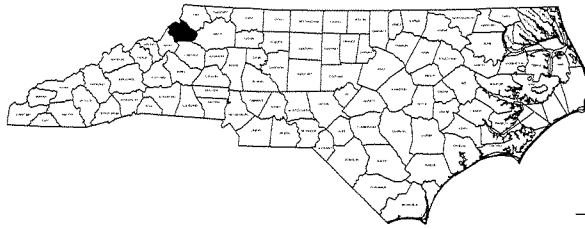


TIP PROJECT: 17BP.11.H.5

CONTRACT NO: DK00068

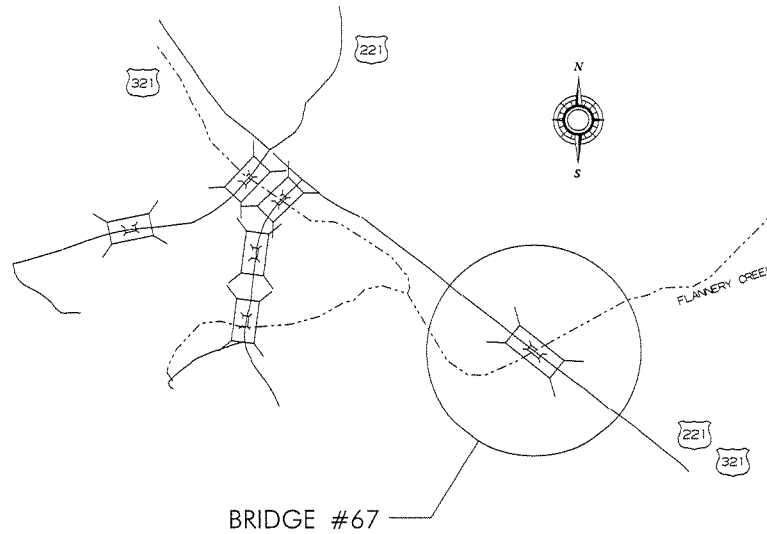
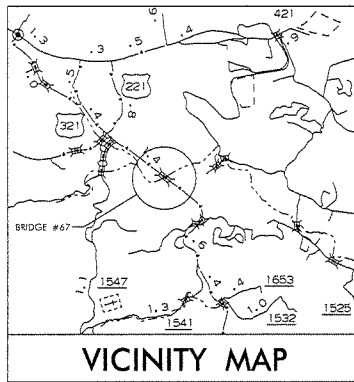


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

**WATAUGA
COUNTY**

**LOCATION: US221 /US321 OVER FLANNERY FORK CREEK
TYPE OF WORK: PARTIAL BRIDGE DECK, SUBSTRUCTURE,
AND SIDEWALK REPAIR OF BRIDGE #67**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.11.H.5	1	7
STATE PROJECT NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.11.H.5	N/A	PE	
17BP.11.H.5	N/A	CONSTR	



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

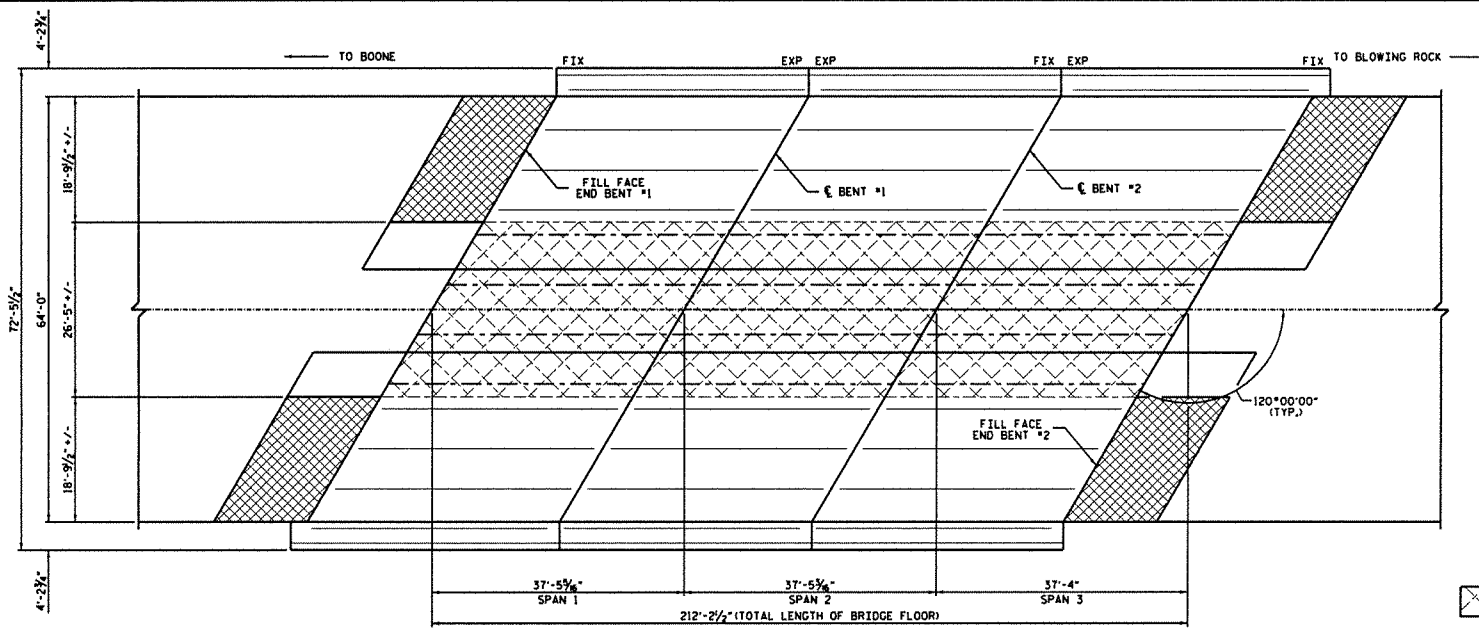
2012 STANDARD SPECIFICATIONS



LETTING DATE:
AUGUST 2, 2012

GREG PERFETTI, PE
STATE STRUCTURES
MANAGEMENT ENGINEER

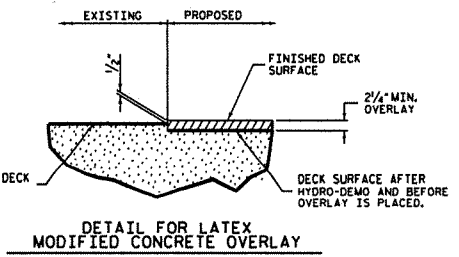


DAVID N. SNOKE, PE
DESIGN ENGINEER



 EXISTING CONSTRUCTION
 ASPHALT MILLING

PLAN OF DECK OVERLAY AND APPROACH ROADWAY MILLING



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

NOTES

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF BRIDGE DECK.

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

ROADWAY SCARIFICATION IS INCLUDED TO ENSURE A SMOOTH TRANSITION ONTO THE BRIDGE FLOOR. DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL SCARIFY AS REQUIRED TO PROVIDE A SMOOTH TRANSITION TO THE ROADWAY AT BOTH END OF THE BRIDGE.

THE CONTRACTOR MUST COLLECT, TREAT AND DISPOSE OF RUN-OFF WATER. SEE "MANAGING HYDRODEMOLITION WATER" SPECIAL PROVISION.

FOR "HYRO-DEMOLITION AND DECK SCARIFICATION", SEE SPECIAL PROVISIONS.

FOR BRIDGE OVERLAY OF BRIDGE WITH "LATEX MODIFIED CONCRETE", SEE SPECIAL PROVISION.

FOR "FOAM JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE 2 1/2\"/>

FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

FOR TRAFFIC PHASING AND DETAILS, SEE TRAFFIC MANAGEMENT PLANS.

