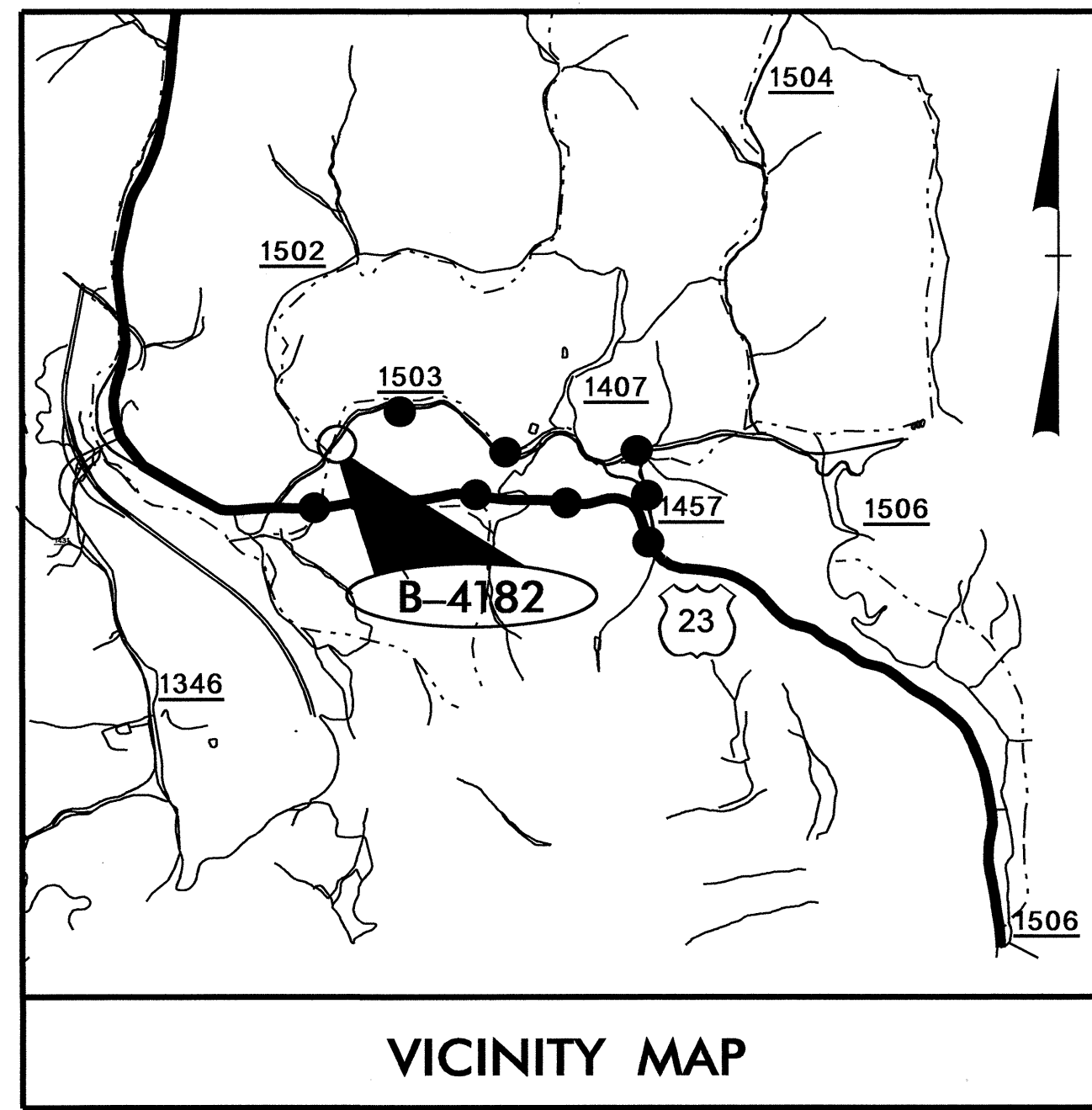


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

MADISON COUNTY



VICINITY MAP

OFF-SITE DETOUR ROUTE ●●●●

LOCATION: REPLACEMENT OF BRIDGE 246 ON SR 1503 (LAUREL VALLEY ROAD) OVER LAUREL CREEK

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING
TMP-1B	TRANSPORTATION OPERATIONS PLAN AND PROJECT NOTES
TMP-2	TEMPORARY SHORING DATA
TMP-2A	DETOUR SIGN DETAIL
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING AND DETAIL
TMP-4	TEMPORARY TRAFFIC CONTROL DETAIL

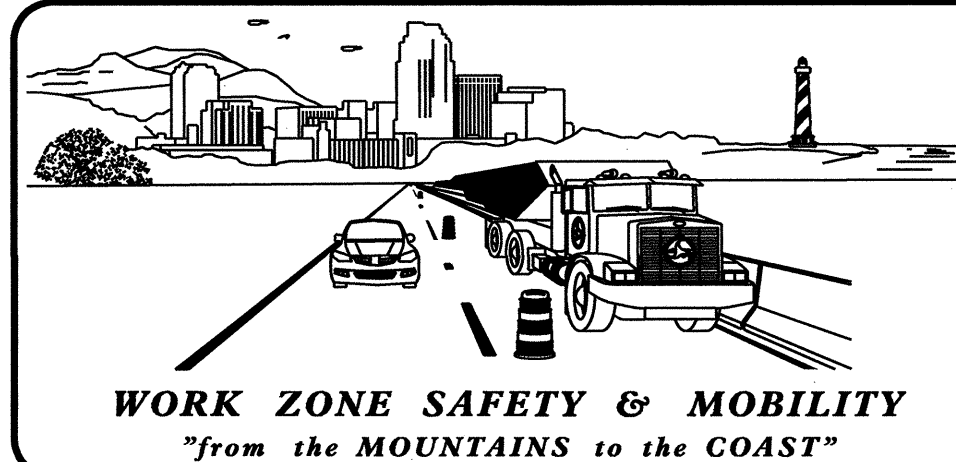
SHEET NO.

