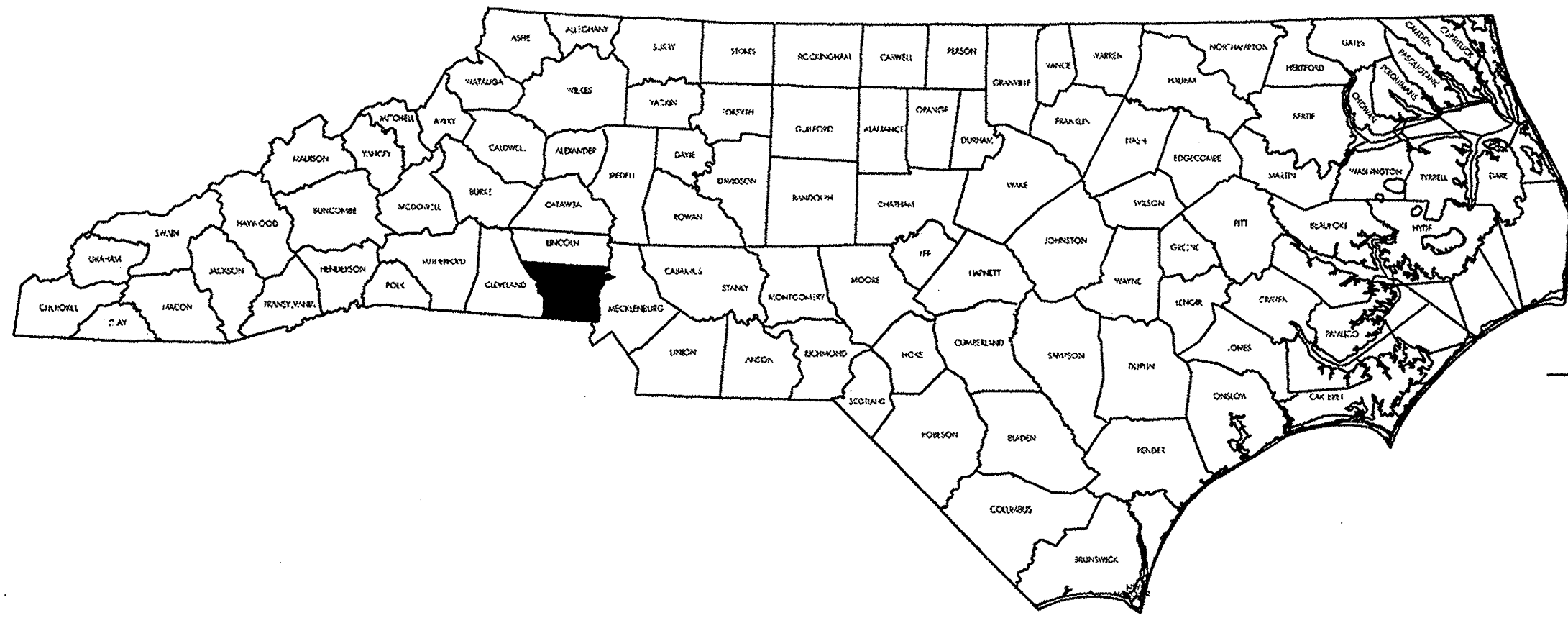


TIP PROJECT: BP-5300K

CONTRACT NO. C202791

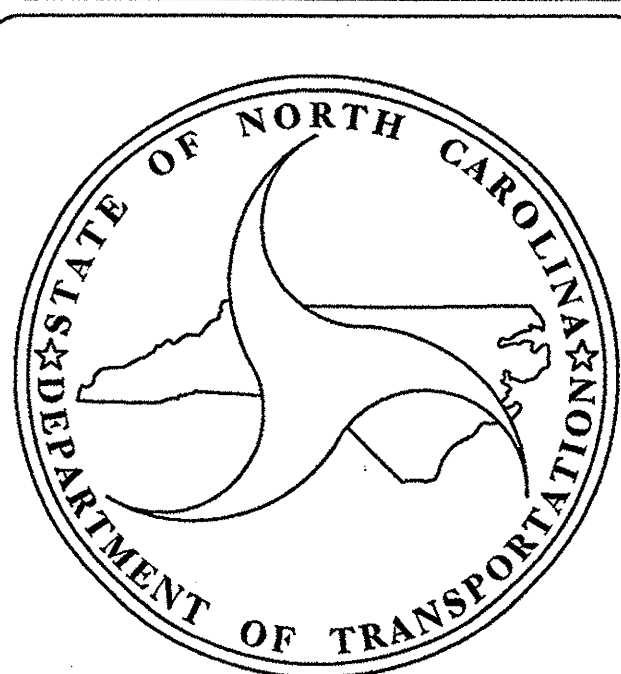
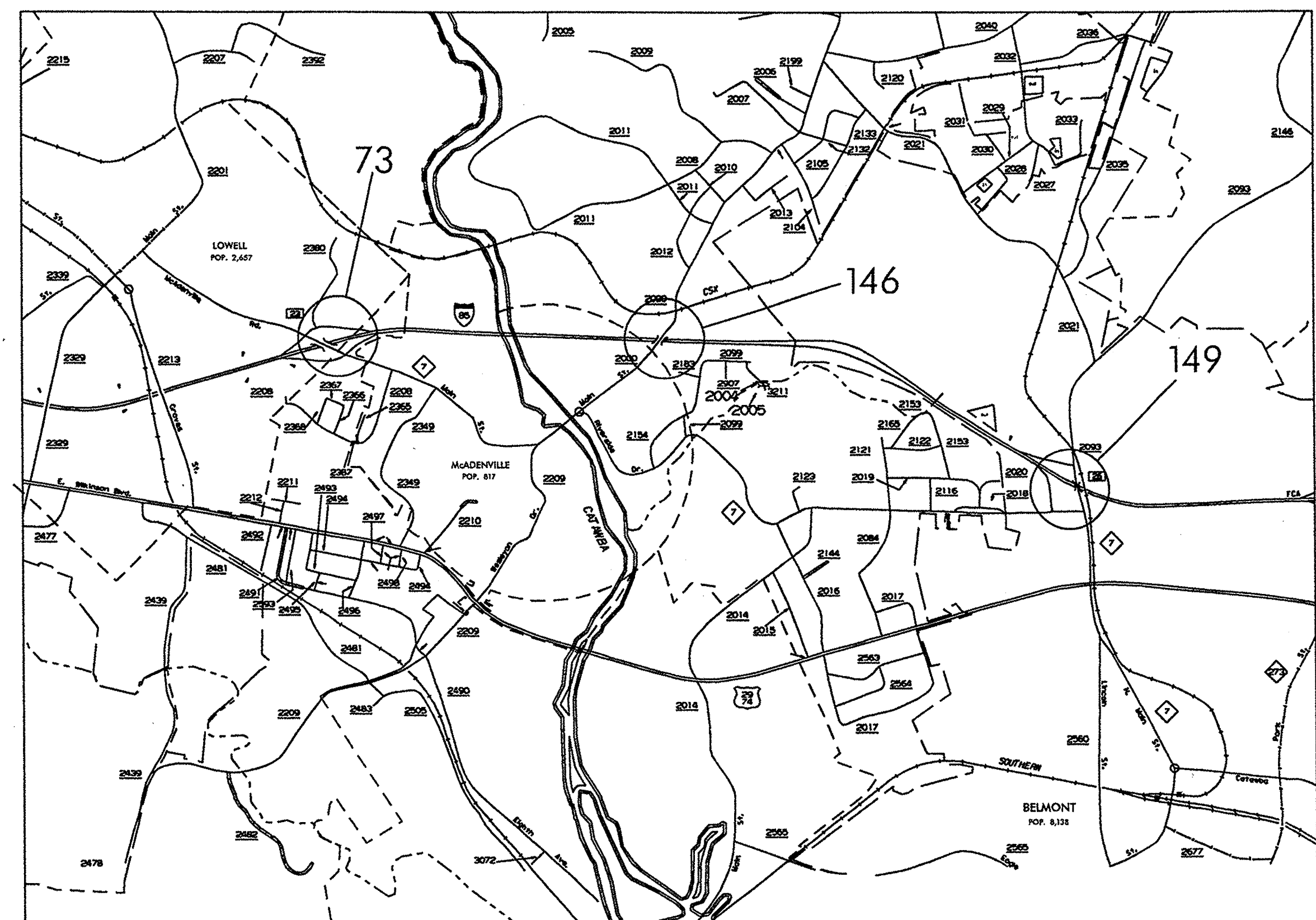
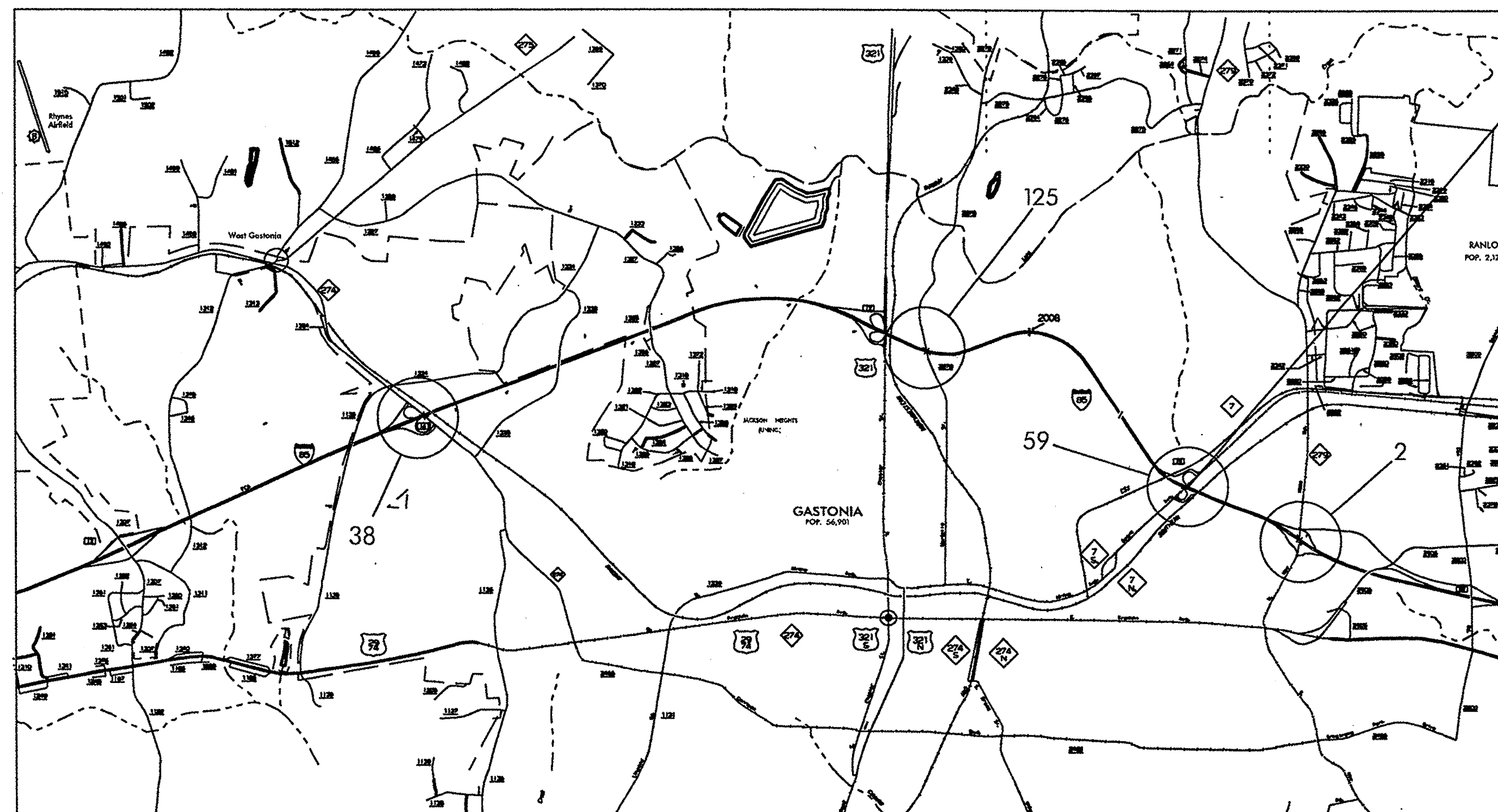
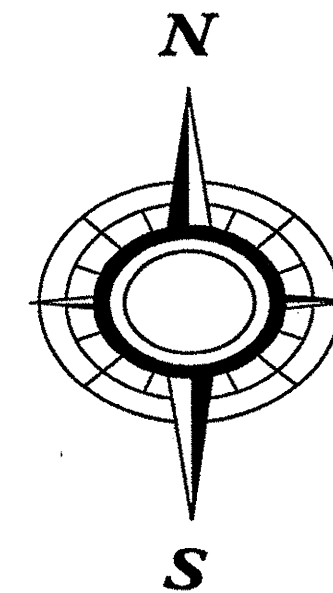


# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS GASTON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP-5300K	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45438.1.1	BRSTP-0279(7)	P.E.	
45438.3.10	BRSTP-0279(7)	CONST	

**LOCATION: BRIDGE #2 ON NC 279, #38 ON NC 274,  
#59 & #73 ON NC 7, #125 ON  
SR 2278, #146 ON SR 2000, #149 ON SR 2093  
OVER I 85.**

**TYPE OF WORK: BRIDGE PRESERVATION: CLEANING  
AND PAINTING OF EXISTING STRUCTURES.  
BRIDGES #2, #38, #59, #73  
#125, #146 AND #149.**



**DESIGN DATA**

**PROJECT LENGTH**

Prepared in the Office of:  
**BRIDGE MANAGEMENT UNIT**  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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2006 STANDARD SPECIFICATIONS

---

LETTING DATE:  
JULY 19, 2011

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DAN HOLDERMAN, PE  
STATE BRIDGE  
MANAGEMENT ENGINEER

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MIKE SUMMERS  
BRIDGE MANAGEMENT  
PROJECT MANAGER

NORTH CAROLINA  
PROFESSIONAL  
SEAL  
20208  
04/19/11  
ENGINEER, J.R.  
C.B. NELSON, J.R.

---

RICK NELSON, PE  
DESIGN ENGINEER

**TIP PROJECT: BP-5300K**

**CONTRACT NO. C202791**

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**GASTON COUNTY**

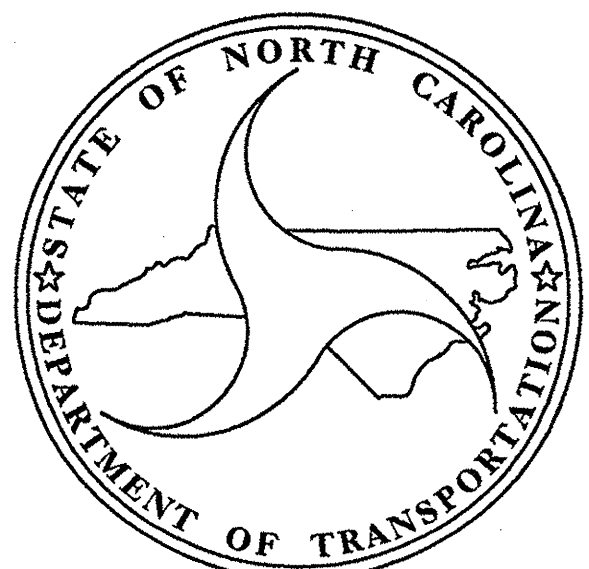
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP-5300K	1A	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
45438.1.1	BRSTP-0279(7)	P.E.	
45438.3.10	BRSTP-0279(7)	CONST	

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#125, #146 AND #149.**

INDEX OF SHEETS

1	TITLE SHEET
1A	INDEX OF SHEET
2	SUMMARY OF QUANTITIES
TCP1 - TCP12	TRAFFIC CONTROL PLANS



Prepared In the Office of:  
**BRIDGE MANAGEMENT UNIT**  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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2006 STANDARD SPECIFICATIONS

<b>LETTING DATE:</b> JULY 19, 2011	<b>DAN HOLDERMAN, PE</b> <small>STATE BRIDGE MANAGEMENT ENGINEER</small>
---------------------------------------	---

**MIKE SUMMERS**  
BRIDGE MANAGEMENT  
PROJECT MANAGER

**RICK NELSON, PE**  
DESIGN ENGINEER

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

## SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C202791

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
4405000000-E	1110	1,096	SF	WORK ZONE SIGNS (PORTABLE)
4410000000-E	1110	52	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
4415000000-N	1115	4	EA	FLASHING ARROW PANELS, TYPE C
4420000000-N	1120	6	EA	CHANGEABLE MESSAGE SIGN
4430000000-N	1130	230	EA	DRUMS
4445000000-E	1145	72	LF	BARRICADES (TYPE III)
4480000000-N	1165	4	EA	TMIA
4510000000-N	SP	350	HR	LAW ENFORCEMENT
4516000000-N	1180	100	EA	SKINNY DRUM
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING AND REPAINTING BRIDGE #125
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING AND REPAINTING BRIDGE #146
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING AND REPAINTING BRIDGE #149
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING AND REPAINTING BRIDGE #2
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING AND REPAINTING BRIDGE #38
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING AND REPAINTING BRIDGE #59
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING AND REPAINTING BRIDGE #73
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM POLLUTION CONTROL

5/28/99

\*\*\*\*\*  
SYSTEMS SECTION  
\*\*\*\*\*

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO.	SHEET NO.
BP-5300K	TCP-1

**PLAN FOR PROPOSED  
TRAFFIC CONTROL, MARKING & DELINEATION  
GASTON COUNTY**

**BP-5300K**

**ROADWAY STANDARD DRAWINGS**

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS"-  
ROADWAY DESIGN UNIT-N.C. DEPARTMENT OF TRANSPORTATION-RALEIGH, N.C.,  
DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE  
CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW PANELS
1130.01	DRUMS
1145.01	BARRICADES
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1180.01	SKINNY DRUMS

**INDEX OF SHEETS**

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND INDEX OF SHEETS
TCP-2	GENERAL NOTES
TCP-3 & 3A	PLAN OVERVIEW
TCP-4A THRU 4K	BRIDGE #38 (NC 274/BESSEMER CITY RD.)
TCP-5A THRU 5F	BRIDGE #125 (N. MARIETTA ST./SR 2278)
TCP-6A THRU 6J	BRIDGE #59 (NC 7/E. OZARK AVE.)
TCP-7A THRU 7E	BRIDGE #2 (NC 279/N. NEW HOPE RD.)
TCP-8A THRU 8E	BRIDGE #73 (NC 7/MCADENVILLE RD./MAIN ST.)
TCP-9A THRU 9D	BRIDGE #146 (HICKORY GROVE RD./SR 2000)
TCP-10A THRU 10J	BRIDGE #149 (BELMONT-MT. HOLLY RD./SR 2093)
TCP-11	SHOULDER CLOSURE
TCP-12	SPECIAL SIGN DESIGNS

**LEGEND**

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
  - NORTH ARROW
- TRAFFIC CONTROL DEVICES**
- TYPE III BARRICADE
  - DRUM
  - FLASHING ARROW PANEL (TYPE C)
  - STATIONARY SIGN
  - PORTABLE SIGN
  - CHANGEABLE MESSAGE SIGN
  - TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

**PROJECT:**

19-APR-2011 15:52  
\\DOT\DFS\ROOT\GROUPS-WZTCC\TMU\WZTC\DesignGroup3\Squad3B\Special Projects\BP-5300K Div 12: 1-85  
snr green AT TE244733

APPROVED: DATE:	PLAN PREPARED BY: N.C.D.O.T. WORK ZONE TRAFFIC CONTROL UNIT
SEAL 	J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
	G. L. GETTIER, P.E. TRAFFIC CONTROL PROJECT ENGINEER
	JESSE GILSTRAP TRAFFIC CONTROL PROJECT DESIGN ENGINEER
	SHEENA GREEN TRAFFIC CONTROL DESIGN ENGINEER

# GENERAL NOTES

PROJ. REFERENCE NO.	SHEET NO.
BP-5300K	TCP-2

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS, OR RESULT IN DUPLICATE, OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES, AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR AS DIRECTED BY THE ENGINEER.

### TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
1. ONE LANE ON I-85	MONDAY TO FRIDAY, 6:00AM TO 7:00PM SATURDAY & SUNDAY, 10:00AM TO 7:00 PM
2. TWO LANES ON I-85	MONDAY TO FRIDAY, 6:00AM TO 9:00PM SATURDAY & SUNDAY, 10:00AM TO 9:00 PM

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME
1. I-85

### HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATE UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00AM DECEMBER 31st TO 7:00PM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00PM THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00AM THURSDAY AND 7:00PM MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00AM FRIDAY TO 7:00PM TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00AM THE DAY BEFORE INDEPENDENCE DAY AND 7:00PM THE DAY AFTER INDEPENDENCE DAY.  
  
IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN BETWEEN THE HOURS OF 6:00AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00PM THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00AM FRIDAY AND 7:00PM TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00AM TUESDAY TO 7:00PM MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
1. I-85	AT ANYTIME
2. RAMPS @ NC 274/ BESSEMER CITY RD.	AT ANYTIME
3. LOOPS @ NC 274/ BESSEMER CITY RD.	MONDAY TO FRIDAY, 6:00AM TO 7:00PM SATURDAY & SUNDAY, 10:00AM TO 7:00 PM
4. RAMPS @ NC 7/ E. OZARK AVE.	AT ANYTIME

### HOLIDAY (CONT.)

C) DO NOT CLOSE ROADS AS FOLLOWS (CONT.):

ROAD NAME	DAY AND TIME RESTRICTIONS
5. I-85 NB OFF-LOOP TO NC 7/E. OZARK AVE.	MONDAY TO FRIDAY, 6:00AM TO 7:00PM SATURDAY & SUNDAY, 10:00AM TO 7:00PM
6. ONE LANE CLOSE ON I-85 SB & OFF-LOOP TO NC 7/E. OZARK AVE.	MONDAY TO FRIDAY, 6:00AM TO 7:00PM SATURDAY & SUNDAY, 10:00AM TO 7:00PM
7. TWO LANES CLOSE ON I-85 SB & OFF-LOOP TO NC 7/E. OZARK AVE.	MONDAY TO FRIDAY, 6:00AM TO 9:00PM SATURDAY & SUNDAY, 10:00AM TO 9:00PM
8. RAMPS @ NC 279/ N. NEW HOPE RD.	AT ANYTIME
9. RAMPS @ NC 7/ McADENVILLE RD./ MAIN ST.	AT ANYTIME
10. RAMPS @ LOOPS @ BELMONT-MT. HOLLY RD./ SR 2093	AT ANYTIME

D) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
1. ALL ROADS AND RAMPS & LOOPS	AT ANYTIME

E) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

### LANE AND SHOULDER CLOSURE REQUIREMENTS

- F) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING SHEET TCP-11 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.  
  
WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- I) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

J) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

K) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON I-85.

### TRAFFIC PATTERN ALTERATIONS

L) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

### SIGNING

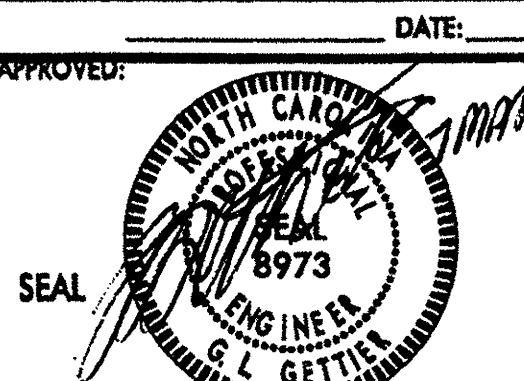
- M) PROVIDE DETOUR SIGNING AND DEVICES, WITH-IN & OFF THE PROJECT LIMITS, TO CLOSE THE ROAD ACCORDING TO TRAFFIC CONTROL PLANS.
- N) COVER OR REMOVE ALL DETOUR SIGNS AND DEVICES, WITH-IN & OFF THE PROJECT LIMITS, TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.
- O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

### TRAFFIC CONTROL DEVICES

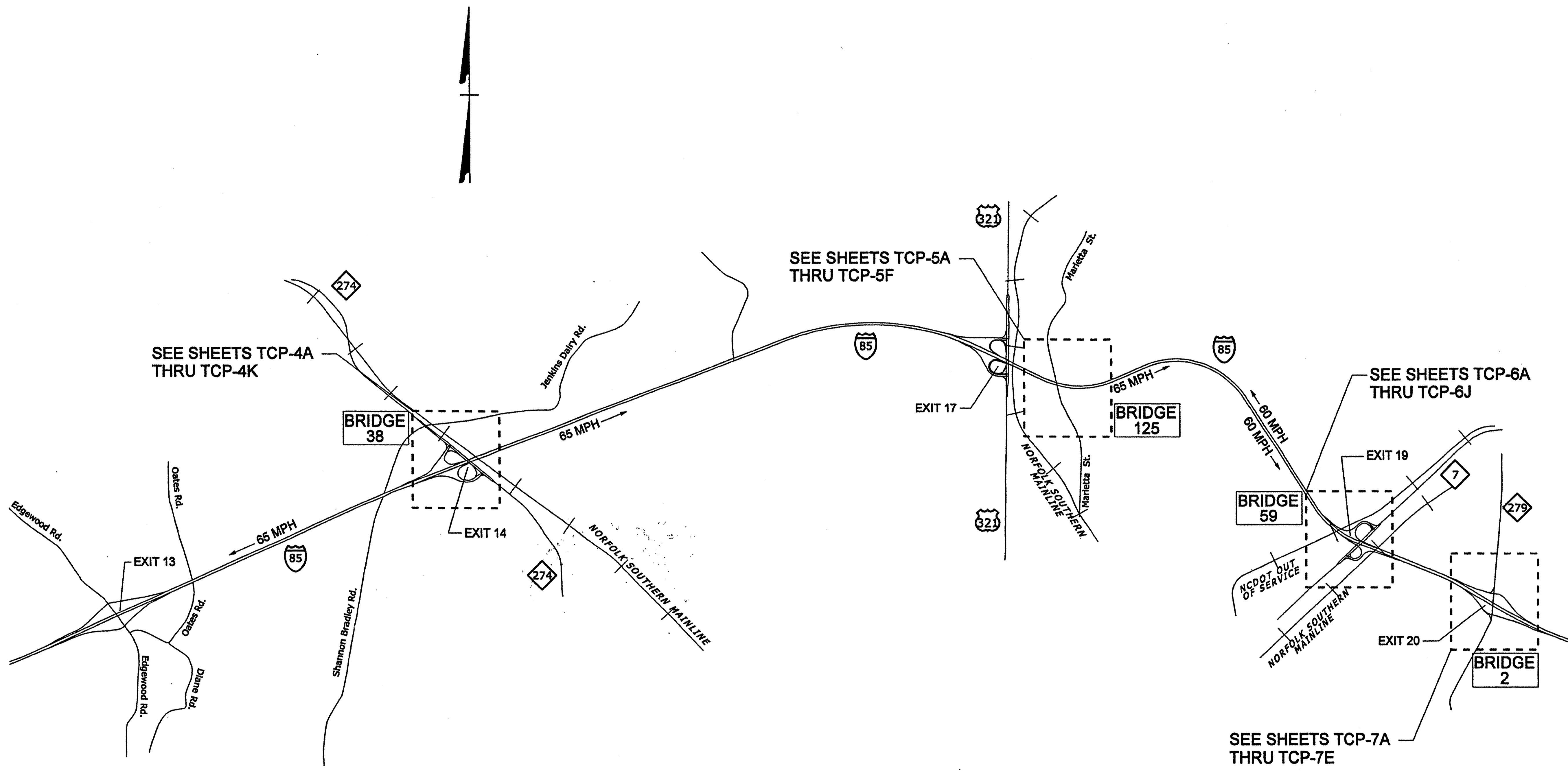
- P) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- Q) PLACE TYPE III BARRICADES WITH "ROAD CLOSED" SIGN R11-2 ATTACHED OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- R) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS OR SKINNY DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

### MISCELLANEOUS

- S) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS, AS DIRECTED BY THE ENGINEER.
- T) COORDINATE WITH THE ENGINEER TO UTILIZE OVERHEAD DYNAMIC MESSAGE SIGNS (DMS), IF AVAILABLE, FOR ADVANCE WARNING TO MOTORIST OF: "ROAD WORK AHEAD AT MP XXX", "LEFT/RIGHT LANE CLOSED AHEAD AT MP XXX", "(ROAD NAME) EXIT XXX CLOSED USE EXIT XXX". INCLUDE INTERSTATE DESIGNATION IN MESSAGES IF DMS IS LOCATED ON MULTI-ROUTE INTERSTATES.
- U) INSTALL CHANGEABLE MESSAGE SIGNS IN ADVANCE OF THE PORTABLE WORK ZONE AS SHOWN ON THE TCP SHEETS OR AS DIRECTED BY THE ENGINEER.
- V) RETURN TRAFFIC TO ITS EXISTING LANE/TRAFFIC CONFIGURATION AT THE END OF EACH WORK PERIOD.
- W) DO NOT PERFORM WORK FROM THE ROADWAY ON TOP OF THE BRIDGE.
- X) UPON COMPLETION OF THE WORK AT EACH BRIDGE LOCATION, REMOVE ALL TRAFFIC CONTROL DEVICES.
- Y) EXISTING SHOULDER MOUNTED ROADWAY SIGNS THAT CONFLICT WITH THE DETOUR SIGNING SHALL BE COVERED AS APPROVED AND DIRECTED BY THE ENGINEER AT NO EXPENSE TO THE DEPARTMENT.