TOTAL BILL OF MATERIAL

SCARIFYING BRIDGE DECK	* CLASS I SURFACE PREPARATION	* CLASS II SURFACE PREPARATION	* CLASS III SURFACE PREPARATION	HYDRO-DEMOLITION	LATEX MODIFIED CONCRETE	PLACING & FINISHING LATEX MODIFIED CONCRETE	FOAM JOINT SEALS	GROOVING BRIDGE FLOOR	ASPHALT CONCRETE SURFACE COURSE TYPE SF 9.5A
SO. YDS.	SO. YDS.	SO. YDS.	SO. YDS.	SO. YDS.	CU. YDS.	SO. YDS.	LUMP SUM	SO. FT.	TON
767	0	0	0	767	51	767	LUMP SUM	6502	1

BRIDGE SIDEWALK DEMOLITION	BRIDGE SIDEWALK LATEX MODIFIED CONCRETE	BRIDGE SIDEWALK PLACING AND FINISHING LATEX MODIFIED CONCRETE	FRAME, GRATES, AND HOOD "TYPE E"	2'-6" CONCRETE CURB & GUTTER	4" CONCRETE SIDEWALK
SO. YDS.	CU. YDS.	SO. YDS.	EA.	LIN. FT.	SO. YDS.
93	6	93	1	44	20

PROJECT NO. 17BP.11.H.1
 WATAUGA COUNTY
 BRIDGE NO. 67

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

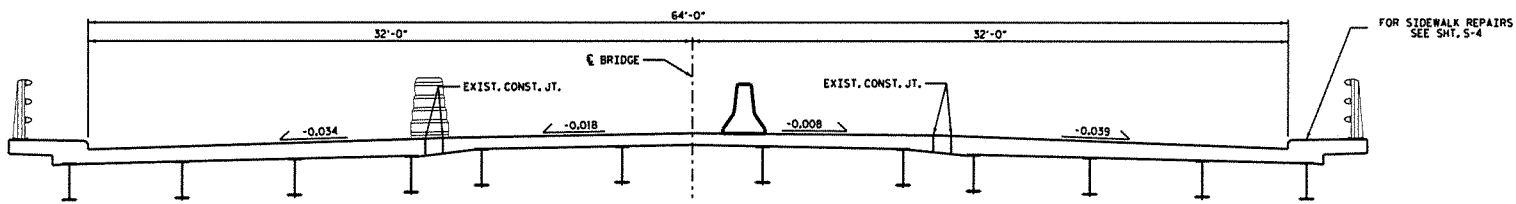
SURFACE PREPARATION PLAN AND BILL OF MATERIALS

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-1
1			2			10/17/12

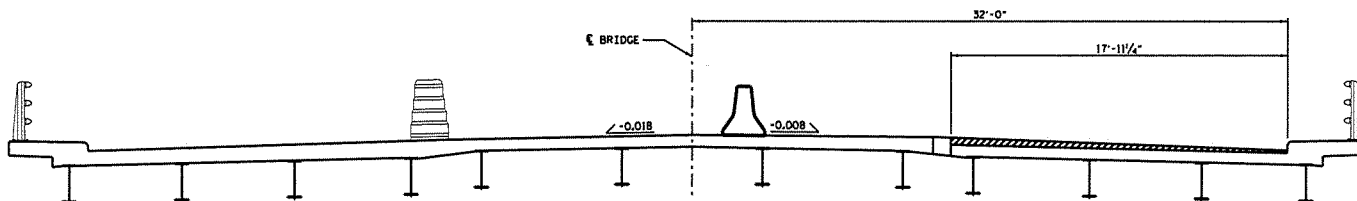


07/13/2012

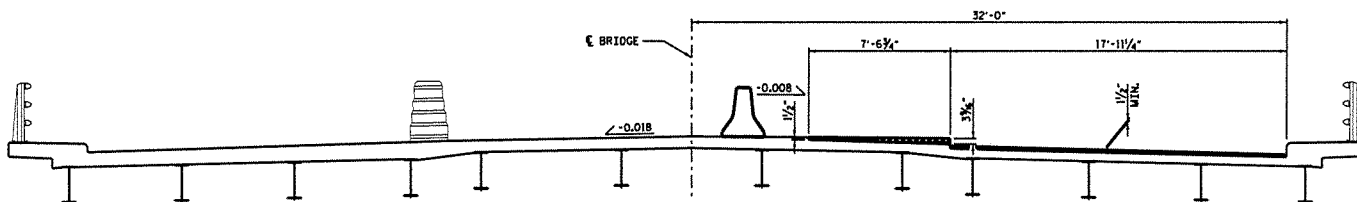
DRAWN BY: R. PUTEK DATE: 07/12
 CHECKED BY: D. SNOOK DATE: 07/12



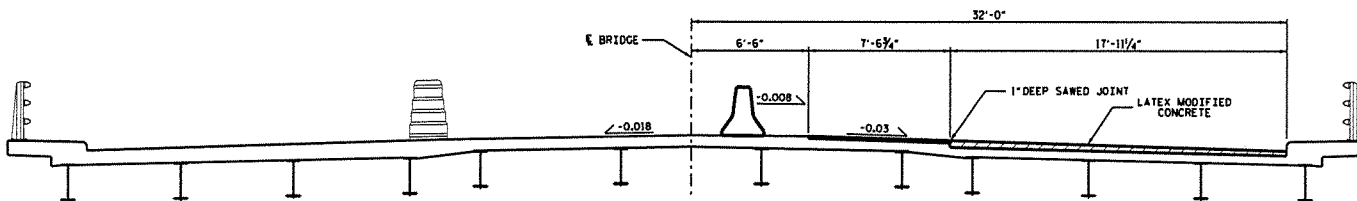
TYPICAL SECTION
SHOWING NORTHBOUND EXISTING



TYPICAL SECTION
SHOWING NORTHBOUND DECK SCARIFICATION



TYPICAL SECTION
SHOWING NORTHBOUND HYDRODEMOLITION



TYPICAL SECTION
SHOWING NORTHBOUND FINAL SECTION

PROJECT NO. 17BP.11.H.5
WATAUGA COUNTY
 BRIDGE NO. 67

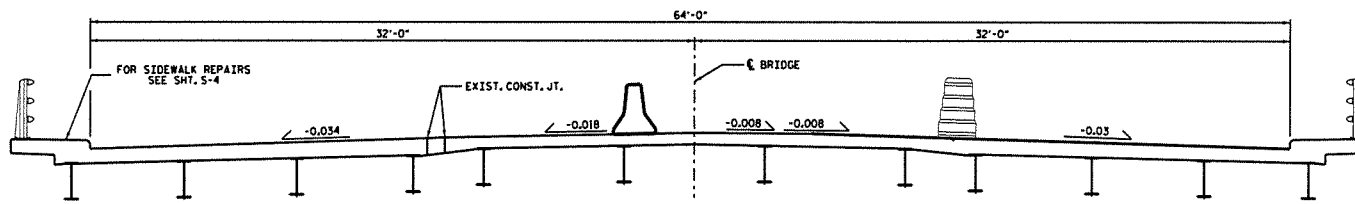


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

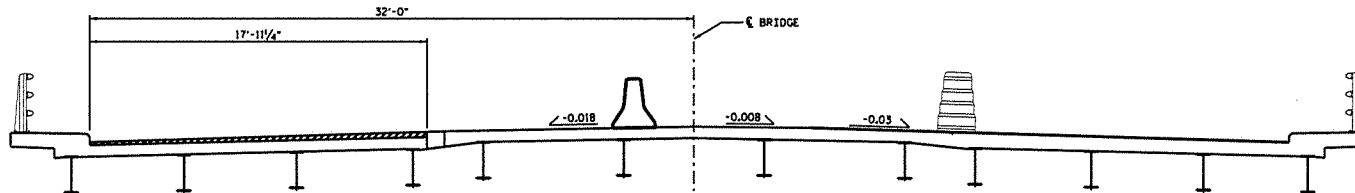
TYPICAL SECTIONS
 NORTHBOUND LANES
 STAGE ONE

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	5-2

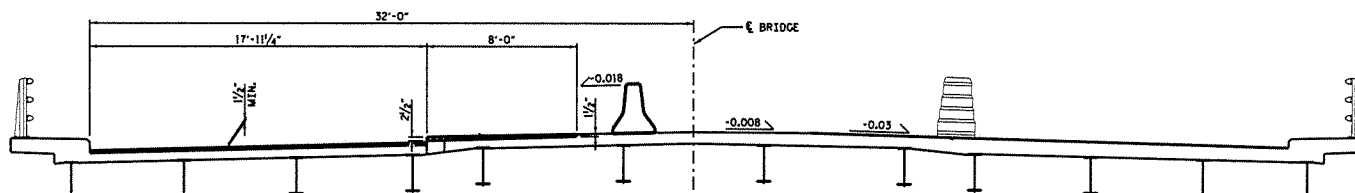
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 CHECKED BY: D. SNOKE DATE: 06/12



