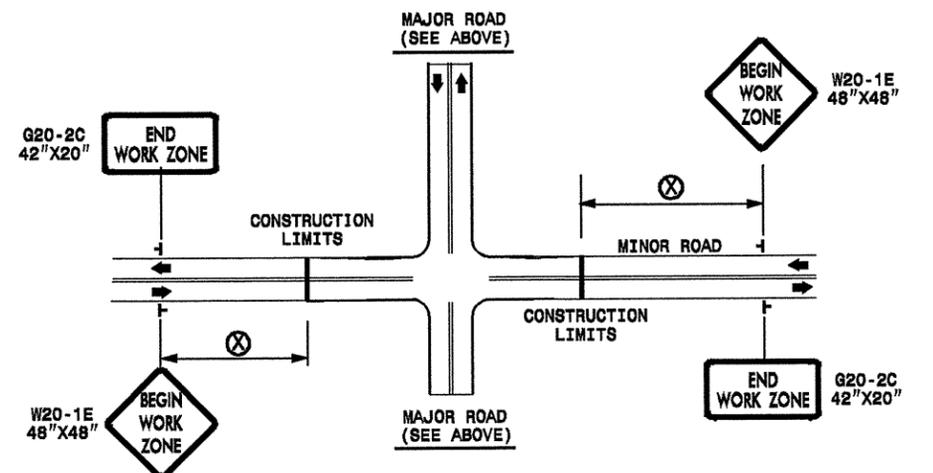
\* **WORK ZONE NEXT XX MILES** G20-1 42" X 20"

\* THIS SIGN TO BE USED ON PROJECTS LONGER THAN 2 MILES. THE NUMBER DISPLAYED ON THE SIGN IS TO BE A WHOLE NUMBER ROUNDED UP TO THE NEXT MILE. IT'S TO BE LOCATED 1,500 FEET INSIDE OF THE CONSTRUCTION LIMITS.

PROJ. REFERENCE NO. 39418 SHEET NO. 6

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

# INTERSECTIONS (-Y- LINES)

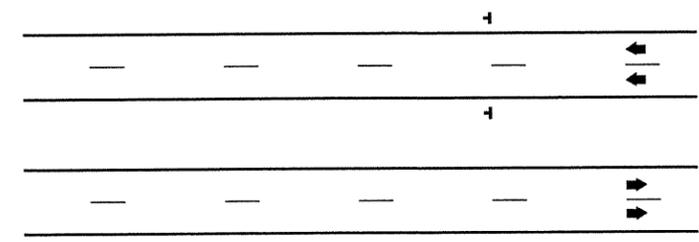


\* ON INTERSECTION TYPE PROJECTS, SELECT THE MAJOR ROAD BASED ON THE HIGHER ADT.

# FREEWAYS / INTERSTATES

DUAL MOUNT "BEGIN WORK ZONE" SIGNS 1,000' IN ADVANCE OF PROJECT LIMITS

DUAL MOUNT "MOVING AHEAD" SIGNS 500' IN ADVANCE OF PROJECT LIMITS



DETAIL DRAWING FOR ADVANCE WARNING WORK ZONE SIGNS

# GENERAL NOTES

SEE SPECIAL PROVISIONS FOR "NORTH CAROLINA MOVING AHEAD" REQUIREMENTS.

**LEGEND**

┆ STATIONARY SIGN

◄ DIRECTION OF TRAFFIC FLOW

APPROVED: _____ DATE: _____	ADVANCE WARNING WORK ZONE SIGNS FOR "MOVING AHEAD"							
SEAL	SCALE: NONE							
	DATE: 07/03							
	DWG. BY: JSK							
	DESIGN BY: JSK							
REVIEWED BY: BK	REVISIONS	<table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>						