<p>APPROVED: _____ DATE: _____</p> <p style="text-align: center;">SEAL</p> 	<h2 style="margin: 0;">GENERAL NOTES</h2>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8px;">SCALE:</td> <td>NONE</td> </tr> <tr> <td style="font-size: 8px;">DATE:</td> <td>2/11</td> </tr> <tr> <td style="font-size: 8px;">DWG. BY:</td> <td>SNG</td> </tr> <tr> <td style="font-size: 8px;">DESIGN BY:</td> <td>SNG</td> </tr> <tr> <td style="font-size: 8px;">REVIEWED BY:</td> <td>JWG</td> </tr> </table>	SCALE:	NONE	DATE:	2/11	DWG. BY:	SNG	DESIGN BY:	SNG	REVIEWED BY:	JWG
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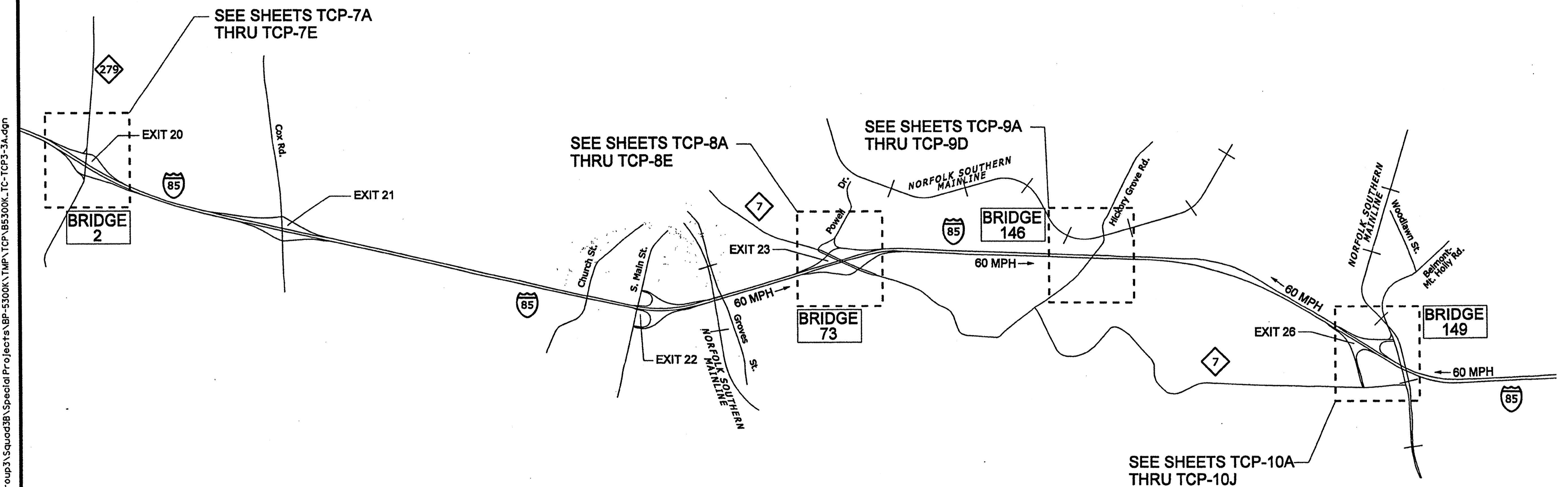
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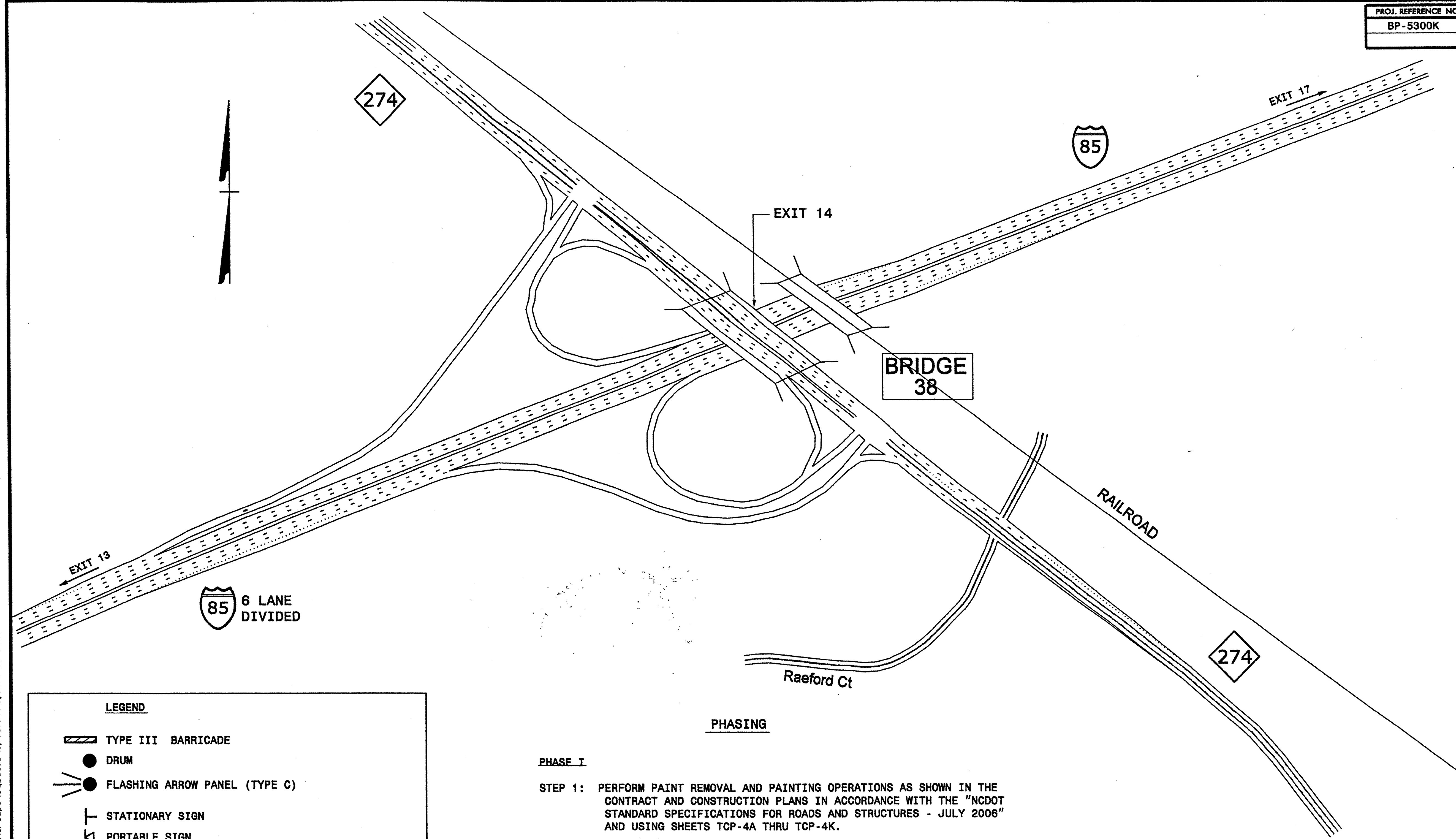
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PROJ. REFERENCE NO.	SHEET NO.
BP-5300K	TCP-3A



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**LEGEND**

- TYPE III BARRICADE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- STATIONARY SIGN
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- TRUCK MOUNTED ATTENUATOR (TMA)
- \* SEE SHEET TCP-12 FOR SIGN DESIGN

**PHASING**

**PHASE I**

STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JULY 2006" AND USING SHEETS TCP-4A THRU TCP-4K.

**NORTHBOUND I-85:**

- CLOSE NB ON-LOOP FROM NC 274: SEE SHEETS TCP-4B, 4C & 4D.
- CLOSE NB ON-LOOP FROM NC 274 AND OUTSIDE LANE: SEE SHEETS TCP-4B, 4C, 4E, 4H & 4I (IF REQUIRED).
- CLOSE NB INSIDE LANE: SEE SHEET TCP-4H & 4K.
- CLOSE NB INSIDE TWO LANES: SEE SHEET TCP-4J & 4K.

**SOUTHBOUND I-85:**

- CLOSE SB OFF-LOOP TO NC 274: SEE SHEETS TCP-4F & 4G.
- CLOSE SB OFF-LOOP TO NC 274 AND OUTSIDE LANE: SEE SHEETS TCP-4F, 4G & 4H.
- CLOSE SB INSIDE LANE: SEE SHEETS TCP-4H.
- CLOSE SB INSIDE TWO LANES: SEE SHEETS TCP-4J.

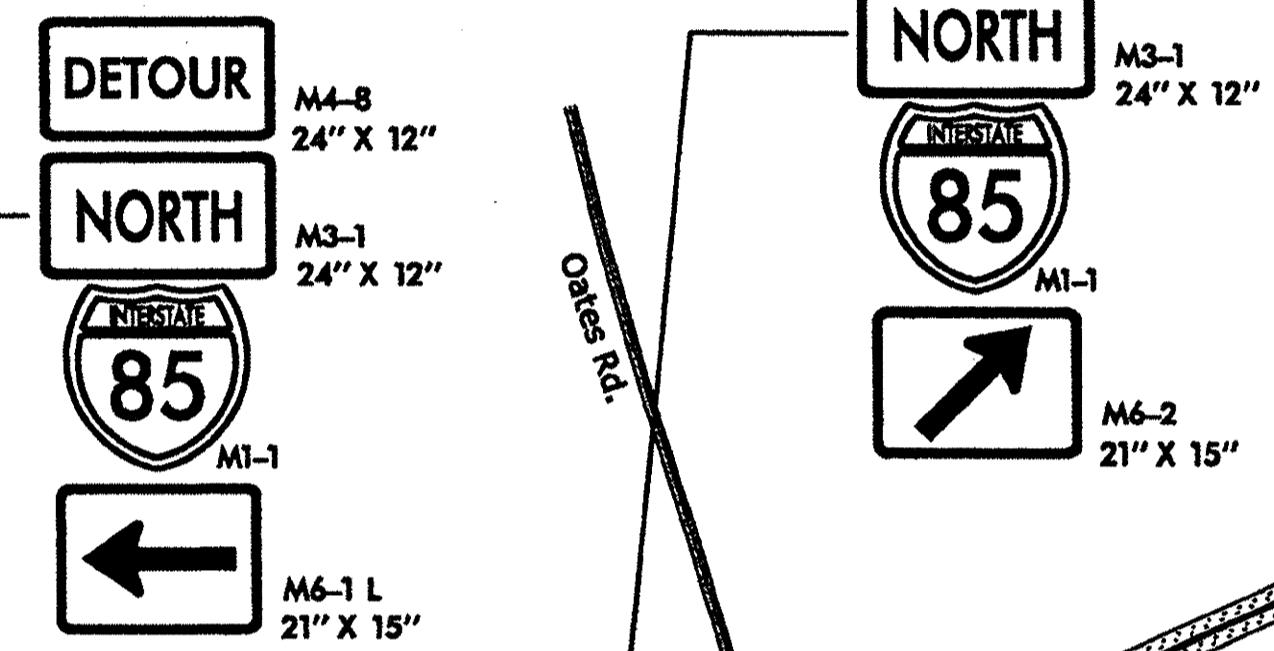
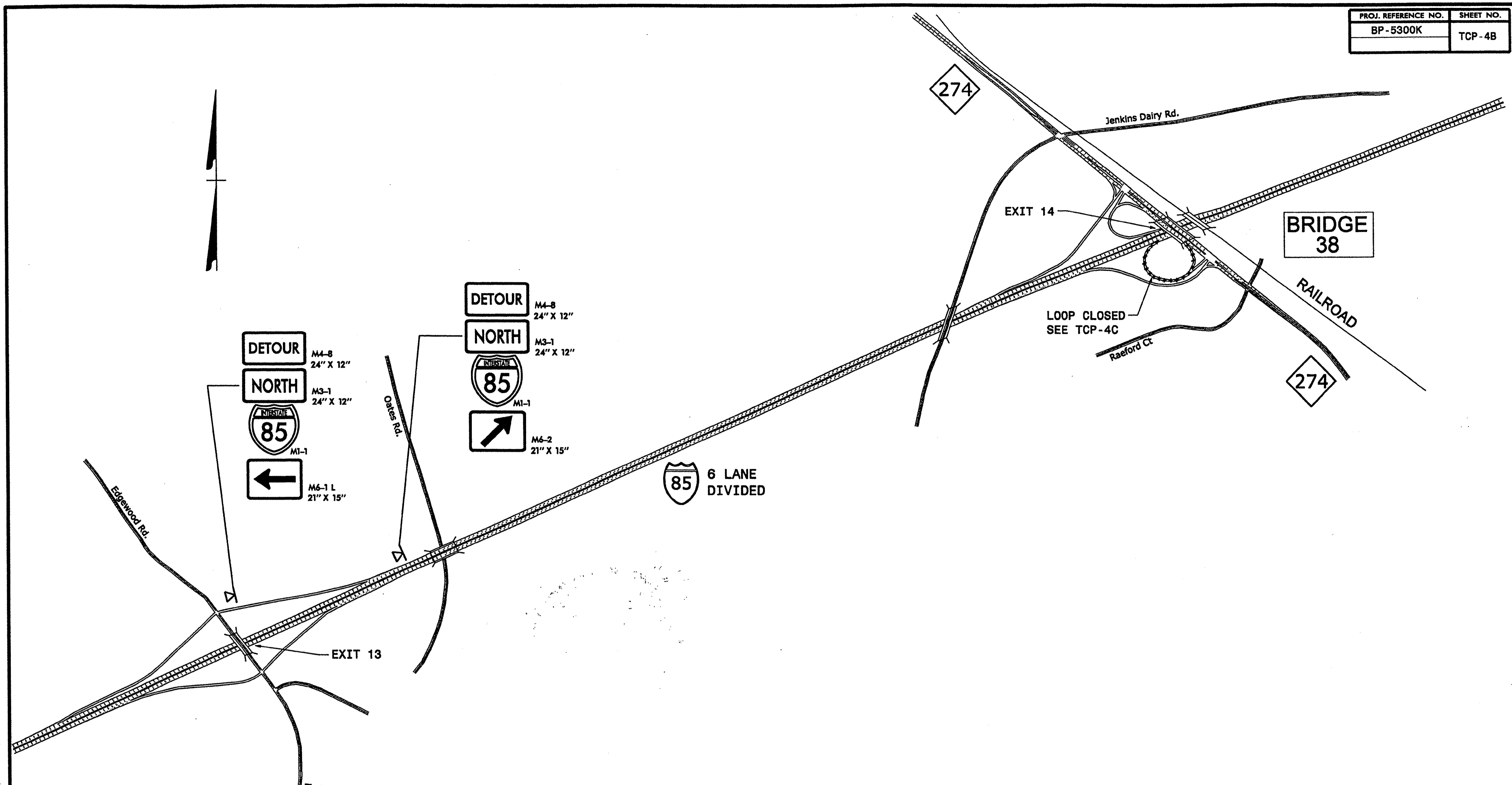
**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

APPROVED: _____	DATE: _____	<b>BRIDGE #38</b>	
		<b>US 274/BESSEMER CITY RD.</b>	
		<b>PHASING</b>	
SCALE: NONE	DATE: 2/11		REVISIONS
DWG. BY: SNG	DESIGN BY: SNG		
REVIEWED BY: JWG			

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**LEGEND**

- TYPE III BARRICADE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- STATIONARY SIGN
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- TRUCK MOUNTED ATTENUATOR (TMA)

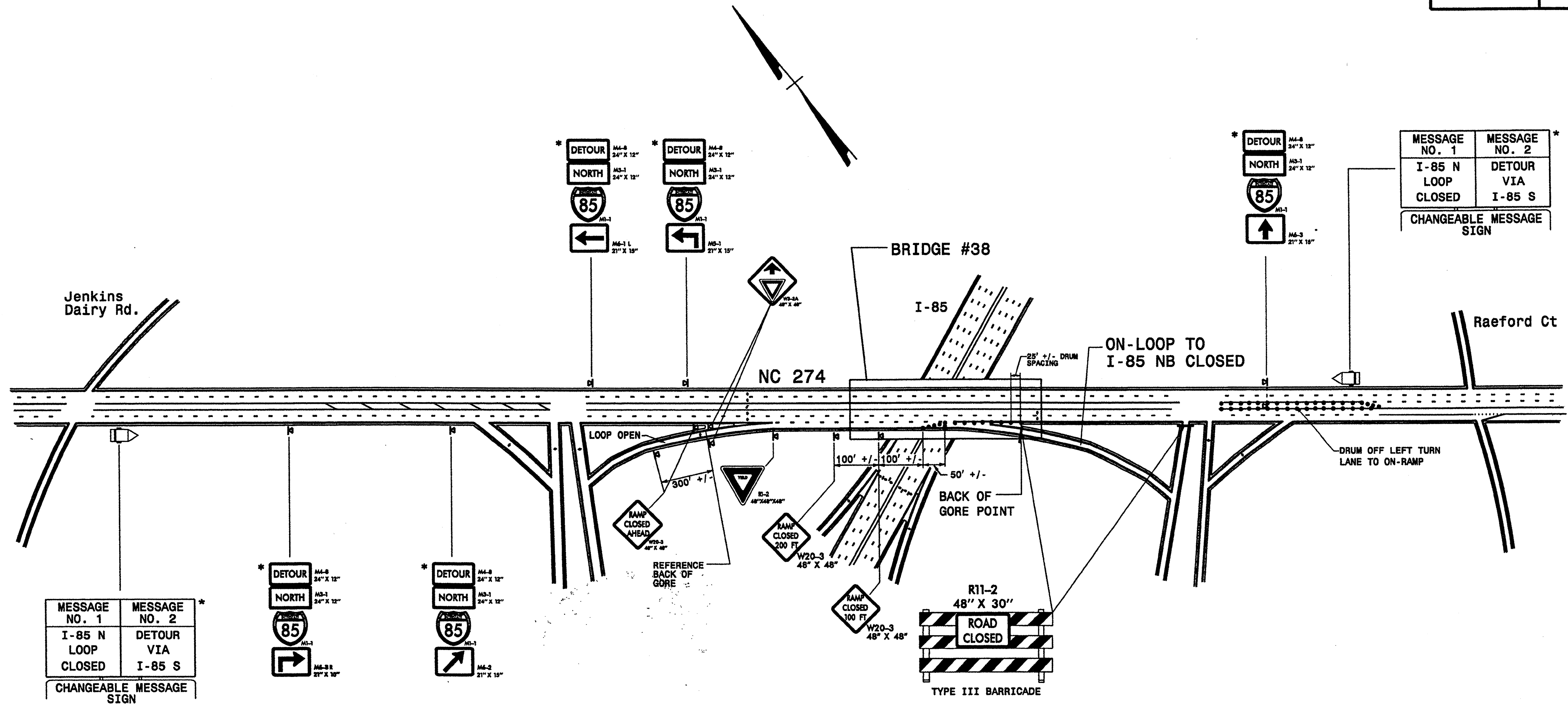
\* SEE SHEET TCP-12 FOR SIGN DESIGN

**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

APPROVED: _____	DATE: _____	<b>US 274/BRIDGE #38 DETOUR DETAIL</b>	
		DATE: 2/11	REVISIONS
DWG. BY: SNG			
DESIGN BY: SNG			
REVIEWED BY: JWG			

07-MAR-2011 07:50:01 C:\WORK\GROUPS-WZTCCC\TMU\WZTC\DesignGroup3\Squad3B\SpecialProjects\BP-5300K\TCP\BP5300K-TC-TCP4B.dgn  
 SNG  
 AT 1244733



MESSAGE NO. 1	MESSAGE NO. 2
I-85 N LOOP CLOSED	DETOUR VIA I-85 S

CHANGEABLE MESSAGE SIGN

DETOUR NORTH	M4-8 24" X 12"
85	M3-1 24" X 12"
→	M6-2 21" X 15"

DETOUR NORTH	M4-8 24" X 12"
85	M3-1 24" X 12"
↗	M6-2 21" X 15"

**LEGEND**

- TYPE III BARRICADE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- STATIONARY SIGN
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- TRUCK MOUNTED ATTENUATOR (TMA)

\* SEE SHEET TCP-12 FOR SIGN DESIGN

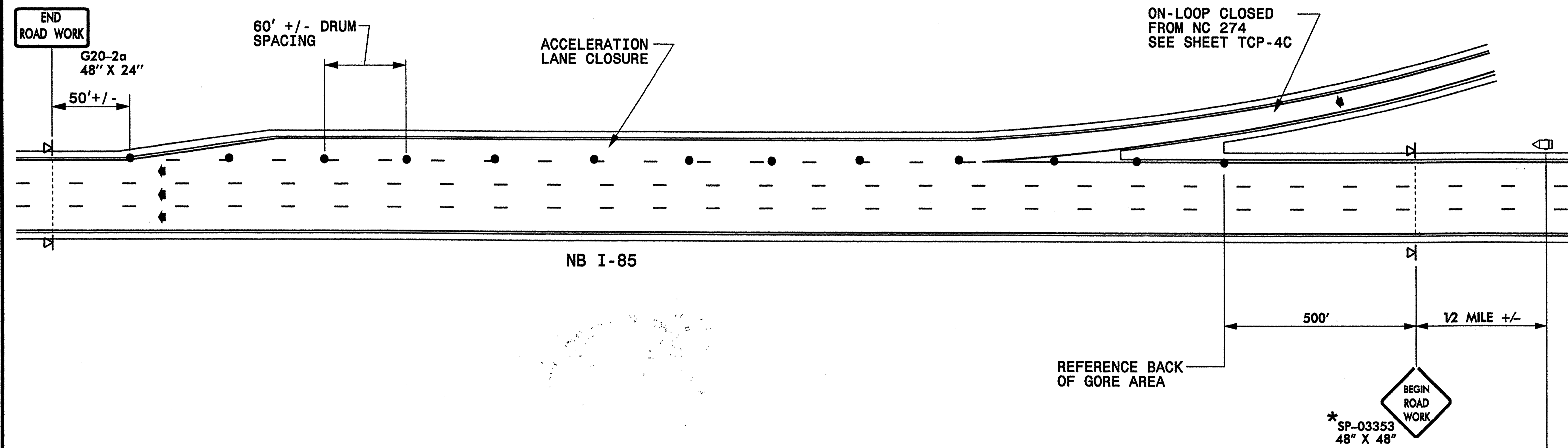
\* PLACE CMS AND DETOUR SIGNS AS DIRECTED BY THE ENGINEER.

**NOTES:**

1. TMA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

APPROVED: _____	DATE: _____	<b>US 274 ON-LOOP TO I-85 NB CLOSED</b>	
	SCALE: NONE		REVISIONS
	DATE: 2/11		
	DWG. BY: SNG		
	DESIGN BY: SNG		
	REVIEWED BY: JWS		

07-MAR-2011 11:58  
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 sng\eeb AI 12:47:33

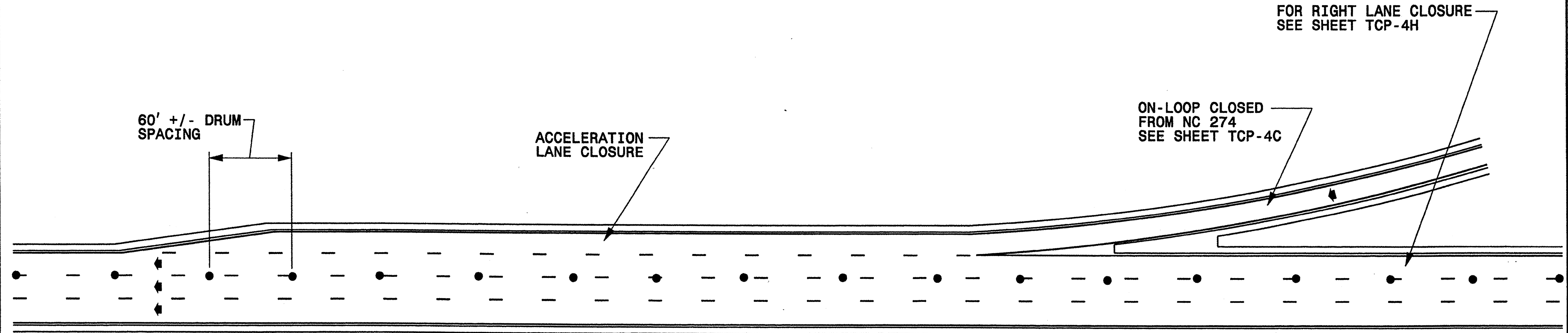


MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK AHEAD	ROAD WORK AHEAD
CHANGEABLE MESSAGE SIGN	

07-MAR-2011 05:55  
 C:\DDI\ADP\BROU\GROUPS-WZTCCC\WZTCCC\TMU\WZTC\DesignGroup3\Squad3B\Special Projects\BP-5300K\TMP\TCP\BP5300K.TC-TCP4D.dgn  
 SNG 0611 AT 12:44:33

LEGEND	
●	DRUM
➔	DIRECTION OF TRAFFIC FLOW
▽	PORTABLE SIGN
◻	CHANGEABLE MESSAGE SIGN (CMS)
*	SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>NC 274/BRIDGE #38</b> <b>TEMPORARY</b> <b>ACCELERATION LANE CLOSED</b>		REVISIONS					
			SCALE: NONE DATE: 2/11 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG	<table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>				



NB I-85

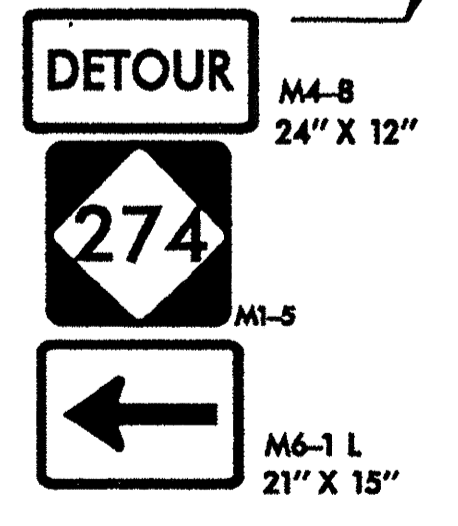
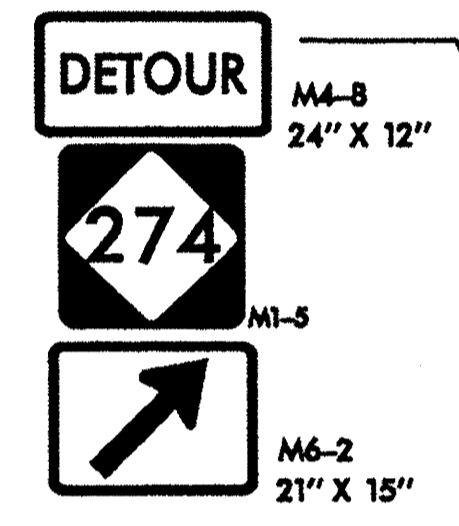
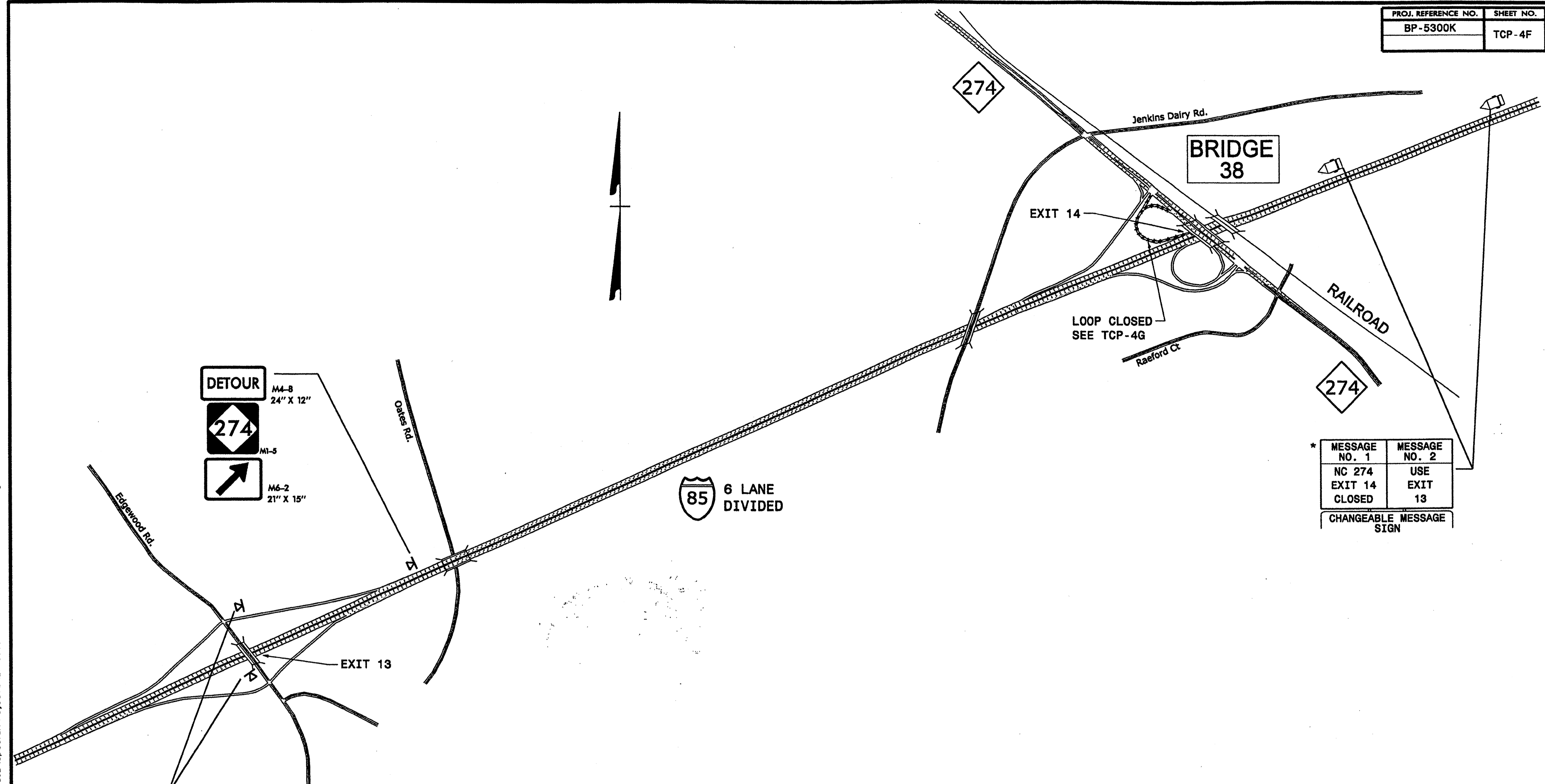
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 sngreen AT 1224733

LEGEND	
●	DRUM
➔	DIRECTION OF TRAFFIC FLOW
⚡	PORTABLE SIGN
◻	CHANGEABLE MESSAGE SIGN

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

NC 274/BRIDGE #38 TEMPORARY ACCELERATION AND OUTSIDE LANE CLOSED		SCALE: NONE DATE: 2/11 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG	REVISIONS <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>						



\* MESSAGE NO. 1      MESSAGE NO. 2

NC 274	USE
EXIT 14	EXIT
CLOSED	13

CHANGEABLE MESSAGE SIGN

6 LANE DIVIDED

**LEGEND**

- TYPE III BARRICADE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- STATIONARY SIGN
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- TRUCK MOUNTED ATTENUATOR (TMA)

\* SEE SHEET TCP-12 FOR SIGN DESIGN

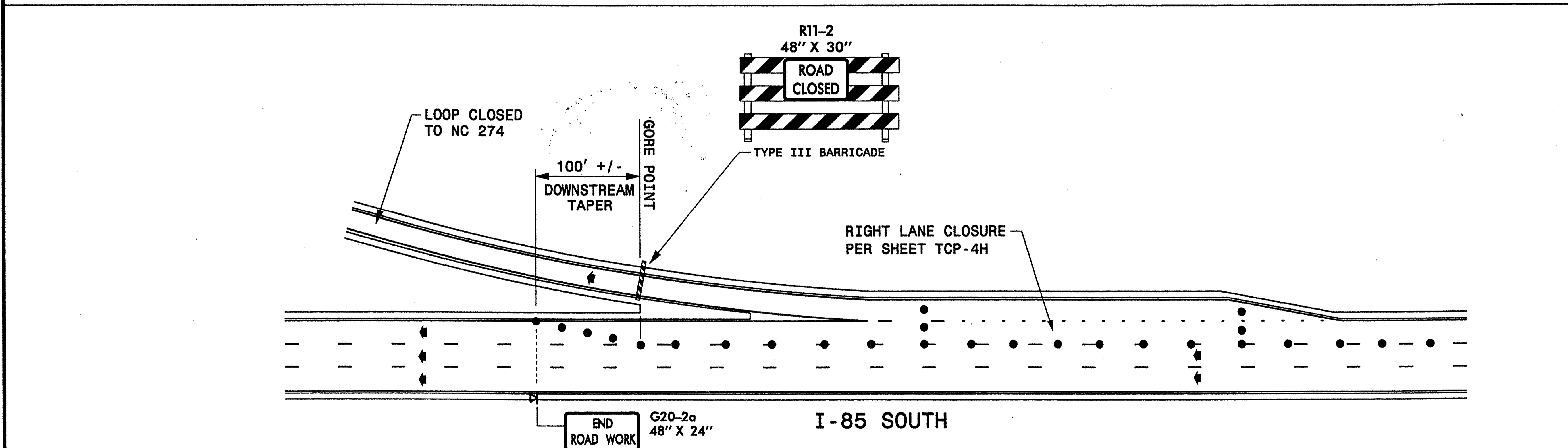
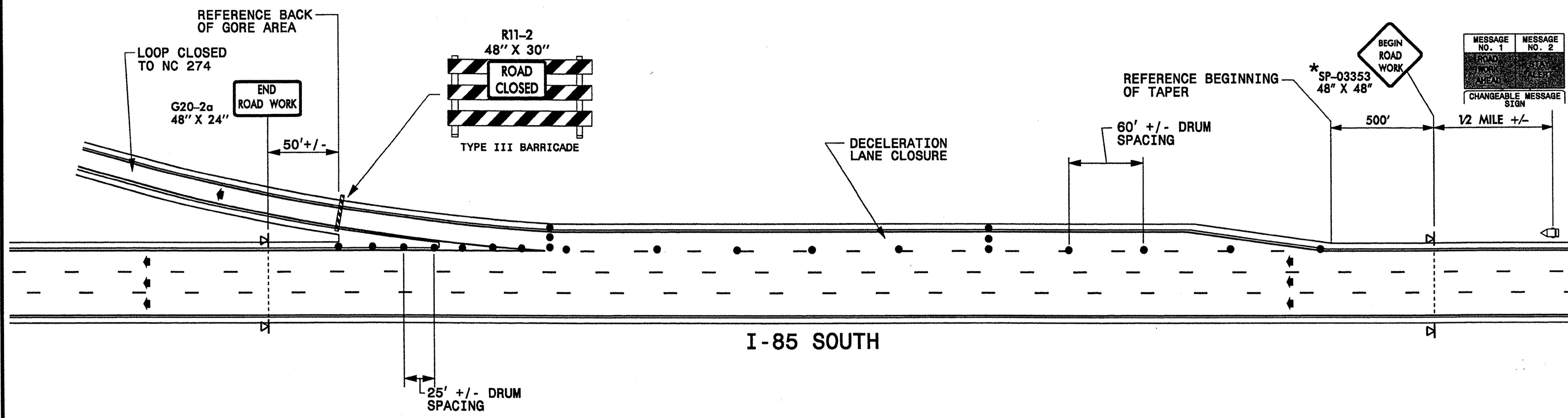
\* PLACE ONE APPROXIMATELY 1 MILE AND ANOTHER 1/2 MILE IN ADVANCE OF EXIT 14 OR AS DIRECTED BY THE ENGINEER.