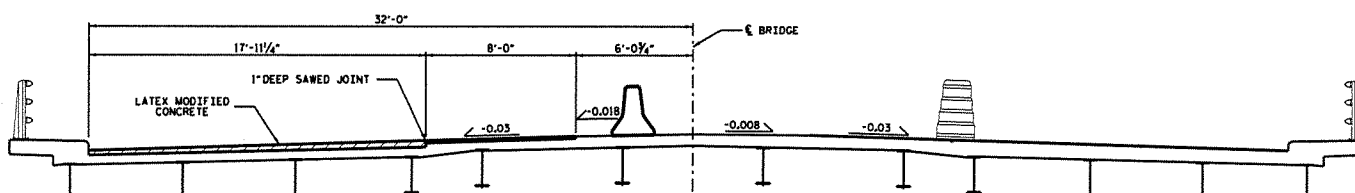
TYPICAL SECTION
SHOWING EXISTING



TYPICAL SECTION
SHOWING SOUTHBOUND DECK SCARIFICATION

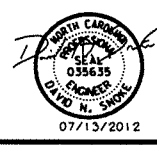


TYPICAL SECTION
SHOWING SOUTHBOUND HYDROEMOLITION



TYPICAL SECTION
SHOWING SOUTHBOUND FINAL SECTION

PROJECT NO. 17BP.11.H.5
WATAUGA COUNTY
 BRIDGE NO. 67



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

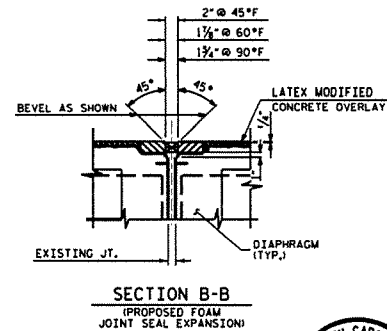
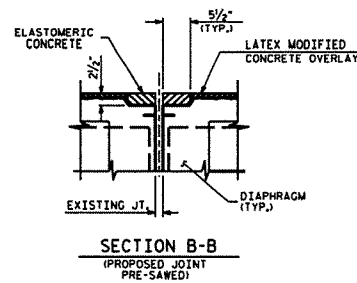
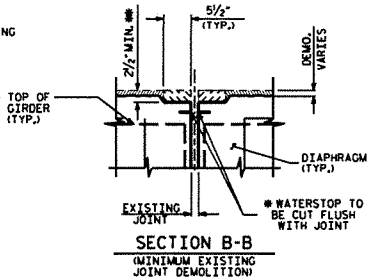
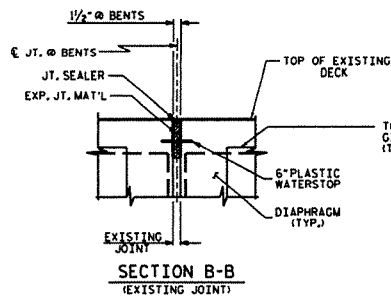
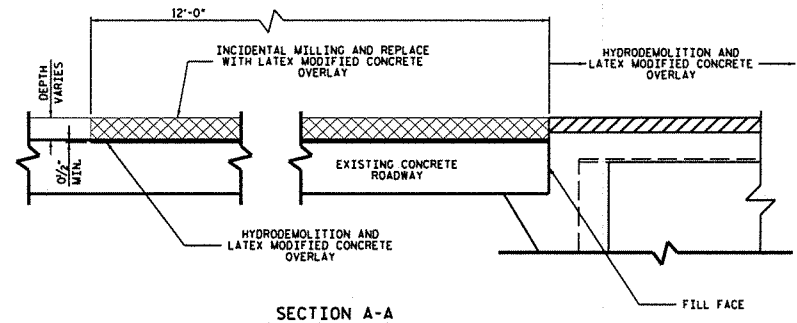
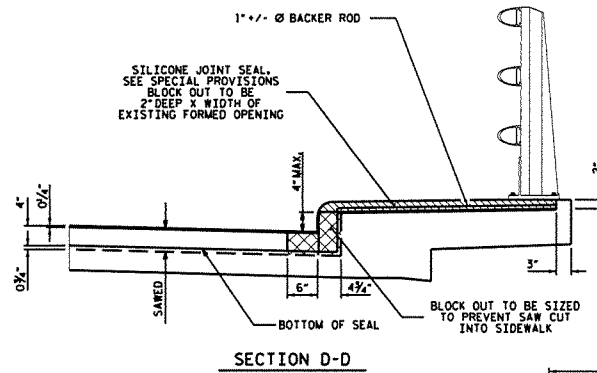
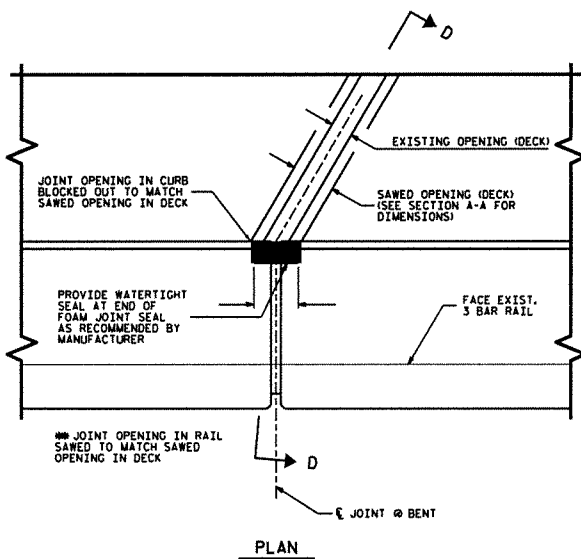
TYPICAL SECTIONS
 SOUTHBOUND LANES
 STAGE TWO

DRAWN BY: R.PUTEK DATE: 06/12
 CHECKED BY: D.SMOKE DATE: 06/12

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-3
1			1			7

NOTES

FOR FOAM JOINT SEAL, SEE SPECIAL PROVISIONS. THE INSTALLED FOAM JOINT SEALS SHALL BE WATERTIGHT. NOMINAL UNCOMPRESSED SEAL WIDTH OF FOAM JOINT SEAL SHALL BE 2 1/2" AT BENTS. CUT EXISTING FOAM JOINT SEAL AT EXTENTS OF CONSTRUCTION. SPLICE NEW FOAM JOINT SEAL AT THIS LOCATIONS. THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINT FOR THE FOAM JOINT SEAL IN LIEU OF SAWING THE JOINT, EXCEPT AT THE CURB AS SHOWN. THE JOINT FOR THE FOAM JOINT SEAL AT THE CURB SHALL BE BLOCKED OUT AS SHOWN. DECK DRAINS, IF DAMAGED, SHALL BE REPAIRED. ALL COSTS INCURRED DURING DRAIN REPAIR, SHALL BE CONSIDERED INCIDENTAL TO OTHER WORK. REPAIRS ARE SUBJECT TO THE ENGINEER'S APPROVAL.



ELASTOMERIC CONCRETE	
* TOTAL (2 BENTS)	25.0 (CU. FT.)
* BASED ON THE MINIMUM BLOCKOUT SHOWN.	

NOTE: RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS REQ'D.

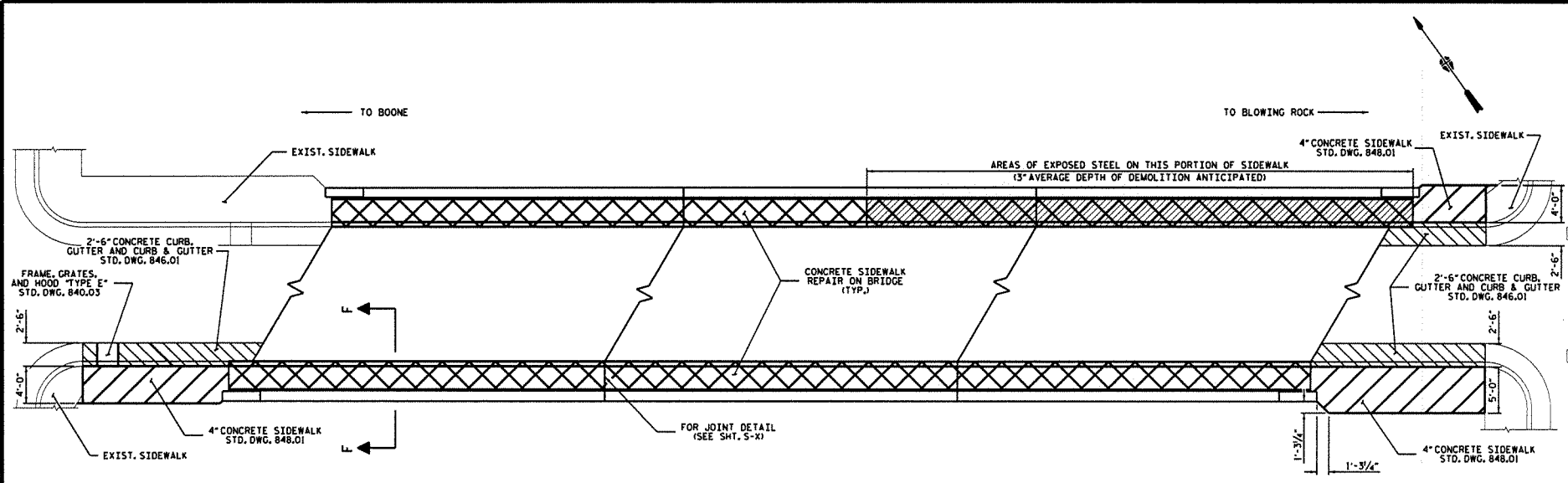
* ALL LOOSE AND UNSOUND CONCRETE SHALL BE REMOVED. IF THE EMBEDDED PORTION OF THE EXISTING WATERSTOP IS EXPOSED DURING REMOVAL, THE ENTIRE WATERSTOP SHALL BE REMOVED.