TMP-1

TIP PROJECT: B-4182

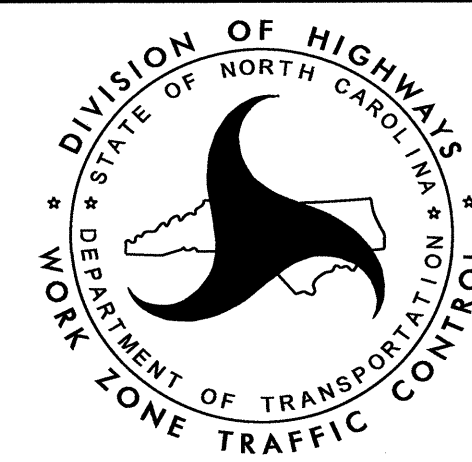
TIP PROJECT:

28-NOV-2012 13:41
\\dot1\dfs\dot1\proj\TIP\Projects-B\B4182\TrafficControl\TCP\B4182_TC_TMP_01.dgn
sngreen AT TEL26387



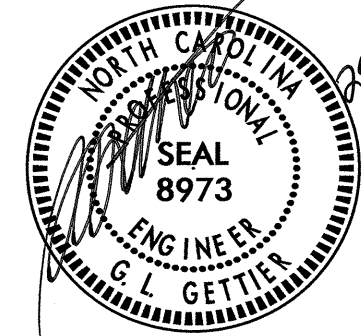
N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1580 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1580
1020 BIRCH RIDGE DRIVE, RALEIGH, NC 27610 (DELIVERY)
PHONE: (919) 250-4094 FAX: (919) 250-4098

J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
G. L. GETTIER, P.E. TRAFFIC CONTROL PROJECT ENGINEER
J. W. GILSTRAP TRAFFIC CONTROL PROJECT DESIGN ENGINEER
S. GREEN TRAFFIC CONTROL DESIGN ENGINEER



APPROVED: _____
DATE: _____

SEAL



ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

<u>STD. NO.</u>	<u>TITLE</u>
1101.03	TEMPORARY ROAD CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1130.01	DRUMS
1145.01	BARRICADES - TYPE III

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- NORTH ARROW
- TEMP. SHORING (LOCATION PURPOSES ONLY)

TEMPORARY PAVEMENT MARKING

NONE

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- DRUM

TEMPORARY SIGNING

- STATIONARY SIGN

28-NOV-2012 13:10 \\dot\dfs\proj\proj\TIP\Projects-B\B4182\TrafficControl\TCP\B4182.TC.TMP-01A.dgn
snoreen AT 1E265817

APPROVED: _____ DATE: _____ 		<h3>ROADWAY STANDARD DRAWINGS & LEGEND</h3>
---------------------------------	--	---

TRANSPORTATION OPERATIONS

CONSTRUCTION

REMOVE EXISTING BRIDGE AND REPLACE WITH A CULVERT ALONG THE EXISTING ROADWAY ALIGNMENT AS SHOWN IN THE CONSTRUCTION PLANS.

TMP DESIGN PARAMETERS

TRAFFIC WILL BE DETOURED OFFSITE DURING THE CONSTRUCTION PERIOD.

THE OFFSITE DETOUR WILL INCLUDE SR 1457 & US 23. (SEE SHEET TMP-3).

GENERAL NOTES

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 UNDESIRE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OF 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.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- A) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS A DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

TRAFFIC PATTERN ALTERATIONS

- B) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- C) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

- D) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

- E) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC BARRIER

- F) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRAFFIC CONTROL PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION, PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE/RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW, BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW, BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

TRAFFIC CONTROL DEVICES

- G) PLACE TYPE III BARRICADES WITH "ROAD CLOSED" SIGN R-11-2 ATTACHED OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

- H) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

28-NOV-2012 13:10 \\dot\dfs\00\proj\TIPProjects-B\B4182\Traffic\TrafficControl\TCP\B4182.TC.TMP_01B.dgn
sgreen AT 11265817

APPROVED: _____ DATE: _____			<h2>TRANSPORTATION OPERATIONS & PROJECT NOTES</h2>

***TEMPORARY SHORING 1:**

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 11+25.00+/- -L-, 10.0 FT. FROM LEFT SIDE OF CULVERT, TO STATION 12+15.00+/- -L-, 10.0 FT. FROM LEFT SIDE OF CULVERT.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 11+25.00+/- -L-, 10.0 FT. FROM LEFT SIDE OF CULVERT, TO STATION 12+15.00+/- -L-, 10.0 FT. FROM LEFT SIDE OF CULVERT MAY NOT PENETRATATE BELOW ELEVATION 2990.3 FT (LT) AND 3005.6 FT (RT) DUE TO OBSTRUCTIONS, VERY DENSE OR HARD BOULDERS OR WEATHERED OR HARD ROCK.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 11+25.00+/- -L-, 10.0 FT. FROM LEFT SIDE OF CULVERT, TO STATION 12+15.00+/- -L-, 10.0 FT. FROM LEFT SIDE OF CULVERT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL PROVISION.