**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

07-MAR-2011 10:57  
 \\DDI\NF-SR\DOT\GROUPS-WZTCCC\TMU\WZTC\DesignGroup3\Special Projects\BP-5300K\TMP\TCP\BP5300K-TCP-TCP4F.dgn  
 sng 6/21/11 11:22:44 AM

APPROVED: _____ DATE: _____	<b>US 274/BRIDGE #38 DETOUR DETAIL</b>	
	SCALE: NONE	
	DATE: 2/11	
	DWG. BY: SNG	
	DESIGN BY: SNG	
REVIEWED BY: JWG	REVISIONS	



**NOTES**

- 1- PROVIDE A 21 CALENDAR DAY NOTICE TO THE ENGINEER PRIOR TO A ROAD BEING CLOSED SUCH THAT NECESSARY PROVISIONS CAN BE MADE TO INFORM LOCAL EMERGENCY AND LAW ENFORCEMENT PERSONNEL, OR ANY OTHER PARTIES AFFECTED BY THE ROAD CLOSURE.
- 2- INSTALL SIGNS BEFORE BARRICADES WHEN CLOSING THE ROADWAY TO TRAFFIC. REMOVE BARRICADES BEFORE SIGNS WHEN OPENING THE ROADWAY TO TRAFFIC.
3. POSITION BARRICADES SUCH THAT THE STRIPES ARE SLOPED DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING.

**LEGEND**

- DRUM
- + STATIONARY SIGN
- ⇄ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

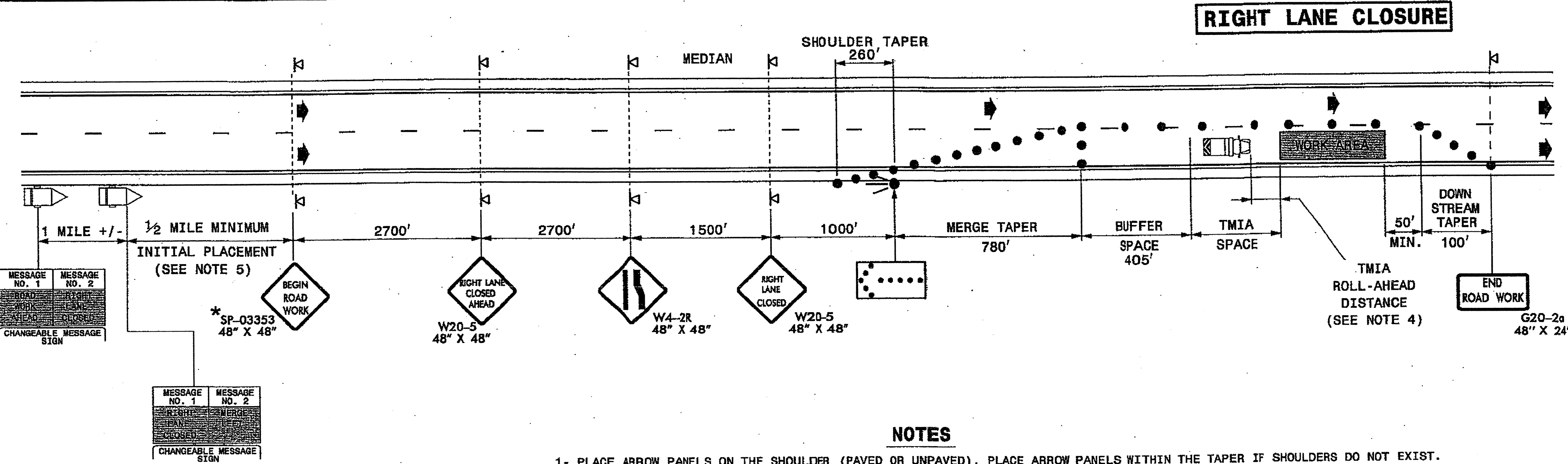
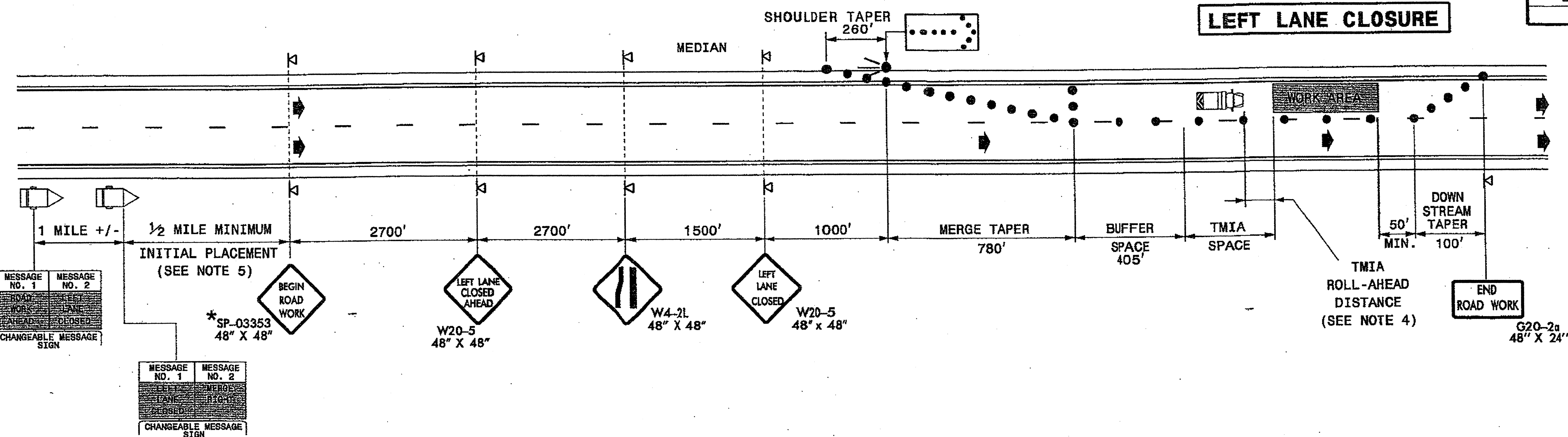
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

**NC 274/BRIDGE #38  
SOUTHBOUND I-85  
LANE & LOOP CLOSURE**

SCALE: NONE		REVISIONS
DATE: 2/11		
DWG. BY: SNG		
DESIGN BY: SNG		

REVIEWED BY: JWC

07-MAR-2011 12:00  
 \\DOT\XPSR001\GROUPS\WZTCCC\TMUN\WZTC\Design\Group3\Squad3B\Special Projects\BP-5300K\TMP\TCP\BP5300K-TCP-TCP-4G.dgn  
 sngren AT 11/24/11



**NOTES**

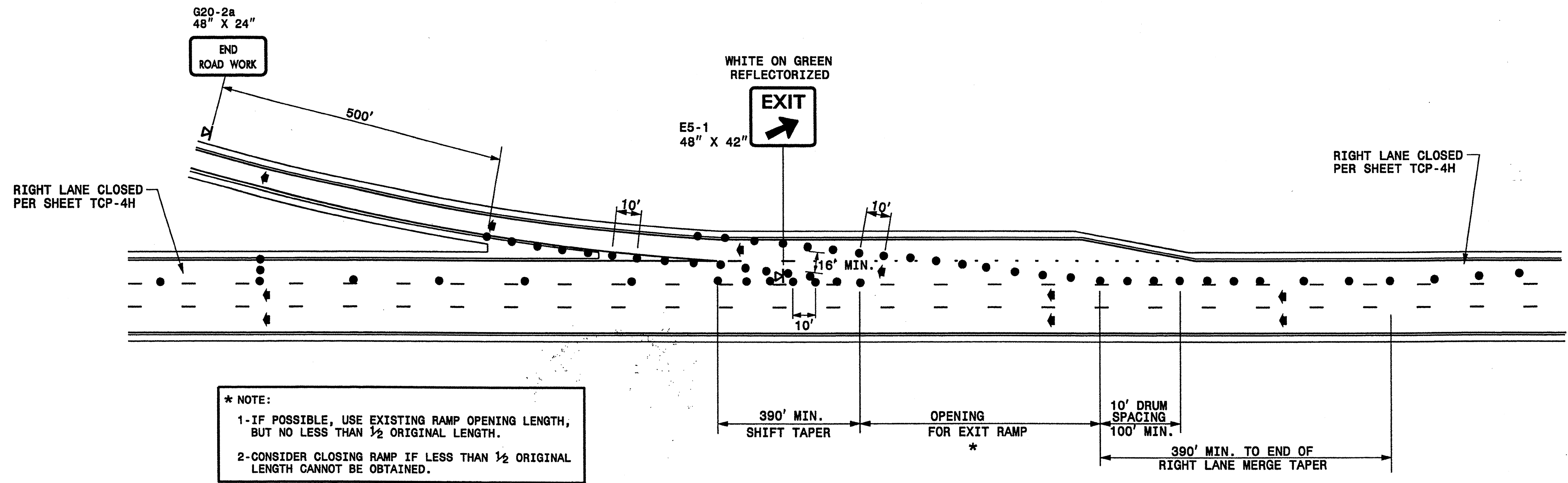
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL IS MET. (SEE STD. 1101.11 SHEET 2)
- 2- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.
- 6- SEE SHEET TCP-4I FOR THE TREATMENT OF LANE CLOSURES AT EXIT RAMP.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED:	DATE: 2/11	NC 274/BRIDGE #38 TEMPORARY LANE CLOSURE INSIDE/OUTSIDE LANE CLOSED	
SEAL 	SCALE: NONE		REVISIONS
	DATE: 2/11		
	DESIGNED BY: SNG		
	REVIEWED BY: JWC		

07-MAR-2011 10:02 AM \\dot\dfsroot\01\groups\wztc\design\group3\Special Projects\BP-5300K\TMPTCP\BP5300K\_LTC-TCP4H.dgn



**\* NOTE:**  
 1- IF POSSIBLE, USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.  
 2- CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

**LEGEND**  
 ● DRUM  
 □ PORTABLE SIGN  
 ↖ DIRECTION OF TRAFFIC FLOW

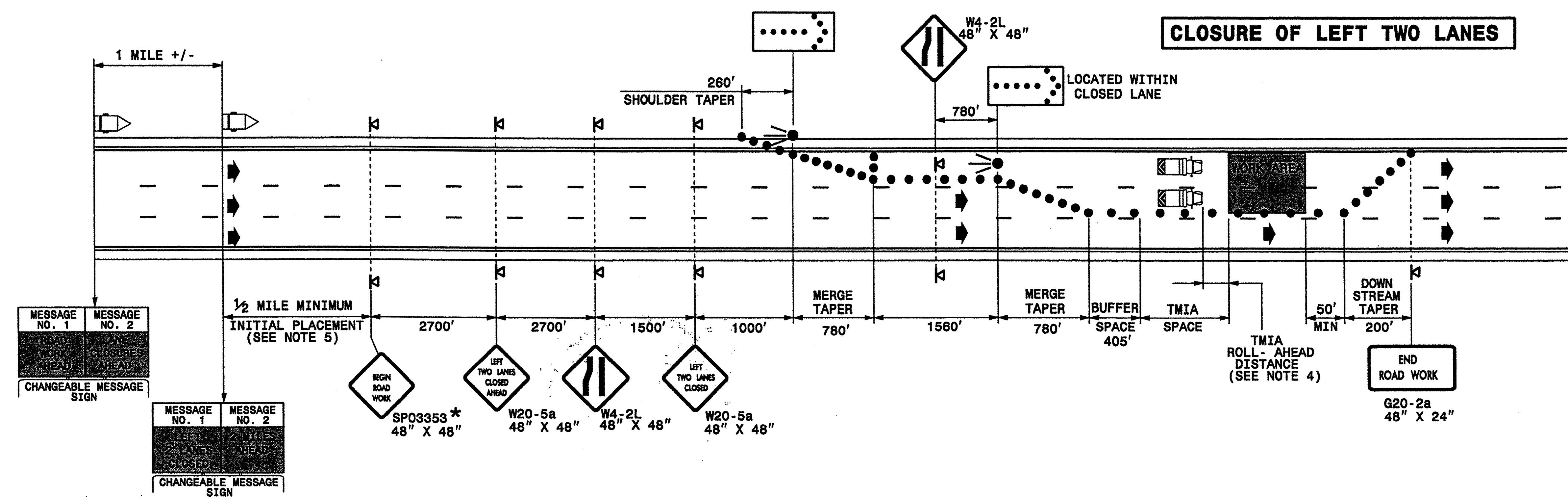
**GENERAL NOTES**

1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

07-MAR-2011 10:00  
 \\DOT\DESIGN\GROUPS-WZTCC\TMU\WZTC\DesignGroup3\Squad3B\Special Projects\BP-5300K\TMP\TCP\BP5300K\_TC-TCP4I.dgn  
 sngreen AT 1E244733

APPROVED: _____	DATE: _____	<b>NC 274/BRIDGE #38          TEMPORARY LANE CLOSURES          THRU EXIT RAMPS</b>										
SCALE: NONE	DATE: 2/11		<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS							
REVISIONS												
DWG. BY: SNG	DESIGN BY: SNG	REVIEWED BY: JWG										





**CLOSURE OF LEFT TWO LANES**

**NOTES**  
1-REFER TO NOTES ON SHEET TCP-4H.

**LEGEND**

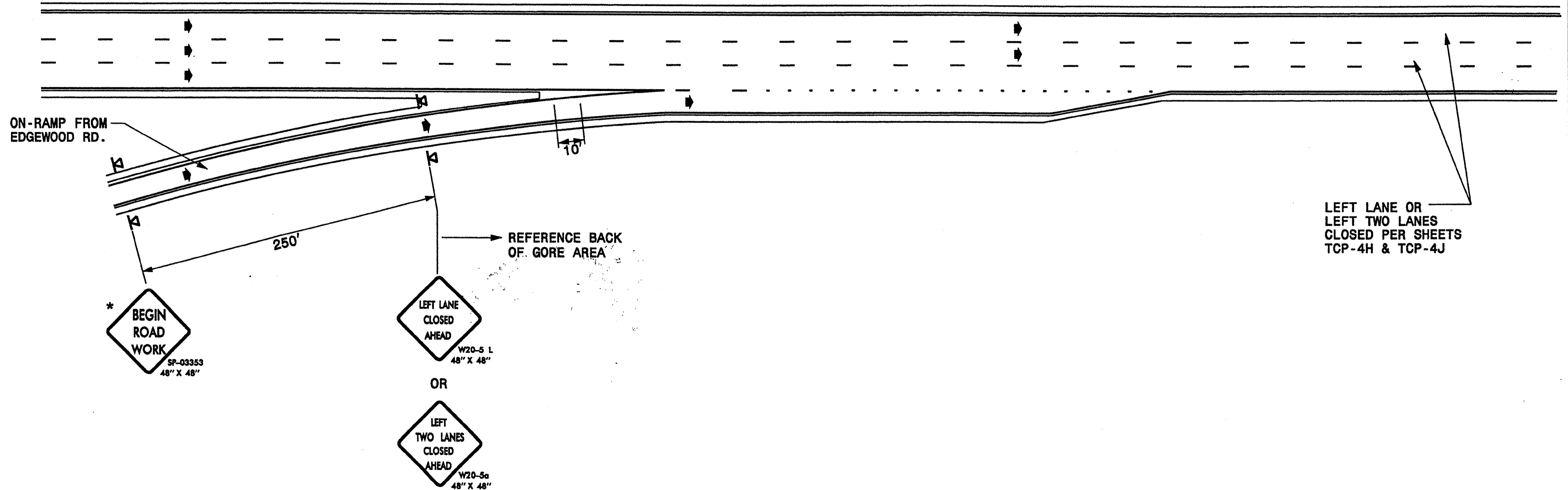
- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED ATTENUATOR (TMA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED:	DATE: MAR-11	<b>NC 274/BRIDGE #38 TEMPORARY LANE CLOSURE INSIDE TWO LANES CLOSED</b>	
SCALE: NONE	DATE: 2/11		
DESIGN BY: SNG	REVIEWED BY: JWG		
REVISIONS			

07-MAR-2011 10:41 AM  
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 sngreen AT 1E244735

PROJ. REFERENCE NO.	SHEET NO.
BP-5300K	TCP-4K

I-85 NORTHBOUND



\* BEGIN ROAD WORK  
SP-03353  
48" X 48"

LEFT LANE CLOSED AHEAD  
W20-S L  
48" X 48"

OR

LEFT TWO LANES CLOSED AHEAD  
W20-5a  
48" X 48"

LEFT LANE OR LEFT TWO LANES CLOSED PER SHEETS TCP-4H & TCP-4J

LEGEND	
●	DRUM
⊠	PORTABLE SIGN
➔	DIRECTION OF TRAFFIC FLOW
* SEE SHEET TCP-12 FOR SIGN DETAILS	

APPROVED: _____ DATE: _____	NC 274/BRIDGE #38 ON-RAMP/LOOP DETAIL		REVISIONS	
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	DATE: 2/11			
	DESIGN BY: SNG			
REVIEWED BY: JWG				

07-MAR-2011 13:42  
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 sngr\een AT 1E244733

PROJ. REFERENCE NO.	SHEET NO.
BP-5300K	TCP-5A

**PHASING**

**PHASE I**

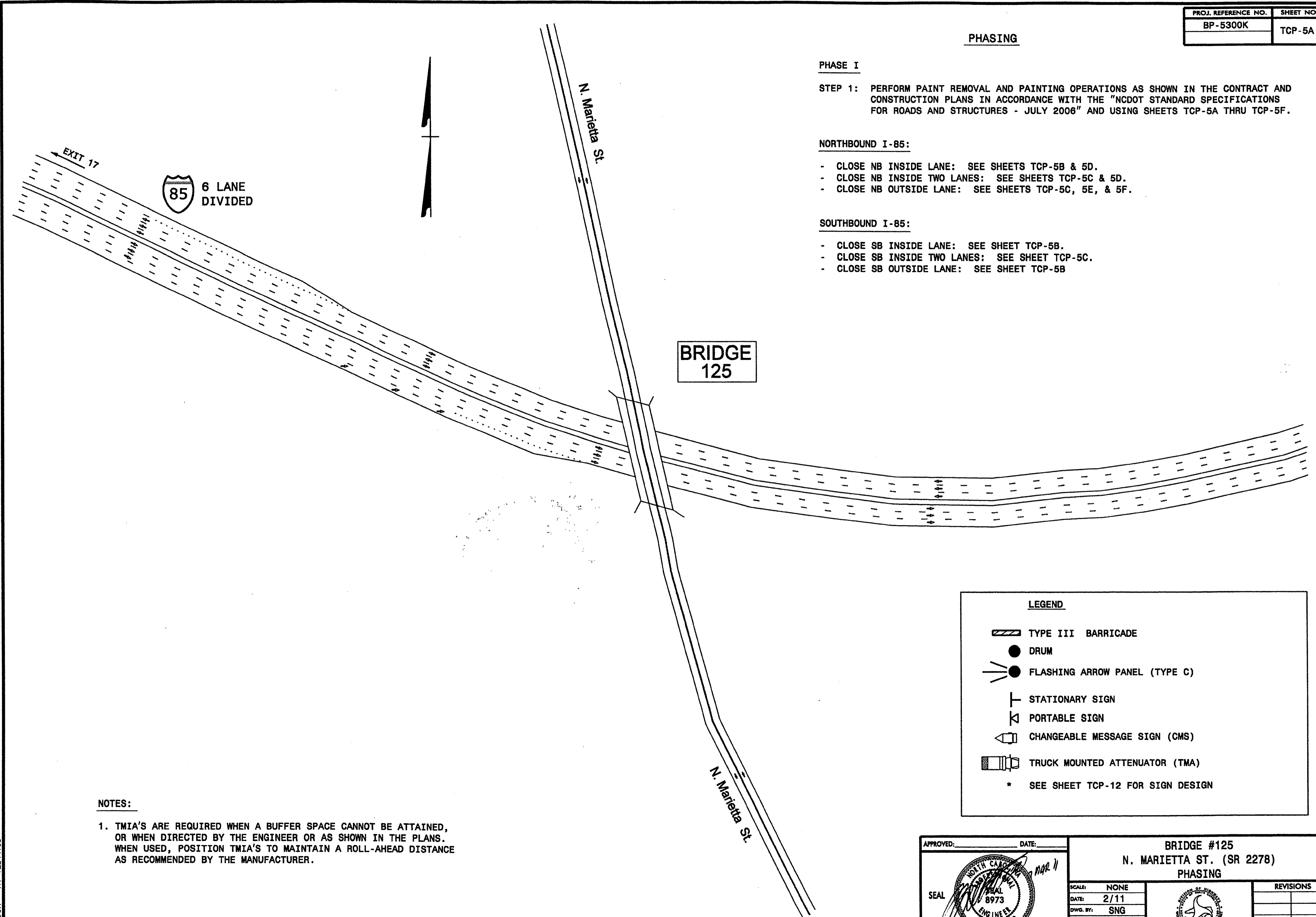
STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JULY 2006" AND USING SHEETS TCP-5A THRU TCP-5F.

**NORTHBOUND I-85:**

- CLOSE NB INSIDE LANE: SEE SHEETS TCP-5B & 5D.
- CLOSE NB INSIDE TWO LANES: SEE SHEETS TCP-5C & 5D.
- CLOSE NB OUTSIDE LANE: SEE SHEETS TCP-5C, 5E, & 5F.

**SOUTHBOUND I-85:**

- CLOSE SB INSIDE LANE: SEE SHEET TCP-5B.
- CLOSE SB INSIDE TWO LANES: SEE SHEET TCP-5C.
- CLOSE SB OUTSIDE LANE: SEE SHEET TCP-5B



**BRIDGE 125**

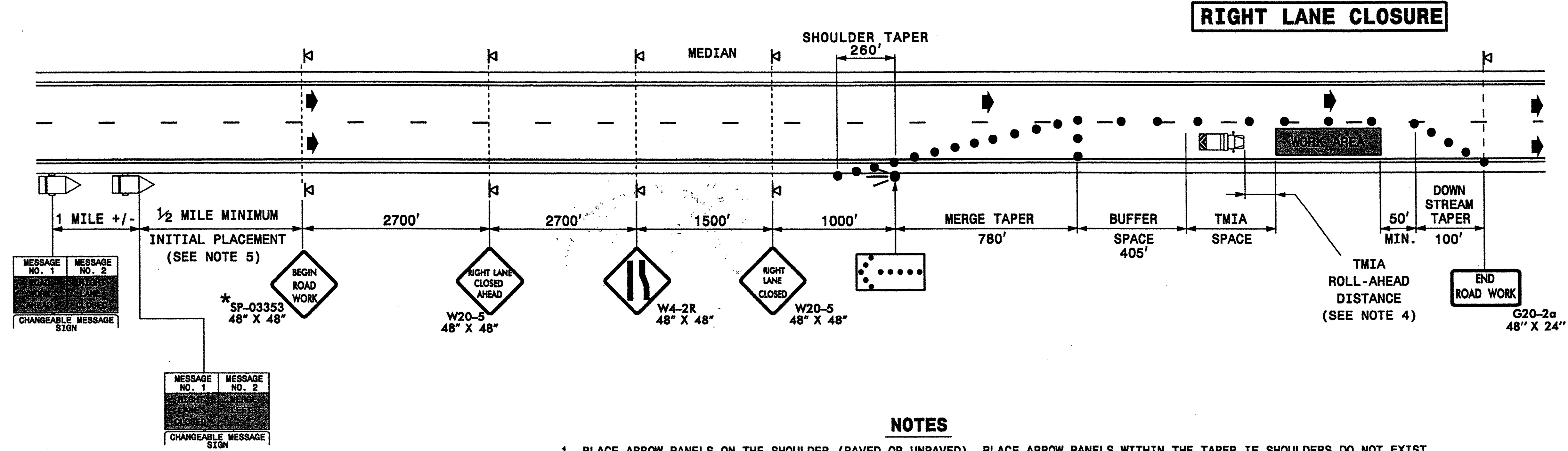
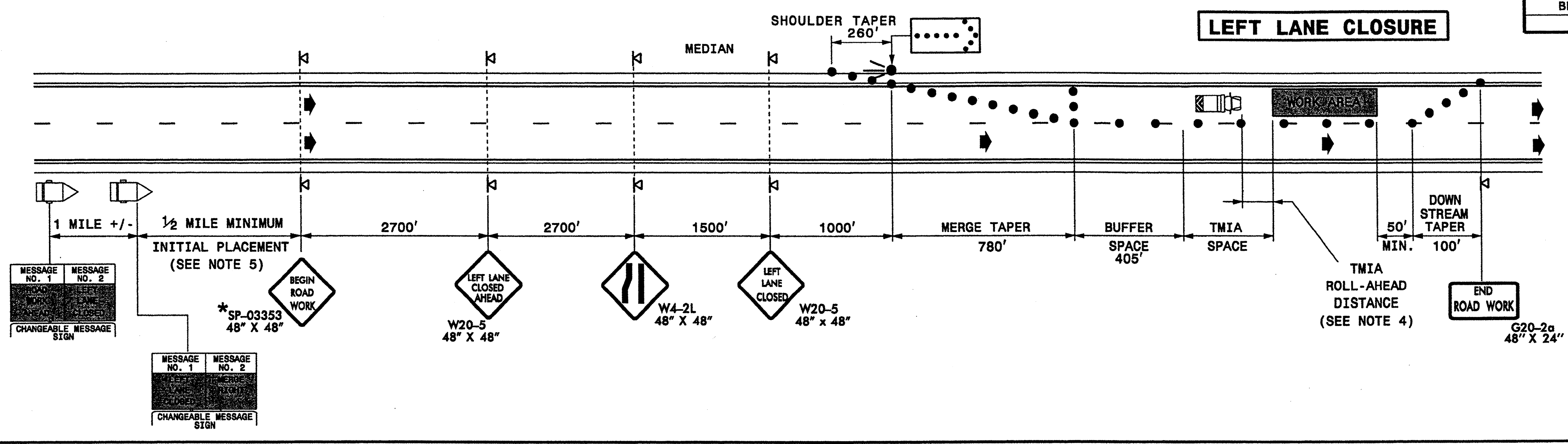
LEGEND	
	TYPE III BARRICADE
	DRUM
	FLASHING ARROW PANEL (TYPE C)
	STATIONARY SIGN
	PORTABLE SIGN
	CHANGEABLE MESSAGE SIGN (CMS)
	TRUCK MOUNTED ATTENUATOR (TMA)
* SEE SHEET TCP-12 FOR SIGN DESIGN	

**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

07-MAR-2011 10:06  
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 sngreen AT 12:44:33

APPROVED: _____	DATE: _____	<b>BRIDGE #125</b>	
		<b>N. MARIETTA ST. (SR 2278)</b>	
		<b>PHASING</b>	
SCALE: NONE	DATE: 2/11		REVISIONS
DWG. BY: SNG	DESIGN BY: SNG		
REVIEWED BY: JWG			



**NOTES**

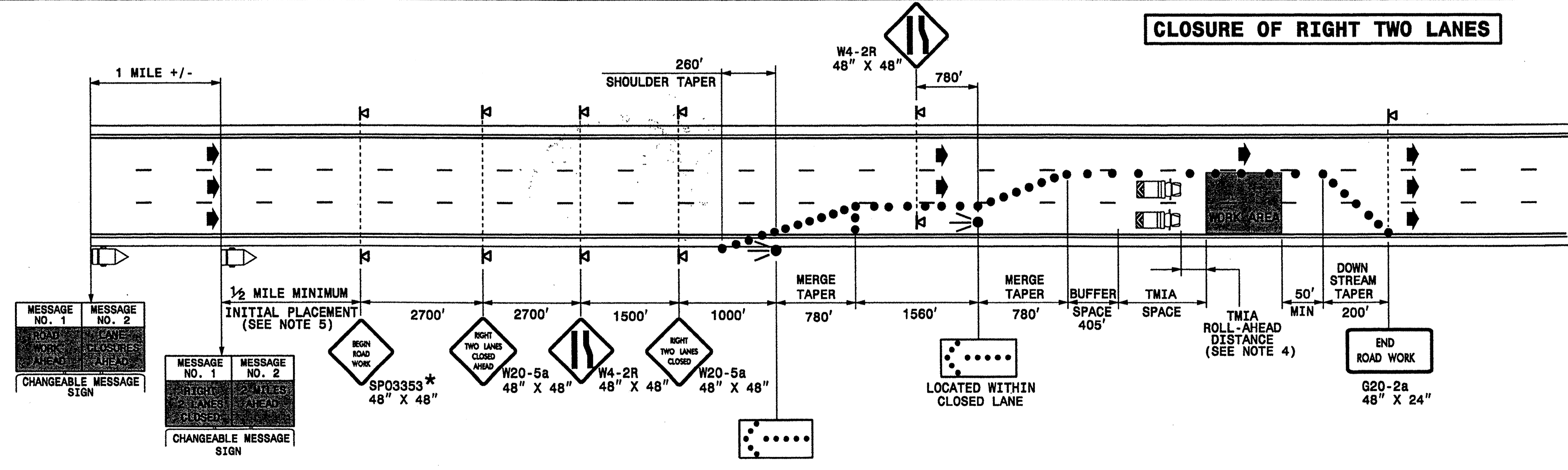
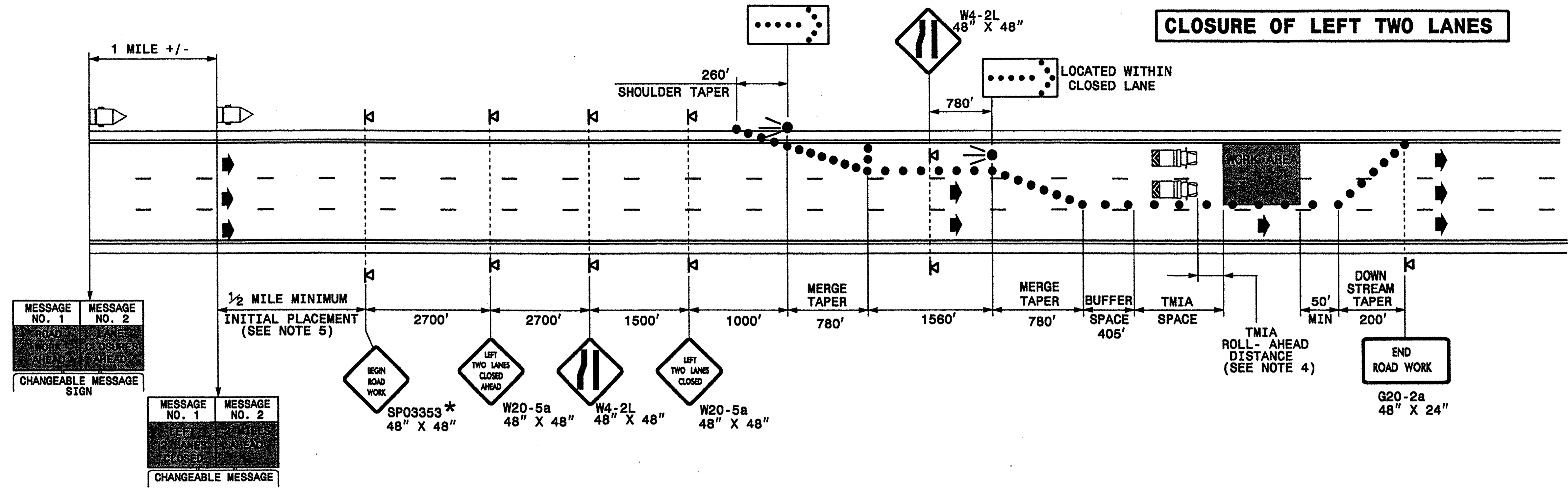
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL IS MET. (SEE STD. 1101.11 SHEET 2)
- 2- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED:	DATE: MAR 11	N. MARIETTA ST. (SR 2278)/BRIDGE #125 TEMPORARY LANE CLOSURE INSIDE/OUTSIDE LANE CLOSED	
SEAL	SCALE: NONE		REVISIONS
	DATE: 2/11		
	DWG. BY: SNG		
	DESIGN BY: SNG		
	REVIEWED BY: JWG		