PROJECT NO. **BP17.11.H.5**
WATAUGA COUNTY
 BRIDGE NO. **67**

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
JOINT DETAILS					SHEET NO.
					5-4
REVISIONS					DATE
NO.	BY	DATE	NO.	BY	DATE
1			1		
2			2		
					7

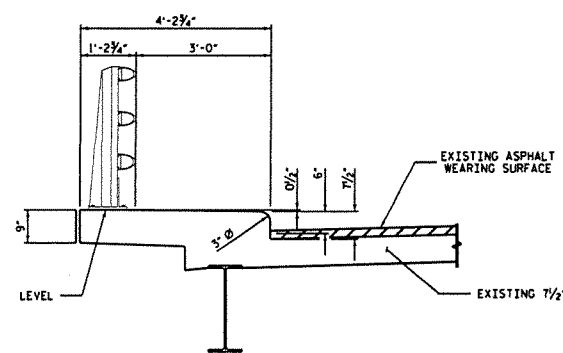


DRAWN BY: R. PUTEK DATE: 07/12
 CHECKED BY: D. SNOKE DATE: 07/12

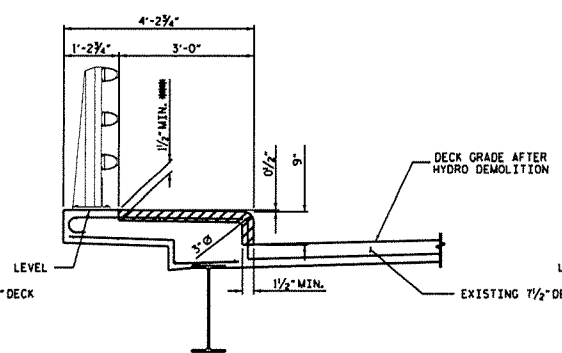


LEGEND

	CONCRETE SIDEWALK REPAIR ON BRIDGE
	4" CONCRETE SIDEWALK
	2'-6" CONCRETE CURB & GUTTER

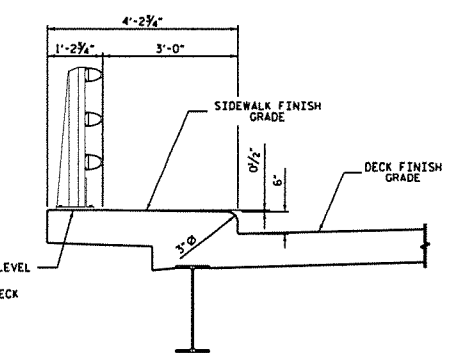


SECTION F-F
SHOWING EXISTING DECK



SECTION F-F
SHOWING LIMITS OF SIDEWALK REPAIR

*** IN ACCORDANCE WITH SPECIAL PROVISIONS, DEMO SURFACE OF SIDEWALK TO REMOVE ALL UNSOUND CONCRETE IN ADDITION TO THE MINIMUM 1 1/2\"/>



SECTION F-F
SHOWING FINISH GRADE

PROJECT NO. 17BP.11.H.5
 WATAUGA COUNTY
 BRIDGE NO. 67

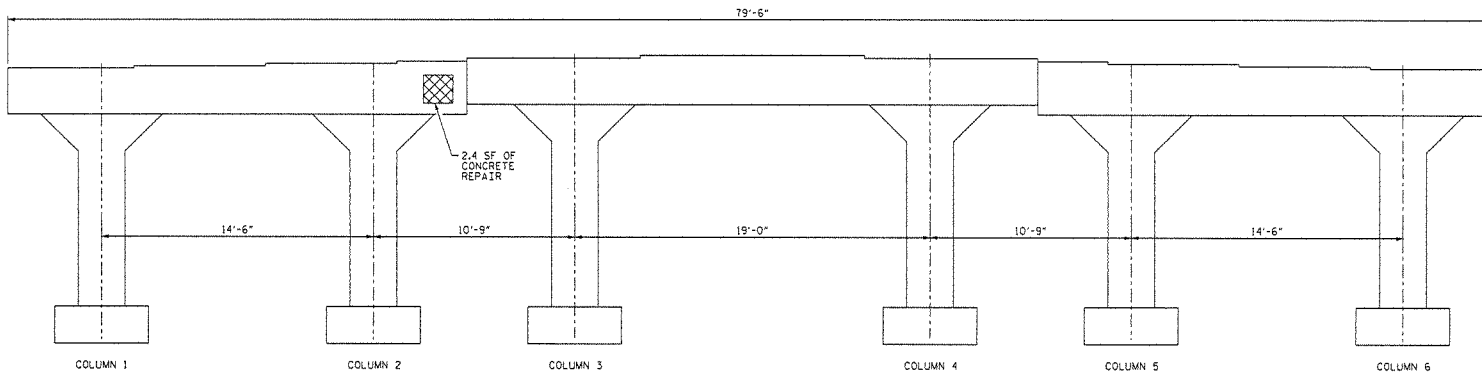
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SIDEWALK REPAIR					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		
					SHEET NO. 5-5
					TOTAL SHEETS 7



07/13/2012

DRAWN BY : R.PUTEK DATE : 06/12
 CHECKED BY : D.SNOKE DATE : 06/12

BILL OF MATERIAL		
BENT 1 & 2		
SHOTCRETE REPAIRS	CF	1.4



BENT 1 SPAN A SIDE

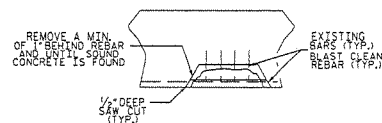
SHOTCRETE REPAIR

NOTES

THE LOCATION AND EXTENT OF REPAIRS SHOWN ON THE PLANS ARE GENERAL IN NATURE. THE ENGINEER WILL DETERMINE THE EXACT EXTENT OF REMOVAL IN THE FIELD BASED ON AN EVALUATION OF THE CONDITION OF THE EXPOSED SURFACES.

ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE ENGINEER.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.