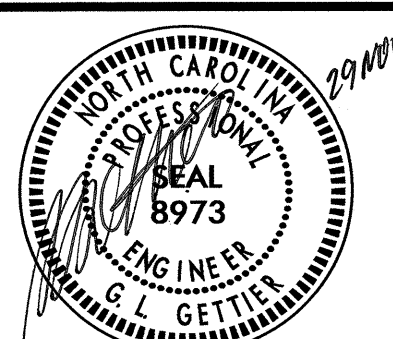
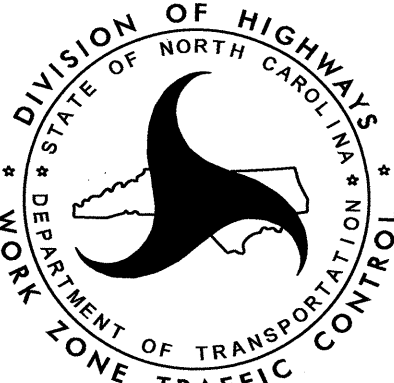
DESIGN SHORING FROM STATION 11+25.00+/- -L-, 10.0 FT. FROM LEFT SIDE OF CULVERT, TO STATION 12+15.00+/- -L-, 10.0 FT. FROM LEFT SIDE OF CULVERT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
 UNIT WEIGHT (γ) = 120 PCF
 FRICTION ANGLE, ϕ = 30 DEGREES
 COHESION, c = 0 PSF

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF THE TEMPORARY SHORING FROM STATION 11+25.00+/- -L-, 10.0 FT. FROM LEFT SIDE OF CULVERT, TO STATION 12+15.00+/- -L-, 10.0 FT. FROM LEFT SIDE OF CULVERT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

SPECIAL NOTE

AVOID ROCK COLUMN LOCATIONS FOR ANCHORED SHORING.

"THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION ON NOVEMBER 05, 2012 AND SEALED BY A PROFESSIONAL ENGINEER, SHANE CLARK, P.E., LICENSE # 029869".

APPROVED: _____ DATE: _____			TEMPORARY SHORING DATA
SEAL			

SIGN NUMBER: SP12303
 TYPE: STATIONARY
 QUANTITY: SEE PLANS
 SIGN WIDTH: 4'-0"
 HEIGHT: 2'-0"
 TOTAL AREA: 8.0 Sq.Ft.
 BORDER TYPE: INSET
 RECESS: 0.38"
 WIDTH: 0.63"
 RADII: 1.5"
 NO. Z BARS:
 LENGTH:

BACKG COLOR: Fluorescent Orange
 COPY COLOR: Black

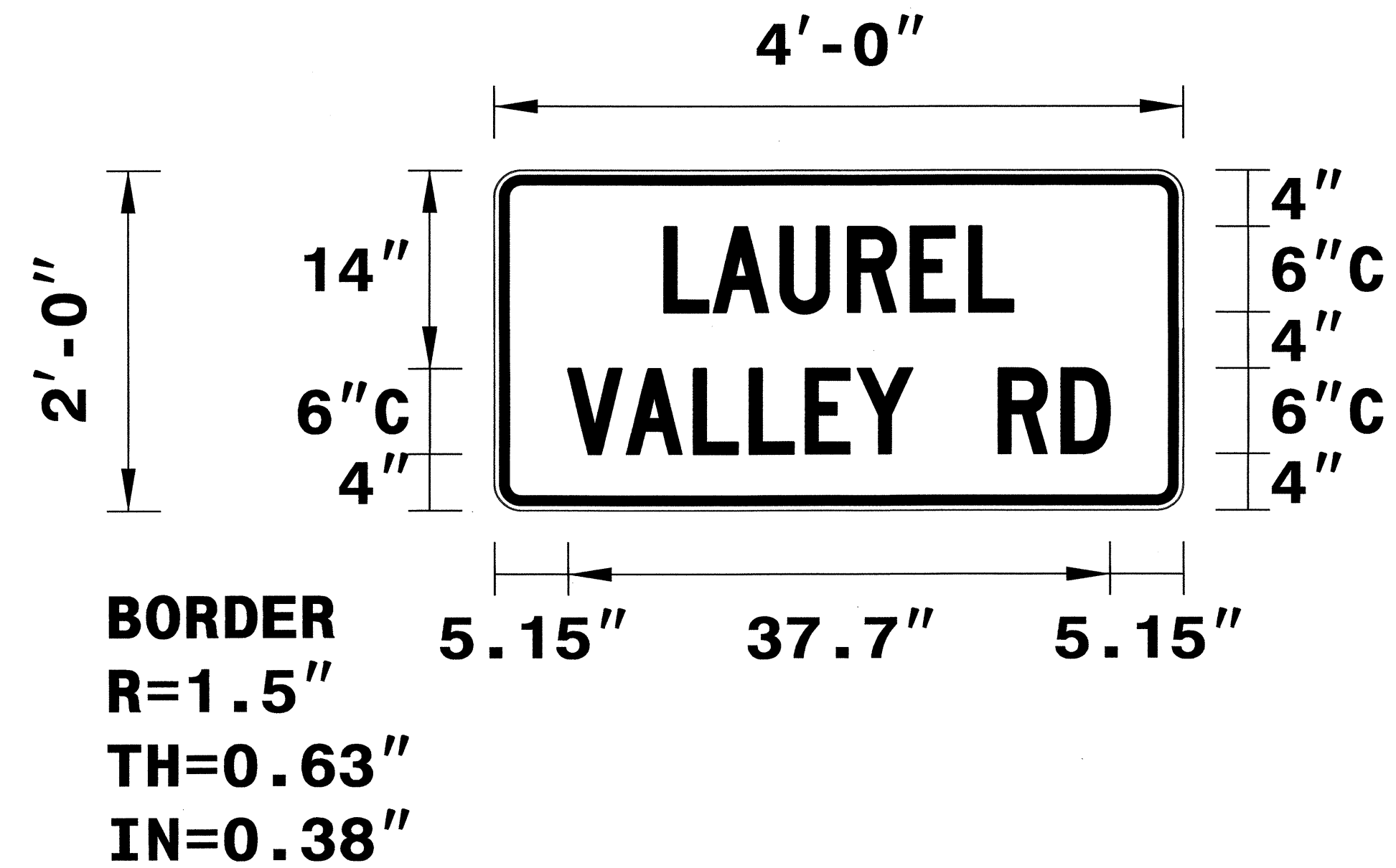
SYMBOL	X	Y	WID	HT

MAT'L: 0.080" (2.0 mm) ALUMINUM

DESIGN BY: M. TRACEY
 PROJECT ID: B-4182

CHECKED BY:
 DIV: 13

DATE: Oct 01, 2012



Spacing Factor is 1 unless specified otherwise

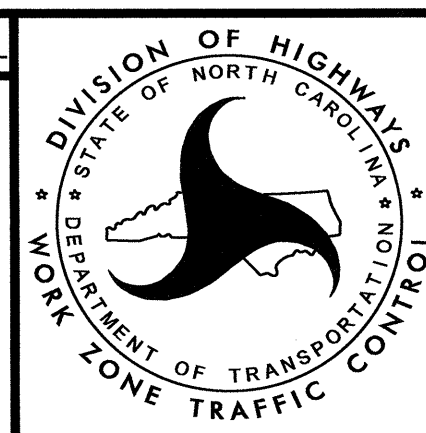
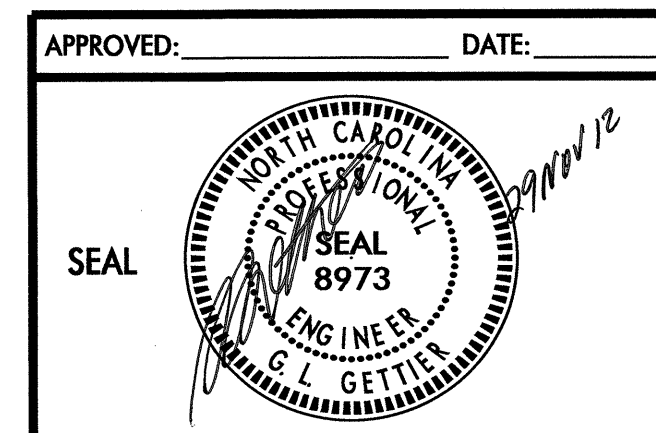
LETTER POSITIONS

Letter spacings are to start of next letter																				Series/Size Text Length
		L	A	U	R	E	L													C 2000
	11.9	3.4	4.7	4.7	4.4	4.1	3.1	11.9												24.3
		V	A	L	L	E	Y		R	D										C 2000
	5.1	4.1	4.7	3.9	3.9	3.6	3.8	6	4.4	3.4	5.1									37.7