# TWO LANE, TWO WAY WORK ZONE (L-LINES)

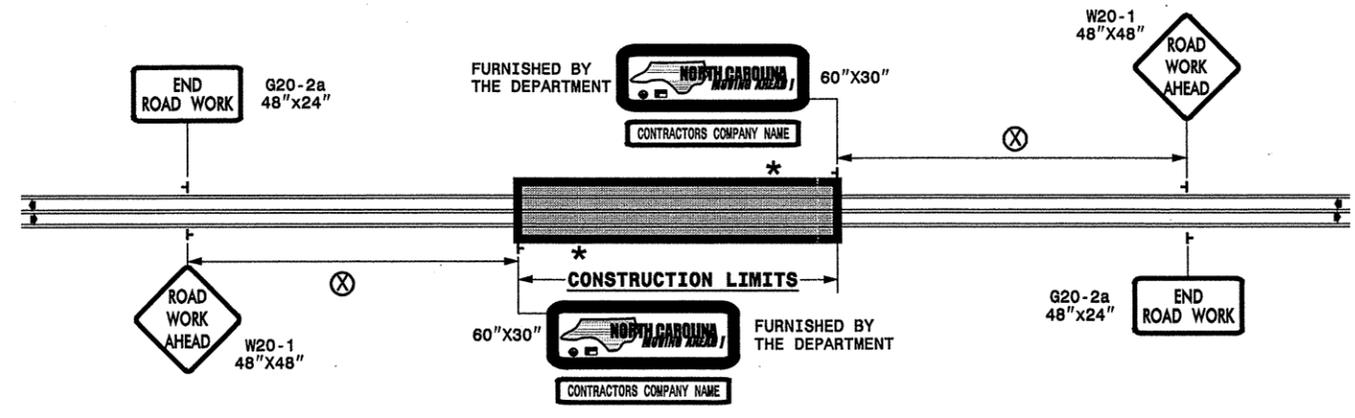
FURNISHED BY THE DEPARTMENT



60"X30"

CONTRACTORS COMPANY NAME

60" Max. X 12"



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING
P.S.L. ≤ 50	350'
P.S.L. ≥ 55	500'

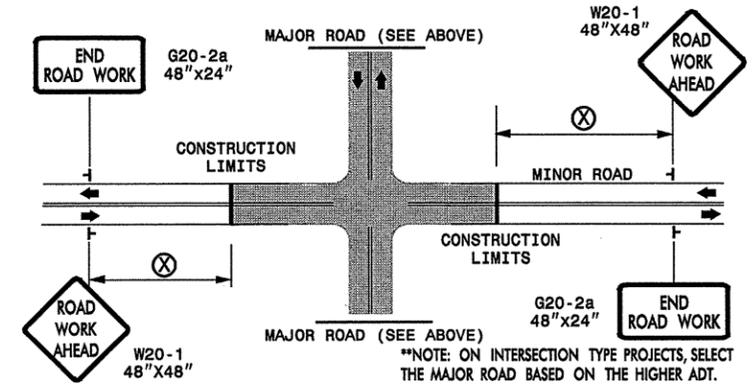
**\* ROAD WORK NEXT XX MILES G20-1A 60"x24"**

THIS SIGN TO BE USED ON PROJECTS LONGER THAN 2 MILES  
THE NUMBER DISPLAYED ON THE SIGN IS TO BE A WHOLE NUMBER ROUNDED UP TO THE NEXT MILE  
IT'S TO BE LOCATED 1,500 FEET INSIDE OF THE CONSTRUCTION LIMITS

PROJ. REFERENCE NO. 39418	SHEET NO. NCMA-1
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STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

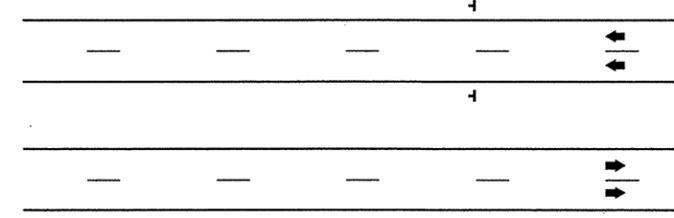
# INTERSECTIONS (-Y- LINES)



# FREEWAYS/INTERSTATES

DUAL MOUNT "ROAD WORK AHEAD" SIGNS 1,000' IN ADVANCE OF PROJECT LIMITS

DUAL MOUNT "MOVING AHEAD" SIGNS 500' IN ADVANCE OF PROJECT LIMITS



## GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED. USE PORTABLE WORK ZONE SIGNS ONLY WITH PORTABLE WORK ZONE SIGN STANDS SPECIFICALLY DESIGNED FOR ONE ANOTHER. PORTABLE WORK ZONE SIGNS MAY BE ROLL UP OR APPROVED COMPOSITE.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.

**LEGEND**

┆ STATIONARY SIGN

◀ DIRECTION OF TRAFFIC FLOW

DETAIL DRAWING FOR ADVANCE  
WARNING WORK ZONE SIGNS

SHEET 1 OF 1

APPROVED:	DATE:	<b>ADVANCE WARNING WORK ZONE SIGNS FOR "MOVING AHEAD"</b>	
SEAL	SCALE: NONE	REVISIONS	
	DATE: 07/03	11/04	
	DWG. BY: JSK	12/04	
	DESIGN BY: JSK		
	REVIEWED BY: SK		