07-MAR-2011 06:00:00 C:\WORK\PROJECTS\GROUPS-WZTCCC\TMU\WZTCC\Design\Group3\Squad3B\Special\Projects\BP-5300K\TCP\BP5300K.TC-TCP5B.dgn  
 SNG  
 AT 12:41:33



**NOTES**  
1-REFER TO NOTES ON SHEET TCP-5B.

**LEGEND**

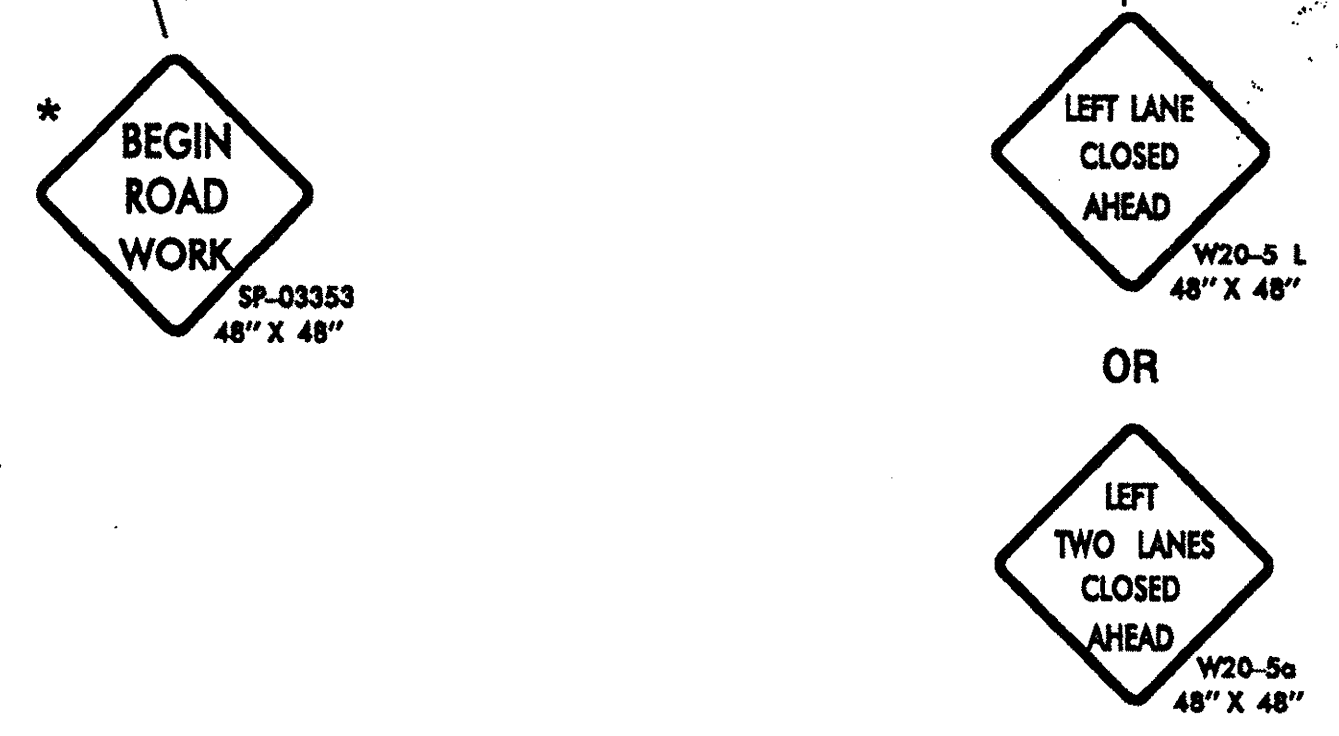
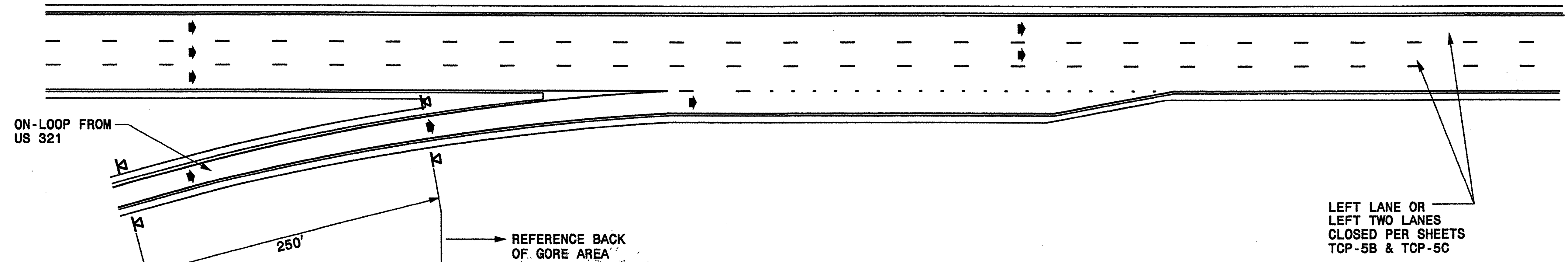
- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED ATTENUATOR (TMA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>N. MARIETTA ST. (SR 2278)/BRIDGE #125 TEMPORARY LANE CLOSURES TWO LANES CLOSED</b>						
SCALE: NONE DATE: 2/11 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS					
REVISIONS							

07-MAR-2011 10:07  
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 sngreen AT 12:44:33

PROJ. REFERENCE NO.	SHEET NO.
BP-5300K	TCP-5D

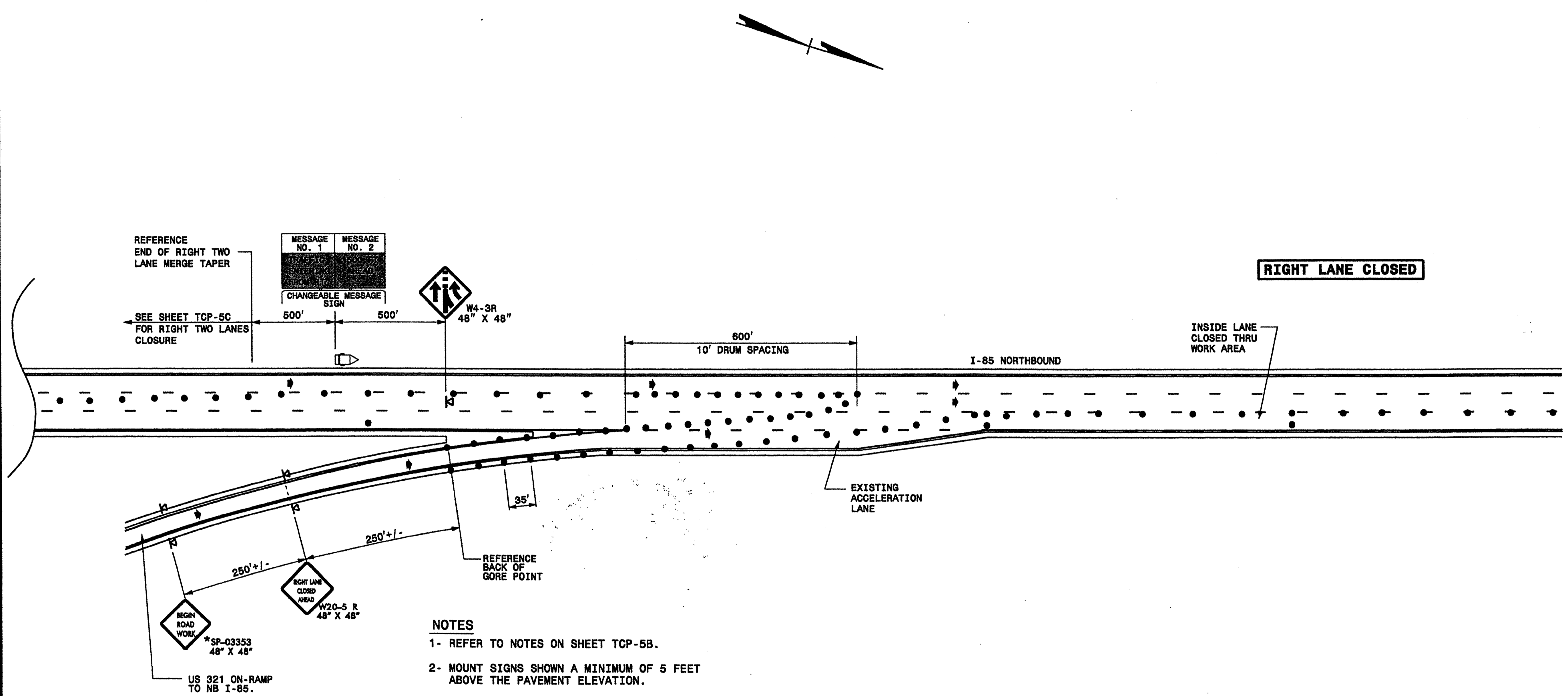
I-85 NORTHBOUND



LEGEND	
●	DRUM
⊞	PORTABLE SIGN
→	DIRECTION OF TRAFFIC FLOW
* SEE SHEET TCP-12 FOR SIGN DETAILS	

APPROVED: _____ DATE: _____	N. MARIETTA ST. (SR 2278)/BRIDGE #125 ON-RAMP/LOOP DETAIL										
	SCALE: NONE										
	DATE: 2/11		<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS							
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DESIGN BY: SNG											
REVIEWED BY: JWG		<table border="1"> <tr> <td> </td> <td> </td> </tr> </table>									

07-MAR-2011 14:43  
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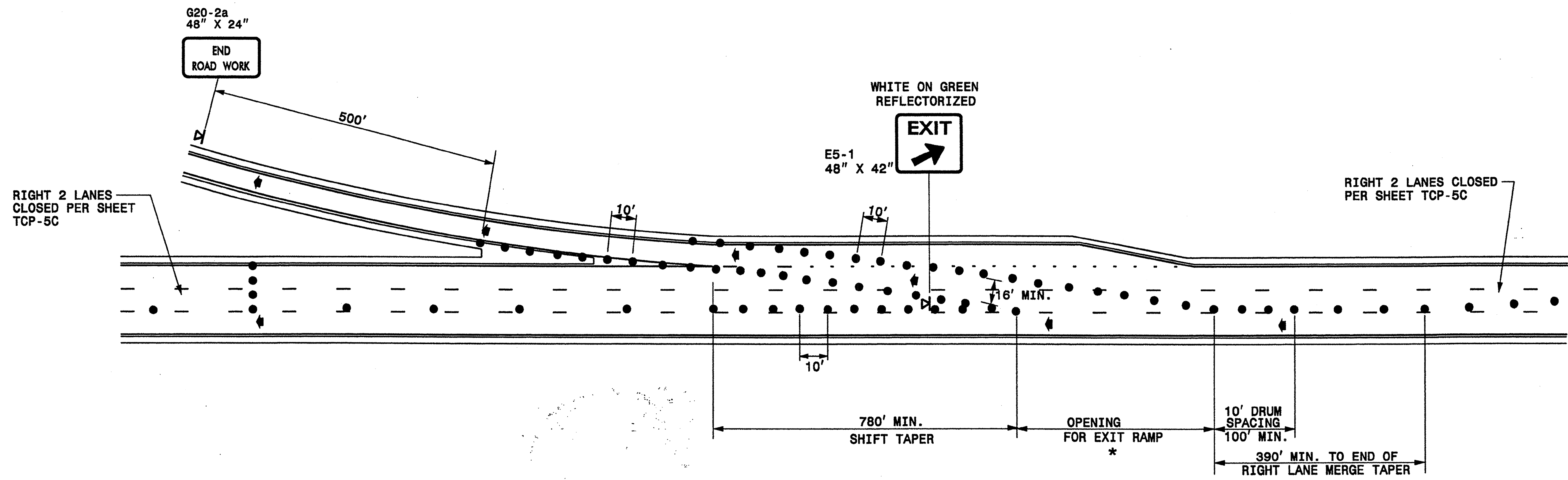
- NOTES**
- 1- REFER TO NOTES ON SHEET TCP-5B.
  - 2- MOUNT SIGNS SHOWN A MINIMUM OF 5 FEET ABOVE THE PAVEMENT ELEVATION.

**LEGEND**

- ◻ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ⚡ PORTABLE SIGN
- ⚡ FLASHING ARROW PANEL
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DESIGNS

APPROVED: _____	DATE: _____	N. MARIETTA ST. (SR 2278)/BRIDGE #125 NORTHBOUND I-85 OUTSIDE LANE CLOSED	
	SCALE: NONE		
	DATE: 04/09		
	DWG. BY: SNG		
	DESIGN BY: SNG		
REVIEWED BY: JWG	REVISIONS		


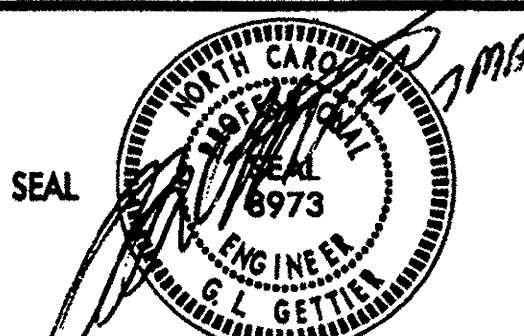
07-MAR-2011 13:44  
 \\001\DESIGN\GROUPS-WZTCCC\TMU\WZTC\Des\gn\Group3\Squad3B\Special Projects\BP-5300K\TMP\TCP-5300K\TC-TCP5E.dgn  
 sngreen AT TE24733



**\* NOTE:**  
 1- IF POSSIBLE, USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.  
 2- CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

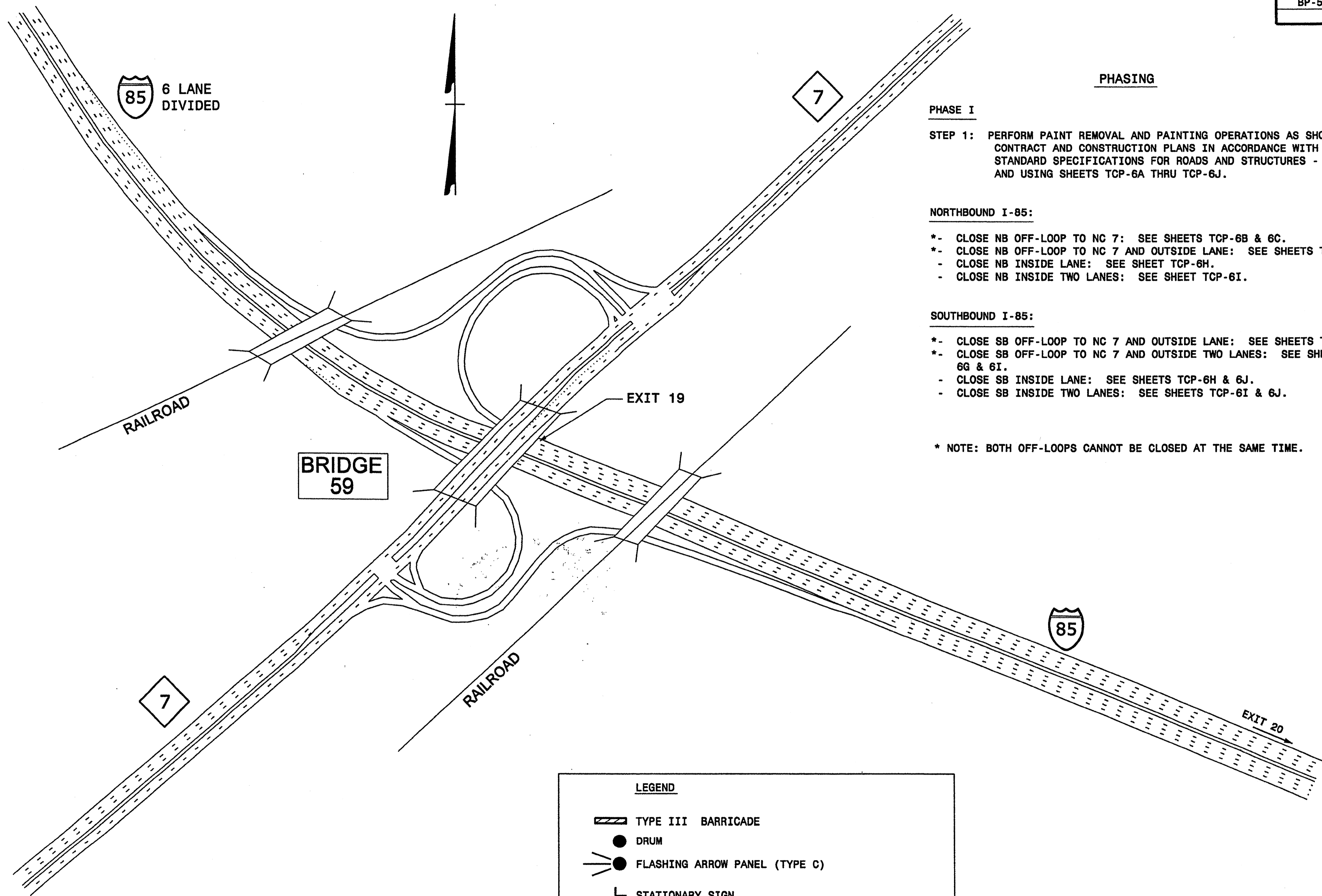
LEGEND	
●	DRUM
◀	PORTABLE SIGN
▶	DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**  
 1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED: _____ DATE: _____	N. MARIETTA ST. (SR 2278)/BRIDGE #125 TEMPORARY LANE CLOSURES THRU EXIT RAMPS	SCALE: NONE		REVISIONS
		DATE: 2/11		
		DWG. BY: SNG		
		DESIGN BY: SNG		
		REVIEWED BY: JWG		

07-MAR-2011 09:07:09 GROUPS-WZTCCC\TM\WZTC\DesignGroup3\Squad3B\Special Projects\BP-5300K\TMP\TCP\BP5300K-TCP-5F.dgn  
 SNG:sgn AT 12:41:33





**PHASING**

**PHASE I**

STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JULY 2006" AND USING SHEETS TCP-6A THRU TCP-6J.

**NORTHBOUND I-85:**

- \*- CLOSE NB OFF-LOOP TO NC 7: SEE SHEETS TCP-6B & 6C.
- \*- CLOSE NB OFF-LOOP TO NC 7 AND OUTSIDE LANE: SEE SHEETS TCP-6B, 6C & 6H.
- CLOSE NB INSIDE LANE: SEE SHEET TCP-6H.
- CLOSE NB INSIDE TWO LANES: SEE SHEET TCP-6I.

**SOUTHBOUND I-85:**

- \*- CLOSE SB OFF-LOOP TO NC 7 AND OUTSIDE LANE: SEE SHEETS TCP-6D & 6E.
- \*- CLOSE SB OFF-LOOP TO NC 7 AND OUTSIDE TWO LANES: SEE SHEETS TCP-6D, 6F, 6G & 6I.
- CLOSE SB INSIDE LANE: SEE SHEETS TCP-6H & 6J.
- CLOSE SB INSIDE TWO LANES: SEE SHEETS TCP-6I & 6J.

\* NOTE: BOTH OFF-LOOPS CANNOT BE CLOSED AT THE SAME TIME.

**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

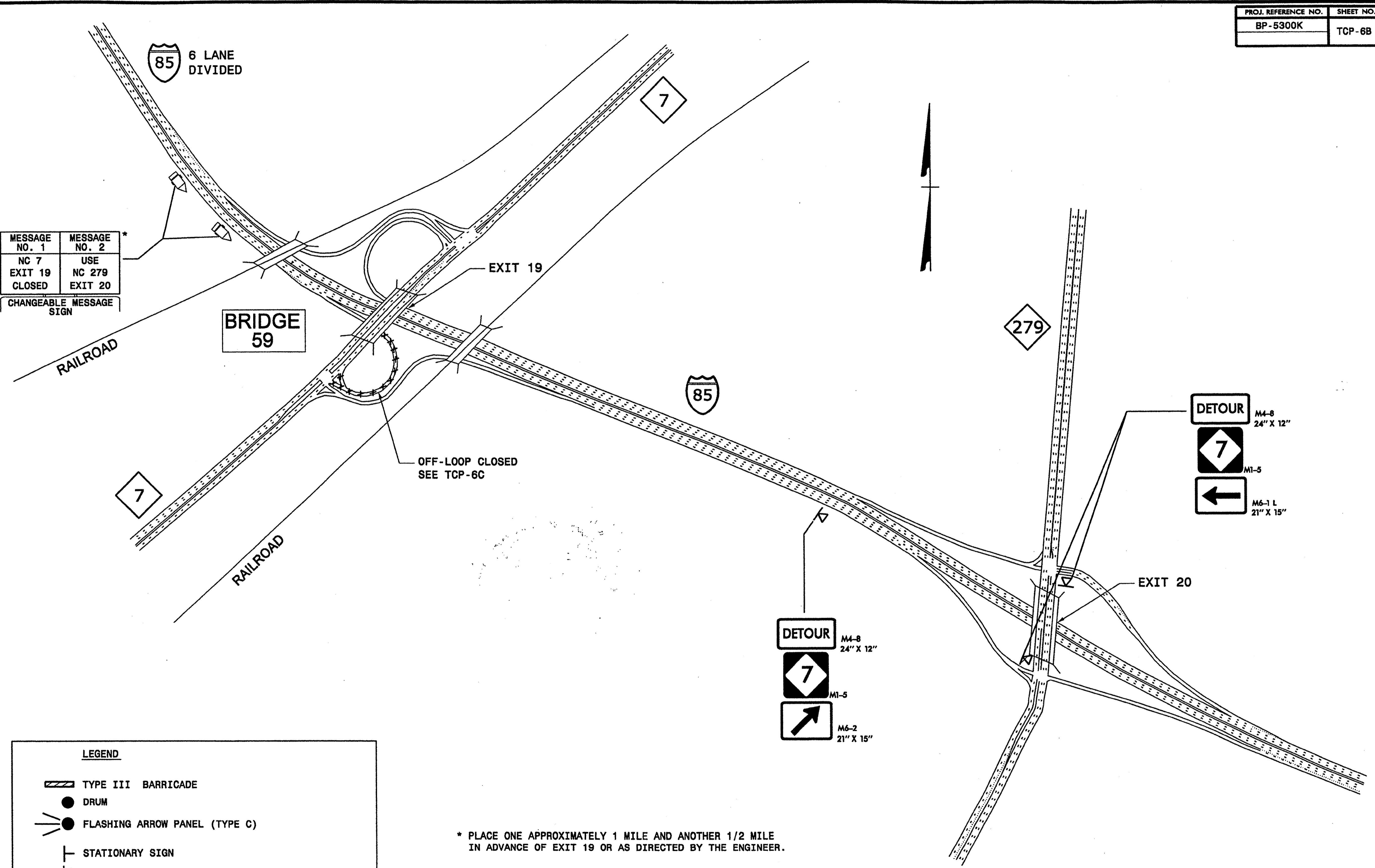
**LEGEND**

- TYPE III BARRICADE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- STATIONARY SIGN
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- TRUCK MOUNTED ATTENUATOR (TMA)
- \* SEE SHEET TCP-12 FOR SIGN DESIGN

Q7-MAR-2011 10:05:00 AM SR01\GROUPS-WZTCC\T.M\WZTC\DesignGroup3\Squid3B\Special Projects\BP-5300K\TMP\TCP\BP5300K-TCP-TC6A.dgn  
 sng\eam AT 12:44:33

APPROVED: _____	DATE: _____	<b>BRIDGE #59</b>	
		<b>NC 7 (E. OZARK AVE.)</b>	
		<b>PHASING</b>	
SCALE: NONE	DATE: 2/11		REVISIONS
DWG. BY: SNG	DESIGN BY: SNG		
REVIEWED BY: JWG			

MESSAGE NO. 1	MESSAGE NO. 2*
NC 7 EXIT 19 CLOSED	USE NC 279 EXIT 20
CHANGEABLE MESSAGE SIGN	



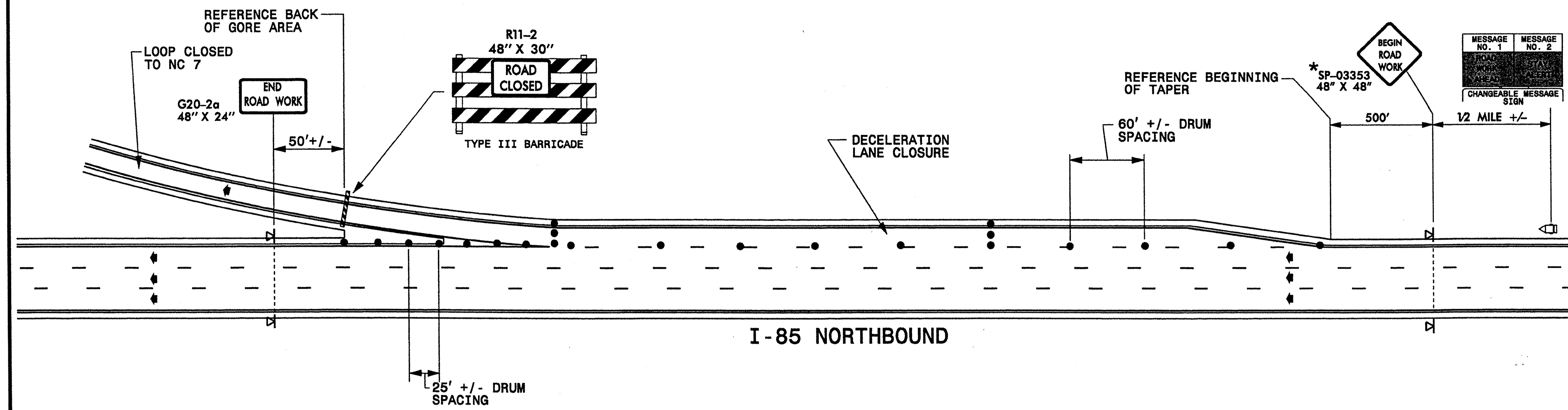
LEGEND	
	TYPE III BARRICADE
	DRUM
	FLASHING ARROW PANEL (TYPE C)
	STATIONARY SIGN
	PORTABLE SIGN
	CHANGEABLE MESSAGE SIGN (CMS)
	TRUCK MOUNTED ATTENUATOR (TMA)
* SEE SHEET TCP-12 FOR SIGN DESIGN	

\* PLACE ONE APPROXIMATELY 1 MILE AND ANOTHER 1/2 MILE IN ADVANCE OF EXIT 19 OR AS DIRECTED BY THE ENGINEER.

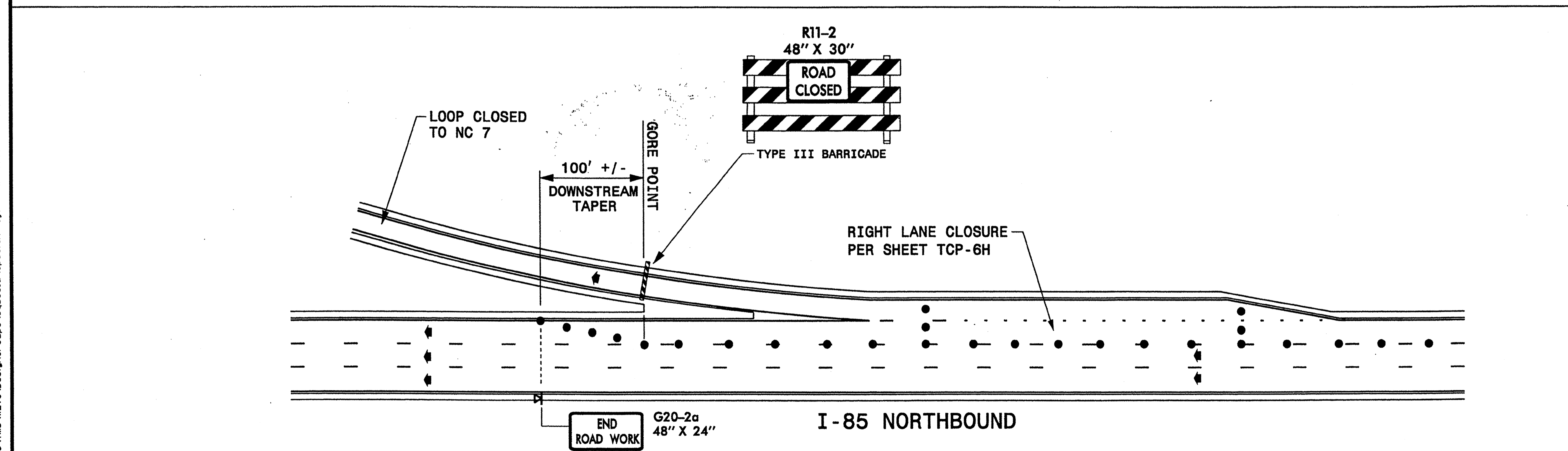
**NOTES:**  
 1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

APPROVED: _____	DATE: _____	<b>NC 7/BRIDGE #59          DETOUR DETAIL</b>		<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS					
REVISIONS										
		SCALE: NONE DATE: 2/11 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG								

07-MAR-2011 10:44  
 \\DOT\DFSR001\GROUPS-WZTCCC\TMUN\WZTC\DesignGroup3\Squad3B\Special Projects\BP-5300K\TMP\TCP\BP5300K-TC-TCP6B.dgn  
 sngreen AT 12:44:33



I-85 NORTHBOUND



I-85 NORTHBOUND

**NOTES**

- 1- PROVIDE A 21 CALENDAR DAY NOTICE TO THE ENGINEER PRIOR TO A ROAD BEING CLOSED SUCH THAT NECESSARY PROVISIONS CAN BE MADE TO INFORM LOCAL EMERGENCY AND LAW ENFORCEMENT PERSONNEL, OR ANY OTHER PARTIES AFFECTED BY THE ROAD CLOSURE.
- 2- INSTALL SIGNS BEFORE BARRICADES WHEN CLOSING THE ROADWAY TO TRAFFIC. REMOVE BARRICADES BEFORE SIGNS WHEN OPENING THE ROADWAY TO TRAFFIC.
3. POSITION BARRICADES SUCH THAT THE STRIPES ARE SLOPED DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING.