TYPICAL CONCRETE REPAIR DETAIL

PROJECT NO. 17BP.11.H.5
WATAUGA COUNTY
 BRIDGE NO.: 67
 SHEET OF

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 PROJECT

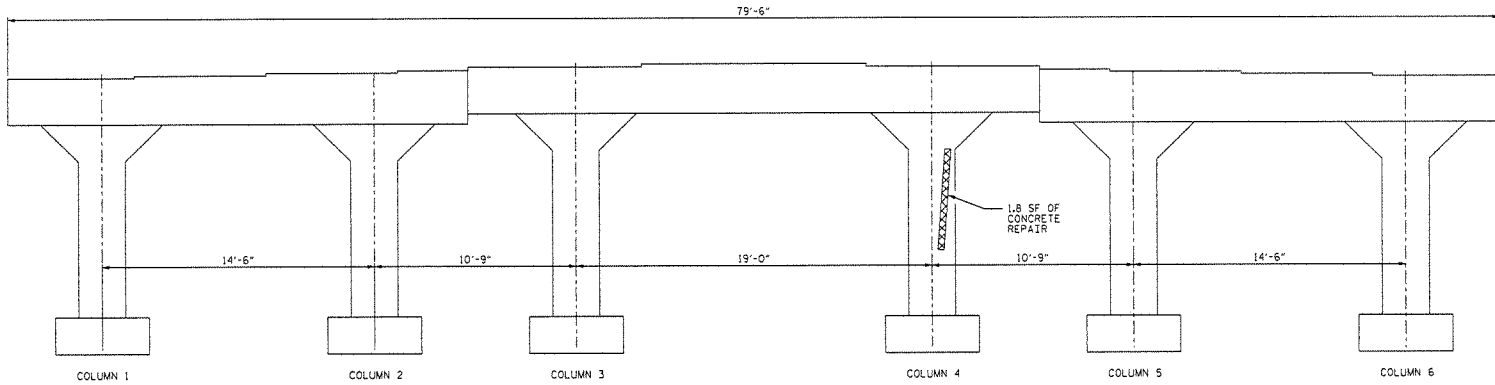
BENT 1



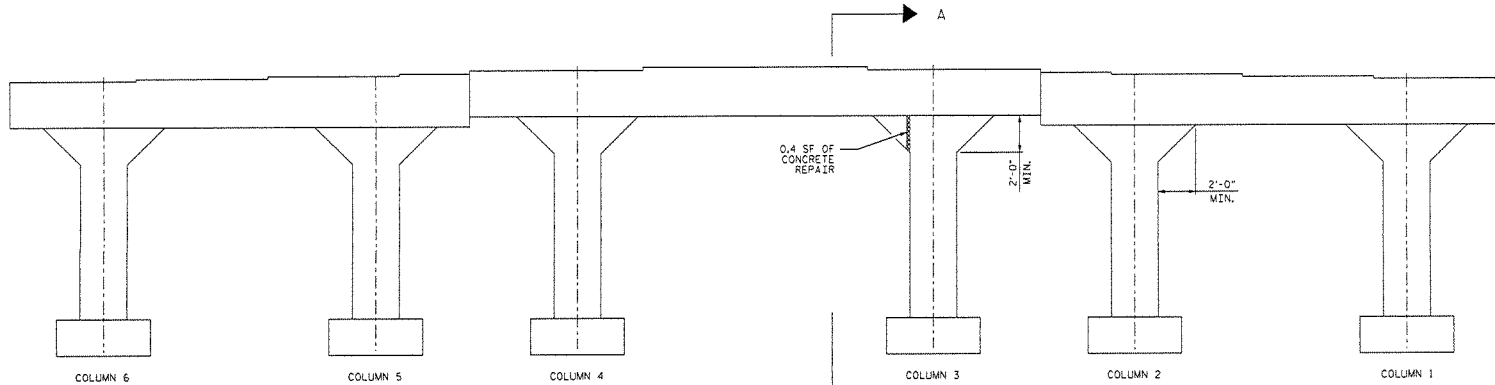
07/13/2012

DRAWN BY : A.ABRAHA DATE : 06/12
 CHECKED BY : D.SNORE DATE : 06/12

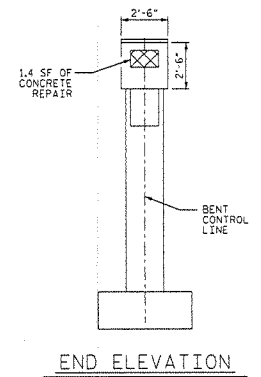
REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	5-6
1			3			2012/7/13
2			4			7



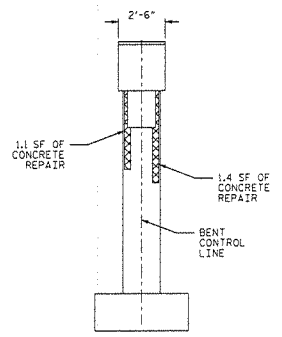
BENT 2 SPAN B SIDE



BENT 2 SPAN C SIDE



END ELEVATION



SECTION A-A

PROJECT NO. 17BP.11.H.5
WATAUGA COUNTY
 BRIDGE NO.: 67
 SHEET OF

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

BENT 2

☒ SHOTCRETE REPAIR



DRAWN BY : A.ABRAHA DATE : 06/12
 CHECKED BY : D.SNOKE DATE : 06/12

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	5-7
1			3			5-7
2			3			5-7

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

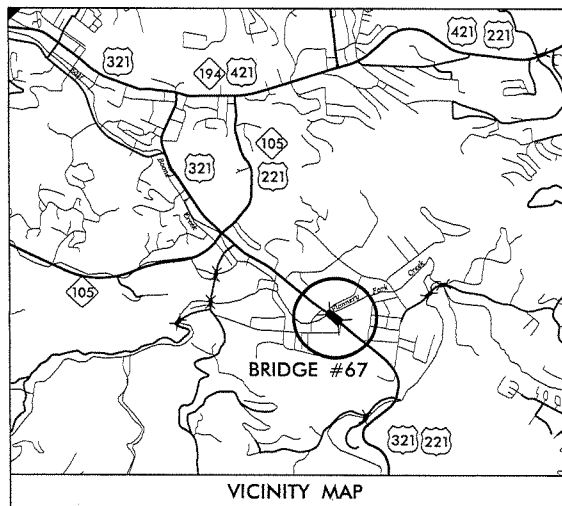
TRANSPORTATION MANAGEMENT PLAN

WATAUGA COUNTY

DIVISION II



US 221/321 (Blowing Rock Blvd.) over Flannery Fork Creek



6/21/2012 10:45:00 AM C:\Users\jwatts\Documents\WBS 17BP.II.H.5\Watauga 67A.TCP\Open Sheets\WBS17BP.II.H.5.TMP.01.TITLE.dgn



PLAN PREPARED FOR NCDOT STRUCTURES MANAGEMENT UNIT
RALEIGH, NC



INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET AND INDEX OF SHEETS
TMP-1A	LEGEND AND LIST OF ROADWAY STANDARD DRAWINGS
TMP-2	GENERAL NOTES & PHASING
TMP-3	US 221/321 NORTHBOUND WORK AREA
TMP-4	US 221/321 SOUTHBOUND WORK AREA
TMP-5	BOONE HEIGHTS DR. DETOUR ROUTE

SHEET NO.
TMP-1

WBS 17BP.II.H.5

TRAFFIC MANAGEMENT STRATEGY

PROPOSED REPAIRS TO BRIDGE #67 WILL BE PERFORMED USING LANE CLOSURES. REFER TO SHEET TMP-2 FOR PHASING.



PLAN PREPARED BY:
Stantec Consulting Services Inc.
801 Jones Franklin
Raleigh, NC 27606
Tel: 919.851.6996
Fax: 919.851.7224
www.stantec.com

BETSY L. WATSON, P.E.

TRAFFIC ENGINEER

GEORGE KARAGEORGE

SR. TRANSPORTATION DESIGNER

APPROVED: *Betsy L. Watson*
DATE: *June 22, 2012*

SEAL



LEGEND

- DIRECTION OF TRAFFIC FLOW
 - DIRECTION OF PEDESTRIAN TRAFFIC FLOW
 - WORK AREA
 - PAVEMENT REMOVAL
 - NORTH ARROW
 - TYPE III BARRICADE
 - CONE
 - DRUM
 - SKINNY DRUM
 - TUBULAR MARKER
 - CHANGEABLE MESSAGE SIGN (CMS)
 - FLAGGER
 - AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)
 - FLASHING ARROW BOARD (TYPE C)
 - LAW ENFORCEMENT
 - TRUCK MOUNTED ATTENUATOR (TMA)
 - PORTABLE CONCRETE BARRIER (PCB)
 - WATER FILLED BARRIER (WFB)
 - TEMPORARY CRASH CUSHION
 - TEMPORARY SHORING
 - WORK ZONE SIGN-PORTABLE
 - WORK ZONE SIGN-STATIONARY
 - WORK ZONE SIGN-STATIONARY OR PORTABLE
- SIGNALS**
- EXISTING
 - PROPOSED
 - TEMPORARY
- PAVEMENT MARKINGS**
- EXISTING PAVEMENT MARKING (GRAY)
 - SKIP LINES
 - MINI-SKIP LINES
 - SOLID LINES
- PAVEMENT MARKING SYMBOLS**
- PAVEMENT MARKING SYMBOLS
 - EXISTING PAVEMENT MARKING SYMBOLS (HOLLOW)
 - ONLY PAVEMENT MARKING ALPHANUMERIC CHARACTERS
- PAVEMENT MARKERS**
- CRYSTAL/CRYSTAL
 - CRYSTAL/RED
 - YELLOW/YELLOW

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 JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)
1253.01	RAISED PAVEMENT MARKERS - SNOWFLOWABLE

6/21/2012 10:11:00 AM C:\Users\jtriffler\Documents\Projects\17BP.11.H.5\11A.TMP.DWG.BRNSYS\DS\LEGEND.DWG

Startec Consulting Services Inc.
 801 Jones Franklin Road
 Suite 300
 Raleigh, NC 27606
 Tel: (919) 851-8888
 Fax: (919) 851-7024
 www.startec.com
 License No. F-0872

APPROVED: DATE: 6/22/12
 SEAL:

LEGEND & ROADWAY STANDARD DRAWINGS

GENERAL NOTES

PROJ. REFERENCE NO. SHEET NO.
WBS 17BP.11.H.5 TMP-2

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

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 UNDESIRABLE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

- A) DO NOT CLOSE OR NARROW A LANE OF TRAFFIC, DETAIN AND/OR ALTER THE TRAFFIC FLOW ON OR DURING HOLIDAYS, HOLIDAY WEEKENDS, OR ANY OTHER TIME WHEN TRAFFIC IS UNUSUALLY HEAVY, INCLUDING THE FOLLOWING SCHEDULES:

ROAD NAME
US 221/321 (BLOWING ROCK RD.)

HOLIDAY & HOLIDAY WEEKEND LANE CLOSURE TIME RESTRICTIONS

- 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.