FILENAME: Laurel Valley Rd

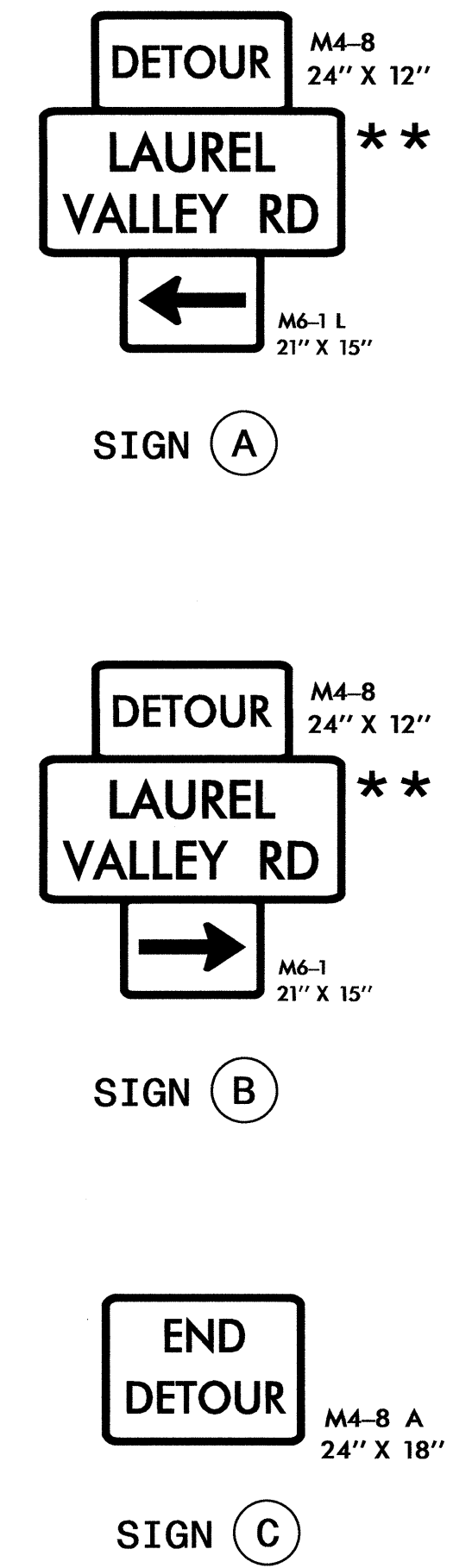
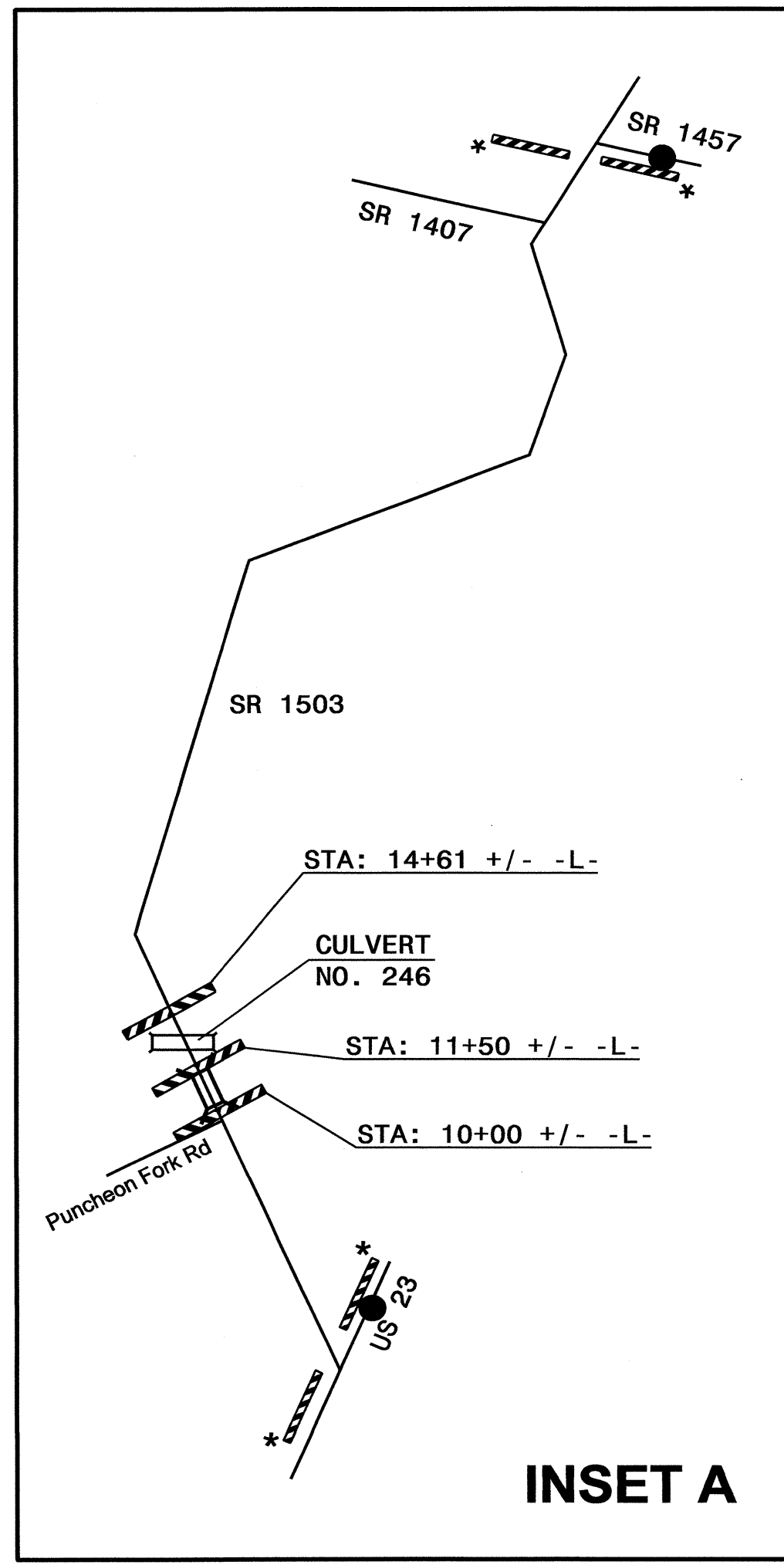