**LEGEND**

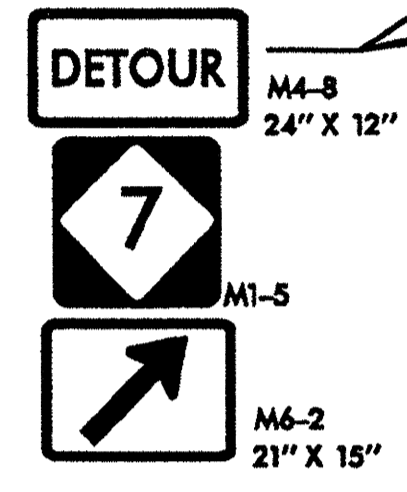
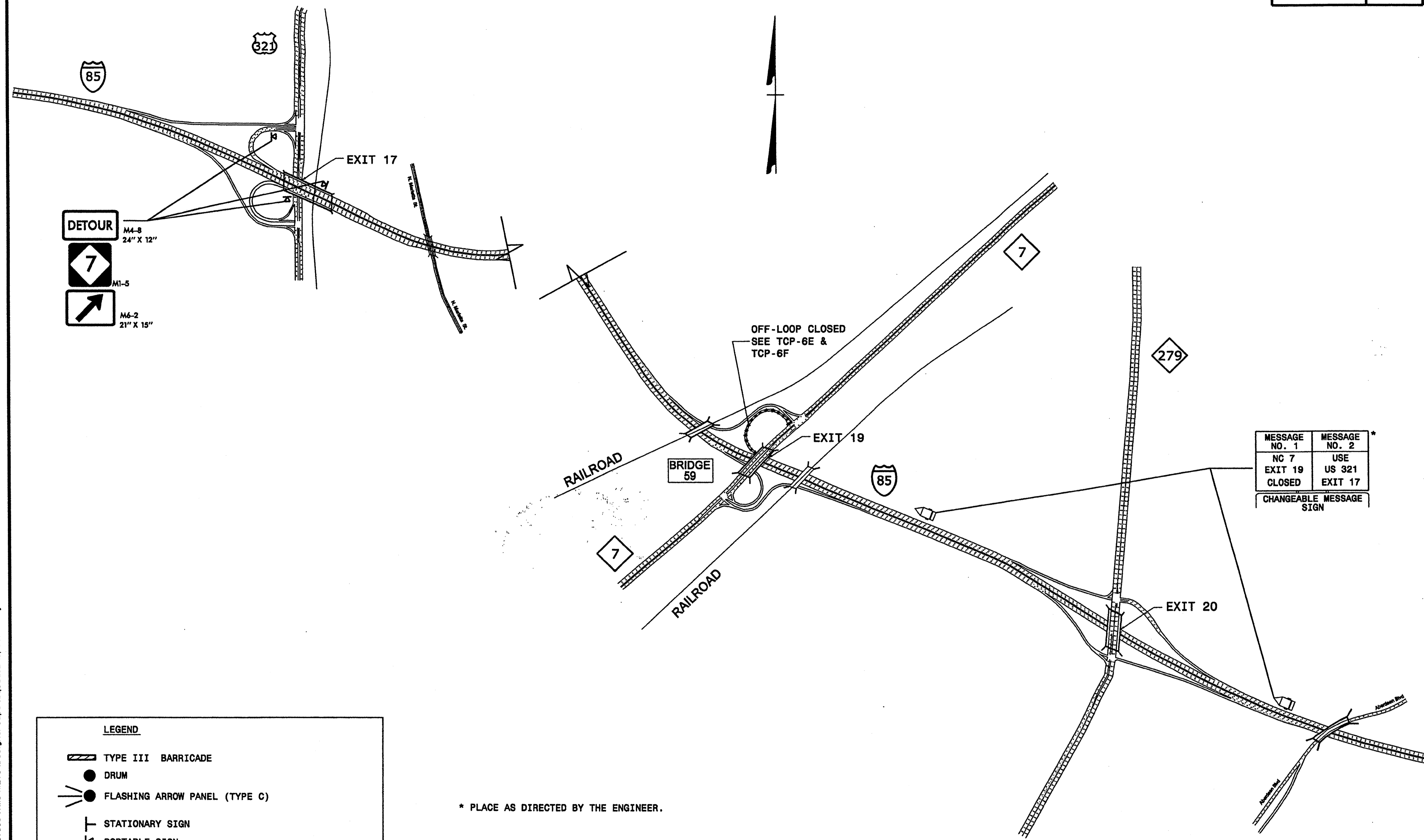
- DRUM
- STATIONARY SIGN
- ↔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

**NC 7/BRIDGE #59  
SOUTHBOUND I-85  
LANE & LOOP CLOSURE**

SCALE: NONE		REVISIONS
DATE: 2/11		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		

07-MAR-2011 15:44  
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 sngreen AT TEL: 4753



OFF-LOOP CLOSED  
SEE TCP-6E &  
TCP-6F

MESSAGE NO. 1	MESSAGE NO. 2 *
NC 7 EXIT 19 CLOSED	USE US 321 EXIT 17

CHANGEABLE MESSAGE SIGN

**LEGEND**

- TYPE III BARRICADE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- STATIONARY SIGN
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- TRUCK MOUNTED ATTENUATOR (TMA)

\* SEE SHEET TCP-12 FOR SIGN DESIGN

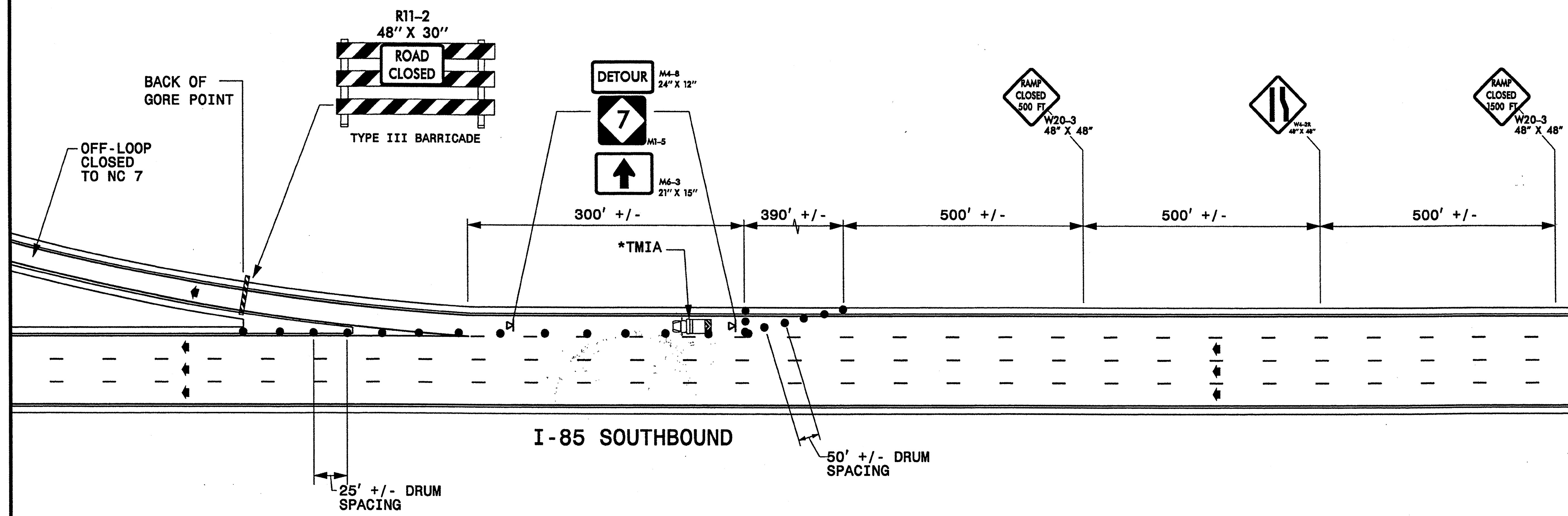
\* PLACE AS DIRECTED BY THE ENGINEER.

**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

APPROVED: _____	DATE: _____	<b>NC 7/BRIDGE #59 DETOUR DETAIL</b>	
SCALE: NONE	DATE: 2/11		REVISIONS
DWG. BY: SNG	DESIGN BY: SNG		
REVIEWED BY: JWG			

Q7-MAR-2011 12:04  
 \\DDI-ADP-SR001\GROUPS-WZTCCC\TMUN\WZTC\DesignGroup3\Squad3B\Special Projects\BP-5300K\TMP\TCP\BP5300K\_TC-TCP6D.dgn  
 SNG 03/11 AT 12:44:33



I-85 SOUTHBOUND

\* TMIA REQUIRED. POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

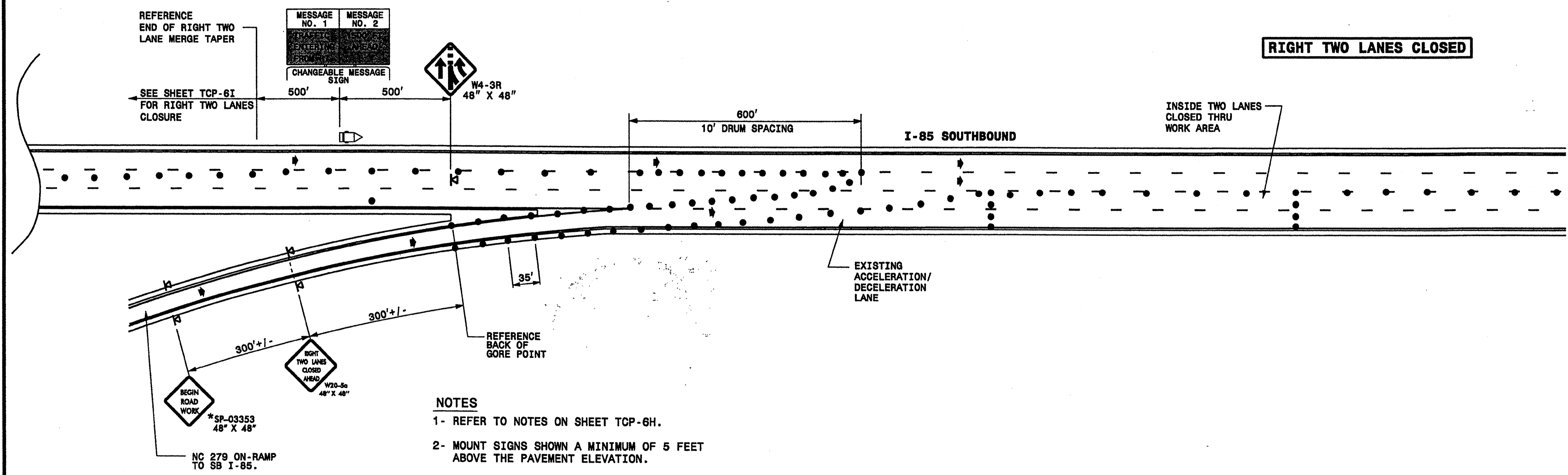
LEGEND	
●	DRUM
—	STATIONARY SIGN
↔	DIRECTION OF TRAFFIC FLOW
☐	TRUCK MOUNTED ATTENUATOR (TMA)

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL:

**NC 7 OFF-LOOP  
FROM SOUTHBOUND I-85  
CLOSED**

SCALE: NONE		REVISIONS
DATE: 10/09		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		



- NOTES**
- 1- REFER TO NOTES ON SHEET TCP-6H.
  - 2- MOUNT SIGNS SHOWN A MINIMUM OF 5 FEET ABOVE THE PAVEMENT ELEVATION.

LEGEND	
	CHANGEABLE MESSAGE SIGN (CMS)
	DRUM
	PORTABLE SIGN
	FLASHING ARROW PANEL
	DIRECTION OF TRAFFIC FLOW
* SEE SHEET TCP-12 FOR SIGN DESIGNS	

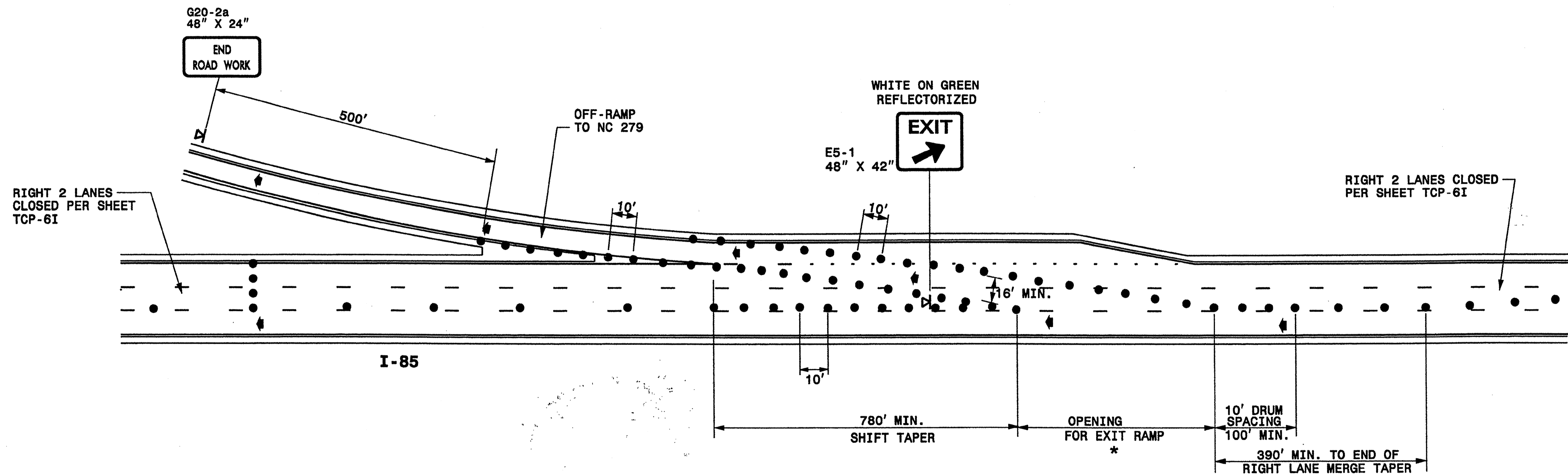
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

NC 7/BRIDGE #59  
SOUTHBOUND I-85  
OUTSIDE LANE CLOSED

SCALE: NONE		REVISIONS
DATE: 04/09		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		

07-MAR-2009 10:05  
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 sngreen AT TEL24433



**\* NOTE:**  
 1- IF POSSIBLE, USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.  
 2- CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

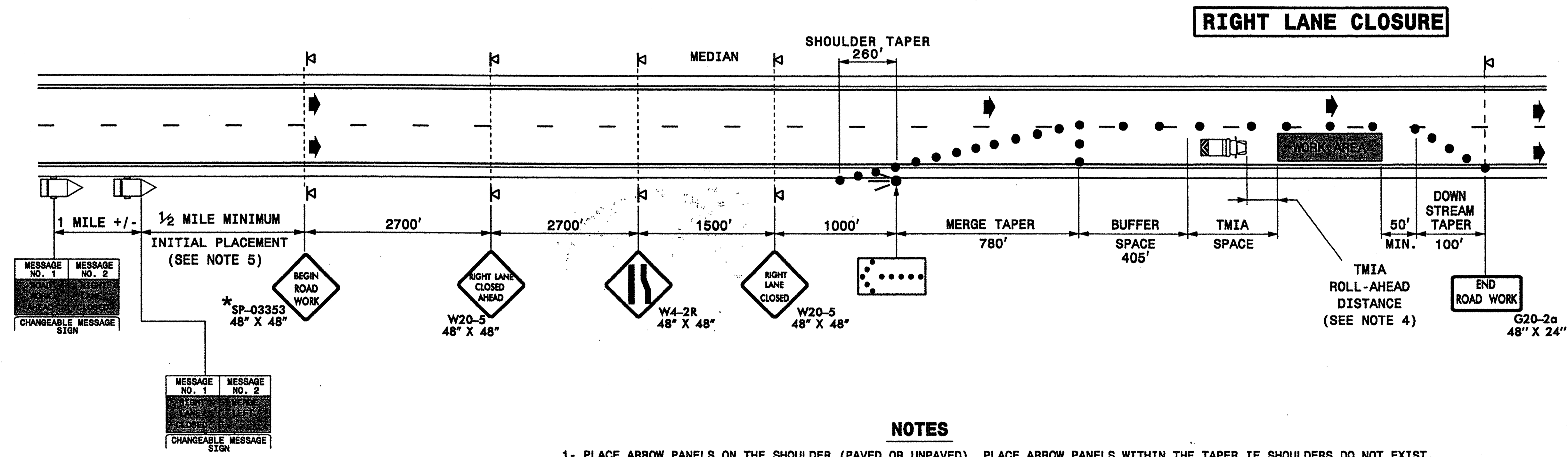
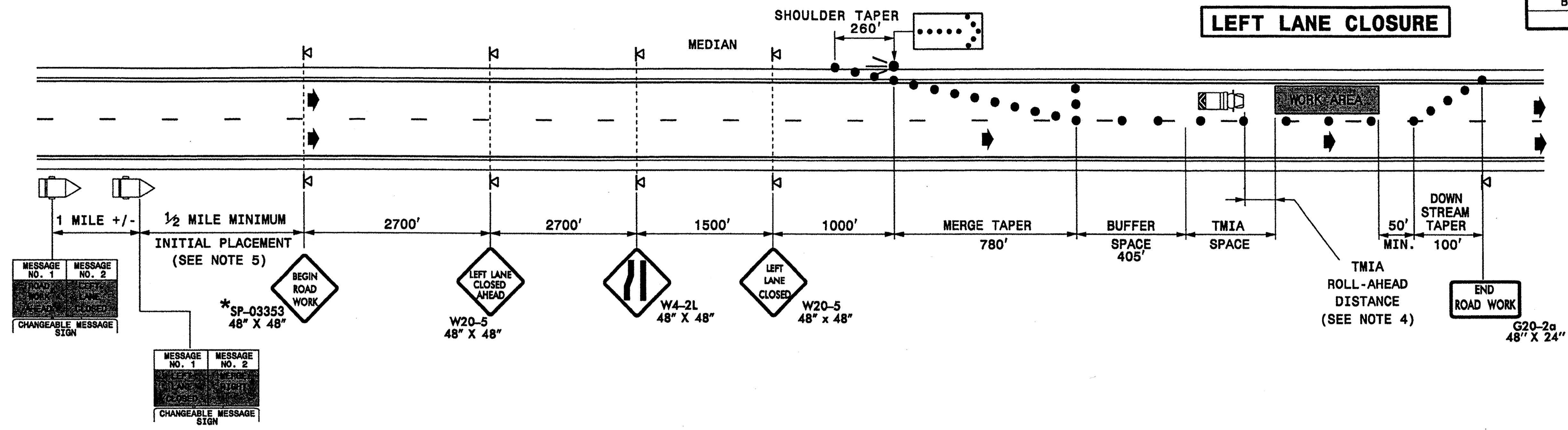
**LEGEND**

- DRUM
- ◀ PORTABLE SIGN
- ↔ DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**  
 1- MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED: _____ DATE: _____	<b>NC 7 / BRIDGE #59 TEMPORARY LANE CLOSURES THRU EXIT RAMPS</b>	
	SCALE: NONE	
	DATE: 04/09	
	DWG. BY: SNG	
	DESIGN BY: SNG	
REVIEWED BY: JWG	REVISIONS	

07-MAR-2011 12:24  
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 sng\esn AT 12:24:13



**NOTES**

- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL IS MET. (SEE STD. 1101.11 SHEET 2)
- 2- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.
- 6- SEE SHEET TCP-6G FOR THE TREATMENT OF LANE CLOSURES AT EXIT RAMP.

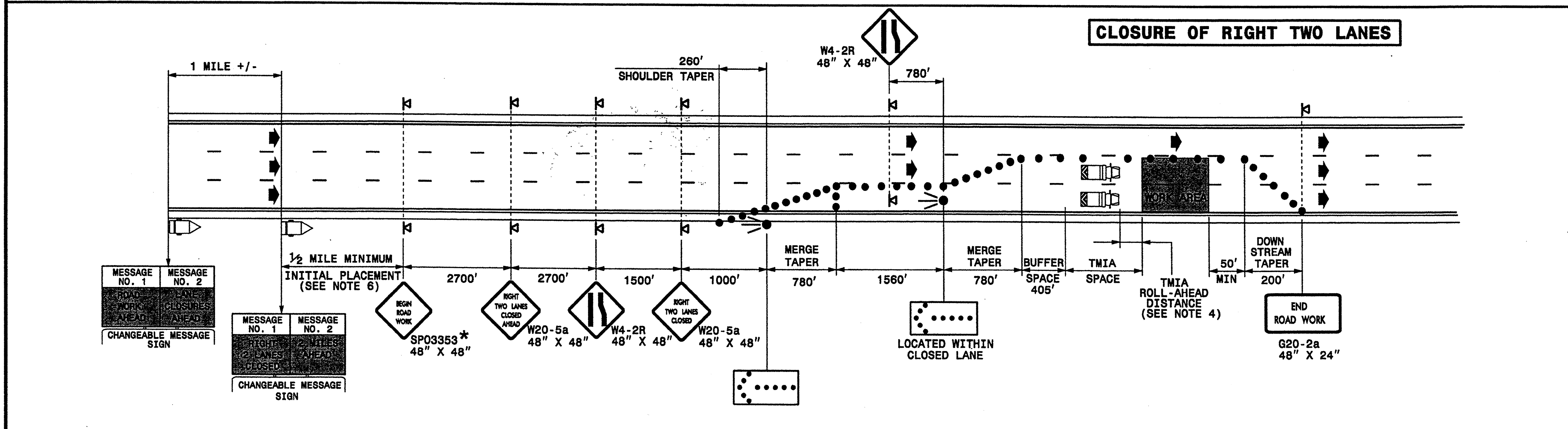
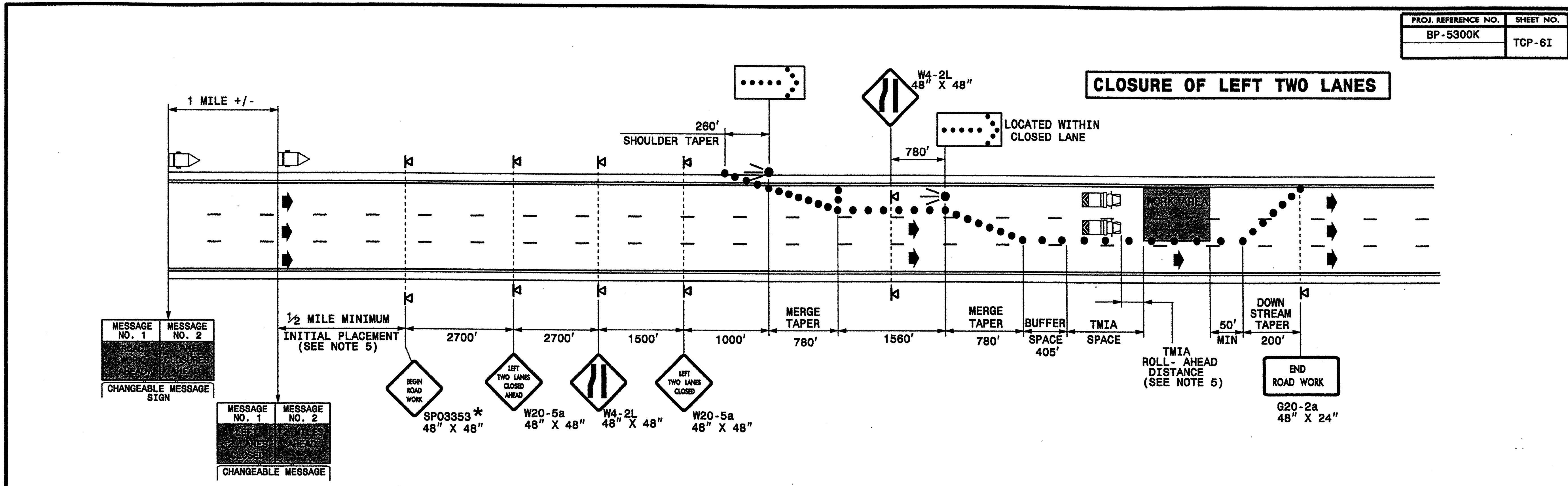
**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- ☐ TRUCK MOUNTED ATTENUATOR(TMA)
- ☐ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ⚡ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: _____	NC 7/BRIDGE #59 TEMPORARY LANE CLOSURE INSIDE/OUTSIDE LANE CLOSED	
	SCALE: NONE	
	DATE: 2/11	
	DESIGN BY: SNG	
	REVIEWED BY: JWG	
REVISIONS		

07-MAR-2011 12:25  
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 sng\esn A1 12/27/11





**NOTES**  
1-REFER TO NOTES ON SHEET TCP-6H.

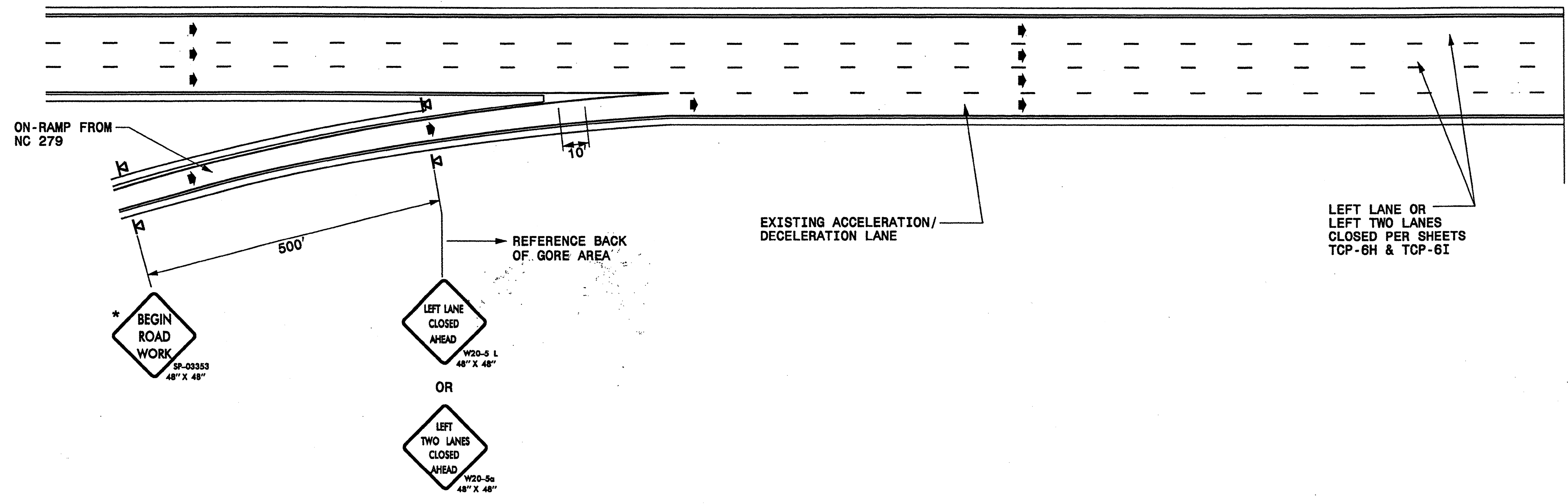
**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED ATTENUATOR (TMA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>NC 7/BRIDGE #59 TEMPORARY LANE CLOSURES TWO LANES CLOSED</b>						
SCALE: NONE DATE: 2/11 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS					
REVISIONS							

07-MAR-2011 10:26 ON\GROUPS-WZTCCC\TMUN\WZTC\Design\Groups\BP-5300K\TCP\BP5300K-TCP-6I.dgn  
 \DOT\DESIGN\WZTCCC\TMUN\WZTC\Design\Groups\BP-5300K\TCP\BP5300K-TCP-6I.dgn  
 sqdteen AT 12:44:13

I-85 SOUTHBOUND



**LEGEND**

- DRUM
- ⚡ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>NC 7/BIDGE #59 ON-RAMP/LOOP DETAIL</b>		REVISIONS							
			SCALE: NONE		<table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>					
DATE: 2/11	DESIGN BY: SNG									
REVIEWED BY: JNG										

07-MAR-2011 13:45  
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 sng p en AT 12244733

PROJ. REFERENCE NO.	SHEET NO.
BP-5300K	TCP-7A

**PHASING**

**PHASE I**

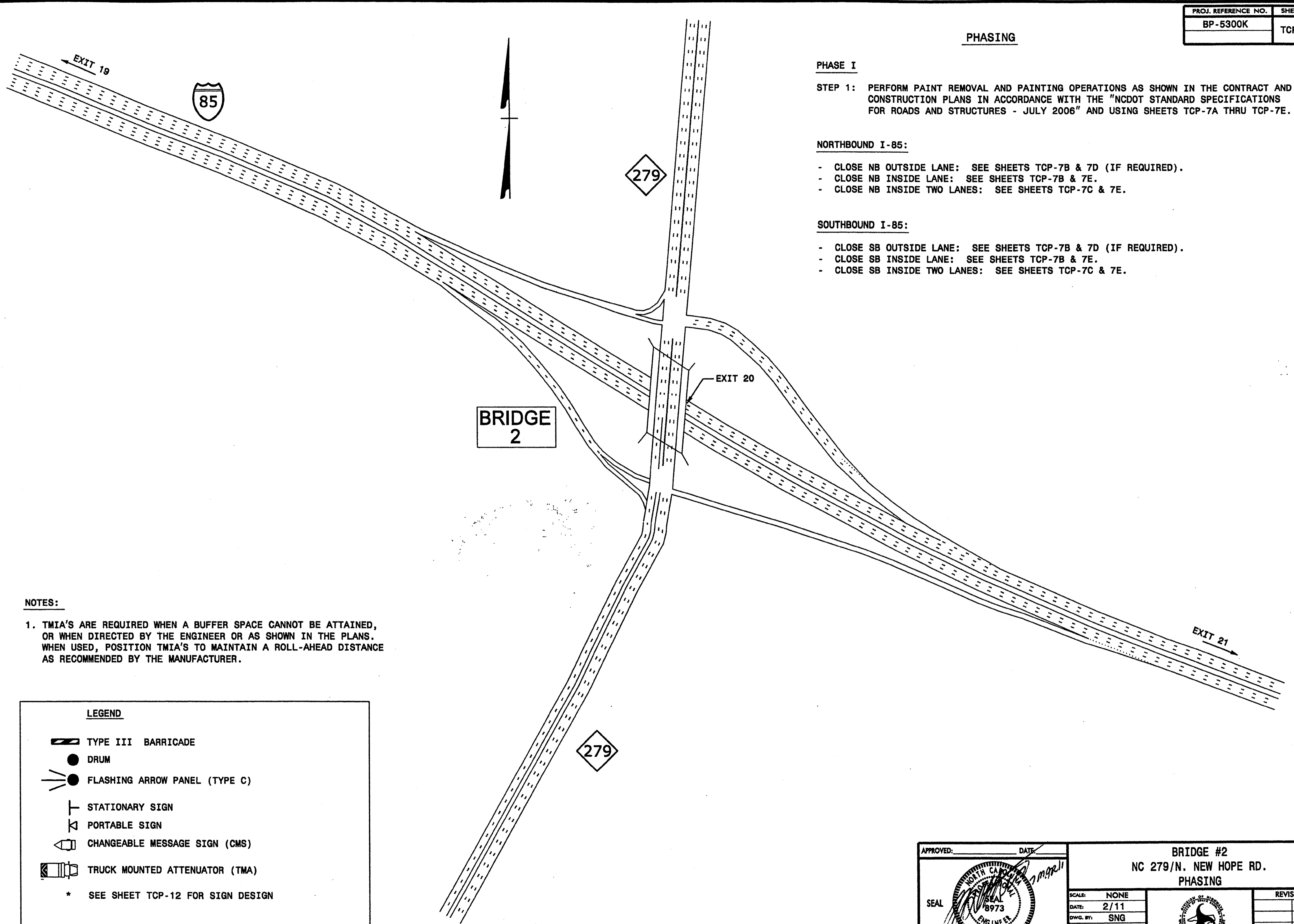
STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JULY 2006" AND USING SHEETS TCP-7A THRU TCP-7E.

**NORTHBOUND I-85:**

- CLOSE NB OUTSIDE LANE: SEE SHEETS TCP-7B & 7D (IF REQUIRED).
- CLOSE NB INSIDE LANE: SEE SHEETS TCP-7B & 7E.
- CLOSE NB INSIDE TWO LANES: SEE SHEETS TCP-7C & 7E.

**SOUTHBOUND I-85:**

- CLOSE SB OUTSIDE LANE: SEE SHEETS TCP-7B & 7D (IF REQUIRED).
- CLOSE SB INSIDE LANE: SEE SHEETS TCP-7B & 7E.
- CLOSE SB INSIDE TWO LANES: SEE SHEETS TCP-7C & 7E.