B) DO NOT STOP TRAFFIC DURING INSTALLATION OR REMOVAL OF LANE CLOSURES AS FOLLOWS:

<u>ROAD NAME</u>	<u>DAY AND TIME RESTRICTIONS</u>
US 221/321 (BLOWING ROCK RD.)	6:00 A.M.-11:00 P.M. MONDAY-THURSDAY AND 6:00 A.M. FRIDAY -11:00 P.M. SUNDAY

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) LANE CLOSURES ARE REQUIRED WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN ANY PORTION OF A TRAVEL LANE. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- D) INSTALL ALL LANE CLOSURES ACCORDING TO THE PLANS, ROADWAY STANDARD DRAWINGS (1101.02), OR AS DIRECTED BY THE ENGINEER.
- E) 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. COVER OR LAY DOWN SIGNS, AND TURN OFF ARROW BOARDS AND MESSAGE BOARDS.
- F) 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.
- G) 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 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- H) 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 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

PAVEMENT MARKINGS AND MARKERS

- I) RECORD ALL LOCATIONS AND TYPES OF EXISTING PAVEMENT MARKINGS AS THEY WILL BE REPLACED IN THE SAME LOCATION ON THE NEW SURFACE.
- J) UPON COMPLETION OF ALL OTHER CONSTRUCTION OPERATIONS INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

<u>ROAD NAME</u>	<u>MARKING</u>	<u>PAVEMENT MARKER</u>
US 321	POLYUREA	SNOWPLOWABLE

- K) FOR PAVEMENT MARKING SYMBOLS, ALPHANUMERIC CHARACTERS, DIAGONAL LINES AND STOP BARS USE THE FOLLOWING TYPE OF MARKING:

ON ASPHALT PAVEMENTS

1. THERMOPLASTIC HEATED IN PLACE, OR
2. THERMOPLASTIC EXTRUDED.
3. COLD APPLIED PLASTIC (TYPE 2) OR 3 OPTIONAL

ON CONCRETE PAVEMENTS

1. COLD APPLIED PLASTIC (TYPE 2) OR 3 OPTIONAL
2. THERMOPLASTIC HEATED IN PLACE (OPTIONAL)

- L) DO NOT USE POLYUREA MARKING ON TYPE S9.5A SURFACE COURSE.

- M) REPLACE ANY PAVEMENT MARKINGS ERADICATED OR DAMAGED BY CONSTRUCTION OPERATIONS BEFORE OPENING LANES TO TRAFFIC. A THIN LAYER OF PAINT MAY BE USED INITIALLY UNTIL FINAL MARKINGS ARE PLACED.

MISCELLANEOUS


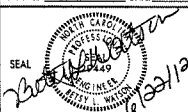

- N) USE LAW ENFORCEMENT TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. LOCATIONS SHOWN IN THE PLANS ARE APPROXIMATE AND MAY BE REVISED AS THE OFFICER OR THE ENGINEER DEEM NECESSARY.
- O) ALL DIMENSIONS AND STATIONS IN THE TRANSPORTATION MANAGEMENT PLAN AND PHASING ARE APPROXIMATE (+/-); FIELD ADJUST AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
- P) PLACE ALL CHANGEABLE MESSAGE SIGNS AS NEEDED IN THE LOCATIONS AND WITH THE WORD MESSAGES AS SHOWN IN THE PLAN OR AS DIRECTED BY THE ENGINEER TO PROVIDE ADVANCE WARNING TO THE PUBLIC DURING CONSTRUCTION.
- Q) ENSURE THE OVERSIZE/OVERWEIGHT PERMIT UNIT (919) 733-4740 HAS BEEN ADVISED OF THE ONGOING TRAFFIC OPERATIONS THROUGH THE DIVISION OFFICE.

PHASING

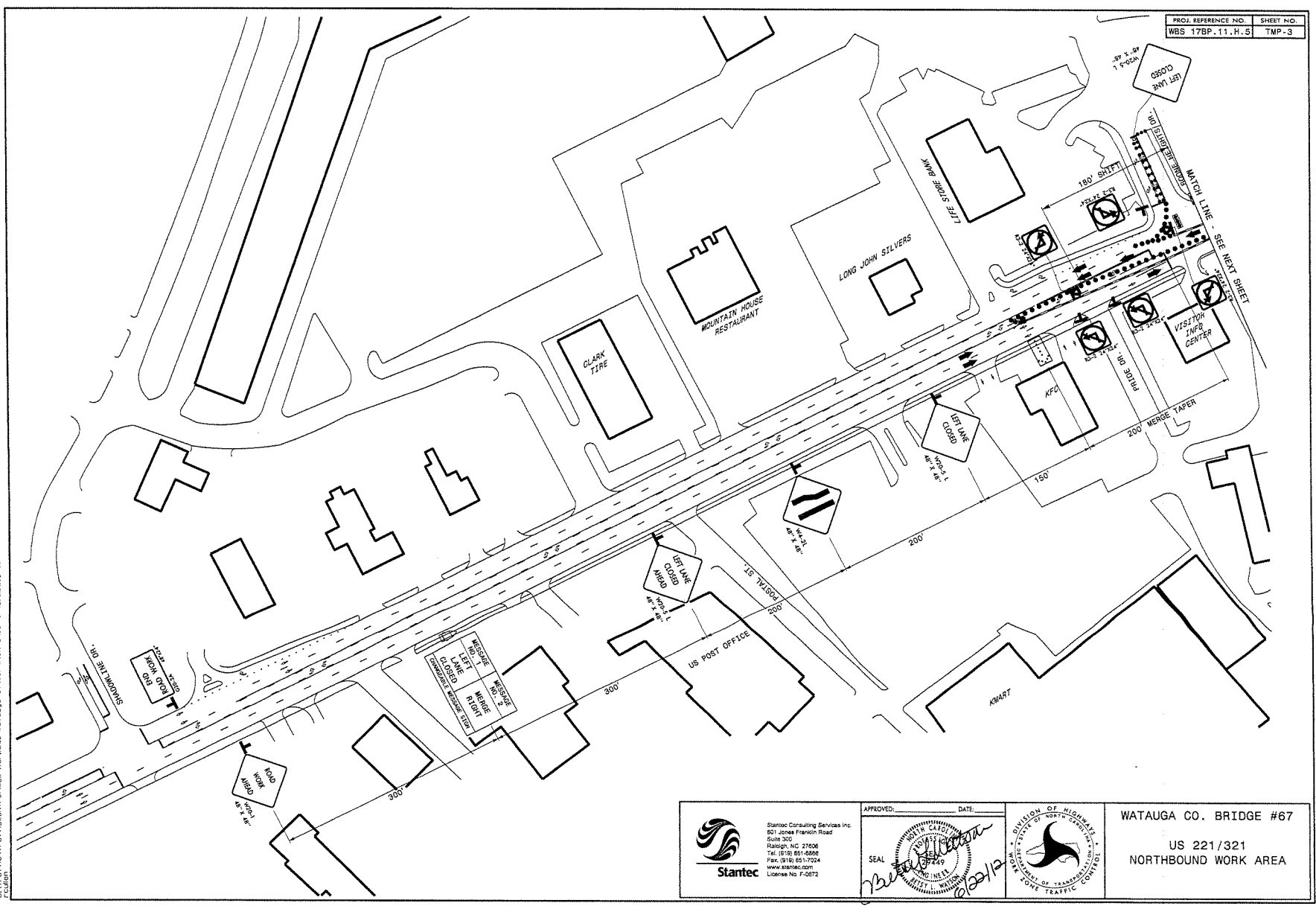
WHEN WORKING ON US 221/321 (BLOWING ROCK BLVD.) NORTHBOUND OUTSIDE LANES, USE A RIGHT LANE CLOSURE AS SHOWN ON SHEETS TMP-3 AND TMP-3A. SEE SHEET TMP-5, FOR NORTHBOUND US 221/321 AND SOUTHBOUND US 221/321 DETOURS AT BOONE HEIGHTS.

WHEN WORKING ON US 221/321 (BLOWING ROCK BLVD.) SOUTHBOUND OUTSIDE LANES, USE A RIGHT LANE CLOSURE AS SHOWN ON SHEETS TMP-4 AND TMP-4A. SEE SHEET TMP-5, FOR SOUTHBOUND US 221/321 DETOUR AT BOONE HEIGHTS.