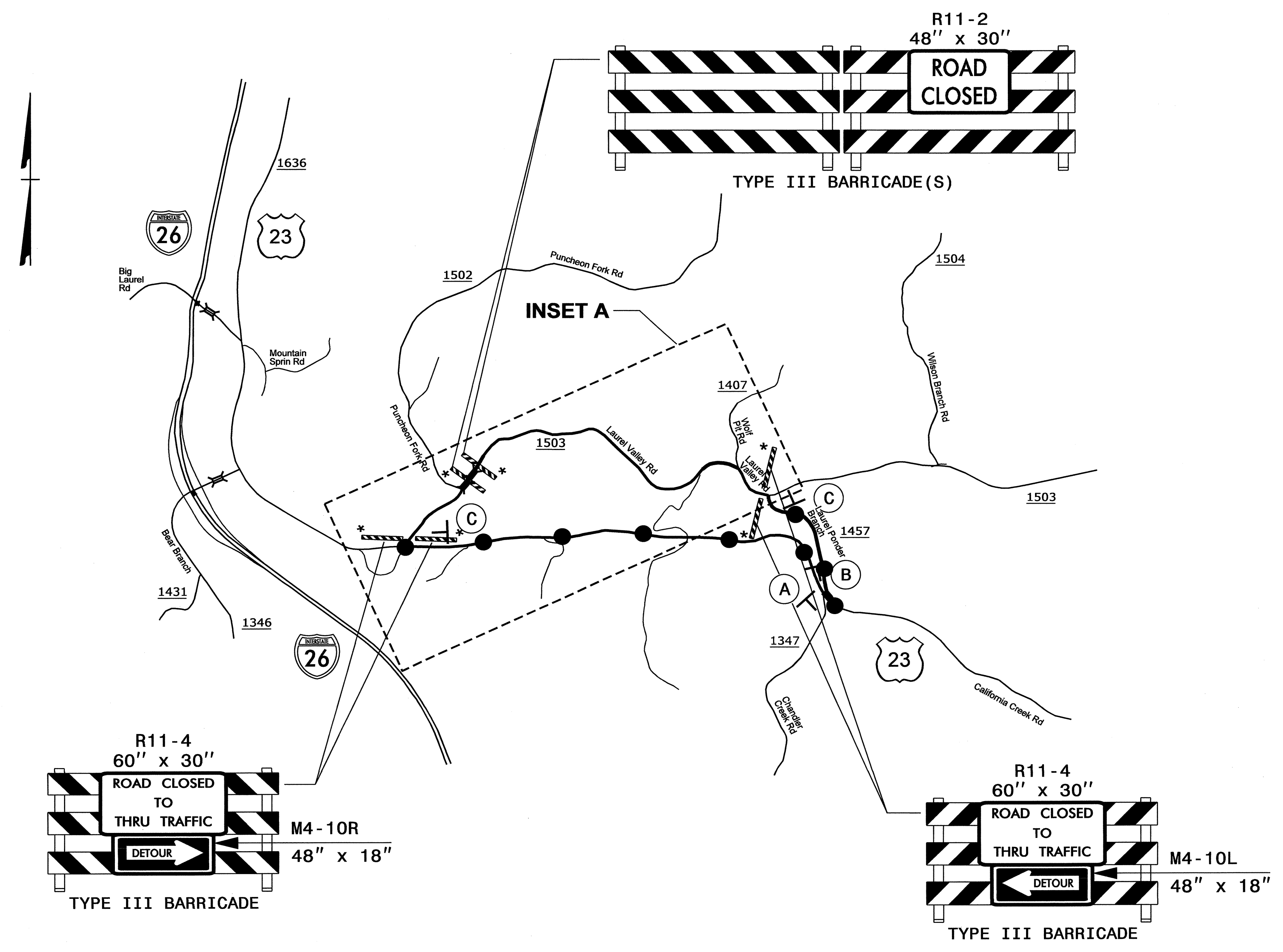
NORTH CAROLINA D.O.T. SIGN DETAIL