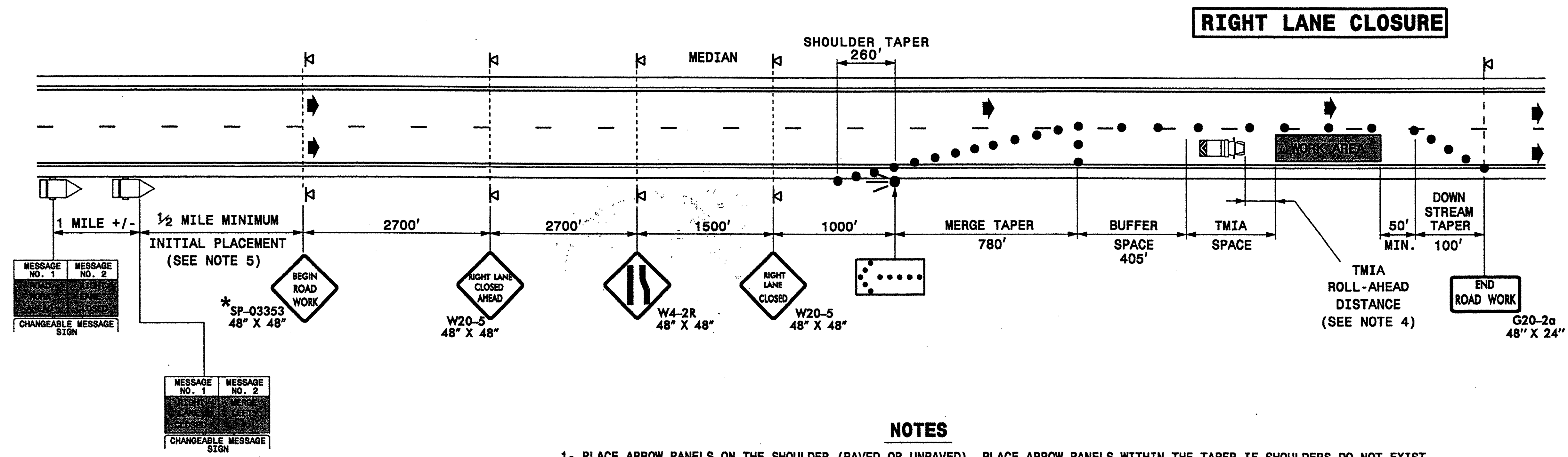
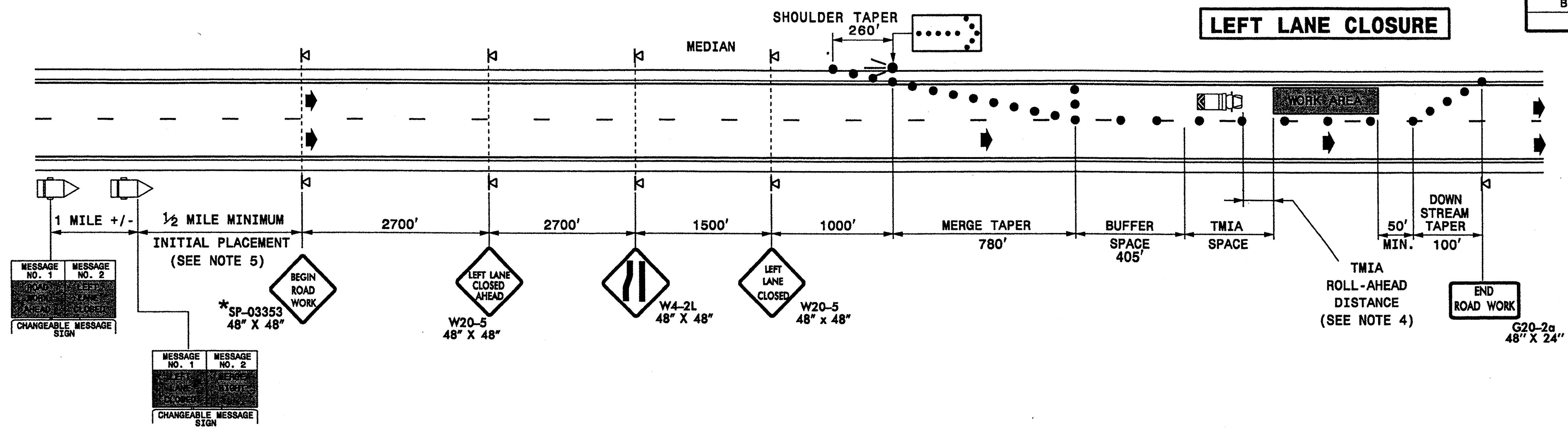
**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

LEGEND	
	TYPE III BARRICADE
	DRUM
	FLASHING ARROW PANEL (TYPE C)
	STATIONARY SIGN
	PORTABLE SIGN
	CHANGEABLE MESSAGE SIGN (CMS)
	TRUCK MOUNTED ATTENUATOR (TMA)
* SEE SHEET TCP-12 FOR SIGN DESIGN	

APPROVED: _____ DATE: _____	<b>BRIDGE #2</b> NC 279/N. NEW HOPE RD. PHASING	
	SCALE: NONE	
	DATE: 2/11	
	DWG. BY: SNG	
	DESIGN BY: SNG	
REVIEWED BY: JWG	REVISIONS	

07-MAR-2011 12:29  
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 sngren AT 11:24:13



**NOTES**

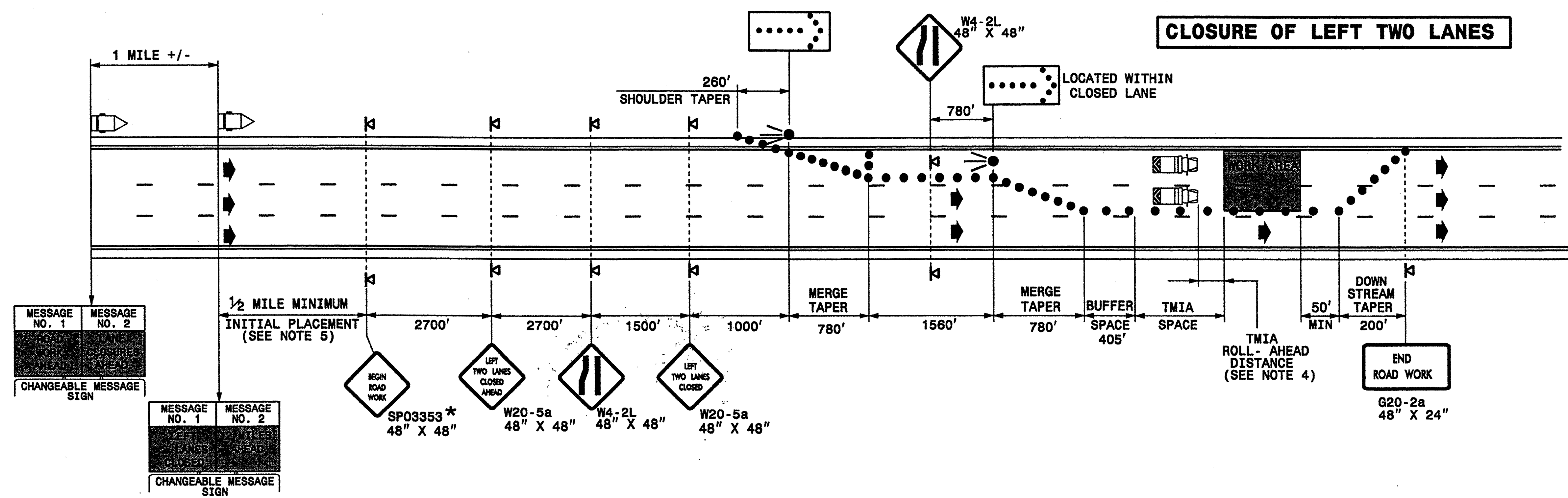
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL IS MET. (SEE STD. 1101.11 SHEET 2)
- 2- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.
- 6- SEE SHEET TCP-7D FOR THE TREATMENT OF LANE CLOSURES AT EXIT RAMP.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- ☐ TRUCK MOUNTED ATTENUATOR (TMA)
- ☐ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- △ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<p>NC 279/BRIDGE #2 TEMPORARY LANE CLOSURE INSIDE/OUTSIDE LANE CLOSED</p>	SCALE: NONE		REVISIONS
		DATE: 2/11		
		DWG. BY: SNG		
		DESIGN BY: SNG		
		REVIEWED BY: JWG		

07-MAR-2011 11:30 AM  
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 SNG



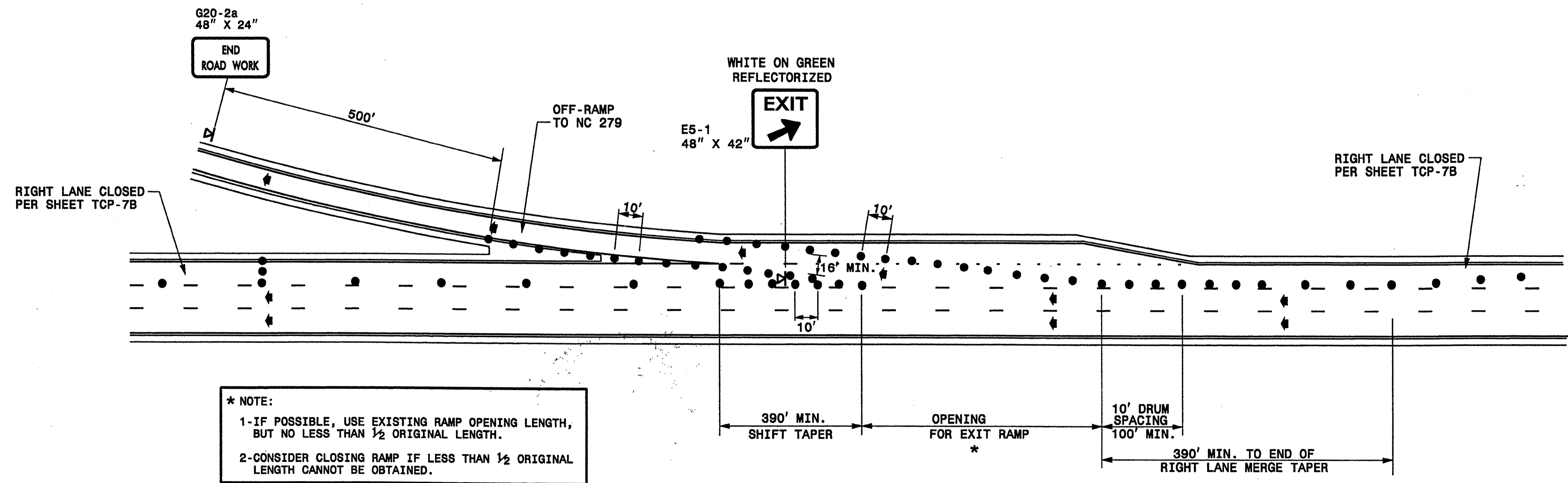
**NOTES**  
 1-REFER TO NOTES ON SHEET TCP-7B.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED ATTENUATOR (TMA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED:	DATE: 2/11	<b>NC 279/BRIDGE #2 TEMPORARY LANE CLOSURE INSIDE TWO LANES CLOSED</b>	
SEAL:			
SCALE: NONE	DATE: 2/11		REVISIONS
DWG. BY: SNG	DESIGN BY: SNG		
REVIEWED BY: JWG			

07-MAR-2011 10:31 AM C:\projects\BP-5300K\TMU\WZTC\DesignGroup\3\Squad3B\Special\Projects\BP-5300K\TCP\BP5300K\_TC-TCP7C.dgn  
 SNG



**\* NOTE:**  
 1- IF POSSIBLE, USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.  
 2- CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

**LEGEND**

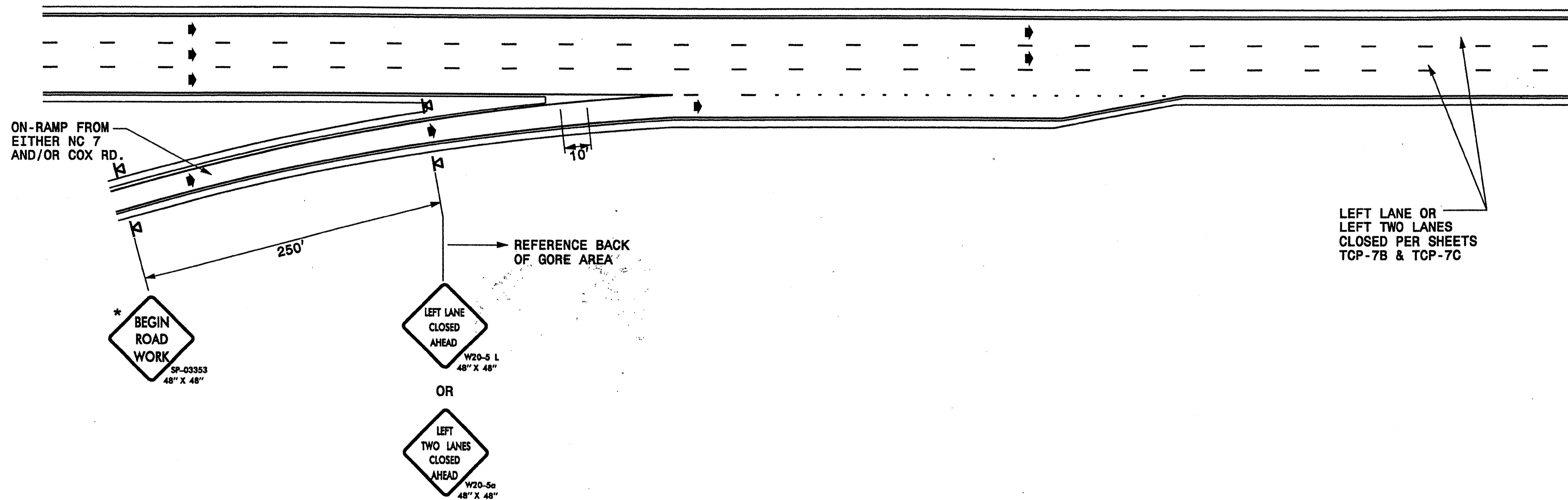
- DRUM
- ◀ PORTABLE SIGN
- ◀ DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**  
 1- MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

07-MAR-2011 10:52  
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APPROVED: _____ DATE: _____	<b>NC 279/BRIDGE #2          TEMPORARY LANE CLOSURES          THRU EXIT RAMPS</b>							
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	DATE: 2/11							
	DWG. BY: SNG							
	REVIEWED BY: JWG							
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REVISIONS								

PROJ. REFERENCE NO.	SHEET NO.
BP-5300K	TCP-7E



LEGEND	
●	DRUM
⊠	PORTABLE SIGN
→	DIRECTION OF TRAFFIC FLOW
* SEE SHEET TCP-12 FOR SIGN DETAILS	

APPROVED: _____	DATE: _____	NC 279/BRIDGE #2 ON-RAMP/LOOP DETAIL	
SCALE: NONE	DATE: 2/11		REVISIONS
DWG. BY: SNG	DESIGN BY: SNG		
REVIEWED BY: JWG			

07-MAR-2011 3:46  
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PROJ. REFERENCE NO.	SHEET NO.
BP-5300K	TCP-8A

PHASING

PHASE I

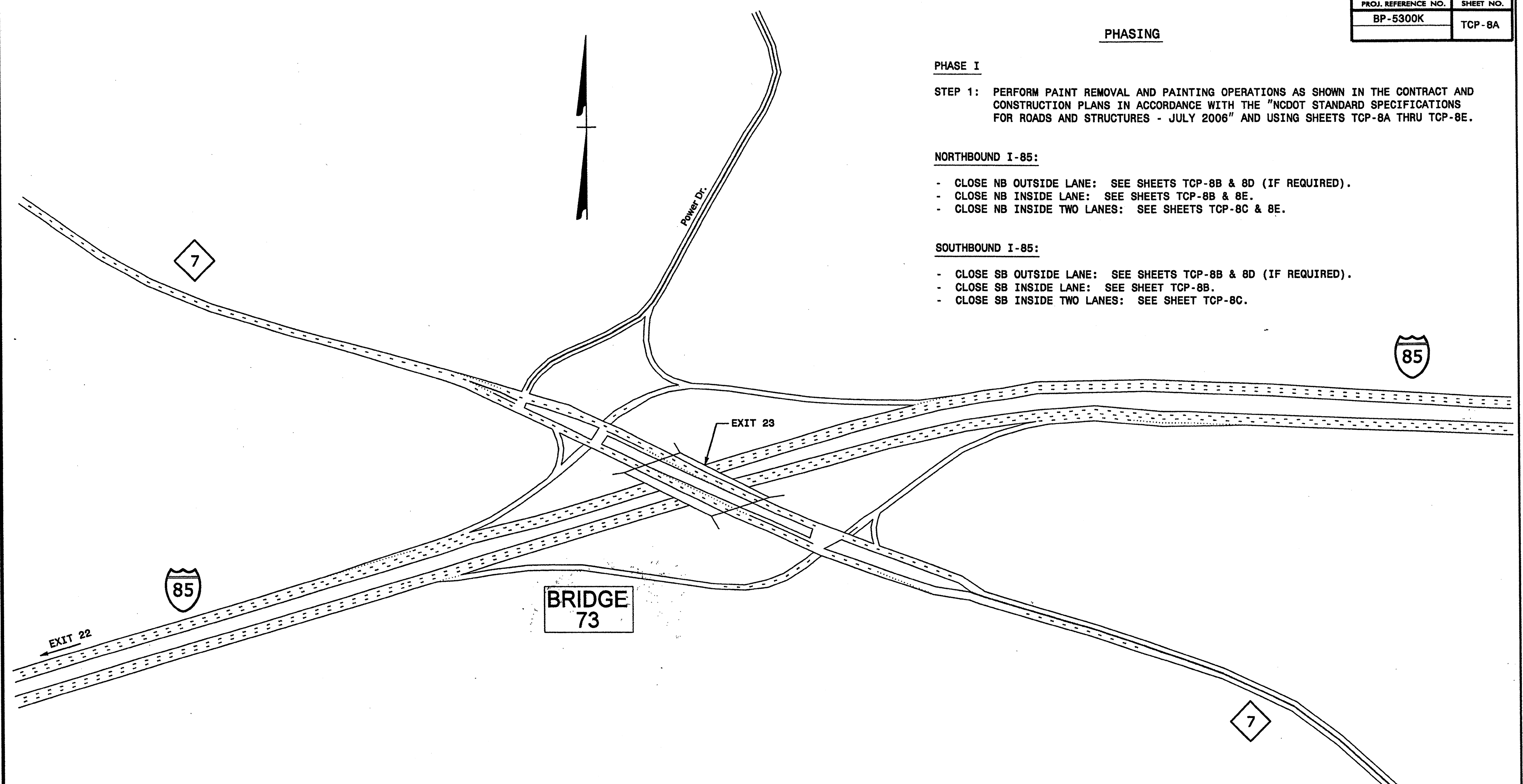
STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JULY 2006" AND USING SHEETS TCP-8A THRU TCP-8E.

NORTHBOUND I-85:

- CLOSE NB OUTSIDE LANE: SEE SHEETS TCP-8B & 8D (IF REQUIRED).
- CLOSE NB INSIDE LANE: SEE SHEETS TCP-8B & 8E.
- CLOSE NB INSIDE TWO LANES: SEE SHEETS TCP-8C & 8E.

SOUTHBOUND I-85:

- CLOSE SB OUTSIDE LANE: SEE SHEETS TCP-8B & 8D (IF REQUIRED).
- CLOSE SB INSIDE LANE: SEE SHEET TCP-8B.
- CLOSE SB INSIDE TWO LANES: SEE SHEET TCP-8C.



LEGEND	
	TYPE III BARRICADE
	DRUM
	FLASHING ARROW PANEL (TYPE C)
	STATIONARY SIGN
	PORTABLE SIGN
	CHANGEABLE MESSAGE SIGN (CMS)
	TRUCK MOUNTED ATTENUATOR (TMA)
* SEE SHEET TCP-12 FOR SIGN DESIGN	

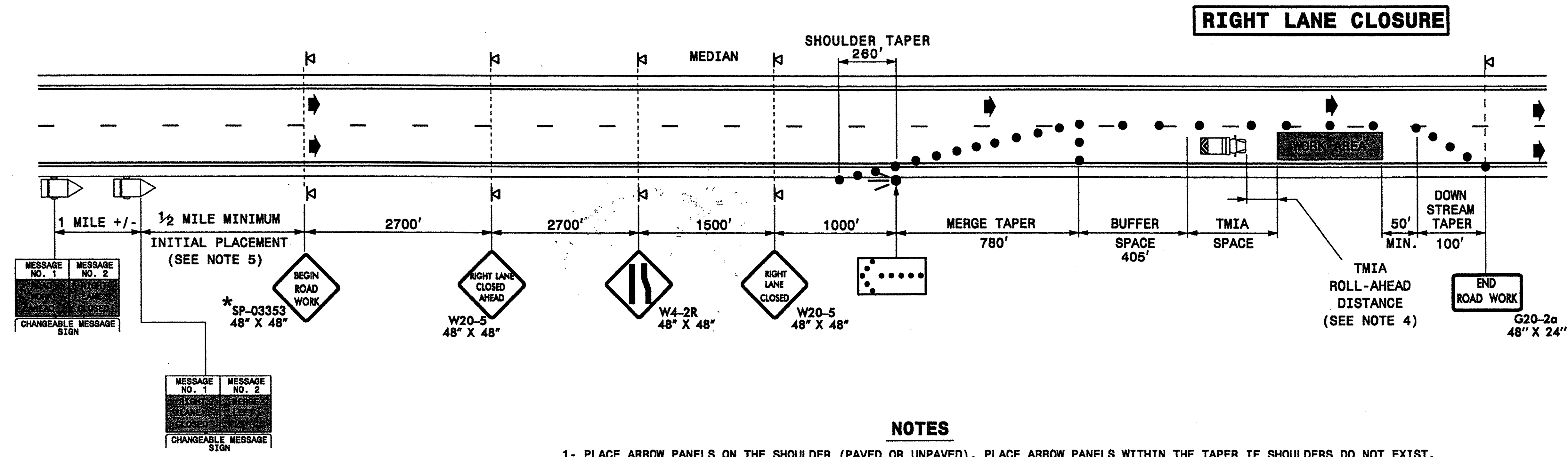
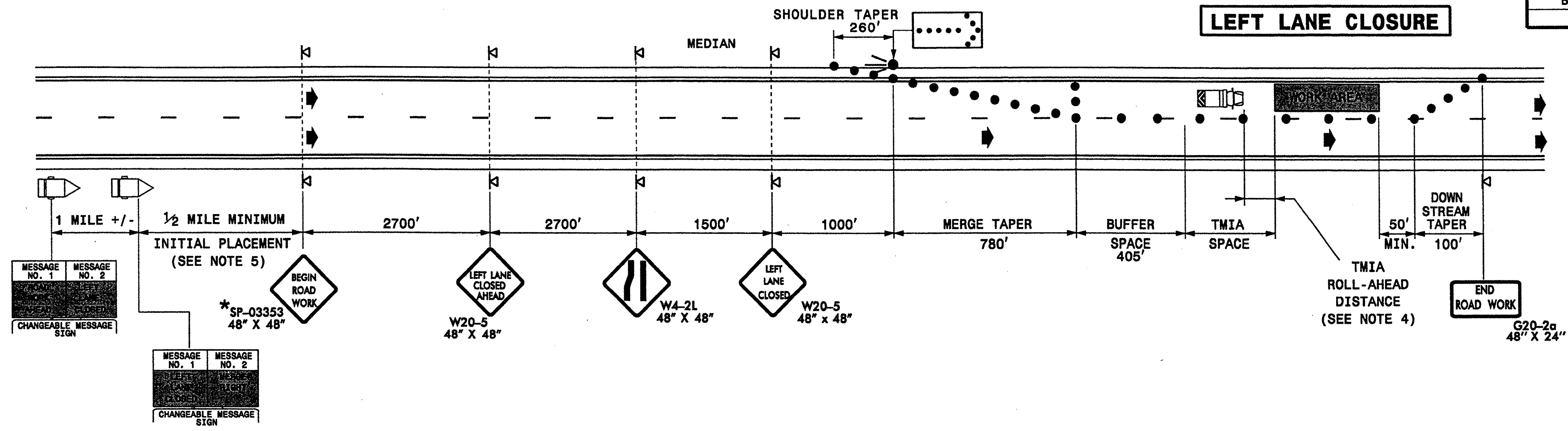
NOTES:

1. TMA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

APPROVED:	DATE: 2/11	BRIDGE #73 NC 7 (MCADENVILLE RD./MAIN ST.) PHASING	
SCALE: NONE	DESIGN BY: SNG		REVISIONS
DATE: 2/11	REVIEWED BY: JWG		
DWG. BY: SNG			

07-MAR-2011 10:33  
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**NOTES**

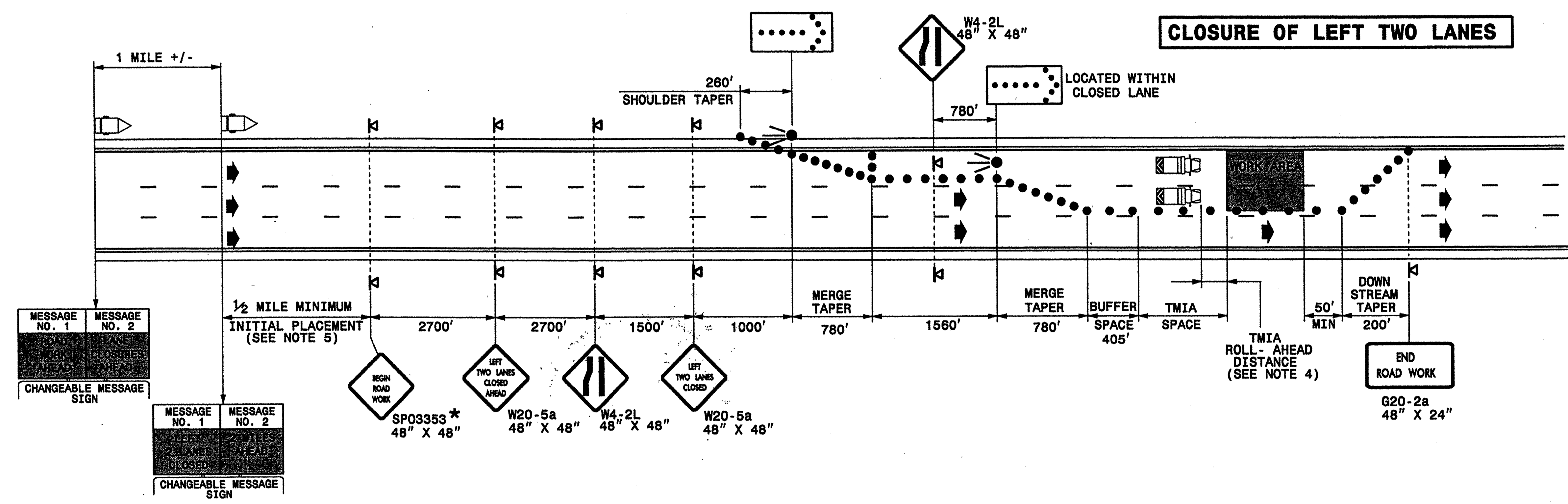
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL IS MET. (SEE STD. 1101.11 SHEET 2)
- 2- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.
- 6- SEE SHEET TCP-8D FOR THE TREATMENT OF LANE CLOSURES AT EXIT RAMP.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>NC 7/BRIDGE #73 TEMPORARY LANE CLOSURE INSIDE/OUTSIDE LANE CLOSED</b>	
	SCALE: NONE	
	DATE: 2/11	
	DWG. BY: SNG	
	DESIGN BY: SNG	
REVIEWED BY: JWG	REVISIONS	

07-MAR-2011 11:34  
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 Sngren AI 1E24733



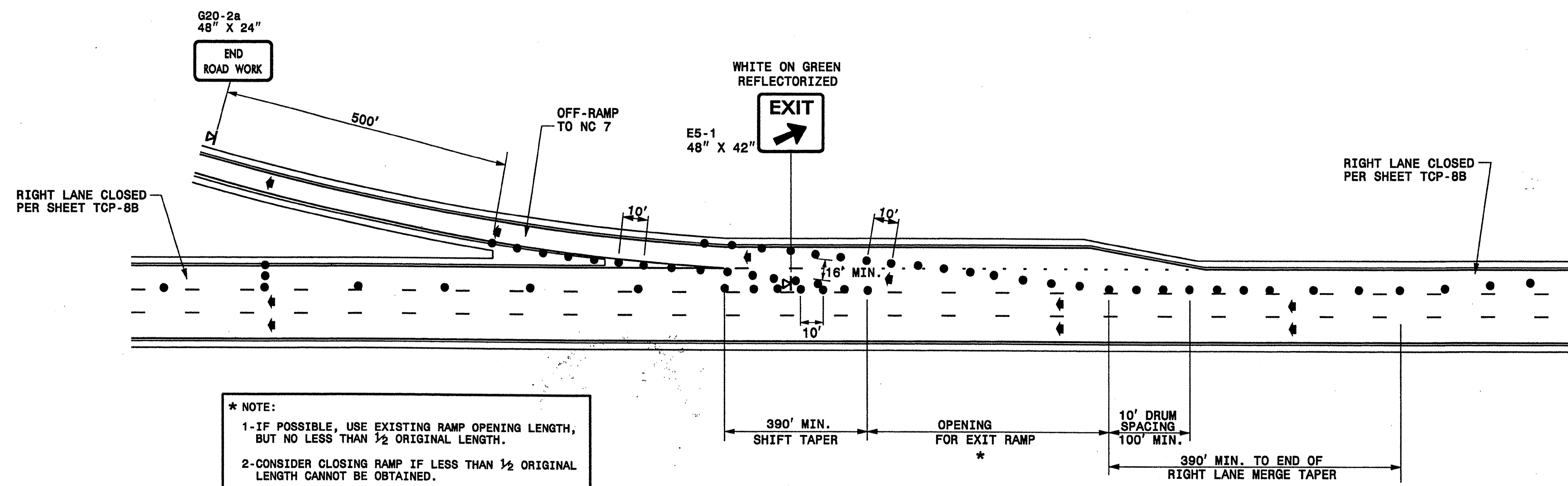
**NOTES**  
1-REFER TO NOTES ON SHEET TCP-8B.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED ATTENUATOR (TMA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>NC 7/BRIDGE #73 TEMPORARY LANE CLOSURE INSIDE TWO LANES CLOSED</b>									
	SCALE: NONE									
	DATE: 2/11									
	DESIGN BY: SNG									
	REVIEWED BY: JWG									
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 sngreen AT TE24733



**\* NOTE:**  
 1- IF POSSIBLE, USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.  
 2- CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

**LEGEND**  
 ● DRUM  
 ◀ PORTABLE SIGN  
 ◀ DIRECTION OF TRAFFIC FLOW

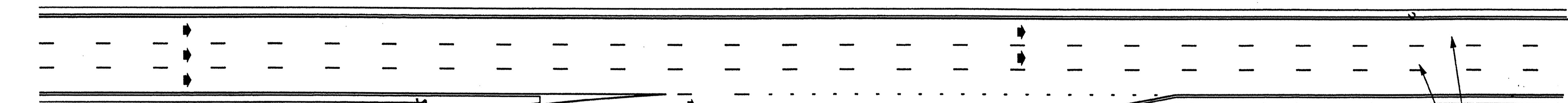
**GENERAL NOTES**

1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED: _____ DATE: _____	NC 7/BRIDGE #73 TEMPORARY LANE CLOSURES THRU EXIT RAMPS	
	SCALE: NONE	
	DATE: 2/11	
	DWG. BY: SNG	
	DESIGN BY: SNG	
REVIEWED BY: JWG	REVISIONS	

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 sng p en AT 12244733

I-85 NORTHBOUND



ON-RAMP FROM  
S. MAIN ST.