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 <p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel: (919) 851-0888 Fax: (919) 851-7024 www.stantec.com License No. F-0072</p>	<p>APPROVED: _____ DATE: _____</p> 		<p>GENERAL NOTES & PHASING</p>
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PROJ. REFERENCE NO. SHEET NO.
 WBS 178P.11.H.S TMP-3



6/27/2002 File: Tr of the Contractor: WBS 178P.11.H.S. #refougo 6/TN/CP/Win. Sheets: WBS 178P.11.H.S., FC, IMP, 03, US, 32L, NORTHBOUND CLOSURE.dgn
 PLOT: 11

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SEAL

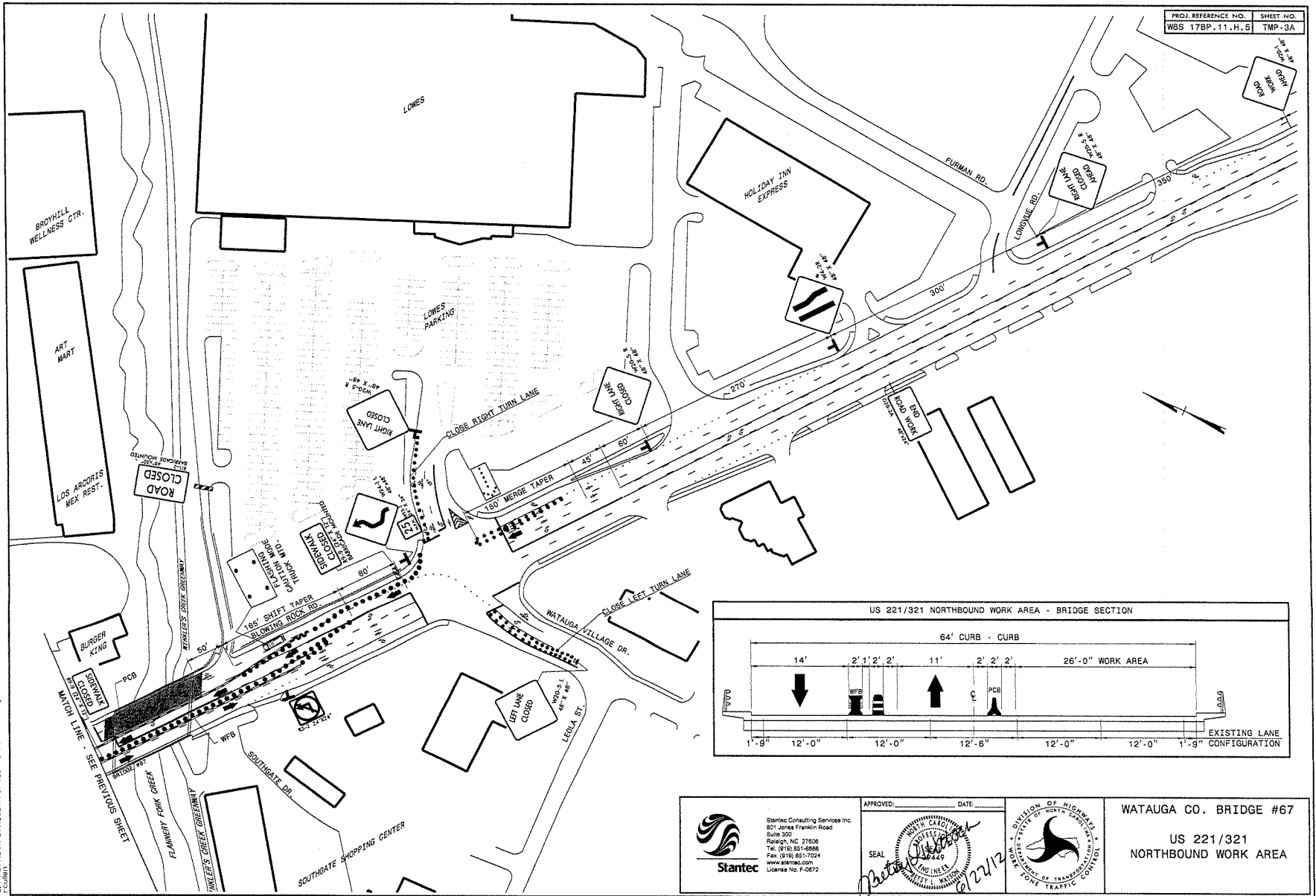
(Signature)