"The special sign designs shown on this sheet were provided through a sealed document from Signing and Delineation. The document was submitted to WZTC on 10-02-2012 and sealed by a Professional Engineer, Ronald W. King, license # 022959".



DETOUR SIGN
 DETAIL

28-NOV-2012 13:09
 \\go\dfs\001\Projects\B4182\TrafficControl\TCP\B4182.TC.TMP_02A.dgn
 signed AT 12:55:07



PHASING

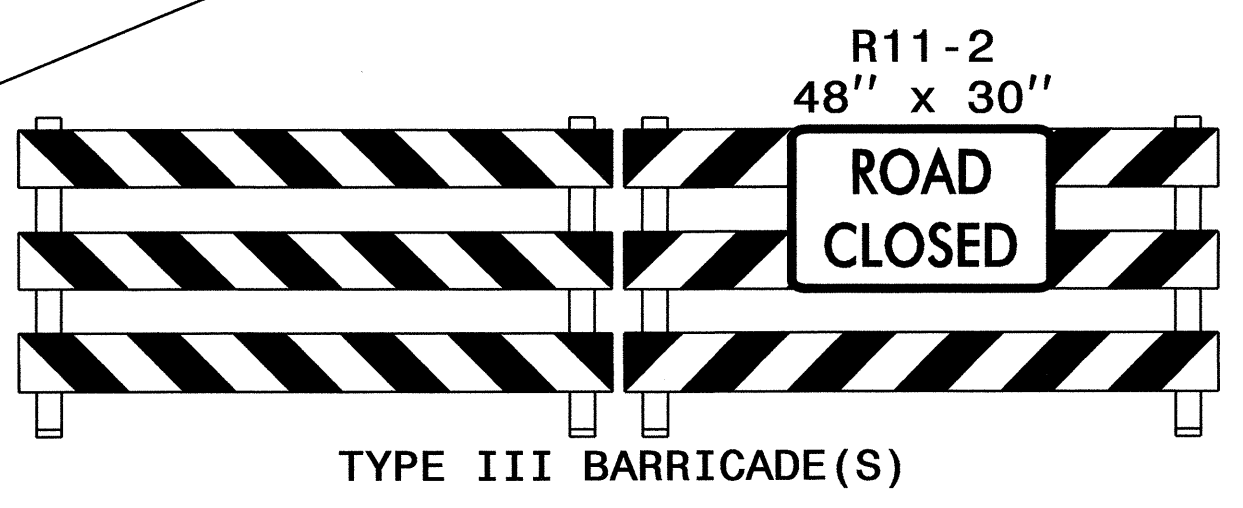
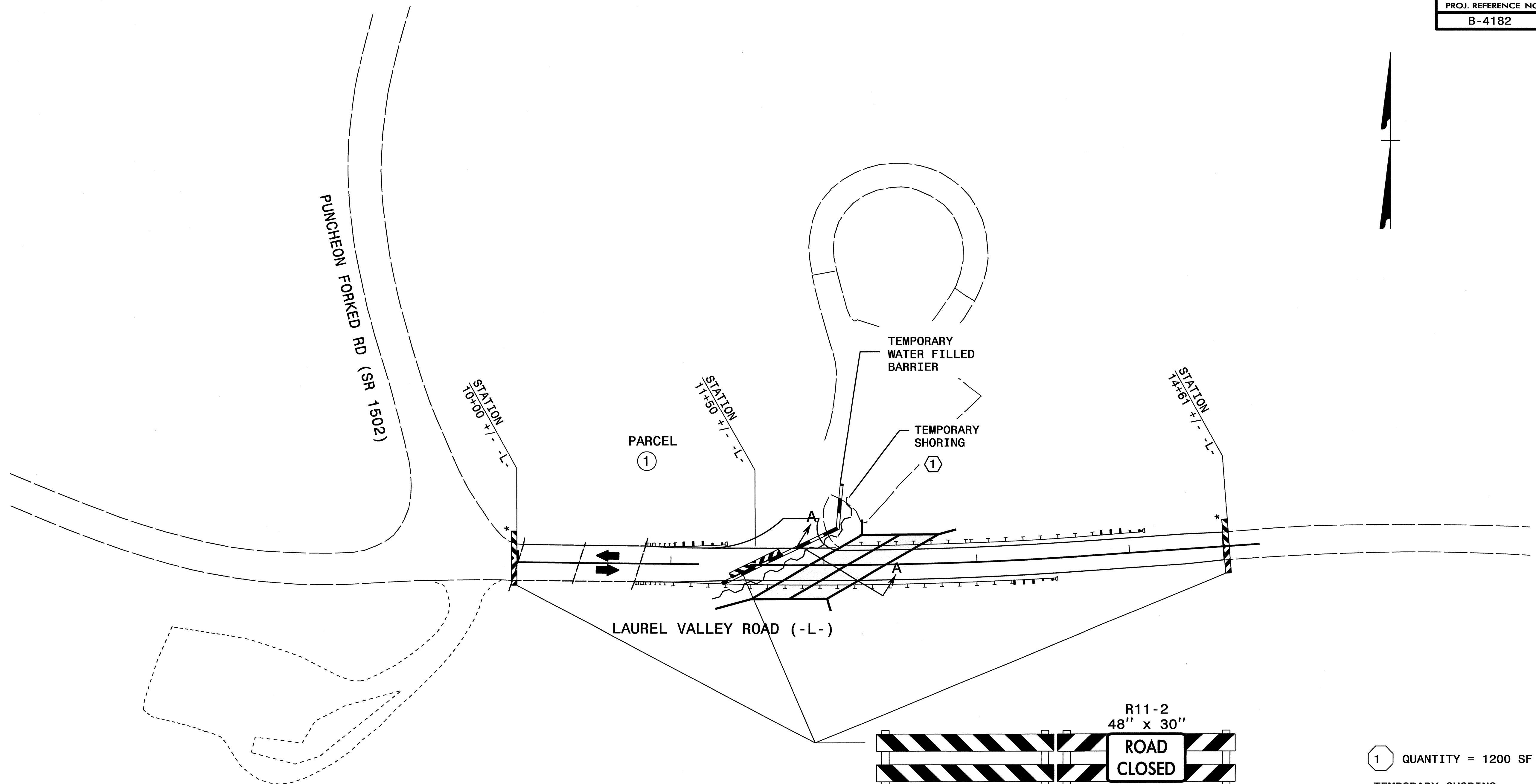
- STEP 1: - INSTALL OFF-SITE DETOUR ROUTE SIGNS AND ASSEMBLIES FOR THE CLOSING OF SR 1503 (LAUREL VALLEY RD., -L-).
- USING ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 1 OF 9, CLOSE SR 1503 (LAUREL VALLEY RD., -L-) TO THRU TRAFFIC.
- NOTE: INSTALL ADDITIONAL TYPE III BARRICADES AT STATION 11+50 +/- -L- AND UTILIZE DRUMS TO MAINTAIN ACCESS TO DRIVEWAY TO PARCEL 1 (BRIGHT HOPE LAUREL UNITED METHODIST CHURCH) DURING CONSTRUCTION.
- STEP 2: - CONTRACTOR SHALL INSTALL WATER FILLED BARRIER AND INSTALL TEMPORARY SHORING. (SEE CONSTRUCTION PLANS, TMP-2 AND TMP-4)
- REMOVE THE EXISTING BRIDGE AND CONSTRUCT THE PROPOSED CULVERT AND ROADWAY UP TO AND INCLUDING THE FINAL LAYER OF SURFACE COURSE AND PLACE FINAL PAVEMENT MARKINGS AND MARKERS ON SR 1503 (LAUREL VALLEY RD., -L-) FROM STATION 10+79 +/- -L- TO STATION 14+61 +/- -L-. (SEE CONSTRUCTION PLANS AND PAVEMENT MARKING PLAN).
- STEP 3: - REMOVE ALL TRAFFIC CONTROL DEVICES, SIGNING AND DETOUR ROUTE SIGNING.
- OPEN TO FINAL TRAFFIC PATTERN.