250'

REFERENCE BACK  
OF GORE AREA

LEFT LANE OR  
LEFT TWO LANES  
CLOSED PER SHEETS  
TCP-8B & TCP-8C



OR



LEGEND	
●	DRUM
⏏	PORTABLE SIGN
➔	DIRECTION OF TRAFFIC FLOW
* SEE SHEET TCP-12 FOR SIGN DETAILS	

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

<b>NC 7/BIDGE #73</b> <b>ON-RAMP/LOOP</b> <b>DETAIL</b>			<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS							
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SCALE:	NONE										
DATE:	2/11										
DESIGNED BY:	SNG										
REVIEWED BY:	JWG										

07-MAR-2011 13:47  
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 sngreen AT 12:44:33

PROJ. REFERENCE NO.	SHEET NO.
BP-5300K	TCP-9A

**PHASING**

**PHASE I**

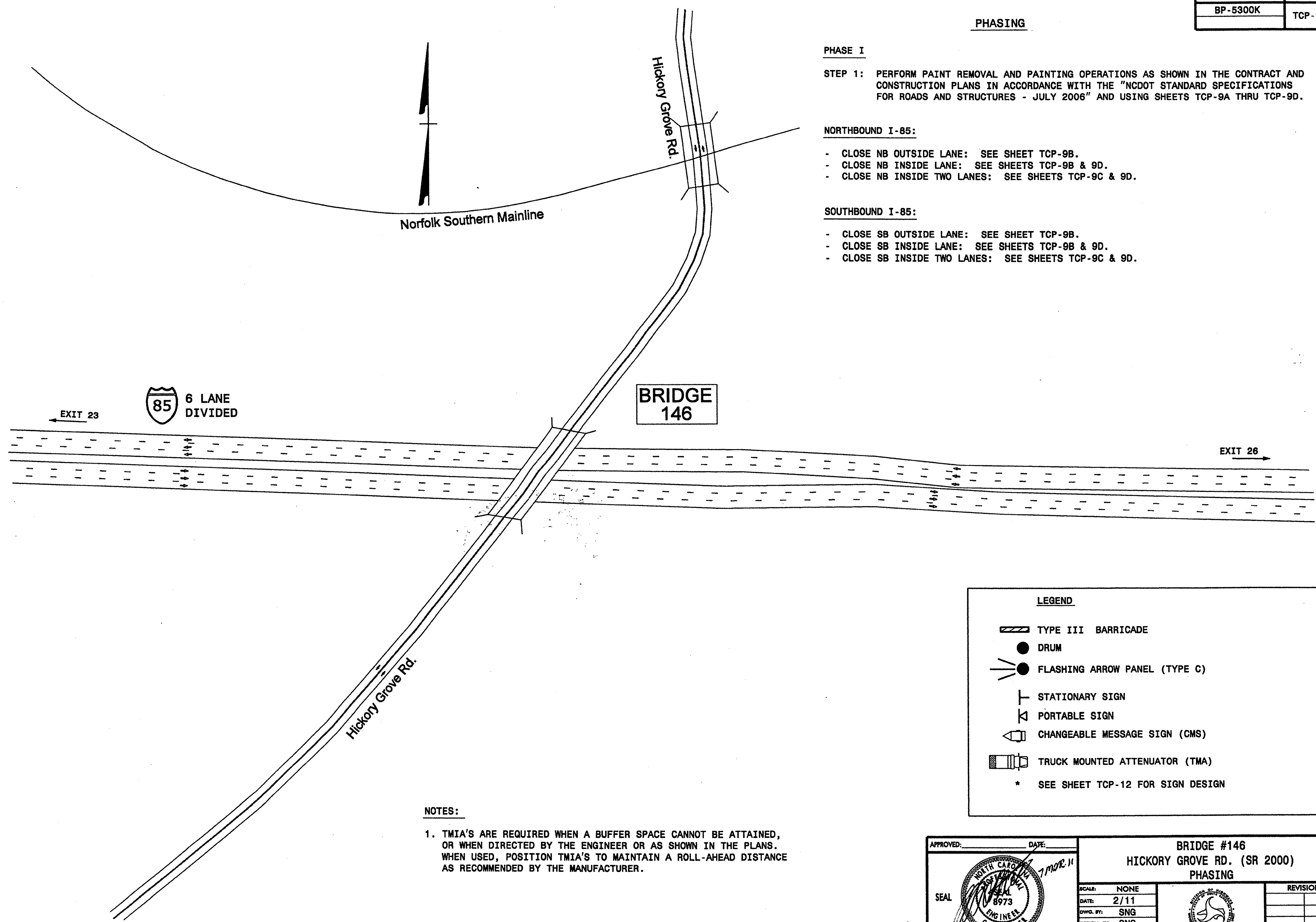
STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JULY 2006" AND USING SHEETS TCP-9A THRU TCP-9D.

**NORTHBOUND I-85:**

- CLOSE NB OUTSIDE LANE: SEE SHEET TCP-9B.
- CLOSE NB INSIDE LANE: SEE SHEETS TCP-9B & 9D.
- CLOSE NB INSIDE TWO LANES: SEE SHEETS TCP-9C & 9D.

**SOUTHBOUND I-85:**

- CLOSE SB OUTSIDE LANE: SEE SHEET TCP-9B.
- CLOSE SB INSIDE LANE: SEE SHEETS TCP-9B & 9D.
- CLOSE SB INSIDE TWO LANES: SEE SHEETS TCP-9C & 9D.



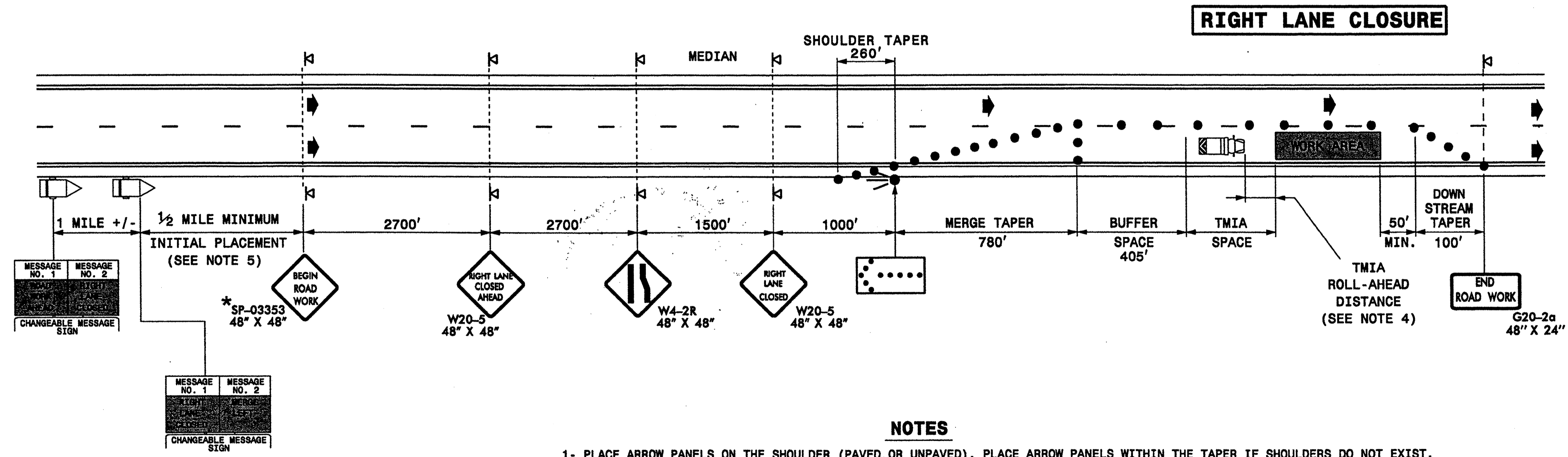
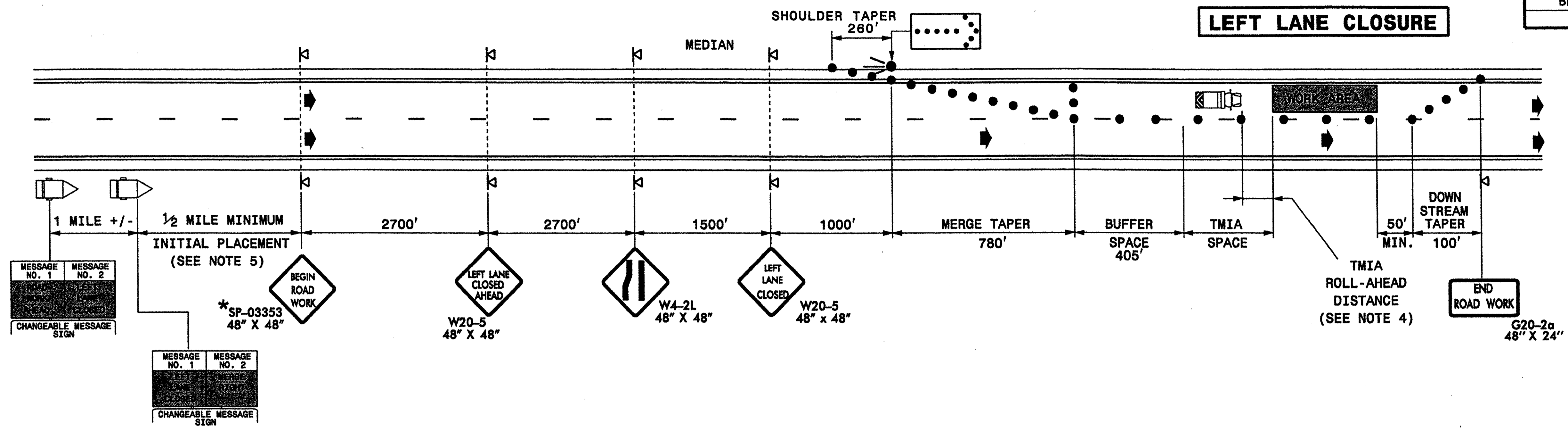
**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

LEGEND	
	TYPE III BARRICADE
	DRUM
	FLASHING ARROW PANEL (TYPE C)
	STATIONARY SIGN
	PORTABLE SIGN
	CHANGEABLE MESSAGE SIGN (CMS)
	TRUCK MOUNTED ATTENUATOR (TMA)
* SEE SHEET TCP-12 FOR SIGN DESIGN	

APPROVED:	DATE: 7/20/11	BRIDGE #146 HICKORY GROVE RD. (SR 2000) PHASING	
SCALE: NONE	DATE: 2/11		REVISIONS
DWG. BY: SNG	DESIGN BY: SNG		
REVIEWED BY: JWG			

07-MAR-2011 13:37  
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 sngren AT 12:47:33



**NOTES**

- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL IS MET. (SEE STD. 1101.11 SHEET 2)
- 2- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- ☐ TRUCK MOUNTED ATTENUATOR(TMA)
- ☐ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ☐ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

7 MAR 11

SEAL

ENGINEER

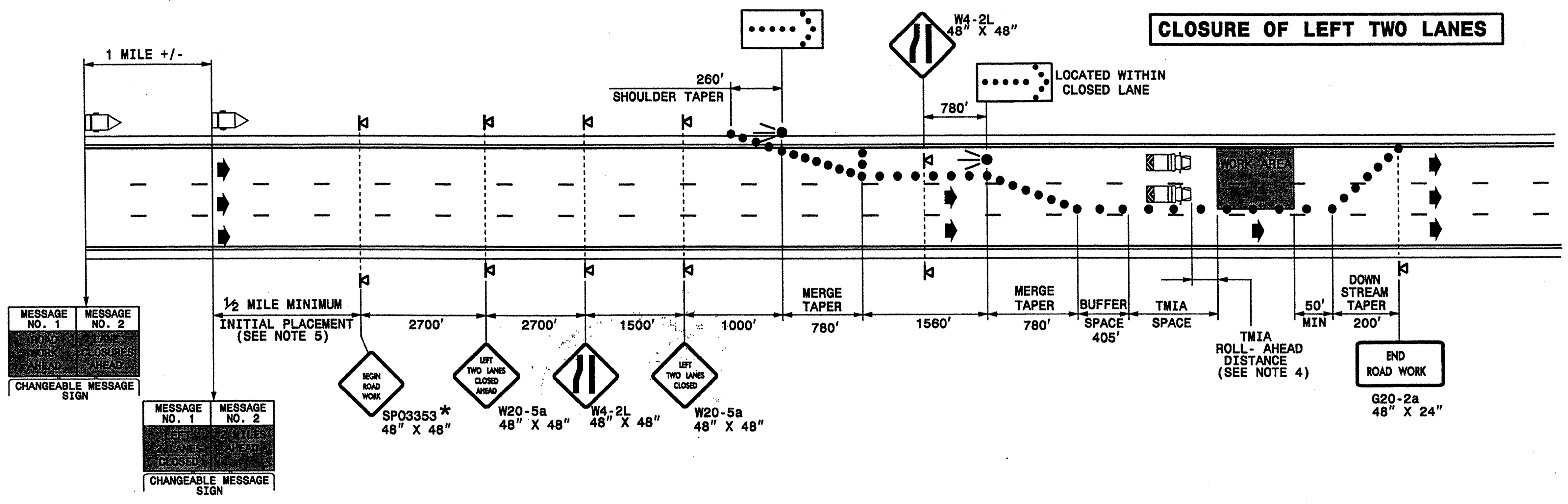
8973

HICKORY GROVE RD./BRIDGE #146  
TEMPORARY LANE CLOSURE  
INSIDE/OUTSIDE LANE CLOSED

SCALE: NONE		REVISIONS
DATE: 2/11		
DWG. BY: SNG		
DESIGN BY: SNG		

REVIEWED BY: JWG

07-MAR-2011 11:38  
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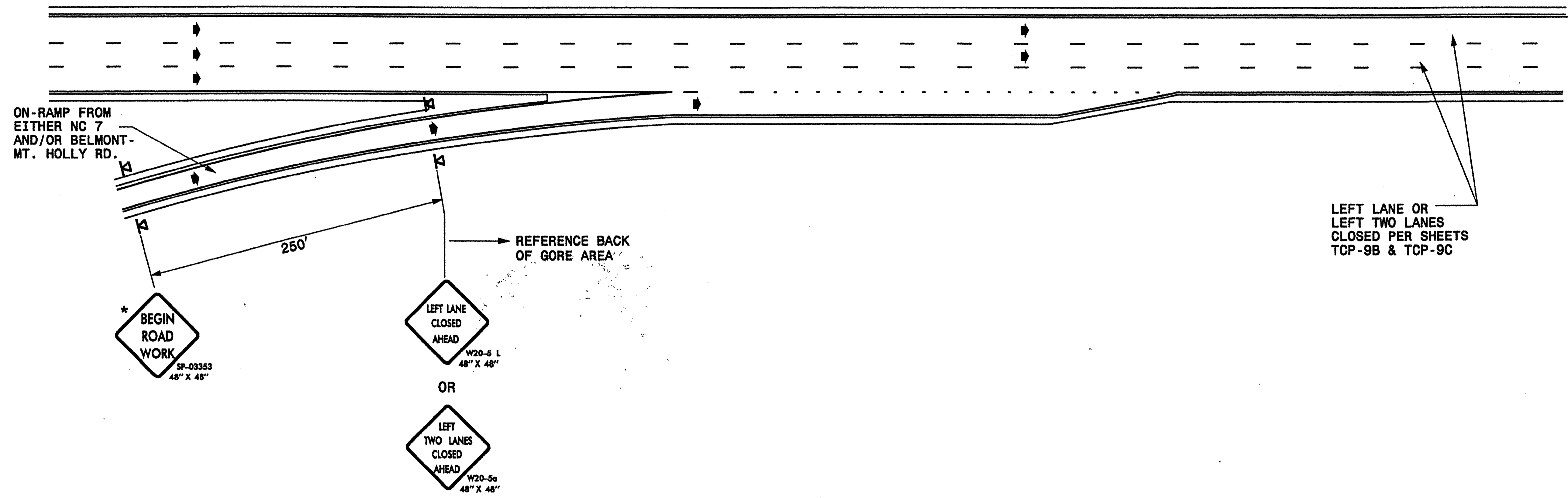
**NOTES**  
 1-REFER TO NOTES ON SHEET TCP-9B.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED ATTENUATOR (TMA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>HICKORY GROVE RD./BRIDGE #146</b> <b>TEMPORARY LANE CLOSURE</b> <b>INSIDE TWO LANES CLOSED</b>				
SCALE: NONE					
DATE: 2/11					
DWG. BY: SNG					
DESIGN BY: SNG					
REVIEWED BY: JWS	<table border="1"> <thead> <tr> <th>REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> </tr> <tr> <td> </td> </tr> <tr> <td> </td> </tr> </tbody> </table>	REVISIONS			
REVISIONS					


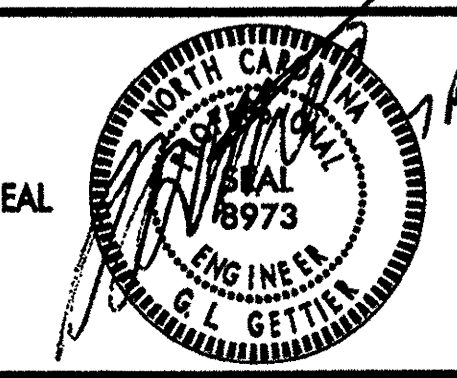
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07-MAR-2011 13:48  
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 AT TE244733  
 sngreen

**LEGEND**

- DRUM
- ◀ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>HICKORY GROVE RD. / BRIDGE #146</b> <b>ON-RAMP / LOOP</b> <b>DETAIL</b>										
			SCALE: NONE	<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS					
	REVISIONS										
DATE: 2/11	DWG. BY: SNG										
DESIGN BY: SNG	REVIEWED BY: JWG										



PROJ. REFERENCE NO.	SHEET NO.
BP-5300K	TCP-10A

**PHASING**

**PHASE I**

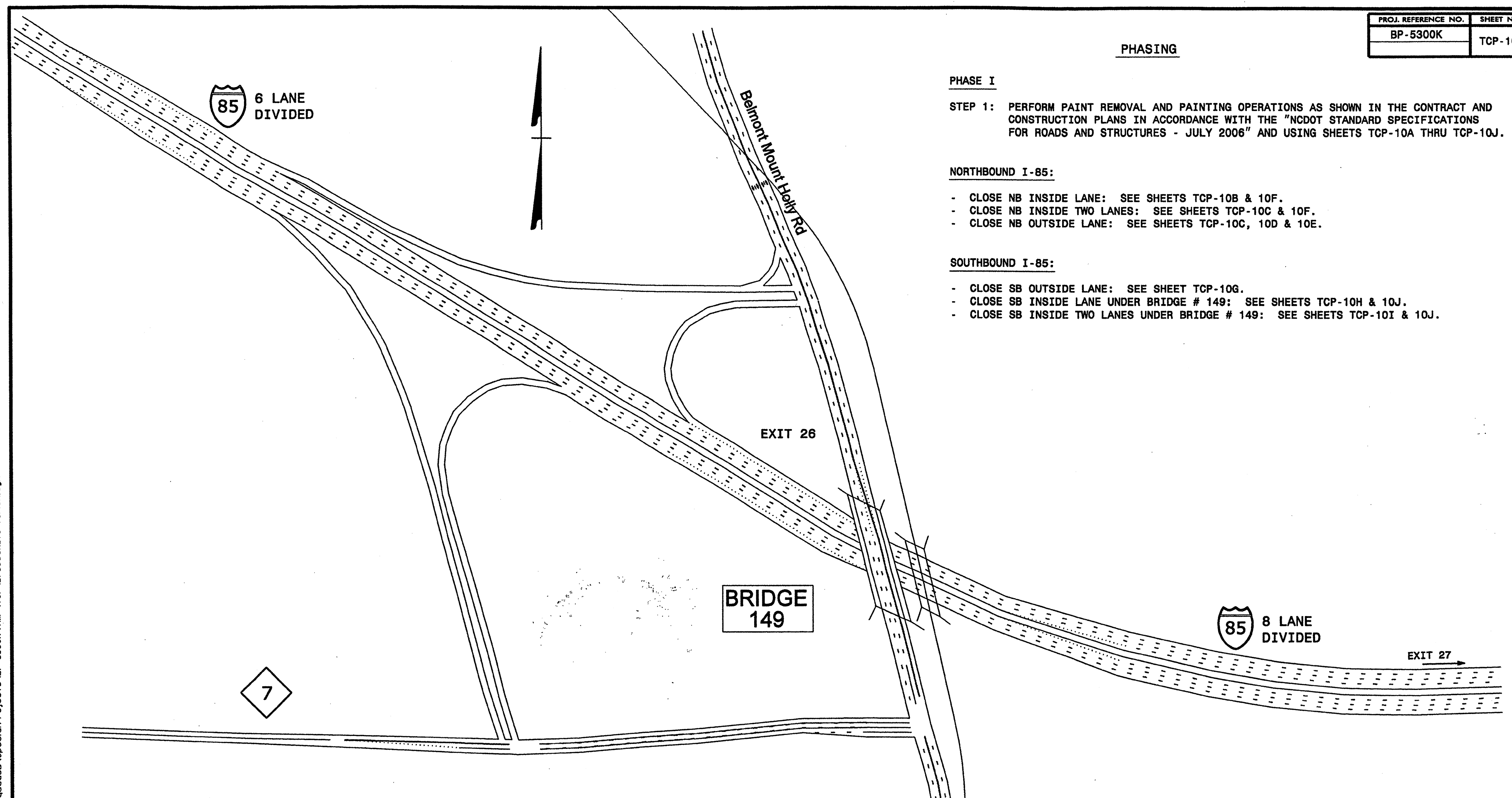
STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JULY 2006" AND USING SHEETS TCP-10A THRU TCP-10J.

**NORTHBOUND I-85:**

- CLOSE NB INSIDE LANE: SEE SHEETS TCP-10B & 10F.
- CLOSE NB INSIDE TWO LANES: SEE SHEETS TCP-10C & 10F.
- CLOSE NB OUTSIDE LANE: SEE SHEETS TCP-10C, 10D & 10E.

**SOUTHBOUND I-85:**

- CLOSE SB OUTSIDE LANE: SEE SHEET TCP-10G.
- CLOSE SB INSIDE LANE UNDER BRIDGE # 149: SEE SHEETS TCP-10H & 10J.
- CLOSE SB INSIDE TWO LANES UNDER BRIDGE # 149: SEE SHEETS TCP-10I & 10J.



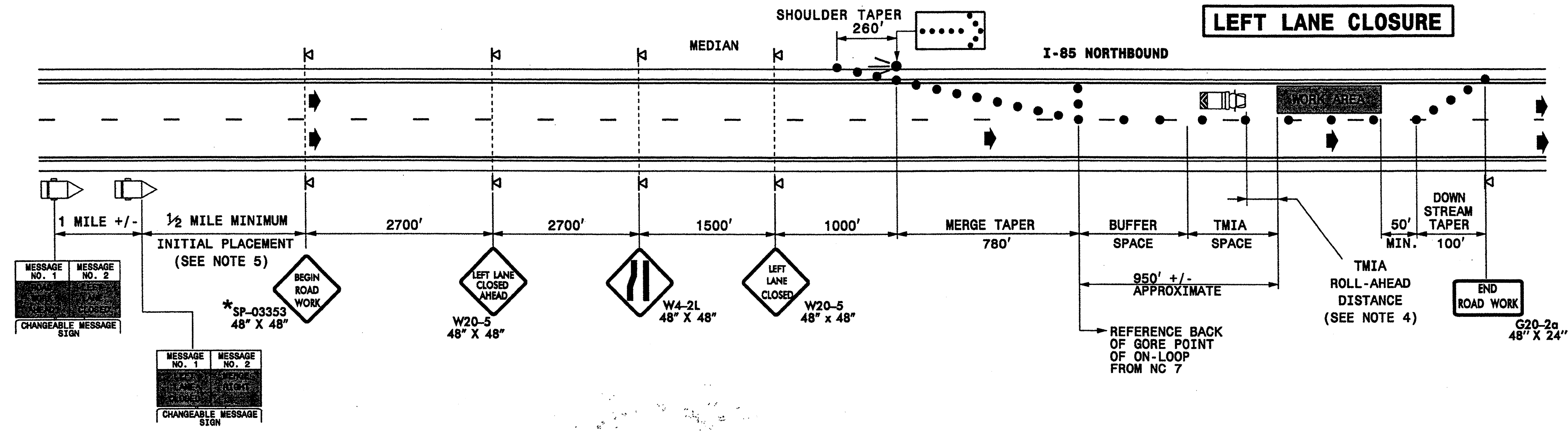
LEGEND	
	TYPE III BARRICADE
	DRUM
	FLASHING ARROW PANEL (TYPE C)
	STATIONARY SIGN
	PORTABLE SIGN
	CHANGEABLE MESSAGE SIGN (CMS)
	TRUCK MOUNTED ATTENUATOR (TMA)
* SEE SHEET TCP-12 FOR SIGN DESIGN	

**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

APPROVED: _____	DATE: _____	<b>BRIDGE #149</b> <b>BELMONT-MT HOLLY RD. (SR 2093)</b> <b>PHASING</b>	
SCALE: NONE	DATE: 2/11		REVISIONS
DWG. BY: SNG	DESIGN BY: SNG		
REVIEWED BY: JWG			

07-MAR-2011 14:48  
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 Sngreen AT 11:24:13



**NOTES**

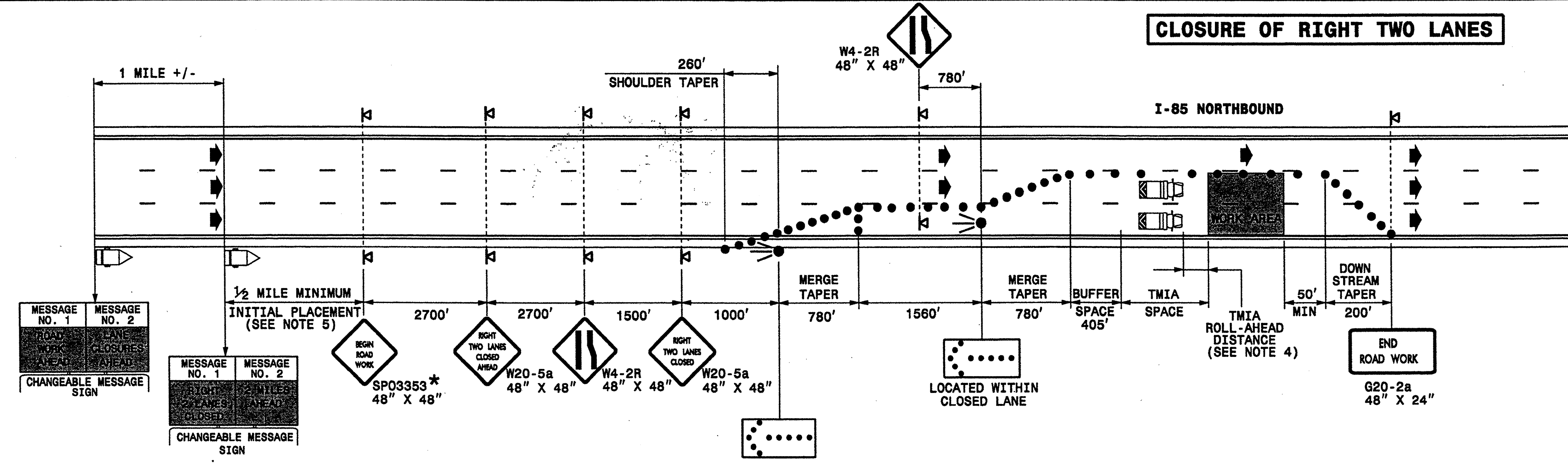
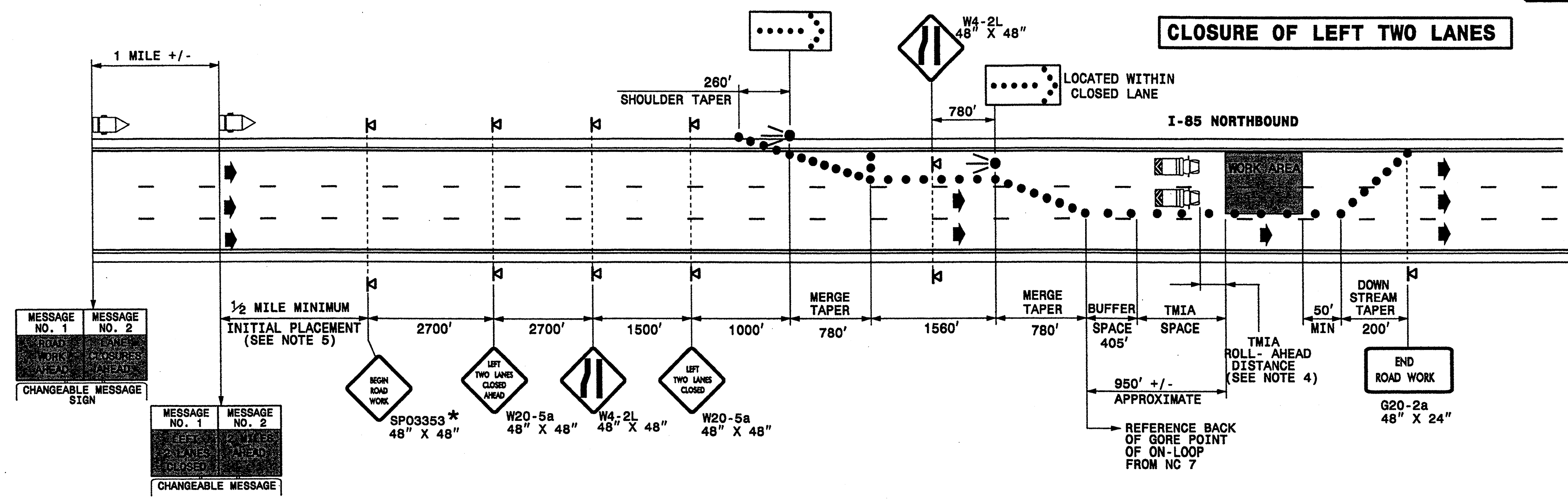
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL IS MET. (SEE STD. 1101.11 SHEET 2)
- 2- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.
- 6- SEE SHEET TCP-10D FOR THE TREATMENT OF LANE CLOSURES AT EXIT RAMP.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: _____	BELMONT-MT. HOLLY RD. (SR 2093)/BRIDGE #149
	TEMPORARY LANE CLOSURE
	INSIDE/OUTSIDE LANE CLOSED
	SCALE: NONE
	DATE: 2/11
DESIGN BY: SNG	
REVIEWED BY: JWG	
	REVISIONS

07-MAR-2011 11:49  
 \\DOT\DFSR001\Q1\GROUPS-WZTCC\TMU\WZTC\DesignGroup3\Squad3B\SpecialProjects\BP-5300K\TMP\TCP\BP5300K-TC-TCP10B.dgn  
 AT TE244733  
 sngreen