2002/12

DIVISION OF HIGHWAY & TRANSPORTATION
 STATE OF NORTH CAROLINA
 STATE TRAFFIC CONTROL

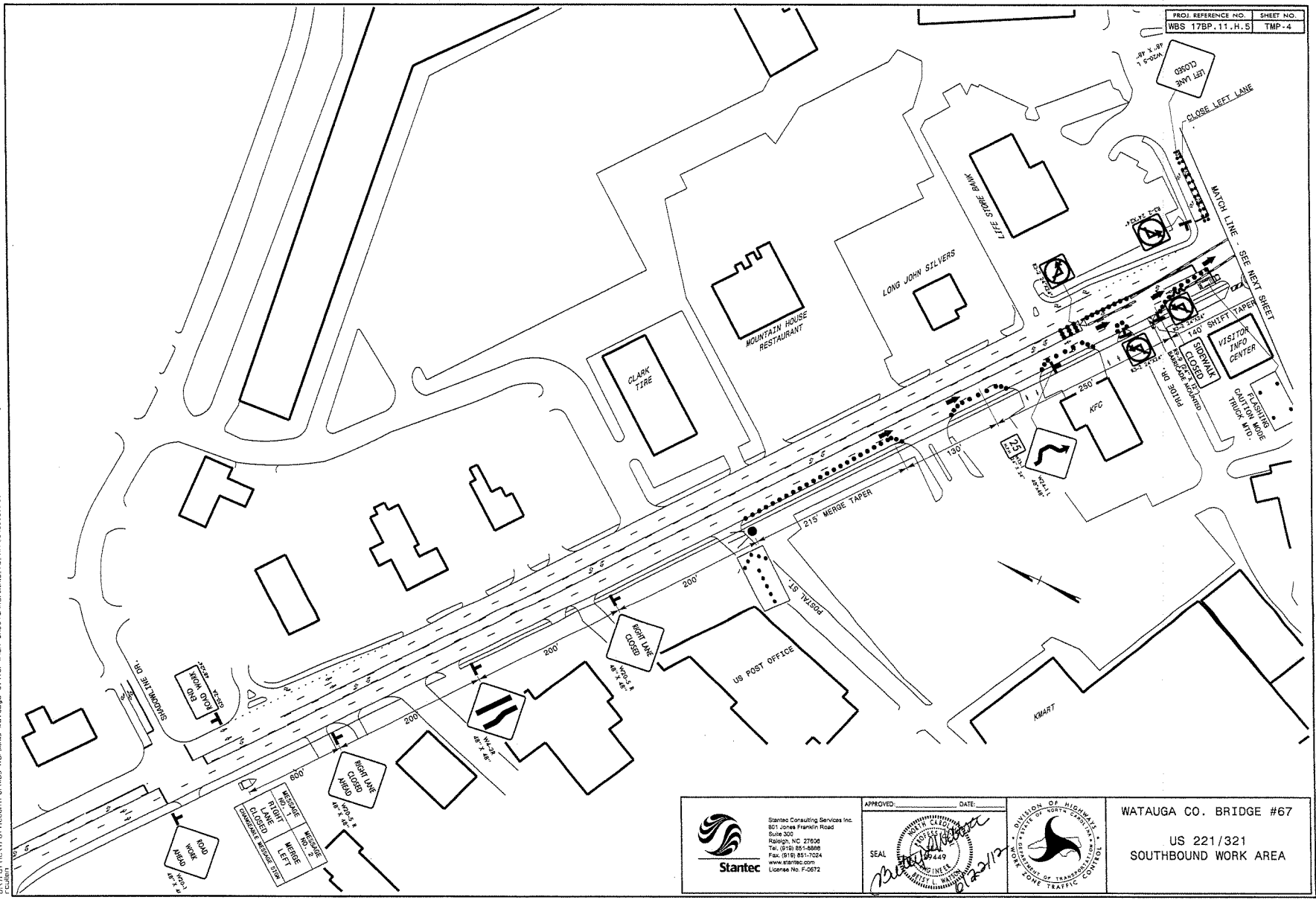
WATAUGA CO. BRIDGE #67

US 221/321
 NORTHBOUND WORK AREA



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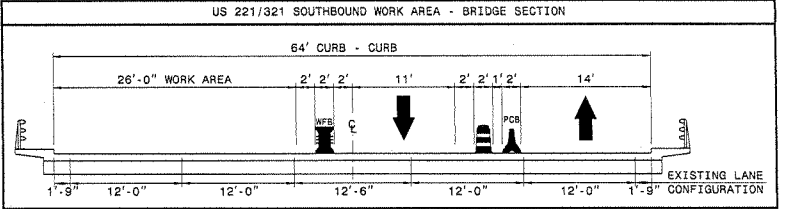
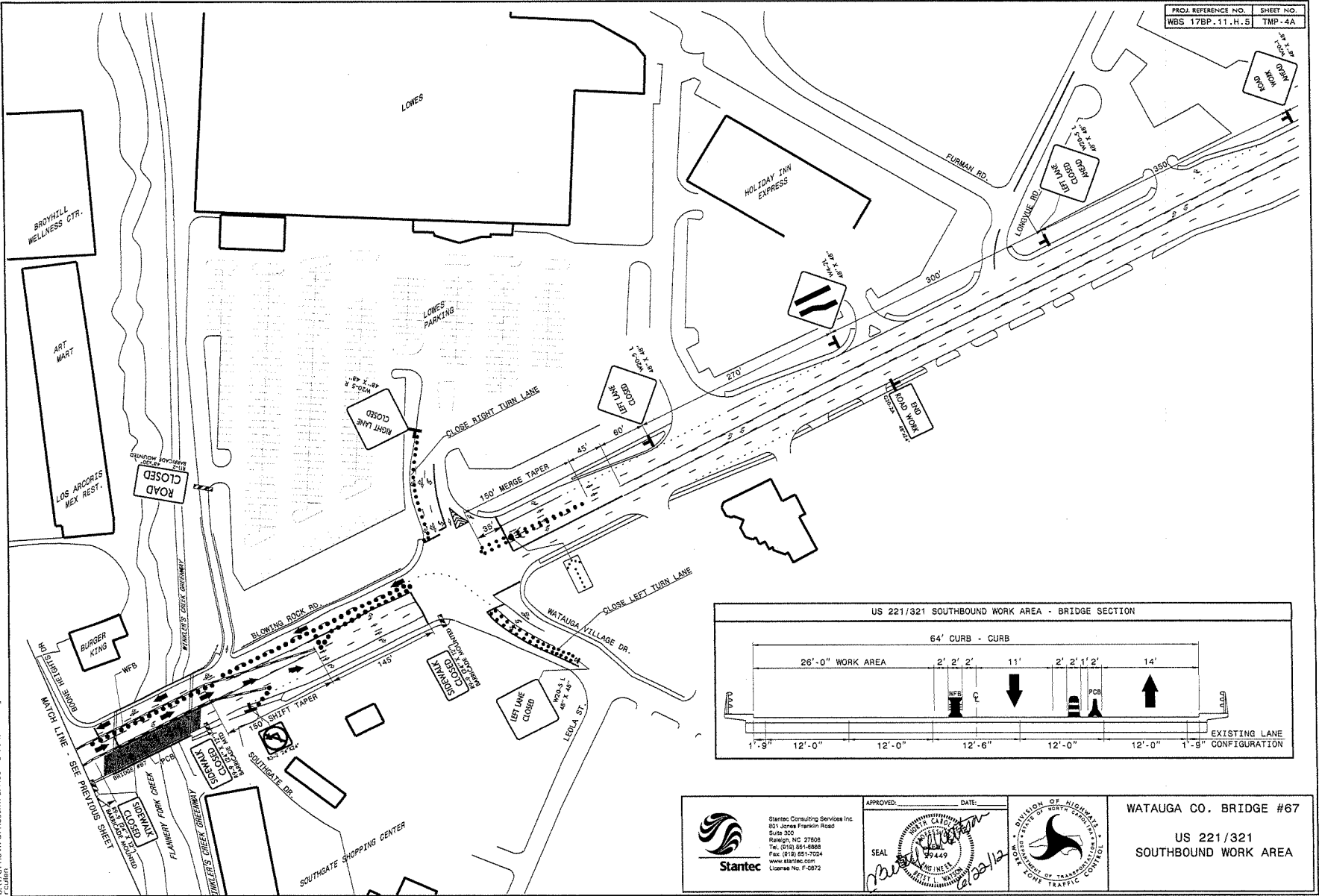
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APPROVED: _____ DATE: _____
 SEAL: _____
 PROJECT: WBS 17BP.11.H.S
 SHEET: TMP-4
 12/21/12



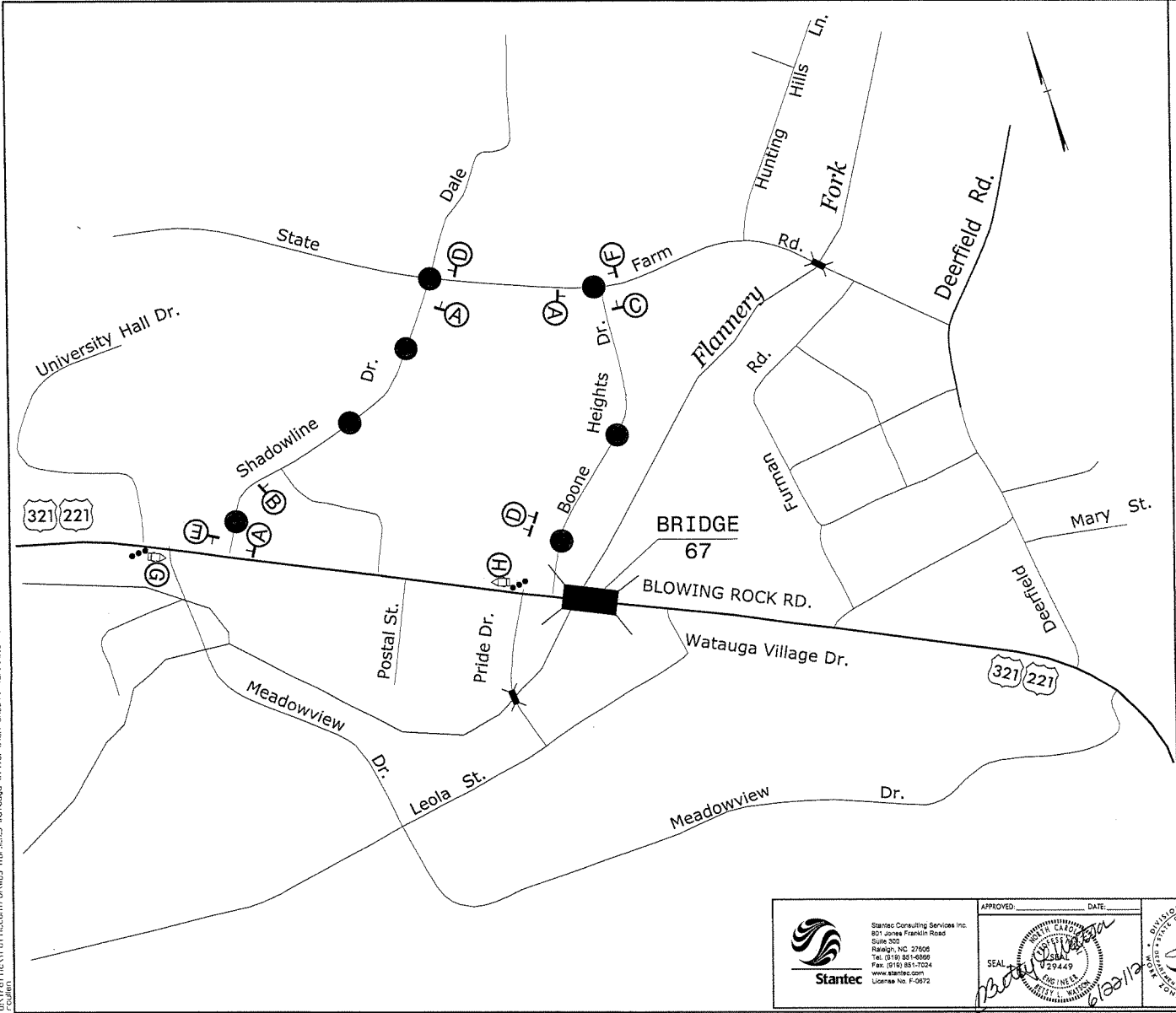
WATAUGA CO. BRIDGE #67
 US 221/321
 SOUTHBOUND WORK AREA



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<p>Startec</p>	Startec Consulting Services Inc. 831 Jones Franklin Road Suite 300 Raleigh, NC 27608 Tel: (919) 851-4580 Fax: (919) 851-7024 www.startec.com License No. F-0872	APPROVED: _____ DATE: _____ 	<p>DIVISION OF TRANSPORTATION NORTH CAROLINA STATE OF NORTH CAROLINA DIVISION OF TRANSPORTATION</p>	<p>WATAUGA CO. BRIDGE #67</p> <p>US 221/321 SOUTHBOUND WORK AREA</p>
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PROJ. REFERENCE NO. SHEET NO.
 WBS 17BP.11.H.5 TMP-5

(A) DETOUR M4-B 24" X 12"
 → M6-1 21" X 15"

(B) DETOUR M4-B 24" X 12"
 ↑ M6-3 21" X 15"

(C) TO SOUTH 321
 ← M4-L 30"X24"
 ← M6-1 L 21" X 15"

(D) NORTH 321
 ← M4-L 30"X24"
 ← M6-1 L 21" X 15"

(E) SOUTH 321
 ← M4-L 30"X24"
 ← M6-1 L 21" X 15"

(F) TO SOUTH 321
 ↑ M4-L 30"X24"
 ↑ M6-3 21" X 15"

(G)

MESSAGE NO. 1	MESSAGE NO. 2
BURGER KING	BOONE HEIGHTS
NXT LEFT	NXT LEFT
CHANGEABLE MESSAGE SIGN	

(H)

MESSAGE NO. 1	MESSAGE NO. 2
BOONE HEIGHTS	USE SHADOW- B. KING LINE DR.
CHANGEABLE MESSAGE SIGN	

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APPROVED: _____ DATE: _____
 SEAL: [Professional Engineer Seal]
 6/22/07



BOONE HEIGHTS DR. DETOUR ROUTE