

NORTH CAL	
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LION NOIL	
OF TRANSPOR	

DESIGN DATA

### **PROJECT LENGTH**

LENGTH STRUCTURE PROJECT

BRIDGE # 72 = 0.023 MILE BRIDGE # 73=0.023 MILE

BRIDGE MANAGEMENT UNIT NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 2006 STANDARD SPECIFICATIONS LETTING DATE: **SEPTEMBER 23, 2010** DAN HOLDERMAN, PE STATE BRIDGE MANAGEMENT ENGINEER

Prepared in the Office of:



DIVISION OF HIGHWAYS





STATE	STATI	B PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	F	3K-5101L	1	1
STATE	PROJ. NO.	F. A. PROJ. NO.	DESCRIP	TION
425	579.1.1	BRIMS-040-2(152)1	P.E	
425	79.3.11	BRIMS-040-2(152)1	CON	ST



#### NOTES

FOR REPAIR OF BRIDGE WITH LATEX MODIFIED CONCRETE-VERY EARLY STRENGTH. SEE SPECIAL PROVISIONS.

SEE SPECIAL PROVISIONS FOR SURFACE PREPARATION.

EXPANSION JOINTS SHALL BE COVERED WITH POLYETHYLENE SHEETING OR OTHER APPROVED MATERIAL AND GRAVEL AGGREGATE DAMS PRIOR TO BEGINNING CLASS I SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

FOR HYDRODEMOLITION, SEE SPECIAL PROVISIONS .

THE CONTRACTOR MUST COLLECT, TREAT AND DISPOSE OF RUN -OFF WATER FROM THE HYDRODEMOLITION PROCESS, SEE SPECIAL PROVISIONS.

THE BOUNDARIES OF AREAS IDENTIFIED FOR CLASS III SURFACE PREPARATION ARE APPROXIMATE.

FOR EVAZOTE JOINT SEALS, SEE SPECIAL PROVISIONS. BRIDGE DECK DRAINS SHALL BE PLUGGED DURING HYDRODEMOLITION PROCESS.SEE HYDRODEMOLITION SPECIAL PROVISION.





DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY



#### TYP. "BLOW THRU"CONTAINMENT AND FORMWORK

A METHOD TO CAPTURE WATER AND DEBRIS FROM BLOW THRU DURING HYDRODEMOLITION SHALL BE INSTALLED IN AREAS INDICATED AS CLASS III SURFACE PREPARATION. SUBMIT DETAILS OF PROPOSED FORMWORK FOR APPROVAL PRIOR TO BEGINNING WORK. COST FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE PER SQ. YARD OF HYDRODEMOLITION.

			ТС	)TAL BILL	OF MATERIA	Ĺ		
₩ DECK SCARIFICATION	* CLASS I SURFACE PREPARATION	* CLASS II SURFACE PREPARATION	* CLASS III SURFACE PREPARATION	HYDRO- DEMOLITION	LATEX MODIFIED CONCRETE- VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE- VERY EARLY STRENGTH	GROOVING BRIDGE FLOORS	EVAZOTE JOINT SEALS
SQ.YDS.	SQ.YDS.	SQ.YDS.	SQ.YDS.	SQ.YDS.	С.Ү.	SQ.YDS.	SQ.FT.	LUMP SUM
391	0	391	0	391	27	391	2919	LUMP SUM

\* QUANTITY SHOWN IS FOR INFORMATION ONLY. \*\* INCLUDES APPROACH MILLING.

DRAWN BY :D.L.PLATICA DATE :07/2010 CHECKED BY : A ABRAHA DATE :08/2010 \$\$\$\$\$\$\$YSTIME\$\$\$\$ \$\$\$\$USERNAME\$\$\$

\$\$\$\$\$\$\$\$\$\$\$\$\$DGN\$\$\$\$\$\$\$\$\$\$

PROJECT NO. <u>BK-5101L</u> COUNTY: <u>IREDELL</u> STATION: <u>221+88.62.00-L-</u> BRIDGE NO. <u>72</u>
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUPERSTRUCTURE PLAN VIEW OF BRIDGE #72 ON I40 ACROSS SR 1510 28'-0"CLEAR ROADWAY (67°30'- SKEW)
REVISIONS SHEET NO.
NO. BY DATE NO. BY DATE $\sum_{i=1}^{n-1}$



<sup>\$\$\$\$\$\$</sup>SYSTIME\$\$\$\$ \$\$\$\$USERNAME\$\$\$

#### NOTES

FOR REPAIR OF BRIDGE WITH LATEX MODIFIED CONCRETE-VERY EARLY STRENGTH. SEE SPECIAL PROVISIONS.

SEE SPECIAL PROVISIONS FOR SURFACE PREPARATION.

EXPANSION JOINTS SHALL BE COVERED WITH POLYETHYLENE SHEETING OR OTHER APPROVED MATERIAL AND GRAVEL AGGREGATE DAMS PRIOR TO BEGINNING CLASS I SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

FOR HYDRODEMOLITION, SEE SPECIAL PROVISIONS.

THE CONTRACTOR MUST COLLECT, TREAT AND DISPOSE OF RUN-OFF WATER FROM THE HYDRODEMOLITION PROCESS, SEE SPECIAL PROVISIONS.

THE BOUNDARIES OF AREAS IDENTIFIED FOR CLASS III SURFACE PREPARATION ARE APPROXIMATE.

FOR EVAZOTE JOINT SEALS, SEE SPECIAL PROVISIONS. BRIDGE DECK DRAINS SHALL BE PLUGGED DURING HYDRODEMOLITION PROCESS. SEE HYDRODEMOLITION SPECIAL PROVISIONS.





DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY



			Τ(	DTAL BILL	OF MATERIA	1L	
₩ DECK SCARIFICATION	* CLASS I SURFACE PREPARATION	* CLASS II SURFACE PREPARATION	* CLASS III SURFACE PREPARATION	HYDRO- DEMOLITION	LATEX MODIFIED CONCRETE- VERY EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE- VERY EARLY STRENGTH	GROON BRII FLOO
SQ.YDS.	SQ.YDS.	SQ.YDS.	SQ.YDS.	SQ.YDS.	С.Ү.	SQ.YDS.	SQ.F
391	0	381	10	391	27	391	291

\* QUANTITY SHOWN IS FOR INFORMATION ONLY. \*\* INCLUDES APPROACH MILLING.

DRAWN BY :D.L.PLATICA DATE :07/2010 CHECKED BY : A. ABRAHA DATE : 08/2010 \$\$\$\$\$\$SYSTIME\$\$\$\$ \$\$\$\$USERNAME\$\$\$

\$\$\$\$\$\$\$\$\$\$\$\$\$DGN\$\$\$\$\$\$\$\$\$\$



<sup>\$\$\$\$\$\$</sup>SYSTIME\$\$\$\$ \$\$\$\$USERNAME\$\$\$

\$\$\$\$\$\$\$\$\$\$\$\$\$DGN\$\$\$\$\$\$\$\$\$\$

# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## PLAN FOR PROPOSED **TRAFFIC CONTROL**

## **IREDELL COUNTY**

LOCATION: BRIDGE NO.S 72, AND 73.

TYPE OF WORK: TRAFFIC CONTROL FOR BRIDGE DECK PRESERVATION

## ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" -PROJECT SERVICES 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:

1101.04

1101.05

1101.11

1110.02

1115.01

1130.01

1165.01

1205.01

1205.02

TITLE STD. NO. TEMPORARY SHOULDER CLOSURES WORK ZONE VEHICLE ACCESSES TRAFFIC CONTROL DESIGN TABLES PORTABLE WORK ZONE SIGNS FLASHING ARROW PANELS DRUMS TRUCK MOUNTED IMPACT ATTENUATOR PAVEMENT MARKINGS - LINE TYPES & OFFSETS PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS

## 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	VICINITY MAP AND PROJECT PHASING
TCP-4	TEMPORARY LANE CLOSURES



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	BK-5101L	TCP-1
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GEN	<b>ERAL</b> DIRECTION OF TRAFFIC FLOW NORTH ARROW WORK AREA	
TRA	FFIC CONTROL DEVICES	
	<ul> <li>TYPE III BARRICADE</li> <li>CONE</li> <li>DRUM          <ul> <li>SKINNY DRUM</li> <li>FLASHING ARROW PANEL (TYPE C)</li> <li>STATIONARY SIGN</li> <li>PORTABLE SIGN</li> <li>STATIONARY OR PORTABLE SIGN</li> <li>TEMPORARY CRASH CUSHION</li> <li>CHANGEABLE MESSAGE SIGN</li> <li>TRUCK MOUNTED IMPACT ATTENUATOR</li> <li>POLICE</li> <li>FLAGGER</li> </ul> </li> </ul>	t (TMIA)
PREPARED BY:	Stantec Consulting Services Inc. Suite 300, 801 Jones Franklin Road Raleigh, NC 27606 Tel. 919,851,7024 www.stantec.com	
BETSY L. WATSON, PE	TDAFFIC CONTROL PROFILE	
GEORGE KARAGEORGE	TRAFFIC CONTROL ENGINEE	R
		"

### 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 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 DIRECTED BY THE ENGINEER

#### LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) 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.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- E) 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 SHEET TCP-4.
- F) 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.
- G) 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.
- H) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION.

#### PAVEMENT MARKINGS AND MARKERS

I) REPLACE PAVEMENT MARKINGS THAT WERE DAMAGED OR OBLITERATED FROM OVERLAY BY THE END OF EACH DAY'S OPERATION. REPLACE EXISTING PAVEMENT MARKINGS WITH 2 APPLICATIONS OF PAINT.

> SEAL Stantec Stantec Consulting Services Inc 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax, (919) 851-7024 www.stantec.com License No. F-0672

#### LANE CLOSURE TIME RESTRICTIONS

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

ROAD NAME DAY AND TIME RESTRICTIONS

ALL ROADS 6:00 A.M.- 7:00 P.M. MONDAY THRU SUNDAY (EVERYDAY)

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

#### ROAD NAME ALL ROADS

HOLIDAY

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

PROJECT REFERENCE NO.	SHEET NO.
BK-5101L	TCP-2

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

K) ENSURE ALL SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

MISCELLANEOUS

L) ENSURE THE OVERSIZE/OVERWEIGHT PERMIT UNIT (919) 733-4740 HAS BEEN ADVISED OF THE ONGOING TRAFFIC OPERATIONS THROUGH THE DIVISION OFFICE.

M) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.





TRAFFIC.



BK-5101L TCP-3	BK-5101L TC

NOTE THE FOLLOWING BRIDGE WORK RESTRICTIONS AND ALLOWANCES: DO NOT WORK ON BRIDGE 72 SIMULTANEOUSLY WITH BRIDGE 73.

TRAFFIC CONTROL PHASING

IREDELL COUNTY-BRIDGE NO.S 72, AND 73

PERFORM BRIDGE DECK PRESERVATION WORK USING NIGHTLY LANE CLOSURES BEHIND DRUMS IN ACCORDANCE WITH SHEET TCP-4.

REPLACE EXISTING PAVEMENT MARKINGS WITH PAINT BEFORE RE-OPENING LANES TO

REFER TO LANE CLOSURE HOUR RESTRICTIONS IN THE GENERAL NOTES.