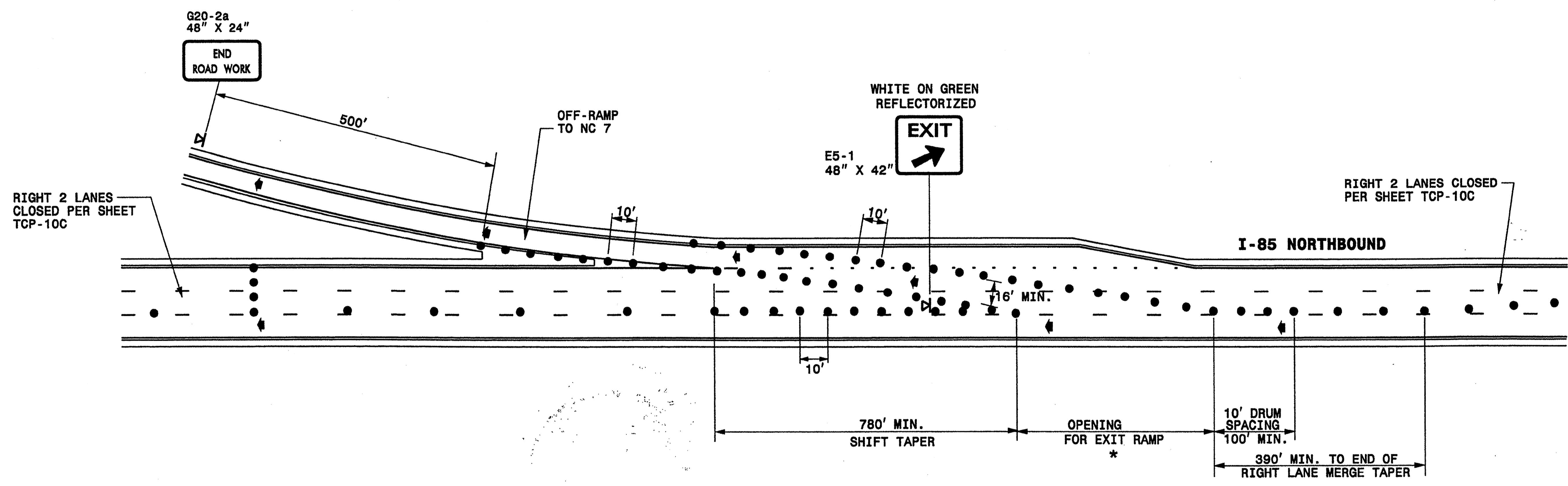
**NOTES**  
1-REFER TO NOTES ON SHEET TCP-10B.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- ☐ TRUCK MOUNTED ATTENUATOR (TMA)
- DRUM
- ⌘ PORTABLE SIGN
- ☐ CHANGEABLE MESSAGE SIGN (CMS)
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____	DATE: _____	BELLMONT-MT. HOLLY RD. (SR 2093)/BRIDGE #149 TEMPORARY LANE CLOSURES TWO LANES CLOSED								
SCALE: NONE	DATE: 2/11	<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS							
REVISIONS										
DWG. BY: SNG	DESIGN BY: SNG									
REVIEWED BY: JWG										

07-MAR-2011 11:50  
 \\DOT\DFSR001\groups\wztc\design\group3\SpecialProjects\BP-5300K\TMF\TCP\BP5300K-TC-TCP10C.dgn  
 AT 1244733  
 sngreen



**\* NOTE:**

- 1- IF POSSIBLE, USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.
- 2- CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

**LEGEND**

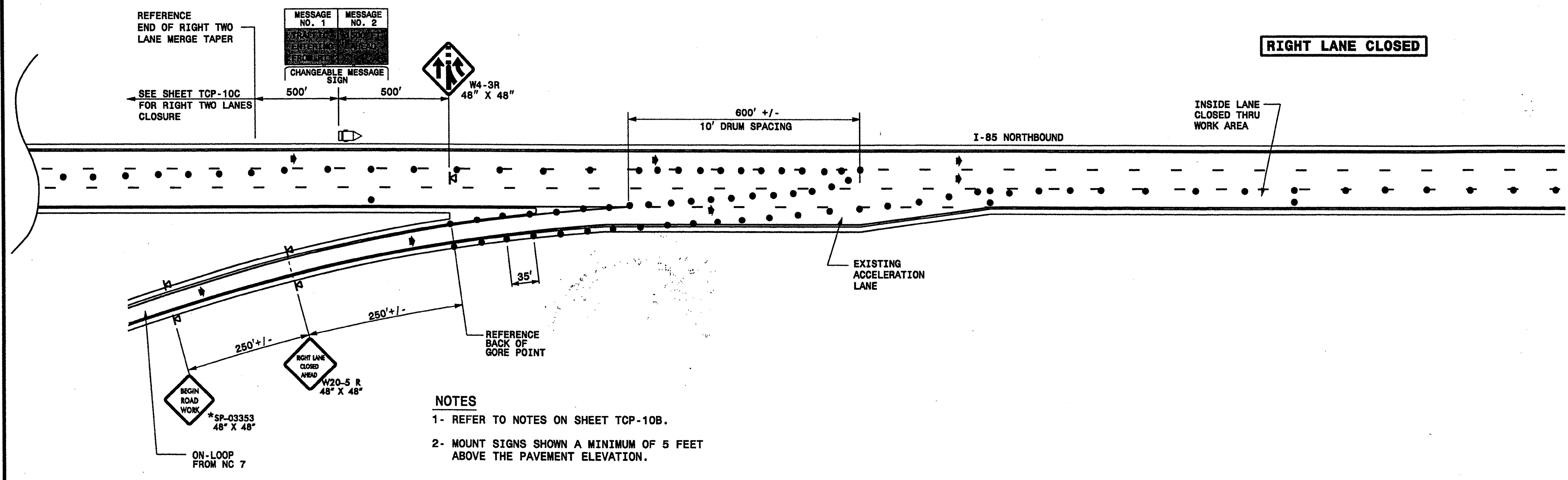
- DRUM
- ◀ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**

1- MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED: _____	DATE: _____	BELMONT-MT. HOLLY RD. (SR 2093)/BRIDGE #149	
		<b>TEMPORARY LANE CLOSURES THRU EXIT RAMPS</b>	
		SCALE: NONE	REVISIONS
DATE: 2/11			
DWG. BY: SNG			
DESIGN BY: SNG			
REVIEWED BY: SNG			

07-MAR-2011 05:10:00 \\DOT\DF-SR001\01\GROUPS-WZTCCC\TMUN\WZTC\DesignGroup3\Squad3B\Special\Projects\BP-5300K\TMP\TCP\BP5300K.TC-TCP10D.dgn  
 sngr:een AT 1E244735



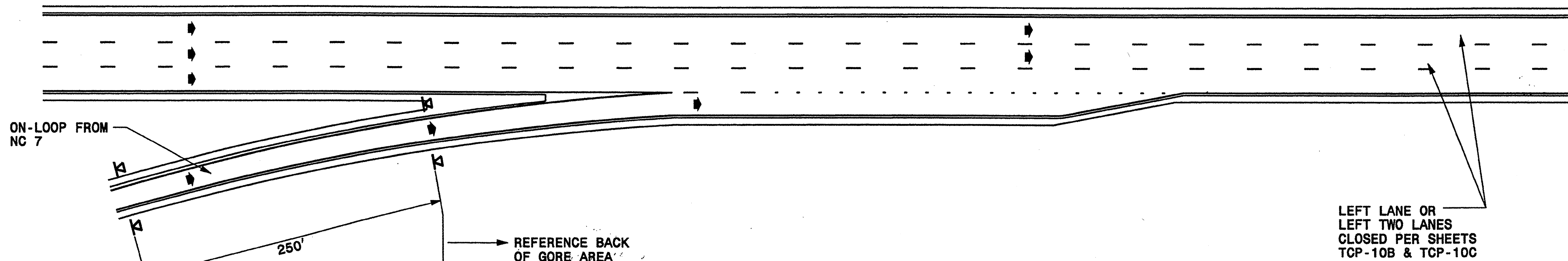
- NOTES**
- 1- REFER TO NOTES ON SHEET TCP-10B.
  - 2- MOUNT SIGNS SHOWN A MINIMUM OF 5 FEET ABOVE THE PAVEMENT ELEVATION.

LEGEND	
	CHANGEABLE MESSAGE SIGN (CMS)
	DRUM
	PORTABLE SIGN
	FLASHING ARROW PANEL
	DIRECTION OF TRAFFIC FLOW
* SEE SHEET TCP-12 FOR SIGN DESIGNS	

APPROVED: _____	DATE: _____	BELMONT-MT. HOLLY RD. (SR 2093)/BRIDGE #149 NORTHBOUND I-85 OUTSIDE LANE CLOSED
SCALE: NONE	DATE: 2/11	
DWG. BY: SNG	DESIGN BY: SNG	
REVIEWED BY: JWS		

07-MAR-2011 13:48  
 \\DD1\DP\SHOOTING\GROUPS-WZTCCC\TMU\WZTC\DesignGroup3\Squad3B\SpecialProjects\BP-5300K\TMP\TCP\BP5300K-TC-TCP10E.dgn  
 sngben AT 12:41:33

I-85 NORTHBOUND



BEGIN ROAD WORK  
SP-03353  
48" X 48"

LEFT LANE CLOSED AHEAD  
W20-5 L  
48" X 48"

OR

LEFT TWO LANES CLOSED AHEAD  
W20-5a  
48" X 48"

REFERENCE BACK OF GORE AREA

LEFT LANE OR LEFT TWO LANES CLOSED PER SHEETS TCP-10B & TCP-10C

**LEGEND**

- DRUM
- ◀ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
  
 SEAL

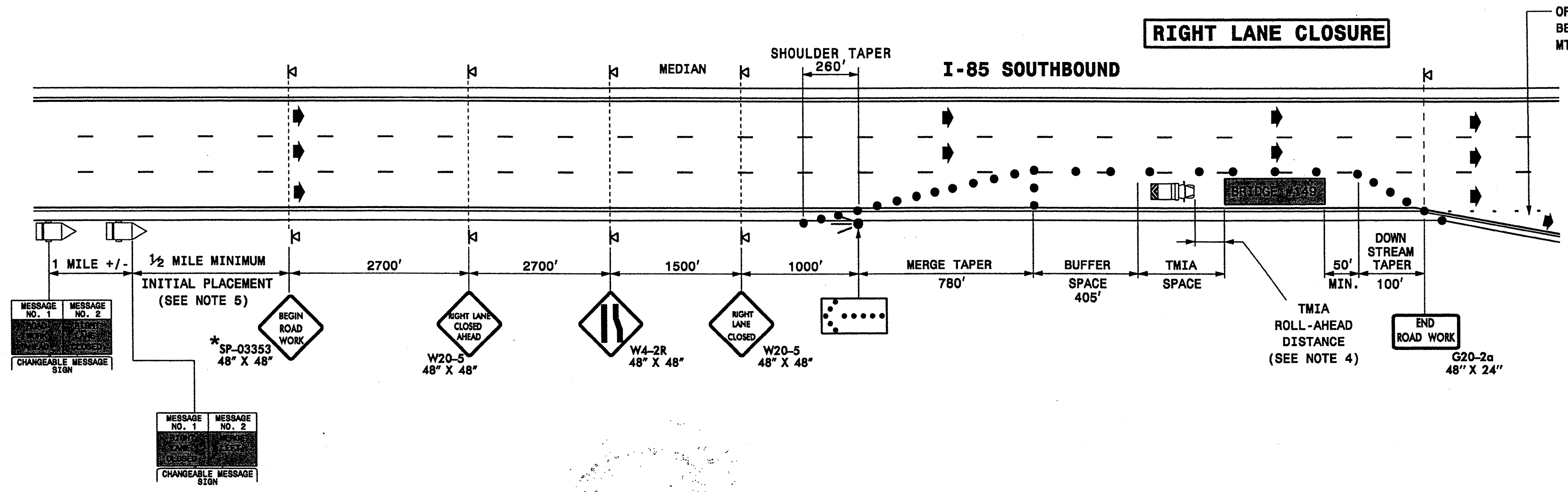
BELMONT-MT. HOLLY RD./BRIDGE #149  
ON-RAMP/LOOP  
DETAIL

SCALE: NONE  
 DATE: 2/11  
 DWG. BY: SNG  
 DESIGN BY: SNG  
 REVIEWED BY: JWG



REVISIONS	

07-MAR-2011 13:49  
 \\DOT\DFSROOT\T01\GROUPS-WZTCCC\TMU\WZTC\DesignGroup3\Squad3B\Special Projects\BP-5300K\TCP\BP5300K-TC-TCP10F.dgn  
 sngreen AT 1E244733



**NOTES**

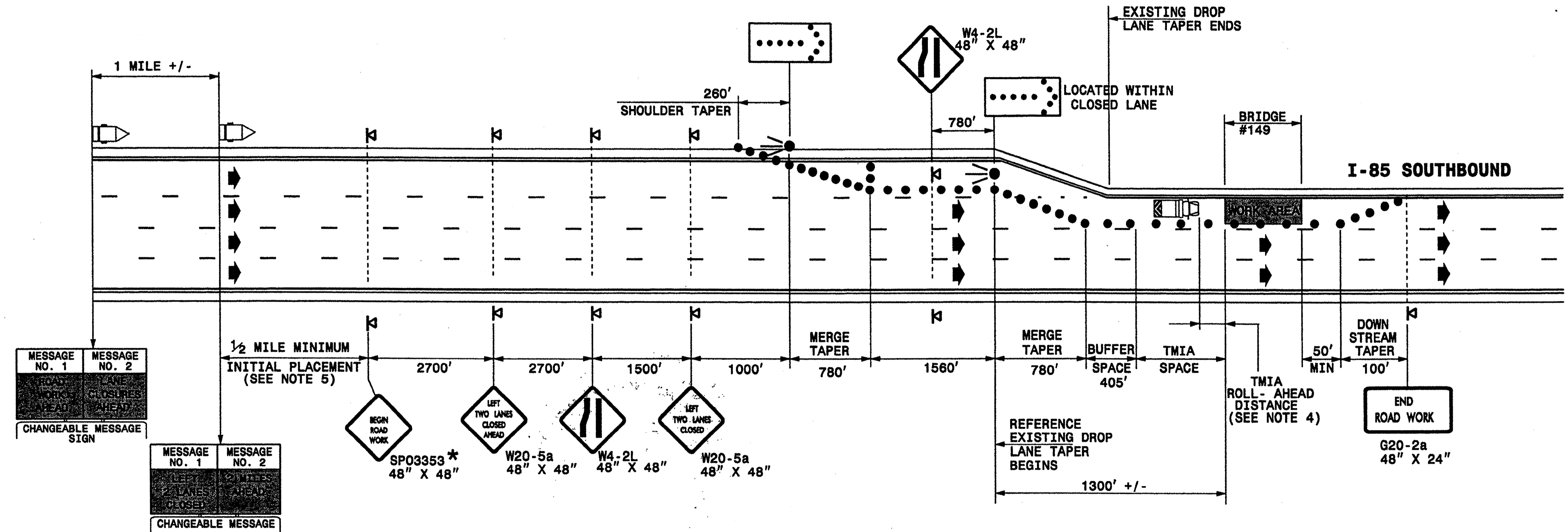
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL IS MET. (SEE STD. 1101.11 SHEET 2)
- 2- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.

LEGEND	
	FLASHING ARROW PANEL (TYPE C)
	TRUCK MOUNTED ATTENUATOR (TMA)
	CHANGEABLE MESSAGE SIGN (CMS)
	DRUM
	PORTABLE SIGN
	DIRECTION OF TRAFFIC FLOW
	* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: 7 MAR 11	BELMONT-MT. HOLLY RD. (SR 2093)/BRIDGE #149	
	TEMPORARY LANE CLOSURE	
	INSIDE/OUTSIDE LANE CLOSED	
	SCALE: NONE	REVISIONS
	DATE: 2/11	
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		

07-MAR-2011 15:21:07 ON GROUPS-WZTCCC\TMU\WZTC\DesignGroup3\Squad3B\SpecialProjects\BP-5300K\TMP\TCP\BP5300K\_TC-TCP10G.dgn  
 \DOT\OF\SROOF AT 1E244733  
 sngreen

**CLOSURE OF LEFT TWO LANES  
PRIOR TO BRIDGE #149**



MESSAGE NO. 1  
MESSAGE NO. 2  
CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1  
MESSAGE NO. 2  
CHANGEABLE MESSAGE

**GENERAL NOTES**

1-REFER TO NOTES ON SHEET TCP-10G

**LEGEND**

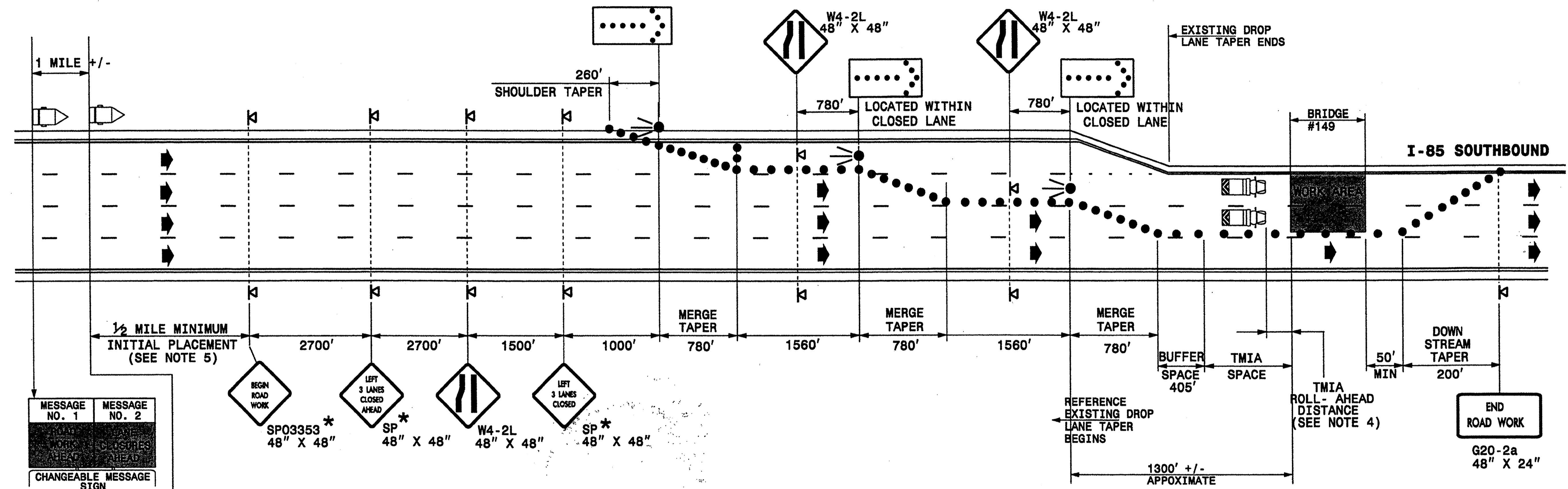
- FLASHING ARROW PANEL (TYPE C)
- ▣ TRUCK MOUNTED ATTENUATOR (TMA)
- DRUM
- ⌞ PORTABLE SIGN
- ▣ CHANGEABLE MESSAGE SIGN (CMS)
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED:	DATE:	BELMONT-MT. HOLLY RD. (SR 2093)/BRIDGE #149
	SCALE:	NONE
	DATE:	2/11
	DWG. BY:	SNG
	DESIGN BY:	SNG
REVIEWED BY:	JWG	REVISIONS

07\_MAR\_2011 09:52 ON:GROUPS-WZTCCC\TMUN\WZTC\DesignGroup\Special\Projects\BP-5300K\TMPTCP\BP5300K\_TC-TCP10H.dgn  
 NO: 01-DR-SNG-01-1224133  
 SNG



**CLOSURE OF LEFT THREE LANES  
PRIOR TO BRIDGE #149**



MESSAGE NO. 1  
MESSAGE NO. 2  
CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1  
MESSAGE NO. 2  
CHANGEABLE MESSAGE SIGN

**GENERAL NOTES**  
1-REFER TO NOTES ON SHEET TCP-10G

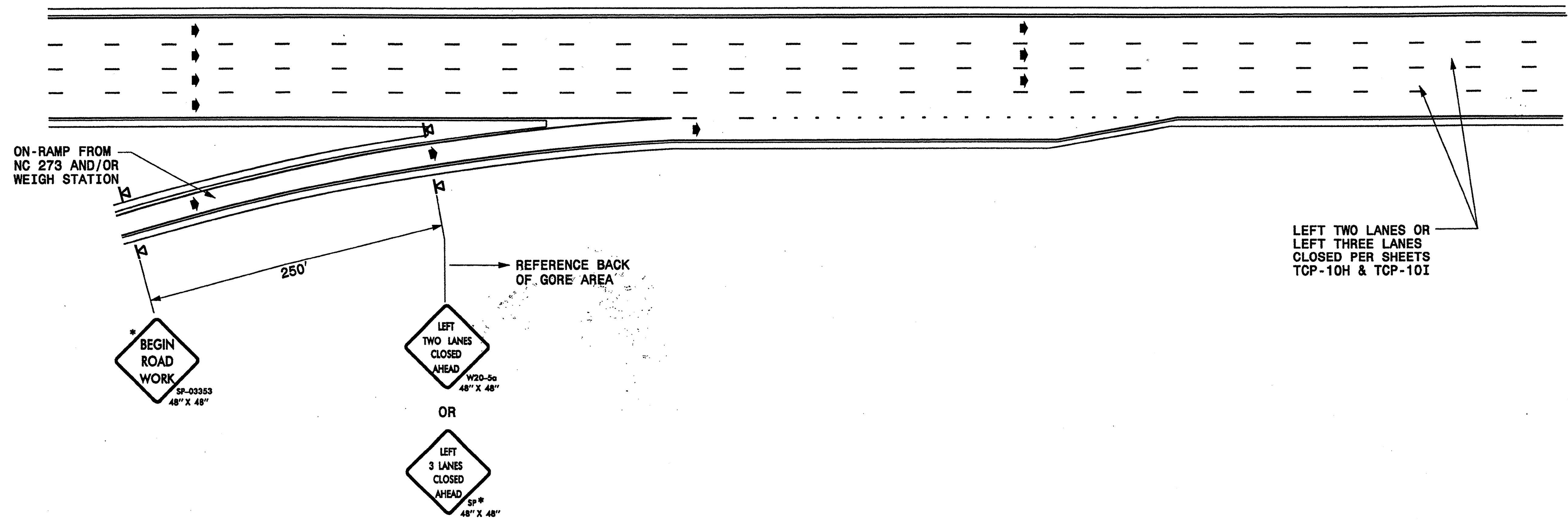
**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED ATTENUATOR (TMA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

APPROVED: _____ DATE: _____	BELMONT-MT. HOLLY RD. (SR 2093)/BRIDGE #149 TEMPORARY LANE CLOSURE INSIDE THREE LANES CLOSED				
SCALE: NONE DATE: 2/11 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG	 <table border="1"> <tr> <th>REVISIONS</th> </tr> <tr> <td> </td> </tr> <tr> <td> </td> </tr> <tr> <td> </td> </tr> </table>	REVISIONS			
REVISIONS					

07-MAR-2011 11:53  
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 sngrreen AT TE244733

I-85 SOUTHBOUND



LEFT TWO LANES OR  
LEFT THREE LANES  
CLOSED PER SHEETS  
TCP-10H & TCP-10I

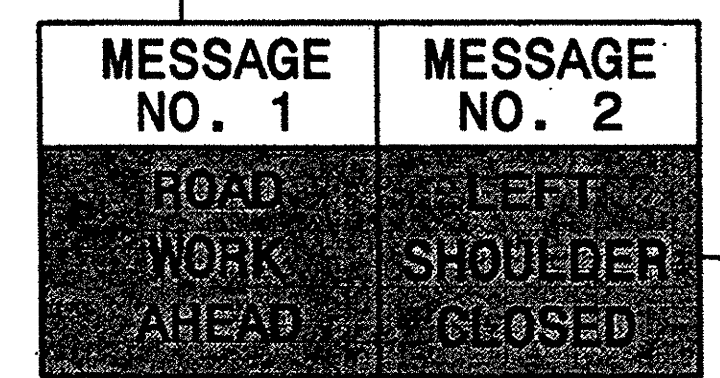
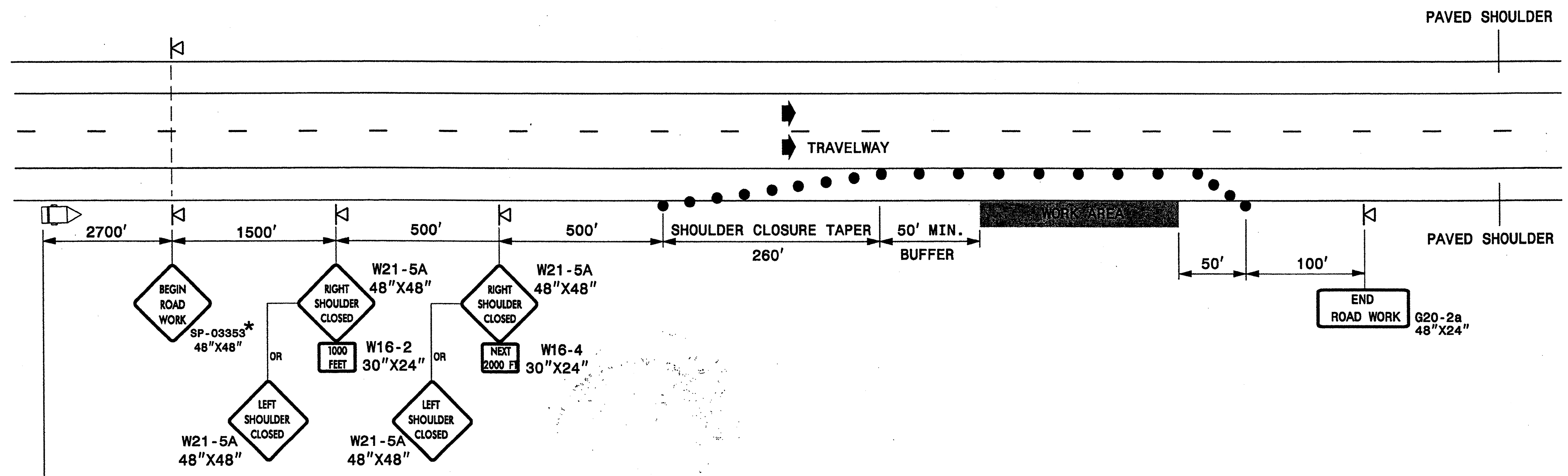
**LEGEND**

- DRUM
- ◀ PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DETAILS

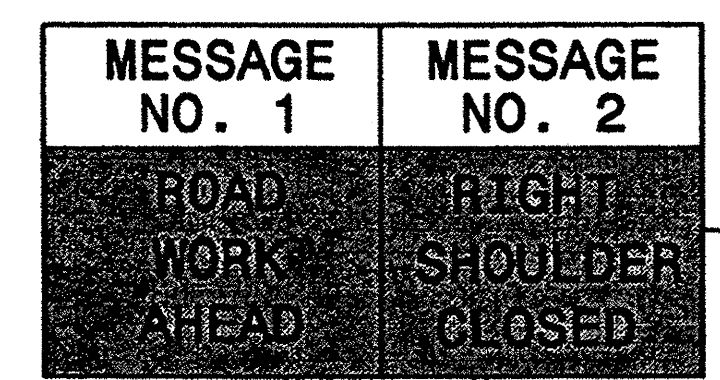
APPROVED: _____	DATE: _____	BELMONT-MT. HOLLY RD. (SR 2093)/ BRIDGE #149 ON-RAMP DETAIL					
	SCALE: NONE						
	DATE: 2/11						
	DESIGN BY: SNG						
	REVIEWED BY: JWG						
		REVISIONS					
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07-MAR-2011 12:10  
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 AT TE244733  
 sngreen

## SHOULDER CLOSURE ON I-85



CHANGEABLE MESSAGE SIGN



CHANGEABLE MESSAGE SIGN

OR

### GENERAL NOTES

- 1- PLACE SHOULDER CLOSURE SIGNS ON THE SAME SIDE AS THE SHOULDER THAT IS CLOSED.
- 2- PLACE DRUMS IN THE SHOULDER TAPER AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. THE MAXIMUM SPACING OF DRUMS ALONG THE WORK AREA IS EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- DO NOT CLOSE THE SHOULDERS ON RIGHT SIDE AND MEDIAN SIDE OF THE ROADWAY AT THE SAME TIME.

### LEGEND

- DRUM
- ◁ PORTABLE SIGN
- ➡ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEET TCP-12 FOR SIGN DESIGNS

APPROVED: _____	DATE: _____	<b>TEMPORARY SHOULDER CLOSURE</b>	
SCALE: NONE	DATE: 2/11		
DESIGN BY: SNG	REVIEWED BY: JWG		
DESIGN BY: SNG	REVIEWED BY: JWG		

07-MAR-2011 13:50  
 \\DOT\DFSR001\01\GROUPS-WZTCC\TMU\WZTC\DesignGroup3\Squad3B\SpecialProjects\BP-5300K\TMP\TCP\BP5300K.TC-TCP11.dgn  
 sngreen AT 12:47:53

SIGN NUMBER: SPO6417      BACKG COLOR: Fluorescent Orange  
 TYPE: PORTABLE      COPY COLOR: Black  
 QUANTITY: SEE PLANS

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 4'-0"  
 HEIGHT: 4'-0"  
 TOTAL AREA: 16 Sq. Ft.

BORDER TYPE: RECESSED  
 RECESS: 0.75"  
 WIDTH: 1.25"  
 RADII: 3"

NO. Z BARS:      MAT'L: COMPOSITE  
 LENGTH:      OR ROLL-UP SUBSTRATES

DESIGN BY: M. TRACEY      CHECKED BY: *S.P. King*  
 PROJECT ID: 36727.3.5      DIV: 7      DATE: Oct 11, 2006

BORDER  
 R=3"  
 TH=1.25"  
 IN=0.75"

LETTER POSITIONS

Letter spacings are to start of next letter

	L	E	F	T						Series/Size
	22.7	5.2	5.4	4.6	4.1	22.6				C 2000
	3	L	A	N	E	S				C 2000
	12.9	5	7.5	4.6	6.2	6.2	5	4.5	12.9	39
	C	L	O	S	E	D				C 2000
	16	6.1	5	5.9	5.8	5.4	4.5	16		32.8

Spacing Factor is 1 unless specified otherwise

SIGN NUMBER: SPO6418      BACKG COLOR: Fluorescent Orange  
 TYPE: PORTABLE      COPY COLOR: Black  
 QUANTITY: SEE PLANS

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 4'-0"  
 HEIGHT: 4'-0"  
 TOTAL AREA: 16 Sq. Ft.

BORDER TYPE: RECESSED  
 RECESS: 0.75"  
 WIDTH: 1.25"  
 RADII: 3"

NO. Z BARS:      MAT'L: COMPOSITE  
 LENGTH:      OR ROLL-UP SUBSTRATES

DESIGN BY: M. TRACEY      CHECKED BY: *S.P. King*  
 PROJECT ID: 36727.3.5      DIV: 7      DATE: Oct 11, 2006

BORDER  
 R=3"  
 TH=1.25"  
 IN=0.75"

LETTER POSITIONS

Letter spacings are to start of next letter

	L	E	F	T						Series/Size
	25.2	3.9	4.1	3.4	3.1	25.2				C 2000
	3	L	A	N	E	S				C 2000
	17.7	3.7	5.6	3.4	4.7	4.7	3.8	3.4	17.7	29.3
	C	L	O	S	E	D				C 2000
	20.1	4.6	3.8	4.4	4.4	4.1	3.4	20.1		24.6
	A	H	E	A	D					C 2000
	21.9	4.7	4.7	3.6	4.7	3.4	21.9			21

Spacing Factor is 1 unless specified otherwise

SIGN NUMBER: SP-03363      BACKG COLOR: Fluorescent Orange  
 TYPE: PORTABLE      COPY COLOR: Black  
 QUANTITY: SEE PLANS

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 4'-0"  
 HEIGHT: 4'-0"  
 TOTAL AREA: 16.0 Sq. Ft.

BORDER TYPE: FLUSH  
 RECESS: 0.59"  
 WIDTH: 0.75"  
 RADII: 1.38"

NO. Z BARS: N/A      MAT'L: composite  
 LENGTH: N/A      OR substrate roll-up.

DESIGN BY: CL DOWNEY      CHECKED BY: CHECKED      STD #: W20-1  
 PROJECT ID: ALL PROJECTS      DIV: DIV      DATE: Aug 20, 2003

BORDER  
 R=1.38"  
 TH=0.75"  
 IN=0.59"

LETTER POSITIONS

Letter spacings are to start of next letter

	B	E	G	I	N					Series/Size
	22.4	5.3	4.6	5.4	2.5	3.8	22.4			C7
	R	O	A	D						C7
	23.4	5	5.2	5.6	3.8	23.4				19.6
	W	O	R	K						C7
	22.6	6.4	5.8	5.2	4	22.6				21.2

Spacing Factor is 1 unless specified otherwise

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL:

**SPECIAL SIGN DETAILS**

SCALE: NONE  
 DATE: 2/11  
 DWG. BY: SNG  
 DESIGN BY: SNG  
 REVIEWED BY: JWG

REVISIONS


07-MAR-2011 13:51  
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 sngrben AI TE247133