NOTES:

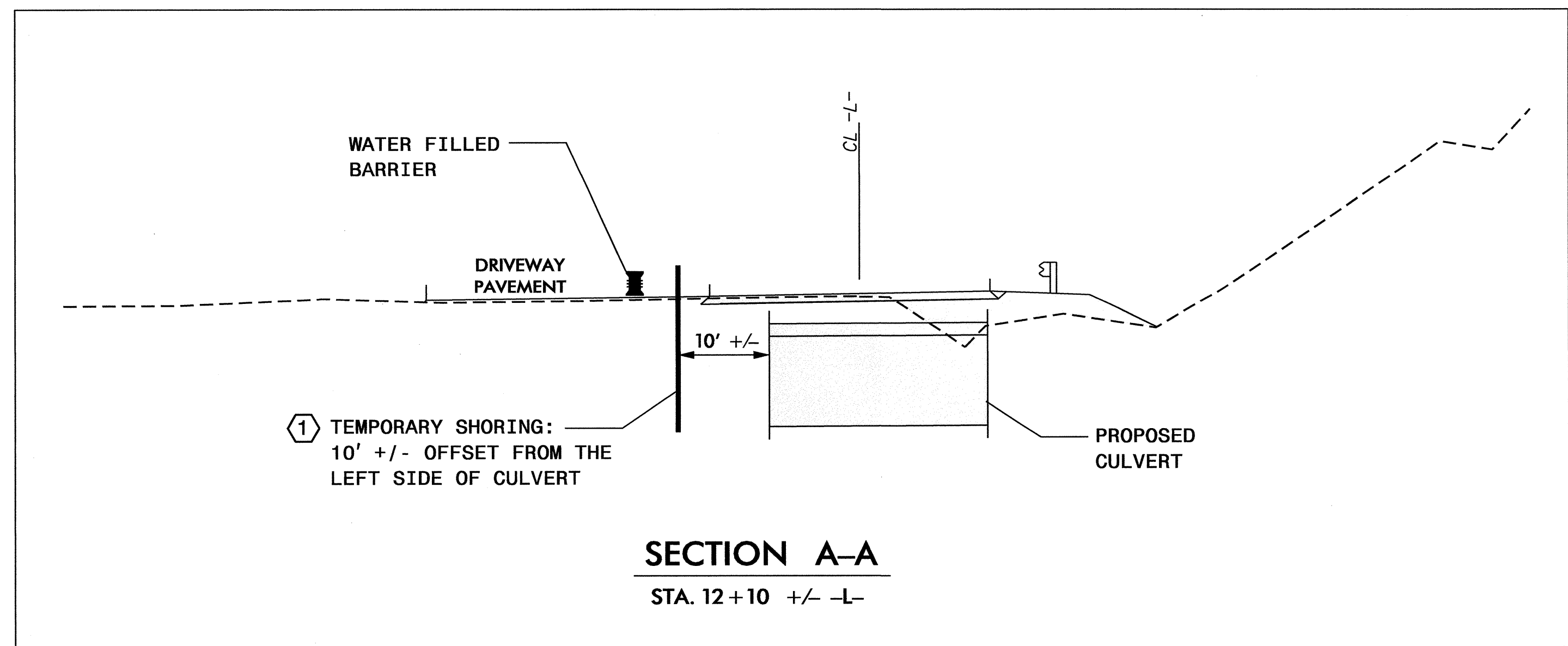
- ALL DETOUR SIGN LOCATIONS ARE APPROXIMATE.
- ALL DETOUR SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
- * SEE ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 1 OF 9, FOR ADDITIONAL WORK ZONE SIGNS.
- ** SEE TMP-2A FOR SIGN DESIGN.

29-NOV-2012 08:38
 C:\Users\jg\Documents\Projects\B4182\TrafficControl\TCP\B4182.TC.TMP_03.dgn
 sngreen AT TEL6587

APPROVED: SEAL DATE: 29 Nov 12		<h3>TEMPORARY TRAFFIC CONTROL PHASING AND DETAIL</h3>
--------------------------------------	--	---



① QUANTITY = 1200 SF
 TEMPORARY SHORING
 10' LEFT OF CULVERT
 (SEE SHEET TMP-2 FOR
 TEMPORARY SHORING DATA)



NOTES:
 * SEE ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 1 OF 9 AND TMP-03 FOR ADDITIONAL WORK ZONE SIGNS AND LOCATIONS.

APPROVED: _____ DATE: _____

SEAL

TEMPORARY TRAFFIC CONTROL DETAIL

28-NOV-2012 16:38
 \cort\dfs\001\01\Projects\B4182\TrafficControl\TCP\B4182.TC.TMP_04.dgn
 sngreen AT 12265817